

# Rethinking the Foundations of Export Diversification in Africa:

## THE CATALYTIC ROLE OF BUSINESS AND FINANCIAL SERVICES

ECONOMIC  
DEVELOPMENT IN

**AFRICA**

Report 2022



**United  
Nations**

Geneva, 2022



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United Nations publication issued by the United Nations  
Conference on Trade and Development.

**UNCTAD/ALDC/AFRICA/2022**

ISBN: 978-92-1-113060-7

eISBN: 978-92-1-001875-3

ISSN: 1990-5114

eISSN: 1990-5122

Sales No. E.22.II.D.31

# Acknowledgements

*Economic Development in Africa Report 2021: Reaping the Potential Benefits of the African Continental Free Trade Area for Inclusive Growth* was prepared, under the overall supervision of Paul Akiwumi, Director of the Division for Africa, Least Developed Countries and Special Programmes of the United Nations Conference on Trade and Development (UNCTAD), by Junior Davis (team leader), Grace Gondwe, Carlotta Schuster, Anja Slany, Sine Tepe, Komi Tsowou and Ali Yedan, with research assistance by Cynthia Adzika, Chiara Maero, Tinotenda Mataire, Esther Joseph Mpagalile and Anele Simon. The analysis draws on insights from institutional collaboration with the International Trade Centre.

An ad hoc expert group meeting on reaping the potential benefits of the African Continental Free Trade Area for inclusive growth was held on 22 April 2021 to conduct a peer review of the draft report. The meeting brought together specialists in African trade, investment, trade law, tax, gender-related issues and development economics. The following experts participated in the meeting and/or provided comments on the draft report: Olayinka Lawal Bandele (Commonwealth Secretariat), Lance Hadley (Sauti East Africa), Romain Houssa (University of Namur, Belgium), Kholofelo Kugler (Advisory Centre on World Trade Organization Law), Azwimpheleli Langalanga (Tutwa Consulting Group), Joy Waruguru Ndubai (Vienna University, Global Tax Policy Centre), Ify Ogo (United Nations Development Programme, Regional Bureau for Africa), Julia Seiermann (International Trade Centre), Julia Spies (International Trade Centre) and Frederik Stender (German Development Institute). The following UNCTAD staff members participated in the meeting and/or provided comments: Celine Bacrot, Vincent Beyer, Lisa Borgatti, Stefanie Garry, Mahlet Girma, Taisuke Ito, Christian Knebel, Janvier Nkurunziza, Patrick Osakwe, Ralf Peters, Matfobhi Riba, Antipas Touatam, Rolf Traeger, Yves Kenfack Tsafack, Giovanni Valensisi, Anida Yupari and Simonetta Zarrilli.

At UNCTAD, the Intergovernmental Support Service provided editing of the report, with support from the Editing Section of the Languages Service at the United Nations Office at Geneva; Nadège Hadjemian prepared the overall design and the cover; Gilles Maury designed the infographics; and Ngadjie Siani and Elena Stroganova provided administrative support. Layout of the report was undertaken by Juan Carlos Korol, of the United Nations Office at Geneva.

# Note

Any references to dollars (\$) are to United States dollars, unless otherwise specified.



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# Foreword

The African Continental Free Trade Area is expected to be a game changer for development ambitions in Africa. It arrives at a crucial time, marked by the increased poverty levels and socioeconomic setbacks African countries have experienced due to the coronavirus disease pandemic, and its related financial, climatic and food-related shocks.

The launch of the African Continental Free Trade Area is therefore a unique opportunity to promote inclusive growth and accelerate the achievement of the post-pandemic recovery, the 2030 Agenda for Sustainable Development and Agenda 2063 of the African Union. Economic Development in Africa Report 2021 seeks to understand and build upon these much-needed opportunities.

To start, it is important to consider the task in detail. Key among the objectives of the African Continental Free Trade Area is to “promote and attain sustainable and inclusive socioeconomic development, gender equality and structural transformation of the State Parties”. However, there remains an urgent need to have a better understanding of how the African Continental Free Trade Area can best achieve this, given the significant challenges faced on the continent and the increasing levels of inequality both between and within countries.

In Africa, 34 per cent of households are below the international poverty line and, with a regional Gini coefficient of around 0.40, they form part of some of the most unequal societies in the world. In addition, members of the African Continental Free Trade Area range from large countries to small countries and include both resource-rich and resource-poor countries, least developed countries and middle-income countries. The process of trade integration and the elimination of tariffs will thus affect these countries differently, both within and among them, and potentially create distributional effects if these asymmetries are not accounted for.

A more inclusive African Continental Free Trade Area can become a beacon of continental peace, prosperity and security. This Report provides an assessment of how the region can inclusively benefit from its unexploited trade potential under the African Continental Free Trade Area. This question – how can regional integration and inclusive growth be mutually beneficial? – has concerned researchers and policymakers over many years

but has been particularly unexplored in the context of the African Continental Free Trade Area. We have sought to give a compelling answer to it here.

The Report adds additional insights on the vulnerabilities of women and youth, particularly in informal employment and informal cross-border trade. It also highlights the importance of partnerships in operationalizing the African Continental Free Trade Area, to effectively foster inclusive growth and post-pandemic resilience in the region.

The fifteenth session of the United Nations Conference on Trade and Development is held this year, and it is our hope that the evidence and recommendations presented in this Report will improve policy approaches to regional integration and inclusive growth in Africa, a double task now more urgent than ever.

A handwritten signature in black ink, reading 'Rebeca Grynspan'.

**Rebeca Grynspan**  
**Secretary-General of UNCTAD**



# Abbreviations

<b>WTO</b>	World Trade Organization
<b>COVID-19</b>	coronavirus disease
<b>FDI</b>	foreign direct investment
<b>GDP</b>	gross domestic product
<b>HS</b>	Harmonized System
<b>ICT</b>	information and communications technology
<b>SME</b>	small and medium-sized enterprise
<b>UNCTAD</b>	United Nations Conference on Trade and Development







## Introduction

Forty-five African economies are commodity dependent, with highly volatile revenues due to the price boom and bust nature of the market. The diversification of African economies is the most viable means by which these countries can prosper in the global economy and survive the vulnerabilities and economic uncertainties exacerbated by commodity price volatility. This vulnerability is often amplified by the adverse effects of shocks such as the 2008–2009 global financial crisis, the 2020 coronavirus (COVID-19) pandemic or the more recent geopolitical tensions in Eastern Europe (the 2022 war in Ukraine), with resulting disruptions of international trade, increased financial volatility and food insecurity. The effects of these crises shed light on an old developmental challenge in Africa: commodity dependence, which implies a heavy reliance of countries' exports on primary products. UNCTAD (2021a) categorizes a country as commodity-dependent when its share of primary commodity exports to total merchandise exports is more than 60 per cent. For the purpose of this report, primary commodities include extractive resources (oil, gas and minerals) and agricultural products (food and agricultural raw materials). Commodity dependence is associated with low growth and increased economic vulnerability in the advent of an external shock that propagates throughout an entire economy, changing its productive structure (Acemoglu and Zilibotti, 1997).



For some time now, the general policy prescription to deal with this phenomenon has been for commodity-dependent countries to use their export earnings to engineer structural transformation that will lead to the diversification of their economies. As plausible as this policy suggestion may be, its implementation is fraught with difficulties. The African Continental Free Trade Area was recently founded to help boost intra-African trade and encourage industrial development through export diversification and regional value chain development. However, if the African Continental Free Trade Area is to fulfil its potential in diversifying and inclusively transforming African economies, the countries should develop effective policies and strategies for exports and identify new opportunities for export diversification, industrialization and supply chain development. This requires a deeper understanding of the country-specific issues that underpin export diversification, and that is what this report seeks to achieve.

It is often argued that growth can be associated with diversification (Acemoglu and Zilibotti, 1997), but there is evidence that such a relationship is non-monotonic when it exists. Part of the argument is that the relationship can be positive at low levels of development, but after a certain level of development, the production would become concentrated (Imbs and Wacziarg, 2003). Cadot et al. (2011) argue that this is true not only with regard to production and income but also to export and income. Mineral product exporters are either low-income countries or very high-income ones. Unsurprisingly, they find the share of raw materials to be a significant contributor to export concentration.

In Africa, many resource-rich economies are characterized by low inclusive growth and development outcomes, which, in some cases, is explained by the phenomenon commonly known as the “resource curse”. One dominant feature of resource wealth in African economies is the low level of economic and export diversification (Bahar and Santos, 2018; Ross, 2019). In Africa, the export structure of resource-rich countries is more concentrated on average than that of resource-poor countries. While South Africa has a low level of export concentration, Nigeria has a high level. Even when natural resources are excluded, the exports of Sao Tome and Principe remain non-diversified, while those of Mauritius are among the most diversified ones (Izvorski et al., 2018).

While there has been positive economic growth in many parts of Africa, the observed growth, for more than two decades, was in part due to a commodity super-cycle. In addition, growth may be attributed to increased trade, prudent macroeconomic management and sustained investment in infrastructure development. Sustaining strong growth, especially during times of shocks and other vulnerabilities – and more importantly – translating such growth into more inclusive

transformation, has been challenging for many African countries, despite efforts and measures to deal with such issues. Moreover, several drivers of change (for example, changing global economic and financial landscapes, climate change, renewable and non-renewable natural resources, and skills attributes of the African workforce) can negatively affect export diversification efforts and development outcomes of African countries if the right policies, regulations and institutional capacities are not in place. African Governments have recognized the importance of export diversification and embarked on different paths to diversify their export markets and transition into high productive economic sectors. However, many underlying factors have undermined their attempts to achieve transformational export diversification and successful outcomes of strategies for industrial upgrading and technological innovation.

There is currently great potential for African economies to transform and reach a higher level of diversification and competitiveness. The successful implementation of the African Continental Free Trade Area, the growing middle class, the emerging consumer market, the increased use of financial services and technology, and the performance of dynamic private entrepreneurs will all be drivers of export diversification and sustainable economic growth in Africa. There are new avenues and actors that African countries can exploit to strengthen forward and backward linkages, create intersectoral linkages with financial services and foster structural change. This is what the report aims to identify and analyse. For instance, a commodity-based industrialization strategy, rooted in the use of the endowment and potential of Africa in terms of natural resources and the creation of stronger linkages with the services sector, including local content and domestic firm participation, to foster the industrial sector, could be a more effective way to structurally transform the continent than focusing solely on diversifying the economy away from commodities. The stimulation of local entrepreneurship through forward and backward linkages, labour markets and human capital, technology and knowledge spillovers, and increased access to financial services could contribute to higher levels of diversification and integration.

By building on these suggestions, the report will move the debate on commodity dependence and export diversification beyond a focus on structural transformation from a resource-based economy towards a low-wage manufacturing, low-skilled industry – or low value-added service-based economy – by linking the export diversification of Africa to the broader issues of structural transformation through the services sector, financial services and private businesses, underpinned by capable, inclusive and accountable institutions at the national, regional and global levels. The services sector, currently dominated by low value added and informal transactions,

does not exhibit sufficient competitiveness, sophistication or efficiency to act as a backbone of productive activities for industry, manufacturing and agriculture. The potential of the private sector, both formal and informal, and its role in driving the development of Africa is critical and will continue to grow, as it is increasingly being called upon to provide innovative and efficient ways of diversifying and transforming African economies. Moreover, by mobilizing private-sector financing and leveraging digital and financial services, Africa can raise additional resources that can contribute to its development by diversifying its export base, upgrading productive activities and improving competitiveness.

This report examines how African countries can work towards diversifying their exports by identifying feasible and innovative mechanisms for investment and trade policies to drive incentives to divert economic activities to transformative sectors.

This introduction briefly discusses the mechanisms through which commodity dependence affects African countries. It highlights the endogenous and external forces contributing to commodity dependence in Africa. Chapter 1 analyses the key barriers to export diversification and explains why African countries are still struggling to diversify their export of goods and services. Charting various conducive diversification pathways for structural change demonstrates the importance of exploring the potential role of services in realizing small and large deviations in the product space, which has been insufficiently studied from the point of view of export diversification in Africa. Chapter 2 provides an in-depth analysis of the potential role of the services sector in promoting export diversification and economic transformation in Africa. It focuses on the main sources of diversification or disruption of trade in services. This enables an assessment of the potential role of key services, including financial, agricultural, transport and tourist services, in developing forward and backward linkages, expanding markets and industry, and driving export diversification in African countries. Chapter 3 explores innovative mechanisms for unlocking financial services potential in export diversification to facilitate a structural transformation towards high productivity activities. By assessing the interrelationships between export diversification, financial and private sector development, with a focus on small and medium-sized enterprises (SMEs), the report identifies key services sectors and industries through which the private sector can create more opportunities for sustained growth, trade diversification and competitiveness. Chapter 4 summarizes the key findings from the previous chapters and presents policy lessons and strategic recommendations for policymakers and stakeholders that play an active role in the structural transformation of African economies.

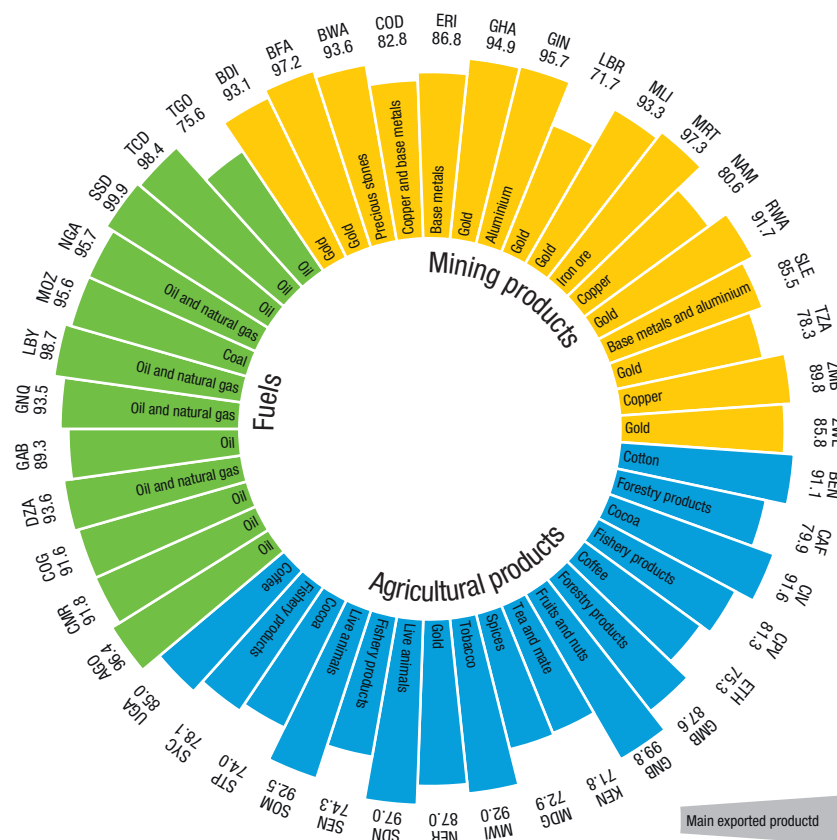
## From commodity dependence to economic diversification

A country is commodity dependent or commodity export dependent when most of its export earnings are derived from primary commodities, such as minerals, ores, metals, fuels, agricultural raw materials and food. Based on the UNCTAD (2021a) definition of commodity dependence – when commodities represent more than 60 per cent of total merchandise exports – 83 per cent of African countries are commodity dependent, accounting for 45 per cent of the commodity-dependent countries worldwide. **Figure 1** shows the status of African commodity-dependent countries, based on the UNCTAD classification. The main side effect of commodity dependence is the exposure to sector-specific shocks that trickle down across the economy, increasing their macroeconomic vulnerability and harming long-term growth (Acemoglu and Zilibotti, 1997; Lederman and Porto, 2016; McIntyre et al., 2018). For instance, an abrupt fall in commodity prices (scenario 1) lowers exports revenues. The profits of exporting firms shrink, reducing production and investment levels. Fewer economic activities can result in reduced employment opportunities and contribute to a decline in average household incomes. Governments suffer a deteriorated fiscal balance, with lower revenues and more expenditure pressure to offset the harmful consequences of the crisis. The availability of credit follows the downward trend of the overall gross domestic product (GDP). With regard to the balance of payments, exports and foreign direct investments (FDI) tend to retract, and Governments need to eat into reserves to balance their current account. The costs of acquiring external financing increases along with the debt ratios of countries. However, a sharp increase in commodity prices (scenario 2) can lead to a hike in public expenditures that countries cannot sustainably finance when commodity prices eventually fall. In commodity-dependent countries, booms precede debt crises. Those two scenarios – a drop or an increase in commodity prices – illustrate how on average commodity-dependent countries are generally procyclical (Kaminsky et al., 2005). The key financial variables follow the trend of economic cycles, being more expansive in booms and contracting during recessions.

Despite the potential of commodities and natural resources to catalyse economic transformation, many African countries struggle to leverage their resource wealth and achieve practical change and development gains. Many countries have attempted to overcome commodity dependence by reversing their exports' heavy reliance on a few primary commodities. However, the evidence in Africa shows that some countries

Figure 1

## Commodity exports as share of total merchandise exports



Source: UNCTAD, 2021a, with updated data for the year 2020.

Note: The commodity group classification (agricultural products, fuels and mining exports) also includes re-exports. Non-commodity-dependent African countries are Comoros, Djibouti, Egypt, Eswatini, Lesotho, Mauritius, Morocco, South Africa and Tunisia.

Abbreviations: AGO, Angola; BDI, Burundi; BEN, Benin; BFA, Burkina Faso; BWA, Botswana; CAF, Central African Republic; CIV, Côte d'Ivoire; CMR, Cameroon; COD, Democratic Republic of the Congo; COG, Congo; CPV, Cabo Verde; DZA, Algeria; ERI, Eritrea; ETH, Ethiopia; GAB, Gabon; GHA, Ghana; GIN, Guinea; GMB, Gambia; GNB, Guinea-Bissau; GNQ, Equatorial Guinea; KEN, Kenya; LBR, Liberia; LBV, Libya; MDG, Madagascar; MLI, Mali; MOZ, Mozambique; MRT, Mauritania; MWI, Malawi; NAM, Namibia; NER, Niger; NGA, Nigeria; RWA, Rwanda; SDN, Sudan; SEN, Senegal; SLE, Sierra Leone; SOM, Somalia; SSD, South Sudan; STP, Sao Tome and Principe; SYC, Seychelles; TCD, Chad; TGO, Togo; TZA, United Republic of Tanzania; UGA, Uganda; ZMB, Zambia; ZWE, Zimbabwe.

have changed their main export product (for instance, agricultural products) to others (mineral or fuels), modifying their economic structures but nonetheless maintaining their commodity-dependence status.

While 17 African countries reduced the share of commodities in their export baskets between 2008–2010 and 2018–2020, there are disparities worth noting. Declines ranged from 16 per cent (among 11 commodity-dependent countries, led by Sao Tome and Principe) to 1.5 per cent (Equatorial Guinea, Guinea and Nigeria).

Nevertheless, 32 African countries export more commodities today than a decade ago (2008–2010). For instance, Cabo Verde, Eritrea, Liberia and Madagascar have greatly increased their commodity dependence over the last decade. Several countries – such as Benin, Burundi, Cameroon, Chad, Côte d'Ivoire, Gambia, Ghana, Guinea-Bissau, Libya, Malawi and Mali – increased their share of commodities in the export basket by up to 3 per cent throughout the period. In the same period, some countries moved from agricultural commodity dependence to mining commodity dependence (Burkina Faso, Burundi, Eritrea, Ghana, Mali, Namibia, Rwanda, the United Republic of Tanzania and Zimbabwe). Others, such as Cameroon, Chad and Mozambique, shifted from dependence on agricultural commodities to dependence on fuels. The countries exhibiting higher disparities in commodity exports – upwards or downwards – are exporters of agricultural products: Cabo Verde, the Central Africa Republic, Madagascar, and Sao Tome and Principe. Their main export products vary, for example, fisheries (Cabo Verde), forestry (the Central African Republic), spices (Madagascar) and cocoa (Sao Tome and Principe).

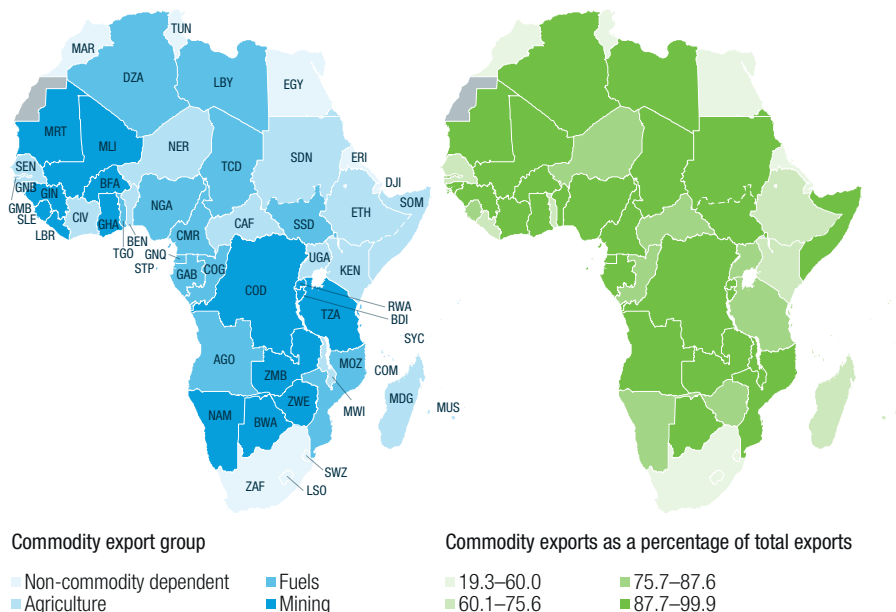
When observing the non-commodity-dependent African countries, the case of Comoros can be puzzling. The country was an agricultural commodity-dependent country in 2000 (67 per cent of commodity exports over total merchandise exports). Today, it is classified by UNCTAD (2021a) as non-commodity dependent (57.7 per cent in 2018–2020). See [Figure 2](#). However, spices alone account for 98.7 per cent of the commodities exported by Comoros today, with exports more concentrated in one product (82.5 per cent). This suggests that some of the strategies to overcome commodity dependence may lead to export concentration. This may not necessarily translate into the production and export of more complex products, which would not bring out long-term development gains.

The high concentration of exports in a small number of commodity products can create macroeconomic instability, especially during times of global shocks, including supply and demand shocks and commodity prices volatility. The effect of these



**Figure 2****Commodity dependence by export product group and commodity exports**

(Average 2018–2020)



Source: UNCTAD, 2021a, with updated data for 2020.

*Abbreviations:* AGO, Angola; BDI, Burundi; BEN, Benin; BFA, Burkina Faso; BWA, Botswana; CAF, Central African Republic; CIV, Côte d'Ivoire; CMR, Cameroon; COD, Democratic Republic of the Congo; COG, Congo; COM, Comoros; DJI, Djibouti; DZA, Algeria; EGY, Egypt; ERI, Eritrea; ETH, Ethiopia; GAB, Gabon; GHA, Ghana; GIN, Guinea; GMB, Gambia; GNB, Guinea-Bissau; GNQ, Equatorial Guinea; KEN, Kenya; LBR, Liberia; LBY, Libya; LSO, Lesotho; MAR, Morocco; MDG, Madagascar; MLI, Mali; MOZ, Mozambique; MRT, Mauritania; MUS, Mauritius; MWI, Malawi; NAM, Namibia; NER, Niger; NGA, Nigeria; RWA, Rwanda; SDN, Sudan; SEN, Senegal; SLE, Sierra Leone; SOM, Somalia; SSD, South Sudan; STP, Sao Tome and Principe; SWZ, Eswatini; SYC, Seychelles; TCD, Chad; TGO, Togo; TUN, Tunisia; TZA, United Republic of Tanzania; UGA, Uganda; ZAF, South Africa; ZMB, Zambia; ZWE, Zimbabwe.

shocks on the terms of trade and output growth, as well as the negative impact on the quantity and quality of public and private investment and productivity can increase uncertainty with regard to growth prospects (UNCTAD, 2019a). The impact of commodity price volatility on fiscal revenues can lead to spending procyclicality, which tends to constrain public investment or government borrowing. Countries are procyclical when they spend more and tax less in booms and spend less and tax more

in recessions. Céspedes and Velasco (2014) argue that commodity-rich nations have a greater chance of being procyclical because many government earnings come from commodity-linked revenues, such as taxes, royalties and profits. They analysed the change in behaviour of the most recent commodity boom before the 2008–2009 global financial crisis and concluded that improvements in fiscal capacity resulted in more countercyclical fiscal policies. Among those institutional improvements, Chile, for instance, adopted a transparent budgetary process and implemented the structural fiscal balance rule, which decreases rulers' discretion and privileges fiscal sustainability over time. Aghion et al. (2014) found that countercyclical fiscal policy is associated with industry growth, notably in industries receiving more external finance.

Commodity price shocks are also associated with lower financial sector development in commodity-dependent countries. Changes in commodity prices highly correlate with domestic credit to the private sector (Montfort and Ouedraogo, 2017). Therefore, credit to the private sector captures the cyclical trends in a commodity-dependent country. Fluctuations in commodity prices may have a direct effect on the level of credit available in the economy for the private sector, given the procyclical nature of African commodity-dependent economies.

Commodity-dependent countries that follow procyclical fiscal policies may risk not being able to take advantage of the benefits reaped from economic booms to be saved and invested in high-return areas that could build resilience during recessions. Therefore, investments in fiscal capacity are necessary to minimize the economic risks of commodity dependence (Cárdenas et al., 2011). When accumulated in times of prosperity, international reserves serve as a buffer for countries in periods of financial stress. Therefore, the efficient management of international reserves should be countercyclical (Aizenman and Jinjarak, 2020). Following this rationale, commodity-dependent countries would be expected to accumulate reserves when commodity prices rise and spend them when prices fall. This is not always observed in many African countries, despite the existence of sovereign wealth funds in some energy-, mineral- and metal-exporting countries. In addition, reserve accumulation can have high social and economic costs in terms of public and private investment (Elhiraika and Ndikumana, 2007).

The booms and slumps in commodity prices experienced during recent global crises such as the 2008–2009 global financial crisis or the 2020 COVID-19 pandemic, have exposed the limited ability of many African countries to respond to commodity market shocks, which tend to negatively affect government revenues and domestic

investment. **Box 1** describes the preliminary effects of recent geopolitical events in Eastern Europe and potential global demand, supply and commodity price shocks. Countries that were able to moderate the effects of commodity price movements resulting from the aforementioned global crises were the ones with well-established fiscal, monetary and regulatory frameworks or countries with the ability to quickly put in place appropriate fiscal rules, exchange rate regimes, and prudential and regulatory policy measures (Brenton et al., 2022). However, these policy measures or abilities have been lacking among many African commodity-dependent countries. For those countries, a sound alternative would then be to design and implement structural policies that encourage export diversification and thus diminish vulnerability to distortions arising from commodity market shocks or commodity reliance itself. The experience of African countries in diversifying exports and economic structures is further discussed in the report.

### Box 1

#### **Potential effects of the war between Russian Federation and Ukraine on commodity dependence in Africa**

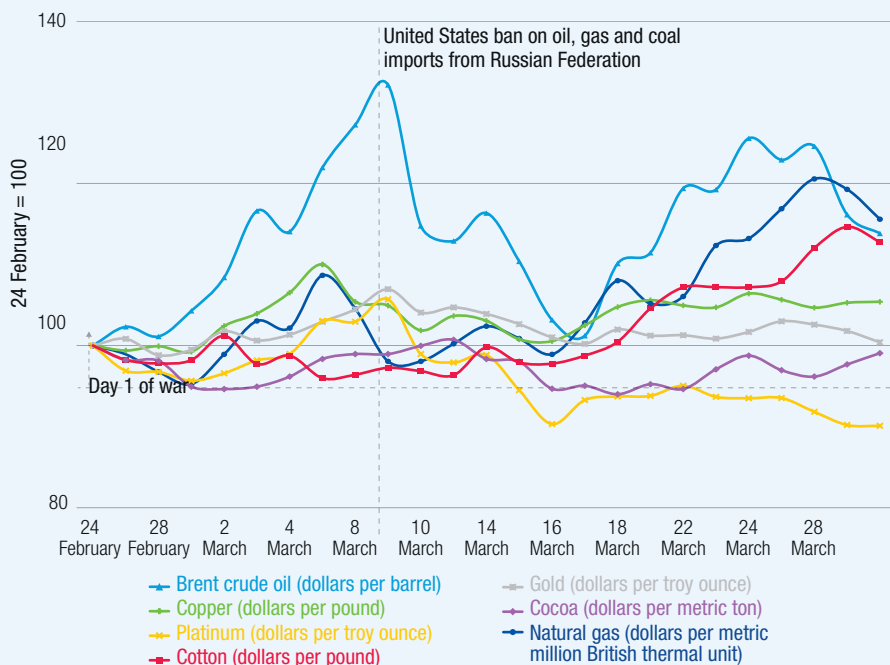
The Russian Federation invaded Ukraine on 24 February 2022, initiating a war. The geopolitical tensions in Eastern Europe have shaken the international economy. Although the two countries do not have strong trade relationships with Africa, it is already experiencing the impact of the war through disruptions of international trade and increased financial volatility.

The sudden rise in global commodity prices depicted in the **figure** below, such as oil and natural gas, tend to increase the export earnings of African fuels and metals exporters. Some African metals exporters with floating exchange rate regimes have observed an appreciation of the exchange rate since February 2022 due to higher commodity prices. The rise in commodity prices can be an opportunity for African countries to reduce their debt burden and improve their overall financial outlook, especially after being hit by the adverse effects of the COVID-19 pandemic. Nevertheless, the risks of falling into a resource-curse trajectory should also be a primary concern.

A major risk is that commodity-dependent countries may increase expenditures during booms, contracting more debts. The evidence shows that the overall economy in commodity-dependent countries is destabilized when prices drop sharply. Tax revenues fall, Governments discontinue public expenditures on selected public goods, domestic economic activity shrinks, credit dries up and debt increases, along with the number of firms' non-performing loans and bankruptcies.

## Evolution of selected commodity prices since the beginning of the war between the Russian Federation and Ukraine

(24 February 2022 = 100)



Source: Bloomberg, 2022.

Another concern is the excessive volatility of commodity prices that affects domestic commodity-dependent economies. Volatility exerts an adverse impact on economic growth because it leads to a lower accumulation of physical and human capital. Further, the negative growth effects of volatility from commodity prices can even offset the positive impact of commodity booms.

By contrast, the hike in wheat, edible oil, corn, and fertilizer prices worsens food insecurity in Africa. Rising food and fuel prices tend to accelerate inflation, having negative distributional effects because the poorest segments of the population tend to spend a disproportionately high share of their income on food.

Sources: Cavalcanti et al., 2014; data from UNCTADstat database.

Despite recent geopolitical tensions and a lingering pandemic, it is still unclear whether some African exporting countries of fuels, minerals and metals will experience a new commodity boom. Nonetheless, oil, copper, and natural gas prices have increased significantly since 2021. However, it could be argued that most African commodity-dependent countries have missed opportunities to use the periodic windfalls from higher commodity prices countercyclically (Céspedes and Velasco, 2014; Deaton, 1999) and efficiently. Many resource-rich African countries have been unable to exploit commodity price booms and invest revenues generated into high-return projects that foster economic development. In 24 African countries, commodity exports represent more than 90 per cent of total merchandise exports. While countries have different contexts, they share similar structural challenges related to commodity dependence. With commodity prices rising globally, commodity-dependent countries might face the same question: Will this time be different?

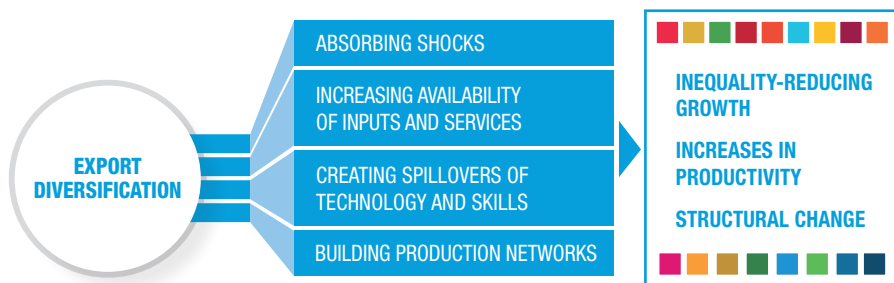
Collier and Goderis (2008) simulated the effects of commodity booms for a typical African commodity exporter, showing that increased commodity prices lead to short-term growth. Still, output retracts by 25 per cent after two decades, compared with a scenario without booms. The evidence suggests that history has repeated itself in the latest commodity booms. In addition, countries with robust institutional structures tend to take advantage of commodity booms to invest in human capital and build productive capacities, which is essential to diversify merchandise and services exports (see chapters 1, 2 and 3 for further detailed analysis) and promote long-term and sustainable development (UNCTAD, 2021b).

Commodity-dependent countries have considerable development issues, as they are highly exposed to the volatility of shock-prone sectors, combined with acute risk exposure to climate change. The transition away from commodity dependence is included in the Sustainable Development Goal 8.2, to “achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors”. The remedy for dealing with commodity dependence is export diversification. The central motif of this policy lies in the improvement of the country’s resilience against the kind of external shocks that affect commodities prices. Diversified countries are less volatile in times of crisis. In addition, natural resources are finite, and the Governments of commodity exporters need to prepare their economies for future resource depletion.

Export diversification may also boost productivity growth. For instance, Feenstra and Kee (2008) found that, on average, a 10 per cent increase in export variety leads to a 1.3 per cent increase in productivity due to a better use of resources and improved allocative efficiency. Greater diversification fosters higher demand for local intermediates

and services. Furthermore, positive externalities associated with diversification, such as spillovers of technology adoption or network development, can accelerate economic growth (Hausmann and Hidalgo, 2011).

## Why is export diversification important?



Countries can diversify their exports across products, partners and sectors. They can also upgrade their existing products technologically, improving quality and productivity. By doing so, countries can build on existing comparative advantages to add value to their exports, boosting earnings. Finally, the diversification process can also increase the number of goods and services offered in the domestic market. While the benefits of export diversification, more productivity and value addition to the exports route are important directions for a country aiming to eliminate its commodity dependence, challenges may arise from factors that help explain the persistence of commodity dependence in Africa.

Despite great efforts to diversify, African countries remain predominantly dependent on the exports of primary products in the agricultural and extractive industries. There is, however, great potential for African economies to transform and achieve a higher level of diversification and competitiveness. Countries need to rethink their export diversification strategies to assess new avenues and actors that can strengthen forward and backward linkages and sectoral linkages with financial services, and that can foster structural change. This report aims to examine the potential of the services sector to serve as a backbone of productive activities for industry, manufacturing and agriculture, and that of the private sector in innovating to diversify and transform African economies. The report also explores the potential of financial services targeting the services sector as a sustainable channel through which SMEs can mobilize financing to enter new markets, diversify exports, upgrade productive activities and, consequently, improve competitiveness. This is the approach that this report would like to add to the empirical literature and policy analysis on export diversification in Africa.



## CHAPTER 1

# The pulse of export diversification in Africa

As highlighted in the introduction, African countries struggle to diversify their exports, partly due to historical factors that created path dependencies from a lack of skills endowment and technological advancement. The first two sections of chapter 1 aim to identify recent drivers of export diversification to provide a better understanding of the key challenges in promoting export diversification. The third section provides a forward-looking perspective of export diversification opportunities that provide greater benefits for structural change. Throughout the analysis, the importance of regional integration in fostering diversification stands out. The last section discusses the pivotal role of the African Continental Free Trade Area in redressing the low levels of intra-African trade and encouraging export diversification.

# 1.1 Trends driving export diversification and structural change

## 1.1.1 Measurement of export diversification and data limitations

Different forms of diversification are connected and cannot be understood in isolation. **Figure 3** illustrates some elements of diversification, including export diversification across goods and services, domestic output diversification and quality upgrading of already manufactured products.<sup>1</sup> A wide range of products is essential to increase the quality of products through a higher availability of inputs and technologies. The Theil index, a statistical measure of concentration or diversification, is used as the main indicator to identify diversification trends. The Theil index is defined as  $T = \sum_{k=1}^n \frac{x_k}{\mu} \ln \left( \frac{x_k}{\mu} \right)$ , where  $k$  is a specific product line of all product lines  $n$ ;  $\mu$  is the average of product line value; and  $x_k$  is the value of the exports in a specific product line. The decomposability property of the index allows a representation of diversification at the intensive margin – within active export lines – and the extensive margin – between active and inactive export lines or export products (the products that a country exports) (see **box 4** for a mathematical definition) (Cadot et al., 2011). Higher numbers of the index indicate a higher concentration of exports. To account for quality upgrading within exported products, that is, higher value due to an increase in the quality of a product, as a key channel for structural change, the analysis is supplemented with a revised economic complexity index that considers different unit values within products.

Export diversification is usually measured by the number of export lines and the Theil index. Although the number of active export lines is easier to interpret, export volume can still be strongly concentrated in a few products or sectors only. Both indicators are used to illustrate diversification trends at the aggregate and sector levels. The higher the Theil index, the more unequal the export distribution, and the more concentrated the exports.

For the analysis of diversification trends, this chapter uses officially recorded trade data at the Harmonized System (HS) six-digit level, aggregated to the HS section and chapter level for illustrative purposes.<sup>2</sup> Export data are bound to limitations in quality and quantity. Of the 54 African countries considered, 45 report trade data in a continuous

<sup>1</sup> Product quality upgrading refers to product differentiation and increases in the value of a product (Hummels and Klenow, 2005). In trade data, this is measured through the reported unit values of traded quantities.

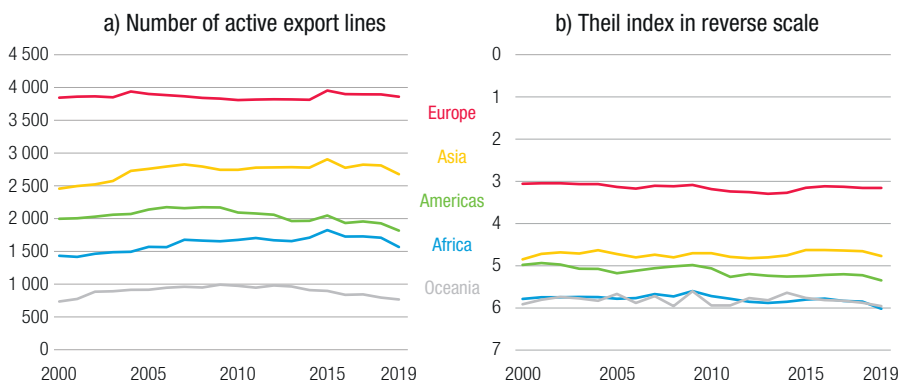
<sup>2</sup> The analysis of new product diversification opportunities (chapter 1.3) further incorporates different unit values within six-digit product lines.





**Figure 4**

**Number of active export lines (a) and Theil index in reverse scale (b) of merchandise at country level, average by region, 2000–2019**



Source: UNCTAD calculations, based on data from the international trade analysis database and Centre d'études prospectives et d'informations internationales.

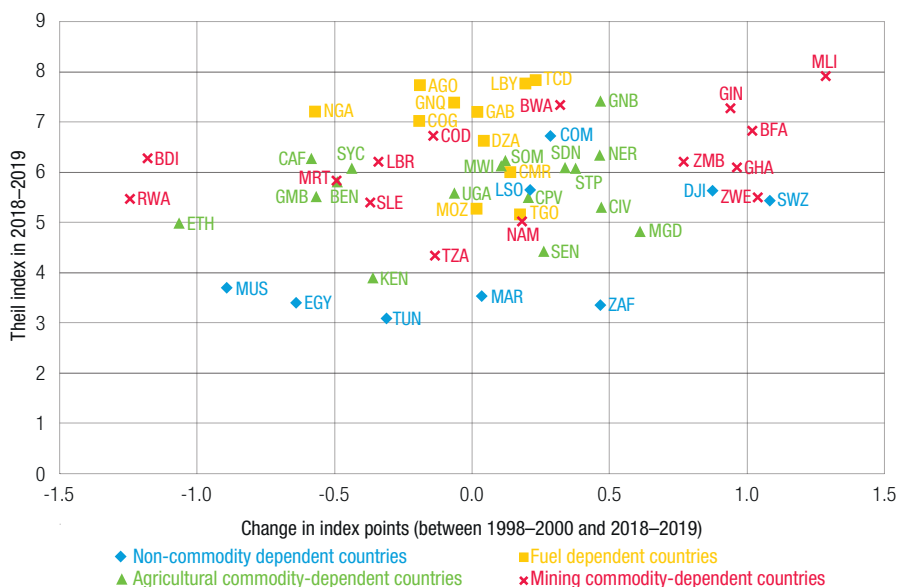
Note: The total number of possible active export lines at the HS 1992 six-digit level is 5,018.

developed countries are the least diversified. However, the small island Mauritius, for instance, is an exception, with 3,034 active export lines. While there has been some improvement in export diversification on average across African countries from 2000–2009 (Figure 4b), exports became more concentrated during the period 2010–2019. The decomposition of the Theil index reveals that, on one hand, diversification increased through a growing number of active export lines, especially until 2015 (see blue line for the average over all African countries in figure 4a). On the other hand, the distribution of export shares over products (the within part of the Theil index) has become more unequal.

Over the past two decades, less than half of all African countries managed to diversify their exports. Figure 5 shows that most countries are in the upper-right quadrant, indicating high concentration in 2018–2019 with a worsening trend compared with 1998–2000 (three-year average). The five countries with the highest export concentration, measured by the Theil index, are Mali, Chad, Libya, Angola and Guinea-Bissau. Of these five countries, only Angola has experienced a slight improvement over the last 20 years. The top five countries with the greatest improvement over the whole period are Rwanda, Burundi, Ethiopia, Mauritius and Egypt. A differentiation of the Theil index into its between

Figure 5

## Theil index in 2018–2019 and change compared with 1998–2000



Source: UNCTAD calculations, based on data from the international trade analysis database, the Centre d'études prospectives et d'informations internationales data set and the United Nations Commodity Trade Statistics database. Notes: A negative change in the Theil index indicates increased diversification. Owing to insufficient data, Eritrea and South Sudan are not featured in the figure.

Abbreviations: AGO, Angola; BDI, Burundi; BEN, Benin; BFA, Burkina Faso; BWA, Botswana; CAF, Central African Republic; CIV, Côte d'Ivoire; CMR, Cameroon; COD, Democratic Republic of the Congo; COG, Congo; COM, Comoros; CPV, Cabo Verde; DJI, Djibouti; DZA, Algeria; EGY, Egypt; ETH, Ethiopia; GAB, Gabon; GHA, Ghana; GIN, Guinea; GMB, Gambia; GNB, Guinea-Bissau; GNQ, Equatorial Guinea; KEN, Kenya; LBR, Liberia; LBY, Libya; LSO, Lesotho; MAR, Morocco; MDG, Madagascar; MLI, Mali; MOZ, Mozambique; MRT, Mauritania; MUS, Mauritius; MWI, Malawi; NAM, Namibia; NER, Niger; NGA, Nigeria; RWA, Rwanda; SDN, Sudan; SEN, Senegal; SLE, Sierra Leone; SOM, Somalia; STP, Sao Tome and Principe; SWZ, Eswatini; SYC, Seychelles; TCD, Chad; TGO, Togo; TUN, Tunisia; TZA, United Republic of Tanzania; UGA, Uganda; ZAF, South Africa; ZMB, Zambia; ZWE, Zimbabwe.

component (extensive margin) and its within component (intensive margin of diversification) reveals that in 46 African countries<sup>4</sup> some export diversification has occurred by adding

<sup>4</sup> These are (in order of change): Rwanda, Burundi, Angola, Equatorial Guinea, Congo, Chad, the Democratic Republic of the Congo, Ethiopia, Comoros, Guinea, Mauritania, Mozambique, Uganda, Sao Tome and Principe, Liberia, Sierra Leone, Somalia, Seychelles, Djibouti, Zambia, Malawi, Benin, Ghana, Cameroon, Togo, the Sudan, the United Republic of Tanzania, Madagascar, Guinea-Bissau, Nigeria, Cabo Verde, Libya, Senegal, Algeria, Burkina Faso, Lesotho, Morocco, Mauritius, Mali, Gabon, Egypt, Tunisia, Côte d'Ivoire, Kenya, the Niger and Namibia.

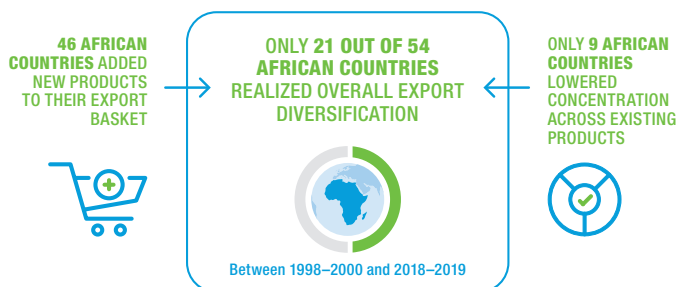
new products (between component), whereas the distribution of export shares over products (within component) has become more equal in only nine countries.<sup>5</sup>

While in the 2000s, export diversification increased in 31 African countries (average improvement of -0.1186 index points), the 2010s was characterized by a reverse trend (average increase by 0.18 index points). This is the case of Uganda (Box 2). On average, the Theil index increased by 0.06 index points, and only 21 African countries diversified their exports between 1998–2000 and 2018–2019. The slowdown or even reversed trend in diversification could be cautiously related to the impact of the global financial crisis in reduced growth in global GDP, trade and investment, and the increasing industrialization of Asian countries, fuelling demand for African natural resources (Whitfield and Zalk, 2020).

Non-commodity-dependent countries are, on average, the most diversified (Theil index 4.5), followed by agricultural commodity-dependent countries (Theil index 5.7), mining commodity-dependent countries (Theil index 6.2) and fuel-dependent countries (Theil index 7). Although mining commodity-dependent countries export on average more products than agricultural commodity-dependent countries (on average 1,829 and 1,410 export lines, respectively), the share of export products is much more concentrated in mining commodity-dependent countries. Between 1998–2000 and 2018–2019, some fuel-dependent countries experienced relatively strong diversification trends.

The intra-African exports of African trading partners are the most diversified, followed by their exports to Europe and Asia. Compared with 1998–2000, exports to all regions were more diversified in 2018–2019, but the strongest diversification increase between that period is observed in exports to Africa and the Americas. Exports to Europe are almost as concentrated as they were two decades ago (Figure 6).

### State of export diversification in Africa



<sup>5</sup> These are (in order of change): Mauritius, Gambia, Central African Republic, Egypt, Kenya, Nigeria, Tunisia, Ethiopia and Benin.

## Box 2

### Uganda: Its experience in export diversification

The drive of Uganda to achieve export diversification in the 2000s came along with strong economic growth and poverty reduction. Its commodity dependence decreased from 95 per cent in 1998–2000 to 70.6 per cent in 2008–2010, and the number of exported products grew from 1,031 to 3,242 in the same years. In 2000, diversification was realized in the agroprocessing industries (processed fruits and vegetables, and fish), flowers, wood, minerals, chemicals and some light manufacturing (skins and hides). The share of manufactures in merchandise exports increased from 2 per cent in 1994 to 34 per cent in 2012. The benefits for decent employment creation remained, however, limited. Some emerging non-traditional export sectors, such as petroleum oils and cement, are capital-intensive sectors with little opportunities for additional export diversification potential.

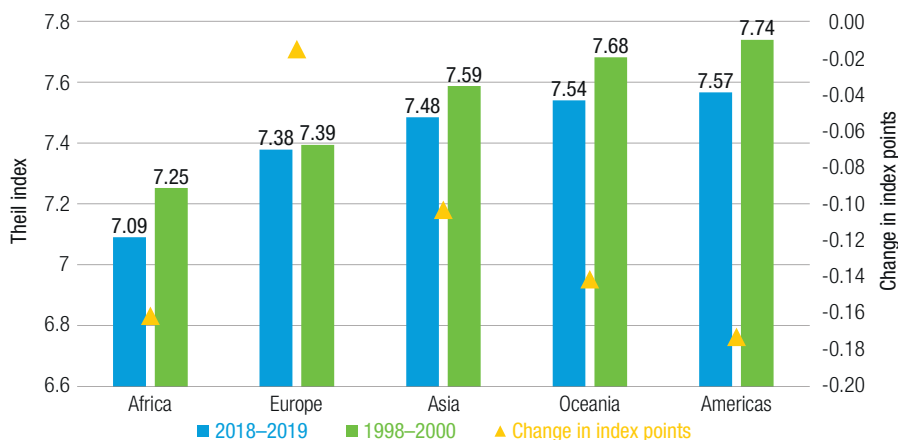
The slowdown of export diversification in the aftermath of the 2008–2009 financial crisis and increased export concentration between 2015 and 2019 might be a syndrome of these structural constraints and the path dependence of diversification potential. According to one study by the Government of Uganda and the United Nations Development Programme, some of the new non-traditional exports, including the agroprocessing industries, add to export diversification but they have limited scope for structural transformation. After the number of exported products more than tripled in the 2000s, it fell from 3,242 to 2,340 between 2008–2010 and 2018–2019. A closer look at the sectoral level shows that the agricultural- and mining-related sectors registered a larger decline in the number of active export lines. A more concerning trend is the decrease in the number of active export lines in chemical products, machinery and mechanical appliances, and vehicles, which are high value added sectors and important to industrialization. The slowing and partially reversing trend of export diversification has also been observed by the *Uganda Science, Technology and Innovation Policy Review*, conducted by UNCTAD in 2018 and 2019.

While there are complex factors at play, a trade-enabling environment and a favourable regulatory environment are necessary conditions to maintain diversification success. In its Third National Development Plan 2020/21–2024/25, the Government of Uganda pointed out that despite some improvements, interest rates and the cost of electricity and information communications and technology (ICT) services remained high, and underinvestment in manufacturing was hindering structural transformation.

*Sources:* UNCTAD, based on Economic Commission for Africa and United Nations Development Programme, 2017; Government of Uganda, 2020; Government of Uganda and United Nations Development Programme, 2017; Hausmann et al., 2014; UNCTAD, 2020b; World Bank and Government of Uganda, 2015.

**Figure 6**

**African export diversification, by regional trading partner, and change between 2018–2019 and 1998–2000**



Source: UNCTAD calculations, based on data from the international trade analysis database and the Centre d'études prospectives et d'informations internationales data set.

A stronger orientation towards the regional African market is a promising avenue for accelerating export diversification, as intra-African exports are dominated by manufactured goods rather than commodities (see chapter 1.4 on the role of the African Continental Free Trade Area).

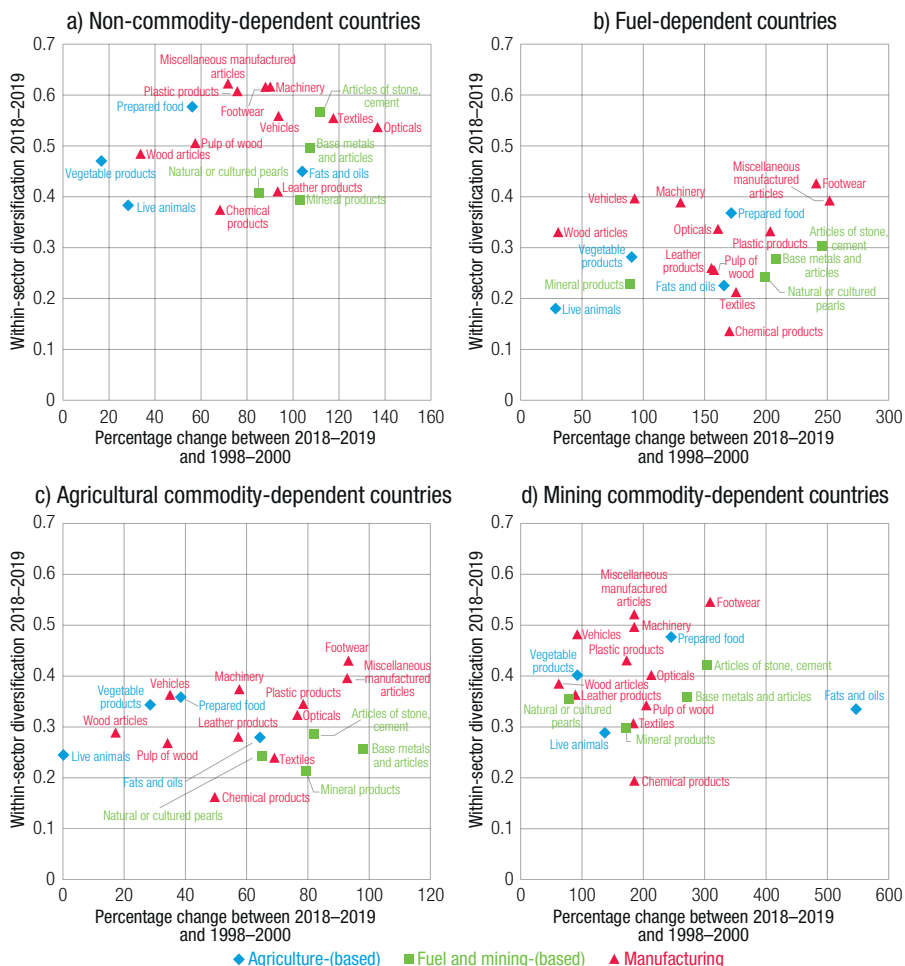
### **Sectoral diversification trends**

A comparison of diversification trends across sectors and between commodity dependence statuses aims to identify some common features and experiences in diversification. Figure 7 illustrates within-sector diversification in 2018–2019 and the change in diversification compared with 1998–2000 across the HS section and according to countries' commodity classification. Each section under the HS classification aggregates a different number of product lines at the HS six-digit level, ranging from 809 product lines in textiles and 762 lines in machinery and mechanical appliances, to 53 in animal and vegetable fats, 55 in footwear and 50 in natural and cultured pearls.<sup>6</sup> Figure 7 illustrates some sectoral differences across commodity-dependence statuses.

<sup>6</sup> HS sections 19 (arms and ammunition) and 21 (works of arts) are excluded from the analysis, as they include only 17 and 7 product lines, respectively, at the HS six-digit level.

Figure 7

### Sectoral trends in export diversification, by Harmonized System (HS) section and country commodity classification, change between 1998–2000 and 2018–2019



Source: UNCTAD calculations, based on data from the international trade analysis database and the United Nations Commodity Trade Statistics database.

Note: Within-sector diversification refers to the average relative diversification (number of active export lines over the total number of lines within each HS section); the change refers to the percentage change in the number of active export lines.

Non-commodity-dependent countries experienced the strongest diversification trend in opticals, followed by textiles (increase in active export lines of 137 per cent and 118 per cent, respectively, compared with 1998–2000). Fuel-dependent countries diversified more in miscellaneous manufactured articles (252 per cent increase in export lines) and articles of stone (246 per cent). Agricultural commodity-dependent countries diversified more in base metals and articles (98 per cent) and footwear (93 per cent), and diversification in mining commodity-dependent countries was highest in fats and oils (547 per cent increase),<sup>7</sup> footwear (309 per cent) and articles of stone (304 per cent). These trends suggest that while resource-dependent African countries have diversified and added new products to their export basket, diversification was higher within commodities, compared with sophisticated manufactured products, where diversification was low.

### **1.1.3 Benefits of diversification for building resilience and structural change**

An important objective of export diversification is the promotion of structural change. However, increasing the number of products exported does not necessarily mean that there has been diversification into products with higher value. To determine whether diversification over time occurs in more sophisticated products, indicating structural change and higher productive capacities, UNCTAD (2021c) revised the economic complexity index and introduced a technological development index.<sup>8</sup> This new index takes into account product differentiation, measured by the unit value of an exported product. A country could still increase its economic complexity by increasing the quality (that is, the value) of its exported products even if it is not adding new products to its export basket. The results suggest that the strongest improvements in technological development have been achieved by Rwanda, Angola, Ethiopia and Uganda, although the first three are still below the African average. Moreover, only three countries (South Africa, Egypt and Morocco) have an index higher than the world average. The ability of a country to increase productive capacities and structural change heavily depends on the availability of inputs, technology and services. Therefore, a broader variety of goods and services is necessary to facilitate product diversification and structural change (Freire, 2019; Hummels and Klenow, 2005).

<sup>7</sup> This sharp increase can be attributed to Rwanda's position as an outlier in the sector, with the country's number of export lines increasing from 0 to 22.

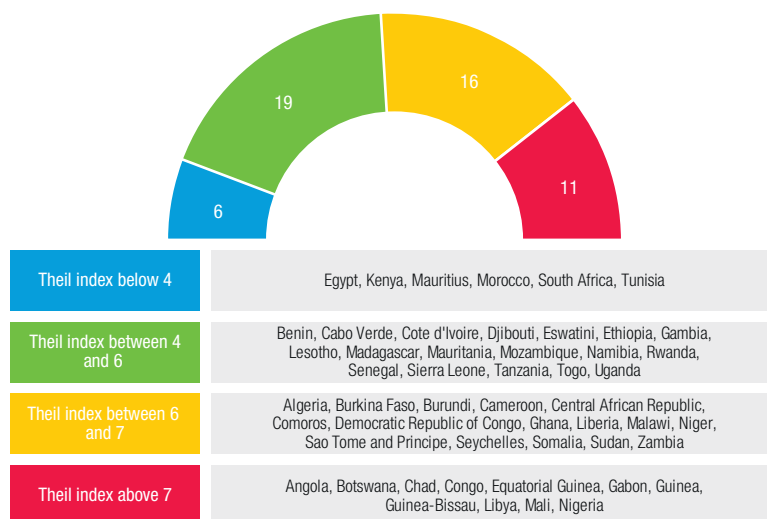
<sup>8</sup> The technological development index is calculated following Freire (2019) as a revised version of the method of reflections proposed by Hidalgo and Hausmann (2009).



Building resilience through diversification is explained by a portfolio effect (absorbing shocks and reducing volatility) and a dynamic effect (learning effect from the introduction of new products to the basket of goods). For instance, as identified in the literature, an important driver of terms-of-trade volatility is export concentration (for example, Jansen, 2004; Malik and Temple, 2009). A comparison of the volatility of three indicators – terms of trade, government revenue and GDP – by export diversification performance shows that, on average, countries with the lowest levels of export diversification (Theil index above 7) experienced the highest volatility in all three indicators, followed by countries with a Theil index ranging between 6 and 7 (Figure 9). Countries with high levels of diversification have the largest government revenues as a share of their GDP. In 2019, while the highly diversified countries yielded an average government revenue of 24 per cent of GDP, the least diversified countries not only had the most volatile revenues (Figure 9a), but the lowest levels in 2019, as well, with values of 19.4 per cent (countries with a Theil index above 7) and 13 per cent (countries with a Theil index between 6 and 7). Figure 8 provides a breakdown of African countries by their Theil index in 2018–2019.

**Figure 8**

**African countries by Theil index, 2018–2019**

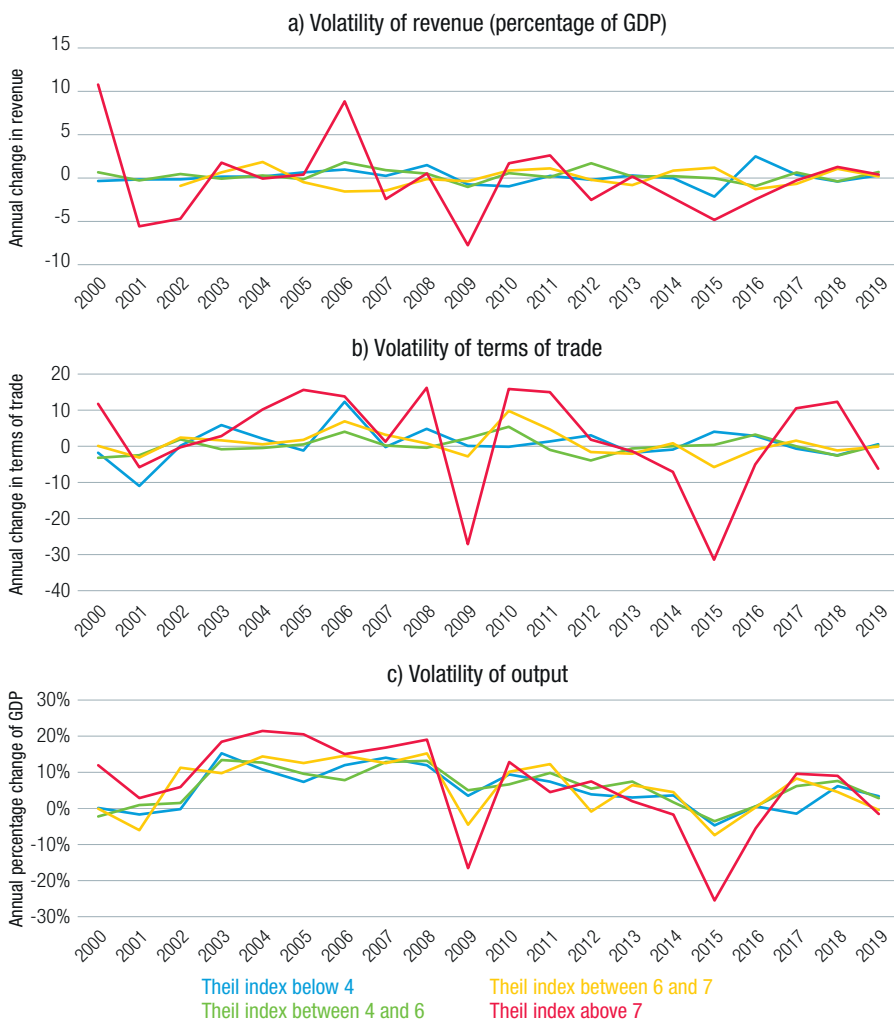


Source: UNCTAD calculations, based on data from the international trade analysis database and the Centre d'études prospectives et d'informations internationales data set.

Note: Owing to insufficient data, Eritrea and South Sudan are not featured in the figure.

**Figure 9**

**Volatility of revenue in percentage of gross domestic product, terms of trade and output, average by export diversification status, 2000–2019**



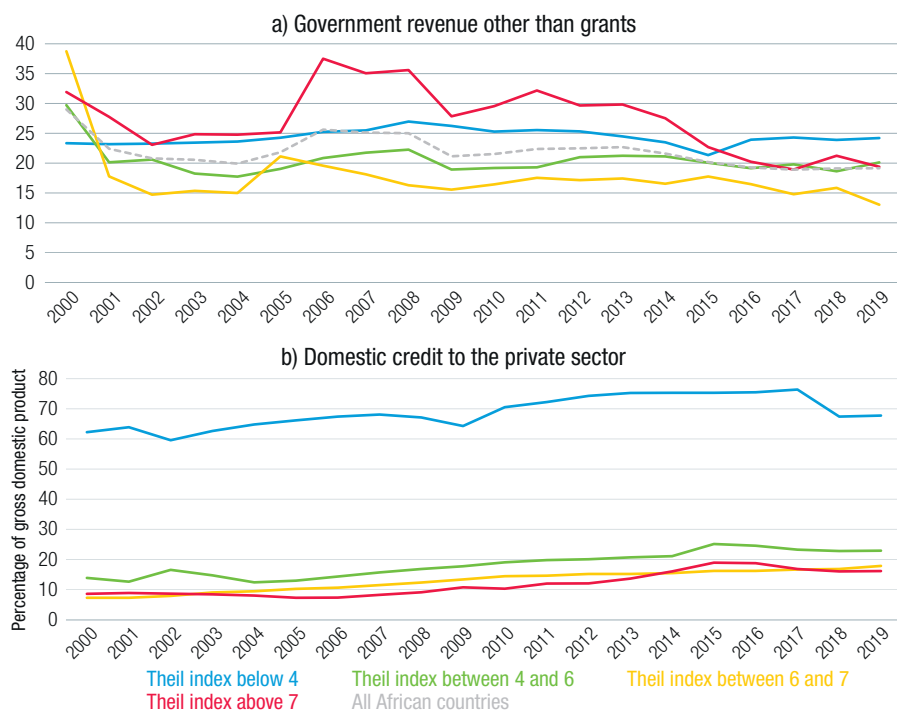
Source: UNCTAD calculations, based on data from the international trade analysis database, World Development Indicators database (World Bank) and UNCTADstat database.

Notes: Figure 9a does not include grants; in figure 9c, output volatility is expressed as current GDP in dollars.

As illustrated in [figure 10a](#), the least diversified African countries had on average the highest government revenue as a percentage of their GDP between 2002 and 2015. This period was characterized by high commodity prices. However, revenues declined sharply after 2015, while the economies remained concentrated and dependent on a few export products. Over the observed period from 2000 to 2019, credit to the private sector was also by far the highest in the most diversified countries (on average 67.8 per cent of GDP), and lowest in the least diversified countries (between 16.2 and 23 per cent of GDP; see [figure 10b](#)), indicating the structural limitations these countries face to promote long-term investment plans and national development goals.

**Figure 10**

**Government revenue other than grants (a) and domestic credit to the private sector (b), in percentage of gross domestic product, average by export diversification status, 2000–2019**



Source: UNCTAD calculations, based on data from the international trade analysis database, World Development Indicators database (World Bank) and UNCTADstat database.

Note: See [figure 9](#).

The pandemic has further demonstrated the importance of building resilience through diversification. The significant decline in international trade and production during the pandemic has had profound repercussions (UNCTAD, 2021d), especially since most countries in Africa have a high level of commodity dependence and rely heavily on world markets (see **box 3** on the impact of the COVID-19 shock on export diversification). For instance, as one of the least diversified African economies, especially relative to per capita income, Botswana experienced a steep drop in its export demand during the pandemic owing to its dependence on diamonds (Reuters, 2020; Ventures Africa, 2020). On one hand, good governance and sound economic management has enabled the country to turn its diamond wealth into prosperity, and revenues from diamonds have been invested in public goods, which helped achieve better performance in education and health than many other resource-rich countries. On the other hand, the country shows little progress in structural transformation and faces high unemployment rates (22.6 to 24.9 per cent in 2019–2020), which hinders long-run economic growth and prosperity (Barczikay et al., 2020).

Resource-dependent countries are especially vulnerable when their foreign reserve buffers are low, causing severe balance-of-payments crises. Measured in reserves by months, Botswana, Namibia and the United Republic of Tanzania, which are dependent on mining in diamonds, copper, and gold, could overcome the decline in exports over nine, four and six months, respectively. By contrast, the Democratic Republic of the Congo and Eritrea have reserves equivalent to less than one month of imports (Natural Resource Governance Institute, 2020).

### Box 3

#### **The COVID-19 pandemic and its impact on export diversification**

When the COVID-19 global pandemic struck in March 2020, unprecedented national and international measures were implemented to combat the health and economic crisis. Monthly trade data for the year 2020, obtained from the United Nations Commodity Trade Statistics database for 13 African countries, is used to assess the effect of the external shock caused by the pandemic on export diversification. While all countries experienced a drop in total exports and the number of exported products when lockdowns were imposed in April 2020, two of the most diversified countries in the sample – Mauritius and South Africa – experienced the largest decline in exports. However, in May 2020 and the following months, when lockdowns were relaxed, nearly all countries were able to significantly increase exports again. In the medium term, the most diversified economies in the sample (Egypt, Mauritius, Kenya and South Africa) experienced

a sharp increase in exports again over the rest of 2020, while the less diversified countries experienced an overall decline or a small growth in their exports. In terms of active export lines, the highly diversified countries were quickly able to export the same number of product lines and even increased the number, while the least diversified countries saw either a decline in export lines (minus 130 in the case of Botswana) or a slight increase.

Although the benefit of export diversification in reducing the vulnerability to external shocks can be confirmed, other policies such as support to firms to maintain their businesses was one of the crucial factors in resuming production and exports. COVID-19 has a long-term impact on the organization of regional and global value chains, with a trend towards stronger regionalization and incentives for companies to diversify suppliers in the interest of greater resilience. The evolving industry 4.0 and increasing automation of production processes swiftly led to re- and on-shoring of activities, but in combination with new trade restrictions, COVID-19 is expected to promote regionalization further. What this re-organization of value chains implies for the export diversification potential of African countries is discussed in chapter 1.2.3. The pandemic has facilitated these processes and amplified existing fault lines but does not change the essential policy frameworks to spur diversification. Rather, the pandemic gives momentum to build the diversification strategy of Africa on regionalization and equal access to inputs and services. Regionalization and supplier diversification could expand export diversification opportunities for African countries.

*Source:* UNCTAD, based on Fortunato, 2020; UNCTAD, 2020c; United Nations Industrial Development Organization, 2021.

## 1.2 Rethinking drivers of export diversification in Africa

This section empirically assesses determinants of export diversification. There is an extensive amount of literature on export diversification, and many determinants have been identified; these focus mainly on national determinants of export diversification (Elhiraika and Mbate, 2014; Giri et al., 2019; Gnanngnon, 2021; Osakwe et al., 2018; UNCTAD, 2018a; UNCTAD, 2018b)<sup>9</sup>. The following econometric assessment closes

<sup>9</sup> To name an exception here, Regolo (2013) assesses bilateral drivers of export diversification for a sample of 102 trading partners over the period 1995–2007 and finds that similarities in factor endowments (physical and human capital, and land), differences in GDP and lower trade costs are positively associated with bilateral export diversification, emphasizing the role of structural factors and the importance of “who you trade with” in export diversification.

the gap in the literature by applying a bilateral panel data model on African countries. It provides new evidence on structural factors for geographical diversification and intra-African export diversification. **Box 4** describes the econometric approach. Owing to data limitations and the multidimensional relationship between export diversification and its potential drivers, the analysis should not be considered to establish causality. Instead, it aims to shed light on the relevance of different policies and structural constraints to diversification.

#### Box 4

##### Evaluating drivers of export diversification in Africa: An empirical approach

The empirical analysis identifies drivers of export diversification in Africa and investigates the most significant ones. The following equation is estimated:

$$y_{ijt} = \beta_1 E_{it} + \beta_2 D_{jt} + \beta_3 Z_{ijt} + \gamma_i + \delta_j + \eta_t + \epsilon_{ijt} \quad (1)$$

where  $y_{ijt}$  is a measure of bilateral export diversification,  $E_{it}$  are exporter-specific variables,  $D_{jt}$  are importer-specific variables,  $Z_{ijt}$  are bilateral trade costs variables,  $\gamma_i$  are exporter-fixed effects,  $\delta_j$  are importer-fixed effects,  $\eta_t$  are time-fixed effects, and  $\epsilon_{ijt}$  is the error term. All time-varying variables enter with their first lag.

Export diversification is measured by the Theil index (as defined previously), differentiated into its between component and its within component, and the number of exported products. The two subindices of the Theil index are given by Cadot et al., 2011:

$$T^{Between} = \sum_{j=1}^J \frac{n_j}{n} \frac{\mu_j}{\mu} \ln\left(\frac{\mu_j}{\mu}\right) \quad (2a)$$

$$T^{Within} = \sum_{j=1}^J \frac{n_j}{n} \frac{\mu_j}{\mu} T_j \quad (2b)$$

Where  $n$  is the number of product lines (here: 5,018 lines),  $\mu$  is the average product line value;  $j$  refers to the group of active export product lines versus non-active product lines (hence,  $j = 1, 2$ );  $J$  is the number of subgroups; and  $T_j$  is the overall Theil index for group  $j$ .

While the between component (equation 2a) describes the concentration of different products in the export basket, the within component (equation 2b) compares the value of exports between the products. Both parts of diversification may be driven by different policy variables and deserve a separate econometric analysis. The analysis uses mirror trade data at the HS six-digit level (International trade analysis database and Centre d'études prospectives et d'informations internationales data set based on the United Nations Commodity Trade Statistics database).

Most studies in the literature focus on a particular founding factor and include only a few other principal covariates. However, there remains uncertainty about the importance of each variable identified in the literature. Further, adding more and more variables would create collinearity. Therefore, instead of choosing the single best model by using a relatively arbitrary criterion, the econometric analysis makes use of Bayesian model averaging to address model uncertainty. This technique considers every possible combination of included determinants and has the advantage of being more robust than relying on a single, potentially misleading, model.

The selection of variables used in the analysis attempts to balance the inclusion of as many relevant factors as possible without the loss of too many observations simultaneously. The estimation strategy of equation 1 incorporates the most cited variables in the literature with sufficient data for African countries. In the end, the availability of data made it possible to study 38 African countries and 128 trading partners from 1995 to 2018.

The **table** below indicates all potentially relevant variables that were tested with regard to their significant relationship with export diversification. Therefore, the exporter- and importer-specific variables  $E_{it}$  and  $D_{jt}$  include GDP per capita, population, school enrolment, domestic credit to private sector, access to electricity, mobile subscriptions, institutional quality (proxied by world governance indicators), manufacturing value added as a percentage of GDP, services value added as a percentage of GDP, gross capital formation as a percentage of GDP, FDI as a percentage of GDP, exchange rate stability, trade openness as a percentage of GDP, resource rents as a percentage of GDP;  $E_{it}$  additionally includes Aid-for-Trade commitments, tariffs charged on capital goods, intermediate goods and raw materials;  $D_{jt}$  also includes market proximity of the trading partner; and  $Z_{ijt}$  includes bilateral tariffs (faced tariff), regional economic community dummy, non-tariff trade costs and common gravity variables such as distance, common border and common language.

The relevance of each variable in driving export diversification is reported by the posterior inclusion probability. The higher the estimated posterior inclusion probability, the more relevant the variable in explaining bilateral export diversification of African countries.

## Main determinants of export diversification in the literature and estimates of posterior inclusion probability in the bilateral model of African export diversification with world and African trading partners

Determinant and proxy	Evidence in the literature	Relevance for geographical product diversification (TBetween) with world trading partners	Relevance for geographical product diversification (TBetween) with African trading partners
(1)	(2)	(3)	(4)
<b>Structural</b>			
Common border	+	1.00	1.00
Common language	+	1.00	1.00
Market proximity of trading partner	+	1.00	0.08
Common colonizer	+	1.00	1.00
Common religion	?	1.00 (+)	0.85 (+)
Non-tariff trade costs	?	1.00 (-)	1.00 (-)
Distance	-	1.00	1.00
Population	+	0.08 (exporter), 0.77 (importer)	0.15 (exporter), 0.10 (importer)
Natural resource rents	-	0.78 (exporter), 0.13 (importer)	0.55 (exporter), 0.06 (importer)
<b>Policy (general)</b>			
Development (GDP per capita)	+	1.00 (exporter), 1.00 (importer)	1.00 (exporter), 0.54 (importer)
Human capital (School enrolment)	+	0.07 (exporter), 0.06 (importer)	0.09 (exporter), 0.19 (importer)
Financial development (credit to private sector)	Weak +	0.18 (exporter), 0.04 (importer)	0.06 (exporter), 0.25 (importer)
Physical infrastructure (access to electricity)	Weak +	0.08 (exporter), 0.17 (importer)	0.28 (+) (exporter), 0.07 (+) (importer)
Digital infrastructure (mobile subscriptions)	?	0.14 (-) (exporter), 0.49 (+) (importer)	0.08 (+) (exporter), 0.26 (+) (importer)
Institutions (worldwide governance indicators)	+	0.22 (exporter), 1.00 (importer)	0.16 (exporter), 1.00 (importer)
Manufacturing value added (percentage of GDP)	+	0.08 (exporter), 0.05 (importer)	0.08 (exporter), 0.06 (importer)
Services value added (percentage of GDP)	+	0.08 (exporter), 0.76 (importer)	0.62 (exporter), 0.08 (importer)
Gross capital formation (percentage of GDP)	Weak +	0.05 (exporter), 0.92 (importer)	0.08 (exporter), 0.12 (importer)
Aid (Aid-for-Trade commitments)	0/+	0.12 (exporter)	0.06 (exporter)
Inflation	-	0.17 (exporter), 0.05 (importer)	0.11 (exporter), 0.06 (importer)
Bilateral exchange rate depreciation	+	0.08	0.38
Exchange rate stability	Weak +	0.28 (exporter), 0.35 (importer)	0.06 (exporter), 0.09 (importer)
FDI (percentage of GDP)	0	0.04 (exporter), 0.8 (-) (importer)	0.12 (exporter), 0.09 (importer)
<b>Policy (trade)</b>			
Market access (regional economic community dummy)	+	1.00	1.00
Market access (bilateral tariffs)	-	0.09	0.99
Market access (trade openness)	0/+	0.14 (exporter), 0.05 (importer)	0.06 (exporter), 0.50 (importer)
Tariffs charged on intermediates	?	0.98 (-)	0.20 (-)
Tariffs charged on capital goods	?	0.08 (-)	0.12 (-)
Tariffs charged on raw materials	?	0.09 (-)	0.11 (-)
Number of observations		24 617	7 255

Source: UNCTAD calculations, based on a background paper prepared as part of the report.

Notes: Column 2: (-) = negative impact on export diversification; (+) = positive impact on export diversification; weak + = weak positive impact on export diversification; (?) = insufficiently studied relationship in the literature. Columns 3 and 4: posterior inclusion probability smaller than 0.5 = not impactful; between 0.5 and 0.75 = gives weak evidence; between 0.75 and 0.95 = gives strong positive evidence; between 0.95 and 0.99 = gives strong evidence; and greater than 0.99 = gives decisive evidence. Coefficient signs are in line with estimates in the literature, or otherwise indicated in parentheses.



### 1.2.1 Drivers of diversification are diverse and complex

The following discussion of the empirical results is grouped into structural factors and factors that relate to a country's trading partner; general economic policy variables such as human capital, institutions or exchange rate stability; and trade policy variables such as tariffs. The classification of variables into subgroups makes it possible to investigate more nuanced structural factors that may explain African export concentration in contrast to economic-related policies, in particular trade-related policies.

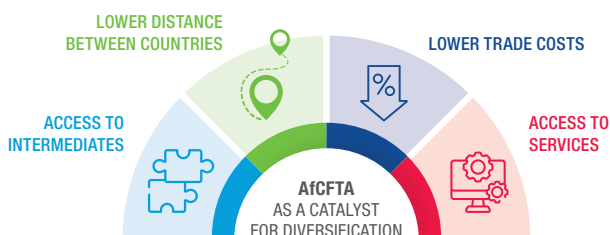
The [table in box 4](#) provides results on the relevance of each variable for geographical product diversification (between part of the Theil index) of African countries with its world trading partners (column 3) and African trading partners (column 4). This chapter only discusses the variables that show the strongest evidence as determinants of export diversification.

First, structural and importer-related factors play a stronger role in explaining export diversification than policy variables. All bilateral structural factors – shorter distance, common border, common language – prove to be highly significant drivers of bilateral export diversification. In addition, culturally close trading partners exchange a larger number of products. Moreover, importer demand in the form of per capita GDP and population matter more than an exporter's population size and GDP. When a trading partner's share of services in GDP is substantial, this is positively associated with export diversification in Africa.

Second, the most relevant variable to promote intra-African bilateral diversification with regard to exporters is a larger share of services value added. By providing business services and market knowledge, ICT services facilitate tapping into new markets with new or existing products. Further, transport and distribution services are important across value chains to store and sell products. Access to financial services and research and development are essential to innovation of new products and the continuous improvement of products to survive in markets. Business services can be employed to overcome structural constraints through marketing and consulting to position products on the market. In South Africa, for example, small manufacturing companies played an important role in providing after-sales maintenance and repair services (UNCTAD, 2021e). Digitalization and digital technologies have been found to be significant drivers of economic growth and development (Azu et al., 2020; Solomon and van Klyton, 2020).

Third, high trade costs and the applied average tariff rate on intermediates are major barriers to export diversification in African countries, especially with world trading partners. Input costs of firms have to be reduced for better integration into value chains and subsequently being able to tap competitively into new export markets. The negative effect of high tariffs on intermediates and capital goods is confirmed in the literature on value chain integration (Estevadeordal and Taylor, 2013; Slany, 2019).

### Main drivers of Africa's export diversification



Fourth, some policy variables that would be expected to play a stronger role in diversification are not relevant and even go against conventional thinking. This is presumably the case of FDI (see chapter 1.2.2). Financial development, on the other hand, measured by credit to the private sector in the exporting country, has a weak positive link with export diversification at the extensive margin, but tends to concentrate trade flows at the intensive margin of diversification. This finding can question the overall significant effect of financial development on total diversification. An initial argument for this contrasting finding, which is also confirmed in the literature (Fosu and Abass, 2019; Giri et al., 2019), could be that currently competitive products might benefit more from available financing than non-competitive products. With opportunities to grow, these products might become more dominant in the export basket and concentrate export values. The importance of deep financial development and alternative lending allowing equal access to finance across the population is discussed in chapter 3.

What also comes as a surprise is that lower market access measured through bilateral tariffs result in more evenly distributed trade volumes among existing exports. A reason for this might be that bilateral trade policy at a more disaggregated level could be targeted at exports of currently competitive goods, potentially reducing incentives to diversify into new products (chapter 1.2.2).

## 1.2.2 Making changes in investments, trade and industrial policies to promote export diversification

### *Diversifying the investment portfolio*

As discussed earlier, the obtained results from the empirical assessment indicate that FDI has a limited effect on export diversification for the sample of 38 African countries considered. The impact of FDI on export diversification is related to the level of education and the overall business environment of the host country, as shown in the examples of Mauritius (Box 5), Chile (Box 7) and Viet Nam (Box 6) (see chapter 1.3). These countries were able to leverage FDI inflows to promote diversification and industrialization. In 2019, Mauritius ranked among the top 10 investor economies by FDI stock in Africa and recorded the largest FDI stock (valued at \$37 billion) among African economies (UNCTAD, 2021f). Viet Nam, for instance, explored its new comparative advantage in electronic and telecommunication equipment through the attraction of FDI. The country recorded \$16 billion of FDI inflows in 2020, placing it among the top 20 host economies globally (UNCTAD, 2021f). Another factor in the limited role of FDI might be the distribution across sectors. A comparison of greenfield investment data between developing Africa and developing Asia indicates that developing Asia attracted more investment in manufacturing industries (chemicals, and electronics and electrical equipment) and high-knowledge services (finance and insurance services) (UNCTAD, 2021f).

In 2021, African countries brought in \$77.2 billion of greenfield investments, indicating a small rise after the large decline in investments between 2019 (\$151 billion) and 2020 (\$64 billion).<sup>10</sup> Between 2020 and 2021, the electricity, gas and steam sector, and the information and communications sector each accounted for about one quarter of investments. Other leading industries are transportation and storage (6 per cent) and the manufacture of other non-metallic mineral products (5 per cent), such as glass and glass products, cement and plaster. Some differences are observed in the share of top industries by type of commodity dependence (Table 2). In mining commodity-dependent countries, the electricity sector alone received on average 40 per cent of greenfield investment (2020–2021), followed by information and communications (16 per cent), and mining and quarrying (12 per cent). The dominance of energy in the investment portfolio increased between 2010 and 2011 from 2.8 per cent of total investment to 30.9 per cent in 2015–2016. A similar trend

<sup>10</sup> The data on announced greenfield investment projects used for this section are obtained from fDi Markets, a service of the Financial Times ([www.fDimarkets.com](http://www.fDimarkets.com); accessed on 22 April 2022).

can be overserved for fuel-dependent countries which, on average, pulled in the largest amount of investment in 2021 (\$5.1 billion), compared with \$1.8 billion in a non-commodity- dependent country, \$863 million in a mining commodity-dependent country and \$389 million in an agricultural commodity-dependent country. Agricultural commodity-dependent countries invest the most in information and communications (24 per cent), followed by the manufacture of coke and refined petroleum products (16.2 per cent).

Although all sectors have been included, irrespective of their export potential, a dominant amount of investment still goes into the extractive industries, despite a rising shift in FDI from natural resources to services between 2010–2011 and 2020–2021 (Table 2). Facilitating additional investment in high-productivity services such as ICT is an important means of advancing economic diversification (World Bank, 2019). Investment incentives have been used by many developing countries, including in Africa, to attract FDI to the sectors with the greatest potential for diversification and sustainable development. Such incentives can include an exemption of import duties for the import of raw materials or intermediates, or other tax benefits, such as income tax relief. While this could encourage investment in product diversification, research and development, and boost the competitiveness of firms, tax incentives run the risk of increasing inequalities, as much-needed government revenues would decline. Studies such as James (2013) suggest that, on their own, incentives have limited effects on investment; however, the link to the overall investment climate is what promotes investments. Moreover, policymakers should use investment incentives to foster linkages to local and regional firms, which has been an important channel for furthering technology transfer and knowledge spillovers from FDI (Sabha et al., 2020). For instance, Singapore introduced a local industry upgrading programme to support the transfer of technology and knowledge from multinational enterprises to domestic firms, and South Africa offers initial capital allowance for foreign companies that acquire goods and services to form local SMEs, create direct employment and provide skills development (Sabha et al., 2020). Investment incentives can also be used to support women's employment, for instance by hiring or promoting women and businesses owned or managed by them, and to provide child care and parental leave (Kronfol et al., 2019). The African Continental Free Trade Area will play an important role in boosting intra-African FDI through regional integration and a joint protocol on investment policy, and thus contribute to diversification. The protocol is also expected to include innovative provisions on investor obligations to ensure that investments contribute to sustainable development (UNCTAD, 2021d).

Table 2

**Greenfield investments, by commodity dependence and sector**

(Percentage)

	2010–2011	2015–2016	2020–2021
<b>Mining commodity-dependent countries</b>			
<b>Primary</b>	<b>47.2</b>	<b>18.2</b>	<b>13.1</b>
Agriculture, forestry and fishing	0.3	0.1	0.5
Mining and quarrying	47.0	18.1	12.7
<b>Manufacturing</b>	<b>35.8</b>	<b>19.1</b>	<b>16.4</b>
<b>Services</b>	<b>17.0</b>	<b>62.7</b>	<b>70.4</b>
<i>(Other) top industries by share of total</i>			
Electricity	2.8	30.9	40.4
Information and communications	8.2	7.1	16.5
Manufacture of other non-metallic mineral products	2.4	2.2	6.0
Transportation and storage	0.4	6.3	4.6
Food, beverages and tobacco	2.7	1.7	2.2
<b>Agricultural commodity-dependent countries</b>			
<b>Primary</b>	<b>9.1</b>	<b>2.5</b>	<b>2.8</b>
Agriculture, forestry and fishing	0.1	0.3	2.8
Mining and quarrying	9.0	2.3	0.0
<b>Manufacturing</b>	<b>60.6</b>	<b>44.5</b>	<b>36.2</b>
<b>Services</b>	<b>30.3</b>	<b>53.0</b>	<b>61.0</b>
<i>(Other) top industries by share of total</i>			
Information and communications	7.6	4.6	23.4
Manufacture of coke and refined petroleum products	34.6	0.1	16.2
Transportation and storage	1.2	11.4	13.1
Manufacture of other non-metallic mineral products	3.6	5.8	11.1
Electricity	12.7	8.0	7.0
<b>Fuel-dependent countries</b>			
<b>Primary</b>	<b>22.0</b>	<b>16.1</b>	<b>6.0</b>
Agriculture, forestry and fishing	2.8	1.9	0.7
Mining and quarrying	19.3	14.2	5.4
<b>Manufacturing</b>	<b>43.9</b>	<b>20.0</b>	<b>27.9</b>
<b>Services</b>	<b>34.1</b>	<b>64.0</b>	<b>66.1</b>
<i>(Other) top industries by share of total</i>			
Electricity	10.4	18.5	24.5
Information and communications	9.3	6.0	23.9
Manufacture of coke and refined petroleum products	18.9	3.1	9.7
Transportation and storage	1.5	11.4	5.5
Manufacture of other non-metallic mineral products	3.1	3.0	5.2
<b>Non-commodity-dependent countries</b>			
<b>Primary</b>	<b>12.2</b>	<b>12.8</b>	<b>4.7</b>
Agriculture, forestry and fishing	0.1	0.0	0.2
Mining and quarrying	12.1	12.8	4.5
<b>Manufacturing</b>	<b>33.1</b>	<b>16.0</b>	<b>23.2</b>
<b>Services</b>	<b>54.7</b>	<b>71.1</b>	<b>72.0</b>
<i>(Other) top industries by share of total</i>			
Information and communications	11.6	1.8	26.8
Electricity	10.0	24.0	19.0
Motor vehicles and other transport equipment	8.5	6.3	8.3
Construction	16.9	14.2	8.1
Transportation and storage	2.6	5.8	4.9

Source: UNCTAD calculations, based on data from fDi Markets.

### **1.2.3 Trade and industrial policies to create incentives for diversification and value addition**

The finding that bilateral tariff rates might limit export diversification is controversial but hints at the misalignment of national and multilateral trade policies with the diversification agenda of African countries. First, tariff peaks tend to be concentrated in agriculture, as well as in apparel and textiles (UNCTAD, 2019b). By contrast, low tariffs on commodities potentially reduce market incentives for commodity-dependent countries to diversify. Second, observed tariff escalation (the practice of imposing higher tariffs on consumer products than on raw materials and intermediates) favours processing industries closer to the consumer to avoid high tariffs on finished products but discourages processing activities in countries where raw materials originate.

Export diversification and structural change are not expected to emerge spontaneously. Successful export diversification requires an active role of the State and industrial policies to promote value added sectors (for example, agroprocessing and manufacturing) and enhance the competitiveness and productive capabilities of domestic firms (see [box 5](#), example of Mauritius). However, there is a risk that industrial policies may be ineffective due to information asymmetries in entrepreneurs' behaviour and response to industrial policies, potential rent-seeking by industry lobbyists and government officials, and limited institutional capacity to design and administer implemented policies (Oqubay et al., 2020; UNCTAD, 2021g). Some key issues that increase the effectiveness of industrial policies can be summarized from the literature: strong administrative capacity, accountability of policymakers and implementing agencies through reporting requirements, close public-private sector relationships, and the inclusion of a broad set of stakeholders representing a large number of disadvantaged groups (Economic Commission for Africa, 2014; Economic Commission for Africa, 2016; Oqubay et al., 2020; UNCTAD, 2020d; UNCTAD, 2021e). In Singapore, for instance, the Government spearheaded efforts to promote industrialization through the Economic Development Board, a quasi-government agency, which acted as the pilot agency in coordinating industrial policy (Economic Commission for Africa, 2014).

A regional approach through the African Continental Free Trade Area could support countries with limited administrative and financial capacities to implement strategic industrial policies (see chapter 1.4).

**Box 5****The experience of Mauritius in leveraging trade and industrial policies for export diversification**

Mauritius is often cited as a positive example of export diversification, shifting from mainly agriculture (sugar) in the 1970s to manufacturing in the 1990s and a range of services since the early 2000s. After the collapse of international sugar prices, policymakers decided to target the textile industry. In addition, the island succeeded in developing exports of processed fish, through investments in processing facilities (sorting and cleaning), warehousing and storage, and ancillary services (ship handling and repair services).

The creation of export-processing zones was largely financed by taxes on sugar but they enabled the emergence of a textile industry and later an electronic components industry. In addition, labour productivity increases in the agriculture sector were also key to freeing up resources in the manufacturing sector. Apart from export-processing zones that provided necessary infrastructure, the country also restricted imports through tariffs and subsidized exports on manufacturing in the form of exemptions from corporation tax and access to import-free inputs and equipment.

Apart from trade policies that created incentives for diversification, one study argues that the institutional structure was also favourable for the implementation of these policies.

*Source:* UNCTAD, based on McIntyre et al., 2018; Mosley, 2018; UNCTAD, 2018a; UNCTAD, 2021e.

**1.2.4 Changes in the global economy and value chain dynamics**

Global value chains can help to diversify by tapping into new activities where a country can create a new comparative advantage. For instance, Viet Nam was successful in diversifying through the integration into global and regional value chains and actively participated in regional electronic networks (Brenton et al., 2022). Yet, in global value chains where low value added activities have been outsourced to low-wage countries, the generally most profitable activities – research and development, marketing and branding – are still performed at headquarters, creating rents and increasing stock market valuation of a few leading firms (UNCTAD, 2017a). As noted in **box 3**, the pandemic has increased the trend towards greater automation and the re-shoring of production activities. The fourth industrial revolution diminishes the advantage of low-skilled labour and could lead to a reduction of benefits and opportunities for job

creation in global value chains. Kaplinsky (2021) emphasizes the transformative power of ICT for “building a more economically, socially and environmentally sustainable future” (see chapter 3).

Barriers to entry into global value chains due to the dominance of global buyers have been identified in the literature (for example, Gereffi and Korzeniewicz, 1994; Gereffi et al., 2005), yet little research exists on the role of domestic market structures and broader institutional relations such as the nation State (Davis et al., 2018). To facilitate the diversification of production and exports, it is important to break down barriers to sustainable entry. Barriers to entry and survival can stem from the following factors: (a) the process of establishing a business (property rights regulation and access to productive resources, including financial capital and land) (Aghion et al., 2005; Djankov et al., 2002); (b) market entry barriers such as import-export regulation, trade-related infrastructure or the proximity to markets; and (c) value chain entry barriers created by specific requirements or preferences of value chain actors (for example, of food retailers). For example, in the Kenyan food industry, Kamau et al. (2019) emphasizes the role of standards set by lead firms in the sector that limit the potential of small firms to enter and survive in new markets. Strong intellectual property rights and branding by multinational firms often prevent imitators from entering the market which may restrict the diffusion of technology and knowledge. The example of Chile highlights the role of State intervention in promoting knowledge and emulation through Fundación Chile.<sup>11</sup>

Many African countries face structural challenges to meet increasing standards in global value chains and lack the capacity to adapt production processes to international standards or finance to adopt modern equipment (Kaplinsky and Kraemer-Mbula, 2022). Innovation creates barriers to entry because of very specific knowledge and technology. The larger the technology or innovation, the greater the benefit. Owing to network externalities and economies of scale, new competitors are often not able to enter certain markets (UNCTAD, 2021e). Where access to market is facilitated, firms can face the challenge of survival. The exporter dynamics database reveals that survival rates of African firms are lower than the world average (UNCTAD, 2021d). Information and market knowledge, as well as access to intermediate inputs and finance, play an important role in increasing the survival of new market entrants. Further, the information

<sup>11</sup> Fundación Chile is a non-profit corporation that was set up in 1976 through a public-private partnership – a joint agreement between the Government of Chile and ITT Corporation, originally International Telephone and Telegraph, a North American conglomerate. It proactively introduces technological innovations and develops companies in target industries, including agribusiness, marine resources, forestry, environment and chemical metrology, human capital, and information and communication technologies (Lebdjou, 2019; World Bank, 2014).



in the exporter dynamics database on market structure and dynamics suggests that the larger the number of firms in a given market, the lower the survival rate of firms, as competition is high to begin with. There seems to be a stronger incentive to enter a market where knowledge and spillovers already exist, as diversification into new markets in products is costly, and there is weak institutional incentive for experimenting. At the sector level, there are sharp differences in entry and survival rates. Manufacturing, for example, is characterized by high barriers to entry and survival, increasing returns to scale and imperfect competition (Odijie, 2019). Small markets, limited access to finance and market information represent a major structural barrier for many African enterprises to step into the manufacturing sector. Low survival rates point to the need to actively engage with lead firms in the value chain to expand the opportunities of local firms.

The promotion of partnerships between supermarkets and small or new processors can facilitate market entry but should be maintained under the supervision of competition policy authorities to reduce anticompetitive behaviour in negotiations (UNCTAD, 2021e). International cooperation, including South–South cooperation, such as under the African Continental Free Trade Area Protocol on Competition Policy, can promote backward and forward linkages and improve the efficiency of supplying industries. In many input markets such as the fertilizer, cement, energy, finance and telecommunication markets, anticompetitive behaviour and entry barriers structurally limit diversification. For instance, in Kenya, competition policy reform played a pivotal role in the emergence of mobile banking services (Organisation for Economic Co-operation and Development and World Trade Organization, 2019).

### **1.2.5 The role of services in expanding markets and industries**

The importance of regional value chains and global value chains for trade and integration in Africa cannot be overstated, as they form the basis of modern trade (Organisation for Economic Co-operation and Development, 2013). While accounting for about 70 per cent of global trade (Organisation for Economic Co-operation and Development, 2022), viable value chains remain among the key determinants for success and the effective exploitation of the benefits of the African Continental Free Trade Area through enhanced productivity, sophistication and the diversification of exports (Kowalski et al., 2015). However, most African countries are yet to become effectively integrated into these production and supply chains, as their exports are still dominated by raw or semi-processed primary commodities (Gondwe, 2021). Accordingly, most African countries are seen to be active in the lower segments of the global value chains

(Mouanda-Mouanda, 2019), with forward integration dominating their participation in global value chains. **Figure 11** shows that forward integration is prevalent in most of Africa,<sup>12</sup> accounting for about 61 per cent on average of total participation in African global value chains.<sup>13</sup> This suggests that Africa is yet to fully exploit the benefits of participating in global value chains. These benefits are greater, with a larger share of backward participation, as it highlights increased importation of competitive inputs for enhancing complexity and variation of the export basket (Conde et al., 2015). While key in enhancing industrial productivity and market access, the enhanced complexity and variation of exports are equally important to insulate industries from economic shocks more effectively.

At the regional level, intra-African backward integration in regional value chains is also low, representing less than 8 per cent of the manufacturing value added (Abreha et al., 2021; Slany, 2019). Although intra-African manufacturing value added trade is more balanced relative to its corresponding global trade (Economic Commission for Africa, 2015), the weak backward integration of the intra-African regional value chain indicates that regional value chains in Africa are yet to be developed to effectively facilitate gainful integration of African countries into the global value chains (Banga et al., 2015). As such, it remains imperative that African countries leverage the opportunities accorded by the African Continental Free Trade Area in developing new and viable value chains while strengthening existing ones. In this regard, the centrality of services in the functionality of these global and regional value chains is noteworthy. Services serve as key inputs (intermediate) in the production process and are vital in providing suitable linkages between suppliers and users in various stages of the value chain. As such, they are deemed key in enhancing the productivity of the relevant sectors, but also in diversifying and improving the competitiveness of exports through the effective reduction of production and transaction costs. These cost reductions can be carried out through several channels, such as capital deepening, facilitated access to trade information, easy connectivity and accessibility of markets. While shedding light on the overall relevance of services in productivity and market access of African economies, this section focuses on services linkages with the manufacturing sectors to dissect structural issues that are relevant to the development of the region's value chains and enhance its competitiveness in the global market.

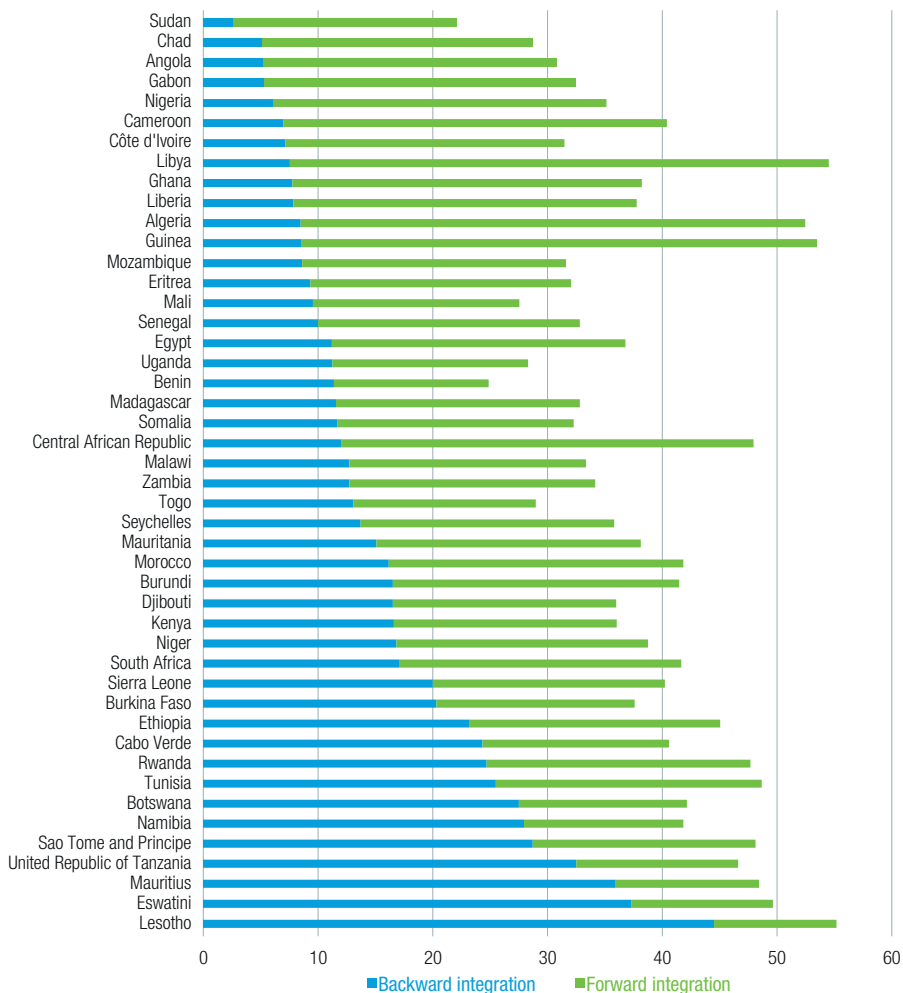
<sup>12</sup> Exceptions are Botswana, Burkina Faso, Cabo Verde, Eswatini, Ethiopia, Lesotho, Mauritius, Namibia, Rwanda, Sao Tome and Principe, Tunisia and the United Republic of Tanzania.

<sup>13</sup> This value is calculated as a share in total participation in global value chains:  $(\text{forward participation} / (\text{forward} + \text{backward}) \text{ participation}) * 100$ .

Figure 11

**Participation in global value chains, 2015**

(Percentage of gross exports)



Source: UNCTAD calculations, based on data from the Eora database.

Note: Calculations are based on the latest available data. Owing to insufficient data, Comoros, Congo, Democratic Republic of the Congo, Equatorial Guinea, Gambia, Guinea Bissau, South Sudan and Zimbabwe are not featured in the figure.

***Services linkages in production, output and export***

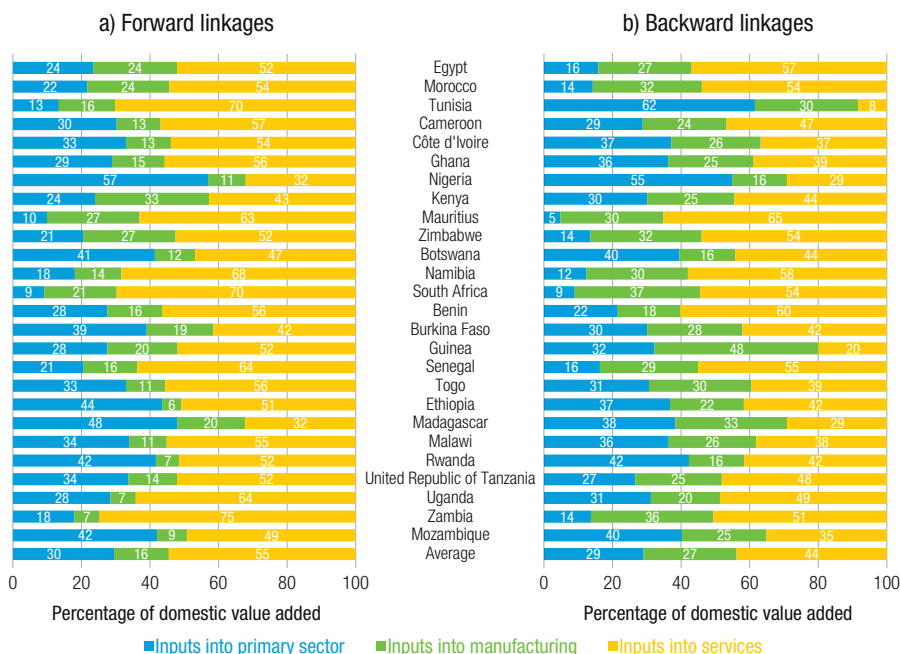
There is a growing consensus among trade experts and practitioners that the central role of services in trade is better quantified through trade in value added, which fully accounts for services embodied in other tradable goods. Trade in value added covers services used as intermediate inputs in production as well as services that are sold together with other goods. As such, a stronger service sector with increased value added across sectors is considered essential to enhance export productivity and competitiveness and facilitate the integration of countries into productive value chains (UNCTAD, 2018c). However, the depth of this role is dependent on structural issues inherent in respective economies. As such, it varies across African countries, notwithstanding its relative contribution to the competitiveness of the different sectors and the total exported value added of the respective economies.

Figures 12 and 13 show that services contribute substantially to the domestic and exported value added of most countries in Africa. Overall, in production, value added is concentrated in services, followed by primary sectors. On average, services account for about 55 per cent of the total value added in Africa in forward linkages (Figure 12a). Except for Botswana, Burkina Faso, Kenya, Madagascar, Mozambique and Nigeria (32–49 per cent), services account for more than 50 per cent of the inputs in production. In non-commodity-dependent countries such as Tunisia and South Africa, services account for up to 70 per cent of domestic value added inputs in production.

The relative importance of services further varies between domestic value added and exported value added. In essence, what is used in production is different from what is eventually exported. While services dominate the value added content of final demand, primary sectors account for most of the value added content of African exports, 41 per cent of the total value added on average. These are followed by services, with an average of about 38 per cent of the total value added in forward linkages (Figure 13a). While services-driven exported value added is significant for a mix of non-commodity and commodity-dependent countries such as Zambia (74 per cent), Guinea (53 per cent), Tunisia (52 per cent), Mauritius (49 per cent), Ghana (48 per cent), Morocco (46 per cent), Cameroon (43 per cent) and South Africa (42 per cent), the primary sector dominates the exported value added in mostly commodity-dependent countries such as Nigeria (94 per cent), Botswana (77 per cent), Mozambique (63 per cent), Burkina Faso (60 per cent), Rwanda (57 per cent) and Ethiopia (54 per cent).

When backward linkages are considered, figures 12 and 13 show that services values are much lower than their corresponding values in forward linkages. The contribution of services to the exported value added in backward linkages is as low as 2 per cent

Figure 12

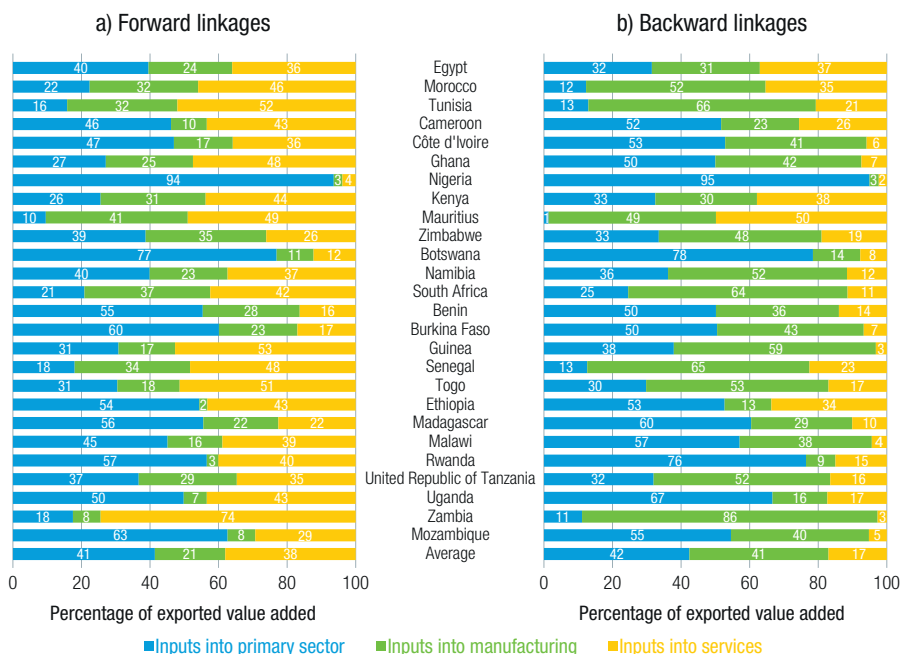
**Domestic value added content of output, 2014**

Source: UNCTAD calculations, based on data from the Export of Value Added database (World Bank).

Note: Selection of countries was guided by the availability of most recent data.

in Nigeria and ranges from 3 to 7 per cent in Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Malawi, Mozambique and Zambia (Figure 13b). Similar trends are observed in production, with services accounting for less than 40 per cent of total domestic value added (backward linkages) in countries such as Guinea, Malawi, Mozambique, Togo and Tunisia, despite the substantial corresponding contribution in forward linkages in production (Figure 12).

These results highlight the weak linkages between the service sector and other economic sectors in most African countries, with the resulting underperformance of most firms in the region. In this regard, the transformational role that services has played in improving quality and diversifying exports is noteworthy, particularly in countries such as Uruguay that have a rich natural resource base, like most African

**Figure 13****Domestic value added content of exports, 2014**

Source: UNCTAD calculations, based on data from the Export of Value Added database (World Bank).

Note: Selection of countries was guided by the availability of most recent data.

countries (Hollweg and Sáez, 2019). Along with the increased internalization of modern, high knowledge-intensive services, particularly ICT, Uruguay has effectively reduced its dependence on natural resource-intensive exports (Crisciolo et al., 2014; Hollweg and Sáez, 2019).

### ***In focus: Services and manufacturing linkages***

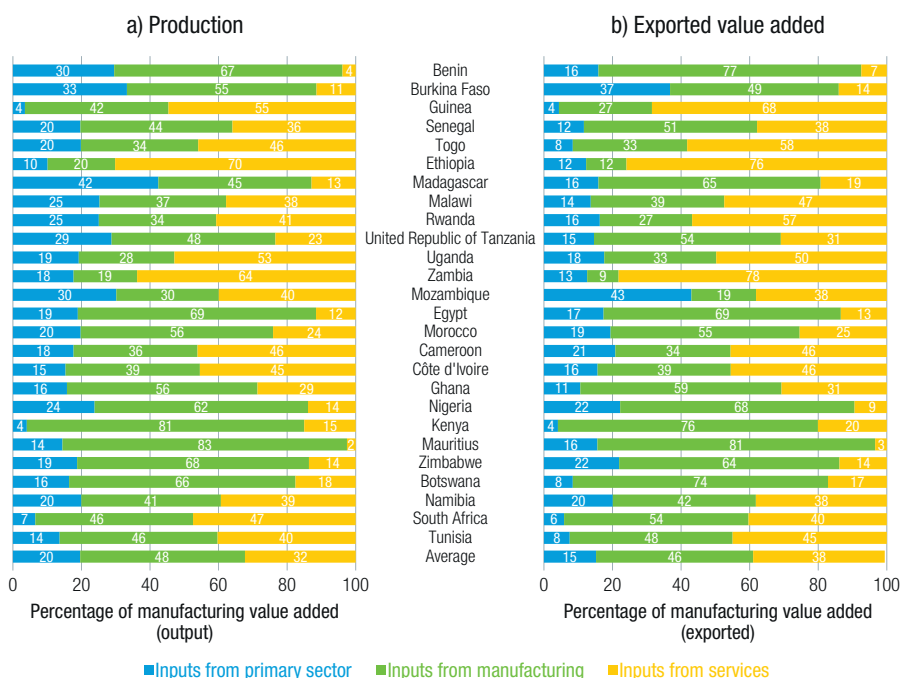
Recent literature emphasizes the increasing role of services content in manufactured goods both in production and sales, which have remained key in facilitating regional and global value chains. A vibrant manufacturing sector requires competitive services as intermediate inputs to facilitate product quality and differentiation but also to facilitate access to other competitive inputs and markets for its final products. As such, services are seen to be at the core of manufacturing productivity and competitiveness, accounting

for about one third of manufacturing gross exports in developed countries and about 26 per cent in developing countries (Lanz and Maurer, 2015). In this context, this section assesses the significance of the services sector in the productivity of the manufacturing sector in Africa. Focusing on manufacturing backward linkages both in production and sales (exports), the section will also highlight the extent to which services facilitate market access of manufacturing firms in Africa.

Figure 14 shows similar trends in the content of services in manufacturing value added both in production and exports. The figure also highlights weak intersectoral linkages in some countries. While the services content in manufacturing value added in production and exports averages 32 per cent and 36 per cent respectively, inputs from within the manufacturing sector dominate manufacturing valued added production and export

Figure 14

**Composition of manufacturing value added, backward linkages, 2014**



Source: UNCTAD calculations, based on data from the Export of Value Added database (World Bank).

Notes: Country selection was guided by the availability of the most recent data.

(backward linkages). There are however some exceptions. In countries such as Ethiopia, Guinea, Rwanda, Togo, Uganda and Zambia, inputs from services account for more than 50 per cent of manufacturing value added production and exports. These results highlight the existence of fair intramanufacturing linkages in most countries in Africa, suggesting the high potential that the region has in developing viable value chains, while taking advantage of the trade preferences accorded by the African Continental Free Trade Area.

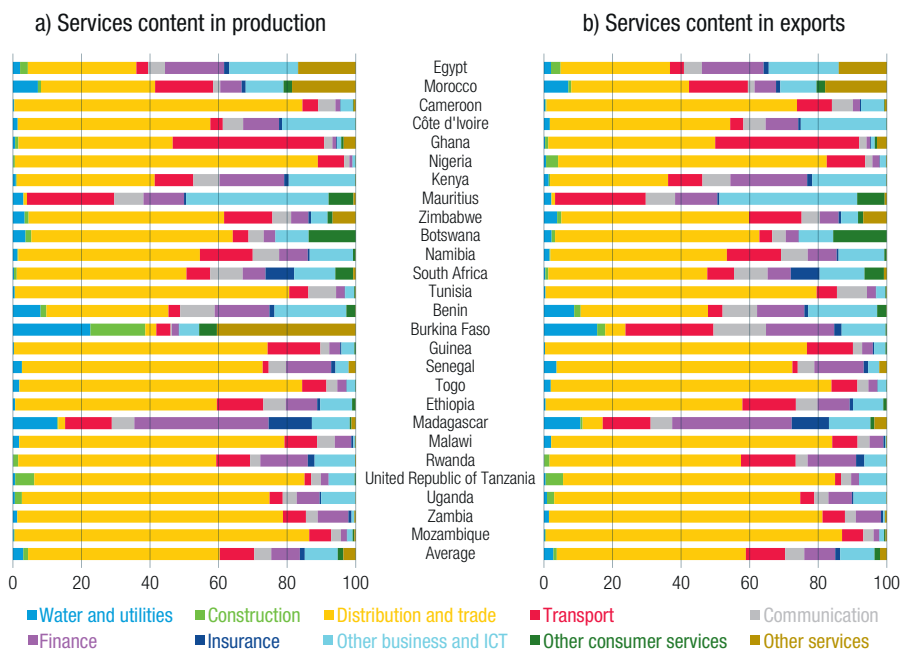


However, this potential in developing viable value chains is being undermined by the weak linkages between the service and manufacturing sectors in some countries, which among other things, is a consequent of poor or non-existent relevant service sectors. For instance, it remains a quest for most countries in the region to effectively participate in regional value chains due to poor connectivity from missing transport links within and across different modes (Gondwe and Mbonigaba, 2022). Similarly, manufacturing productivity is greatly undermined by inadequate and/or intermittent power supply due to the low per capita energy generation capacity of most countries (Gondwe and Mbonigaba, 2022; Hollweg and Sáez, 2019). Moreover, financial services play a negligible role in facilitating the growth of industries in most countries because of limited access by some firms, particularly SMEs (Economic Commission for Africa, 2015). **Figure 15** shows that financial services content in traded manufacturing value added is less than 10 per cent in the rest of the countries in the sample, except for Burkina Faso (19.8 per cent), Senegal (14.4 per cent), Madagascar (34.8 per cent), Egypt (18 per cent) and Kenya (22 per cent). Notably, these challenges from poor service–manufacturing linkages affect the performance of the manufacturing firms in the region. Consequently, the odds for the development of viable value chains are dim, even under the African Continental Free Trade Area, where time and transaction costs are significantly reduced by the enlarged and liberalized market space.

On one hand, the type of services being utilized in manufacturing reflects the productive capacity of the respective economies, which to some extent is correlated with the level of income and ultimately is reflected in the level of complexity and variety of the manufactured goods (Hidalgo and Hausmann, 2009). This is well reflected in the automotive value chains



Figure 15

**Services content in manufacturing value added (forward linkages), 2014**

in Africa. Notwithstanding the common market challenges,<sup>14</sup> due to increased demand for second-hand cars from Asia, for example, the lack of manufacturing capabilities is a key factor undermining the potential of some countries to effectively participate in higher levels of this value chain. For instance, participation in the automotive value chain for countries such as Ethiopia, Ghana and Nigeria is largely restricted to importing parts for local assembly (popularly referred to as semi-knocked-down operations), as they do not have the capacity for research and development, designing, let alone manufacture of specific parts, as in Morocco and South Africa (African Continental Free Trade Area Secretariat and

<sup>14</sup> Most of these market challenges are being addressed under the African Continental Free Trade Area including through the provision of special tariff preferences (African Continental Free Trade Area Secretariat and United Nations Development Programme, 2021). Moreover, country-specific tariff and non-tariff measures are being imposed, including high import duties, depending on the vehicle life (World Economic Forum, 2021).

United Nations Development Programme, 2021; World Economic Forum, 2021). Similar trends are observed in other value chains with higher potential for advancement due to the region's comparative advantage in the requisite natural resources and increased demand for products of the value chain. Lack of capacity to transform raw materials and intermediate goods by most countries in the region has seen the concentration of fertilizer production in North Africa. Most of the requisite inputs are imported from outside Africa, that is, from the Russian Federation, the Middle East and the United States of America, despite the comparative advantage enjoyed by Africa in natural resource endowment and cheap labour (World Economic Forum, 2021). Overall, owing to limited productive capacities and other factors, international trade in most African countries is driven by raw or semi-processed primary commodities. This requires few inputs from other sectors, including complex services. Nevertheless, most services, including finance, energy, water and ICT, remain indispensable to achieve enhanced productivity in African industries and the consequent improvement of their market access, within regional and global value chains.

On the other hand, the nature of the services driving value added services content in manufacturing is key to determining the productivity and competitiveness of manufacturing firms. Precisely, Haven and Van Der Marel (2018) found that manufacturing productivity is negatively correlated with post-manufacturing services (transport and distribution), suggesting that increased value added content of these traditional services in production does not translate into better quality and diversified exports, notwithstanding their key role in facilitating viable linkages across value chains. Thus, the increased complexity of products goes beyond the mere increase in value addition to the type of the inputs driving the process. However, transport and distribution services dominate the manufacturing value added content of most African countries, accounting for more than 90 per cent in Mozambique and Ghana, about 90 per cent in Guinea, Togo, Malawi and Nigeria and about 86 per cent in Tunisia and Zambia (Figure 15a). This may suggest that most manufacturing firms in these and other countries with equally high valued added content of traditional services in manufacturing output and exports are potentially not very productive. This observation is reflected in the small variety and low sophistication of African exports. As a result, most African countries actively participate in the low end of global value chains.

Moreover, utilization of ICT, business and financial services is equally low across countries in the region, accounting for less than 20 per cent of the manufacturing value added in most countries (Figure 15). In today's globalized world, services are seen to be essential in enhancing productivity, cutting costs and improving the efficiency of manufacturing firms. While the technology innovations embedded in ICT services are central to enhancing product quality and enabling export diversification, communication services are, among

other things, relevant to dynamic feedback, which coupled with customer information, positively contribute to product differentiation and customization. Nevertheless, the utilization level of business and communication services inputs is low in most African countries, on average about 10 per cent, both in production and the exported outputs. Business and ICT services<sup>15</sup> content in manufacturing value added is about 15 per cent both in output and exports in 10 of the 26 countries included in the analysis. Mauritius represents the largest share thereof in exports (50 per cent), followed by Côte d'Ivoire (31.5 per cent), Benin (30 per cent), Kenya (29.7 per cent) and Egypt (25.6 per cent). Notably, the same 5 countries in the same order also represent the highest share of business and ICT services in output with values ranging from 24.9 per cent in Egypt to 50.1 percent in Mauritius. Other countries with values above the 15 per cent average include Botswana, Namibia, South Africa, Ethiopia and Madagascar. To this end, it is worth noting that the above list of countries with increased ICT and business services usage includes both developing and least developed countries in Africa. While partially supporting the assertion that increased content of high-intensity services such as ICT and other business services in manufacturing is associated with increased levels of development (Hollweg and Sáez, 2019), this result highlights the potential underdevelopment of ICT services in the region, which significantly undermines its productivity and trade. Except for Algeria, Mauritius, Morocco, Seychelles, South Africa, and Tunisia, ICT infrastructure remains underdeveloped in the rest of Africa (African Development Bank, 2020) with stark consequences on the cost of ICT services and utilization in the region.

### The use of knowledge-intensive services in manufacturing is low in most African countries



In summary, although services are an important feature of trade and integration in Africa, their productive utilization in manufacturing remains a quest, mainly due to limited

<sup>15</sup> This is a summation of communication and other business and ICT services (see figure 15).

productive capacities, compounded with weak service sectors. Overall, only 10<sup>16</sup> of the 54 African countries have strong backbone infrastructure in energy, ICT and transport (African Development Bank, 2020) to effectively support the flawless flow of services and merchandise within and across countries for enhanced productivity and access to markets. However, this is far from being an optimal regional stance in effectively supporting the development of workable value chains, as gaps in key services within and across countries remain evident. Moreover, access to financial services is primarily limited to large corporations and businesses, notwithstanding the increasing number of SMEs in the sector (Economic Commission for Africa, 2015; Hollweg and Sáez, 2019), further suggesting increased limitations in expanding businesses and enhancing productivity in the region. Unless these gaps are effectively addressed, complementarities between services and the manufacturing sectors will remain weak in most countries. Chapters 2 and 3 will delve more into the types of services that can drive production and exported value added in Africa, enhance the complexity and variety of the region's exports and thus facilitate viable integration into high-end global value chains.

## 1.3 Pathways for export diversification

Export diversification that benefits structural change calls for some strategic interventions and cannot rely on market-driven incentives. Successful export diversification requires both an observation of market incentives (growth opportunities) and State intervention to provide the requisite inputs to the sector and facilitate market entrance. Efforts to guide African countries on export diversification opportunities based on data will be crucial to inform evidence-based regional value chain development and regional industrialization strategies. **Figure 16** illustrates the steps to identify feasible product diversification.<sup>17</sup> This report applies the product space method to identify potential new products for 54 African countries.<sup>18</sup> The assessment considers that new products are feasible to be exported if their proximity to already exported products is at least 80 per cent.<sup>19</sup> The supply-side driven concept is adjusted in that the analysis considers demand conditions in world and regional markets. Further identifying the most feasible new products with

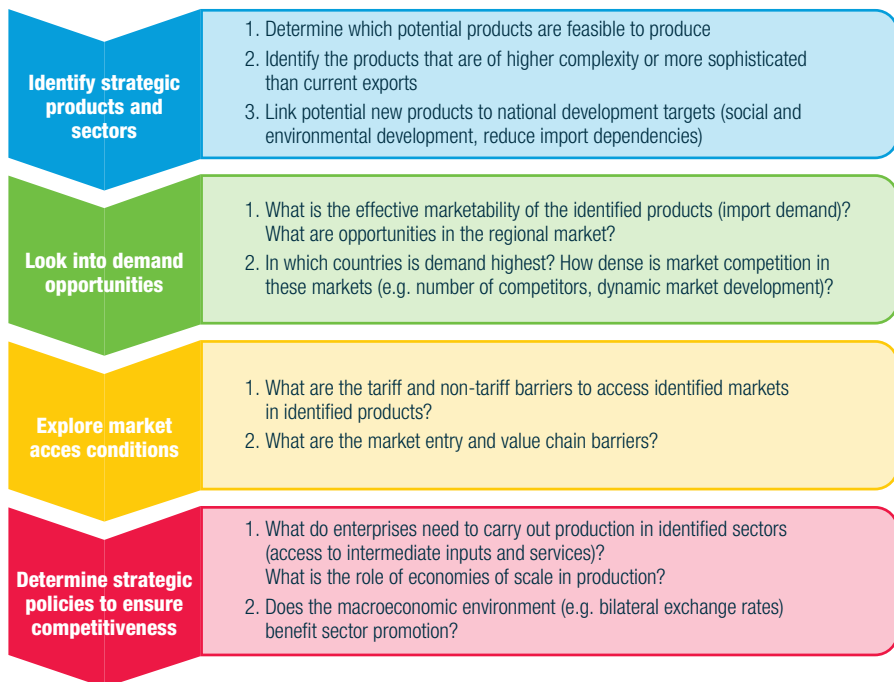
<sup>16</sup> Algeria, Botswana, Cabo Verde, Egypt, Libya, Mauritius, Morocco, Seychelles, South Africa and Tunisia.

<sup>17</sup> In recent years, the concept of the product space (Hausmann and Klinger, 2007; Hausmann et al., 2007; Hidalgo et al., 2007) has received the most attention. Another concept is the decision support model, which starts with an analysis of macroeconomic conditions of potential markets and goes on to identify product-market combinations (Decreux and Spies, 2016).

<sup>18</sup> The methodology is based on Freire (2017 and 2021a).

<sup>19</sup> Proximity between products in the product space is analytically measured by the probability that two products are found in the export basket in one country.

Figure 16

**Export diversification opportunities diagnostics**

Source: UNCTAD.

large demand and a higher-than-average product complexity will exponentially increase the opportunities for structural change.

Based on different unit values within product groups, the number of potential new products sharply increases with the number of existing products, at least up to a certain threshold. If a country is already strongly diversified, such as Egypt, Morocco or South Africa, there are usually fewer opportunities for new products. For these countries, other dimensions of diversification, such as diversification across actors and firms to reduce regional concentration of export earning to a few enterprises become relevant.<sup>20</sup> Although the share of potential new products with above-average complexity is significant for most countries

<sup>20</sup> This element of export diversification is beyond the focus of this chapter.

(greater than 50 per cent), it decreases substantially once the demand for these new products is considered. The finding suggests that product diversification based on relatively small jumps into new similar products would lead towards structural change in only 16<sup>21</sup> of the 54 assessed African countries. For most African countries, a selective approach is necessary to guide diversification towards more complex products to promote structural change. There is clearly a trade-off between diversifying into more complex products and the possibility of a successful diversification path (more distant products are also more difficult to develop) (Si Tou, 2021). If countries achieve larger jumps in the product space through targeted investments, this will lead to additional export opportunities. Although the commodities available in a country contribute to diversification through value addition and as inputs to downstream sectors, larger jumps in the product space towards industrial sectors can be necessary to promote structural change in some cases.

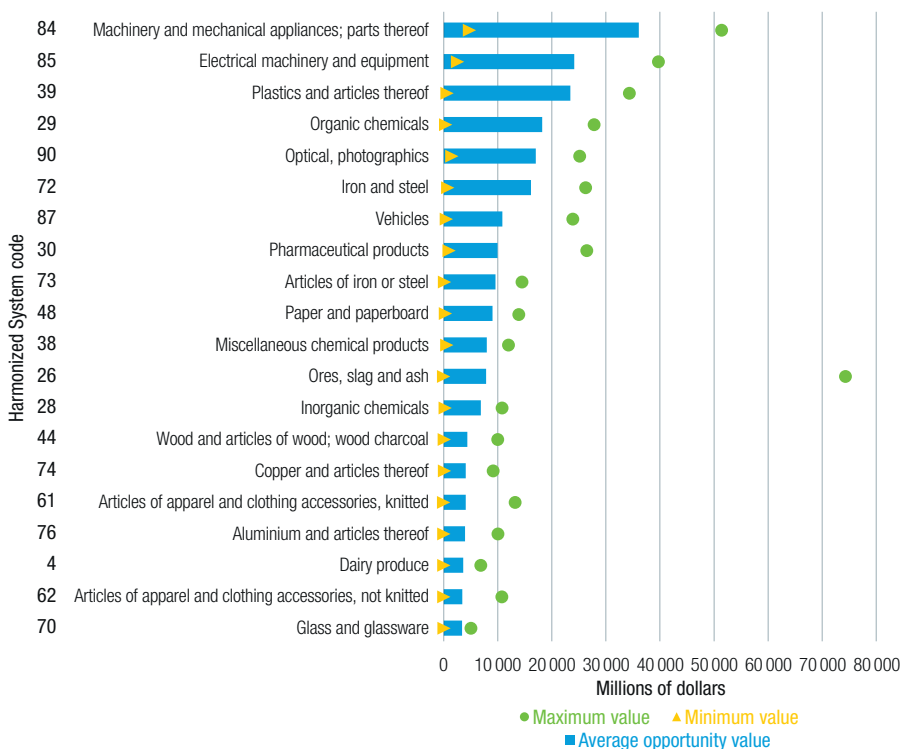
The potential sectors of product diversification vary widely across countries, based on their current productive capabilities and position in the product space. Nevertheless, there are some common sectors with vast new export opportunities across African countries. Owing to their potential for upgrading, large unit values and favourable market conditions, the sectors with the best prospects for new export opportunities in value are machinery and mechanical appliances (HS 84), electrical machinery and equipment (HS 85), plastics and articles thereof (HS 39) and organic chemicals (HS 29) (see figure 17). Though in different products and unit values, an assessment of feasible product diversification opportunities reveals that all countries have some potential for export diversification into all these sectors through relatively small jumps.<sup>22</sup> Importantly, the values reported in figure 17 refer to the global increase in imports of the products, explaining the large opportunity values of export diversification. Hence, other countries that produce those goods also compete for the same expanding market. Nevertheless, the large demand for these goods provides new export opportunities for African countries and firms. Currently, the largest demand for potential new products provided by African countries is generated by Asia, followed by Europe and America. Since the product diversification opportunities considered here are based on 2018–2019 export demand, Africa plays a minor role (2.3 per cent of all diversification opportunities). However, with regard to future diversification, economic and population growth, the opportunities for the African market are expected to increase, underpinned by the benefits of intraregional trade and the potential role of the African Continental Free Trade Area (section 1.4).

<sup>21</sup> These countries are Algeria, Benin, Cameroon, Côte d'Ivoire, Egypt, Ethiopia, Ghana, Kenya, Mauritius, Morocco, Namibia, Nigeria, Senegal, South Africa, Tunisia and the United Republic of Tanzania.

<sup>22</sup> In the ores, slag and ash sector, Benin is an outlier with a market opportunity of \$74 billion. The potential could be realized by exporting iron ore concentrate, which is in high demand in countries such as China.

Figure 17

**Product diversification export opportunities to the world, by top 20 sectors, country average, maximum and minimum values in millions of dollars**



Source: UNCTAD calculations, based on data from the United Nations Commodity Trade Statistics database and Freire (2017).

Note: The assessment of feasible product diversification export opportunities uses the product space methodology, taking into account product opportunities with above-average complexity (using a revised product complexity index) and presented by their highest demand in the world.

### 1.3.1 Agricultural-based export diversification

Given the large share of agriculture in employment in Africa, it is important to consider diversification opportunities based on the agricultural sector. New agro-industry sectors would increase the demand for agricultural produce. For example, in processed foods, 28 per cent of value added is sourced from domestic agriculture. Such new sectors

would also create incentives for expanding productivity in the agricultural sector. For agricultural-commodity-dependent countries, value addition to their commodities could be the main path for diversification, at least in the medium term (African Continental Free Trade Area Secretariat and United Nations Development Programme, 2021). Opportunities for new product diversification in agriculture and agro-based industries account for roughly 8.1 per cent of total product diversification export opportunities. The largest potential for new products, based on market conditions, is in dairy products (15 per cent), edible fruits and nuts (13 per cent), preparations of meat and fish (9 per cent) and cereals (7 per cent).

To foster diversification and structural transformation based on the agricultural sector, it is essential to add value to basic agricultural products through processing, packaging and exporting (Hausmann and Chauvin, 2015). A common means of promoting agriculture value chains are non-tariff barriers related to sanitary and phytosanitary measures and technical barriers to trade. In addition, trade policy uncertainties are also hampering efficient export diversification. For instance, owing to poor harvests in 2021, Zambia banned exports of soya and sunflower meal, which not only raised the price and made access to inputs difficult, but also made it impossible for Zambian manufactures to serve the regional supply of inputs to Kenya, Malawi, Mozambique, Namibia and South Africa (African Continental Free Trade Area Secretariat and United Nations Development Programme, 2021). According to the Zambian think tank Centre for Trade Policy and Development, the ban discourages agriculture investments and boosts informal trade, causing a loss of export duties and taxes. Further, the ban reduces domestic production and efficiency in the long run, hence potentially increasing food insecurity (Lusakatimes.com, 2021).

Based on the empirical findings discussed in chapter 1.2, access to intermediates through lower tariffs and services should be ensured to promote diversification. Services, in particular ICTs, can play an important role in the agricultural sector to deal with an eventual climate crisis and raise productivity. Some examples include the Hello Tractor and iCow platforms in East Africa, which aim to connect farmers with providers of inputs and financial services and other business services (Kaplinsky and Kraemer-Mbula, 2022). Local and regional linkages to small businesses and cooperatives provide better access to inputs (for example, seeds and fertilizer), technology and extension services (Dihel et al., 2018). For instance, distribution services add 16 per cent of value added to processed foods, highlighting the importance of services in tapping into agroprocessed value chains. The example of Viet Nam suggests a balanced mix of public and private interventions in successfully achieving diversification (Box 6).



## Box 6

**The role of small and medium-sized enterprises and services in successful agriculture-based export diversification in Viet Nam**

Viet Nam started at diversification levels similar to those of the least developed countries in Africa today and was able to expand production from agriculture to low value added manufacturing and subsequently, into high value added digital clusters. The country's success in achieving diversification can be explained by several factors. First, increases in agricultural productivity were reached by redistributing the land, removing price controls, subsidizing the irrigation system and lowering trade barriers. This allowed Viet Nam to become one of the world's largest rice exporters. Second, scaling down government monopolies and opening small service industries to individuals strongly benefited private sector development. Third, trade integration under the Association of Southeast Asian Nations, the end of the United States embargo in 1994 and openness to FDI reduced trade and transaction costs and promoted investment. A devaluation of the exchange rate also improved competitiveness of domestic enterprises. The energy sector has a priority in public investment, benefiting from official development assistance and government support to private sector financing, for example, through import duty exemptions and tax reductions. In addition, the improvement of public services, such as the use of one-stop shops, decreased transaction costs for businesses and contributed to diversification and a market-oriented economy.

Source: UNCTAD, based on Baum, 2020; Freire, 2021a; Malesky et al., 2014; United Nations Human Settlements Programme, 2015.

The regional market plays a vital role in overcoming the challenges in exploiting comparative advantage in the agricultural products sector and developing the agroprocessing industry. First, tastes and preferences tend to be more similar within continents. Second, the impact of climate change requires a regional approach to close supply and demand gaps and mitigate risks. Recent droughts, for example in Madagascar and countries in East Africa, are causing a decline in agricultural output and severe food insecurity. Productivity increases and commodity-based diversification will not be successful without effective climate change adaptation and mitigation strategies that can be implemented through international support, most importantly, financial support. Third, a harmonization of customs procedures at the continental level through the African Continental Free Trade Area is important to reduce trade costs, especially for time-sensitive agricultural products. Liberalization

of tariffs under the African Continental Free Trade Area is also expected to provide better access to intermediates and final products, and unlock trade opportunities. In 2019, the intra-African simple average of applied tariffs on raw agricultural products (HS 1–15) and processed foods (HS 15–24) remained at about 6 and 9.7 per cent, respectively. Chapter 1.4 elaborates on the opportunities for product diversification with high demand in Africa.

### **1.3.2 Mining-based export diversification**

Mining products serve as inputs in several value chains, which is why the mining and mining capital equipment industry remains an important, even strategic, sector, to promote value chain development, for example, under the Southern African Development Community Industrialization Strategy and Roadmap (UNCTAD, 2021e). Although the mining industry is capital intensive, there are several backward linkages to metal fabrication and manufacturing of parts and components. For instance, African Continental Free Trade Area Secretariat and United Nations Development Programme (2021) shed light on the lithium-ion battery value chain, which uses lithium, copper, manganese, cobalt, nickel and titanium. Mining capital equipment can also be used in engineering and can spur technological innovation. For example, in Zambia, after some mining companies suspended mining operations after the 2008–2009 global financial crisis, engineering companies moved into the construction, forestry and utilities sectors.

In line with the product space assessment conducted in this chapter and global demand, the most promising opportunity for product upgrading and diversification based on mining commodities appears to be in iron and steel (\$16 billion), articles of iron and steel (\$9.5 billion), copper and articles thereof (\$4.1 billion), and nickel and articles thereof (\$3.2 billion). Different value chain characteristics affect the opportunities for value addition and must be further explored on a country-by-country basis. Some processing activities, for instance, in aluminium smelting or steel production, depend heavily on cost-effective access to inputs such as energy. Structural barriers, such as access to electricity, must be overcome to successfully move up the value chain that is based on mining products. Distribution services, advisory and after-sale services (repair and maintenance) are important to improve companies' access to capital and knowledge (Economic Commission for Africa, 2013). There are few examples where mining commodity-dependent countries have managed to diversify their export basket. The examples of Australia and Chile are outlined in [box 7](#).

## Box 7

### **How Australia and Chile diversified through the extractives industries**

Australia. The only developed country that is dependent on mining products is Australia. The country has a Theil index of 4.7 (average 2018–2019), indicating a relatively large concentration of exports, compared with other developed countries, despite a similarly large number of export lines; primary products accounted for 63 per cent of total exports. The expansion of domestic manufacturing after the establishment of the Commonwealth of Australia in 1901 was supported by the increased use of agriculture machinery (technological change), and rural expansion, as well as the protection of the manufacturing sector, coupled with compensatory measures for farmers. Although a local steel industry had emerged and the beginnings of an automobile industry could be discerned, the take-off of manufacturing came only after the Second World War, owing to better access to technology and growing FDI. The real boost in structural change, with an increase in the share of manufacturing in exports from 9 per cent in 1983 to 19 per cent in 2004, was supported by a range of State interventions. These interventions increased efficiencies of firms by improving access to foreign finance and resulted in the floating of the Australian dollar, deregulation of the financial system, progressive elimination of protective measures, tax reform, privatization and deregulation of the transport and telecommunications sector. The increase in manufacturing was accompanied by a broad expansion of services – consulting, financial advice, accounting and legal services. Despite these improvements and the diversification of the country as a whole, diversification is lacking at the local level, owing to an historical concentration of investments to exploit resources and establish access to transport.

Chile. In the past decades, Chile has gradually reduced its dependence on copper exports. On one hand, the country has increased value added in the copper industry and exported more processed products; on the other hand, it has expanded its exports of high value added agricultural products and subsequently, industrial goods. Some of its top exports are linked to its natural resources (processed copper and converted paper) but most of its manufactured products are not (vehicle components, telecommunications products, machinery and medicaments). A structural fiscal surplus rule made it possible to save rents from mineral extraction and accumulate wealth when prices were high. The amounts of savings were then re-invested in skills upgrading and support for start-up firms, for example, venture capital provision.

*Sources:* UNCTAD, based on Jones and Tee, 2017; Lebdioui, 2019; Organisation for Economic Co-operation and Development and World Trade Organization, 2019; Salinas, 2021.

Attempts of African countries to promote commodity-based industrialization in the mining sector have not been successful. In the United Republic of Tanzania, for example, the aim to develop backward linkages from gold mining through its mineral policy (1997) and the 2010 Mineral Act lacked clear targets and strong incentives, leaving the development of such linkages to market forces. However, the competitiveness of local firms remains low due to high import costs of services and inputs to smelting and refining activities (Economic Commission for Africa, 2013; Mjimba, 2011). In addition, refining copper requires large-scale economies to be commercially viable but the volumes produced in the United Republic of Tanzania might not be sufficient (Scurfield, 2017).

Botswana, again, is an interesting case. Attempts to diversify through mining commodity beneficiation have proven successful in the short term but have failed to promote diversification and industrialization in the long term. Some of the efforts to diversify include the 2012 relocation of De Beers' diamond sorting and aggregation centre to Gaborone, which emphasizes the need to involve the leading firm in the respective value chain. Although it fostered value addition, it caused exchange rate pressure because of the increasing demand for diamonds. Export diversification is again high on the agenda in Botswana due to an expected depletion of easily accessible diamond reserves in the near future. Barczikay et al. (2020) argue that there has been a real exchange rate appreciation in some bilateral trade relations that contributed to the failure to diversify.

As metal refining presents high economies of scale, a larger regional market under the African Continental Free Trade Area is instrumental in exploiting economies of scale and selling value added mining products locally and regionally (Economic Commission for Africa, 2013). In addition, the Africa Mining Vision presents a regional initiative to promote linkage development (Economic Commission for Africa, 2013; UNCTAD, 2020a).

### **1.3.3 Promoting industrial sectors through targeted policies**

#### ***In focus: Chemicals and pharmaceutical sectors***

The potential for diversification in the chemicals sector is large, due to growing demand for pharmaceuticals, cosmetics, soap and washing preparations. However, chapter 1.1 (Figure 7) showed that product diversification is lowest in that sector.

Several constraints require active government interventions to promote the chemicals sector, especially pharmaceuticals: First, the pharmaceutical sector is characterized by high fixed production costs and requires stronger government intervention to attract investment. Owing to the importance of large-scale research and development and

technology, broader support to large firms will be necessary, as SMEs are usually at a disadvantage in the sector (Kaplinsky and Kraemer-Mbula, 2022).

Second, structural barriers to develop a competitive chemicals and pharmaceutical industry in Africa are unreliable energy, water and transport infrastructure, and fragmented distribution networks. Energy accounts for 13 per cent of value added in exports of chemical products, and distribution services, 24 per cent. Again, this highlights the importance of retail services in linking suppliers to consumers.

Third, the pandemic revealed the inadequacy of international regulation of intellectual property rights and of the Agreement on Trade-Related Aspects of Intellectual Property Rights to address a global health crisis and encourage access to pharmaceuticals. Pharmaceuticals should be central to phase 2 African Continental Free Trade Area negotiations on intellectual property rights (Economic Commission for Africa, 2021; Ncube, 2022; UNCTAD, 2021d).

Fourth, a review of tariffs on pharmaceutical and chemical ingredients is necessary to enable local firms to produce at competitive prices (Nelson Mandela School of Public Governance, 2021). For instance, the average tariff on intra-African trade in 2017–2019 is almost 12 per cent in soap and washing preparations (HS 34), and 14 per cent in oils and cosmetics (HS 33).

High tariffs on consumer goods disincentivize diversification. Although the African Continental Free Trade Area is expected to liberalize tariffs, some sensitive or excluded products from tariff liberalization could reduce access to intermediates, as well as incentives to diversify, owing to limited market access. Regional value chain development provides opportunities to increase access to main inputs. Therefore, pharmaceutical and medical products should not be included on the tariff schedule lists of sensitive or excluded items. The African Continental Free Trade Area could be used as a platform to prioritize investment for capacity development, harmonize regulatory frameworks and expand pooled procurement (Banga et al., 2020; Economic Commission for Africa, 2021).

A major hindrance to exploiting market opportunities of potential export diversification paths is that most African countries are latecomers when it comes to new products. Most of the products and product variations already exist and are exported by other more advanced countries. African countries need to adopt a selective approach to promote diversification towards more complex products such as chemicals. As emulation of existing products could be a feasible pathway for diversification in African countries, targeted policies or less stringent intellectual property right regimes at

the global level would increase the opportunities for emulation for African countries. For instance, in combination with the Industrial Property Act, 2001, Kenya built a domestic pharmaceutical manufacturing industry (Economic Commission for Africa and TradeMark East Africa, 2020). Holding 64 per cent of active export lines of tariff lines within the HS section chemical sector, Kenya is the second most diversified African country in that sector, after South Africa (89 per cent). Flexibilities under the Agreement on Trade-Related Aspects of Intellectual Property Rights of the World Trade Organization, such as voluntary licenses or waivers, can help contribute to development goals. For example, in response to the limited access to COVID-19 vaccines and low vaccination rates in developing countries, India and South Africa proposed at the World Trade Organization that intellectual property rights on COVID-19 vaccines be waived for three years, in an attempt to boost global vaccine manufacture. After more than two years into the pandemic and with several vaccines developed and manufactured by leading pharmaceutical companies, only 14 per cent of people in low-income countries have received at least one dose, compared with 78 per cent in high-income countries (Global Change Data Lab, 2022). Such flexibilities around intellectual property rights could enable Africa, which currently imports about 99 per cent of its vaccines, to manufacture and roll out COVID-19 vaccines. The continent should acquire access to the latest-generation technologies (for example, messenger ribonucleic acid and immunotherapy) with the potential to help address some of its long-standing health challenges (UNCTAD, 2020c; World Health Organization, 2022).

For countries that have reached a certain level of diversification, a two-way approach through the emulation of existing products and the promotion of innovative new-to-the-world products should be targeted. To foster innovation, spending in research and development is key. Some products might be specific to the African market and may not find specific inputs or demand outside the continent. A continental approach to encouraging investments in development can cut costs and foster spillovers. Based on the latest assessment of the Agenda 2063 targets, however, the share of research and development expenditures recorded at 0.45 per cent of GDP fell short against the 1 per cent target (African Union Commission and African Union Development Agency–New Partnership for Africa’s Development, 2022)

### **1.3.4 Promoting regional value chains through diversification**

The dominance of lead firms in global value chains and the difficulty of many African countries to upgrade within global value chains have strengthened the emphasis on South–South integration to generate economies of scale, create employment and

foster diversification (UNCTAD, 2021e). Regional trade and regional value chains seem to be easier or more accessible for more small exporting firms than extraregional trade. Although intraregional exports only contributed 14.4 per cent to total exports in 2019, the number of exporters exporting to Africa is larger than those exporting to outside the continent, with a more equal distribution of export earnings across exporters (UNCTAD, 2021d). There are already some encouraging examples of regional value chains, such as the clothing value chain in Southern Africa and the expansion of the textile industry of Mauritius to operations in Madagascar (UNCTAD, 2021e). Further opportunities can be grasped by increasing the volume of currently exported products (intensive margin of diversification) and the complementarities of regional trade through product diversification (extensive margin of diversification).

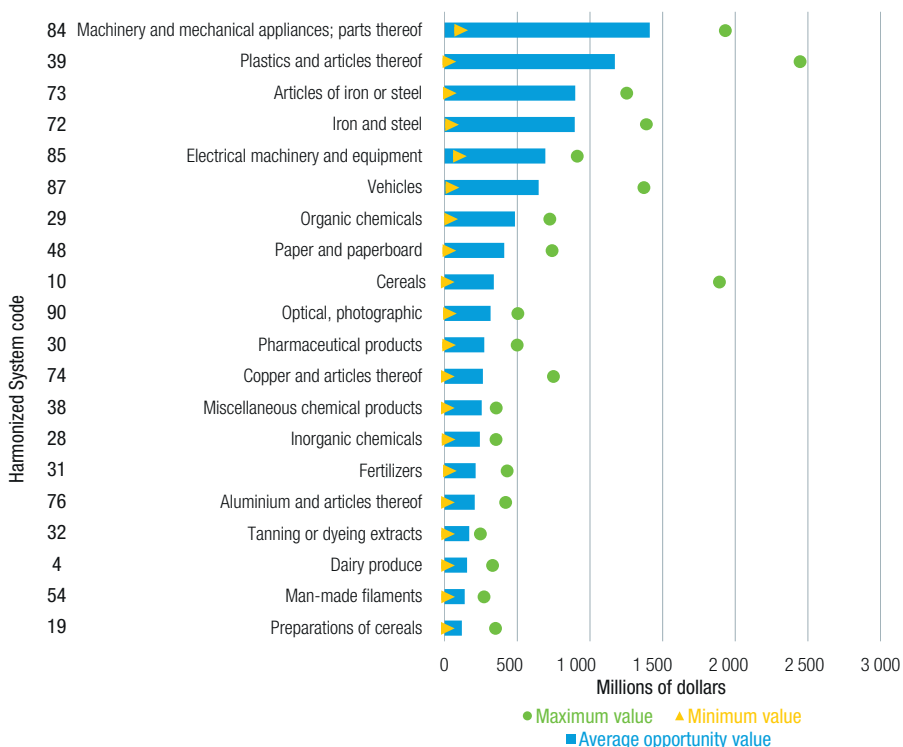
The sectors with vast export diversification opportunities and those in highest demand are illustrated in [figure 18](#). While machinery and mechanical appliances is still the leading sector, plastics and articles thereof seems to be the second highest in demand, followed by articles of iron and steel. Many iron and steel products are essential for construction projects such as railways. Importantly, all countries have some potential for product diversification into light manufacturing (machinery and mechanical appliances; electrical machinery) and processed base metal products (articles of iron and steel). As identified in UNCTAD (2021d), articles of electrical machinery, iron and steel, and plastics are main inputs to the vehicles and other manufacturing sectors, pointing to the potential of possible diversification paths for building regional value chains.

With regard to agroprocessing regional value chains, UNCTAD (2021d) identified the preparation of cereals and sugar and sugar confectionery as sectors with high export opportunities, owing to the rising demand for processed food. Similarly, African Continental Free Trade Area Secretariat and United Nations Development Programme (2021), as well as UNCTAD (2021e) find that there is scope for regional value chain development in soya and sugar confectionery based on sugar and cocoa endowments. For the example of the East African Community, Si Tou (2021) confirms the potential of leveraging the regional market to promote product diversification that is conducive to structural change. A large share of products covers types of fibres, indicating potential for developing a regional textile industry, as well as agroprocessing products and chemical products (especially soaps and essential oils with higher complexity).

Similarly, the product diversification potential of organic (HS 29) and inorganic chemicals (HS 28) can promote the formation of a regional pharmaceutical value chain (African Continental Free Trade Area Secretariat and United Nations Development

**Figure 18**

**Product diversification export opportunities to Africa by sector, average value in millions of dollars, top 20 sectors**



Source: UNCTAD calculations, based on data from the United Nations Commodity Trade Statistics database.

Note: The average value of product diversification export opportunities at the country-two-digit level is the sum of the export values at the HS six-digit unit value level.

Programme, 2021). The diversification of input providers is important to avoid over-reliance on a few suppliers. Tariff liberalization through the African Continental Free Trade Area agreement benefits access to various ingredients to produce vaccines; however, some inputs such as sodium chloride are expected to be excluded from tariff offers. The machines and equipment to manufacture vaccines will also benefit from tariff liberalization, and many of these inputs are also used in the production of other vaccines.



To unlock these opportunities and leverage the regional market for diversification, it is essential to identify and address current frictions to bilateral trade, such as difficulties to comply with regulatory requirements, the lack of market information and business contacts or the misalignment of price or quality with demand. The provision of market intelligence can increase supply and demand linkages and unleash untapped trade opportunities in Africa. For instance, the Asian Development Bank initiated supply-chain mapping to identify sources of vaccines and other critical goods. The mapping tool has helped businesses explore new market opportunities and diversify supply (Asian Development Bank, 2021).

## 1.4 Leveraging the role of the African Continental Free Trade Area for export diversification

The role of the regional market and regional integration in furthering export diversification was highlighted throughout this chapter. This section delves deeper into the role of the African Continental Free Trade Area in moving African economies away from commodity dependence.

The empirical findings discussed in section 1.2 of this chapter show that shorter distances between markets, common borders and common language are key drivers of geographical diversification. In addition, smaller countries face structural challenges to diversify due to small domestic markets but regional integration through the African Continental Free Trade Area will provide a larger market and can spur export diversification. UNCTAD (2021d) calculated the untapped export potential of regional trade at \$21.9 billion, based on products that a country already exports.

The African Continental Free Trade Area is expected to promote export diversification by increasing access to markets; providing a framework for coordinated and harmonized policies in investment, competition and intellectual property rights; facilitating more efficient logistics through investment in customs and transport infrastructure; fostering the economic empowerment of women and youth; and supporting coordinated regional production.

### ***Access to intermediate inputs, services and output markets***

Countries agreed to remove tariffs on 90 per cent of goods, gradually liberalize trade in services and eliminate other non-tariff barriers (African Continental Free Trade

Area Secretariat, 2022). In 2019, the simple average intra-African tariff rate stood at 5.25 per cent; the highest tariffs were in textiles and apparel and processed food, and the lowest, in mineral products. There remains considerable room for tariff liberalization, especially between African countries that are not members of the same regional economic community. Additional trade opportunities of \$9.2 billion could be unlocked through tariff liberalization (UNCTAD, 2021d). The implementation of the online mechanism for reporting non-tariff barriers, various subcommittees on non-tariff barriers and non-tariff measures, as well as an effective dispute settlement mechanism, hold promise for the reduction of non-tariff barriers.

### ***Coordinated and harmonized policies in investment, competition and intellectual property rights***

If investments are channelled towards sectors with diversification potential, away from commodity dependence, they can be an important driver of export diversification. The investment protocol of the African Continental Free Trade Area will cover all aspects of international investment policymaking, namely, investment facilitation, promotion and protection. Further, it is expected to include innovative provisions on investor obligations and the right of host countries in Africa to regulate in the public interest. While investors will still be guided by market opportunities, the level of integration and the business environment of host countries (Trade Law Centre, 2021), the joint investment protocol, which is expected to facilitate intracontinental cross-border investment, will address overlapping and sometimes contradictory regulatory investment frameworks within regional economic communities. There must be legally binding investment commitments, including environmental protection, consumer protection, labour protection and financial reporting standards (Trade Law Centre, 2021). These provisions are especially relevant in the mining and fuel sectors, which may be subject to adverse environmental and social impacts without adequate compensation.

Considering the discussed barriers to market entry and survival, a joint approach to competition policy is necessary to protect consumers and SMEs across borders from the anticompetitive behaviour of large firms, while maintaining efficiency and the supply of affordable products.

The African Continental Free Trade Area provides an opportunity to utilize the flexibilities of the Agreement on Trade-Related Aspects of Intellectual Property Rights on a continental scale. The free trade area could also be used to strengthen the ability of Africa as a bloc to ensure that such flexibilities are fully used to enable local production and access to essential medicines (South Centre, 2021).

In addition, the protocol on intellectual property rights of the African Continental Free Trade Area overcomes divergent and overlapping regional intellectual property rights regulation, and the two African intellectual property organizations, namely the African Intellectual Property Organization and the African Regional Industrial Property Organization, can be leveraged to implement a strong continental regime (Trade Law Centre, 2019).

### ***Market information, customs and transport infrastructure***

Greater economic cooperation under the African Continental Free Trade Area can be leveraged to address infrastructure bottlenecks through the joint provision of cross-border infrastructure under the Action Plan for Boosting Intra-African Trade. Moreover, the five operational instruments under the African Continental Free Trade Area, namely with regard to the elimination of non-tariff barriers, the online tariff negotiating forum, the harmonization of the rules of origin, the Pan-African Payment and Settlement System and the African Trade Observatory, are expected to unlock trade opportunities across countries.

### ***Economic empowerment of women and youth***

Gender equality has a positive impact on export diversification (Belasen and Angiello, 2018; Nguyen, 2021). The African Continental Free Trade Area and its protocol on women and youth has the potential to increase the trade shares of women, youth and locally owned enterprises by reducing the costs to trade across borders. UNCTAD (2021d) stated that women entrepreneurs and women-owned businesses are largely underrepresented and are likely to miss out on opportunities under the African Continental Free Trade Area without strengthening their economic position. Programmes and policies that target women and youth must ensure access to finance and financial products, inputs, technology and know-how, and stamp out gender discrimination and violence (UNCTAD, 2021d; United Nations Entity for Gender Equality and the Empowerment of Women, 2021).

### ***Coordinated regional production***

Trade policies and industrial policies are closely interlinked. Therefore, regional cooperation in industrial policies is necessary to reap equal benefits from the African Continental Free Trade Area. It is vital to ensure that industrial policies do not promote the same products for different countries in a regional integration system. Otherwise, as noted by Odijie (2019), neighbouring countries will end up with exclusion lists against each other in the same products, undermining national industrial policies. The author gives the example of West Africa, where Nigeria had selected cement as a sensitive

product because of industrial policies on cement. This prompted regional neighbours Benin, Burkina Faso, Côte d'Ivoire, Ghana, Sierra Leone and Togo to also apply industrial policies in cement production.

The Action Plan for the Accelerated Industrial Development of Africa, as well as regional industrialization strategies, could serve as building blocks to a coordinated continental industrialization strategy. For instance, the East African Community Industrialization Strategy was adopted in 2011, focusing on the following subsectors: agroprocessing, agro-chemicals, mineral processing, pharmaceuticals, petrochemicals and biofuels. Similarly, the Industrialization Strategy and Roadmap (2015–2063) of the Southern African Development Community prioritized six sectors: agroprocessing, mineral beneficiation, pharmaceuticals, consumer goods, capital goods and services (UNCTAD, 2021e). The Economic Community of West African States launched the West African Common Industrial Policy in 2010 (Economic Commission for Africa, 2015). The example of the Association of Southeast Asian Nations and its industrial cooperation scheme (Box 8) explains how resource pooling and knowledge sharing can help build regional value chains and achieve diversification, for example, in the electronics and automotive industries, while also pointing out challenges, such as a lack of broad industrialization and SME development.

To support the implementation of a regional industrial policy, national efforts to promote certain sectors should be harmonized and complement each other. What is more feasible and can be promoted through the African Continental Free Trade Area is a negotiated division of labour that assigns productive rights to develop certain products and exports for the regional market. As a starting point, an industrial development forum could provide a platform for collaboration in finding solutions to industrial development challenges in Africa.

### Box 8

#### **Experience of the Industrialization Strategy of Association of Southeast Asian Nations**

Regionally coordinated industrial policies can boost regional value chain development and diversification. The 1997 Asian financial crisis led to a stronger focus on regional production networks to attract investment and reduce exposure to external shocks. The Association's first industrial development project (1976) which sought to encourage firms to form joint ventures, was

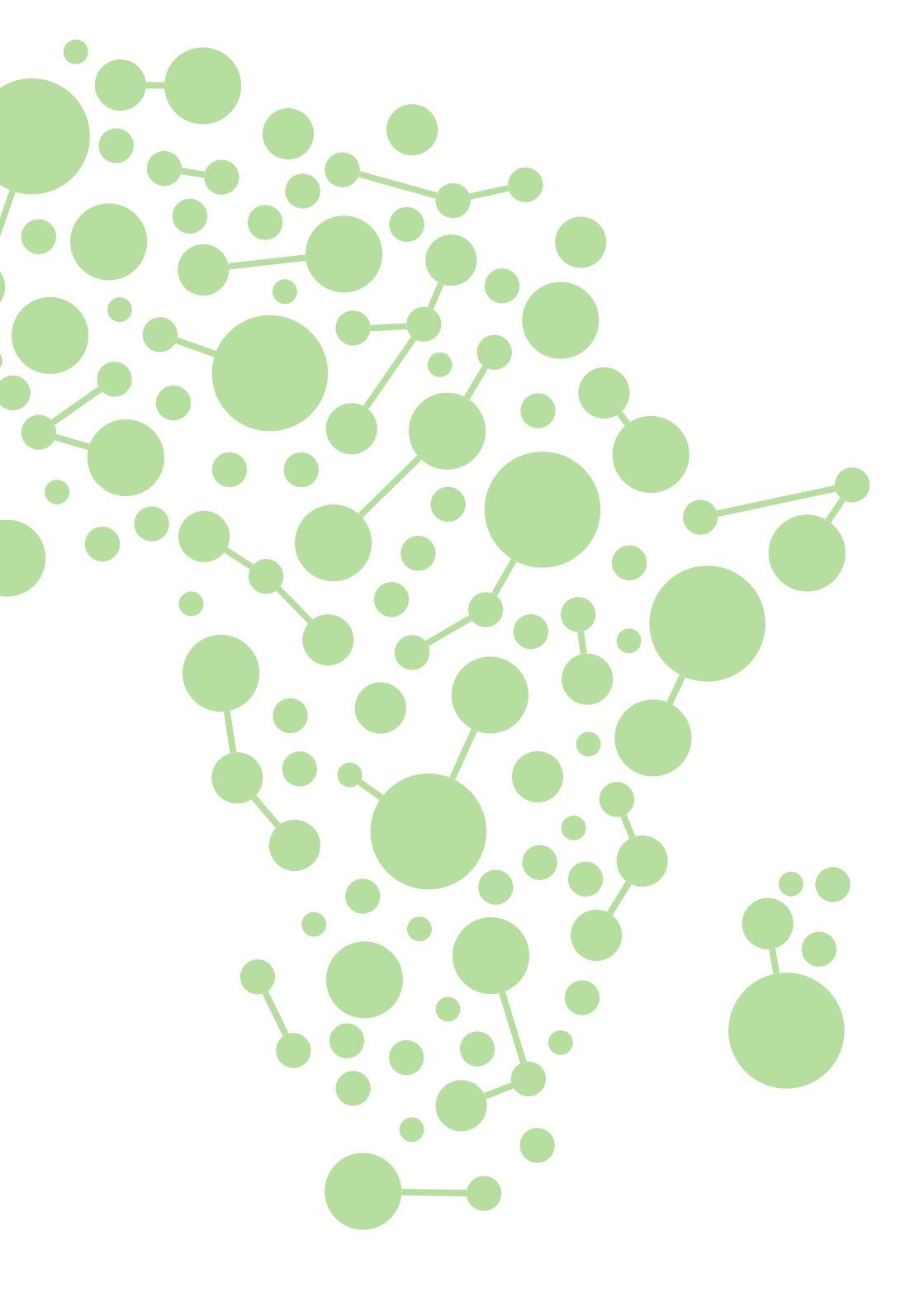
limited in its success because of political differences between members and institutional constraints to implementation at the national level. In 1981, the Industrial Complementation Arrangement of the Association, later known as the Brand-to-Brand Complementation Scheme, involved the division of different production stages of vertically integrated industries among member countries. Although this scheme was somewhat successful in the automotive industry, it did not succeed in deepening regional value chain development and industrialization on a broad scale. The authors argue that the lack of some kind of reward system, such as export subsidies, can explain the limited success of the industrial policy schemes for local SMEs to achieve upgrading and diversification.

*Sources:* UNCTAD, based on Djafar and Milberg, 2020; Shimizu, 1998.

## 1.5 Conclusion

While diversification mainly took place at the extensive margin by the addition of new products, there has been an increased concentration of export volumes in few sectors. The empirical evidence on determinants of geographical diversification shows that structural factors such as long distances to countries with large economies, high tariffs on intermediate inputs and a low share of services in the economy are key constraints to diversification. Value chain and market entry barriers, especially into higher value added activities, are another limitation but could be reduced through the active provision of market intelligence and business services. Further, an assessment of the services sector's backward and forward linkages reveals the extent to which services are facilitating complexity and diversity of African exports through intermediate inputs.

Many of the less diversified countries would not be able to rely on market conditions for driving the decision of entrepreneurs towards more productive activities. Governments need to strategically create targeted incentives to push entrepreneurs in import-replacement economic activities towards potential new products with above average complexity. This chapter identified some feasible product diversification potential that can guide policymakers and development partners in identifying industrialization strategies and productive capacity needs. While this chapter has provided a static analysis, there is a need for a dynamic assessment of changing regional production structures, a topic for future research.





## Chapter 2

# Trade in services: A niche for export diversification in Africa

African exports remain concentrated in a narrow range of commodities, with, however, some level of export diversification in a few African countries during the past decade. The role of services in enhancing the diversity and quality of manufactured goods and in facilitating this process at the regional level becomes clearer when the linkages of services as inputs in the production and export of manufactured goods and commodities are considered. This chapter examines the level of services development and trade in Africa to assess its impact on diversification. The latter is premised on the assumption that the higher the development of the services sector as reflected by diversity and quality of the traded services, the better the access to competitive key services inputs by domestic firms (Hoekman and Shingal, 2020).

Although the role of services in trade and development is well established for most regions, little research has been done to underscore its importance in contributing to trade and development of Africa. Services play a critical role in global and regional value chains and international trade. They represent the main source of value added in total trade, as they contribute to the physical and digital connectivity of all sectors within and across economies (Roy, 2017). Moreover, many services are major inputs to production across economic sectors and represent key value chains in most economies globally (Deardorff, 1999; Hoekman and Shingal, 2020; Hollweg and Sáez, 2019; UNCTAD, 2017c). The development of trade in services enhances inclusive growth by reducing poverty and inequality and fosters the achievement of Agenda 2063 and the Sustainable Development Goals. Services promote the efficient allocation of resources and greater economies of scale, increase consumer welfare and decrease youth unemployment, creating welfare gains for society (World Trade Organization, 2019). Moreover, development of the services sector will be important to diminish the vulnerability of developing economies through inclusive productivity growth, since it encourages intellectual property-based innovation, technology transfer and know-how.

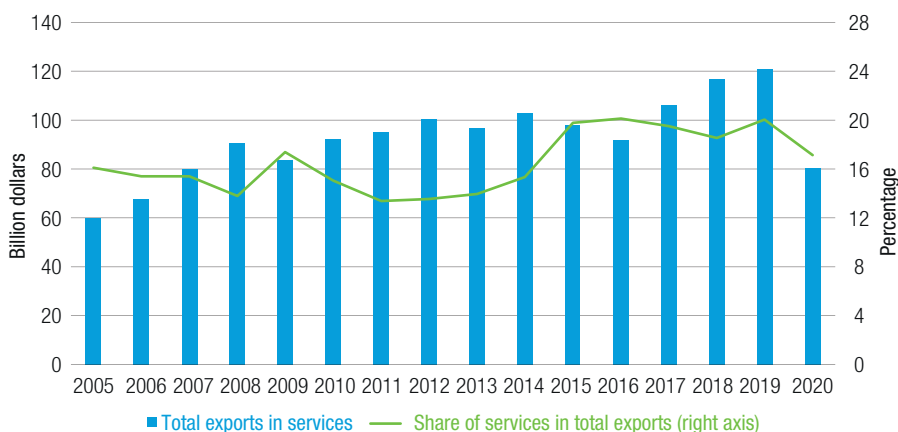
## 2.1 African services and exports

There is limited literature on the diversification of trade in services in Africa. Keller (2019) finds that trade in services has suffered from disruption. Based on data from 2018, the author states that the continent accounts for only 2 per cent of global services exports and African services exports are largely dominated by travel (42 per cent). In comparison, high-income countries rely mostly on high-knowledge intensive services, such as financial, business, insurance or intellectual property services. According to Hoekman (2017), however, there are already substantial levels of trade in services in Africa, where such trade is dynamic and regionally focused but there is a need for diversification in the sector. Contributing to this research strand, this section provides an in-depth analysis of static and dynamic exports diversification in services in African countries.

Africa doubled its services exports from 2005 to 2019, reaching \$124 billion in 2019, and accounting for 17 per cent of total exports on average during the same period (Figure 19). The sharp drop in services exports in 2020 (to \$82.7 billion) was primarily due to the restrictive measures put in place to contain the spread of COVID-19 pandemic, which affected all sectors of the economy, mainly transport and travel. While the share of services in total exports has followed a similar upward trend between 2005 and 2019, increasing by 4.1 percentage points, there are troughs worth noting in 2008, 2010–2011



Figure 19

**Services exports in Africa, 2005–2020**

Source: UNCTAD calculations, based on data from the UNCTADstat database.

and 2016–2018, which can be partly explained by the impact of the 2008–2009 global financial crisis and the 2014–2016 energy crisis, which resulted in commodity price shocks and contributed to declines in global trade. At the disaggregated level, there are some disparities in the share of services in total exports across African countries. Only eight countries export more services than goods: Cabo Verde, the Central African Republic, Comoros, Ethiopia, Gambia, Mauritius, Sao Tome and Principe, and Seychelles.

African services exports are concentrated in two traditional services sectors – travel and transport – representing more than two thirds of total trade in services (Figure 20).<sup>23</sup> In this report, services sectors are clustered into 12 categories, grouped as traditional,

**Exports in services  
are concentrated in  
traditional services**



<sup>23</sup> Based on the two-digit level of the 2010 Extended Balance of Payments Services Classification.

high knowledge intensive and non-market sectors. Traditional services include transport, travel, and maintenance and repair services. High knowledge-intensive services are defined as services activities and operations that are heavily reliant on professional and high skill knowledge. They include manufacturing and repair services; construction; insurance and pension services; financial services; telecommunications, computers and information services; personal, cultural and recreational services; charges for use of intellectual property; and other business services. Government goods and services are non-market services and include public administration services, community services and health and education services. In Ethiopia, where services account for 59 per cent of total exports, transport and travel services are the leading segment. Transport services are dominated by the national air transport company, Ethiopian Airlines, which contributed to 5.7 per cent of GDP in 2020 and provides direct and indirect employment to about 1.1 million persons (International Air Transport Association, 2020). In Cabo Verde, where the share of services in total exports (90 per cent) is the highest in Africa, trade in services contributed to 55.6 per cent of GDP in 2019 (see <https://databank.worldbank.org/reports.aspx?source=world-development-indicators> (accessed 1 May 2022)). These services consist of travel (including tourism and related services), which represented more than 55 per cent of total exports in services from 2015 to 2019.

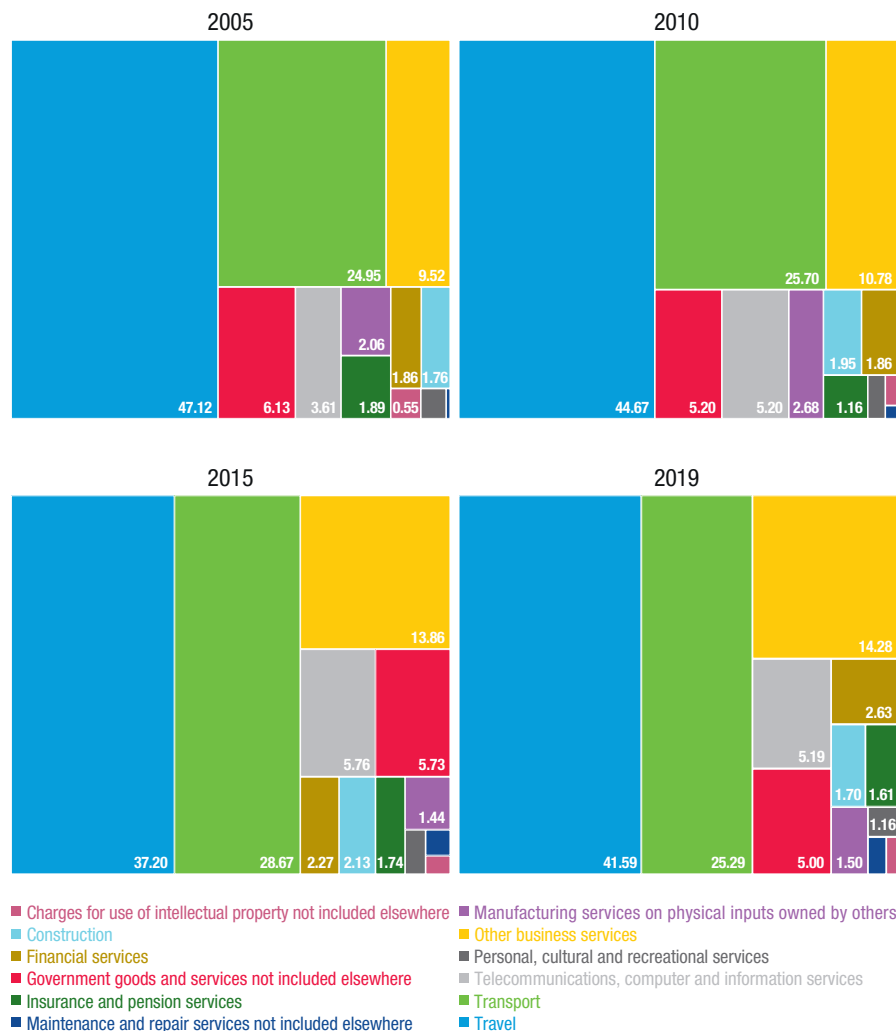
UNCTAD (2021b) found that African services exports within the region and with the rest of the world are largely made up of traditional services (about 70 per cent). High knowledge-intensive services, which include eight of the 12 services categories, represent only 20 per cent of total services exports in Africa. According to Dihel and Goswami (2016), traditional services dominate trade in services in Africa because of the fragmentation of trade in professional, education and health services stemming from restrictive policies. These include nationality requirements, regulatory heterogeneity for licensing, qualification and educational qualification requirements, and the high cost of travel and visas. Sáez et al. (2015) show that trade barriers, regulatory requirements and immigration policies limiting the movement of persons across national borders discourage trade in professional services.

African countries with a small share of services in total exports are mostly fuel or mining commodity-dependent countries. For example, in the Democratic Republic of the Congo and Libya, the share of total services exports is less than 1 per cent. In Algeria, Angola, Chad, the Congo, Côte d'Ivoire, Equatorial Guinea, Eswatini, Gabon, Guinea, Lesotho, Liberia, Mauritania, Namibia, Nigeria and Zimbabwe, exports in services account for less than one tenth of total exports. Among those countries, Eswatini and Lesotho are non-commodity dependent, while Cote d'Ivoire is an agricultural commodity-dependent

Figure 20

## Share of services sectors in total services exports, 2005–2019

(Percentage)



Source: UNCTAD calculations, based on data from the Balanced Trade in Services database of the Organisation for Economic Co-operation and Development and the World Trade Organization.

country. Estimates show that in more than half of all African countries, the share of services in total exports is less than 15 per cent. To provide a better understanding of the small share of services in overall trade or the high concentration of low knowledge-intensive services sectors in services exports, this section will focus on the diversification of services exports.

## **Assessing the diversification of services exports in Africa**

Given the modest share of services in overall trade or the high concentration of low knowledge-intensive services sectors in the services exports of Africa that may be acting as barriers to the effective utilization of services as inputs to manufacturing or agriculture sectors, this section will be devoted to the dynamics of services sectors and their potential role for export diversification in Africa. The literature has used several indicators to measure such diversification. These indicators include the share of the top three services sectors in total exports in services, the Theil index, the Herfindahl–Hirschman index, the Gini index, the export market diversification index and the diversification index of Hausmann and Hidalgo (2011). In this report, the shares of the top three services sector and the Theil index are used to measure the diversification of services exports in African countries. Such diversification can be assessed by using two methods. The first is a static assessment, which determines whether the exports in services in a country are diversified or concentrated, based on the most recent year for which disaggregated data of trade in services are available. The second is a dynamic assessment, which considers the evolution of the distribution of services categories in trade in services and establishes whether a country is moving towards diversification or disruption.

### ***Static assessment***

In the static assessment approach, trade in services is considered diversified when the share of the top three services sectors is less than 70 per cent, and concentrated when greater than 90 per cent. [Table 3](#) provides the static and dynamic assessments of diversification in African countries from 2005 to 2019. In five countries (Burkina Faso, Kenya, Malawi, Senegal and Sierra Leone), the top three services sectors represent less than 70 per cent of total exports in services. As mentioned previously, exports in services remain dominated by travel and transport in most African countries, except in a few countries such as Malawi, where the primary services sector is telecommunications, representing one fourth of total exports in services. [Figure 21](#), illustrating the share of the services sectors in total exports in services, shows that at least six services are significantly represented in the distribution thereof in these countries.

Table 3

## Static and dynamic diversification status of African countries, 2005–2019

Diversification status as per dynamic assessment	Trend in variation (share of high knowledge-intensive services)	Countries	Diversification status as per static assessment, 2019	Variation in Theil Index	Variation in top three services sectors	Variation in exports in high knowledge-intensive services	Variation in share of high knowledge-intensive services
				(percentage)			
Diversified (Theil index decreased by more than 20 per cent)	Increasing	Sierra Leone	Diversified	-62.2	-33.5	> 200	37.4
		Burkina Faso	Diversified	-61.6	-35.3	> 200	29.9
		Malawi	Diversified	-51.0	-30.4	> 200	47.9
		Kenya	Diversified	-47.2	-31.4	> 200	27.7
		Nigeria	Top three services sectors <sup>a</sup>	-45.2	-19.8	> 200	19.3
		Namibia	Top three services sectors <sup>a</sup>	-44.1	-8.9	> 200	20.9
		Guinea	Top three services sectors <sup>a</sup>	-36.7	-20.8	> 200	65.3
		Rwanda	Top three services sectors <sup>a</sup>	-22.8	-10.2	> 200	7.1
		Uganda	Top three services sectors <sup>a</sup>	-21.8	-9.1	> 200	0.2
		Eswatini	Top three services sectors <sup>a</sup>	-44.9	-15.0	-62.4	13.0
		Morocco	Top three services sectors <sup>a</sup>	-17.9	-2.1	130.6	3.1
		South Africa	Top three services sectors <sup>a</sup>	-15.2	-4.8	90.2	9.0
		Cameroon	Top three services sectors <sup>a</sup>	-15.0	5.2	> 200	11.1
		Tunisia	Top three services sectors <sup>a</sup>	-12.2	-4.1	61.8	5.8
		Botswana	Top three services sectors <sup>a</sup>	-9.6	-2.3	45.8	7.7
		Weakly diversified (Theil index decreased by less than 20 per cent)	Increasing	Niger	Top three services sectors <sup>a</sup>	-8.0	-1.9
Togo	Top three services sectors <sup>a</sup>			-6.5	5.8	> 200	9.2
Zimbabwe	Top three services sectors <sup>a</sup>			-6.4	-4.9	100.9	4.5
Burundi	Concentrated			-12.5	-4.5	> 200	7.5
Equatorial Guinea	Concentrated			-9.9	-6.0	> 200	30.0
Djibouti	Concentrated			-9.0	-0.4	> 200	4.7
Zambia	Concentrated			-4.0	-2.2	> 200	10.6
Benin	Concentrated			-0.7	6.9	155.5	4.6
Eritrea	Top three services sectors <sup>a</sup>			-1.4	-1.8	> 200	0.0
Chad	Top three services sectors <sup>a</sup>			0.0	0.0 <sup>b</sup>	> 200	0.0
Decreasing		Senegal	Diversified	-7.2	2.0	77.1	-1.9
		Guinea-Bissau	Top three services sectors <sup>a</sup>	-13.2	-5.7	> 200	-5.9
		Congo	Top three services sectors <sup>a</sup>	-3.2	-5.4	-94.0	-51.3
		Sudan	Concentrated	-9.4	3.6	> 200	-0.7

**Table 3****Static and dynamic diversification status of African countries, 2005–2019 (cont.)**

Diversification status as per dynamic assessment	Trend in variation (share of high knowledge-intensive services)	Countries	Diversification status as per static assessment, 2019	Variation in Theil index	Variation in top three services sectors	Variation in exports in high knowledge-intensive services (percentage)	Variation in share of high knowledge-intensive services
Disrupted (Theil index increased)	Increasing	Mauritius	Top three services sectors <sup>a</sup>	0.1	-4.8	121.5	4.6
		Algeria	Top three services sectors <sup>a</sup>	11.0	-1.1	55.5	11.7
		Lesotho	Concentrated	0.2	4.4	26.4	5.5
		Seychelles	Concentrated	2.4	4.4	> 200	26.2
		Ghana	Concentrated	10.1	2.3	> 200	72.3
	No variation	Mali	Concentrated	14.1	13.1	> 200	12.8
		Liberia	Concentrated	18.1	1.3	177.1	79.7
		Libya	Concentrated	20.3	11.0	16.0	51.5
		Gabon	Concentrated	57.6	30.8	182.7	0.0
		Central African Republic	Concentrated	0.0 <sup>c</sup>	0.0	> 200	0.0
Decreasing	No variation	Mauritania	Top three services sectors <sup>a</sup>	3.7	4.4	78.4	-13.8
		Egypt	Top three services sectors <sup>a</sup>	11.8	-0.6	-4.7	-8.6
		Côte d'Ivoire	Top three services sectors <sup>a</sup>	72.0	33.1	-45.0	-29.7
		Sao Tome and Principe	Concentrated	1.9	5.2	80.3	-11.7
		Gambia	Concentrated	6.4	-0.8	60.2	-4.2
	Decreasing	United Republic of Tanzania	Concentrated	13.2	8.8	96.3	-5.3
		Comoros	Concentrated	15.5	4.2	104.3	-4.0
		Madagascar	Concentrated	15.9	10.3	99.2	-7.0
		Cabo Verde	Concentrated	25.9	4.5	61.0	-4.4
		Ethiopia	Concentrated	59.2	10.8	86.6	-9.2
		Democratic Republic of the Congo	Concentrated	1.3	11.8	-89.5	-25.2
		Angola	Concentrated	62.8	9.7	-39.5	-32.2
		Mozambique	Concentrated	71.6	16.9	-25.2	-20.4

Source: UNCTAD calculations, based on data from the Balanced Trade in Services database of the Organisation for Economic Co-operation and Development and the World Trade Organization.

Notes: Owing to insufficient data, Somalia and South Sudan are not represented. The assessment does not go beyond 2019, as it is the most recent year for which disaggregated data of trade in services are available for all African countries.

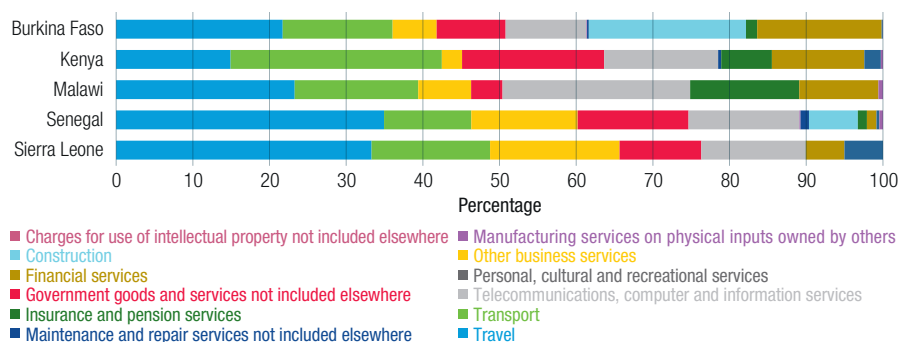
<sup>a</sup> 70–90 per cent of total exports in services.

<sup>b</sup> -0.0000122098872452625.

<sup>c</sup> 0.0000110425162347383.

**Figure 21****Share of services sectors in total exports in services in diversified services-export countries, 2019**

(Percentage)



Source: UNCTAD, based on data from the Balanced Trade in Services database of the Organisation for Economic Co-operation and Development and the World Trade Organization.

Note: Top three services sectors share less than 70 per cent of total exports in services.

In 24 African countries, only three sectors represent more than 90 per cent of total services exports in 2019.<sup>24</sup> In Gabon and Ghana, for instance, research and development, professional and management consulting, and technical and trade-related services<sup>25</sup> dominate services exports, representing 81 per cent of Ghanaian services exports and 58 per cent of Gabonese services exports. Similarly, in Liberia and Libya, exports in services are concentrated in high knowledge-intensive services, such as insurance and pension services. In Burundi and the Central African Republic, government services, which are non-merchant services, accounted for 77 and 80 per cent of services exports in 2019, respectively. Figure 22, which indicates the share of the services sector in total services exports for those countries whose top three services sectors is greater than 95 per cent, shows how a few sectors dominate African trade in services.

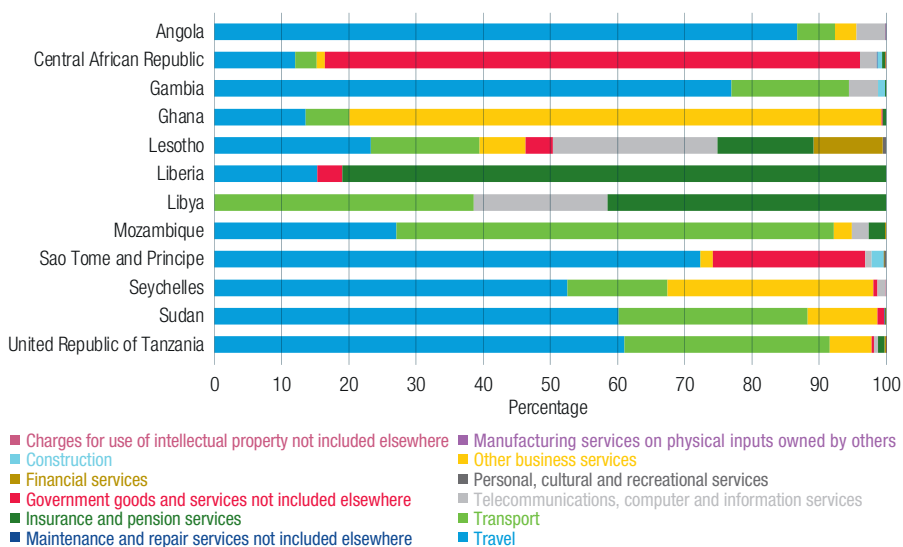
On average, services accounted for only 17 per cent of total exports in Africa between 2005 and 2019. In 2005–2019, the top three services sectors represented

<sup>24</sup> These countries are Angola, Benin, Burundi, Cabo Verde, the Central African Republic, Comoros, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Ethiopia, Gabon, the Gambia, Ghana, Lesotho, Liberia, Libya, Madagascar, Mali, Mozambique, Sao Tome and Principe, Seychelles, the Sudan, the United Republic of Tanzania and Zambia.

<sup>25</sup> This group of services sectors is labelled “other business services” at the two-digit level of the 2010 Extended Balance of Payments Services Classification.

**Figure 22****Countries with top three services sectors accounting for more than 95 per cent of exports in services, 2019**

(Percentage)



Source: UNCTAD, based on data from the Balanced Trade in Services database of the Organisation for Economic Co-operation and Development and the World Trade Organization.

less than 70 per cent of total exports in services in five countries, namely Burkina Faso, Kenya, Malawi, Senegal and Sierra Leone. See [box 9](#) for an insight into the case of Sierra Leone.

In Angola, Gambia, Lesotho, Sao Tome and Principe, Seychelles, the Sudan and the United Republic of Tanzania, transport alone represented more than 50 per cent of total exports in services. In Ghana and Liberia, high knowledge-intensive services dominate the services sector, accounting for about 80 per cent of their total services exports. These consist of other business services, in particular research and development, professional and management consulting, and technical and trade-related services (Ghana); and insurance and pension services (Liberia). Other countries whose exports in services are concentrated in high knowledge-intensive services sector are Chad (telecommunications, computer and information services), Eswatini (construction), Gabon (other business



services – research and development, professional and management consulting, and technical and trade-related services), Guinea (manufacturing services) and Libya (insurance and pension services).

## Box 9

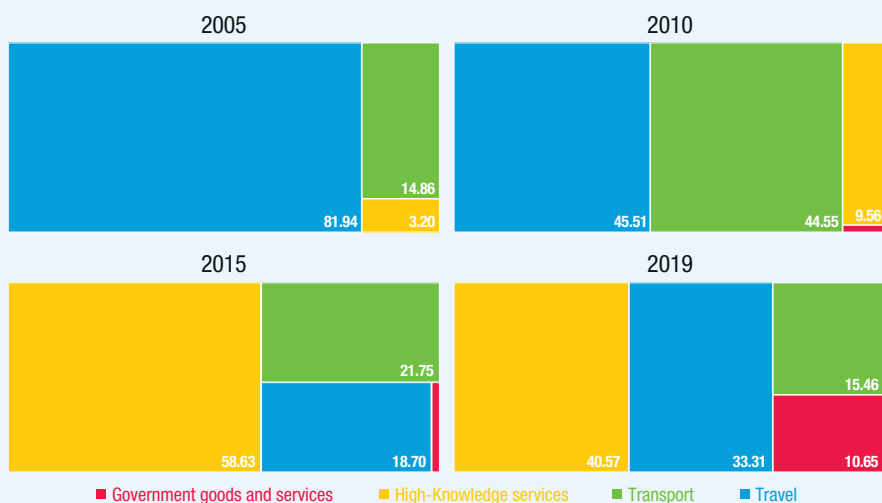
### Diversification of trade in services in Sierra Leone

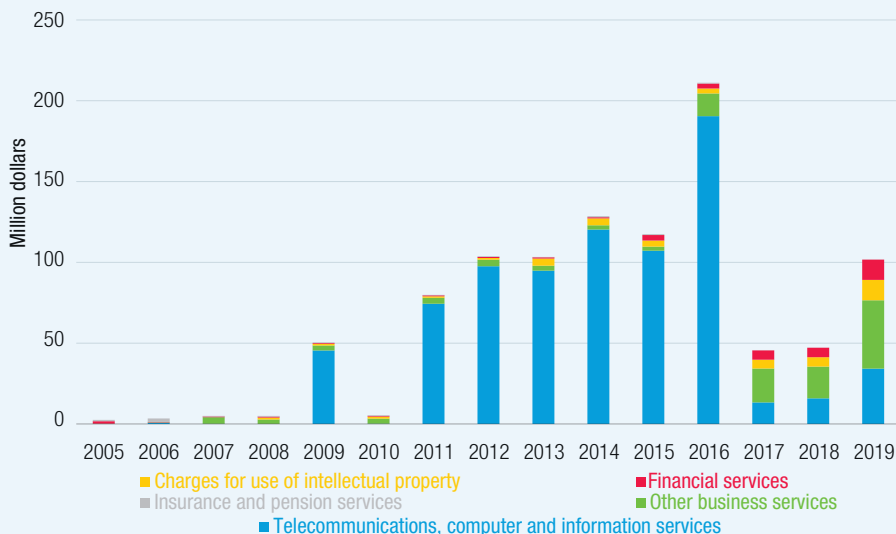
Both static and dynamic assessments show that Sierra Leone is among the few African countries where exports in services are diversified. Yet, its exports in services were highly concentrated in the traditional services sectors (travel and transport), representing 97 per cent of total trade in services in 2005. In 2019, these traditional services sectors accounted for 49 per cent of total trade in services. Further, the country made considerable progress in increasing its exports of high knowledge-intensive services, from 3.2 per cent of total exports in services in 2005 to 40 per cent in 2019 (Box figure 1). Box figure 2 shows that exports of high knowledge-intensive services in Sierra Leone were concentrated in telecommunications, computer and information services between 2011 and 2016.

Figure 1

### Sierra Leone: Composition of exports in services, 2005–2019

(Percentage)



**Figure 2****Sierra Leone: Exports of high knowledge-intensive services, 2005–2019**

Source: UNCTAD, based on data from the Balanced Trade in Services data set of the Organisation for Economic Co-operation and Development and the World Trade Organization.

Sierra Leone experienced a civil conflict from 1991 to 2002, during which its main infrastructures were destroyed. In particular, high knowledge-intensive services, especially telecommunications, computers and information, suffered massive damages and deterioration after the conflict and lacked funding to carry out substantial investments in repairs, maintenance and new developments. However, in 2009, the country implemented a national Information and communications technology (ICT) policy that drew from three main sources: its poverty reduction strategy paper, Vision 2025 and the Millennium Development Goals. The policy was also in line with the ICT policy of the Economic Community of West African States. In addition, the Government carried out two major fibre-optic cable projects: the Sierra Leone Cable Company, as a consortium member of the Africa Coast to Europe submarine fibre optic project, and a national terrestrial fibre optic cable network, which incorporates the Wide Area Network of the Economic Community of West African States.

The aforementioned national ICT policy and various other ICT projects, which were underpinned by private sector inclusion in infrastructure investment and operations, led to successful exports

from the telecommunications, computer and information sector during the five years of its implementation (2011–2016). Sierra Leone boasted the largest share of ICT services in total services exports worldwide, ahead of Ireland and Kuwait (2016) and ranked third in supplying digitally deliverable services as a share of all services exports, just behind Ireland and Luxembourg. The telecommunications sector, operated as a monopoly by the state-owned Sierra Leone Telecommunications Company, became one of the most liberalized sectors in the country's economy.

Unfortunately, the country was unable to keep pace with the sustained export momentum of the telecommunications, computer and information sector after the implementation period of the national ICT policy in 2017. Consequently, telecommunications, computer and information sector exports fell from \$190.5 million in 2016 to \$13.3 million in 2017, leading to a significant drop in exports of high knowledge-intensive services from \$211.2 million in 2016 to \$45.5 million in 2017 (Box figure 2). However, Sierra Leone has in recent years moved towards exporting research and development, professional and management consulting, and technical and trade-related services. Further, the country has experienced a sharp increase in exports of financial services and charges for the use of intellectual property since 2016 (Box figure 2). Telecommunications, computer and information sector exports started to take off in 2019. In sum, the country achieved diversification in its exports in services in 2019. In November 2019, Sierra Leone joined the ICT tax systems technical committee of the African Tax Administration Forum, a joint project of the African Tax Administration Forum and the African Development Bank, aiming to develop a guidebook and model framework for efficient ICT systems in Africa.

Sources: Government of Sierra Leone, 2009; Sierra Leone Investment and Export Promotion Agency, 2017; Sierra Leone National Revenue Authority, 2020; UNCTAD, 2019c.

### ***Dynamic assessment***

The status of African countries' dynamic diversification, as presented in table 3, is based on the variation of the Theil index from 2005 to 2019. The services exports of a specific country are categorized as diversified if the variation in the Theil index is negative and higher than 20 per cent; weakly diversified if the variation is negative and lower than 20 per cent; and disrupted if the variation is positive. The table also provides the variation in the share of high knowledge-intensive services in total services exports. Based on the dynamic assessment, the following African countries are considered diversified: Burkina Faso, Eswatini, Guinea, Kenya, Malawi, Namibia, Nigeria, Rwanda, Sierra Leone and Uganda. In these countries, exports in services are diversifying, while the share of high knowledge-intensive services in exports in services has increased. Except for Eswatini, exports of high knowledge-intensive services have more than tripled in these countries.

Nineteen countries experienced weak diversification in services exports during the period. Among these countries, the share of high knowledge-intensive services exports decreased in the Congo, Guinea-Bissau, Senegal and the Sudan. The report also finds that 23 countries experienced a disruption in services exports, and according to the Theil index, exports in services in these countries were less diversified in 2019 than in 2005. Services exports in most of these countries revolved around two or three services sectors in 2019. Although exports in services were disrupted in Algeria, Ghana, Lesotho, Liberia, Libya, Mali, Mauritius and Seychelles, on the whole, the share and values of high knowledge-intensive services in exports in services grew from 2005 to 2019. Exports of these services tripled in the Central African Republic and Gabon but their share in services exports did not vary during the same period. However, the share of high knowledge-intensive services in exports decreased in Angola, Cabo Verde, Comoros, the Democratic Republic of the Congo, Côte d'Ivoire, Egypt, Ethiopia, the Gambia, Madagascar, Mauritania, Mozambique, Sao Tome and Principe, and the United Republic of Tanzania.

With regard to services exports diversification, the results would be insignificantly different if the variation in the share of the top three services sectors were used instead of the variation in the Theil index, resulting in a change of diversification status for nine countries.

Among the 19 countries with weak diversification of export services based on the Theil index, five countries (Benin, Cameroon, Senegal, the Sudan and Togo) experienced increased concentration of exports in services (using the top three services sectors). Further, among the 23 countries that experienced a disruption in export services (based on the Theil index), the top three sectors assessment found that exports in services became less concentrated in Algeria, Egypt, the Gambia and Mauritius in 2019, compared with 2015.

Among the five countries where the static assessment shows diversification in services exports in 2019 (Burkina Faso, Kenya, Malawi, Senegal and Sierra Leone), the only country that did not experience a considerable increase in the diversification of services exports between 2005 and 2019 was Senegal. Also, while Benin, Burundi, Djibouti, Equatorial Guinea and Zambia experienced weak diversification of export services, the static assessment shows that their exports in 2019 remained concentrated in two or three services sectors. Angola, the Democratic Republic of the Congo, Côte d'Ivoire, Egypt, Eswatini, Mozambique and the Republic of the Congo are the only African countries in which the values of exports in high knowledge-intensive services decreased.

In 2005–2019, dynamic assessments determined that the share of high knowledge-intensive services in exports increased in 31 African countries, including

the 10 diversified ones, namely Burkina Faso, Eswatini, Guinea, Kenya, Malawi, Namibia, Nigeria, Rwanda, Sierra Leone and Uganda (Table 4). However, few countries have a relatively significant share of financial services in their total services exports. In Burkina Faso, Kenya and Malawi, financial services in 2019 accounted for 16 per cent, 12 per cent and 10 per cent of total exports in services, respectively.

## 2.2 The lead role of the private sector in leveraging services-driven diversification

Services do not only represent a final consumption and subsequent services value chains; they also serve as key inputs in the production of many goods and are an extensive component of regional and global value chains. For instance, goods such as the iPod or iPhone have more to do with services activities (conception, design, retail and distribution, research and development, software development, engineering, marketing, transport and packaging) and little to do with merchandise components (Drake-Brockman and Stephenson, 2012).

The private sector is the cornerstone of most economies on the continent. SMEs in particular have an increasing potential in facilitating trade in services and hence, the development of value chains in Africa. They represent about 90 per cent of enterprises in the region and employ about 60 per cent of the workforce (International Trade Centre, 2018). Further, SMEs react more rapidly to commercial opportunities than larger enterprises because of more complex decision-making processes and lengthy planning cycle constraints of the latter (UNCTAD, 2011). In addition, SMEs specializing in knowledge-intensive services are more inclined to engage in innovative business models, such as the international business-to-business model or the business-to-consumers model than their manufacturing counterparts (Drake-Brockman, 2018).

Against this backdrop, this section highlights the potential of SMEs in different areas of trade in services by assessing various business models suitable for Africa and identifying key barriers that could limit the contribution of SMEs to trade in services. Heuser and Mattoo (2017) state that a fair mix of services enhances the exploitation of economies of scale, allowing companies to leverage new business opportunities, customize their production and branding and achieve better performance across the board. This is explored in this section by focusing on the role of SMEs in high value added and growth services sectors, such as tourism and travel, as well as ICT services.

## 2.2.1 Tourism services

The tourism sector deserves particular attention in the discussion on trade in services because it is one of the most internationalized sectors in the world, linking and integrating several economic sectors. Encompassing travel, accommodation, hospitality and leisure, tourism represents the most comprehensive value chain in the services sector and attracts many SMEs. The sector consists of many integrated large public and private firms and contributes significantly to employment and GDP in developing countries, including in Africa. For instance, Africa in 2012 attracted more than 33.8 million international visitors and generated at least \$36 billion in tourism receipts, with a contribution of at least 7.3 per cent to the regional GDP (Dihel and Goswami, 2016).

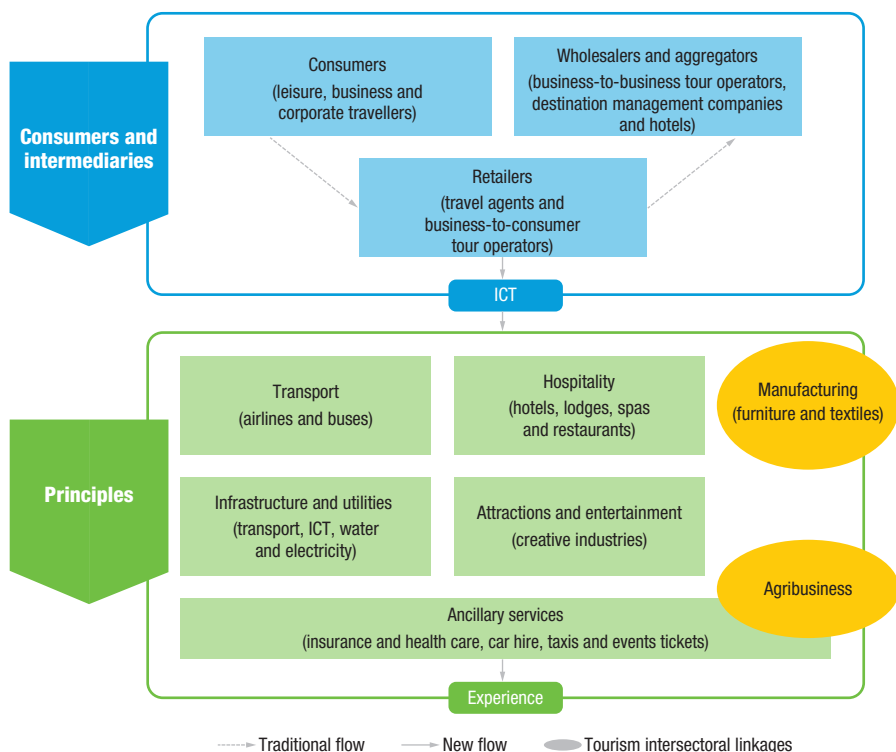
Notwithstanding the presence of many individual businesses and SMEs in areas such as restaurants, accommodation and transport, their full potential to contribute to the transformation and growth of the sector has yet to be exploited. Given the dynamism of the sector, SMEs in Africa generally face keen competition from larger public and private enterprises with many years of experience and working capital. This is mostly a consequence of SMEs' fragmented and uncoordinated operations, which magnifies their small size in terms of capacity to offer comprehensive and high-quality tourism products, regardless of their ability to readily adapt to changing market conditions, compared with large firms. These limitations are further compounded by globalization. While globalization makes it possible to offer competitive options to tourism consumers, it creates pressure on large and small firms in the sector to remain relevant by pushing them to be more innovative in terms of product quality and orientation. This comes with higher embedded costs of the requisite technology, for instance, which undermines the relevance of SMEs in the sector. Such increased operational costs can ultimately drive some SMEs out of the market and deter new ones from entering it. As such, a thorough understanding of the tourism value chain and its linkages with other economic sectors offers a good starting point for SMEs, as they need to have relevant information on the realities of the complexities of the interactions at different levels of the supply chain and even more, a better understanding of domestic and global market and players.

**Figure 23** provides an example of the tourism value chain and highlights several opportunities for SMEs in the tourism sector, both as intermediaries (particularly retailers) and as services providers in hospitality and ancillary services, notwithstanding stiffer competition from large enterprises in the principles segment of the value chain. For instance, most of the small businesses in hospitality and ancillary services (for example, taxis) are set up with working capital only, as fixed-asset needs are not excessive.

Non-financial barriers to entry for such businesses are also modest, despite stiff quality controls in most countries. However, many SMEs venture into these businesses, with little, if any, expertise and without an understanding of the market. Owing to a highly competitive market, successful business ventures remain a distant dream for most SMEs. The figure also illustrates the complexities of globalization. Whereas traditional consumers access tourism packages through intermediaries (retailers and aggregators), the growing influence of ICT networks has increased their direct interactions with services providers at relatively low cost, suggesting significant challenges for intermediaries, particularly in regions such as Africa, where the intermediaries' segment of the value chain is poorly developed (Christian and Nathan, 2013).

Figure 23

## Tourism value chain



Source: UNCTAD, adapted from the Organisation for Economic Co-operation and Development, 2008.

As highlighted previously, the high demand for overhead capital that comes with globalization has excluded most innovative SMEs, which work primarily as independent entities. Moreover, the very nature of the final product, which encompasses several aspects of the principles segment, dims the odds of growth and/or survival for most SMEs working in isolation in the current multifaceted African tourism sector. In this regard, the literature suggests that viable value-based networks or clusters at different stages of the value chain enhance the odds of survival and growth of SMEs, since they foster innovation, knowledge sharing and competitiveness among the network partners (Morais and Ferreira 2020; Ndou and Passiante, 2005; Omerzel and Kregar, 2016; Organisation for Economic Co-operation and Development, 2008; Zach and Hill, 2017). However, this requires that SMEs identify key actors and gaps at every stage of the value chain, focusing on areas in which they have comparative advantage in expertise and capital.

Different options are open to SMEs, including partnerships within a specific network. Depending on the business scope, SMEs can join well-established global, regional and national networks, have access to relevant information on different destinations and players and be listed on well-established platforms. The key advantage of such a network is increased global visibility of the business concerned without having to make additional investments in technology and marketing. This also allows them access to the pool of information on the global market and players, which heightens the possibility of viable partnerships and integration into the global value chains. Alternatively, SMEs can opt to establish value-based networks within their tourism destinations.

Whatever the case, SMEs have the option of partnering with large companies and other SMEs, either vertically or horizontally on the value chain, with each partner specializing in specific components of the tourism package based on comparative advantage. Vertically, SMEs can partner with firms within the network at different stages of the value chain. The easier method is for them to provide business support to large enterprises in Africa that are already operating in the sector. For example, SMEs operating as tour guides can partner with big hospitality brands (multinational enterprises) so that they can provide a complete package of travel, accommodation and attractions, with each partner ensuring good quality of the relevant components. In this case, hotels that offer tours to their guests could buy the service from or subcontract it to an SME. Either way, the SME is given access to a market that would not ordinarily be feasible.

In addition, SMEs can also opt to integrate horizontally within the network where partnerships can be leveraged with firms at the same stage of the value chain. In this regard, they could, for instance, partner with global (business-to-business) tour



operators and cover the business-to-consumer component of the package, whereby they would serve as national tour operators or local tour operators (contracted suppliers of modules). Their focus would remain on the business-to-consumer component, which might include purchasing services from individual providers and assembling them into desired tourism products. On the whole, in such partnerships, a good knowledge of the domestic market and players, as well as creativity and flexibility in meeting customer needs, give local SMEs a competitive advantage over bigger international tour operators within their countries or regions, notwithstanding the financial capabilities and experience in the sector of the latter. This business model is key to enhancing the technical capacity of SMEs for growth, owing to the knowledge and skills transfer involved in the process. Moreover, SMEs have an opportunity to venture into different markets without having to up their investments. By maintaining their brand regardless of the mode of integration, SMEs are offered an opportunity for growth through enhanced competition and economies of scale. Sun International of South Africa is a classic example of the engagement of SMEs at different stages of the tourism value chain within Africa (International Labour Organization, 2017). While giving access to markets, the Sun International model has helped the SMEs concerned improve their products and enhance their competitiveness. It is worth noting that this arrangement is motivated by the South African government's legislation, which provides incentives to multinational enterprises for procurement from local SMEs (International Labour Organization, 2017).

Lastly, within the network, another option for SMEs is to work independently, while having access to relevant information that effectively guides their business options and enhancing their competitiveness at different stages of the value chain. This might include some level of horizontal and vertical integration, such as buying services from other providers at different stages of the value chain to enhance the quality of their service. This is the case of inbound tour operators which combine services from different providers into one package and sell it directly to their customers. However, this might require more working capital to invest in technology and other packages they would not ordinarily invest in if they partnered with big firms. Depending on the nature and value of the network and the partnerships formed, SMEs have access to valuable information and markets without the need for complex technological investments, suggesting increased potential for growth through enhanced efficiency gains and economies of scale. However, the success of such networks and clusters is contingent on a high level of professionalism, industry knowledge, cohesion and continued innovation (Organisation for Economic Co-operation and Development, 2008), which might not be feasible for most SMEs in Africa, particularly those that are largely subsistence driven,

with limited levels of education and working capital. Moreover, survival within these networks is highly dependent on strong ICT systems, which remains a challenge for most African countries (African Development Bank, 2021). Closing these gaps will be key to leveraging the potential role of SMEs in developing the intermediary sector of the value chain, which remains the weakest component of the tourism value chain in Africa (Christian and Nathan, 2013).

### ***Intersectoral linkages in tourism***

Tourism is one of the most robust value chains in the services sector, offering golden opportunities for SMEs. It also has viable backward and forward linkages with key economic and market sectors, including agribusinesses and manufacturing, which suggests that the sector has the potential to contribute to the region's export diversification. Further, tourism is one of the biggest consumers of agricultural products, both in their raw and processed forms. To some extent, tourism is also a good outlet for some manufacturing firms, particularly textiles and furniture, which are highlighted by anecdotal evidence as having seen increased participation of SMEs in Africa. Hotels and restaurants are the most relevant segments for effective tourism–agriculture and light manufacturing linkages, as expenditures on food and beverages are estimated to account for about one third of tourist expenditures at destination (UNCTAD, 2015). However, overdependence on imported supplies weakens these linkages (UNCTAD, 2014). While such overdependence could signify that preferences are driven by the quality of local products, it could to a large extent also be a function of coordination for such value chains. Leveraging technology that can ensure a consistent flow of information between farmers, agro-industries and the relevant tourism segments – thereby reducing supply chain inefficiencies that come with the informal route of operationalizing these linkages – could be a chain breaker with vast opportunities for SMEs (see Twiga Foods model in chapter 3).

The reliability of local supply could be another important factor influencing the tourism sector's preference for imported inputs. Several factors of production such as the seasonality of agriculture in Africa and its low technological intake, along with factors influencing market access, have an impact on the quality and reliability of the supply of agriproducts from the local market. Welteji and Zerihun (2018) show that the non-commercial (subsistence) orientation of the agricultural sector undermines tourism–agriculture linkages in the Bale Mountains of Ethiopia. In most African countries, subsistence agriculture is often characterized by increased seasonality, as it is largely rain fed, which is not consistent with tourism demand patterns. Strengthening these gaps through government-targeted programmes is important to reinforce the supply

base in terms of quality and consistent yearly flow of output. On the other hand, the role of SMEs in innovatively linking the two components of supply and demand is vital. As mentioned previously, technology-based platforms will be key to ensuring efficiency in the supply chain through better transparency and reduced information asymmetries. While indirectly contributing to the productivity of agribusiness in this regard, SMEs can further enhance the relevance of their role in the sector by being among the suppliers of different components in the value chain.

**Business and communication services**  
are an important driver of export  
diversification, growth and structural  
transformation in Africa



## 2.2.2 Information and communications technology

One of the key services sectors that is central to the growth and development of all economic sectors, including the services sector, is ICT. On one hand, through its embedded technology component, ICT directly affects the quality (complexity) of products and facilitates product differentiation and customization, with positive impacts on the variety of firms' outputs. On the other hand, its embedded digital platforms and applications are increasingly having a positive impact on information asymmetries and greater market access for both large and small firms. Jointly, these effects translate into improved efficiency at different stages of the value chains – and most importantly – reduced costs and enhanced productivity and competitiveness of firms across sectors. Within the services sector, ICT plays an important role in developing and linking various components of the respective value chains, boosting competitiveness through improved quality and diversity of products and easing access to relevant market information. Moreover, ICT is necessary to facilitate valuable networks to enable mentoring, skills development and information sharing, which are key to the growth and development of the services sector (Manyika and Roxburgh, 2011).

In general, ICT remains a potential driver of fundamental structural transformation in Africa, growing at an average of 40 per cent between 2015 and 2020 (International Trade Centre, 2020). Notably, this unprecedented growth is largely driven by the

telecommunications sector, which has witnessed a surge in mobile penetration across countries. However, inefficiencies in broadband penetration remain apparent at 17.4 per cent, below the 39 per cent average of the developing countries and less than 25 per cent of that of the developed countries (87 per cent) (World Trade Organization, 2016). As such, only 10 per cent of the African population have access to the Internet (International Trade Centre, 2020), suggesting fundamental limitations in the utilization of associated ICT services in improving the quality and diversity of products by most African firms, notwithstanding ICT sector growth.

As a high technology-intensive sector requiring massive amounts of start-up capital, ICT in Africa is mainly driven by a handful of multinational enterprises and large public enterprises, notwithstanding a large pool of SMEs that are active in the sector (International Trade Centre, 2020). The participation of SMEs in the sector and their contribution thereto are to a great extent undermined by constraints arising from infrastructure and institutional shortfalls that mostly account for their high capital and operational costs. Further, an unconducive policy and regulatory environment has fostered monopolistic behaviours in the sector, with significant negative implications for the productive contribution of SMEs. However, if their competitiveness and growth are not encouraged, empirical research alludes to dim prospects of sustained growth in the long term (Ewing et al., 2011). Compared with large public and multinational enterprises, SMEs in the sector are perceived to be more adaptive to market forces and highly innovative in terms of their products (Matt et al., 2016). These key features are essential to the sector's sustainability and its enhanced potential in effectively supporting the participation of Africa in the high-end value chains through the improved quality and diversity of manufacturing products. Accordingly, this section assesses the potential of SMEs in effectively contributing to the pivotal role of ICT in the trade and integration of Africa. The focus will be on existing market potential, particularly as it pertains to ICT outsourcing. This will be done within the context of business models currently being utilized in the ICT sector globally, while assessing their adaptability for African SMEs.

### ***Outsourcing information and communications technology***

The growing importance of trade in value added in regional and global trade has heightened the impetus for ICT outsourcing, as there is a need for firms to improve the quality and diversity of their products with potentially no requisite in-house expertise to run and maintain this complex, rapidly changing technology. There is an increased demand for ICT services worldwide, in particular in developing countries, where the demand for complex technology to support socioeconomic development

is even higher. Driven by the need to cut costs, while enhancing their productivity in meeting this growing demand in a complex global setting, ICT outsourcing is becoming increasingly an important component of ICT management for most firms in the sector, particularly large ones. Through outsourcing, firms can focus on their core competencies, while having good access to skills lacking in-house and to expertise at lower cost (Lacity et al., 2009). As a result, most firms – including those dealing with automotive and consumer products, ICT, manufacturing, banking and finance – outsource at least 30 per cent of their ICT operations. Although China and India have for years been major ICT outsourcing markets for the developed countries, Africa is considered to be a potential new market. This rationale is based on several factors, such as improved infrastructure and rising demand for the latest technology to enhance industrial productivity and competitiveness in a swiftly changing globalized world (Nduwimfura and Zheng, 2015a). While some countries – Egypt, Ethiopia, Kenya, Nigeria, Rwanda and South Africa, for example – are already leveraging this market (Ewing et al., 2011; Johnston et al., 2009; Nduwimfura and Zheng, 2016), there is an untapped outsourcing market with increased potential for the engagement of productive SMEs in these and other countries in the region. Nevertheless, leveraging this market opportunity is contingent on a strong ICT skills base, the availability of relevant ICT infrastructure and an effective regulatory environment that will promote fair participation for both large firms and SMEs. For instance, heightened investments in ICT support infrastructure and a network of innovation hubs and technology parks in countries such as Kenya, Nigeria and Rwanda (Ncube and Ondiege, 2013; Nduwimfura and Zheng, 2015b), have improved broadband penetration and ICT skills, hence enhancing their readiness to productively exploit the ICT outsourcing market.

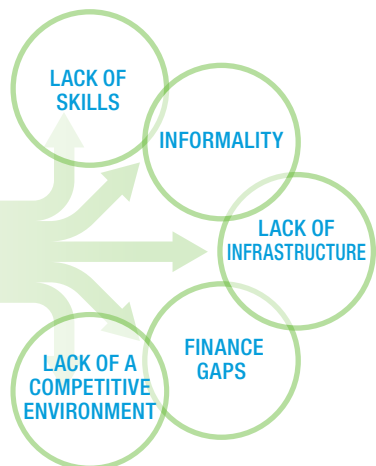
Depending on the costs involved, different models can be leveraged to raise the participation of SMEs in this potential new market. At the micro level, SMEs can be engaged directly engaged by foreign and domestic outsourcing firms or through networks that connect micro-SMEs and freelancers to potential clients. With regard to the network of micro-SMEs, a good example is found in Tunga, an African–Dutch information technology company model that recognizes the key role of SMEs in ICT, nurtures and develops talent and productively utilizes it for growth, while at the same time equipping SMEs with the relevant skills and potential networks for further growth. In this regard, the company is competitively offering information technology services to companies in Europe and the Americas through outsourcing and remote development by partnering with African talent networks (innovation hubs) (Tunga, 2021a; Tunga, 2021b). The company has established innovation hubs in partnering countries such as Nigeria

and Uganda to harness and develop a pool of talented Africans in the areas of their interest (Tunga, 2021b). Through its academy, Tunga offers free electronic training in software development to its talent networks in Africa. Upscaling such outsourcing opportunities could be easily achieved through networks for sharing essential market information.

While SMEs in Africa stand to gain further opportunities in this burgeoning new market, one of the key market drivers is access at lower cost to ICT technical expertise that is not available in-house, suggesting the increased need of SMEs to keep pace with global trends in ICT if they are to effectively leverage this market. This could be a potential limiting factor for effective exploitation of the market for most of these enterprises, particularly if the training institutions in the region do not maintain their programmes up to date. While countries such as South Africa are advanced, and some countries such as Ethiopia are moving in the right direction, gaps are evident in most African countries, as reflected by the limited availability of qualified, skilled people in the region relative to global technology trends (Nduwimfura and Zheng, 2015a), hence, the need of outsourcing models with skills development components such as those of the above-mentioned model. Therefore, it is imperative that a holistic approach be adopted at the macro level for the region to effectively exploit this new growing market. This approach should encompass viable investments in relevant support infrastructure, skills development guided by ICT development global trends and a policy environment that accommodates SME growth.

## Small and medium-sized enterprises in Africa

face multiple challenges to growth and diversification



## 2.3 Expanding services and businesses: Barriers to look for

There are numerous factors affecting the use of services by African firms and the integration of SMEs in the sector. While undermining the sector's growth and development, these barriers further limit progression in other economic sectors, as services play a key role in determining their productivity and competitiveness. In other words, by restricting the flow in services trade, these barriers curb the possibilities of African integration into high-end global value systems, as products have remained concentrated in a few unsophisticated product lines.

Since economic sectors are interrelated, a restriction in one sector hinders the smooth running of many other sectors and reduces the possibility of growth. In addition, barriers to trade in services limit foreign investment. They can imbalance supply and demand in a country, resulting in a deficit of goods and services and an increase in prices. In this regard, this section analyses the direct and indirect barriers to trade in services and economic costs to trade in services in Africa. The analysis of policy barriers to trade in services is more complex than in trade in goods due to the regulatory statutes of services (World Trade Organization, 2019). Direct barriers to trade in services in Africa include the high costs of trade in services, and protectionist policies and measures. Indirect barriers include infrastructure and equipment issues, low levels of digitalization and technology, difficult access to financial services, fuel- and mining-commodity dependence, a low level of regional integration and lack of a competitive environment.

### Key barriers to trade in services include:



A major barrier to trade in services is cost. While the cost of exports in services is expected to be lower than the cost of exports in goods because services do not need to be stored, in practice, the opposite is true. The cost of services in exports is higher than the cost of exports in goods, while access to low-cost, high-quality services

helps countries participate in local, regional and global value chains and meet social development objectives (UNCTAD, 2021c). In Africa, the high cost of exports in services is multifactorial – poor ICT connectivity, digitalization problems and weak financial sector development, for example.

### **2.3.1 Infrastructure challenges**

Infrastructure gaps persist across all sectors (African Development Bank, 2021). While weak transport infrastructure is widely cited as one of the key drivers of trade costs in Africa, a recent World Bank enterprise survey shows that electricity is the second most important obstacle facing African SMEs (Muriithi, 2017). Moreover, trade in services is limited by a paucity of data on information and technology. While the world has in recent decades experienced a boom in technology, the use of advanced technologies in the economy remains a challenge for many African countries. Many localities in Africa do not have access to stable Internet connections, in addition to multiple power shortages. Instability in Internet connections slows down services and makes technologies in trade in services less efficient. While digitalization is driving trade in high knowledge-intensive services, Africa remains the least digitalized continent on the planet. According to the world development indicators of the World Bank, Africa has the lowest overall logistics performance index worldwide. In 2018, its overall logistics performance index was 2.46 on a scale of 1 to 5, compared with 2.87 globally. The index is above 3.5 in the European Union and North America.

However, with the increased use of digital platforms for sharing relevant information, including on markets globally, poor Internet access limits the networking opportunities of SMEs and their access to markets and therefore, participation in regional and global value chains. The connectivity gap is larger between SMEs and large firms, particularly in the developing countries, where SMEs attain only 22 per cent of the connectivity score of large firms, compared with 64 per cent in the developed countries (World Trade Organization, 2016).

### **2.3.2 Competitiveness challenges**

Policies that aim to protect domestic or infant industries against foreign competition can be significant barriers to trades in services, as they create an uncompetitive business environment embedded with tariffs, subsidies, import quotas and other restrictions or business handicaps. Despite regulations aimed at preventing protectionism, several



countries worldwide continue to introduce protectionist policies in specific sectors to safeguard their economy. This practice can bring some benefits to an economy, such as the rapid flow of local goods and services and protection of the local currency. However, some authors, such as Fairbrother (2014) and Poole (2004), find that it can diminish business activity, economic growth and economic welfare. Mwaba (2000) suggests that protectionism may limit the economic growth and development of African countries. According to this author, protectionism prevents the advantages of introducing new goods from contributing to technological progress, domestic production and growth associated with free trade. Fosu (1990), Ghura and Grennes (1993) and Ojo and Oshikoya (1995) also consider that any form of protectionism negatively affects the African economy and trade. Protectionism can occur in both goods and services.

High levels of protectionism and the absence of a competitive environment will then undermine regional integration, which is already low in Africa. According to UNCTAD (2021b), in 2000–2019, Africa recorded the highest level of export dependency, compared with the rest of the world, whilst intra-African exports as a share of total exports stood at the lowest level, compared with other regions, except Oceania. In 2019, extra-African merchandise exports represented 86.6 per cent of total exports in goods from Africa, and extra-African services exports accounted for 91.9 per cent of total exports in services from Africa. This low level of regional integration hampers the development of trade in services. Also, several services are provided by monopoly or exclusive services providers, especially in the freight and logistics services sector. These services are not open to the private sector and are prone to lacking efficient procedures for delivering quality services (UNCTAD, forthcoming-a). These have led to inefficient operations and a higher increase in service charges and have significantly restricted the effective participation of SMEs in the sector.

### **2.3.3 The cost of increased informality**

In many countries in Africa, the informal economy remains pervasive and constitutes a substantial share of the total economy. From 2010–2018, the informal economy accounted for 36 per cent of African GDP (UNCTAD, 2021b). Limited access to finance and cumbersome regulatory and administrative processes are among the key factors contributing to increased informality in the region. Informality has the highest cost of starting a business both in terms of financial capital requirements and the number of days to process the business registrations (International Telecommunication Union, 2016). Informality comes at a cost to most SMEs, as it restricts their financing option sources. For example, without tangible assets to use as collateral for loans, most SMEs are

confined to informal financing options. Moreover, they have no access to financial assistance or funding from the authorities or development finance institutions, such as the International Finance Corporation. Although informal trade in services constitutes the biggest component of trade in Africa, it has limited return on SMEs and restricted growth opportunities, notwithstanding its key role in sustaining their livelihoods. Dihel and Goswami (2016) suggest that almost two thirds of the earnings of traders in Lusaka are derived from informal services exports, representing the main source of income. Although the informal sector constitutes an important source of revenue for many citizens on the continent, it does not help SMEs maximize their potential for efficiency. Most of their activities can be categorized as temporary, since they are carried out on a demand basis and their earnings will follow similar trends. Moreover, informality further limits their participation in public tenders, for instance, thus effectively curbing their activities (European Union and Organisation for Economic Co-operation and Development, 2015). Compounded with limited access to finance, these effectively constrain their opportunities for growth.

### **2.3.4 The need for increased skills in high knowledge-intensive sectors**

Successful SME business ventures in high knowledge-intensity services sectors such as ICT require high levels of innovation and skills, and this forms the basis of the business models discussed in the previous section. Whether or not partnerships are leveraged, most SMEs will not effectively exploit opportunities in the different sectors with low qualifications and skills, unless skills development is a component of the leveraged partnership. To succeed in outsourcing partnerships, for example, SMEs must meet a high global standard, which is a challenge for most of these enterprises in Africa due to limitations in education and skills capacities. Indeed, according to recent International Trade Centre data on SMEs, many African enterprises cited international standards and certification requirements as a major constraint to their exporting activities (International Trade Centre, 2018). Without filling that gap, it will be challenging for SMEs to take part in the diversification of trade in services.

### **2.3.5 The hurdle of access to finance**

Across all sectors in Africa, SMEs enjoy limited access to finance (Economic Commission for Africa, 2015). This challenge is observed in both the developing and the developed countries. However, the challenge faced by SMEs in accessing finance is greater in

developing countries than in advanced countries. In Asia, for instance, more than half of the requests made by SMEs for trade finance are rejected, compared with only 7 per cent for multinational companies (World Trade Organization, 2016). According to a survey of developed countries conducted by the University School of Information, Communication and Technology of New Delhi, 32 per cent of SMEs in the manufacturing sector and 46 per cent of SMEs in the services sectors find that the process of obtaining finance to engage in cross-border trade is difficult. In the United States, only 10 per cent of large firms in the manufacturing sector, and 17 per cent in the services sector, experienced the same difficulties (World Trade Organization, 2016). Chapter 3 delves deeper into the limited access and high cost of finance by SMEs in Africa. It also looks at the modernization and revitalization of financial services, through digitalization, which can facilitate trade, either in goods or in services. Just like all investors in the services and non-services sectors, SMEs require capital to set up their businesses, as well as a consistent flow of finance to manage daily operational costs.

## 2.4 Conclusion

This chapter provided a detailed assessment of the potential role of services in enhancing export diversification and economic transformation in Africa. The discussion focused on the dual role of services as a supplier of key intermediate inputs and a source of important independent value chains. Accordingly, the chapter analysed the extent of diversification in the services exports of Africa and the key factors undermining its performance. Further, it assessed the potential of SMEs in contributing to the pivotal role of services in manufacturing growth and competitiveness.

The results further show that traditional services such as travel and transport dominate trade in services, covering more than two thirds of total services trade. Despite the importance in facilitating production and supply linkages with considerable implications concerning the overall competitiveness of firms through net trade costs, traditional services do not have a direct impact on the complexity and diversity of the export basket, which is seen to increase with high knowledge-intensity services such as ICT (Haven and Van Der Marel, 2018). While limited productive capacities in most African countries account for the low utilization of key services inputs, structural barriers undermining the performance of trade in services must also be considered. Key factors in this regard include the high cost of trade in services, protectionism, infrastructure and equipment issues, low levels of digitalization and technology, difficult access to financial services, poor regional integration and a limited competitive environment.

Moreover, complementarities between services and the manufacturing sectors will remain weak in most countries, as traditional services remain dominant in exported value added throughout Africa, with minimal optimism for enhanced complexity and variety of the region's exports to facilitate viable integration into high-end global value chains for most countries in the region. Therefore, African countries should reinforce regional coordination, under the umbrella of the African Continental Free Trade Area, and advance policies and strategies for increasing higher valued added services exports.

## Chapter 3

# Financial services and private sector: The future of export diversification in Africa

As observed in previous chapters, firms, in particular new entrants and small-scale exporting companies, need to secure external financing to cover the large costs of entering export markets. The fixed costs to be paid up front by an exporting firm when entering a new market, also known as sunk entry costs, mainly include information costs, compliance costs and other costs related to trade barriers. Information costs are necessary to gain a better understanding of the required regulations and standards of a potential foreign market. Compliance costs stem from the need to redesign products for export that meet demand standards for a specific market and establish new processes or procedures to comply with foreign market regulations and standards. Other costs related to trade barriers include customs procedures, logistics, lead time and tariffs. The substantial information and compliance costs can affect a firm's decision to enter a new market, decreasing the probability of export by 9 to 16 percentage points and 16 to 18 percentage points, respectively (Wei et al., 2019). For manufacturing firms, additional costs related to investments in plants, machinery or equipment required to export can also be challenging to secure. As for firms in service activities, adapting to foreign demand characteristics or tailoring exports to the tastes and standards of local consumers in new markets may require additional investments in skills and technologies.

In many African countries, the existing financial structure may not offer greater flexibility and resources to support firms' export determinants, hence resulting in reduced capacity to export and diversify their export baskets. The financial system in Africa mainly revolves around the banking sector, which accounts for more than 90 per cent of financial sector assets (Economic Commission for Africa, 2020). The current structure of bank sector financing may not be suitable for small firms' growth and export performance, which requires tailored financing mechanisms, such as venture capital and business angels, and financial technologies that can improve traditional credit channels and offer other promising channels to bridge the financing gaps of micro-, small and medium-sized enterprises. "FinTech", a portmanteau word for financial technology, refers to the use of technology to supply financial services, also known as alternative finance (Makina, 2019). Alternative finance, according to Nesta (2014), refers to a variety of innovative funding models that are emerging outside the traditional banking system and that use Internet platforms or websites to connect fundraisers with funders and investors. Digital payment systems, crowdfunding, peer-to-peer consumer financing, peer-to-peer business lending and invoice trading are examples of such models. This chapter examines the potential of SMEs to facilitate export diversification in Africa, especially through the services sector, when supported by sound financial services or provided with access to affordable financing.

### 3.1 Interrelationships between financial services, private sector development and export diversification in Africa

As established in the previous chapters, businesses can play an essential role in efforts to achieve export diversification. The view that economic growth is not driven by comparative advantage as suggested by classical economists, but by a country's ability to diversify its investments into new and productive economic activities, has gained traction since the work of Hausmann and Rodrik (2003). Entrepreneurial activities, especially those undertaken by small and medium-sized enterprises, can help diversify economies in Africa, including by facilitating the intensive and extensive margins of exports. The review of the literature thus far seems to suggest that the relationship between export diversification and structural transformation is bidirectional.

This section explores the interrelationships between financial services, private sector development and export diversification, with a particular focus on the financing factors that affect firm-level export diversification. **Box 10** presents the methodology applied

to examine the independent and joint roles of financial services and private sector development in spurring export diversification in Africa, with the caveat that emphasis is made on access to mobile money as a measure of financial technology. The financial development index of a country is not the only measure of digital financial development. Access to mobile money can also be used to measure levels of financial technology and enable digital financial development.

## Box 10

### Examining the roles of financial services and private sector development in furthering export diversification in Africa: Methodology

To assess the interrelationships between financial services, private sector development and export diversification in African countries, econometric dynamic panel data regression models are applied to determine whether significant differences in the macrostructure of the export sector across African countries are related to cross-country variation in multidimensional financial development between 2000 and 2020. The model also highlights the role played by access to finance in extensive and intensive margins of exports of firms in Africa. Data are derived from the Financial Sector Development database and Export Diversification and Quality database of the International Monetary Fund, and the World Development Indicators, Exporter Dynamics database and Enterprise Surveys of the World Bank. The data cover 54 African countries between 2000 and 2020.

The proposed empirical methodology is stated as follows:

$$ExportMeasure_{it} = \alpha + \varphi FD_{it} + \delta PSD_{it} + \omega(FD * PSD)_{it} + \eta X_{it} + \epsilon_{it}$$

Where the dependent variable *ExportMeasure* is the Theil overall index of export, which measures macro-level export concentration, and *FD* measures financial sector development. The financial development index, the share of bank credit to bank deposit and the share of insurance premium volume to GDP are used as proxies of financial sector development. *PSD* captures private sector development indicated by the degree of protection of private property rights and rule-based governance, domestic credit to private sector by banks and cost of business start-up procedures. *X* is a vector of control variables that include GDP annual growth rate, exchange rate, human capital, government health expenditure as a share of GDP and measures of infrastructure development such as gross fixed capital formation and electricity access; and  $\epsilon$  is the error term.  $\alpha$ ,  $\varphi$ ,  $\delta$ ,  $\omega$ , and  $\eta$  are the coefficients to be estimated in the model.

$\delta + \omega * \overline{PSD}$  measures the variation of export concentration due to the improvement of the financial sector with  $\overline{PSD}$  being the average value of the indicator of private sector development.

If  $\delta + \omega * \overline{PSD} > 0$ , and  $\alpha, \varphi$  are statistically significant, then the improvement of the financial sector leads to the concentration of exports.

If  $\delta + \omega * \overline{PSD} < 0$ , and  $\alpha, \varphi$  are statistically significant, then the improvement of the financial sector leads to the diversification of exports.

If  $\alpha, \varphi$  are not statistically significant, then the improvement of the financial sector does not affect macro-level export concentration.

The model estimates, at the firm level, the role played by access to finance in extensive and intensive margins of exports of firms in Africa using the following instrumental variables model:

$$Exportmargins_i^* = \delta_0 + \delta_1 FinAccess_i^* + \delta_2 X_i + \varepsilon_i$$

where *Exportmargins* represents a firm's export volume.  $X_i$  is a matrix of control variables for firm  $i$ .  $FinAccess_i^*$  represents access of lines of credit or bank loan; and  $Z_i$  is the chosen instrument.  $\delta_0, \delta_1$  and  $\delta_2$  represent the coefficients to be estimated in the model.  $\varepsilon_i$  is the error term.

If  $\delta_1 > 0$ , and statistically significant, then the firm's likelihood to export increases with the improvement of access of lines of credit or a bank loan.

If  $\delta_1 < 0$ , and statistically significant, then the firm's likelihood to export decreases with the improvement of access of lines of credit or a bank loan.

If  $\delta_1$  is not statistically significant, then the firm's likelihood to export does not depend on the improvement of access of lines of credit or a bank loan.

**Box table 1** presents the results of the cross-country panel regressions. The results suggest that multidimensional financial development has a direct relationship with macro-level export diversification, albeit statistically insignificant. As the overall financial sector develops, firms' access to credit also improves, strengthening their ability to increase their share of manufacturing relative to primary export, leading to greater export diversification. **Box table 2** delves into the micro characteristics of financial development, exporting firm behaviour and export diversification. Therefore, financial technology (proxied by mobile money registered accounts per 1,000 people) as an alternative measure of financial development is used to empirically assess firms' growth and diversification-induced potential of financial technology and alternative financing. The results show that when private sector development and financial technology grow independently, it pushes countries to specialize more, leading to more export concentration rather than export diversification. However, their interaction effect drives countries toward greater export diversification. This is supported by Bollaert (2021), who finds that the positive externalities of rapid financial technology



growth potentially democratize the provision of financial services, which helps bridge the financing gap for SMEs to support export diversification. To enable these positive and impactful interactions to happen in most African countries, the development of financial technology will need to reach the maturity level required to influence a paradigm shift in export expansion and diversification.

Table 1

**Determinants of macro-level export concentration in Africa**

Variable	Notation	Pooled ordinary least squares	Dynamic panel
Theil index of concentration	<i>TIE</i>		0.2652 <sup>a</sup>
L1			-0.159
Financial development	<i>FD</i>	-7.5879 (7.374)	-23.0178 (32.339)
Private property rights and rule-based governance	<i>PPRB</i>	-1.3302 <sup>b</sup> (0.308)	-0.0019 (1.255)
Financial development <sub>it</sub> x private property rights and rule-based governance	<i>FD_FB</i>	5.1458 <sup>a</sup> (2.593)	2.04738 (10.327)
Ln (GDP annual growth rate)	<i>GDP growth</i>	-0.0111 (0.111)	-0.0261 (.0561)
Electricity access	<i>ELEC</i>	-0.0010 <sup>b</sup> (0.005)	-0.0218 (0.015)
Health expenditures as a percentage of GDP	<i>HExpofGDP</i>	0.0024 (0.009)	-0.0065 (0.007)
School enrolment, secondary (percentage gross)	<i>Schooling</i>	-0.0168 <sup>c</sup> (0.009)	-0.0066 (0.007)
Official exchange rate	<i>XR</i>	-0.0001 (0.0001)	0.00003 (0.002)
Gross fixed capital formation	<i>GFCF</i>	-0.0036 (0.001)	-0.0041 <sup>c</sup> (0.002)
Intercept	<i>β<sub>0</sub></i>	8.1985 <sup>b</sup> (0.994)	6.4449 (4.910)
Number of observations		74	47
Number of instruments			46
R square		0.4180	
Sargan test <sub>d</sub> chi(2)30			47.64
Prob > chi(2)			0.075
Autocorrelation test (p-value)			0.0810

<sup>a</sup>  $p < 0.1$ .

<sup>b</sup>  $p < 0.01$ .

<sup>c</sup>  $p < 0.05$ .

<sup>d</sup> Test for over-identifying restrictions in dynamic panel-date estimations.

Note: Standard errors (clustered by country) are shown in parentheses.

Abbreviations: L1, first lag; Ln, natural logarithm; prob, probability.

**Table 2****Financial technology, private sector development and export concentration**

Variable	Notation	Pooled ordinary least squares	Dynamic panel
Theil index of concentration	<i>TIE</i>		0.222
L1			(0.142)
M-money accounts per 1,000	<i>Mmoney</i>	0.004	0.007 <sup>a</sup>
		(0.003)	(0.003)
Private property rights and rule-based governance	<i>PPR</i>	-0.584 <sup>a</sup>	0.849 <sup>b</sup>
		(0.242)	(0.318)
Private property rights and rule-based governance x mobile money	<i>PPR_PS</i>	0.002	-0.002 <sup>c</sup>
		(0.001)	(0.001)
Electricity access	<i>ELEC</i>	0.005	-0.026
		(0.006)	(0.017)
Government health expenditures as a percentage of GDP	<i>HexpofGDP</i>	0.011	-0.004
		(0.01)	(0.009)
School enrolment, secondary (percentage gross)	<i>Schooling</i>	-0.007	-0.038 <sup>a</sup>
		(0.007)	(0.021)
Official exchange rate	<i>XR</i>	0.0001 <sup>a</sup>	0.001
		(0.001)	(0.002)
GDP growth rate	<i>GDP</i>	-0.023	-0.049
		(0.107)	(0.047)
Gross fixed capital formation	<i>GFCF</i>	-0.01 <sup>b</sup>	-0.00
		(0.003)	(0.003)
Intercept	<i>Cons_</i>	6.457 <sup>b</sup>	3.019
		(0.515)	(2.057)
Number of observations		73	47
Number of instruments			46
R square		0.36	
Sargan testd chi(2)31			41.7
Prob > chi(2)			0.201
Autocorrelation test (p-value)			0.007

Source: UNCTAD calculations, based on UNCTAD, forthcoming-b.

<sup>a</sup> p < 0.1.

<sup>b</sup> p < 0.01.

<sup>c</sup> p < 0.05.

<sup>d</sup> Test for over-identifying restrictions in dynamic panel-date estimations.

Note: Standard errors (clustered by country) are shown in parentheses.

Abbreviations: L1, first lag; M-money, mobile money; prob, probability.

The empirical study summarized in **box 10** suggests that as the overall financial sector develops, firms' access to credit also improves, strengthening their ability to increase their share of manufacturing relative to primary export, leading to greater export diversification. These findings are in line with Acemoglu and Zilibotti (1997) and DeRosa (1992).

## Alternative financing can help to bridge the investment gap for start-ups and micro, small and medium-sized enterprises



\*Source: International Finance Corporation (IFC)

The private sector, in particular micro-, small and medium-sized firms, forms the foundation of growth and economic development.<sup>26</sup> The role of the private sector in diversifying and upgrading export patterns, in attracting investment in growth sectors or in stimulating innovation in domestic industries, productivity and exports has helped develop and strengthen the economic fibre of many advanced countries and emerging markets. In many developing countries, particularly in Africa, the potential role of the private sector is often limited due to financial constraints and other challenges hindering business growth and survival likelihood, as well as its contribution to trade and productivity in domestic markets. According to International Finance Corporation (2017) and recent data for 2018–2019 ([www.ifc.org](http://www.ifc.org)), there are about 50 million formal micro-, small, and medium-sized enterprises in Africa with an unmet financing need of \$416 billion every year. Nigeria represents about 38 per cent of the financing needs of micro-, small and medium-sized enterprises in Africa. In the Niger, formal micro-, small and medium-sized enterprises, of which there are relatively few (about 8,000 firms), are highly credit constrained, with a financing gap equivalent to 44 per cent of the country's GDP).<sup>27</sup> The credit constraints faced by many micro-, small and medium-sized enterprises can affect their sales, profit growth and exports.

While banking services strongly encourage countries to specialize in the production and export of commodities for which they enjoy a comparative advantage, insurance

<sup>26</sup> An enterprise is characterized as micro, small or medium sized when it maintains assets, revenues and the number of employees below a certain threshold. A microenterprise will have up to 10 employees, while small and medium-sized enterprises will have fewer than 50 and 250 employees, respectively. The amount of assets or revenues generated by micro, small and medium-sized enterprises varies from country to country. For the purpose of this report, micro, small and medium-sized enterprises are defined in terms of the number of persons employed (European Commission, 2022; United Nations Development Programme, 1999).

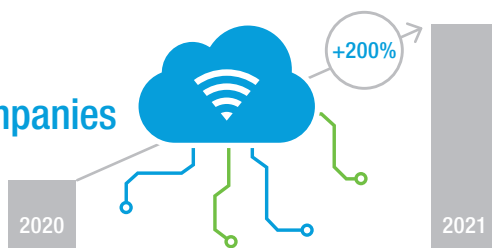
<sup>27</sup> Calculations based on International Finance Corporation, 2017 and updated data 2018–2019 ([www.imf.org](http://www.imf.org)).

services provide countries with a cushion to diversify their export portfolio. Even during periods of banking sector development, banks in most African countries may not always extend banking services to every firm that could make use of them due to the interrelated problems of information asymmetries and high transaction costs. It is for similar reasons that the provision of bank credit in most African countries is structured in such a way that precludes most recipient firms, especially smaller ones, from taking extra risks by venturing into other new product lines. Insurance, on the other hand, plays an important part in spreading risk, thus encouraging countries to venture into new product lines and markets. The protection of private property rights and banking services play a complementary role in export diversification, since developing the banking sector alone without a good degree of private property rights protection is insufficient to induce export diversification.

Given the specific financing needs of African firms and the difficulties of accessing funds from traditional financial sources such as banks, innovative financial instruments, practices and technology (for instance, financial technology) can be optimized to secure access to credit and external financing (debt or equity). Financial technology has the potential to help African countries achieve financial and social inclusion by decreasing inefficiencies in resource allocation within the traditional banking sector and offering economic opportunities that promote financial access and social development (Ding et al., 2018; Salampasis and Mention, 2018). Part of financial technology's growing popularity stems from its ability to overcome long-standing hurdles, resulting in underrepresented SMEs in financial markets. Empirical evidence suggests that the use of financial technology can help lower the incidence of trade finance rejections, especially among smaller firms (Lee et al., 2021). Financial service providers can use big data analytics and artificial intelligence to lower the cost of analysing SMEs' financial data and making credit decisions without requiring otherwise strenuous formal documentation. Such documentation can be particularly costly for smaller firms, especially as the amounts involved are relatively small and transactions infrequent. This potential role and benefits of financial technology for SME financing is more prominent in other developing regions. For instance, in Asia, there are examples showing the effective reach of financial technology in the SME sector. These include an artificial intelligence-enabled credit score system funded by the Asian Development Bank that provided \$50,000 in financing to over 8,000 SMEs in the Greater Mekong subregion. Similarly, using artificial intelligence, Ant Group's 310 online lending platform has already served 29 million SMEs in China, while maintaining a non-performing loan ratio of less than 2 per cent, even during the peak of the COVID-19 pandemic (Lee et al., 2021).

## Investment in African financial technology companies soared to a record of over \$2 billion\* in 2021

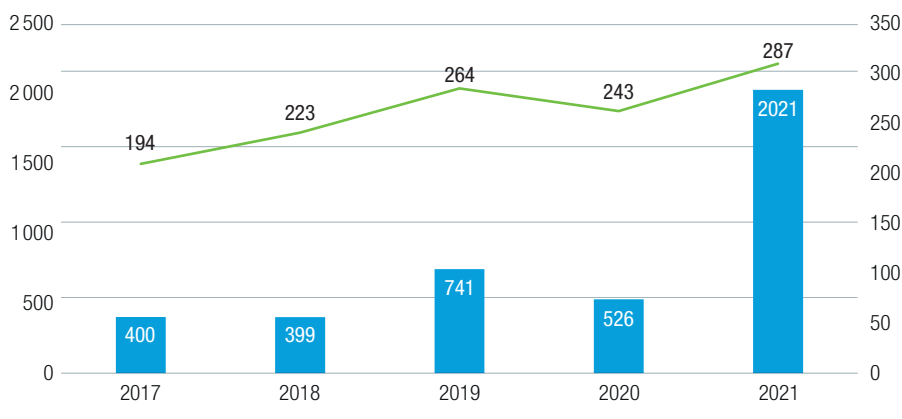
\*Source: FinTech Global (2022)



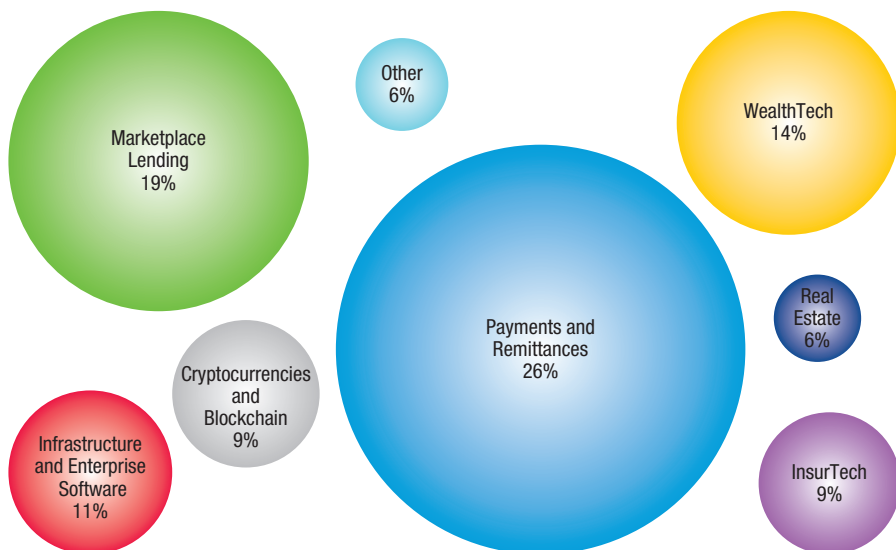
Although financial technology has been spreading in Africa, reaching over \$2 billion in investments in 2021 (Figure 24), it has yet to reach the development stage, in which economies can use leveraging to support the financing of valued added productive activities. For example, mobile money, the most commonly used financial technology in Africa, is only being utilized to advance short-term microloans to users. Sectors that dominate the African financial technology industry are payments and remittances, marketplace lending and wealth technology, accounting respectively for 26 per cent, 19 per cent and 14 per cent of all transactions in 2021 (Figure 25). A company worthy of mention in the payments and remittances sector is OPay, a Nigerian-based point of sale platform and mobile payment service that raised \$400 million in 2021. It boasts 160 million active users, expanding access to the large unbanked population in Nigeria (Fintech Global, 2022).

Figure 24

### Financial technology investment in Africa, 2017–2021



Source: UNCTAD, based on data from Fintech Global, 2022.

**Figure 25****Financial technology investment in Africa by sector: Share of transactions, 2021**

Source: UNCTAD, based on data from Fintech Global, 2022.

In the marketplace lending sector, MNT-Halan, an Egyptian-based non-bank lender and payments platform, raised \$120 million in 2021 on the back of new regulation (such as granting licences for micro and consumer finance and electronic wallets) and support measures (for instance, setting up a financial technology and innovation fund) introduced by the Central Bank of Egypt to strengthen the financial technology market (Fintech Global, 2022). The importance of recognizing the potential for export diversification in Africa and the synergies between financial technology and the protection of property rights could not have been overemphasized.

Nonetheless, financial technology does not come without risks. Due to the innovativeness, opacity and complexities associated with financial technology business models, with which users may be unfamiliar, there is often a heightened risk of loss from fraudulent activities or misconduct by operators and/or other third parties. Financial Stability Board (2017) identified several risks to financial stability and customer protection related to the adoption of financial technology, especially in markets where appropriate regulatory frameworks and supervision mechanisms

are not well established. Some of the identified risks are as follows: poor governance or process control, which can disrupt provision of financial services or critical infrastructure; cyberattacks on financial activity and risk contagion effects on other interconnected financial institutions; uncertainty concerning liability for losses, especially in the absence of sound legal and regulatory arbitrage systems, which can negatively affect the confidence of investors and businesses in the system; and excessive volatility of some financial technology services or business models, which can easily alter the overall functioning of asset and credit markets (Financial Stability Board, 2017). Policies and regulations relating to financial technology have not yet been established in most African countries, which limits the ability of jurisdictions to efficiently tackle these risks, thus reducing the prospects to realize the diversification-inducing potential of financial technology and alternative finance (UNCTAD, forthcoming-b).

As firms gain greater and more affordable access to lines of credit or loans from financial institutions, there will be a greater likelihood of an increasing number of exporting firms entering new markets (extensive margin) and a higher volume of products exported by firms (intensive margin), although the intensive margin effect is relatively more significant (Box 10). Consequently, addressing some of the hurdles to seed and start-up financing for SMEs or putting in place legal frameworks and regulatory infrastructure that can foster tailored innovative financing structures and instruments for SMEs will be important enabling factors for export diversification. Regulation is essential in protecting both the financial industry and customers. However, regulation is often compounded by financial innovation. An innovation, though positive, introduces new vulnerabilities into the financial system, which if not checked, can disrupt the system. In the developing countries, regulation has become stricter because of resource scarcity and limited capacity. The economic impact of the pandemic and the surge of financial technology tools and transaction to adapt to the changing global environment or build new foundations for recovery has also raised the risks of unregulated financial technology, with potential threats to business and consumer protection. Some innovations in regulation in response to increasing financial innovation are discussed in chapter 3.2. When accompanied by appropriate regulatory frameworks, financial technology can increase SMEs' access to long-term financing by helping address the asymmetric information problem inherent in financing decisions for SMEs, so that funds can also flow more readily into this traditionally neglected but promising sector. Stronger protection of property rights and rule-based governance, in addition to guaranteeing a level playing field for enterprises – especially SMEs – to compete, are prerequisites for promoting export diversification.

## 3.2 Unlocking financial services potential for export diversification

The growing demand for swift, simplified commercial lending processes has resulted in many banks and financial institutions adopting digitalization to modernize their commercial lending business (The Business Research Company, 2021). Digitalization enables banks to target new customer categories and offer customer-centric solutions, which brings about improved efficiencies in the commercial lending business. It also leads to improved access to finance and credit, which can otherwise be a complex and slow process, especially for SMEs. The debilitating effects of the pandemic have given new impetus to the digitalization of businesses through the adoption and increased use of emergent digital technologies, such as artificial intelligence, the Internet of things, big data, blockchain, C-band fifth generation –commonly known as 5G – three-dimensional printing, robotics, drones, gene editing, nanotechnology and solar photovoltaics. These technologies do not exist in many African markets, but have the potential to boost firm productivity, promote job creation, expand trade and competitiveness, and foster economic diversification (Economic Commission for Africa, 2020).

Although progress towards digitalization has been slow and uneven across economies in different development stages and across sectors, digital trade and financial services markets are emerging in Africa. Globally, trade is increasingly being digitalized, with business-to-business e-commerce transactions that are valued at over \$15 trillion annually, and business-to-customer transactions, a further \$1 trillion (Statista, 2022). African e-commerce is also growing rapidly, estimated at an annual growth rate of 18.07 per cent (compound annual growth rate 2022–2025), resulting in a projected market volume of \$72 billion by 2025 (Statista, 2022). The overall digital economy in Africa is expected to grow to over \$300 billion by 2025, as a result of massive mobile penetration (McKinsey, 2013).

To meet cross-border e-commerce needs, regional economic communities in Africa have been providing solutions through regional payments systems such as the Common Market for Eastern and Southern Africa Regional Payment and Settlement System, the East African Payments System, and the Southern African Development Community Integrated Regional Electronic Settlement System. At the continental level, under the framework of the African Continental Free Trade Area, Afreximbank has been developing a pan-African payments and settlement platform, which is expected to support cross-border payments in which sender and receiver transact in their local currency. Going forward, African countries will need to implement policy measures to



ensure that they reap the benefits of digitalization. This could include, among others, formulating digitalization plans across sectors that reflect a country's level of economic development; building capabilities and establishing enablers for sectoral digitalization; and promoting collaboration between industry, consumers and government to create an environment that is conducive to the uptake and usage of digital applications.

Facilitating digital trade and finance through supportive infrastructure and platforms is vital to the private sector. Through digital transformation, supported by initiatives that aim to ease doing business, deepen domestic capital markets and crowd-in private capital, major strides will be made in unlocking the potential of financial services and intensifying the role of SMEs as a driver of export diversification.

## **De-risking financing for small and medium-sized enterprises**

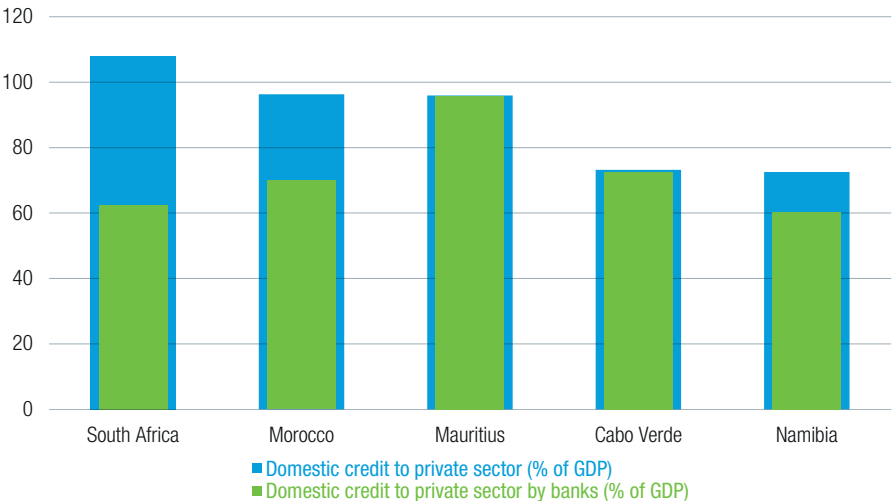
In many African countries, SMEs' access to finance, through traditional financial institutions such as commercial banks, is inhibited by high capital requirements, liquidity frameworks and leverage ratio frameworks, thus reducing opportunities for long-term and high-yield credit lines. The rise of alternative lending markets, which provide funds to businesses without having to go to a traditional bank, creates opportunities to bridge the SME financing gap. However, this booming market is not risk free. As previously noted, the lack of regulation and universal standards in some of these non-bank lending markets, such as financial technology, can pose potential risks and challenge the expected outcomes of facilitating and diversifying finance, especially for SMEs. The mechanisms and other considerations that could help mitigate the risks of SMEs' access to both traditional and alternative finance are outlined below.

Lending to SMEs through traditional financial sources, such as the banking sector, is often characterized by high interest rates and transaction costs, which affects the affordability of a bank loan or line of credit. In many instances, the lack of credit history, poor financial backing, limited business experience and low levels of business diversification make SMEs riskier to lend to or invest in than larger corporations. Inadequate access to bank credit can stifle the SME sector's potential contributions to overall economic growth and employment creation. Although the size of loans to SMEs (measured here by domestic credit to the private sector as a share of GDP) has been growing in Africa, reaching 28 per cent of GDP in 2020, it remains small, especially when compared with other regions and economic groupings. The East Asia and Pacific region leads, with an SME loan-to-GDP ratio averaging 171.6 per cent in 2020, followed by members of the Organisation for Economic Co-operation and Development (160.5 per cent),

Europe and Central Asia (96.1 per cent), and Latin America and the Caribbean (59.8 per cent) (World Bank, 2022). Within Africa, there are considerable disparities among countries, with South Africa leading the region with an SME loan-to-GDP ratio of 107.8 per cent in 2020, followed by Morocco (96.3 per cent), Mauritius (95.9 per cent), Cabo Verde (73.2 per cent) and Namibia (72.5 per cent). The same countries rank the highest in terms of access and affordability of financial resources provided to the private sector by banks (Figure 26). In countries such as the Democratic Republic of the Congo, the Gambia, Sierra Leone, South Sudan and Zimbabwe, the volumes of SME loans are low, accounting for less than 10 per cent of their contribution to GDP.

In the African countries with the largest volumes of SME credit, the affordability of access to bank lending by the private sector is mainly attributed to policy measures aimed at supporting the growth and competitiveness of SMEs and innovative financing mechanisms aimed at mitigating the risks that banks and other financial institutions assess and thus factor into their decision to provide credit to firms. In those countries, the financial sector ecosystem (financial institutions, non-financial institutions, regulators and central banks) provided SMEs with specialized financial and non-financial products and services and facilitated a conducive business environment for lowering business costs

**Figure 26**  
**Lending to small and medium-sized enterprises in selected African countries, 2020**



Source: UNCTAD, based on data from the World Development Indicators database (World Bank).

and improving overall productivity. Some Governments have established loan-guarantee programmes for small firms to address a perceived market failure in SME financing by targeting viable business propositions that lack an established track record or collateral.

Development banks, including national and regional development banks, can also play a key role in facilitating SMEs access to finance by providing loans or equity, as well as financing and risk guarantees for business development purposes or to support export-oriented firms in the agriculture and manufacturing sectors. In addition, development banks have the particular advantage of having a diversified portfolio and being relatively well capitalized, which enables them to secure loan and revenue guarantees and provide local currency credit to SMEs (especially in the case of national development banks). This reduces the risk of currency mismatches and other risks inherent to the profiles of SMEs in Africa or the environment in which they operate (Economic Commission for Africa, 2020).

Another de-risking mechanism for SME financing is risk pooling, for example a two-tier structure of credit supplementation for SMEs. Under such a scheme, financial institutions are provided with credit guarantees on the repayment of SME loans; in return, SMEs pay guarantee fees to the entity providing credit guarantee to secure credit guarantees and access financing. Such mechanisms became even more relevant during the COVID-19 pandemic and the economic setbacks and financial distress it has brought to countries and businesses. In South Africa, for instance, the Government (National Treasury, South African Reserve Bank and Bank Association South Africa) in May 2020 launched a R200 billion (about \$13.7 billion)<sup>28</sup> COVID-19 loan guarantee project for SMEs as part of its COVID-19 response and economic stimulus package (Government of South Africa, 2020a). In March 2022, the Government of South Africa introduced a new R20 billion (about \$1.34 billion)<sup>29</sup> business bounce-back project aimed at supporting SMEs that suffered distress caused by the pandemic (Government of South Africa, 2020b). The project will include a business equity-linked loan guarantee and small business loan guarantees that will facilitate access for qualifying non-bank small and medium loan providers.

Some countries have also adopted export credit insurance policies or established export-import facilities to help exporting firms cover the commercial and political risks of default-on-credit sales by a buyer, or help exporters, particularly SMEs, to access trade credit insurance services and therefore better access trade finance. Some of the added advantages of the export credit insurance scheme include facilitating advance cash

<sup>28</sup> Exchange rate (at time of writing): 1 South African rand is equivalent to \$0.068.

<sup>29</sup> Ibid.

payment, letters of credit and other required documentation for securing export revenues. **Box 11** presents the example of Mauritius. In Ghana, for instance, the Government in 1994 established the Exim Guaranty Company to provide credit guarantees and general financial risk management solutions for SMEs. In 2016, the company was merged with the Export Finance Company and the Export Trade, Agricultural and Industrial Development Fund to establish the Ghana Export-Import Bank (Ghana Exim Bank, 2022). In Ghana, the SME sector accounts for close to 92 per cent of enterprises, contributes to about 70 per cent of GDP and provides close to 85 per cent of jobs in the country (Li et al., 2021)). Given the importance of SMEs in the Ghanaian economy and their potential to drive diversification and structural transformation, some of the measures implemented by the Government of Ghana will significantly contribute to addressing SMEs' credit constraints, improving access to finance and enhancing their competitiveness and market access.

### Box 11

#### **Mauritius: The role of government in facilitating lending for small and medium-sized enterprises**

In Mauritius, SMEs make up about 99 per cent of all establishments operating in different sectors of the economy. They represent about 40 per cent of GDP and 56 per cent of employment. According to the latest census of economic activity conducted by Statistics Mauritius, the top three sectors in which SMEs operate on the island are wholesale and retail trade (31.5 per cent), traditional agriculture (16 per cent) and transport and storage (14 per cent). The wholesale and retail trade (low-end value chain services) alone contribute to more than 30 per cent of total employment. Factors that have contributed to the growth of SMEs in this country include the availability of attractive financing, favourable economic conditions, competition, government policies and regulations, and technology. The Government of Mauritius has put in place various policy measures to support the growth of SMEs, facilitate access to finance and enhance their competitiveness. Some of these initiatives include the Small and Medium Enterprise Development Authority, aimed at supporting and facilitating the development of local SMEs; the State Investment Corporation, an investment arm of the Government set up to provide funds for the realization of high-growth entrepreneurial ventures and to assist businesses in attaining industry leadership positions; Enterprise Mauritius, which helps local businesses expand into regional and international markets and meet the challenges of international competition, including advice on technical barriers to trade and sanitary and phytosanitary requirements; and Maubank, a State-owned company that operates retail, SME and corporate banking businesses locally and internationally, and provides dedicated and specialized SME banking solutions. The vision of the Government of Mauritius for the SME sector is clear, that

of developing “a vibrant export-oriented SME sector to be the economic backbone of Mauritius’ sustainable export growth”.

The financial ecosystem in Mauritius has also contributed to the growth and role of SMEs in the economy. The banking sector provides a wide array of specialized and affordable financial services for the private sector, including fund administration, custodian services, trusteeship, structured lending, structured trade finance, international portfolio management, investment banking, private client activities, treasury and specialized finance. By positioning itself as a viable financial technology platform with a stable business climate and well-established corporate governance culture, Mauritius is able to attract foreign and domestic investments and provide access to finance for SMEs (both local and in other jurisdictions). The depth of the financial sector in Mauritius also provides promising opportunities for spillover into other segments of the economy, and sustainable growth businesses and services.

*Source:* UNCTAD, based on Government of Mauritius and International Trade Centre, no date; Roopchund, 2020; Statistics Mauritius, 2020.

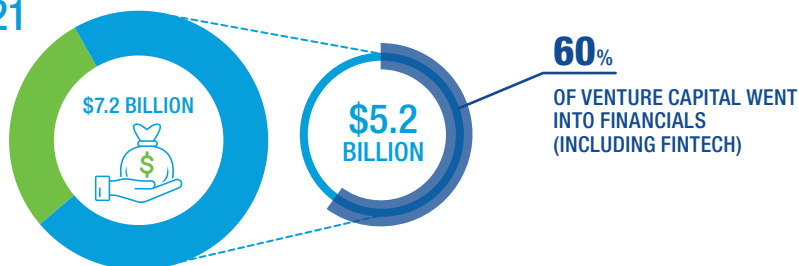
## **Facilitating innovations in private sector finance**

The low-risk appetite of banks to finance SMEs and the high borrowing costs that SMEs must bear due to insufficient collateral or poor visibility of their transactions reduces their access to affordable traditional financial services. However, there are a wide range of innovative funding mechanisms available to SMEs that can better meet their financial needs and support their business development and export targets. In addition to guarantee schemes and other risk-sharing mechanisms, there are other innovative financing structures and instruments that can support firms raising money for start-up, growth, productivity and export purposes. These include private equity, venture capital, business angels and financial technology. Mobile telephony and mobile money services have taken root in many African countries, spreading into previously unbanked areas and markets. As of 2017, over 50 per cent of the 282 mobile money service providers in the world were located in Africa (McKinsey, 2017). Significant advances in mobile banking and marketplace lending are fuelling the growth of SMEs in Ghana, Kenya, Rwanda, South Africa and the United Republic of Tanzania. In Kenya for instance, digital transactions account for about 60–70 per cent of bank equity transactions, and M-Shwari, a mobile banking service, provides 80,000 consumer loans on a monthly basis (Economic Commission for Africa, 2020).

Equity and debt-financing platforms for micro-, small and medium-sized enterprises such as crowdfunding and peer-to-peer lending are also emerging. By facilitating the raising of

funds through the Internet, crowdfunding platforms enable firms to raise equity or debt finance. Peer-to-peer lending or crowdlending is also an online platform that matches lenders to borrowers in the online space and thus facilitates SMEs' access to finance. In Africa, there are few crowdfunding and crowdlending activities, due to low Internet penetration, high Internet service costs and weak regulatory structures and standards. Some promising peer-to-peer lending platforms in Africa include Kiakia,<sup>30</sup> a Nigerian-based peer to peer lending platform that provides small-scale private and business loans with low interest rates (0.80 per cent) and short duration (seven to 30 days); and RainFin,<sup>31</sup> a South African-based peer-to-peer lending platform that enables borrowers to access affordable debt capital (at an annual percentage rate starting from 10.25 per cent for a period of six to 24 months) and investors (institutional and retail) to access a new asset class, that is, alternative credit, thereby earning attractive, fixed income returns. With the recent uptake of peer-to-peer lending and crowdfunding platforms, total lending volumes increased by about 300 per cent, and the market is estimated to reach \$2.5 billion by 2025.<sup>32</sup> Pezesha,<sup>33</sup> a Kenyan-based financial technology platform, which also connects underserved small and medium-sized businesses with working capital from banks, microfinance institutions and other financial institutions, has been growing by 50 per cent annually with \$1 million disbursed between 2016 and 2020 (Platform Africa, 2021). Peer-to-peer lending platforms have the potential to unlock SMEs' access to finance, thus helping close the funding gap and supporting the growth of SMEs.

## Venture capital, critical for SMEs, accounted for **\$5.2 billion** of the **\$7.2 billion\*** private capital investment in 2021



\*Source: African Private Equity and Venture Capital Association (2022).

<sup>30</sup> See <https://kiakia.co/> (accessed 13 May 2022).

<sup>31</sup> See [www.rainfin.com/](http://www.rainfin.com/) (accessed 13 May 2022).

<sup>32</sup> See [www.platformafrica.com/](http://www.platformafrica.com/) (accessed 13 May 2022).

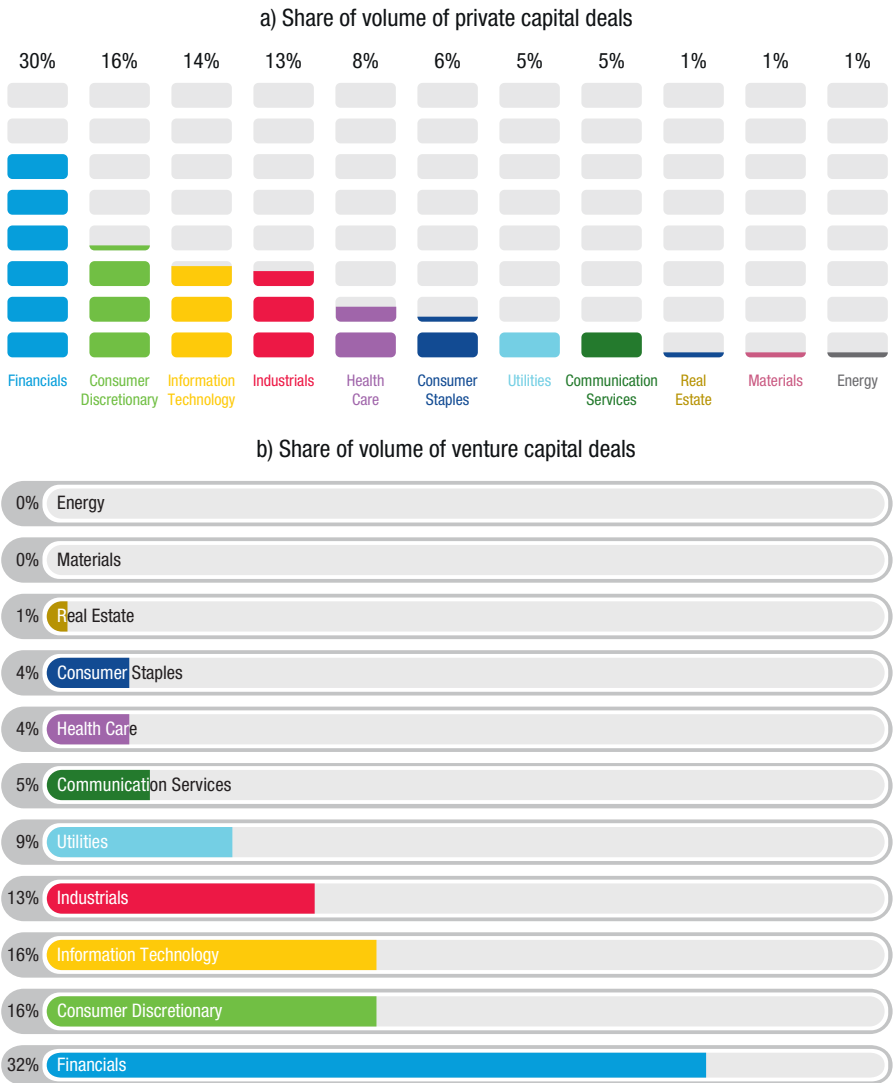
<sup>33</sup> See <https://pezesha.com/> (accessed 13 May 2022).

Private capital investment, such as private equity funding, venture capital or private debt, is another important source of financing for SMEs in Africa, especially those with technology orientation and good opportunities for growth. Start-up companies and small enterprises particularly attract the interest of venture capital firms that invest in high-risk businesses with a potential for exponential growth, expecting to obtain a high return on their investment by acquiring a start-up or a small business or by exiting and selling off stakes in an initial public offering. Using the equity financing mechanism, firms raise capital in exchange for an ownership stake. This mechanism can be risky for both the SME concerned and the equity investors, since the investors' reward (return on investment) is tied to the SME's success, and the SME has to cede some control over entrepreneurial decision-making. However, the benefits of equity funding and venture capital with specialized investments according to a firm's stage of development (start-up, product development, revenue generation, profitability) or by round (seed, first, second or later stage) go beyond providing working capital or external financing. Other benefits include building business and institutional knowledge and having the potential to increase companies' success and growth rates and to support enterprise development in Africa. Despite the difficulty in accessing financing through private equity investment and venture capital, private capital investment on the continent is flourishing: the number of private capital transactions reached a record high of 429 in 2021, valued at \$7.4 billion, an 85 per cent increase over 2020 (\$3.4 billion) (African Private Equity and Venture Capital Association, 2022a). More than half of the private capital investment transactions recorded in 2021 were concentrated in venture capital, corresponding to a total value of \$5.2 billion raised in 650 transactions, from 604 companies (African Private Equity and Venture Capital Association, 2022a). The industry that attracted the most interest from private capital investors were financials (30 per cent of the volumes of private capital transactions in 2021), consumer discretionary (16 per cent) and information technology (14 per cent) (Table 5). The prominence of these industries reveals a large contribution to the funding and growth of technology and technology-enabling companies, which characterizes a growing number of start-ups and SMEs in some African countries. About 60 per cent of venture capital financing in 2021 also went to financials, with a high concentration of transactions in financial technology companies (31 percent of venture capital transactions by volume) (African Private Equity and Venture Capital Association, 2022b).

Where venture capital and private equity investment mechanisms cannot address the financing needs of start-ups or early-stage firms, other types of private capital investment or private debt, such as business angels, provide firms with capital for start-ups and early-stage equity. Business angels are individuals or private entities with

Figure 27

Private capital activities in Africa, by industry segment, 2021



Source: UNCTAD, based on data from African Private Equity and Venture Capital Association, 2022a and 2022b).



a vast personal fortune and extensive experience in the industries. They invest their own money in start-ups or micro and small companies, with no family connections, in exchange for a minority equity stake in the companies they invest in and an active involvement in the portfolio of the companies or related investment decision-making processes (Mason, 2009). According to Mason (2009), business angels are often willing to undertake small-ticket equity deals that otherwise may have been considered by investment funds as being not cost-effective or investment grade due to high contracting due diligence and monitoring costs associated with start-up and early-stage transactions. The number of angel investors in Africa is on the rise, becoming another key player that takes the necessary risk of investing in a new business or an existing business that faces challenges raising money. Some African angel investors include TBL Mirror Fund (targeting East African SMEs), West African Synergies (targeting West African SMEs), Jacana Partners (a pan-African private equity company), eVentures Africa Fund (investing in African SMEs active in digital media) and Invenfin (providing start-up capital to entrepreneurs to fund the commercialization of their intellectual property internationally).

The adoption of innovations in private sector finance and the uptake of innovative funding mechanisms by SMEs can be limited by various factors, the most critical ones being the lack of financial education among SMEs, poor financial infrastructure, and legal and regulatory uncertainties. The next section will explore mechanisms through which these barriers to SMEs finance can be addressed more effectively.

## **Addressing the legal, regulatory, and financial infrastructure uncertainties**

The adoption of innovative financing sources by SMEs in Africa has increased in recent years. However, uncertainties surrounding some of the legal structures and regulatory frameworks for traditional and non-traditional financing can affect SME lending and reduce the appetite for SME funding. For instance, the lack of or limited protection for minority shareholder rights discourages equity investments, and uncertainties concerning the regulatory status of new financial institutions and innovative products can frustrate financial innovation. In the banking sector, for instance, legal structures and frameworks such as the Basel international banking regulations, which require that higher risk weights be allocated for SME loans, can result in higher SME loan interest rates and reduced SME loan volumes (Deloitte South-East Asia, 2015).

Although the banking sector continues to dominate the African financial system, boosted by economic growth and high profitability levels, change in the financial

landscape, with growing competition from non-bank financial institutions and a diversifying investor base with appetite for more specialized financial products, has contributed to alternative finance's increasing presence on the continent. In 2020, the average return on equity of African banks stood at 7 per cent, compared with 14 per cent in 2019, a dip that could be explained by the impact of the COVID-19 pandemic – fewer economic activities, heightened unemployment and higher risks on bank loans (McKinsey, 2021). To reinforce stability, build resilience and strengthen their footprint across Africa, banks are also adopting new financial technologies, leveraging digital financial services and modelling regulatory frameworks that can help them better meet the investment needs of unbanked populations and businesses, as well as enhance financial inclusion. However, the new drive to scale up technology in the banking sector for productivity gains and future growth could be challenging with regard to regulations and risk management. For instance, any uptake in mobile banking will require adopting newer-age technology platforms and actively engaging in new ecosystems, including complex arrangements at the governance, business and technical levels with non-bank institutions such as digital financial services providers or telecommunications operators. To facilitate this interconnection between banks, mobile money providers and customers and commercial players, a certain level of interoperability<sup>34</sup> between the different systems and regulations need to be in place to facilitate financial transactions or payment systems. When the interoperability arrangements between banks, digital financial services providers and other third parties (such as aggregators) are limited or uncoordinated, regulatory oversight can be impacted negatively, resulting in a higher cost of access to digital financial services. Building effective interoperable systems also contributes to effective governance, clear operating rules, and safe and reliable connections, which can help prevent fraudulent activities and other risks in digital financial transactions.

The absence of robust regulations in many financial technology markets has also been a major concern among institutions, regulators and markets participants. Such markets are constantly evolving, with changes and innovations in financial instruments and mechanisms happening more frequently than in the traditional financial sector. Therefore, regulating financial technology requires continuous adaptation and risk mitigation, which regulators may find challenging. For instance, the rapidly growing use of technology in finance can exert pressure on regulators to switch from regulations designed for human behaviour to regulations to supervise automated processes. On the other hand, stringent

<sup>34</sup> Interoperability is the ability of different systems to connect with one another (Consultative Group to Assist the Poor, 2016).

regulations and compliance requirements can discourage the further development of financial technology to provide alternative financial services to those who cannot obtain such services from traditional services. Therefore, efforts should be geared towards establishing an optimum regime that does not hinder innovation and ensures the protection of the financial system. For instance, regulatory sandboxes, which are safe, supervised environments created by regulators to enable market participants or financial technology companies to test new financial services or models under close supervision, are used to ensure safeguards and customers protection (Economic Commission for Africa, 2020). In Africa, the use of regulatory sandboxes is growing – 10 countries have at least one operational regulatory sandbox (Cambridge Centre for Alternative Finance, 2021). Other innovations in financial technology regulation such as regulatory technology and innovation offices are presented in [box 12](#).

## Box 12

### Innovations in the financial regulatory environment

**Regulatory technology:** A significant innovation affecting the regulatory environment is regulatory technology. It is defined as the deployment of technology to manage regulatory procedures in the financial sector. Regulatory technology helps regulators to effectively exercise regulatory oversight, and financial firms, to improve reporting and regulatory compliance. Regulatory technology companies use cloud computing to assist firms in automating compliance tasks and reducing operational risks associated with meeting compliance and reporting obligations. With the use of regulatory technology, regulators and financial institutions can manage regulatory risks emanating from the digitalization of payments and innovations. In addition, they can readily combat challenges such as cybercrime, data breaches, money laundering and other related fraud. Regulatory technology uses big data and machine learning to monitor online transactions, including those that are off the grid of the formal financial system in real time, detecting and reporting anomalies instantaneously to regulators and clients for the early detection and prevention of fraud. This is a step up from traditional regulatory and compliance mechanisms, which are unable to monitor the underground online market. Thus, both regulators and financial firms benefit from the usage of regulatory technology.

**Innovation offices:** Increasingly, innovation offices are being established around the world to ensure that regulation keeps pace with financial innovation. Innovation offices provide clarification on regulations to financial firms that have introduced, or are about to introduce, an innovation. The primary aim of these offices is to foster collaboration between regulators and financial services companies so that they can mutually learn in an innovative environment in a manner that elicits appropriate regulatory responses to innovations. Innovation offices are easy to set up, as they do not

require prolonged regulatory or legislative changes. Examples of innovation offices around the world are the Financial Technology Enabler Group of Bank Negara Malaysia, the Netherlands Authority for the Financial Markets, the United Kingdom Financial Conduct Authority, the Estonian Financial Supervision Authority and the Financial Technology Hive of the Dubai International Financial Centre. Though the idea of innovation offices is spreading in many regions, it has yet to be adopted and operationalized in Africa. Thus, there is great potential for the adoption of this innovative regulatory approach in African countries to manage the fast-moving financial technology industry on the continent.

Innovation offices use strategies such as dedicated office hours; an exclusive telephone line; a dedicated email address, a website or designation of a case officer, or a combination thereof. Innovation offices offer several benefits, for example, fostering communication between regulators and innovators on a mutually beneficial basis, promoting informed and proactive policymaking and advocating a pro-innovation culture.

*Sources:* UNCTAD, based on Financial Stability Board, 2017; United Nations Secretary-General's Special Advocate for Inclusive Finance for Development Financial Technology Working Group and Cambridge Centre for Alternative Finance, 2019.

Both innovative and conventional funding sources require a strong, functional and reliable financial infrastructure. Financial infrastructure is imperative for increasing financial access and transparency in the financial system, as well as improving financial system security, stability and governance. The lack of or poor financial infrastructure in many African countries (including branches, credit reference bureaus, collateral registries, securities settlement systems, digital financial infrastructure and remittances systems) limits SMEs' access to finance, as financial institutions are unable to, or do extend at high cost, traditional and new financial products and services to underserved SMEs.

These regulatory and infrastructure barriers and their impact on SME lending are not unique to Africa. In the European Union, the implementation of Basel III regulations resulted in a 20 per cent decline in SME lending. In South-East Asia, the low SME coverage by credit bureaus and registries, ranging from 11 per cent to 56 per cent, resulted in increased costs of SME credit risk assessment, making it untenable for financial institutions to service domestic SME markets effectively. About 50 per cent of SMEs in South-East Asia were unserved and underserved (Deloitte South-East Asia, 2015).

### 3.3 Smart services for market access and export diversification of small and medium-sized enterprises

The importance of recognizing the synergies between financial services (including alternative financing products and services), business services (including exporting firms, seamless trade transactions and supply chains) and export diversification across all sectors cannot be overstated. However, to facilitate these synergies in the context of many African countries, innovative solutions and infrastructure should be in place. While some of the required support infrastructure and technologies may not necessarily be new, their low or inefficient utilization can weigh heavily on small businesses and diminish their efficiency gains. Moreover, the emergence of rapidly evolving technology-driven companies, business models, financing instruments, transactions, and production and supply chain processes require that the financial landscape in Africa and businesses be able to adapt to this fast-growing digital divide and become more competitive. Technology and smart services can provide conducive platforms for efficiently linking output and markets, enabling intermediate inputs of key intensive services in production that facilitate complexity and diversity of manufacturing outputs. While most of these digital innovations have strict financing and skill requirements, there are several innovative digital technologies that can be more easily leveraged by SMEs to increase their market access and effectively contribute to viable value chains within and across industries. In this regard, this section focuses on the need to further develop tools and processes that can have direct linkages with competitiveness at the firm and sector levels through enhanced product quality and diversity, increased efficiency in supply chain management and an overall net reduction in operational costs. These include software and mobile development, as well as financial technology.

#### Software development

Despite the dominance of global or large corporates in software development, the evolving complex technology needs of the manufacturing industries have enhanced the relevance of SMEs in the sector because of their high innovation capacity and increased flexibility in meeting rising demand at lower costs. Notably, the digital revolution has highlighted the importance of relevant software for almost all components of manufacturing firms, from managing inventory, risk and compliance, to supply chain

management so as to enhance their competitiveness. For instance, depending on the size of their operations, manufacturing firms might require computerized maintenance management system software that provides technicians with real-time maintenance information on the firms' assets that are essential in both production and supply chains (Labib, 2008). This kind of software is key to ensuring the optimal utilization of these assets with direct positive impacts on overall maintenance costs and the operational efficiency of firms. There are more types of computer-based related software that can be leveraged by SMEs, including computer-aided manufacturing management software, which centralizes manufacturing process data to directly link the manufacturing process with market requirements (Makris et al., 2014). In tandem with the specific firm needs being addressed, this software can be customized to directly link various stages of the manufacturing process, from design, processing and post-processing, with direct implications on labour productivity and overall efficiency and competitiveness of manufacturing firms.

Enhancing the productivity of manufacturing firms goes beyond the actual manufacturing process. How a company manages its accounts and human resources for instance, has equally significant implications on its overall costs and hence, on its ability to improve the complexity of its products and expand its product range. In this regard, accounts and human resources-related software have equal opportunities for productive SME engagement in the sector. Several SMEs in Africa already have proven skills and expertise in this regard. For instance, Ncube and Ondiege (2020) highlight several kinds of locally relevant software in demand in Kenya that have been developed by local entrepreneurs. The issues being targeted by these innovations across sectors include human resources, accounts and marketing. Overall, computer-based software can be directly installed within a company's information technology system to be run and managed using in-house resources, provided relevant training is provided by the SME concerned. In this context, where the operational cost of developing a software is not exorbitant, SMEs could be directly engaged by manufacturing firms, as they have a comparative advantage over large enterprises with similar skills and expertise in terms of cost. Nevertheless, where customization of such services to the needs of the company is contingent on considerable financial requirements, SMEs with the required competencies can still leverage the ICT outsourcing market, as they remain competitive in terms of cost relative to large enterprises competing in the same outsourcing market. Moreover, ICT outsourcing models with training components further enhance the market access of SMEs with software development skills. However, to effectively leverage the software development market, African SMEs will need up-to-date skills and qualifications to

match the evolving complex technology needs, which might not always be provided by partners who are looking to reduce their operational costs. Hence, they could remain excluded from such potential markets and struggle to effectively exploit their important role in African trade and growth.

## Mobile application development

Digital platforms and mobile applications are increasingly becoming central to both intra- and inter-firm business processes and transactions. They provide reliable platforms that diminish market information asymmetries and enhance the reliability and efficiency of business-to-business and business-to-consumer transactions. **Box 13** highlights the example of a business-to-business mobile platform. Digital platforms and mobile applications can be used as effective tools to improve regional value chain linkages within and across sectors in Africa. The surge in mobile penetration across income groups and regions reflects the increased market for SME applications developers in Africa, particularly if the focus is on developing locally relevant applications in terms of content and language. The demand for locally relevant mobile applications is further fuelled by the trade gaps created by a lack of robust supporting infrastructure. This section focuses on the intersections of ICT and other sectors, identifies gaps that are being filled within and across value chains and reviews some success stories of SMEs in Africa whose mobile applications development has helped firms across industries boost their productivity.

### Box 13

#### **Kenya: Mobile-based cashless business-to-business platform**

In 2014, Twiga Foods established a mobile-based cashless business-to-business platform in Kenya to decrease post-harvest losses that arise from handling, high transport costs and agricultural produce market information asymmetries. Through the mobile platform, the company collects relevant information from the smallholder farmers that is transmitted to the vendors in real time to ensure there are no significant gaps between supply and demand. The platform provides registered farmers with a guaranteed market for their produce, while vendors have a reliable supply without additional storage, processing and transportation costs to both the smallholder farmers and vendors. Registered farmers drop their produce at their nearest collection centres, and accounts are settled by the platform using mobile money within a day of delivering their produce. Based on the orders from

the vendors placed through the platform, the company makes deliveries and receives payment from the vendors through mobile money as well.

There are many benefits that accrue to smallholder farmers and vendors through the networks. First, farmers have easy access to a wider market, as they are not restricted by distance. Second, the business model reduces transportation costs for smallholder farmers (collection centres are within the catchment areas) and vendors (regardless of distance, the company defrays the transportation costs from its collection centres to vendors). Twiga Foods transmits information on farm produce to potential buyers in real time and covers storage and processing costs at the collection centres, thereby further reducing farmers' operational costs. Moreover, the quality of the farm produce is preserved with positive impacts on post-harvest losses and the overall price for the final consumer. Similar models and innovations can be adapted and used to seamlessly connect different players in various value chains within and across sectors. For instance, instead of just linking farmers and vendors, as in the company model, the business-to-business mobile application can be used to link multiple players: producers (smallholder farmers), processors (agri-industries), vendors and other consumers, such as hotels and industries.

*Sources:* UNCTAD, based on Twiga, 2022 and other sources.

Overall, the ICT sector is highly competitive, with onerous financial start-up and operational requirements. To grow and effectively contribute to the sector's sustainability, SMEs should be highly innovative seeking opportunities that are readily available across subsectors, particularly in areas that are often overlooked by multinational enterprises, while being aware of infrastructure deficits and associated access costs. In leveraging these opportunities, SMEs can either work independently, based on their working capital and diversity of expertise, or they can partner with other SMEs to enhance their skills base and offer competitive services to domestic and international clients. Depending on the skills base of the joint ventures, SMEs have a chance to compete with larger firms in the market, as lower costs of their services accruing from low operational costs, inter alia, works to their advantage. In addition, SMEs can leverage partnerships with companies that outsource specialized services, notwithstanding the associated high demand for competitive services in terms of quality and cost of such partnerships. Lastly, affiliation with incubators and hubs has proven effective in harnessing and developing relevant skills for local entrepreneurs, as they provide the desired space for mentoring and sharing experiences and knowledge in the sector (Ncube and Ondiege, 2020).



## **The potential impact of financial technology on small and medium-sized enterprises**

Financial technology firms have revolutionized the financial services sector, providing access to financial services where traditional financial institutions have limited presence. Although financial technology represents slightly over 1 per cent of the global financial services market, projected to reach \$26.5 trillion in 2022 (The Business Research Company, 2021), there has been strong growth in financial technology investments, reaching \$55.3 billion in 2019 (Finance Online, 2022). The global financial technology market is projected to grow at a compound annual growth rate of 23.6 per cent from 2021 to 2025 (TechSci Research, 2021). Globally, digital payments, personal finance and alternative lending are the top three financial technology segments by transaction value. The Asia-Pacific region has a 40 per cent financial technology lending market share, followed by North America (28 per cent) and Europe (27.7 per cent) (Reports and Data, 2022). A leading driver of the financial technology market is mobile payment services, which process an average \$1 billion worth of transactions every day (Mordor Intelligence, 2021). In Africa, the use of mobile payment services has expanded in recent years. The total value of African mobile financial services transactions reached \$495 billion in 2020 (Boston Consulting Group, 2020). This growth was due to increasing Internet penetration and a high concentration of mobile money users. The growth of financial technology-powered financing models opens new avenues of funding for businesses and can help address the credit constraints faced by exporting firms.

Financial technology companies operating in the SME lending space are usually classified as the following categories (International Finance Corporation, 2017):

- Marketplace lending.
- Supply-chain financing.
- Non-cash merchant payment.
- Alternate data, advanced analytics and underwriting process automation.

Marketplace lending enables individuals or micro-, small and medium-sized enterprises to borrow through online platforms that connect lenders and investors with borrowers. In some circumstances, the platforms provide direct loans to the eventual beneficiaries and handle balance-sheet risks, whereas, in others, they simply connect enterprises in need of finance with investors who are willing to take on more risk (International Finance Corporation, 2017). These platforms offer people and small and medium-sized

businesses an alternative option to obtain credit, and investors, a chance to lend directly (World Bank, 2018). For example, despite the encouraging and rapid access and use of financial technology by a significant segment of the rural and urban populations in Burkina Faso, the country has not yet succeeded in maximizing entrepreneurship benefits, as informal finance is considered to be a stronger driver of entrepreneurship (Kedir and Kouame, 2022).

Financial technology is also changing the cross-border payment landscape. In conjunction with the African Union and the African Continental Free Trade Area, the African Export-Import Bank, also known as Afreximbank, unveiled a financial technology-enabled pan-African payment and settlement system to promote cross-border transactions across the continent. Prior to the launch of the system, intra-Africa trade settlements required a third currency and a non-African correspondent bank, resulting in an estimated yearly loss of close to \$5 billion, subsequently impeding trade in the region. The system is expected to save African enterprises \$5 billion in transaction costs each year and accelerate export diversification as a result of the creation of a single market throughout Africa by the Free Trade Area. Investment in other innovative platforms and digital trade infrastructure that can ease access to information and data on trade and finance transactions in Africa will significantly support and leverage the potential role of firms in driving diversification in sectors and promoting sustainable trade (Box 14).

## **In focus: The potential power of blockchain**

Blockchain is defined as a ledger (data record technology), a large database that can be shared simultaneously with all its users. All users are equally holders of this ledger, and all users can enter data, according to specific rules set by a computer protocol secured effectively by cryptography. There are two types of blockchain technologies: public, open to everyone (for example, Bitcoin, Ethereum and Tezos) and enabling information-sharing across a peer-to-peer network; and private, accessible only to authorized and known users of a particular company or small network (Economic Commission for Africa, 2020). Banking and payments use a hybrid form of public and private blockchains called a consortium or federated blockchain, which operates more like a private blockchain but with limited access to a particular group, thus reducing the risks of a single entity controlling the network. This type of blockchain is also used for supply chains.

Blockchain technologies have been mostly known through their use by the cryptocurrency Bitcoin, the first peer-to-peer electronic cash system developed as a non-State form

of digital money in 2009 (see <https://bitcoin.org>; accessed 17 May 2022). Given the high-risk exposures arising from virtual currencies (cryptocurrency) and the poor anti-money laundering and fraud prevention practices, the use of this self-regulating virtual currency is becoming increasingly contested in markets. Moreover, that these virtual currencies use blockchain as a protocol on which to operate can also affect the credibility of or trust in blockchain technologies.

However, blockchain technologies have other attributes that can help expand access to finance for SMEs and facilitate trade transactions. Besides providing platforms for the easy and fast transfer of assets, such as currency, securities, shares, bonds and derivatives, the application of the blockchain as a register, for instance, can facilitate better traceability of products and assets. Many of the innovative and alternative financing products and instruments such as online and automated payments, crowdfunding and crowdlending, which are facilitating the expansion SMEs' access to finance, are run on blockchain applications, thus contributing to the financial inclusion of SMEs and other unbanked groups and populations (Economic Commission for Africa, 2017). Moreover, blockchain can be used to automatically carry out the terms and conditions of a contract without requiring human intervention once started, also known as smart contracts (Blockchain Council, 2022). Smart contracts are tamper-resistant, self-executing and self-verifying applications that provide error-free processing of insurance claims, smooth peer-to-peer transactions, streamlined know-your-customer processes and transparent auditing services (Business of Apps, 2021).

Blockchain technologies could also support SMEs' access to finance or facilitate trade transactions by providing a platform or an application that enables the swift and simple electronic transfer of money between currencies and countries. With no exchange fees, blockchain could reduce the cost of SMEs' access to global finance. This would enhance the efficiency of the investment and credit ecosystem by reducing transaction times and improving currency exchange. Blockchain can also contribute to production, supply chains and access to markets by facilitating different stages of the supply chain, including procurement, information on the origin, quality and costs of goods, and closer access of SMEs to corporate clients. The use of blockchain applications facilitates the tracking and management of goods and services across supply chains, shipments and deliveries in a transparent manner, which contributes to a firm's productivity and ensures the credibility of its products or services (in terms of identity, property rights and origin, for example) for its end users or customers (International Chamber of Commerce of Brazil, 2018).

The application of blockchain technologies in various areas could be a game changer in fast tracking the growth of e-commerce across Africa, scaling up trade finance and access to credit for SMEs, and propelling export diversification forward in the region (Business of Apps, 2021). These areas include online payment systems, easy and cost-effective access to alternative finance, traceability of products and transactions, smart contracts for the efficient delivery of goods and services, and intellectual property rights management systems. **Box 14** features an initiative of a digital ledger platform to facilitate cross-border trade.

## Box 14

### **Digitizing trade infrastructure in Africa through a digital ledger platform**

The Smart Trade Africa Marketplace is a digital ledger platform that brings together all the elements of a trade transaction: finance, logistics, customs and taxes, regulation and insurance. It enables the entire trade value chain to have one channel of information and facilitates better economic visibility and decision-making. The platform incorporates cross-Africa trade protocols and the guidelines and legal and regulatory requirements of African Governments. The Marketplace drives structural change in the trade process by bringing all the players together onto a single platform, thus reducing the bilateral flows of information and documents.

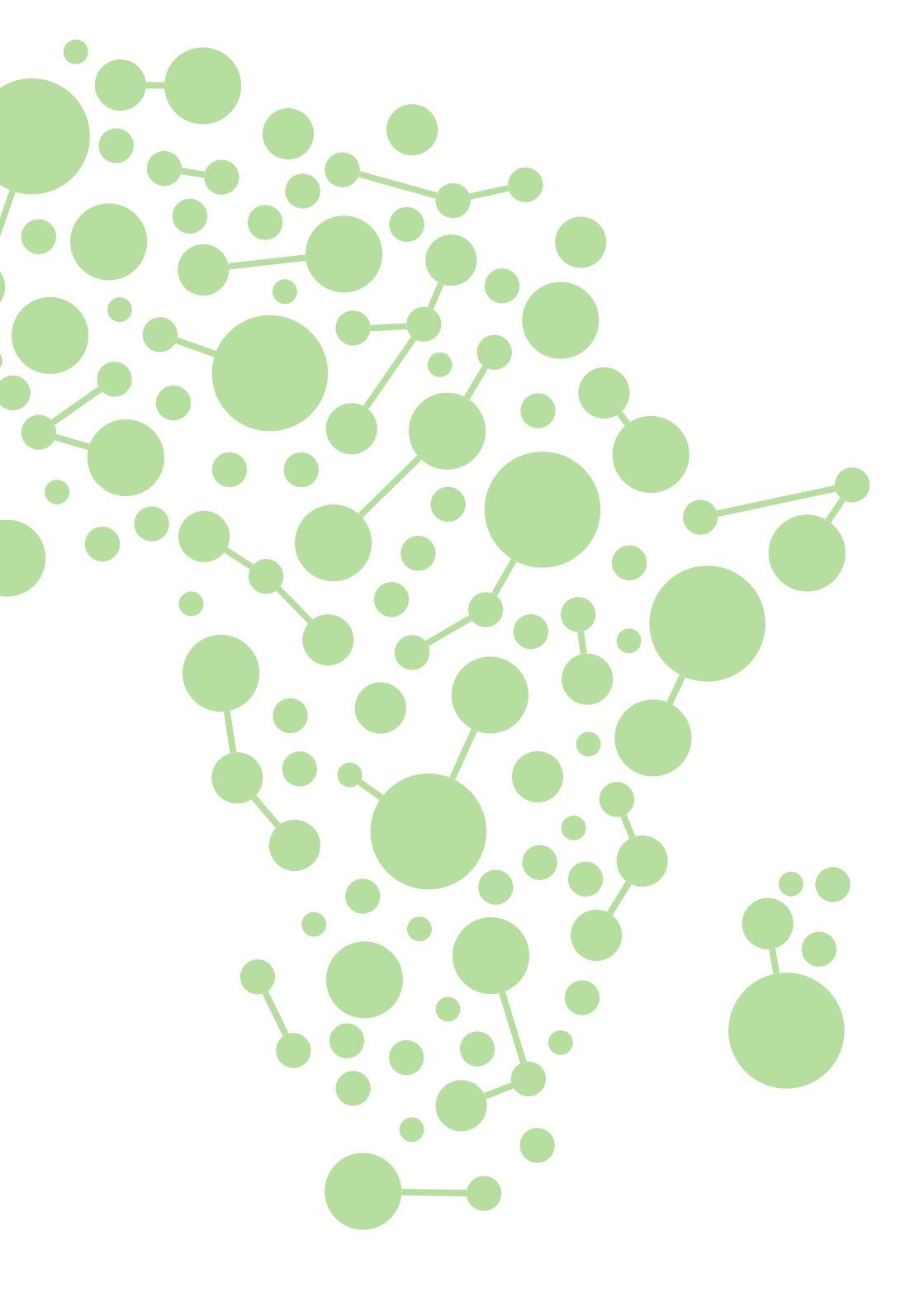
By recording information on all trade transactions on the platform through single data sets driving each transaction, it gives a greater level of visibility on trade flow data in real time and enables enhanced feedback on the effects of government policy initiatives. The platform also provides greater efficiency of end-to-end trade process workflows and improves market access. Further, it allows a significant reduction in administration time and effort stemming from the duplication of processes and data entry errors and acts as a springboard for technological innovation and better financial participation across Africa. The platform will help drive government-led technology with greater visibility than before, providing an inclusive network across the African continent.

While its primary focus is to address challenges related to data visibility, the Smart Trade Africa Marketplace will also help African countries and the private sector overcome some of the barriers to trade transaction in the region: low investment, high costs of trade transaction, poor logistics and communications infrastructure, and multiple regulatory frameworks and technological infrastructures. The Marketplace can have a significant impact on the consolidation of Africa as a union as it strives to unlock the key to long-term, sustainable economic growth and development, and monitor trade in a practicable, scalable and digital manner.

*Source: UNCTAD, based on Smart Trade Africa, 2022.*

### 3.4 Conclusion

Finance as an enabler of private sector growth and industrial expansion is not a new phenomenon. It is widely acknowledged that the positive externalities of improved access to alternative finance and more particularly, the rapid growth in financial technology, can potentially contribute to the provision of financial services (Bollaert et al., 2021). In essence, this helps bridge the financing gap for SMEs to support export diversification. However, the development and deepening of financial product and services in Africa may not have yet reached the maturity level required to influence a paradigm shift in export expansion and diversification. The alternative finance market landscape in Africa has been dominated by mobile money services, which can be an effective gateway to financial inclusion among its unbanked population and small-scale enterprises. The potential for alternative finance to expand and upgrade the portfolio of financial products and services and offer more innovative firm-centric products that can sharpen operational efficiency and change the competitive landscape of SMEs in Africa should not be underestimated. However, alternative finance, especially financial technology, does not come without risks. Due to the innovation, opacity and complexities associated with financial technology business models, with which users may be unfamiliar, there is often a heightened risk of loss from fraudulent activities or misconduct by operators and/or other third parties. Most African economies lack the robust regulatory structures to efficiently tackle these issues and are thus less likely to realize the diversification-inducing potential of such structures. Moreover, the weakness of institutions can have implications for over-regulation and bureaucracy, all of which undermine the diversification agenda by negatively affecting investment and entrepreneurial activities. Policymakers may therefore acknowledge that rule-based governance and financial sector policies – including those related to financial technology – are largely complementary, and both are needed for the effective implementation of export diversification initiatives.



## Chapter 4

# Conclusion and policy recommendations

Despite efforts to achieve export diversification, African countries remain predominantly dependent on exports of primary products in the agricultural, mining and extractive industries. This has adverse impacts on inclusive growth in the long term, as it dims the prospects of industrialization and human capital development, among others. Forty-five African economies are commodity dependent, with highly volatile revenues due to nature of the market, characterized by periods of price boom and bust. While many parts of Africa have enjoyed positive economic growth in recent years, such growth was in part due to a commodity super-cycle. The high concentration of exports in a small number of commodity products can create macroeconomic instability, especially during times of commodity price volatility and global shocks, such as those affecting supply and demand. The disruptive effect of these shocks on trade balance, export revenues and financial flows can in turn generate a negative impact on productivity, economic growth, revenues (both government and income) and investment (UNCTAD, 2021c ). Commodity price shocks are also associated with lower levels of financial sector development in commodity-dependent countries.

The diversification of African exports and economies is the most viable means by which these countries can prosper in the global economy and survive vulnerabilities and economic uncertainties exacerbated by commodity price volatility. There is currently great potential for African economies to transform and achieve a higher level of diversification and competitiveness. The successful implementation of the African Continental Free Trade Area, a growing middle class, an emerging consumer market, the increased use of financial services and technology, and dynamic private entrepreneurs will drive export diversification and sustainable economic growth in Africa.

However, when examining the various strategies put in place by African countries to diversify exports and foster competitiveness at the regional and global levels, what becomes apparent is the underestimated potential of the services sector as a cornerstone of productive activities for industry, manufacturing and agriculture. Moreover, many export diversification programmes overlook the potential of the private sector and financial services to reach their objectives. The private sector, which includes SMEs, can provide innovative and efficient ways of diversifying and transforming African economies; financial services can serve as a sustainable channel through which SMEs can mobilize financing to enter new markets, diversify exports, upgrade productive activities and improve competitiveness.

*Economic Development in Africa Report 2022: Rethinking the Foundations of Export Diversification in Africa – The Catalytic Role of Business and Financial Services* highlights the enormous potential of countries in the region to transform and achieve higher levels of diversification and competitiveness through services, in particular business and financial services. It draws on new avenues of enhanced growth in the services sector that can strengthen both the backward and forward participation of African countries in high-end global value chains. In this regard, the emphasis is placed on a vibrant private sector and catalytic financial services opportunities within the context of the African Continental Free Trade Area, which focuses on liberalizing the market to enhance intra-African trade and industrial development.

## 4.1 Main messages

**The services sector could be a forceful impetus for economic diversification, growth and structural transformation in Africa. However, this requires that policies be aligned to build complementarities between the services sector and other sectors of the economy, especially manufacturing. The implementation of**



**the African Continental Free Trade Area may help catalyse national efforts to link these services and industries and prioritize those services that are relevant to a value chain that is strategically important for a given country .**

For decades, export diversification has been a policy priority for Africa. However, fewer than half of all African countries have succeeded. While some countries have added new product lines to their export basket, insufficient progress has been made in steering the industrial sector into high value-added manufactured goods that are key to successful sector growth and effective integration into the high-value segments of regional and global value chains. Although much of the literature converges on the pivotal role of services in this process, the report shows that the level of services trade in Africa is low. In addition, such trade is comprised mainly of traditional services, such as transport, suggesting limited access to a variety of fundamental competitive services inputs from within the continent.

Between 2005 and 2019, services accounted for only 17 per cent of total exports in Africa, of which travel and transport accounted for about two thirds, representing a high concentration of traditional services sectors in its total trade in services. The knowledge-intensive services, which include eight of the 12 services categories, have the potential to add higher value to the export of services, enable innovation in business operations and production systems and drive sector growth. Such services, however, are underrepresented in African services exports, accounting for only 20 per cent of the continent's total exports of services. Despite the importance of traditional services (travel, transport, and maintenance and repair services) in facilitating production and supply linkages, with significant implications for the overall competitiveness of firms through net trade costs, they do not have a direct impact on the complexity and diversity of the export basket, which is seen to increase with high knowledge-intensive services such as information and communications technology services (Haven and Der Marel, 2018).

Services are essential to enhance export diversification through the provision of business, financial and information and communications technology services to make it easier to tap into new markets and make new products. However, the performance of trade in services, both in terms of diversity of players and products within the domestic market, remains imperative in ensuring the availability of relevant services to ensure the enhanced complexity and diversity of manufactured goods. For instance, the utilization of business and communication services inputs is low in most African countries, with an average of about 10 per cent in production and exported output. While services account for more than 50 per cent of the inputs in production, the largest part comes from distribution services.

If Africa is to better harness its services trade potential, services policies and their regulation need to better target areas of market failure – accessibility, quality, affordability, competition, the high costs of trade in services, protectionist policies, low levels of digitalization and technology, difficult access to financial services, weak regional integration and poor infrastructure. Addressing the limited productive capacities will be key to enhancing the internalization of key services.

**African SMEs stand to gain from many opportunities in the services sector. However, they need to be innovative and make good use of networks in the sector to improve access to relevant information on markets and other developments in the sector. Overcoming credit constraints and facilitating SMEs' access to affordable finance will be important for their growth, competitiveness and position as potential engines of growth and diversification .**

Further, SMEs are the backbone of African economies. They make up about 90 per cent of firms in the region and employ about 60 per cent of its workforce. Trade in services offers many opportunities for the increased engagement of SMEs in Africa. However, restricted access to finance, poor integration in regional and global markets, and a limited skills base make it virtually impossible for them to compete with large public and private firms that dominate the sector. Establishing viable value-based networks within sectors or across clusters of industries and forging stronger partnerships that can foster deeper integration into regional and global value chains are the most effective way to productively leverage their contribution in the different services subsectors.

Leveraging the potential of SMEs in diversifying African exports and integrating trade in services linkages may present significant challenges. These include informality, finance gaps and a lack of skills essential to outsourcing their services. In many countries in Africa, the informal economy remains pervasive and constitutes a significant share of the total economy (UNCTAD , 2021d). From 2010–2018, the informal economy accounted for 36 per cent of gross domestic product in Africa. Limited access to finance and cumbersome regulatory and administrative processes are among the key factors contributing to increased informality in the region.

Although financing poses a challenge to all developing regions, the problem is worse in Africa. In the region, there are about 50 million formal micro, small and medium-sized enterprises with an unmet financing need of \$416 billion every year (International Finance Corporation, 2017). Exporting firms, particularly new entrants and small-scale exporting firms, need to secure external financing to cover large costs to enter export markets. Those costs include information costs (to better understand the required

regulations and standards of a potential foreign market), compliance costs (to redesign exporting products that meet demand standards for a specific market and establish new processes to comply with foreign market regulations and standards) and other costs related to trade barriers (customs, logistics, lead time and tariffs).

Given the specific financing needs of African firms and the difficulty to obtain funding from traditional financial sources, such as the corporate banking sector, more innovative financial instruments, practices and technology could be optimized to secure access to credit and external financing.

**Although the development and deepening of the financial products and services markets have not yet reached the level of maturity required to influence a paradigm shift in export expansion and diversification in Africa, the potential for alternative finance to expand and upgrade the portfolio of financial products and services and to offer more innovative firm-centric products that can sharpen the operational efficiency and competitiveness of SMEs could be a game changer for export diversification. The effective implementation of export diversification initiatives will require rule-based governance frameworks and coherent financial sector policies, including those related to financial technology .**

As the financial sector develops, firms' access to credit also improves, strengthening their ability to increase their share of manufacturing relative to primary exports, leading to greater export diversification. Chapter 3 shows that despite its complexity, financial technology has the potential to help African countries achieve financial and social inclusion by decreasing inefficiencies in resource allocation within the traditional banking sector and offering economic opportunities that promote financial access and social development. In Africa, financial technology has yet to reach the development stage where economies can use their leverage to support the financing of valued added productive activities. Nonetheless, in its current state of development, financial technology can provide more accessible financial services opportunities for African firms by expanding new e-payment and transfer services and promoting sound and appropriate regulatory and supervisory frameworks.

However, due to the innovativeness and the perceived opacity and complexities often associated with financial technology business models, there could be a heightened risk of loss incurred by fraudulent activities or misconduct by operators, users and other third parties. Most African economies lack the robust regulatory structures to efficiently tackle these issues, which can create additional challenges in developing the diversification-inducing potential of financial technology. Moreover, institutional

weaknesses and challenges can have implications for overregulation, bureaucracy and political instability, all of which undermine the diversification agenda by negatively affecting investment and entrepreneurial activities.

Given the role of alternative finance as an enabler of private sector growth, industrial expansion and export diversification, it is important to understand that various dimensions of financial deepening can have different implications for diversification. Nonetheless, financial technology and evolving financial innovations could be transformative in the appropriate institutional framework.

**Since current investment models are failing African SMEs, it is time to explore fresh options. Financial technology and alternative financing could be transformative, provided that the appropriate legal and institutional frameworks are in place, not only by facilitating the financing and growth of SMEs but also by leveraging the potential of these firms to drive export diversification. The recent growth of financial technologies and innovations in alternative financing has begun to have significant positive impacts on SMEs and the unbanked (mainly youths and rural dwellers) of around 42 per cent of the adult population, by easing and expanding their access to financing opportunities that are better tailored to their specific characteristics and needs. Notwithstanding the great potential of financial technology and other alternative SME financing models (equity funding, venture capital, credit insurance and peer-to-peer lending), many legal, regulatory, operational and transparency obstacles could hinder their use by trade customs and African firms, including export-oriented ones .**

Despite the impact of the coronavirus pandemic of 2020 on markets and businesses, the outlook for financial technology and alternative finance has continued to improve favourably in Africa. According to chapter 3, investments by African financial technology companies soared to a record of over \$2 billion in 2021 (a 200 per cent increase from 2019), and about 60 per cent of the \$5.2 billion of venture capital transactions in 2021 were injected into the financial technology sector alone. Venture capital growth in Africa in 2021 stood at 215 per cent, higher than in any other region. Africa has over 500 active financial technology companies, including a handful of unicorns.<sup>35</sup> These firms are exploiting emerging technologies, such as mobile applications, cloud computing and the Internet of things, to promote innovation and facilitate access of the unbanked to finance.

<sup>35</sup> Financial technology unicorns are financial technology start-ups that are valued at or have raised over \$1 billion.

The adoption of financial technology can advance financial inclusion in Africa by providing technology-enabled banking and financing opportunities to the unbanked and the informal sector. It can also offer innovative solutions to challenges experienced by SMEs, such as accessing financial services, making international payments, digitalizing customer experience and expanding e-commerce. By creating multiplier effects, financial technology also helps stimulate widespread economic activity and fuel progress towards achieving the Sustainable Development Goals. However, private sector growth and export diversification in Africa will require changes in the regulatory landscape if financial technology solutions in the industry and a financial services ecosystem are to be adopted, and if financial technology is to be a game changer in the financial services. For financial technology and digital finance to drive financial inclusion, steps toward greater interoperability (ability of different digital financing services and systems to connect with one another) and enhanced digital infrastructure ecosystems must be ensured at the national and regional levels.

## For financial technology to be effective, the regulatory framework should focus on:



In most African countries, the financial services industry is regulated by the central bank or monetary authority, whose ability to embrace and regulate an emerging and fast evolving sector such as financial technology has been limited. Moreover, the rules and regulations needed to ensure compliance, improve risk management and safeguard businesses and consumer protection are bound to change constantly to keep pace with innovations in the sector. For financial technology to be effective, the regulatory framework should focus on the following key elements and actions:

- Improving digital infrastructure.
- Enhancing cross-regulatory interaction to innovate new products, such as insurance, savings and microfinance, through new digital platforms.

- Simplifying the registration of digital identification for receipt of government services (for example, pensions).
- Establishing a regulatory body or framework that can advance regulatory innovation and stimulate entrepreneurs-led digital transformation.

These steps could improve policymaking and licensing and link financial technology products in line with governmental financial inclusion objectives. Allowing local industry participants to engage with regulators and policymakers in defining the rules and managing the risks could help facilitate technological advancements, create trust (from both a client or customer perspective and from a financial stability point of view) and contribute to an exponential increase in trade and investment transactions in Africa.

## 4.2 Policy recommendations

Enhancing the complexity and diversity of African exports requires a two-pronged approach that looks at the incentives for increasing services utilization in the manufacturing sector and scaling entrepreneurship activities towards potential new products, with benefits for structural change, while optimizing opportunities for deeper integration in regional and global value chains and catalysing conducive business and financial services. This entails confronting the barriers that undermine the performance of trade in services. This also requires improved access to competitive services, while re-orienting national and regional investment and trade policies to strategically enhance productive capacities of firms in developing new products and services with a potential to transform and sophisticate productive structures and market activities without necessarily crowding out the diversification potential of existing products and businesses. Much of the debate over strategies or drivers of export diversification has focused on the role of the public sector, with a limited push towards more dynamic and game-changing agents, for example, the private sector. High knowledge-intensive services sectors and systems, such as financial technology, are essential to transforming African export and overall economies. Recommendations targeting niche areas where African Governments and businesses can make improvements and investments to support effective export diversification on the continent are presented below, identifying the following key opportunities:

- To build capacities to innovate.
- To enhance technologies and infrastructure for industrialization.

- To strategically cater to the financing needs of domestic businesses.
- To foster innovation and efficiency for financial services and business models.
- To leverage regional gains and potential to support export diversification and structural change.

## **Improve the capacity of people and firms to emulate and innovate**

Several channels can improve the capacity of people and firms to emulate existing products and innovate new products.

Intellectual property rights play a key role in emulating and innovating new products to promote export diversification. Notably, stronger national intellectual property rights can benefit export diversification, as they are an important motivation for innovative activities. Firms face a risk in innovating new products, but if they are successful, others will follow in their steps and increase competition, driving profits down. As a result, the social benefits of innovation and firm-level product diversification are greater than the private benefits. However, a restrictive international architecture for the protection of intellectual property rights can compromise export diversification strategies, as it limits the opportunity for firms to reverse-engineer and copy the products they try to emulate. To tackle these issues, the following recommendations are put forward for consideration:

- African policymakers should ensure the establishment and/or legal enforcement of intellectual property rights at the national level to protect entrepreneurial creativity.
- In collaboration with international regulatory and standard-setting bodies or other relevant institutions, African policymakers should advocate support for more flexibilities, such as voluntary licences, under the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights, which can help achieve the Sustainable Development Goals.
- In cooperation with regional institutions (for example, the African Union, regional economic communities and the African Continental Free Trade Area Secretariat) and other relevant bodies, African policymakers should develop coherent regional frameworks that can spread the use and application of policies relating to intellectual property rights and other measures that can foster the growth and competitiveness of African firms, in particular SMEs.

## **Support firms to innovate**

Most SMEs, which do not generally have extra resources for innovation, risk failure in their attempts to achieve diversification. Access to financing instruments designed to promote economic diversification, such as funding provided by development banks, can facilitate emulation. In addition, providing research and development subsidies to incentivize firms to innovate has been an important tool to expand diversification. Governments should act in all these channels to boost the capacity of firms to emulate and, therefore, increase the rate of emulation. Strengthening market information tools can also reduce market uncertainties and raise the chances of success. To tackle these issues, the following recommendations are put forward for consideration:

- African Governments should design and use policy instruments that teach firms how to innovate and emulate. Some of these policy instruments are public-private research and development, innovation hubs, extension services and industrial institutes.
- In collaboration with development partners and financiers, African Governments should invest in creating national innovation systems and leveraging technical and technological expertise in universities, research institutes, financial institutions, certification and metrology institutes, and regulators to support and strengthen innovating firms.
- African Governments should develop training programmes that would give people the necessary entrepreneurial skills to leverage the system so as to create new businesses that produce and provide "new-to-the-country" goods and services. This will include specific skills that go beyond the establishment of a business and have at its core the capabilities required to identify opportunities for emulation based on work that people already perform.

## **Expand the set of technologies and infrastructure**

Another way to promote emulation is by expanding the set of technologies and improving the quality of infrastructure. This includes skills and technologies in areas that are important for firms entering new sectors, as well as electricity and digital infrastructure. The facilitation of technology transfer is a common mechanism used to upgrade technology in an economy and to increase export diversification. Chapters 1 and 2 describe several ways through which technology transfer can be facilitated, including



exports or imports of final goods (trade), licences, the purchase of foreign firms (mergers and acquisitions), strategic alliances or joint ventures, migration of people for work or education, open-knowledge sources, contracts with research entities, collaborative research and development, collaboration between universities on technology transfer, and bilateral or multilateral technology agreements. For instance, the Technology Bank for the Least Developed Countries was set up to facilitate technology transfer to those countries. The online platform of the Technology Facilitation Mechanism also contributes to this work by providing information on available technologies that can be used to attain the Sustainable Development Goals. On-the-job training is essential for the transfer of non-tradeable technologies (know-how, tacit knowledge, and methods and procedures that are learned by doing). Transfer of technology, in which new technology is licensed to a firm in a developing country, does not fully complete the technology transfer. To tackle these issues, the following recommendations are put forward for consideration:

- African Governments should set up central open-source technology databases to facilitate information-sharing, skills gap needs assessments and the design of more effective technology transfer initiatives for local firms and people.
- African policymakers should put in place policies and investment agreements that ensure skills transfer, technological know-how and innovation, and can contribute to the specific skills upgrading needs of the local firms and workforce, and hence promote local competitiveness and job creation.

It is important to increase the number of people trained in areas related to the new sectors that a country is promoting. As such, Governments in Africa should invest more in people and firms that offer a comparative advantage in the new sectors. This includes training engineers who can work with the new machines, training technicians who can engage in the new processes and learning new technologies by observing and doing the work.

In partnership with the private sector, African Governments should mobilize domestic resources to provide targeted infrastructure and technology that encourage industrialization. They should also adopt strategies that encompass a regionally oriented holistic approach towards tackling inadequate economic infrastructure (electricity, information and communications technology, transport). Such an approach will help promote viable integration into regional and global value chains effectively.

It is equally important that industrial policies target local SMEs with, for instance, public procurement clauses, foreign investment requirements to create linkages to domestic private sectors or with incentives to promote joint ventures.

## **Reinforce linkages between industries and encourage the use of local content and suppliers by domestic firms**

Some progress has been made in the sectoral and modal aspects of services trade in Africa, particularly through the African Continental Free Trade Area, and prior to its adoption by member States. This relates mainly to transport, tourism and modal services, which are conduits for the movement of persons. For example, key sectoral milestones in the transport sector were achieved under the Africa Transport Policy Programme, which aimed to improve connectivity in the region by establishing comprehensive road and transport corridors and networks to transport goods and people across Africa more efficiently. Nonetheless, services provision remains suboptimal and is delivered at a high cost. Various regulatory and policy shortcomings prevail and impede Africa from fully capitalizing on its services sector potential. To tackle these issues, the following recommendations are put forward for consideration:

- African Governments should regularly assess and review the process of removing key barriers to the efficient participation of SMEs in the diversification of trade in services. This includes encouraging those SMEs operating in the informal sector to register with the formal system. A formal system of registration would provide many advantages, such as government support programmes for building and enhancing skills and technologies, as well as increased access to innovative financing instruments and institutions.
- African Governments should adopt SME-targeted industrial policies that minimize the impact of their size in terms of both technical and financial capacity. This could be achieved by promoting the use of local firms as suppliers of factories set up in a specific country with foreign direct investment (for example, through public procurement clauses, foreign investment requirements to create linkages to the domestic enterprises or the promotion of joint ventures).

To strengthen the linkages between domestic suppliers and large firms, African Governments and relevant partners could develop supplier development programmes through, for instance, investment promotion agencies or other related institutional or regulatory arrangements. Firms of the same or related industry could benefit from a network of specialized suppliers, services and skills spillovers.

With regard to the African Continental Free Trade Area, a regional approach based on the inclusion of regional firms should be promoted. For instance, regional cooperation and harmonization through the African Continental Free Trade Area Protocol on

Competition Policy should aim to address cross-border anticompetitive behaviour more effectively, with special provisions or special treatment provided to countries with limited administrative capacity, such as the least developed countries.

## **Enhance the access of small and medium-sized enterprises to alternative finance**

Relevant policies that encourage a diversity of players and products in the financial sector will be key in ensuring financial inclusion across businesses and sectors. For instance, while it is essential to foster growth in the banking sector, insurance services should be engaged to help diversify exports (see chapter 3). Venturing into new product lines for export in Africa is generally viewed as risky, suggesting that it is only likely to be undertaken when such risks are hedged with insurance products and services. With regard to funding for start-ups and SMEs, banks will generally finance existing product lines rather than new ones. Stronger protection of property rights and rule-based governance, in addition to guaranteeing a level playing field for enterprises (especially SMEs) to compete, are prerequisites to promoting export diversification. To tackle these issues, the following recommendations are put forward for consideration:

- In collaboration with financial institutions and market participants, African policymakers should adopt novel policies and programmes that provide SMEs with specialized financial and non-financial products and services, such as government loan guarantees and risk pooling that can better help meet the long-term financial needs of SMEs.
- Means of alternative finance, including financial technology, should be developed, accompanied by appropriate regulatory frameworks that could address the information asymmetry inherent in financing decisions for SMEs, so that funds can also flow more easily into this traditionally neglected but promising sector.
- In cooperation with financial services providers, African regulators should be encouraged to facilitate the interoperability of technology, rules and standards between digital services and products and across different national and regional jurisdictions.
- African regulators, supervisors, standard-setters and financial technology companies should be encouraged to collaborate more closely, develop coherent

testing frameworks for the use of technology in financial services and adopt appropriate rules and standards that can safeguard the broad use of financial technologies and other innovations.

- In cooperation with regulatory and standards setting bodies, African Governments should set up training facilities and other information-sharing mechanisms that aim to support regulators and supervisors in developing appropriate internal understanding and expertise in the use of technology in financial services, as well as mechanisms that can build their capacity to monitor and mitigate the concentration and operational and systemic risks associated with the application of such technologies.
- African policymakers should enact legislation or enforce rules that reduce the risks or uncertainties of financial technologies that can discourage their use by market participants. This includes, among others, legislation aimed at preventing money laundering, client asset protection rules, prudential treatment of exposure of regulated financial institutions to digital threats and other systemic risks, as well as know-your-customer processes and requirements.
- African Governments, financial institutions and regulatory bodies at the national and regional levels should promote the regional integration and convergence of the different systems, regulations and platforms required to catalyse financial technologies and increase cross-border access to alternative finance. This includes establishing regional clearing and settlement and payment systems, legislating regional policies and devising strategies aimed at convergence in the regulation and supervision of the use of innovative financial technologies.

### **Maximize the potential benefits of the African Continental Free Trade Area for export diversification by streamlining with inclusive growth and financial inclusion goals and practices**

A potential means of overcoming some of the structural constraints identified in the report is the facilitation of trade with close trading partners through regional integration and the promotion of business services through marketing and consulting on how to position products in the market. The finding that importer demand and gross domestic product matter more than an African exporter's market size, emphasizes the potential role of regional integration in overcoming small country constraints, increasing scaling opportunities for businesses and fostering export diversification. Lengthy processes

to establish a business, burdensome trade regulations and entry barriers created by specific requirements or preferences in the value chain pose significant challenges for local firms and marginalized groups to do business and enter the market, even at low levels of the value chain. Breaking down regulatory barriers to market entry and ensuring equal access to productive resources to all population groups should be understood as a prerequisite to diversification. To tackle these issues, the following recommendations are put forward for consideration:

- Regulatory innovation in financial technology and regional approach to competition policy, investment facilitation, promotion and protection are necessary to protect consumers and SMEs across borders from the anticompetitive behaviour of large firms, while maintaining efficiency and supply of affordable products.
- African countries and regional institutions should pay particular attention to the needs of vulnerable groups and reinforce efforts towards removing formal legal barriers that have prevented women entrepreneurs from owning and operating businesses or have lowered their effective and impactful participation in formal cross-border trade.
- African Governments and regional institutions should commit and invest more into initiatives that encourage equal access to finance, business services and market opportunities, as well as equal rights to access education, health and productive resources.
- National and regional competition policies that reduce the anticompetitive behaviour of dominant firms should be designed with a more focused gender lens and thus be supportive of women's economic and financial empowerment. The design, implementation and impact of such policies and initiatives will not be effective without the close cooperation of women entrepreneurs and related associations or their increased participation in the process.

## **Strengthen efforts to improve trade and financial data**

Good quality data remains key in assessing and identifying conducive trade and financial policies in Africa. Equipping national statistical offices with human and financial resources, and technical support is essential to promote data collection efforts and ensure for instance, the availability of disaggregated data on trade in services and key

indicators, such as global value chains, and service trade-restrictive indices, as well as the innovative use of technology in financial services. To tackle these issues, the following recommendations are put forward for consideration:

- African Governments and partners should design and implement tailored capacity-building and technical assistance programmes aimed at developing specific skills in high knowledge-intensive services. These could include public-private research and development, innovation hubs, extension services and industrial institutes.
- African Governments, regional organizations and relevant institutions should legislate access to the processing and sharing of financial and financial services data at the individual and firm levels. This could include an enforcement mechanism giving the African Union or the African Continental Free Trade Area Secretariat supervisory roles that will ensure consistency of trade and financial services data provision and processes across all jurisdictions.

## **Putting recommendations into practice**

A variety of measures and approaches can be used by African Governments, regional institutions, financial institutions and regulators, private businesses, development partners and other market participants to achieve practical gains in considering the proposed policy recommendations for effective export diversification in Africa. To do so, the following steps should be taken:

- Mainstream services (high knowledge-intensive sectors and financial services) into export diversification objectives, strategies and programmes at the national and regional levels by drawing on internal and external knowledge and expertise, while leveraging the expertise and potential of the private sector. This will include conducting upstream research and analysis (for example, on identifying key growth sectors and potential transformative services sectors), creating knowledge-sharing and information platforms and reinforcing collaboration and coordination between policymakers, industries and financial communities that will facilitate the design, funding and implementation of these services in mainstreaming and upscaling programmes.
- Allocate additional financial and technical resources to tailor frameworks, mechanisms and other procedural opportunities that can encourage growth

and innovation in production systems, facilitate access to financial technologies and services, and foster the sophistication of markets and industries and expansion. Close coordination and knowledge- and information-sharing with regulators, industry practitioners and investors will be paramount.

- Build, train and adapt capacities and skills to enable analysis, innovation, conceptualization, implementation, regulation, supervision and risk mitigation in growth sectors and niche industries on emerging issues and for potential drivers of change. This entails providing access to a range of tools and training opportunities, and building partnerships across industries and markets.
- Develop or restructure education and training programmes that contribute to building pools or new generations of highly skilled individuals in more technology-focused areas. Growth and innovation accelerator hubs or programmes that integrate start-up entrepreneurs and innovators, investors, regulators, customers and other relevant ecosystem actors will be essential to ensure that innovation and production are well matched with needs and demands in the target industries and markets.
- Set up digital data and knowledge centres that can quickly and securely identify, store, digitalize, analyse, crunch and process multiple and complex information and transactions relating to trade, finance and business. Governments and regulatory entities will play a vital role in providing seed capital and resources for building or enabling access to the required infrastructure, investing in research and development, and regulating the various systems involved. Entrepreneurs, researchers, innovators and investors, on the other hand, will provide the necessary impetus for conceptualizing, operationalizing and managing these digital assets and related risks. These centres or digital asset spaces will contribute to building or strengthening the resilience, efficiency and reliability of the trade and financial ecosystems.
- Improve, where appropriate, consensus-building on regional approaches, key policies and decisions that can be catalysts for scaling the potential of business and financial services for export diversification and structural change in Africa. This implies engaging in policy dialogue, advocacy, negotiation and coordination at the national, regional and global levels with sectors and actors that have the potential to drive effective export diversification in the region (see chapters 1, 2 and 3).

- Build confidence and trust among policymakers, financiers, regulators, the private sector and customers in the use of these constantly evolving, sophisticated and disruptive production and financial systems by the following means:
  - Encouraging transparency, including in the financial regulatory landscape.
  - Improving information- and data-sharing.
  - Ensuring compliance and protection for businesses and individuals or customers and safeguard stability in markets, financial systems and economies.
  - Running awareness programmes or holding educational and sensitization activities through seminars, workshops and other forums on the opportunities and benefits of the different ecosystems (financial, technology, industrial and so forth), the potential risks to individuals and economies, and the abilities to anticipate, mitigate, recover or adapt.

UNCTAD stands ready to provide cutting-edge economic research and policy analysis and data tools to support African countries in their efforts to reach export diversification and sustainable development objectives. In partnership with regional and national institutions, UNCTAD can deliver institutional and productive capacity-building programmes and offer support to build consensus on key policy and regulatory issues with a view to achieving effective structural change on the continent.



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