Chapter IV

INCREASING DIVERSIFICATION AND INTEGRATION FOR ECONOMIC TRANSFORMATION

Benin Country Economic Memorandum 2.0

ACKNOWLEDGEMENTS

The Country Economic Memorandum was prepared by a team led by Nathalie Picarelli and Xun Yan. The team included Alexandre Henry, Solene Rougeaux, Saint-Martin Mongan-Agbeshie, Felicien Towenan Accrombessy, Hasan Dudu, Jakob Engel, Besart Avdiu, Mathilde Lebrand, Daniel Alberto Benitez, Megersa Abera Abate, Marjan Petreski, Esther Maria Bartl, Houdou Romaric Samson, Lulit Mitik Beyene, Alejandro Sicra, Zhen Liu, Amevi Rocard Kouwoaye, Adam Levai and Noukpo Homegnon.

The report was prepared under the overall guidance of Abebe Adugna, Coralie Gevers, Atou Seck and Theo David Thomas. Helpful advice, comments and data were received from Andrea Coppola, Michel Welmond, Susana M. Sanchez, Ernest John Sergenti, Fiseha Haile, Leif Jensen, Olivier Hartmann, Jean Michel N. Marchat, Anouk Pechevy, Jim Cust, Alexis Rivera Ballesteros, Gabriel Stefanini Vicente, and Sidikou Salihou Mamadou. And from peer reviewers Sona Varma, Ashley Taylor, Amina Coulibaly, Wendy Cunningham, Sara Troiano, Paul Brenton and Anne-Cecile Souhaid.

Micky O. Ananth, Maude Jean-Baptiste and Benita Mahinou provided excellent administrative and operational assistance. Kartographia provided mobile data visualization support. 24Slides designed the report. Yao Gnona Afangbedji kindly provided photos and communications support. Fiona Hinchcliffe provided excellent editorial support.

The team gratefully acknowledges the collaboration with the Beninese authorities, notably the Direction Générale de l'Économie (DGE), the Ministry of Economy and Finance, and the Institut National de la Statistique et de la Démographie (INStaD). The CEM reflects the discussions from a workshop with different stakeholders in Benin in December 2020. This report would not have been finalized without the generous financial assistance from the Umbrella Facility for Trade Trust Fund and NDC Climate Support Facility Trust Fund. The team is grateful to the Development Data Partnership for their data program with X-Mode through which data was made available.

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ABBREVIATIONS AND ACRONYMS

AfCFTA	African Continental Free Trade Area
ASYCUDA	Automated System for Customs Data
CEM	Country Economic Memorandum
CFAF	CFA Franc
COVID-19	Corona virus disease
CPIA	Country Policy and Institutional Assessment
ECENE	Enquête sur le commerce extérieur non enregistré
ECOWAS	Economic Community of West African States
ECI	Economic Complexity Index
ES	Enterprise Survey
FDI	Foreign direct investment
GDP	Gross domestic product
GPS	Global positioning system
GVCs	Global value chains
HHI	Hirschman-Herfindahl
HS	Harmonized System
IMF	International Monetary Fund
LICs	Low-income countries
LMICs	Lower-middle income countries
NTM	Non-tariff measure
OSBP	One stop border post
PAC	Port of Cotonou
PP	Percentage point
R&D	Research and development
TFPR	Revenue total factor productivity
SSA	Sub-Saharan Africa
SSCTB	Small scale cross-border trade
TFP	Total factor productivity
WAEMU	West African Economic and Monetary Union
WB	World Bank

TABLE OF CONTENTS

Page / 003 Acknowledgement

Page / 004 Acronyms and abbreviations

Page / 006 Introduction

Page / 009 Section 4.1: Reducing concentration and informal trade for greater stability

Page / 020 Section 4.2: Diversifying through new opportunities and better integration

Page / 029 Section 4.3: Strengthening the ecosystem for diversification

Page / 041 References

Page / 046 Terms and Definitions

Page / 047 Appendix

Introduction

How can export diversification increase the dynamism of the private sector and support Benin's structural change?

Benin's reliance on commodity exports and transit trade has historically limited the emergence of a dynamic private sector. As a small open economy, its economic prospects depend on its ability to export and import goods and services regionally and globally to sustain growth. Throughout recent decades, Benin has relied on external growth drivers such as commodity exports (cotton, cashews) and transit trade with Nigeria. It has taken advantage of its strategic geographic location, its port (the Autonomous Port of Cotonou - PAC) and its position as a gateway to the hinterland (chapter III). However, its output structure has also been largely unchanged in the past decade, with agriculture still representing 28% of GDP over 2016-2019 (27% over 2011-2019). Moreover, while services value added makes up over 48% of GDP, these industries are still relatively uncompetitive, and services exports have remained low (chapter I). The reliance on the Nigerian market, through re-export activity, continues to subdue the development of a higher-productivity manufacturing and services sectors and is vulnerable to changes in Nigerian policies as evidenced by the 2019-2020 border closure. Productivity growth only marginally improved in the last decade.

New growth drivers are starting to emerge, notably through an expansion of services and higher private investment. However, accelerating growth will depend on Benin's ability to create a dynamic private sector – both formal and informal. Many of the characteristics that enable firms to take risks, become more efficient, grow larger and innovate are still nascent. Trade can be a driver for economic diversification and private sector deepening. Upgrading its linkages with the region and integrating into the Global Value Chains (GVCs) can catalyze greater economic diversification and competitiveness. Trade integration has also implications for poverty reduction, in particular for the numerous small-scale cross border traders who cross national borders daily to support their livelihood by selling in larger markets.

Using its recent growth momentum to ignite an economic acceleration is possible through greater trade integration. It weathered the COVID-19 crisis well, supported by a strong fiscal package. Its GDP is growing at 3.8% while sub-Saharan Africa (SSA) has seen its average real GDP contract by 1.9%. The reopening of the border with Nigeria in end-December 2020, and the ongoing negotiations for the African Continental Free Trade Area (AfCTA), provide a significant opportunity for regional integration and export-led growth. Commodity exporters like Benin, with concentrated export baskets, have the most to gain from diversifying towards higher-value added goods and services (World Bank 2021). Empirical evidence also shows that upgrading the quality of export products is closely correlated with greater domestic production diversification and productivity growth (IMF 2014).

Seizing these opportunities to diversify the economy and address systemic weaknesses will require structural reforms for deeper market integration. In 2019, Benin's exports were more concentrated than its peers, with the top five export partners making up approximately three quarters of all exports compared to about 59% for its comparator countries. The top 5 products (at the HS4 level) made up more than 78% of all exports compared to 51.9% for the comparator countries. Diversifying the economy and developing a dynamic private sector will be central to Benin's economic transformation. Here, Benin can build both on past experience and on new opportunities in services and novel industries (Box 4.1). This challenge is the focus of this chapter. It builds on the prior CEM (World Bank 2009) and the 2015 Update of the Diagnostic Trade Integration Study (World Bank 2015) (Appendix 2). It also complements the ongoing Country Private Sector Diagnostic (CPSD) that has a focus on agri-business and tourism.

The chapter is organized as follows: Section 4.1 focuses on understanding the current formal and informal trade dynamics. Section 4.2 looks at the potential for economic diversification through trade. Section 4.3 examines the ecosystem for achieving that aim. Finally, section 4.4 concludes with policy options.

Box 4.1: New pathways to economic transformation for emerging economies

Benin is unlikely to develop solely based on the traditional manufacturing-led development model (chapter I). However, as recent work has shown, there are numerous pathways to support the country's structural transformation. For example, the 2020 World Development Report *Trading for Development in an Age of Global Value Chains* highlights the relevance of GVC participation as a means towards productivity growth and diversification (World Bank 2020a). GVCs are associated with structural transformation in developing countries, drawing people out of less productive activities and into more productive manufacturing and services activities (Appendix 4).

The capacity of the services sectors to deliver the twin gains of productivity growth and large-scale job creation for the relatively unskilled is expanding. Capital accumulation that augments labor is not uncommon to some services sectors such as transportation and telecommunication services. Linkages with other sectors have increased too. Goods trade increasingly includes more intermediate inputs from service industries, with the share of services in valued-added trade rising from 31 percent to 43 percent between 1980 and 2009 globally – a result of both forward and backward use of services in production (World Bank 2020a). The services sector in developing countries could have more promise than some manufacturing sector going forward, especially as it assumes the all-important enabling role for economy-wide productivity. Identifying policy priorities that improve performance across trade, technology, training and targeting (4Ts) can help make services-led development a driver of structural change (Nayyar, Hallward-Driemeier and Davies, 2021 *forthcoming*).

A more recent view emerged that Africa will be led by *"industries without smokestacks".* This includes agroindustry and horticulture, tourism, ICT-based business services and transport and logistics (Newfarmer et al. 2019). These differ from traditional export-led manufacturing sectors, but nonetheless share characteristics with manufacturing in terms of their capacity for learning and productivity growth and the need for scale and agglomeration. It is these sectors that can be drivers of late-stage industrialization. Thus, for policy makers in developing countries, it should not be a question of manufacturing or services, but a recognition that the potential for services to contribute to productivity and to jobs is growing.

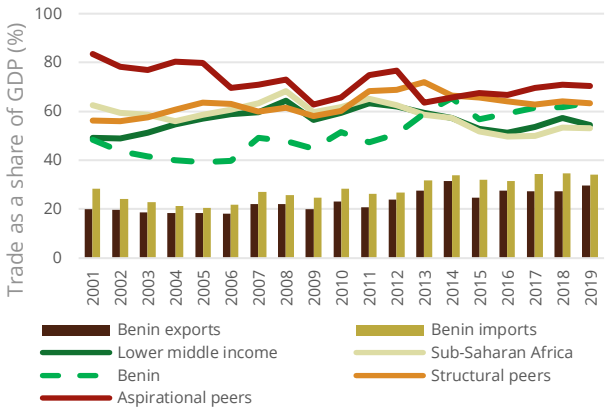
REDUCING CONCENTRATION AND TRANSIT TRADE FOR GREATER STABILITY

Benin's trade performance has been improving gradually in the past decade, but progress in diversifying and increasing the value added of recorded exports has been slow. Informal trade remains pervasive. Its integration into GVCs is nascent and could offer an opportunity to diversify the economy.

4.1

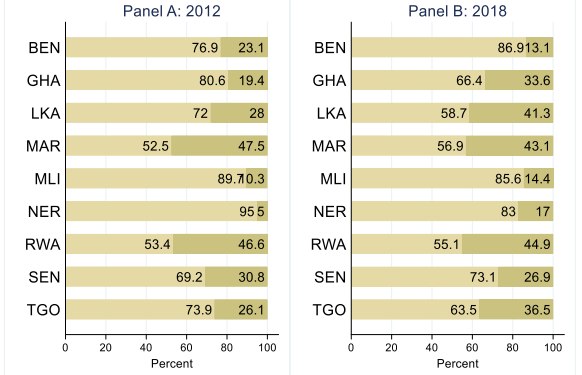
Openness to goods exports is rising

01 Merchandise trade openness has increased to match structural peers



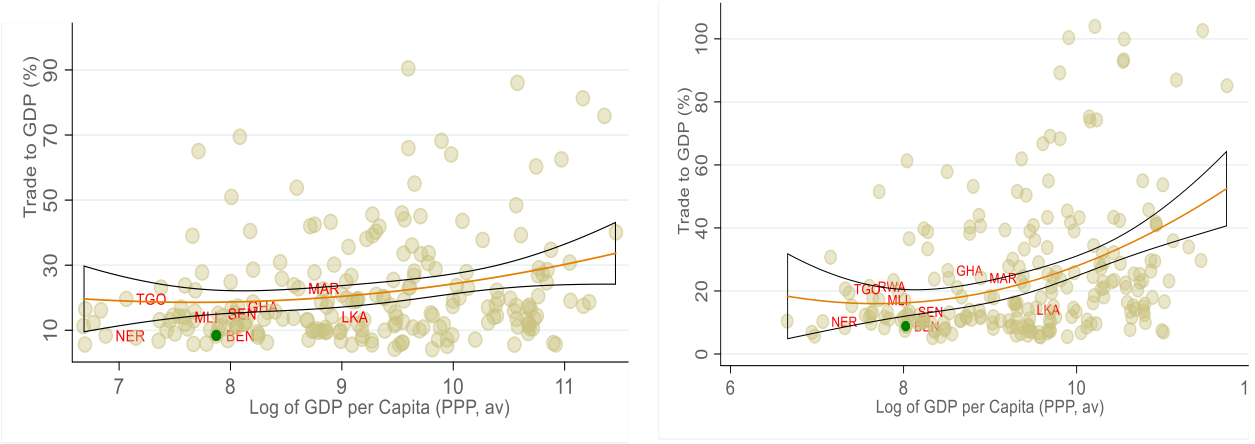
Source: WDI based on national accounts data

02 Goods (left) represent 87% of the export basket while the services share (right) has declined from 2012-18



Source: WDI based on national accounts data for 2018). Share of goods exports are on the left and light of each figure; services share is darker and on the right.

03 Openness to services exports is lower than all peers (2011-2018)



Source: WDI based on national accounts data

4.1.1 Trade is dominated by goods, with services lagging

Trade openness to merchandise is high given Benin's level of economic development. Merchandise exports and imports, both in absolute terms and as a share of GDP – a common measure of openness - have been increasing since 2010. Benin now exceeds the LMIC and SSA average and has caught up with structural peers. Total goods exports have gained 20 percentage points (pp) of GDP between 2011 and 2019, rising from 47% of GDP to close to 65% of GDP.

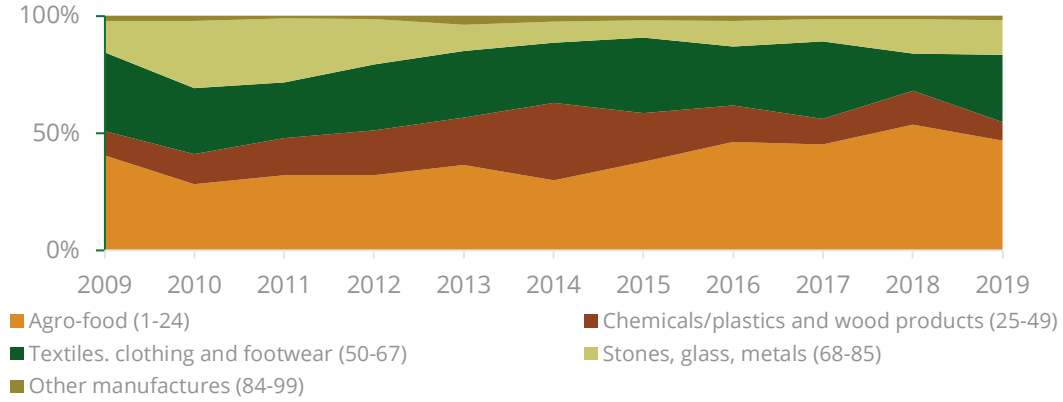
Trade openness to services has also increased but is below the level expected for its GDP per capita. Services accounted for 12% of GDP in 2018, which is considerably less than for its peers, with services exceeding 20% of GDP in Togo and Morocco. Services have also declined in overall relevance in Benin's export basket: in 2012 they made up 23.1% while in 2018 this was only 13.1%. This is the lowest value among all of Benin's peer countries, with services trade becoming increasingly significant share of total exports in Morocco (43.1%), Rwanda (44.9%) and Sri Lanka (41.3%).

Trade in services can be a key determinant in Benin's participation into GVCs. Firms' demand for services to export their goods will continue to grow especially for transport, travel, and other services; and given its geographical position next to Nigeria.

Benin runs a structural current account deficit with imports consistently exceeding officially recorded exports. This partly results from the underreporting of large volumes of transit trade, especially to Nigeria, (Golub et al. 2019). Along with other issues, this creates challenges related to the analysis of Benin's trade data (Appendix 3).

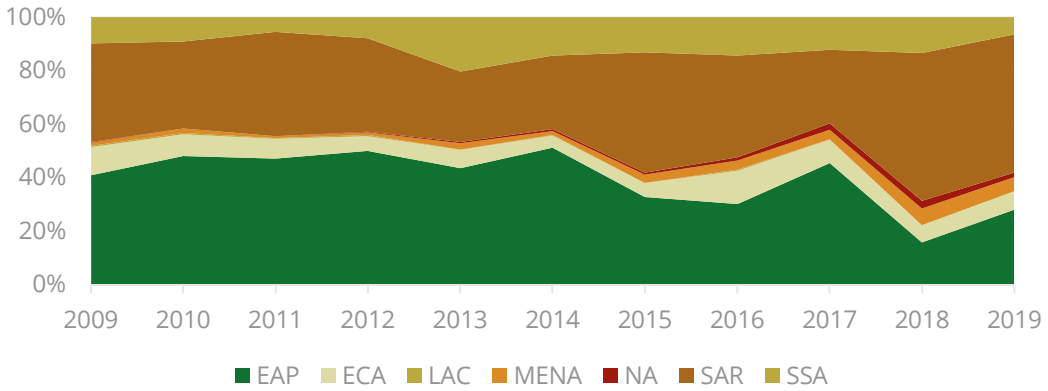
Benin's exports are dominated by primary products, with cotton and cashew nuts among the top export products

04 Benin's top exports by product (in % of total exports), 2009-2019



Source: WITS-Comtrade, author's calculations using mirror data (exports exclude fuels and gold)

05 Benin's top exports by country (in % of total exports), 2009-2019



Source: WITS-Comtrade, author's calculations using mirror data (exports exclude fuels and gold)

Commodities remain the main export products, with new nontraditional crops only timidly emerging

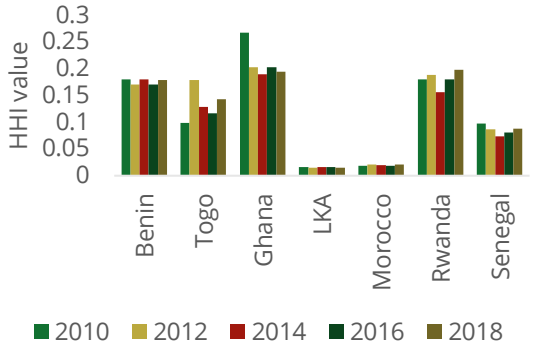
Primary products are predominant exports throughout the last decade. The main staple crops are cotton, cashew nut and oilseed crops, along with some wood and metal products. Overall, the country remains at the upstream end of value chains in agro-processing, textile and minerals. Producers have generally not managed to move to higher value-added activities within these primarily buyer-driven value chains, though some activities – such as the production of oil-cake from soy-beans and cotton fabrics are increasingly produced in and exported from Benin. The country's concentration in commodity exports is one of the highest among peers, after Rwanda and Ghana, increasing its vulnerability to climate risks and commodity cycles.

There are efforts to change this. The agriculture diversification strategy under the Strategic Development of the Agricultural Sector (PSDSA) 2017-2025, aiming at promoting different cash crops such as cashew nuts, rice and pineapple, has started to yield change among the main exporting crops but cotton remains dominant. According to customs data, cotton amounted to 30% of all exports in 2017-19 as the country became the number one cotton producer in West Africa for the 2018-2020 campaigns. About 76% fof cotton exports are destined for Bangladesh and India. However, it is important to note that there are some discrepancies in between the data (Appendix 3).

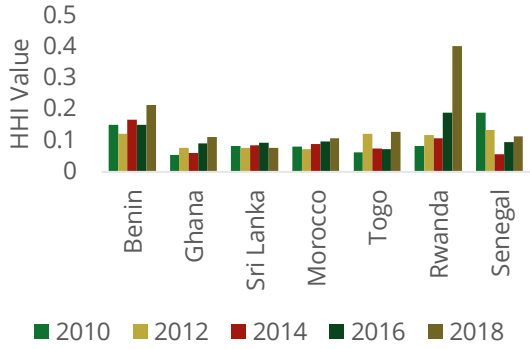
Several traditional and new export products appeared in the top 20 export basket of Benin in 2019. New and non-traditional agricultural products are cashew nuts, oilseeds and soybeans, as these products did not account for a large share of Benin's total exports in 2000 but have been growing since then and especially in recent years.

Export products and markets are more concentrated than most peers

06 Benin's export products are more concentrated than many peers

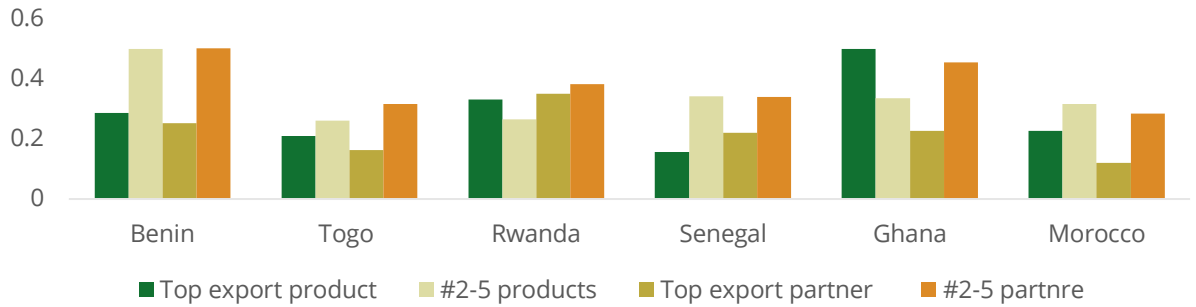


07 Benin's exports exhibits a higher market concentration than peers



Source: WITS-Comtrade, author's calculations using mirror data.
The HHI measures, for each country, the degree of concentration of goods exported and the concentration of export partners. It is computed as the sum of squared shares of each product (market) in total export. A country with a perfectly diversified export portfolio will have an index close to zero, whereas a country exporting only one export (market) will have a value of 1 (least diversified).

08 Export share of top export products and partners



Source: Data for 2019 from BACI at Observatory of Economic Complexity and author's calculations

Overall, progress to diversify goods exports has been timid

Despite prioritizing diversification, exports still remain more concentrated than in peer countries. Benin's performance across time and relative to peers on the Herfindahl-Hirschman Index (HHI) tells us if a large share of a country's exports is accounted for by a small number of products, or whether the country is highly dependent on a few trade partners. Benin's export product diversification is comparable to that of Rwanda and Ghana – countries with a large dependency on commodity exports (+70% of the export basket). Product diversification remains lower than its structural peers, Togo and Senegal. Benin's concentration on traditional cash crops, notably cotton and cashew, has been stable in recent decades. Increased agricultural productivity since 2016 has pushed up its cotton exports due to its record level of cotton production.

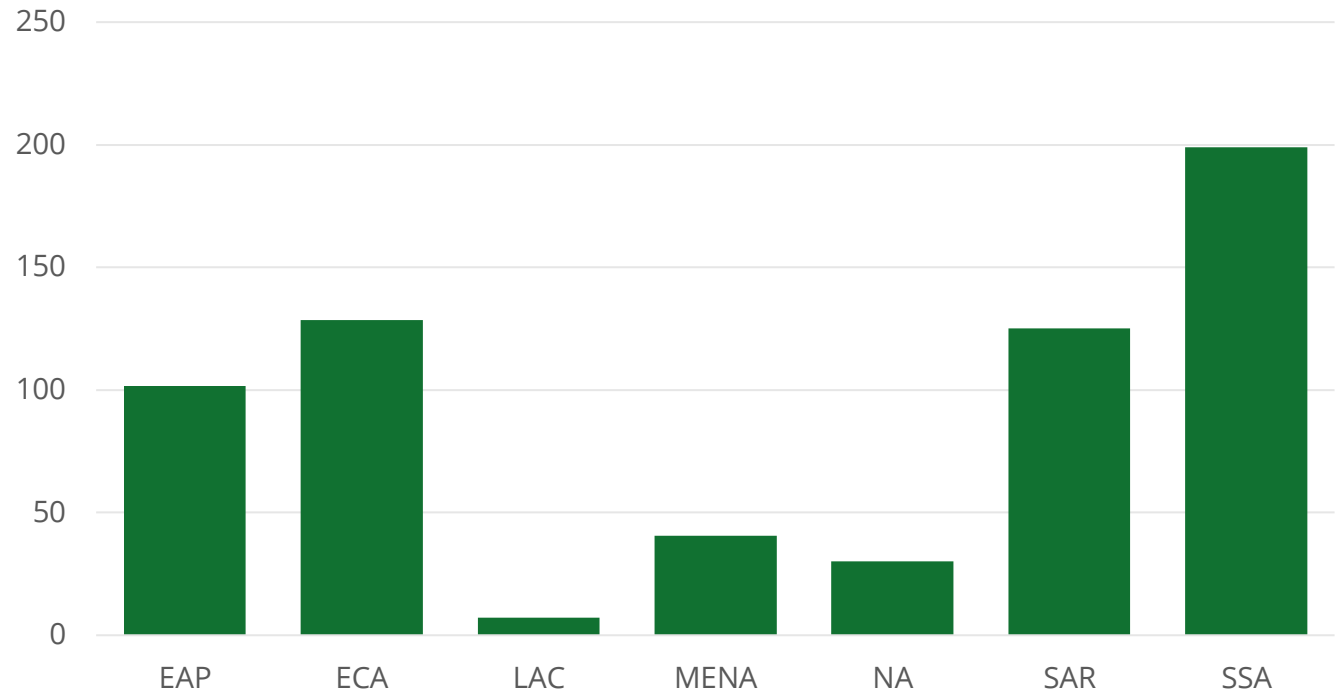
Benin is more diversified in terms of export markets than products but in both cases, it remains quite concentrated in recent years. Its markets remain much more concentrated than for all structural peers except Rwanda. The maximum number of export destinations was in 2016, when Benin exported to 107 countries. Another way to understand the degree of concentration is to look at the share of top five products and markets in total exports in 2019. For product diversification Benin lags relative to its structural peers (78.4% of total exports composed of top 5 products). For market diversification, 75% of Benin's exports go to its top 5 export partners – this is more than for its peers, though Benin is less dependent than Rwanda on its top export partner (25.2% comparted to 34.8%). South Asia is the main destination of total official recorded exports (46%), with SSA trailing far behind in third place.

Despite SSA's small share in total export value, many firms export regionally

An analysis of customs transaction-level data for 2017-2018, allows for better understanding of firm export dynamics.

- Approximately 47.1% of exporting firms export vegetable products (HS code 5-14), which includes soybeans, nuts, and other growing export commodities. Even though it is a relatively minor sector in terms of overall export value, the second larger sector is machinery and electronics (23.0% of firms.
- Of the 377 firms exporting in 2018, only 22 exported 10 or more distinct products (at the HS-6 level). 194 firms (51.4%) exported only one product.
- The largest number of firms exported to SSA, followed by South Asia, Europe/Central Asia and East Asia. Only one third exports to more than 1 region and 43.1% export to more than one country.

09 Number of firms exporting to each region (2017-2018)



Source: Benin Customs authorities; Notes: EAP = East Asia and Pacific; ECA = Easter and Central Asia; LAC= Latin America; MENA= Middle East and north Africa; NA= North America; SAR= South Asia; SSA = sub-Saharan Africa

4.1.2 Trade dynamics are far greater when considering informal trade

Informal trade, smuggling and small-scale cross border trade (SSCBT) are part of the large unrecorded trade dynamics

Official figures for regional trade in ECOWAS underestimate unreported imports and exports by small and informal traders that are dynamic and diverse. As in many African countries, both smuggling and small-scale cross border trade (SSCBT) are common practices. These types of informal trade are not recorded in official statistics. In Benin, a comparison between official customs data and surveys of informal traders suggest an underestimation of 50% for imports, and by about 85% for exports (Bensassi et al 2018).

The pervasiveness and persistence of trade informality hinders growth and transformation. Informal trade is pervasive for agricultural goods and many industrial goods. Some traders are entirely informal; others are registered businesses but escape trade regulations and duties. These activities, common in West Africa (Benjamin et al. 2015), impact economic growth, affect the accuracy of national accounts and balance of payment, limit the tax base and undermines tax authorities' effort in revenue mobilization (Chapter I). It also reveals that there remain some trade impediments that reduce trade opportunities between Benin and its neighbors and have significant welfare impacts. While formalization of informal enterprises (by removing barriers to formalization and increasing incentives) is encouraged over the medium-term, it is important to support the productivity of these firms and the livelihoods of those working in informal MSMEs.

SSCBT should be distinguished from smuggling and promoted – though helping traders formalize could help. SSCBT can be a lifeline for people living nearby the border, including disadvantaged and marginalized groups, including many women (Mvunga and Kunaka 2021). While definitions for SSCBT vary widely, generally it refers to revenue-generating cross-border commercial activities that can either be formal or informal but generally involve relatively small daily transaction value (e.g., less than US$100 per trader according to UN Women (2012)). Smuggling, on the other hand, by definition, involves the illegal movement of goods across borders and generally occurs at a much larger scale.

10 Detecting unofficial crossing zones by GPS data registered via mobile devices

Crossing zone ID	Crossing zone name
1	Seme-Krake
2	Idoroko
3	Obelle
4	Ilara
5	Aiyegun and Goa Mango
6	Chikanda
7	Babana and Ségbana
8	Gaya-Kamba
9	Zukuku and Satuka
10	Birni-N'Konni-Ilela
11	Jibia and Dankama
12	Moudjia and Mutum
13	Kurzasia
14	Maïné-Soroa
15	Bosso
16	Malanville
18	Boukoumbé and Gando
19	Ketao-Ouaké
20	Prekete and Aledjo
21	Saligbé and Chetti
22	Tohoun
23	Tokpli
24	Hillacondji

Source: X-Mode and authors' computation. Notes: See Box 4.2

See more: How to measure informal trade? (Box 4.2)

Box 4.2: Lifting the lid on the black box of informal trade

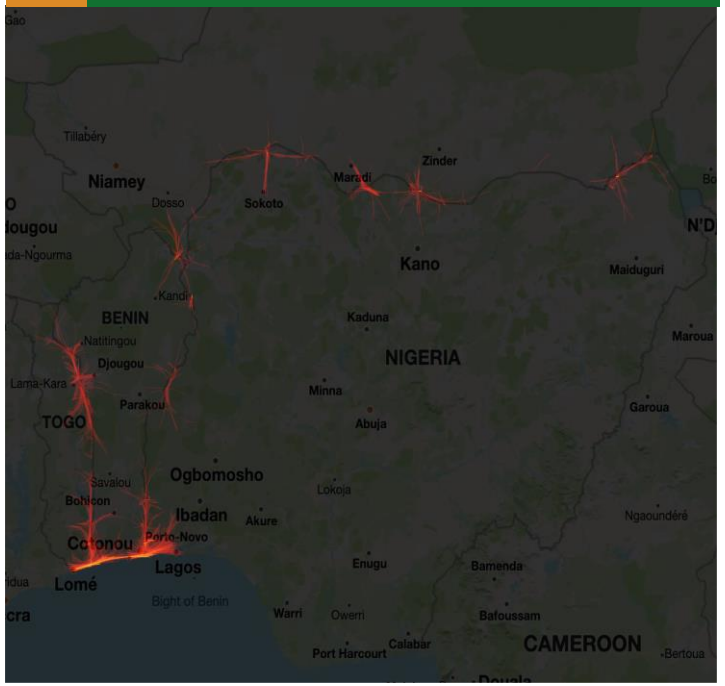
Customs data provide information on the flows, location and composition of formal trade, but informal trade is difficult to measure.

Surveys have been a primary sources of information to investigate the magnitude, composition and determinants of informal trade. Bensassi et al. (2018) use the ECENE (*Enquête sur le commerce extérieur non enregistré*), a survey conducted by Benin's national statistics institute, the INSAE, in 2011, with the aim to estimate the size and composition of informal trade more precisely, and to account for this component in national accounts. 171 non-official border points were identified and surveyed for a period of 10 days. Each trader crossing the border (in either direction) was asked a short questionnaire about products and quantities traded, prices, origin and destination.

Other non-conventional sources of data, such as cell-phone data, can be used to document cross-border movements of goods and people. Mobile location data provide highly-accurate GPS locations over time that can be used to identify the main crossing points irrespective of whether they are official and not. They provide time series with daily reports of users' locations, but do not inform on the composition of trade as no information is included on the identify of the users and are not representative of all movements happening. Figure B1 reports the hot spots identified for border crossings along the Nigeria and Benin's borders.

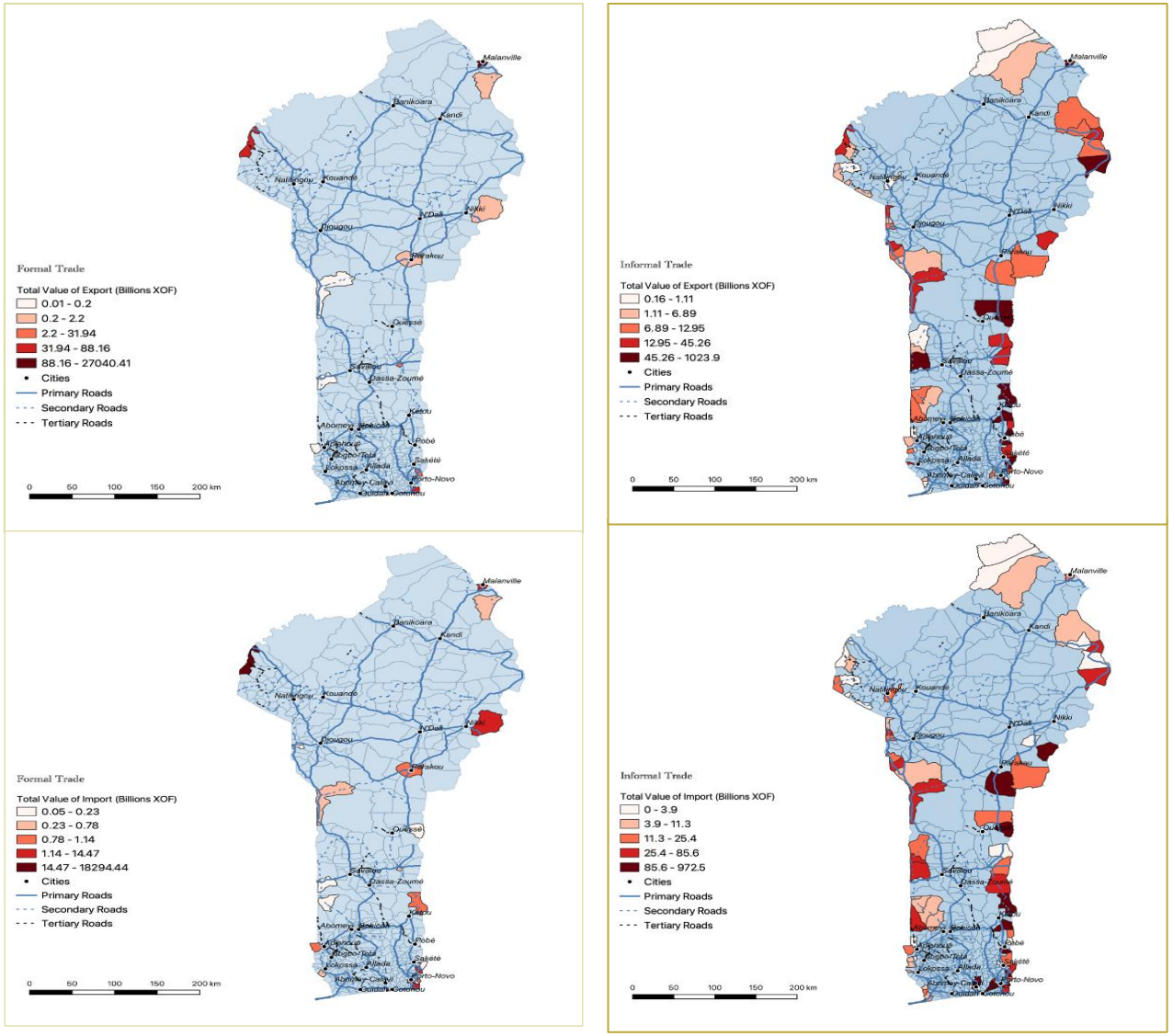
Both sources of data are complementary to better understand the geography and dynamics of informal trade in Benin. Survey data are used to understand the composition of informal trade and the impacts of trade policies on its pervasiveness. GPS data are used to study the impact of certain events on the location and intensity of movements across borders.

B1 **Measuring linkages with GPS data**



Source: authors' calculations based on GPS data provided by X-Mode before August 2019.

11 Formal (left) and informal (right) trade by district



Source: authors' calculations using Customs data from 2017 and INSAE survey data for informal trade in 2011.

The differing geography and diversity of formal and informal trade

Registered crossings happen mostly along the southern corridor, while informal ones happen all along the border with Nigeria. While formal trade flows are concentrated in a few locations along the main corridors – the southern coastal corridor – informal trade flows are spread along the whole border and primarily along secondary roads.

Product diversity in regional trade is underestimated in official statistics. Product and sector diversity of informal trade is high. For example, industrial products, such as textiles, agro-food, and transportation equipment are traded heavily outside of official border crossing points. Formal and informal trade differ by product composition, and product overlap between the formal and informal channels is very low: most goods are traded exclusively on one or the other (Bensassi et al 2018).

Product composition and diversity also differ across border-crossing points. Informal crossings with Niger in the north of the country involve mostly exports of vegetable products and imports of animal products. Trade with Togo and Nigeria is more diverse. The main products in informal imports from Nigeria are transformed food products, vegetable products, fuel, wood products, transportation equipment and textiles. Traditional agricultural products are more predominant in imports from Togo.

Porous borders, distortionary economic policies that differ across borders, excessive requirements at customs, inadequate infrastructure, as well as harassment and bribery, partly explain the persistence of informal trade. Complying with regulations represents a high cost for traders, especially for those who want to sell products such as perishable goods that would be spoiled if kept for too long.

See more: Zooming into informal trade dynamics (Appendix 5)

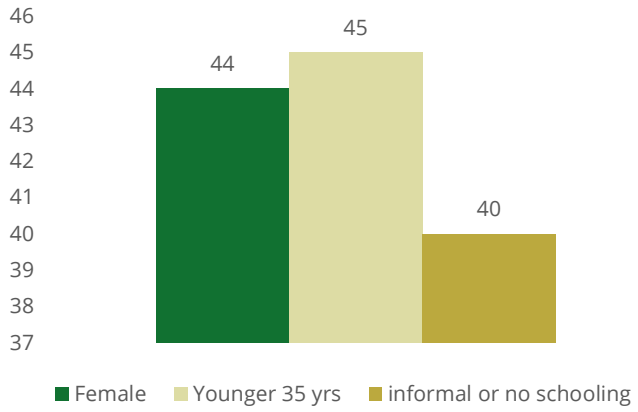
Supporting small-scale cross-border trade is important to improve living conditions in border districts

Small-scale cross border trade plays a fundamental role in trade integration while promoting inclusiveness. Across the continent, countless small-scale traders cross borders daily to sell goods or services in a neighboring country. The commerce can help tackle poverty by generating substantial revenue for border communities (Tralac 2018). The economic and demographic characteristics of these traders, and the constraints and obstacles they face (especially gender-specific constraints) depend on the corridor (Trade Facilitation West Africa).

Surveys and focus group discussions were carried out with traders along the Cotonou-Niamey corridor, including in Parakou and Malanville on the Benin side, and in Gaya and Dosso in Niger (TFWA 2021 forthcoming). Among the 291 traders interviewed, approximately 44% were women, 45% were younger than 35 and 40% had either only informal or no schooling at all. On average, interviewees earn between US$50-99 per month and travel 400 kilometers from where goods are bought to where they are sold. Most traders sell raw vegetables, clothing and grain and only 25% are formally registered.

These traders face significant obstacles due to poor quality infrastructure, complex clearance products and document requirements as well as unpredictable trade policies and processes. This particularly impacts women, who make up a large share of these traders. Among women, 50% said they felt unsafe at the border, in part due to inappropriate behavior by officials.

Composition of traders along the Cotonou-Niamey corridor (% of each category)



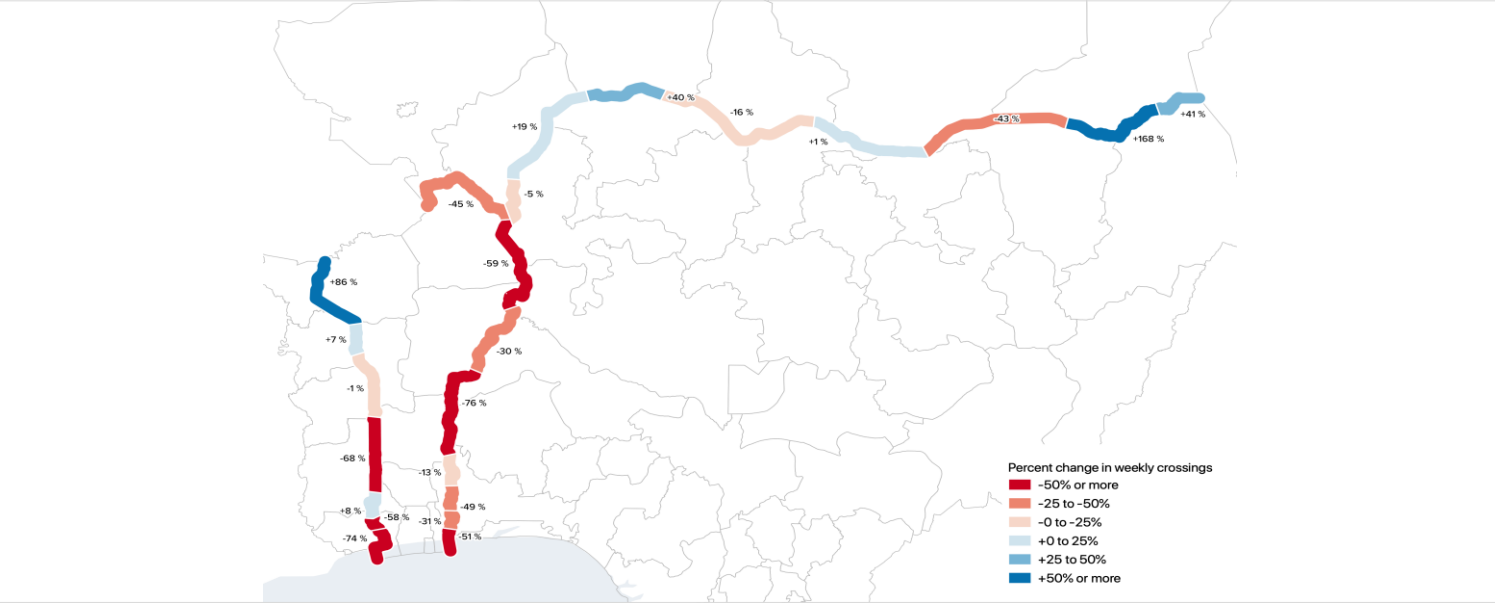
Source: Tralac 2018 and authors' calculations

Box 4.3 How did COVID-19 affect formal and informal trade?

The global spread of the COVID-19 epidemics has led many countries to close their borders and implement strict restrictions on movement of goods and people. COVID-19 and the ensuing border restrictions have led to a reduction of crossings at almost all border crossing zones.

Using GPS data to compare borders crossings before and after the COVID-19 restrictions shows that crossings have decreased in almost all crossing zones, even relative to time before when Nigeria had closed the border to trade. Large decreases in crossings can be observed along the heavily-used southern corridor between Lomé and Lagos, carrying most of the formal trade. Zones with most of the informal crossing points have also experienced large reductions in border crossings. A few zones have experienced an increase in crossings, but the additional numbers are very low, and should be carefully interpreted.

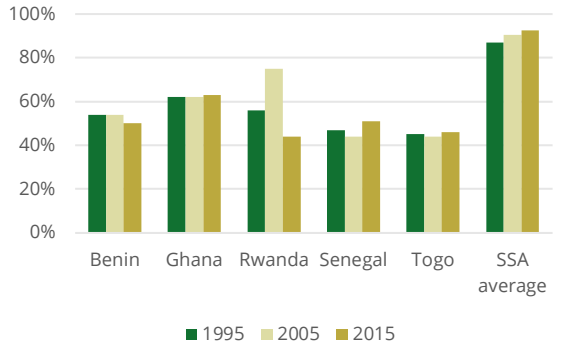
B2 **Reduction in border crossings of almost all border crossing zones following the border restriction due to COVID-19.**



Source: Authors' calculations using GPS data on the period January 2019-January2021. The map shows change in monthly crossings following the border closure to Nigeria (August 2019) but before COVID-19 restrictions (March 2020), and post-COVID restrictions (March 2020-January 2021).

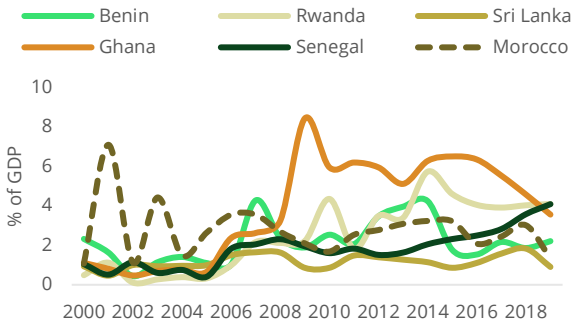
Integration to GVCs is nascent

12 Benin's value added in exports is below average



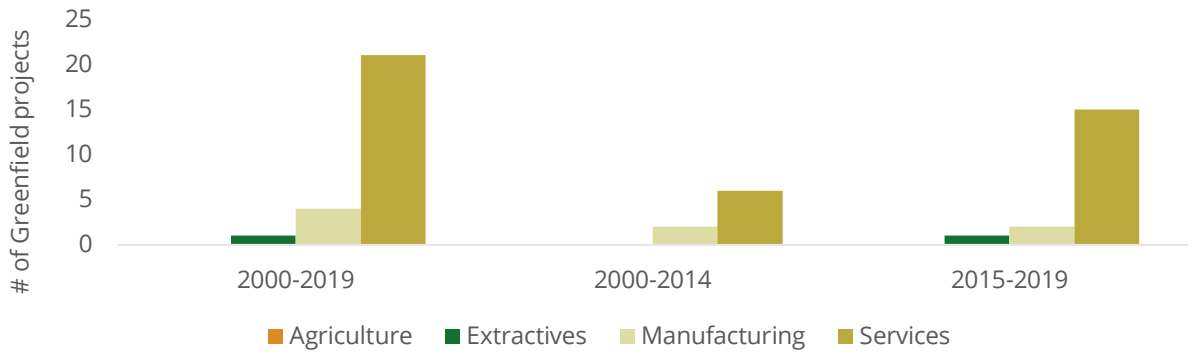
Source; WDI, and author's calcuations

13 FDI has been volatile and is below structural peers



Source; WDI, and author's calcuations

14 Few greenfield projects involve foreign direct investment participation in Benin



Source; WDI, and author's calcuations

4.1.3.Participation into GVCs is still nascent

Participating in global value chains is an important factor for economic diversification. Countries with higher participation rates are more likely to increase their outputs, thereby reducing the degree of concentration in products and markets (WDR 2020). GVC integration can also drive diversification by linking firms to larger, more specialized markets. Bangladesh, Cambodia and Vietnam have all recently managed to transition out of exporting commodities into exporting basic manufactured products.

Benin's participation in GVCs is nascent, although larger than for structural peers like Togo and Senegal, which fall into the category of limited commodity exporters. While it has much to gain in the transition to a more sophisticated participation in GVCs, this is demanding in terms of skills, connectivity, and regulatory institutions. For a commodity exporter like Benin, it will require a multipronged strategy covering a range of policy areas (Appendix 3). These include improving access to credit, improving access to inputs by reducing tariffs, streamlining non-tariff measures (NTMs) and reforming services, pursuing deeper trade agreements, reforming customs procedures, liberalizing transport services, and investing in ports and roads.

A more enabling regime for foreign direct investment (FDI) could boost Benin's potential in manufacturing and services. FDI in Benin was below all structural peers in 2019. The role of FDI in enabling diversification depends on the type of investment. Not all foreign investment is the same as far as positive spillovers to the rest of the economy are concerned. The impact of foreign investment on the overall economy ultimately depends on the quality of its business environment.

DIVERSIFYING THE ECONOMY THROUGH NEW EXPORT OPPORTUNITIES AND MORE INCLUSIVE REGIONAL INTEGRATION

4.2

Benin could benefit far more from its endowments, strategic geographic location and greater regional integration. Moving forward, it will be important to build on these new sources of comparative advantage to drive the structural transformation of the economy.

4.2.1 There is a high potential for trade diversification...

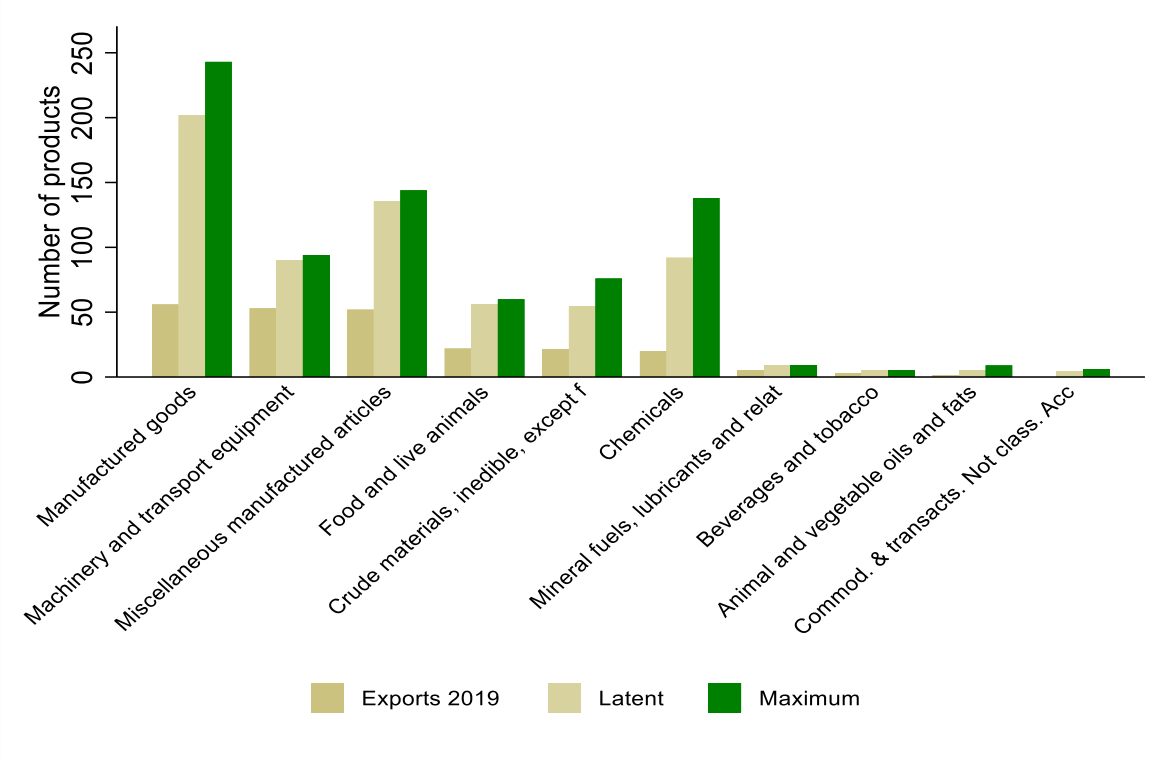
Benin shows a high potential in trade diversification

Historical exports can provide relevant information on a country's diversification potential and its ability to weather future trade shocks. Despite a seemingly limited export profile of a given country, a great diversification potential could exist based on the constant opening and closing of export product categories in history. Countries that experience continuous changes in the export basket composition in fact reveal higher comparative advantages. The latent diversification of export can be used to forecast future trade volatility: the higher the latent diversification, the lower potential future trade volatility (Lederman, Pienknagura, and Rojas 2019).

Benin shows a high potential in trade diversification, though the full realization of the potential is subject to significant qualifications. Based on analysis over the number of products exported by Benin (within each SITC 2-digit code)– which shows the export volumes of major products in 2019 and in the year of its maximum export-, Benin shows a significant latent diversification potential in in manufacturing goods, chemicals and machinery and transport equipment. The country has a historical knowledge of producing numerous and diverse goods, indicative of opportunities to further diversify the export bundle if the right endowments are in place. Although studies will be needed on the reason of recent decline in these areas, before a sensible discussion of reviving them.

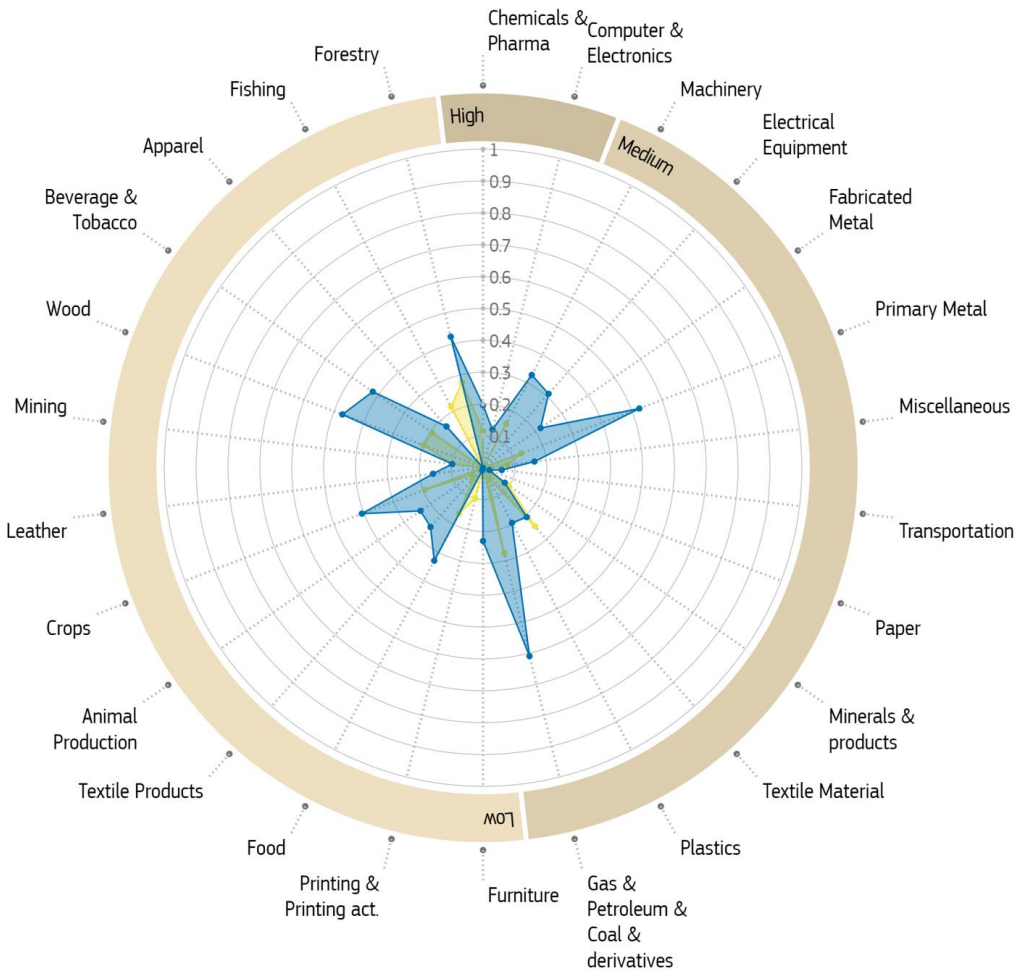
See more: Benin's latent potential (Appendix 6)

15 Latent diversification potential is concentrated in manufactured goods, machinery and chemicals



Source: WITS Comtrade using SICT data, author's calculations
Note: Benin's top latent products in terms of maximum annual export values, 2019 data.

16 **The fitness of certain sectors is improving: 2012 (yellow) and 2018 (blue)**



Source: Tacchella & Cader (2020). IFC Global Macro & Market Research & University of Rome.
Note: Gas category includes re-exports in source data; all other categories have been adjusted for re-exports. 2012 = yellow and 2018 = blue.
High, medium and low labels along outer ring refer to level of complexity of product.

Benin is most competitive in textiles, agro-foods and wood products

Benin's scope for diversification improved between 2007 and 2018, according to the *Fitness measure for economic development*. Compared to other countries in SSA, Benin has improved the most, increasing its rank by 31 places between 2007 (141st) and 2018 (113th). At the same time, the country is entering a sensitive phase of its development, requiring a focus on diversification (Appendix 7).

19 out of 24 sectors have improved, with many increasing from the lowest decile of global competitiveness. These include apparel, leather, textile products, furniture, plastics, and metals. Primary metals, crops, wood, and forestry display the highest levels of competitiveness. Most major exports are low- or low-medium complexity products with some upgrading into cotton textiles and garments. Agro-foods, textiles, clothing and wood products all offer potential for export diversification and growth, based on their revealed comparative advantage (RCA) (Appendix 8).

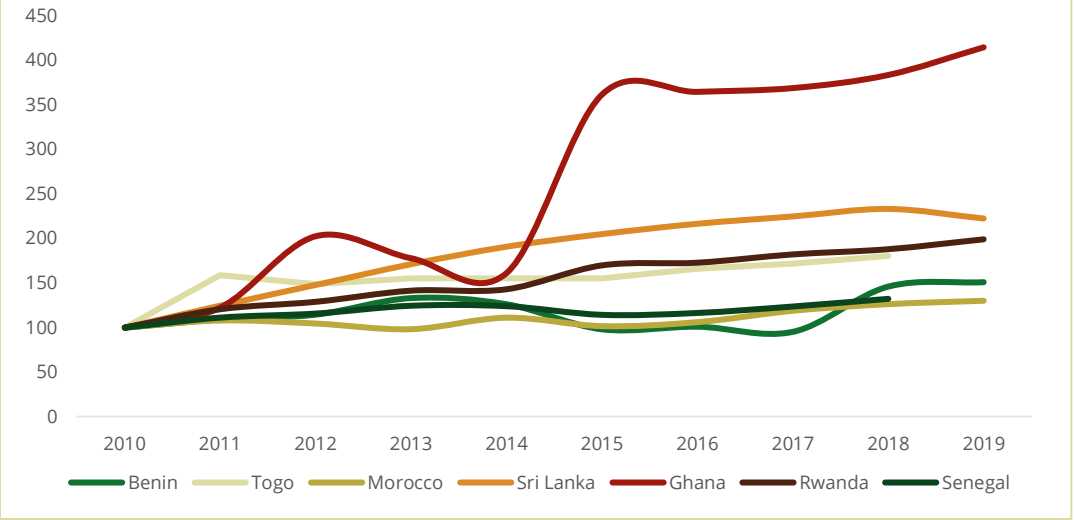
Fruit and vegetables are among the sectors with highest potential growth. The development of the horticulture sector has been listed as a priority by the government of Benin. A market-based assessment of the horticulture industry identified a set of options and actions that could help position the industry more competitively globally (World Bank 2018). The production and export of vegetables has increased in recent years due to increased demand. However, this has mostly been driven by area expansion rather than productivity improvements. As such, the sector faces several challenges to improve its competitiveness, relating primarily to economies of scale. These include the lack of quality inputs, poor water management, insufficient irrigation infrastructure, and low adoption of improved technologies. From the export side, a key constraint is the lack of on-farm cold storage and the limited local, regional, and international logistics networks in the country. Improving cold chain logistics both for road and air freight will be key (Agricultural Competitiveness and Export Diversification Project).

Services exports are supported by both traditional and emerging sectors

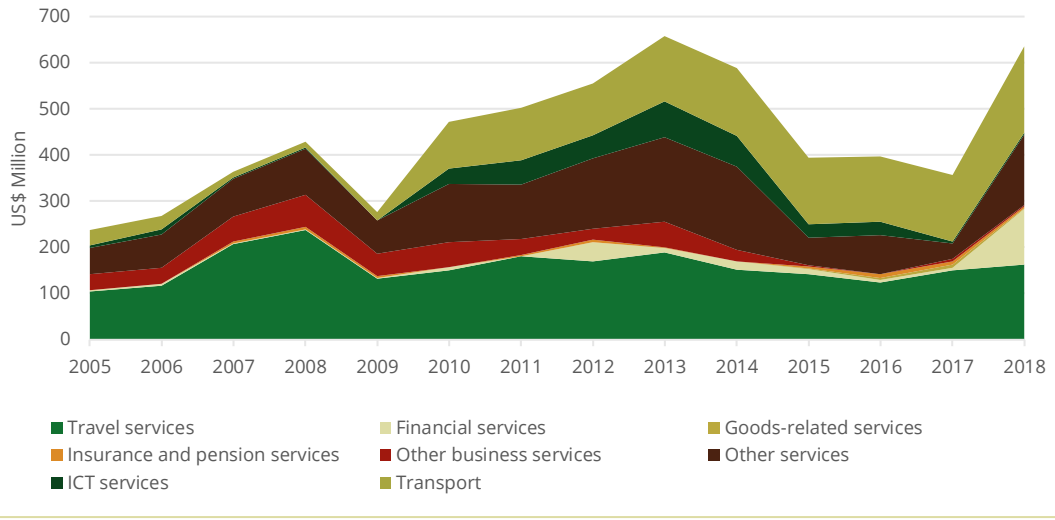
Services provide opportunities for a wider range of exports and a broader base of domestic activities. Many developing countries have diversified into exports of tourism but are also moving into exports of professional services and in sectors such as health and education. Services are also critically important as inputs into other economic activities. The "servicification" of manufacturing in the global economy, whereby manufacturing firms increasingly buy, produce, sell and exports services offer a new opportunity to boost productivity growth (Haven and Van Der Marel 2018). These complementarities between trade in services and in goods suggest a greater need for jointly-defined trade policies.

While trailing behind comparators, Benin's services export are increasingly diversified, and new growth sectors have emerged. Both travel and other services categories have remained almost unchanged since during 2010-18 (around US$ 160 million). Transport has almost doubled during the last decade, while financial service shows the strongest performance: it surged from US$ 7 million (less than 5% of the volume in travel services) to US$ 121 million in 2018 (equivalent of three quarters of the size of travel services). However, the service export growth is much slower than other WAEMU countries and is lower than most peer countries (except Morocco and Senegal). Ghana has also experienced relatively high growth in its share of services exports.

17 Benin's services growth is slower than most peers (2012=100)



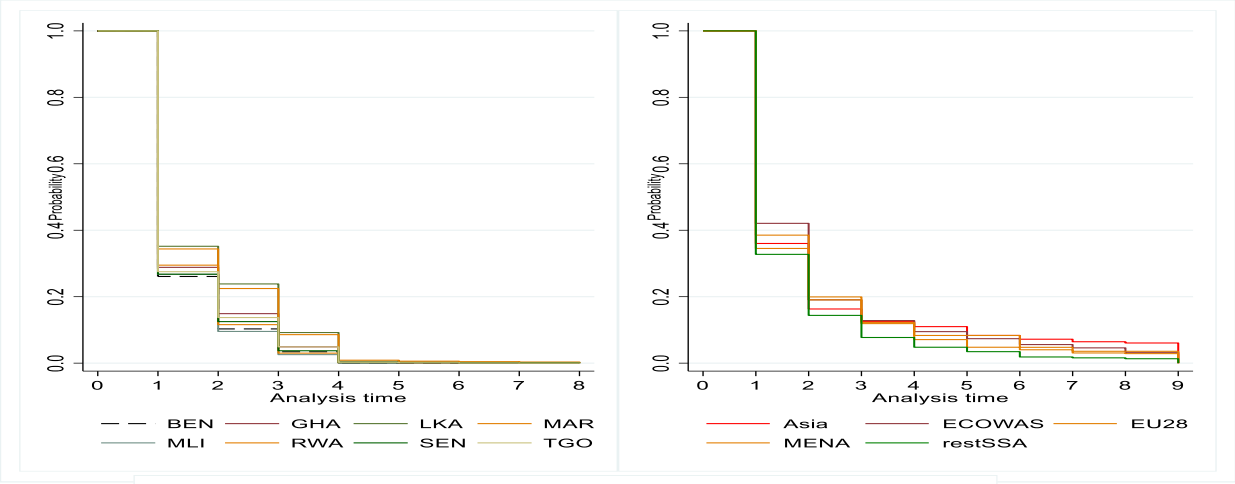
18 Services export growth has been driven primarily by trade, travel and most recently financial services

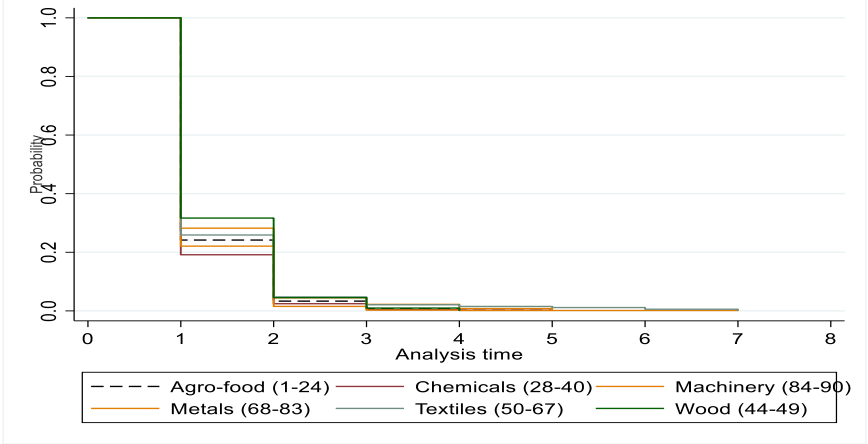


Source: UNCTAD, authors' calculations.

There is a larger survival rate for exporters to ECOWAS

19 **Two thirds of export relationships don't survive for two consecutive years but are highest for exports to ECOWAS and the EU, and for wood and metals**





Source: WITS mirror data, author's calculations.

4.2.2 ...that needs developing more stable and deeper trade relationships

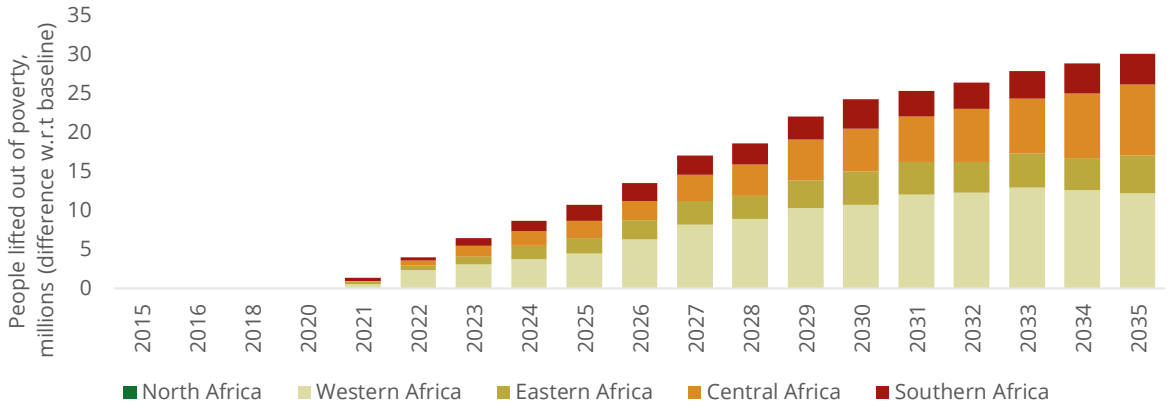
Export survival matters. Successful export growth and diversification require not only entry into new export products and markets but also the survival and growth of export flows (Brenton et al. 2010). Often firms are not able to maintain export relationships for consecutive years, with exporters from developing countries tending to form less long-lasting trade relationships than exporters from advanced economies.

The export survival rate is below its peers. The probability that a Beninese product-partner export relationship survives for two and for three consecutive years is far below that of its peers. The probability of surviving past the first year is less than 30% and the probability of maintaining that relationship for more than two years is less than 15%. Nonetheless, the survival rate is highest for firms exporting to ECOWAS and the European Union (EU). Exports to Middle-East and North Africa (MENA) and other countries in SSA have the lowest probability of survival. In terms of survival by product group, the highest survival rate is for wood and metal products while those in manufacturing (chemicals and machinery) are the lowest.

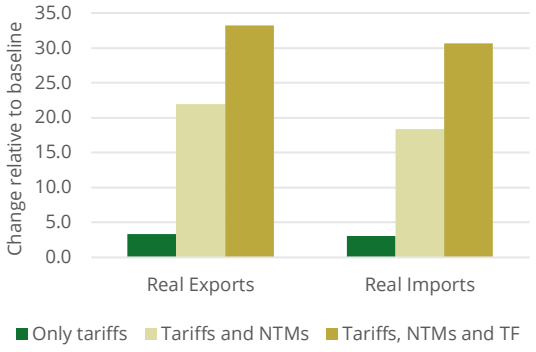
Understanding the main challenges to export survival is key to promoting diversification. There could be several factors : access to information, strong institutions, and access to trade finance. While international markets tend to be a more complex environment, regional markets present an opportunity for exporters because of better access to information and easier understanding of contract enforcement mechanisms in nearby markets that have similar legal systems and institutions. Regional trade might lead to higher survival rates for exporters and allow firms to reach a size at which they can successfully enter new markets. This process of learning by exporting at the regional level may be a more viable option for smaller firms in view of their financial capabilities.

Benefits from joining the full AfCTA are estimated to be large

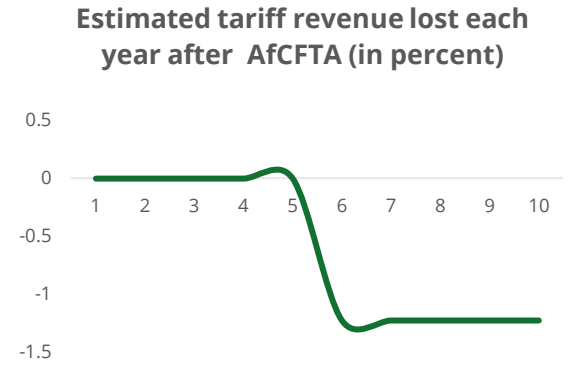
20 Impact of the AfCFTA on extreme poverty (2035, % relative to the baseline)



21 The trade impact for Benin, Togo and Guinea could be significant (2035, % relative to the baseline)



22 Tariff revenue losses will be very low



"World Bank. 2020. The African Continental Free Trade Area : Economic and Distributional Effects. Washington, DC: World Bank. © World Bank. Notes: Due to data constraints in the underlying database, the simulations analyze impacts on Benin, Togo and Guinea jointly limiting the relevance of the findings at the sector level.

Taking advantage of the opportunities from continental integration

Once negotiations are completed, the African Continental Free Trade Area (AfCTA) will become the largest free trade area in the world—comprising 55 nations, 1.3 billion people and an economic area with a GDP valued at US$3.4 trillion. It covers tariffs and policy areas such as trade facilitation, trade in services, as well as regulatory measures such as sanitary standards and technical barriers to trade. The World Bank (2020c) has quantified the long-term implications for growth, trade, poverty reduction, and employment using a global computable general equilibrium (CGE) model and a microsimulation framework.

The West African region, including Benin, are set to benefit from greater integration. Full implementation of AfCFTA could lift 12 million people in West Africa out of poverty. The aggregate results for Benin, Togo and Guinea show that if the full agreement, including reductions in non-tariff measures and trade facilitation reforms, are put in place it could increase trade by over 30% in these countries. Simulations that have focused on Benin alone show that for the country the increase in GDP in the medium term would be up to 0.3 ppt. In the first five years after implementation, revenue losses from tariffs would be negligible due to slow phase-in periods, and then increase to -1.3% of total tariff revenue. The decline in tax revenue needs to be addressed given the already low levels of revenue mobilization. Benin has signed up to the agreement but is one of 18 signatories that has yet to ratify it. Careful analysis, planning and extensive consultation will be required to negotiate effectively and ensure that relevant institutions can effectively implement and administer the agreement.

At the heart of the benefits from the AfCTA is Benin's position within regional corridors. At the intersection of various regional corridors (Dakar-Lagos and Cotonou-Niamey), Benin can benefit from greater integration if supported by complementary policies for trade facilitation (Lebrand *forthcoming*). The PAC is the main maritime gateway for Niger (Chapter IV). A significant portion of the trade volumes in transit to Niger are routed from Cotonou to Northern Nigeria through Benin's many border towns and Niger, which constitute a large potential market.

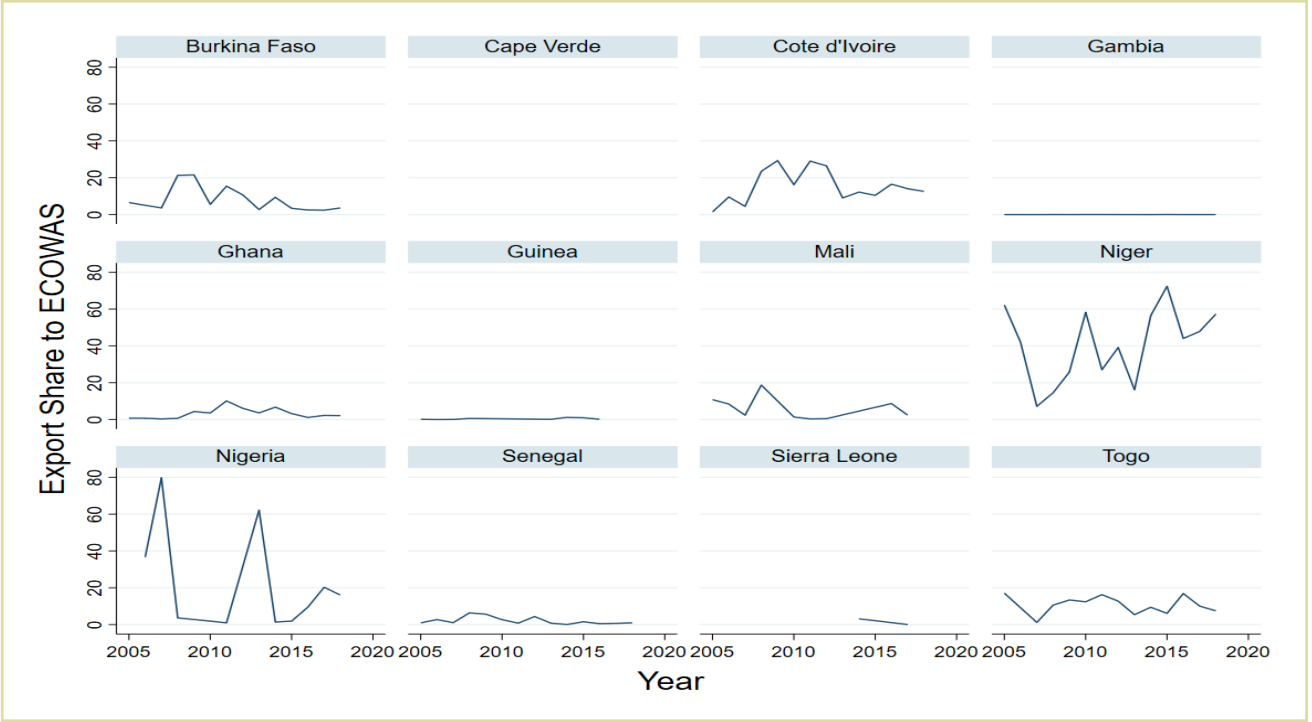
Increasing intra-regional trade can support diversification

Formal exports to the region remain low but this neglects high levels of informal trade

Increasing intra-regional trade holds significant potential for Benin. In recent years, trade with other ECOWAS countries has fluctuated, from 25% in 2009-2011 to 33% in 2013-2015 before declining to 15% in more recent years (2017-2019).

Among ECOWAS countries, the largest share of Benin's exports have generally gone to Niger and Nigeria. These are followed by Burkina Faso, Cote d'Ivoire and Togo. Given its geographic position, it could further become a trade hub, especially for the land-locked Sahelian countries and Nigeria.

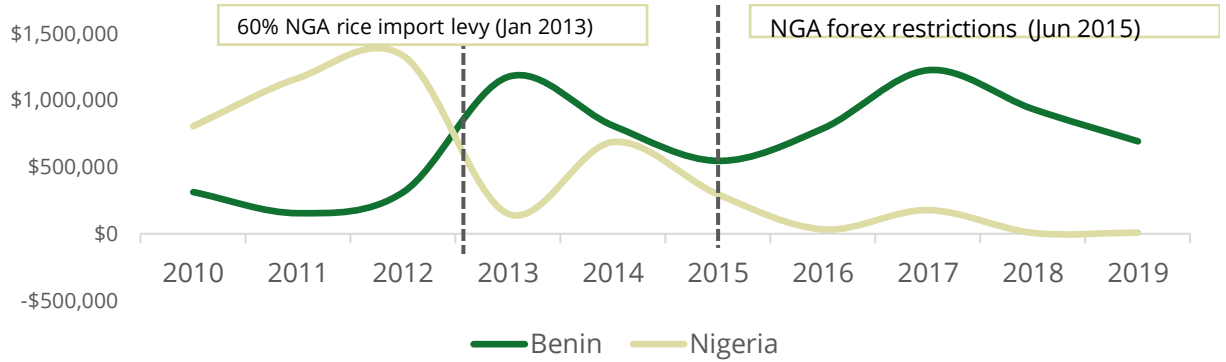
23 **Intra-ECOWAS exports are primarily to Nigeria, Niger and Cote d'Ivoire and remain volatile**



Source: WITS-Comtrade, author's calculations using mirror data

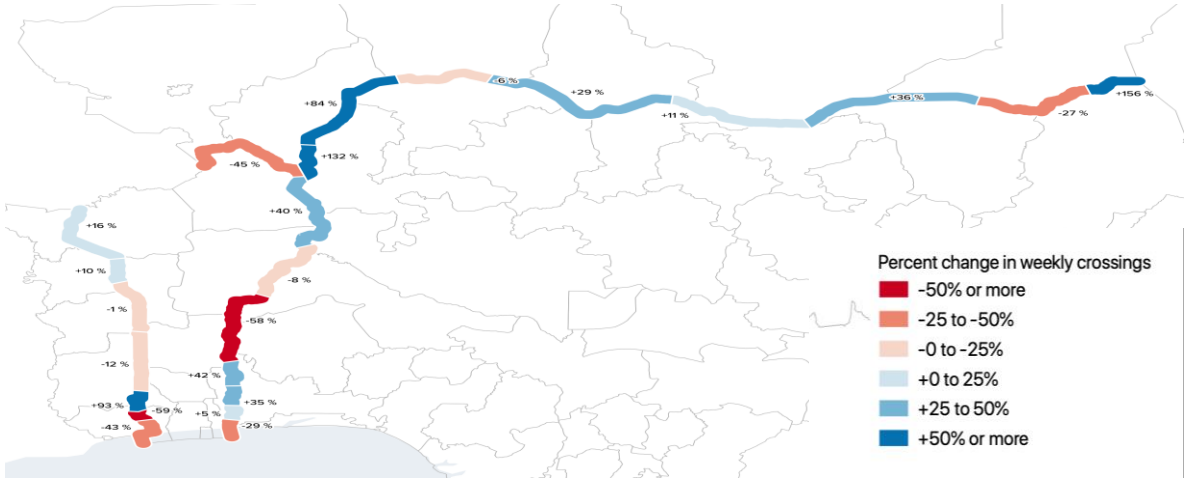
Benin-Nigeria's trade relationship fuels volatility

24 Nigerian rice imports decline and Benin's imports surge (in US$ million)



Source: WB staff calculations using WITS-Comtrade. Uses HS Code 1006 for rice and mirror data

25 Trade with Nigeria along the border is widespread, as evidence during the border closure (2019-2020)



Seeking a more stable relationship with Nigeria…

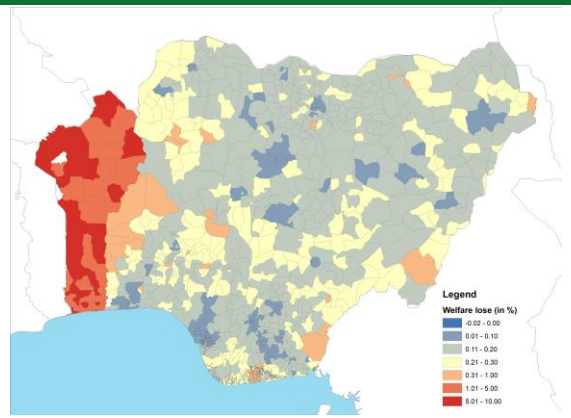
Nigeria is Benin's main trading partner, and the destination of 25.2% of its recorded exports in 2019 (mirror data from WITS-Comtrade). It has been its fastest growing export market over the last five years, with a population 200 times as large. Traditionally, Benin (and Togo) has used its proximity, the relative greater competitiveness of its port (chapter III) and the porous borders to supply Nigeria via its land border through the re-exports of goods that face import restrictions in the latter. The country also uses the border to supply their domestic markets in cheaper goods, notably highly subsidized informal fuel in Nigeria. As such, exports respond strongly both to (i) economic growth and (ii) import restrictions in Nigeria (outright prohibitions, foreign exchange restrictions, and high tariffs).

Imports are dominated by products that are mostly destined for transit trade. In recent years, a strong relationship has existed between the Nigerian government's imposition of import restrictions on goods, on the one hand, and Benin's importation of these goods, on the other. Benin, for example, is one of the largest rice importers in the world, importing US$966 million worth of rice from 2017-2019, i.e., almost US$82 per inhabitant. Other imports destined for Nigeria include motor cars, palm oil, fabrics, sugar and motorcycles. Evidence using GPS data (Box 4.3) shows that cross-border flows are mostly concentrated along the Southern corridor between Lomé and Lagos through Cotonou, but that a significant share of crossings also happen along the rest of the border.

Tensions between Benin and Nigeria escalated with the closure of Nigeria's land borders in August 2019 (World Bank 2020c). It led to a general decrease in border crossings as well as a reallocation across border crossings, mostly from official border points to outside of official border points. The crossing zones of Seme-Kraké with Nigeria and Hillacondji with Togo have experienced a significant decrease. Meanwhile there was a significant increase in crossings via Niger.

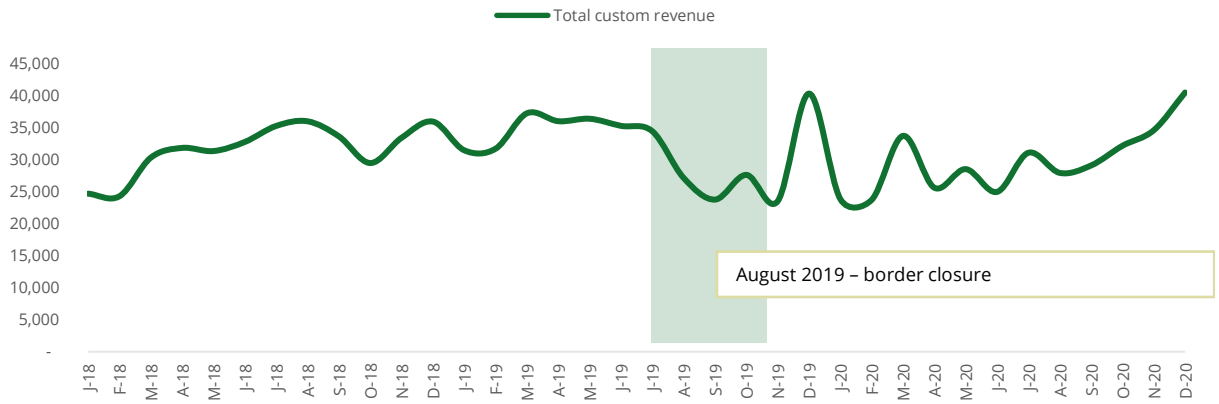
Trade relationships should improve to reduce vulnerability

26 Simulations of a full closure of the border with Nigeria on Benin's welfare



Source: Authors' calculations using GPS data on the period January 2019-January2021. The map shows the weekly number of crossings in the pre-closure period between January 2019 and mid-August 2019 relative to the post-closure period until March 2020

27 Tax revenues are dependent on transit trade



Source: WB staff calculations using customs revenue data in CFAF thousands. Notes: The border between Benin and Niger closed in August 2019 for 16 months.

… is central to reduce volatility

The announced reopening of the border in early 2021 offer an opportunity for improving relationships. Both countries are in talks to address smuggling and improve joint monitoring of the border. Other trust-building measures, such as the joint administration of the *Seme-Kraké border post* and joint enforcement under the ECOWAS Customs Mutual Assistance Agreement will be important. Benin can also support help businesses involved in transit trade formalize. This can be done by providing support to help digitalize trade procedures through mobile banking and e-tax services and developing special tax regimes and simplified trade procedures.

When informal trade is pervasive, quantitative models of the spatial distribution of economic activity can simulate trade flows between locations (Appendix 11). In this case, two scenarios were considered: (1) border delays are doubled from 40 hours to 80 hours, (2) borders are totally closed, and countries return to relative autarky. The first scenario shows that a partial border closure has a larger negative impact on Benin than Nigeria – albeit contained - with welfare decreasing by 2.8%, due to the loss of access to a larger market. Some districts lose more than others. Districts closer to the border, and less populated and poorer lose the most.

Benin should reduce the volatility of customs revenue from transit trade to Nigeria. In 2016, half of Benin's tax revenues were customs duties, a fourth linked to re-exports with Nigeria (World Bank 2020d). The overreliance on trade taxes has declined in recent years due to tax policy and administration reforms aimed at increasing domestic tax collection (chapter I). In 2019, customs duties represented 40% of total revenue. Despite these improvements, its reliance on duties creates significant volatility. In 2020 tariff revenues hit historic lows (at 3.8% of GDP), due to a combined shock of COVID-19 and the border closure. The prevalence of informal trade also reduces tax collection from the formal economy. Reducing the dependence on customs revenues from transit trade should remain a priority.

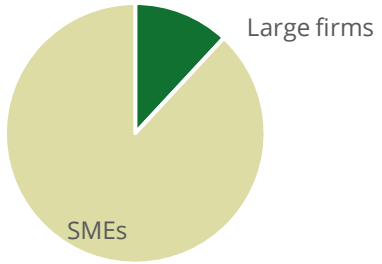
STRENGTHENING THE ECOSYSTEM FOR DIVERSIFICATION

4.3

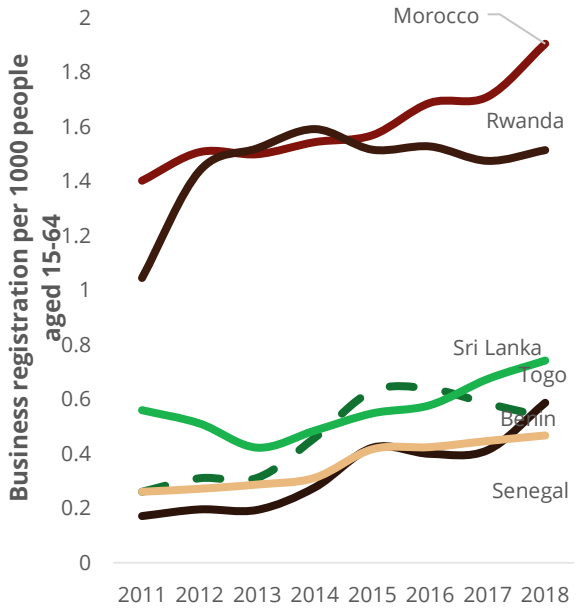
Increasing Benin's capacity to benefit from greater regional and global integration includes supporting the productivity of the private sector and addressing supply-side constraints to firm growth, as well as high trade costs.

Employment growth is the weakest among peers, despite growing investment

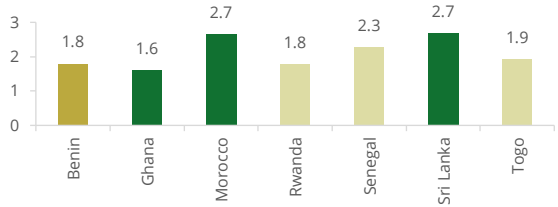
28 Most registered firms are SMEs



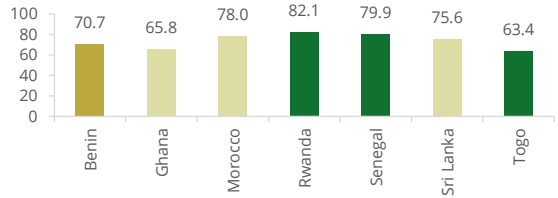
29 Benin's density of new business lags comparators



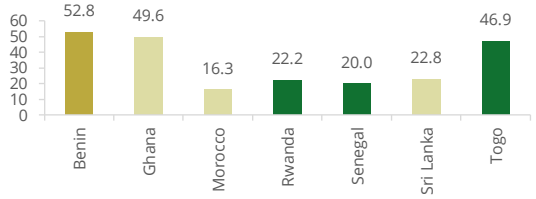
30 Revenue total factor productivity is lower than most peers



31 Capacity utilization is in the middle range



32 Firms are investing in fixed assets



Source: All figures from World Bank Enterprise Survey, except from figure 31 (DGI Benin) and 32 (WDI).

4.3.1 The private sector could be more dynamic, but exporting firms outperform others

Most formal firms in Benin are SMEs. The formal economy employs only 10% of working-age individuals (Chapter II). 75% of firms are located in the coastal area around Cotonou. In 2020, 522 large firms – those with a value-added above CFAF 1 billion (US$ 1.8 million) – were registered with the tax authorities. While representing only 10% of total registered large and medium sized firms, they were responsible for 80% of total tax collection.

Firms' size matters for growth, with evidence showing it is associated positively with productivity (Ciani et al. 2020). Benin displays lower revenue total factor productivity (TFPR) than most peers which may in part be driven by the challenges firms face to grow. Large firms are growing their labor force at a yearly rate of 7.6%, compared to 1.5% for small firms and 0.7% for medium firms. The value added per worker for large firms is more than 4.5 times higher than for small firms and almost 3 times as much as for medium firms. Globally, evidence suggest large firms can play a key role in boosting economic growth (Box 4.4).

Firm creation is weak, while those that exist are failing to generate appropriate value added. New formal business entry density grew from 0.31 in 2013 to 0.54 in 2018 (Figure 32), the lowest of peers except Senegal. Yet most registrations are of self-employed people. From March 2019 to August 2020, about 87.5% of firm registrations were single businesses. Yet it outperforms all peers in fixed assets investment. Low productivity and average capacity utilization suggest large inefficiencies.

Manufacturing and exporting firms outperform others. Overall, manufacturing firms tend to perform significantly better than services and large firms (100+ employees). Finally, firms engaged in trade, and in particular exporters, tend to outperform others.

See more: Analyzing the Enterprise Survey (Appendix 9)

Box 4.4 How can Benin support firm growth?

While SMEs are the backbone of economies, accounting on average for 90% of business and half of employment globally, evidence suggest large firms can play a key role to boost economic growth. High-performing economies tend to have a larger share of employment in big, competitive firms than other countries. Such firms are usually more productive. They are more likely to innovate, more likely to export, and more likely to adopt international standards of quality. They typically pay higher wages and provide more secure employment than small firms (Ciani et al Eds 2020).

In small and lower-income countries, however, there is a pronounced shortage of large, competitive firms. Policy makers can enable more smaller firms to make it big while keeping large firms from becoming monopolies, with the following policies:

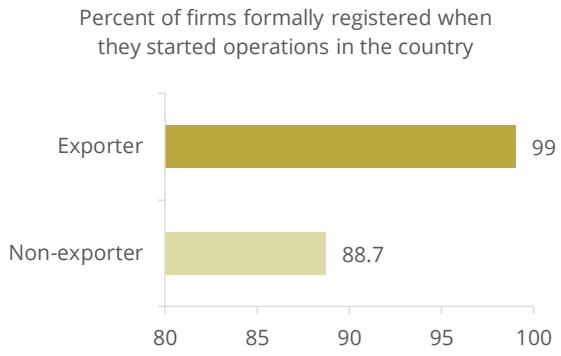
1) Open domestic markets to broad-based competition, through international trade and investment and policies to promote competition.
2) Improve the business environment. Costs resulting from government policies—involving courts, labor laws, taxation, and trade rules and customs—can sway investors' decisions regarding where to establish new, large firms and whether to expand. Improving the business environment through smarter government regulation, stronger trade facilitation, and better protection of property rights, can make a big difference in fostering the emergence of large firms.
3) Avoid state ownership beyond key public goods. Governments have historically created large firms in the form of state-owned enterprises (SOEs)—a generally unproductive exercise outside of key public goods
4) Strengthen private sector capabilities. Governments should strive to ensure that private actors have the skills, technology, market intelligence, infrastructure, and finance they need to create large ventures.
5) Spread the benefits. The propensity of large firms to innovate and achieve higher productivity can generate significant benefits for other firms as they create demand in their supply chains, they grow markets, and they spread know-how in ways that benefit other companies of all size.

The importance of building large firms in Benin is evidenced by their greater performance (Appendix 9).

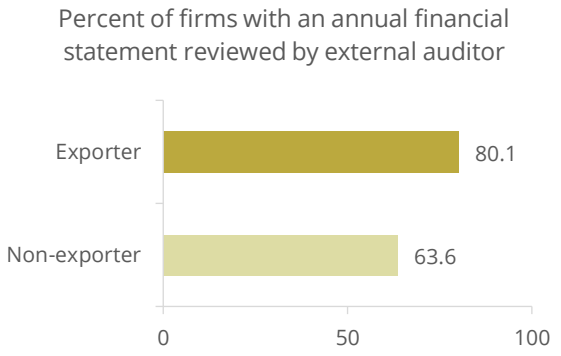
Making it Big: Why Developing Countries Need More Large Firms; Ciani et al. Eds (2020)

Exporting firms are in the formal economy

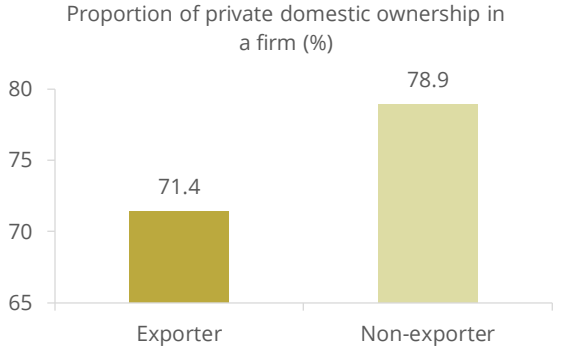
33 All exporting firms are formal



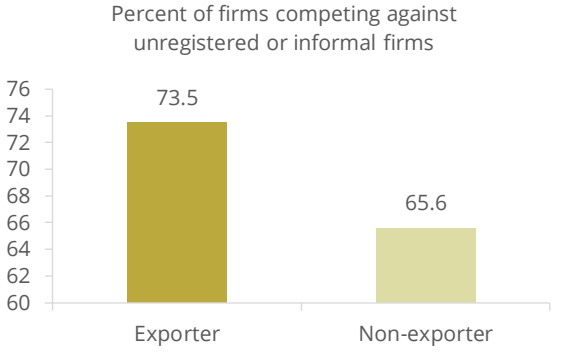
34 Most exporting firms are audited



35 Exporting firms have a higher share of foreign ownership



36 They compete more directly with informal firms



Source: World Bank Enterprise Survey (2016) and authors' calculations

Exporting firms are more competitive, and can boost productivity in the tradable sector

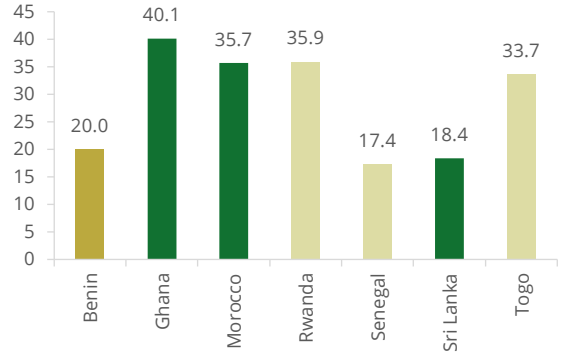
As in many other countries, Benin's exporting firms are more competitive. In Benin, they have three times the value added per worker than non-exporting firms. Capacity utilization at 71.4% is only slightly higher than for non-exporting firms. Virtually all exporting firms are formally registered when they start operations and most comply with the regulatory framework, such as by providing external audits of financial statements (80%). Most exporting firms in Benin are in the agriculture sector (71%), with the remainder in manufacturing. Transport and trade services, which are among the largest tradable services in Benin, are mostly informal (chapter IV).

Evidence suggests that exporting firms benefit from competition and spillover effects of firms from abroad. This mechanism is often referred to as l*earning-by-exporting* (De Loecker 2013). At the same time, they may face competition from the informal sector. Less productive informal firms competing with more productive formal firms can lead to misallocation of resources and potentially large losses in productivity. In Benin, informal workers are 20 to 40% less productive than formal ones (chapter I). However, relations between formal and informal firms are complex, with cases of both competition and cooperation. Many formal firms rely on informal distributors, for example.

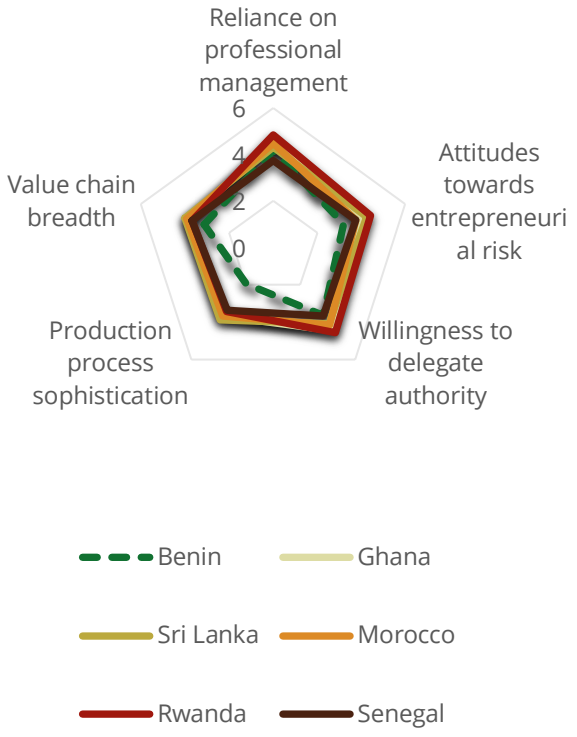
Expanding the size of the export-oriented sector is important to increase positive spillovers from trade. Trade openness can lead to a strong reduction in informality in the tradable sector. It can also lead to increased informality in the non-tradable sector, caused by the increase in total demand for non-tradable goods, both by consumers and exporters (Dix Carneiro et al 2021).

Benin needs to improve firms' capabilities

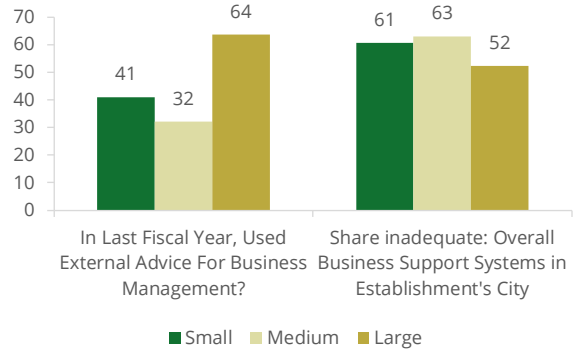
37 Few workers are offered formal training in Benin



38 Management and production capabilities are lagging



39 Larger firms are most likely to use business support services and are more satisfied with these



Source: World Bank Enterprise Survey (2016) and authors' calculations

Firm capabilities should be strengthened to spur innovation and productivity growth

Skills represent a large constraint to firms, and only few offer formal training. 42.2% of firms identify the inadequate education of the workforce as a major constraint – a value comparable to peer countries. However, in terms of formal training, Benin lags most of its peers with only 20% receiving formal training. There is some variation between permanent, full-time employees and others, however. Exporters and large firms offer training to one third of employees, compared to less than 20% among non exporting firms. These skill deficits also apply to production capabilities and capabilities related to management. This includes attitudes towards entrepreneurial risk and willingness to delegate. Continuous education and training will become even more important as the as more youth enter the labor force in the coming decades (chapter II).

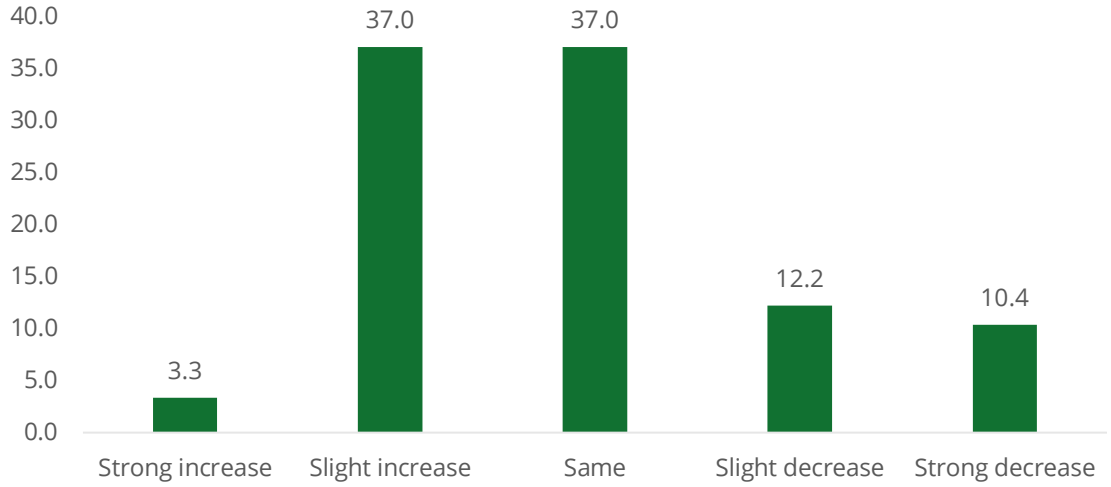
Business support systems are inadequate and sparsely used. While 64% of large firms use business support services, the majority find them inadequate. Among small and medium firms almost two thirds find these services inadequate. Exporters and larger firms perform better on technology adoption and innovation. Exporting firms are more likely than non-exporting firms to introduce new processes (42.3% vs. 18.5%) and new products or services (63.7% vs. 28.1%), with those products more likely to be new to the market (63.6% vs. 49.1%). They also spend considerably more on R&D (0.7% of sales compared to 0.0% for non-exporters) This points to the potential to improve technology adoption and innovation, e.g., through technology extension services or financing, to help increase exports. Investing in firms' capabilities can be important to improve financial and market performance of firms. Relative to medium and large firms, micro and small firms in the informal sector have lower levels of technology adoption and active policies to support them in this direction are necessary (Appendix 10).

Exports were resilient in the second year of COVID-19, as firms increased digital adoption

Most firms did not experience export decreases in the first quarter of 2021, compared to the same period of the previous year. According to the Business Pulse Survey (BPS), only 22.6% of firms experienced slight or strong export decreases during Q1-2021, compared to right before the pandemic in Q1-2020. By contrast, 3.3 percent saw strong increases, while 37.0% experienced slight increases. Hence, this strong performance suggests that exports have shown resilience to the COVID-19 crisis, as firms adapted. However, this effect is partially confounded by the border closure to Nigeria between August 2019-December 2020.

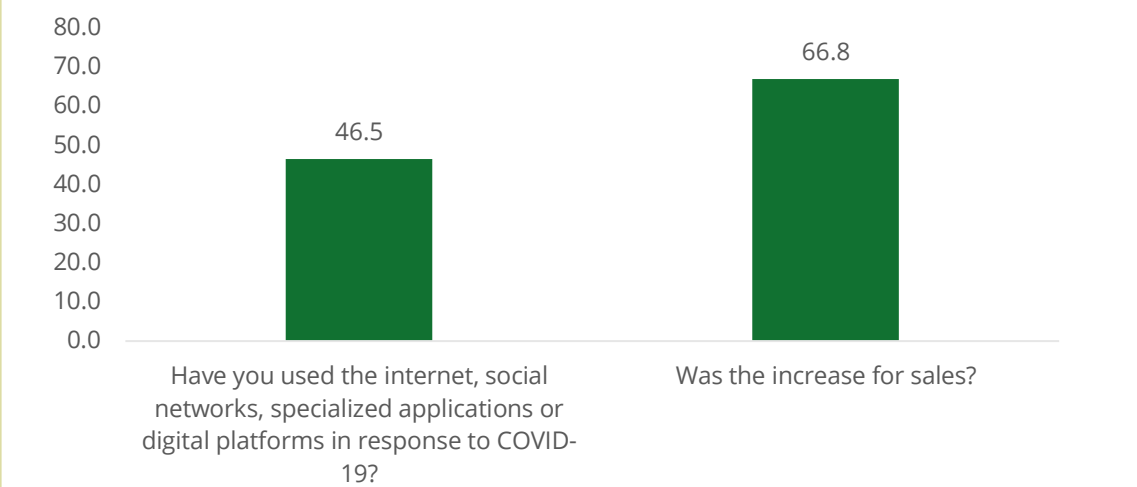
COVID-19 has accelerated the use of digital technologies, which will be crucial to promote exports and their diversification, especially for services. Despite the negative impact of the pandemic, 46.5% of firms have been able to respond productively, by increasing their use of the internet, social networks, specialized applications or digital platforms. As a result, we can expect positive effects on firm productivity, which can support exports. Such digital solutions will be especially helpful to enable exports in high value-added service sectors. Encouragingly for digital export delivery, among firms that increased their use of digital technologies, 66.8% have channeled their use toward sales.

40 Change of Q1-2021 exports compared to Q1-2020



Source: World Bank Business Pulse Survey, 2021

41 Almost half the firms have increased the use of digital solutions in response to COVID-19, while over a quarter did so to improve sales



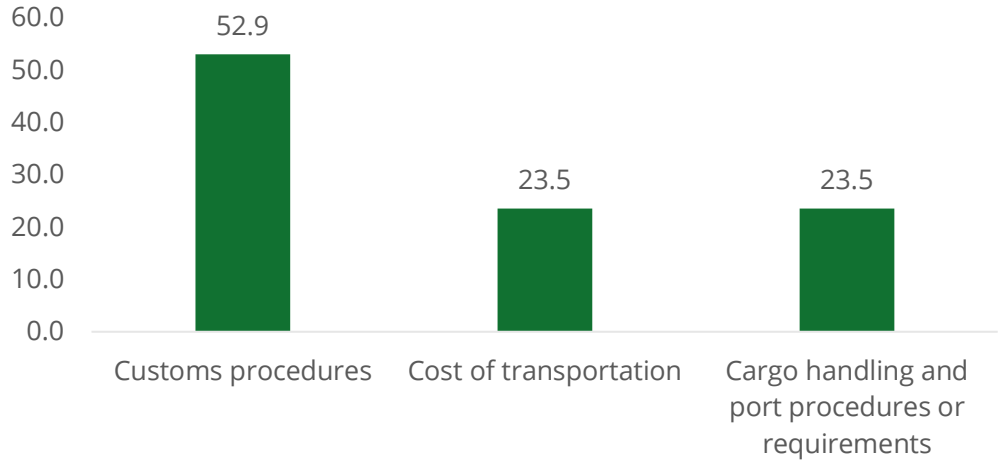
Source: World Bank Business Pulse Survey, 2021

Nevertheless, important constraints to exports and technology adoption remain

The three main obstacles to exports, as reported by firms, are customs procedures, transportation costs and the implementation of existing trade agreements. The most important obstacle to exports, by far, are customs procedures, with slightly over half of BPS respondents reporting them as a main constraint in 2021. Further, 23.5% of firms reported transportation costs as a major obstacle to exports. The third most important issue is cargo handling and port procedures or requirements, as mentioned by nearly 23.5% of firms. While transportation costs may not be straightforward for the government to address in the short-term, customs, cargo and port procedures can represent quick wins to increase exports.

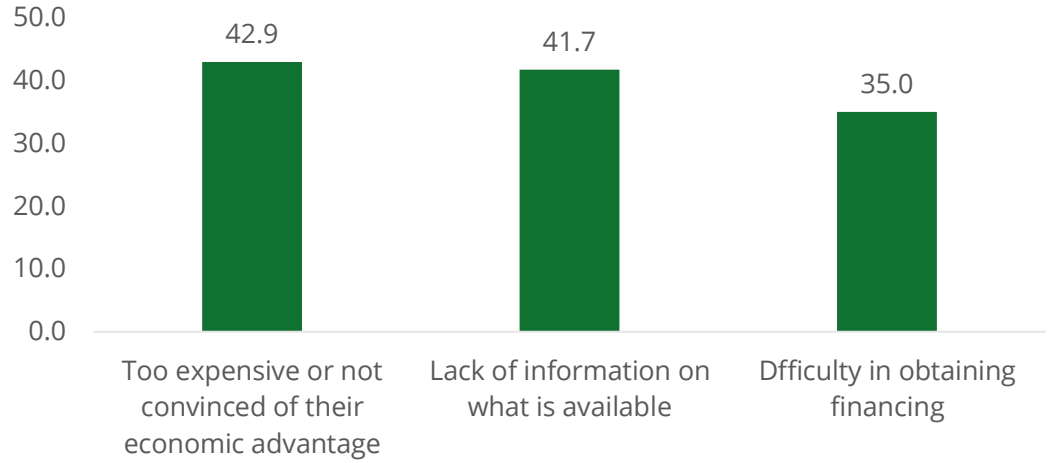
The main reasons preventing technology adoption by firms are the high costs compared to benefits, a lack of information, and difficulty in access to finance. Technology adoption, defined here as new equipment, machinery, software, or processes, will be critical to improving exports. However, according to the BPS, 42.9% of firms reported that technology adoption was either too expensive or did not provide a convincing economic advantage. The lack of perceived benefits may also relate to insufficient awareness. Similarly, 41.7% of firms report a lack of information on what is available as a top barrier to adopting new technologies. These results present a clear rationale for information and training campaigns, as firms may further not know what they don't know. Lastly, access to finance will be crucial, as 35.0% of firms report it as a top barrier for technology adoption.

42 The main obstacles to exports, by share of firms



Source: World Bank Business Pulse Survey, 2021

43 The main constraints to technology adoption. by share of firms



Source: World Bank Business Pulse Survey, 2021

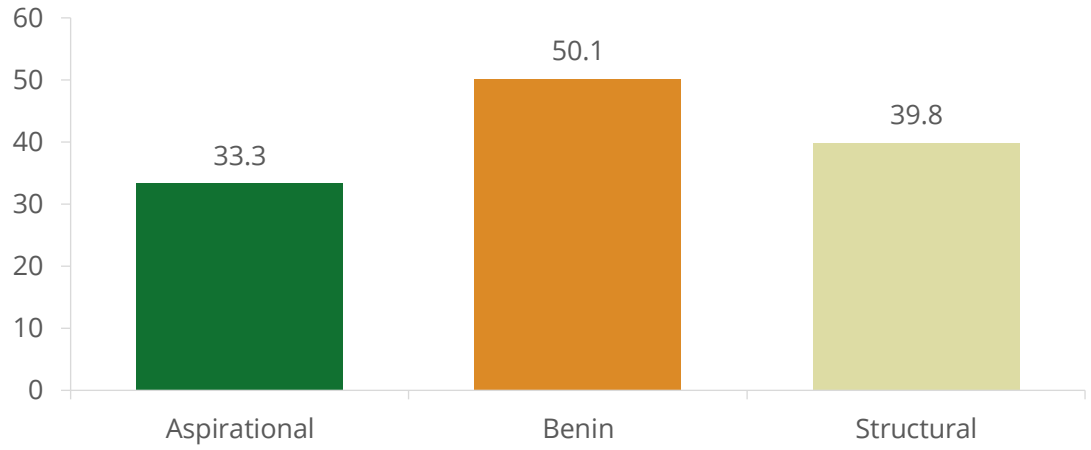
4.3.2. The business environment and trade regulations need to continue improving

While it still performs below structural peer countries, on average, the business environment has improved in recent years

Infrastructure improvements are seen by most firms as necessary. In terms of other business environment constraints, competition from informal firms is identified as problematic. Over half of firms compete against informal firms, a higher rate than among peer countries. Finally, the depth of the financial sector needs further improvement (IMF 2019). Credit to the private sector was about 16.7% of GDP over 2011-2019, rather low when compared to the SSA average (46.5%) (Chapter I). The top five banks and the top three MFIs account for over 75% of the banking sector assets and the MFI sector's loans, respectively. Important reforms were undertaken in recent years, and banks entered the crisis on a better standing than in the past thanks to the recapitalization of the banking sector started in 2018 in the context of the transition to Basel II/III. Thanks to the BCEAO's region-wide loan repayment moratorium, NPLs had declined significantly from 21.7% at end-2018 to 15.1% in December 2020. The banking sector would benefit from continued reforms. Unprovisioned NPLs represent a higher share of banks' capital in Benin than in the WAEMU (35% versus 23% overall in 2020), and structural fragilities remain - linked to a relatively higher concentration in a small number of clients and the exposure to the commercial sector due to trade with Nigeria. These limit banks' ability to finance private sector projects.

There has been significant effort since 2017 to improve the business environment with infrastructure investments, and structural reforms in the electricity sector and to the business climate as part of the PAG. For example, the Export and Investment Promotion Agency (APIEX) has been transformed into a one-stop shop; in 2020, the government dematerialized business registration, and 181.5 MW of electricity generation capacity was installed to strengthen domestic production. While Benin's overall Doing Business rank remains high (149th), this masks considerable heterogeneity across categories and the country's relatively strong performance during the pandemic could lead to further improvements in the medium term.

44 Firms identifying practices of informal sector competitors as a major constraint



Source: World Bank ES and authors' calculations.

As part of ECOWAS, Benin has limited space to change its tariff policies

Benin's tariff policy follows ECOWAS and WAEMU

It has very limited autonomy in terms of setting its tariffs as these are determined by the ECOWAS Common External Tariff (CET). Benin adopted the five-band ECOWAS Common External Tariff (CET) for imports from outside the region in 2015, and the ECOWAS Trade Liberalization Scheme (ETLS) for qualifying imports from ECOWAS member states. The CET comprises five bands: 0, 5%, 10%, 20% and 35% In addition to other community duties and taxes , Benin imposes other levies, for example, port charges

Its tariffs are comparable to peer countries though they are particularly high for raw materials and consumer goods. For consumer goods, the simple average (14.88%) is relatively high while raw materials have a particularly high weighted average (26.46%). While intermediate goods have lower tariffs (9.13% simple average; 5.99% weighted), many goods fall into the highest CET band. Facilitating access to intermediate goods, especially for those not produced in Benin, would reduce costs for firms requiring these inputs in production. This could be done in the context of the AfCFTA negotiations, or through e.g., duty drawback programs.

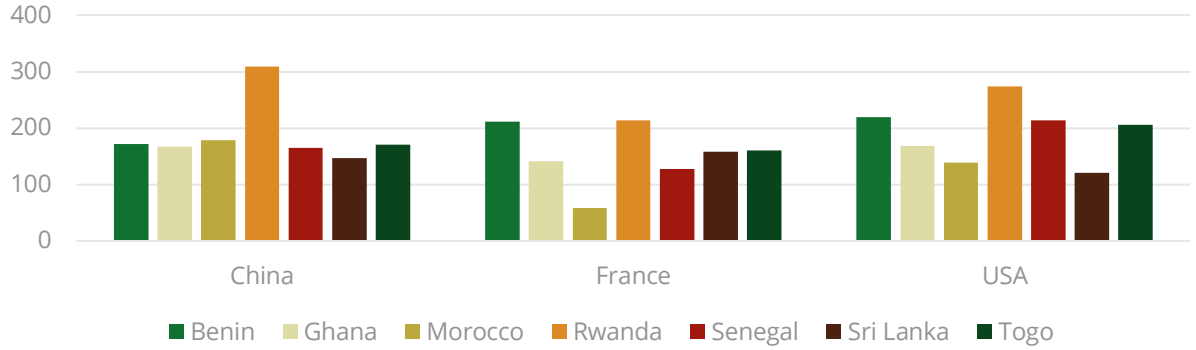
45 Tariffs are highest for raw materials and consumer goods

	Import Product Share (%)	AHS Simple Average (%)	AHS Weighted Average (%)
Capital goods	12.65	7.14	7.75
Consumer goods	56.58	14.88	10.42
Intermediate goods	21.6	9.13	5.99
Raw materials	8.92	14.57	26.46
All Products	100	11.67	9.86

Source: WITS TRAINS

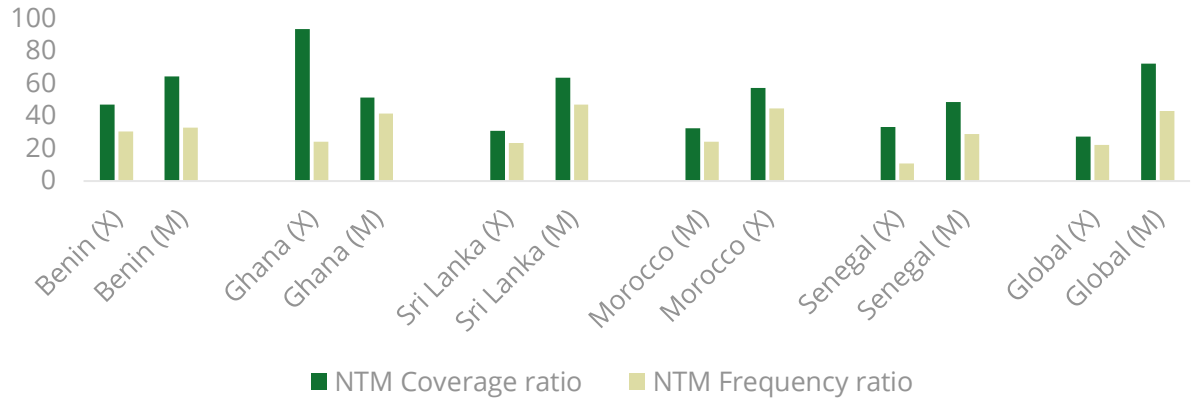
Reducing trade barriers and bringing trade costs down is essential diversification

46 Benin faces relatively high trade costs to peers (2018)



Source: ESCAP-WB Trade Cost database

47 NTM coverage (2014)



Source: UNCTAD-WB NTM Database

Tariff and non-tariff barriers add to trade costs, but vary by destination

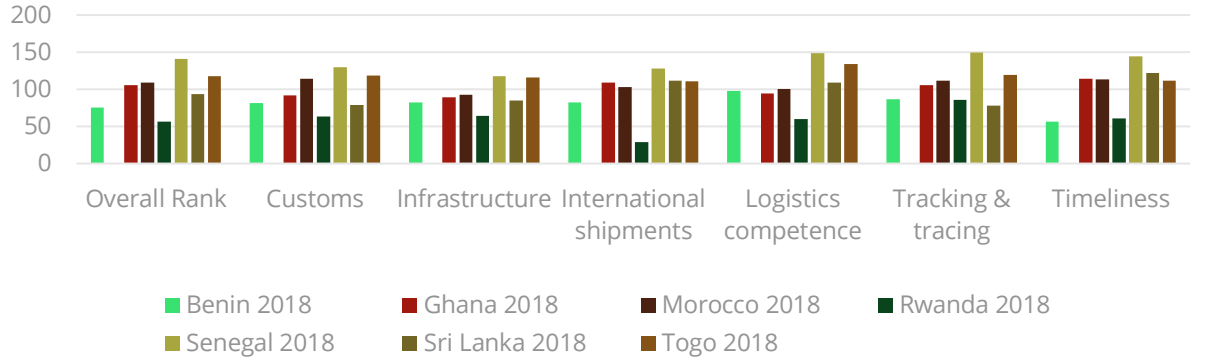
Overall Benin faces relatively high costs to accessing global markets. The ESCAP-World Bank Trade Cost Database provides a comprehensive all-inclusive measure of ad valorem equivalent trade costs. It captures trade costs in its wider sense, including not only international transport costs and tariffs but also other trade cost components, such as direct and indirect costs associated with differences in languages, currencies as well as cumbersome import or export procedures. For example, the ad valorem equivalent trade cost of Benin-China is 171% of the value of goods - as compared to when the two countries trade these goods within their borders. Benin displays mostly higher costs compared to aspirational peers. The difference with most structural peers, particularly Senegal and Togo who are also members of ECOWAS and WAEMU and share a similar CET, are smaller. They are the largest towards France and the lowest towards the USA.

This is in part driven by non-tariff measures (NTMs) faced by firms. NTMs include regulations like packaging requirements, labelling requirements, quotas on imports that affect trade. While some measures are necessary there are others which are impediment to free trade. Overall Benin's exports and imports have a higher coverage of NTMs and a greater frequency per covered product than most of its peers in the WAEMU.

NTMs have been proliferating and they are becoming more restrictive to trade than tariffs. Trade reforms associated with multilateral, regional, bilateral and unilateral trade agreements have reduced tariffs while non-negligible protectionist trade policy measures have become a greater challenge. While tariffs add directly about 7.5% to the price of imported products in Africa, NTMs add 38 per cent to their price (Niu et al 2018).

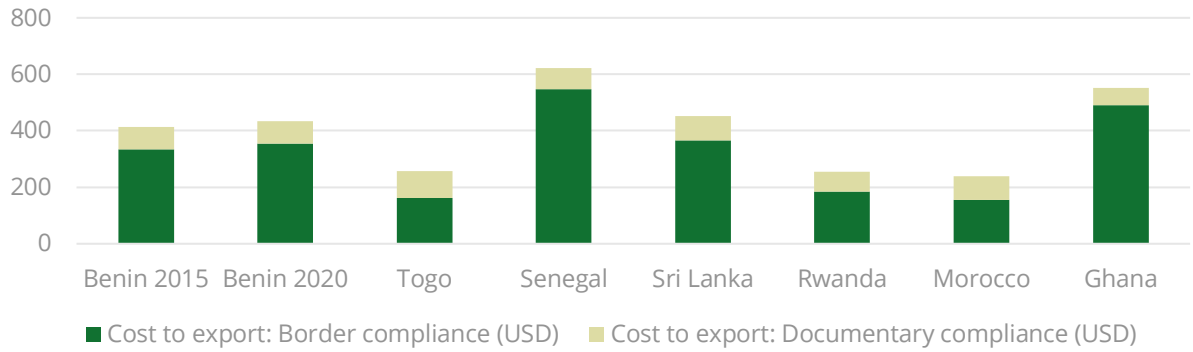
Reducing trade barriers and bringing trade costs down is essential diversification

48 Logistics performance is relatively strong, but progress has been uneven



Source: ESCAP-WB Trade Cost database

49 Compliance costs for exporters are high



Source: UNCTAD-WB NTM Database

Compliance with customs and trade procedures adds to costs

For most exporters, lengthy and costly border procedures reduce incentives to export and hinder their competitiveness. The biggest obstacle for exporters is third-party clearance and inspection procedures and document compliance at borders when importing goods.

Benin is keeping up with the regional average on logistics performance – and is performing better than almost all its peers, with the notable exception of Rwanda and Côte d'Ivoire. However, its performance has stalled since 2010 (chapter IV). Benin's scores on the *Trading Across Borders* index are comparable with structural peers. Overall, its export costs, (border and documentary compliance costs) are lower than those of Senegal, Sri Lanka and Ghana but lag Togo, Rwanda and Morocco. It still performs significantly better than Nigeria. Benin's position relative to Nigeria is notable, with the time and cost of complying with border and documentary procedures for imports approximately 60% lower. Nigeria's challenging business climate and its particularly poorly functioning port and customs processes boost the attractiveness of the PAC as an alternative to the main Nigerian ports (chapter IV).

Improving risk management systems can help reduce these costs. Benin Customs deploys risk management and selectivity procedures recommended by World Customs Organization (WCO) in its procedures for the control of goods declaration. A recent assessment by the World Bank Group using 46 indicators from the Customs Assessment Toolkit gives this administration a rating of 6/10. Certain efforts have been made since the first evaluation in 2013, when Benin received a score of 0/10. The regulation for risk management in the Customs Code was updated in 2018, and it currently uses the ASYCUDA World customs administration system. However, there is no integrated risk management system with other border agencies.

Reducing trade border procedures can increase competitiveness and support small cross border traders.

Regional trade integration is hampered by weak customs and border procedures. This is also an obstacle for small traders, who often tend to trade across borders with neighboring countries or along corridors, thus traveling long distances. Infrastructure and border crossings play an important role that should be addressed by trade policy.

Since 2009, efforts have been made to reduce trade and transportation barriers along the different regional corridors with the promotion of one-stop border posts (OSBPs) at the continental level. The OSBP concept refers to the legal and institutional framework, facilities, and associated procedures that enable goods, people, and vehicles to stop in a single facility in which they undergo necessary controls following applicable regional and national laws to exit one state and enter the adjoining state.

There are close to 80 OSBPs under construction across SSA. In West Africa, the Abidjan-Lagos Trade and Transport Facilitation Project has reduced the time for merchandise/trucks to cross the borders along the corridor from 24 to 10 hours (-58%) at the border between Togo and Benin, and from 48 to 31 hours (-35%) at the border between Benin and Nigeria. There are two operational OSBPs, Malanville-Gaya (border with Niger) and Seme-Kraké (with Nigeria), and another under construction in Hillacondji-Sanvee Condji (border with Togo). The Malanville-Gaya OSBP has been in operation since 2019 but operational deficiencies have so far limited the added benefits (Chapter IV).

This situation is not specific to the Cotonou-Niamey corridor. For example, the launch of the single transit declaration on the Abidjan-Ouagadougou corridor should have eliminated the intervention of the clearing and forwarding agents at the border, but in practice, local agents still bill for their intervention even though there is no longer a declaration lodged at the border. These examples show that it is critical to pay attention to the management of the reforms at the border through communication plans and training users, to ensure that the expected benefits of the reforms materialize.

POLICY OPTIONS

Key policy options include both structural measures to improve the prospects for diversification as well as institutional reforms to improve the ecosystem for trade.

4.4

Key policy options (1/2)

	Timeline for implementation	Fiscal implications
Advancing export diversification		
1. Support value chain integration by reducing trade barriers on key intermediate inputs: High tariff and non-tariff trade barriers continue to make it expensive to import inputs required to produce key goods. Assessing where there may be scope for reducing barriers (in particularly NTMs, in light of the challenges of removing tariffs in the context of ECOWAS) could reduce costs for firms and improve their ability to export.	Short term	Low
2. Invest in agricultural supply chains: Benin's biggest export growth is in agro-food products. These also have high potential for job creation and value addition. Addressing these requires a greater focus in export promotion and on the quality and standards infrastructure for cold-chain logistics.	Long term	High
3. Improve the conditions of small-scale cross-border traders by putting in place measures that can help simplify, streamline, and/or decentralize existing procedures and requirement; consider increasing the number of women staff in the ranks of border agencies; Improve border infrastructure through low-cost interventions (surveillance cameras, lighting facilities, night patrol guards). Moreover, as many small-scale traders travel long distances, more could also be done to improve their journey. Here innovative transport services, such as "groupage" programs, could eliminate the need to travel together with goods and reduce risks.	Medium term	Medium
4. Strengthen services sectors: Improving the competitiveness of services has a lot of potential to increase the competitiveness of export goods and to bring in FDI. This requires a focus on improving their regulatory framework and the contestability of these sectors, especially logistics, transport, and digital development.	Long term	Low

Key policy options (2/2)

	Timeline for implementation	Fiscal implications
Improving the trade ecosystem		
5. Develop a cross-government approach to the AfCFTA: Benin remains one of only 18 signatories not to ratify the AfCFTA. As the country decides how to move forward with this process, it will be essential to develop a strong cross-government and private sector consultation process and inform negotiations with a clear understanding of priorities.	Short term	Low
6. Advance the customs reform agenda: In recent years progress has been made in modernizing customs but still requires significant reforms to increase efficiency and more effectively facilitate trade. This includes improving automation, implementing a modern risk management and audit system as well as moving forward with an Authorized Economic Operator system.	Medium term	Medium to high
7. Improve data collection, especially on informal trade flows: While methods are improving, understanding of Benin's trade dynamics remains constrained by a poor understanding of informal trade as well as the welfare and macroeconomic implications of these flows. Improving the government's understanding of trade dynamics could build on the 2011 INSAE survey as well as experiences in other African countries.	Medium term	Low to medium
8. Invest in business support services: Firms continuously report weak business support services at all stages of product and export. A comprehensive assessment of key pain-points faced by firms seeking to innovate, grow and diversify their offering would provide an important starting point to better understand how to strengthen the country's innovation system.	Long term	Medium

REFERENCES (1/2)

Benjamin, Nancy, Stephen Golub, and Ahmadou Aly Mbaye. 2015. "Informality, trade policies and smuggling in West Africa." *Journal of Borderlands Studies* 30, no. 3 : 381-394.

Bensassi, Sami, Joachim Jarreau, and Cristina Mitaritonna. 2019. "Regional integration and informal trade in Africa: Evidence from Benin's borders." *Journal of African Economies* 28, no. 1: 89-118.

Brenton, Paul and Carmine Soprano. 2018. "Small-Scale Cross-Border Trade in Africa: Why It Matters and How It Should Be Supported" *Bridges Africa* 7(4): 4-6.

Brenton, P., Saborowski, C., & Von Uexkull, E. 2010. What explains the low survival rate of developing country export flows?. *The World Bank Economic Review*, *24*(3), 474-499.

Cader, Masud. 2020. "Benin: Country Opportunity Spotlight (COS)." International Finance Corporation, Washington DC.

Ciani, Andrea, Marie Caitriona Hyland, Nona Karalashvili, Jennifer L. Keller, Alexandros Ragoussis, and G. Thu Tran. 2020. "Large Firms Make Distinct Contributions to Development."

Chabossou, Augustin FC, Gbêtondji Melaine Armel Nonvide, Boris OK Lokonon, Cocou Jaurès Amegnaglo, and Laurent G. Akpo. 2021. "COVID-19 and the Performance of Exporting Companies in Benin." *The European Journal of Development Research*: 1-15.

De Loecker, Jan. 2013. "Detecting learning by exporting." *American Economic Journal: Microeconomics* 5, no. 3: 1-21.

Dix-Carneiro, Rafael, Pinelopi K. Goldberg, Costas Meghir, and Gabriel Ulyssea. 2021. *Trade and informality in the presence of labor market frictions and regulations*. No. w28391. National Bureau of Economic Research.

Golub, Stephen S., Ahmadou Aly Mbaye, Cheikh Anta Diop, and John O. Igué. 2019. "Benin's Informal Trading." Benin Institutional Diagnostic.

Haven, Thomas, and Erik van der Marel. 2018. "Servicification of Manufacturing and Boosting Productivity through Services Sector Reform in Turkey." *World Bank Policy Research Working Paper* 8643.

IMF. 2014. "Sustaining Long-Run Growth and Macroeconomic Stability in Low-Income Countries-the Role of Structural Transformation and Diversification-Background Notes." *IMF Policy Paper prepared by IMF staff for the Executive Board, March 05, 2014*.

Lederman, Daniel, Samuel Pienknagura, and Diego Rojas. 2021. "Latent trade diversification and its relevance for macroeconomic stability." *The World Bank Economic Review* 35, no. 1: 58-91.

REFERENCES (2/2)

Mvunga, N., & Kunaka, C. 2021. Eight Emerging Effects of the COVID-19 Pandemic on Small-Scale Cross-Border Trade in the Great Lakes Region.

Nayyar, Gaurav, Mary Hallward-Driemeier and Elwyn Davies. 2021, forthcoming. Services-led Development: In the Service of Jobs and Productivity? World Bank,

Newfarmer, Richard, John Page, and Finn Tarp. 2019. *Industries without smokestacks: Industrialization in Africa reconsidered*. Oxford University Press.

Niu, Zhaohui, Chang Liu, Saileshsingh Gunessee, and Chris Milner. 2018. "Non-tariff and overall protection: evidence across countries and over time." *Review of World Economics* 154, no. 4 : 675-703.

Seror, Marlon Armand Remy and Record, Richard and Clarke, Julian L., Glass Barriers: Constraints to Women's Small-Scale Cross-Border Trade in Cambodia and Lao Pdr (November 21, 2017). World Bank Policy Research Working Paper No. 8249.

Tacchella, Andrea, Dario Mazzilli, and Luciano Pietronero. 2018. "A dynamical systems approach to gross domestic product forecasting." *Nature Physics* 14, no. 8: 861-865.

World Bank. 2009. Benin–Constraints to Growth and Potential for Diversification and Innovation: Country Economic Memorandum. World Bank, Washington, DC.

World Bank Group. 2015. The Republic of Benin Diagnostic Trade Integration Study Update : From Rents to Competitiveness. World Bank, Washington, DC.

World Bank. 2020a. *World Development Report 2020: Trading for Development in the Age of Global Value Chains*. World Bank, Washington, DC.

World Bank. 2020b. *The African Continental Free Trade Area : Economic and Distributional Effects*. Washington, DC: World Bank.

World Bank. 2020c. *Nigeria Development Update, June 2020 : Nigeria in Times of COVID-19 - Laying Foundations for a Strong Recovery. World Bank, Washington, DC.*

World Bank. 2020d. *Implementation Completion and Results Report: IDA 61530, IDA 63070, and IDA G2670, IDA G2680."*

World Bank. 2020e. *TFWA Program Small-Scale Cross-Border Trade Survey. World Bank, Washington, DC.*

UN Women. 2012. *Walking in the Dark: Informal Cross-Border Trade in the Great Lakes Region*. New York City: UN Women.

TERMS AND DEFINITIONS

Capacity utilization	Manufacturing and production capabilities that are being utilized by a nation or enterprise.
Firm capabilities	The accumulated knowledge and skills embedded in a firm's organizational processes and routines.
Hirschman-Herfindahl Index	This index measures, for each country, the degree of concentration of goods exported and the concentration of export partners. It is computed as the sum of squared shares of each product (market) in total export. A country with a perfectly diversified export portfolio will have an index close to zero, whereas a country exporting only one export (market) will have a value of 1 (least diversified).
HS Classification	Among industry classification systems, Harmonized System (HS) Codes are commonly used throughout the export process for goods. The Harmonized System is a standardized numerical method of classifying traded products. It is used by customs authorities around the world to identify products when assessing duties and taxes and for gathering statistics.
Informality	A term used to describe the set of firms, workers, and activities that operate outside the legal and regulatory framework or outside the modern economy (Perry et al 2007). It denotes activities ranging from legally constituted companies to workers in subsistence activities, but the latter is more prevalent.
Nigeria's border closure	The period between August 2019-December 2020, during which Nigeria unilaterally closed its land border with neighbors.
Small-scale Cross Border Trade	A form of trade that is unrecorded in official trade statistics and is carried out by small businesses across borders of neighboring countries.
Transit trade	The import and export goods through the transfer of trade by third countries.
Total factor productivity	A measure of productive efficiency in that it measures how much output can be produced from a certain amount of inputs. The standard *Solow decomposition* estimates whether capital or labor drive economic growth, or whether it grows because those inputs are being used more efficiently (estimated as the residual). TFPR is defined as the portion of firm-level revenue or sales that cannot be explained by the contribution of capital, labor, energy, and other inputs. Being a revenue-based measure, TFPR is not free of price effects; this means this proxy for efficiency might capture not only technical efficiency but also market power deriving differences in quality and other factors affecting demand for the product.
World Bank country classifications by income level	World Bank country classifications by income level (2020-2021) classify the world's economies into four income groups based on GNI per capita (current USD based on Atlas method exchange rates): low (<1,036), lower-middle (1,036-4,045), upper-middle (4,046-12,535) and high-income (>12,535) countries. In Sub-Saharan Africa, high-income countries (HICs) include Mauritius and Seychelles, and upper-middle income countries (UMCs) include Botswana, Equatorial Guinea, Gabon, Namibia and South Africa.

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APPENDIX

Chapter IV: Increasing diversification and integration for economic transformation

1. Benchmarking – Structural, Aspirational Peers and Regional comparisons

To identify Benin's comparator countries, the team combined inputs from the Country Scan Tool with local country context. A set of criteria was used to select countries.

01 Structural peers

Togo, Rwanda and Senegal These countries have similar economic and structural characteristics as Benin.

02 Aspirational peers

Ghana, Morocco, and Sri Lanka. These countries are LMICs that set a good development precedent, having started from a similar position as Benin.

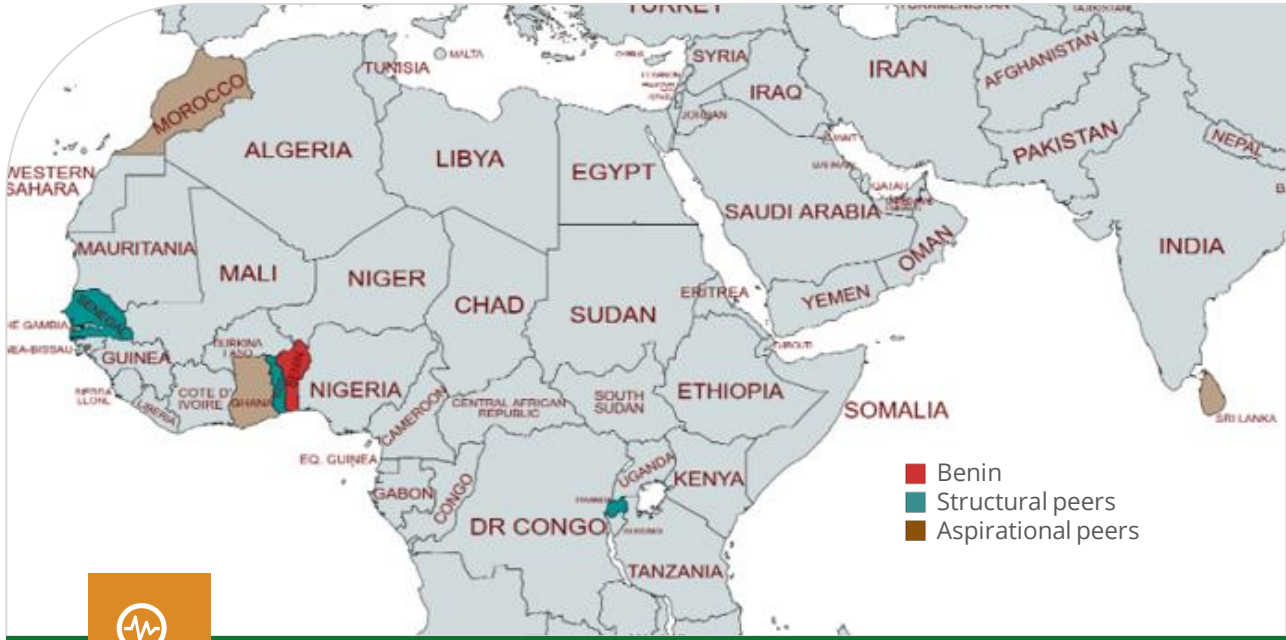
03 WAEMU & ECOWAS

WAEMU countries include Benin, Guinea-Bissau Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal, and Togo.

ECOWAS countries include the WAEMU countries and Cabo Verde, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, and Sierra Leone.

04 Other categories

Benin will also be compared with SSA average, Low Income (LICs) and Lower Middle Income (LMICs) countries averages.



Criteria for selecting structural and aspirational peers

- GDP per capita (constant 2010 US$)
- Population 2019
- Trade (% of GDP)
- Agriculture, value added (% of GDP)
- Human Capital Index
- Country Policy and Institutional Assessment

2. Revisiting the CEM 2009 and DTIS 2015 Update

This chapter builds on two World Bank reports from recent years that developed an in-depth assessment of Benin's private sector dynamics and trade competitiveness: the 2009 Country Economic Memorandum "Constraints to Growth and Potential for Diversification and Innovation" and the 2015 update of the Diagnostic Trade Integration Study.

The CEM focused on the scope for and constraints to private sector-led growth and diversification. Through a set of growth diagnostics, it found that low returns to economic activities appear to be the main reason for the low private investment, in large part due to the inefficient use of human and physical capital. Despite the country's favorable geography, adequate skills and macroeconomic stability, four factors had constrained growth until 2010: i) distortionary and poorly administered tax system and lengthy trade procedures, ii) poor government effectiveness and weak institutions, iii) costly and unreliable infrastructure services and iv) firms' inability to adapt technologies. The CEM provided an in-depth analysis of cotton and transit trade sectors, which made up the bulk of the external sector. In 2020, some of these bottlenecks remain (iii) and (iv) and some have improved significantly such as tax administration and policy, and governance.

The DTIS Update in turn, complemented the government's *Plan Stratégique de Développement du Commerce.* Through a comprehensive diagnostic, it assessed progress on the Government's objectives of mainstreaming trade into the national development strategy and deepening the analysis in select sectors. The DTIS had three key messages, some of which remain relevant today, notably (1) and (2).

1. The dependence on rents derived from Nigeria's trade policy make the country vulnerable and hamper the modernization of Benin's economy, as this parallel trade spills over to transport and other associated services, leaving large parts of the national economy out of the reach of taxes and regulation, and fueling a vicious circle of informality, distortions, and poverty.
2. With appropriate reforms, the country can develop new ways to leverage its strong locational advantage. The development of a formal, modern trade services sector would bring a double dividend to Benin's economy, providing a source of employment and growth on its own and securing a source of competitive advantage for future transformational activities including export-oriented light manufacturing.
3. Urgent reform was needed in Benin's agricultural sector and should include the objective of diversification into new export crops. Lack of support, poor governance, and dysfunctional institutional arrangements in recent years have pushed the cotton sector to the verge of collapse. By contrast, the rapid rise of pineapple and cashew production demonstrates that successful diversification into non-traditional export products is possible. In 2016-2020, significant focus and government intervention in agriculture has pushed productivity growth in the sector (Chapter I). *See more*

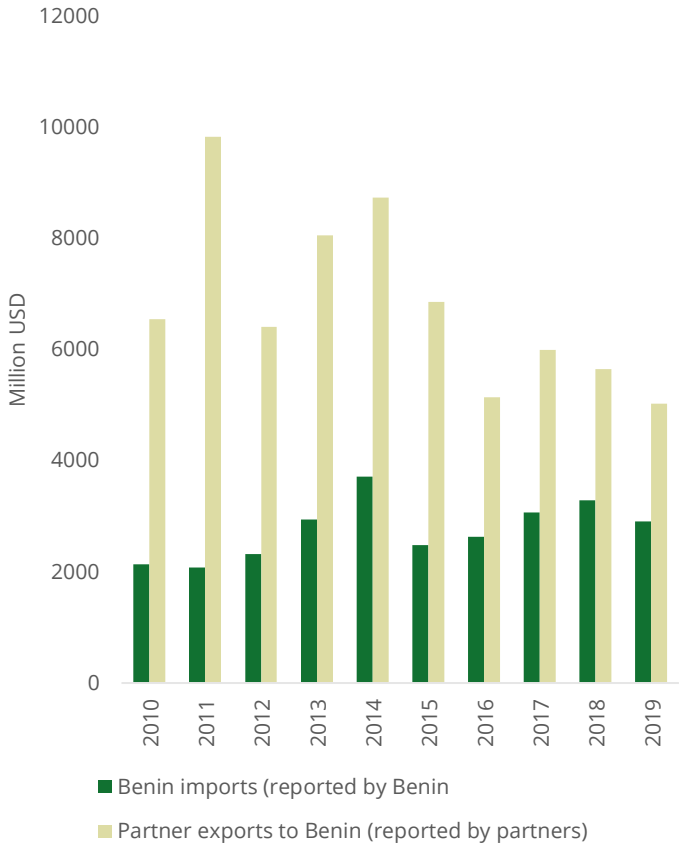
3. Challenges to the analysis of official trade data

Unrecorded flows of goods across borders represent a significant share of international trade in West Africa. This is particularly salient in the case of Benin, where informal intra-regional trade flows between Benin and its neighbors, particularly Nigeria, mean that the amount of commerce that takes place is greatly underestimated. Some trade goes unrecorded because of evasion at customs, while some trade occurs outside of official border crossing points, avoiding customs entirely. Small-scale cross-border trade (SSCBT) is also common, but these flows are different as they are not motivated by evading border controls and taxes per se, but to support household incomes (World Bank 2020b).

Benin informal trade with Nigeria is particularly large, resulting mostly from distortionary policies in Nigeria related to (1) energy subsidies that reduce the price of gasoline and other fuels; and (2) import bans and high border taxes on major items such as edible oils, rice and textile and clothing, which raise the price of those products in Nigeria and create significant arbitrage opportunities for smugglers. As a result, 85% of fuel consumed in Benin up to 2019 was smuggled from Nigeria (Kpayo). During the 16-month border closure from August 2019, prices of *kpayo* doubled overnight creating shortages at domestic pumps due to under capacity. Similarly, Benin is one of the largest rice importers in SSA, mainly to supply Nigeria.

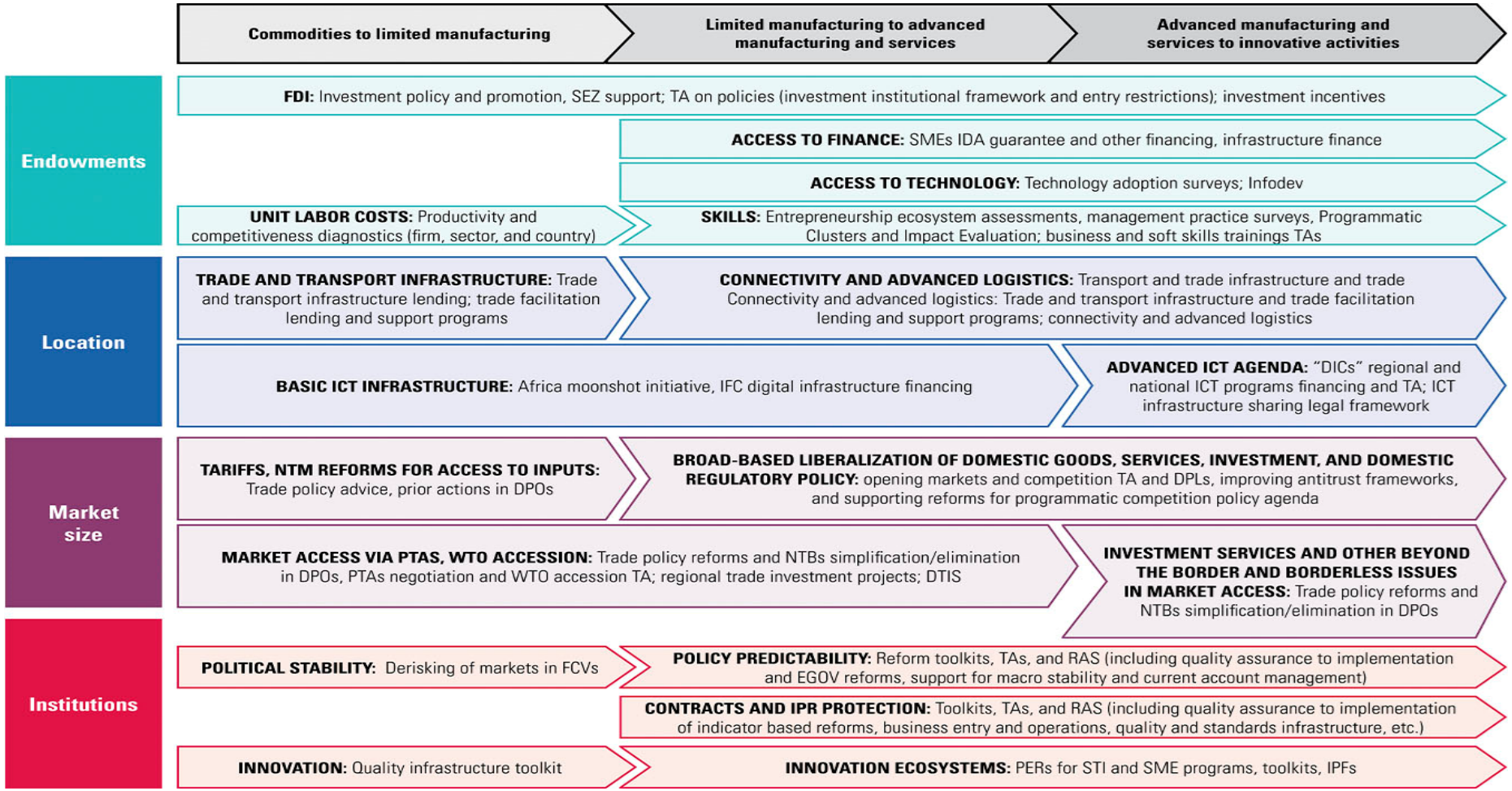
For the purposes of this chapter, and to address those challenges, mirror data reported by COMTRADE were used that match exports and imports from and to Benin and the rest of the world. The PAC's proximity to Lagos and its competitive advantage (Chapter IV) and role as a gateway for the hinterland Sahelian countries exporting hydrocarbon creates additional inaccuracies. Benin has no hydrocarbon resources, and all petroleum products are imported. The value of imports of crude oil is zero and the value of imports of refined petroleum is much lower than would be expected given export values. The latter suggests that smuggling or the misclassification of transshipments as re-exports is taking place. A similar issue occurs with gold. They are omitted in this analysis.

A1 **The trade gap has narrowed from one third to a half**



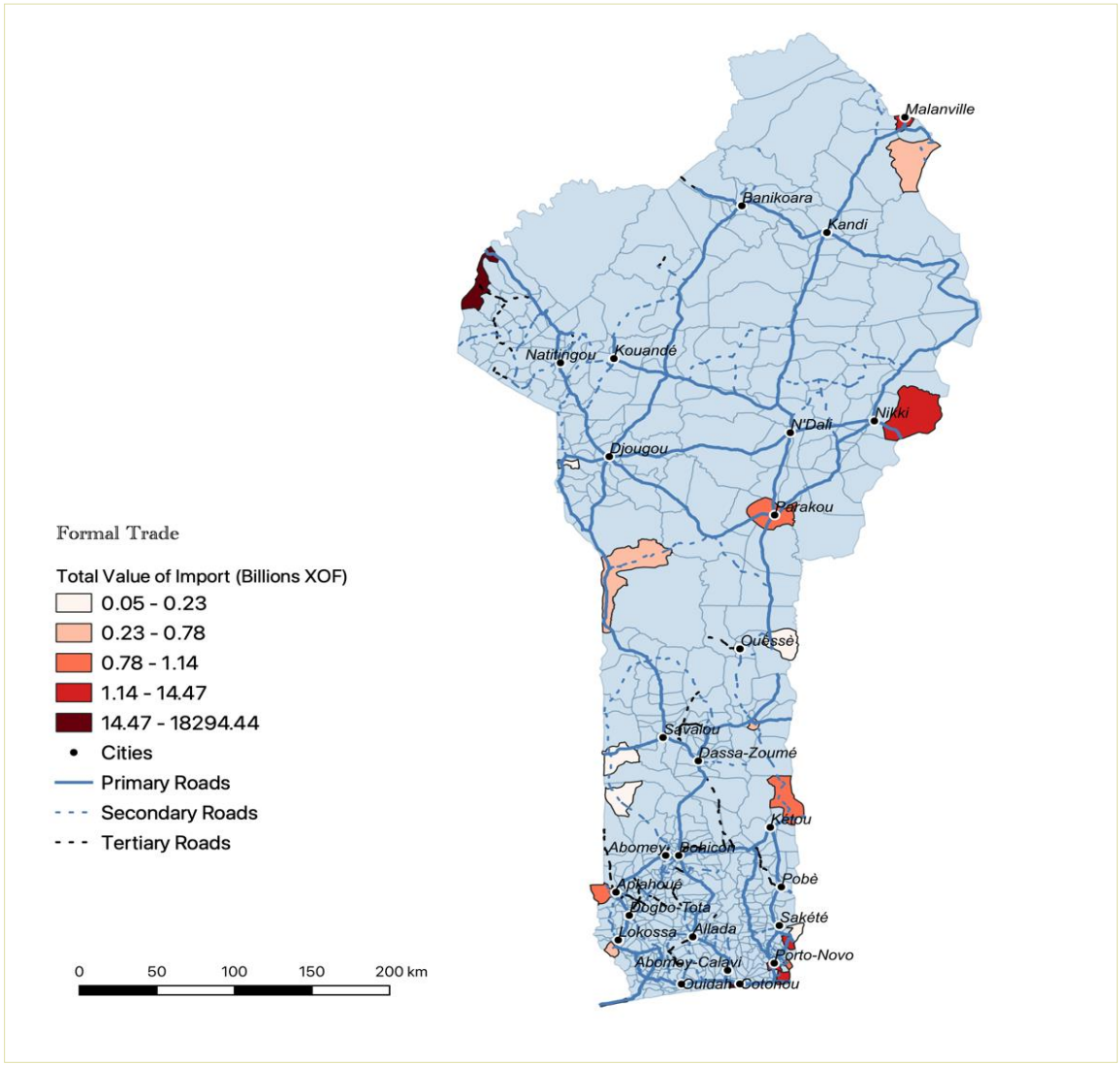
Source: WDI based on national accounts data; and WITS-mirror data

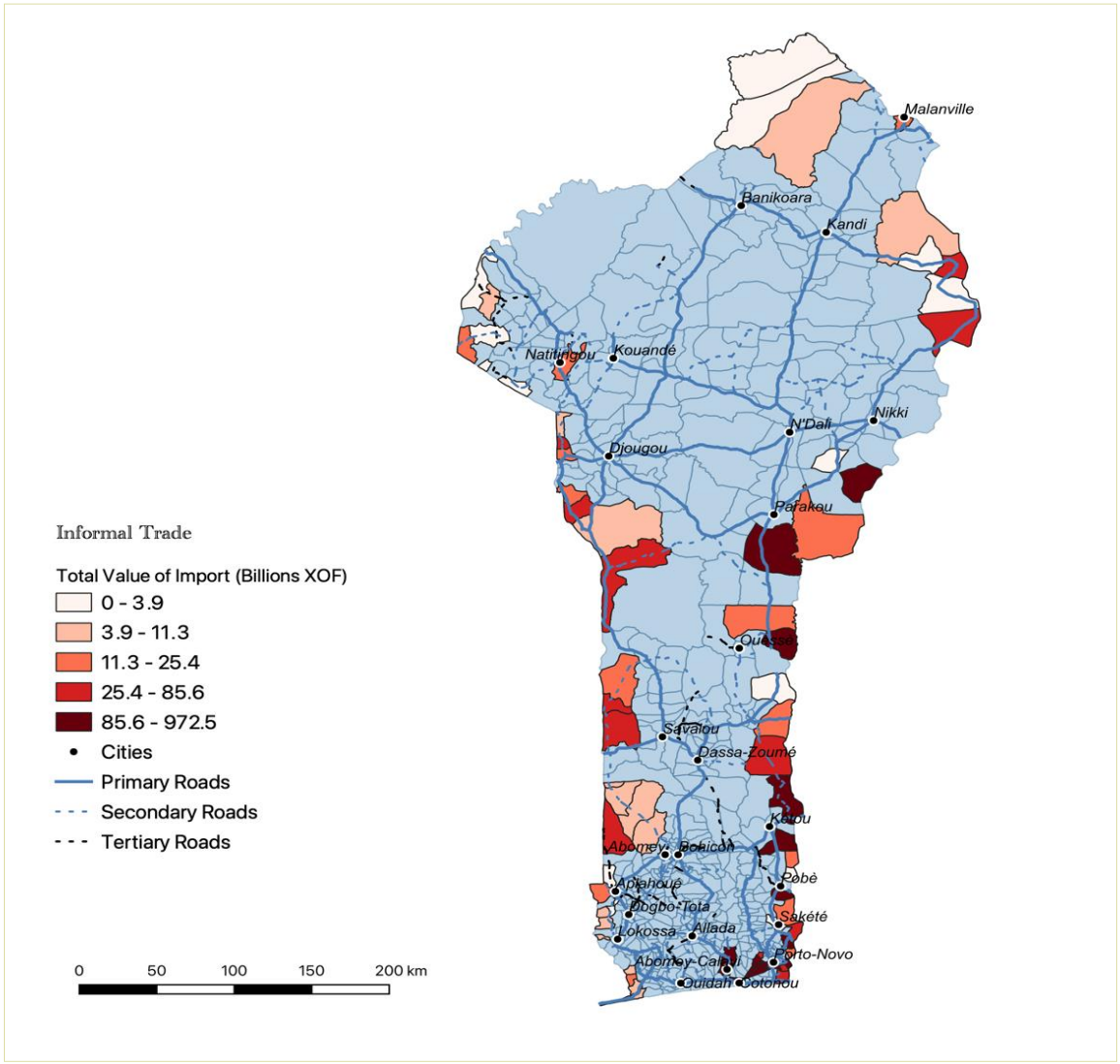
4. Transitioning to more sophisticated participation in GVCs: The role of national policy



Source: World Bank 2020a

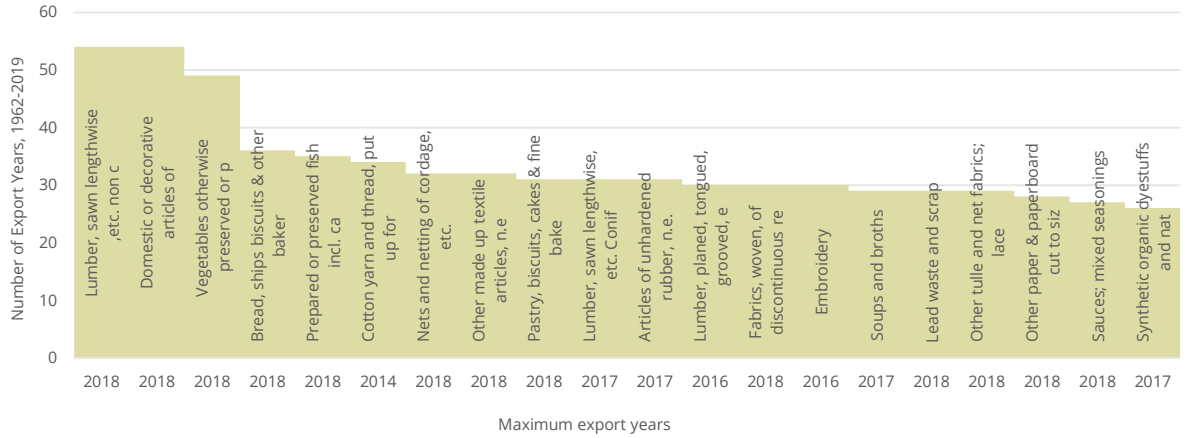
5. Zooming into informal trade dynamics



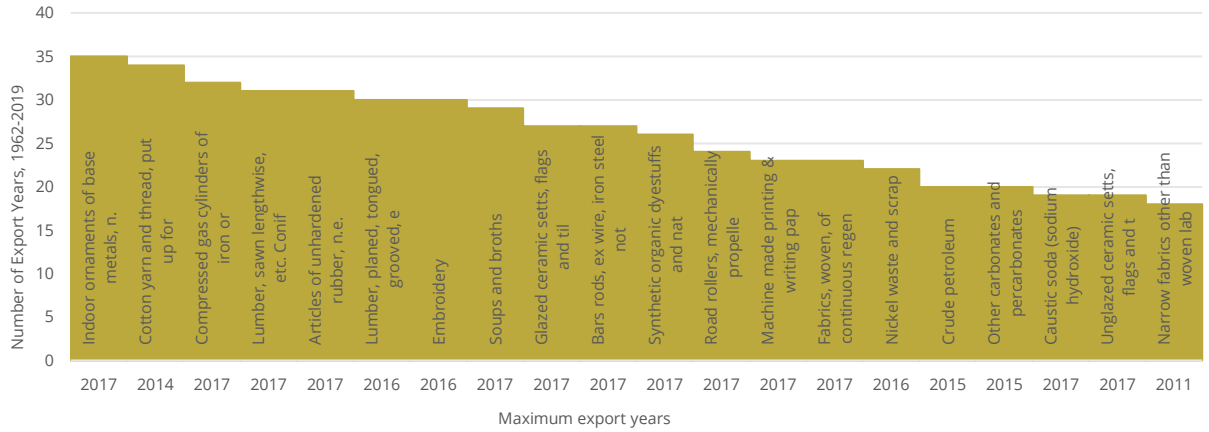


Benin's top 20 latent products

A2 In terms of the number of export years



A3 In terms of maximum annual export values (exported for at least 15 years)



Source: WITS SICT data, author's calculations.

6. Benin's latent potential for diversification

The proper interpretation of the latent diversification exercise depends on endowment. In the short run, countries tend to increase their latent diversification potential in products similar to their export basket, where there may be industry clusters with similar production functions. This relationship tends to weaken over time, suggesting that the initial impact of factor endowments on the production sector tends to dim in the long run (Lederman, Pienknagura, and Rojas 2015). Another caveat is technological change, which can alter a country's revealed comparative advantage (Hanson, Lind, and Muendler 2015). Countries experience continuous changes in the composition of their export basket and their revealed comparative advantages. Finally, experimentation and product discovery are other forces that can lead to latent diversification (Hausmann and Rodrick, 2003).

In the case of Benin, several products were exported for over 25 years and recently became almost extinct. They include (as share of the volume in the year of maximum export) manufactured goods, food and live animals, crude materials, chemicals. Many products are no longer exported today but were exported over a period of more than 25 years. Figure A2 shows the top 20 products in terms of maximum annual values that survived over 15 years and expired before 2018. Several products went extinct in 2017, including indoor ornaments of base metals, textiles, compressed gas cylinders of iron or, among others. These possibly reflects the premature deindustrialization of the SSA region since the 1990s (chapter I).

Proper policy measures are needed to address "export extinction" and to benefit from the latent potential. The extinction of products may be due to shifts in comparative advantage to other products due to technology acquisition or know-how. But it could also be because trade costs have increased, making these products less profitable. Another possible explanation could be that industrial policies that encouraged exports have been abolished, or that the industry never got out of the infant industry stage. Finally, it could be that the mining industry collapsed, as in the case of iron ore in 2015 due to low prices. Better horizontal policies and lower trade restrictions might allow some exports to resume by lowering trade costs and attracting FDI.

8. Revealed Comparative Advantage (2011-2018)

		STRUCTURAL PEERS			ASPIRATIONAL PEERS		
	Benin	Rwanda	Senegal	Togo	Ghana	Morocco	Sri Lanka
	2011-2018	2011-2018	2011-2018	2011-2018	2011-2018	2011-2018	2011-2018
01-05 Animal and Animal Products	0.04	0.04	10.12	0.50	0.28	2.58	1.14
06-15 Vegetables	5.33	9.48	3.53	3.08	1.49	3.37	4.63
16-24 Foodstuffs	0.48	0.21	1.68	2.20	8.99	1.49	0.88
25-26 Mineral Products	1.05	28.06	6.13	8.65	1.81	4.16	0.24
27 Fuel Products	1.23	1.85	1.18	2.09	1.55	0.17	0.05
28-38 Chemicals and Allied Ind.	0.03	0.17	1.24	0.18	0.06	1.80	0.19
39-40 Plastics/Rubbers	0.03	0.06	0.10	0.15	0.18	0.13	2.32
41-43 Raw Hides, Skins, Leathers	0.02	2.68	1.43	0.23	0.04	0.94	0.52
44-49 Wood and Wood Products	3.77	0.17	0.14	0.89	0.94	0.28	0.54
50-63 Textiles and Clothing	3.72	0.06	0.30	1.14	0.07	4.93	13.04
64-67 Footwear/ Headgear	0.03	0.05	1.33	0.78	0.14	2.78	0.92
68-71 Stone/Glass	6.22	2.19	3.71	4.98	6.99	0.52	1.23
72-83 Metals	1.03	0.25	0.56	0.63	0.29	0.34	0.11
86-89 Machinery/Electrical	0.02	0.03	0.06	0.05	0.03	0.63	0.17
90-97 Transportation	0.03	0.02	0.15	0.20	0.17	0.85	0.15

Source: WITS and authors' calculations based on the HS 2017 classification taken from https://www.foreign-trade.com/reference/hscode.htm; http://wits.worldbank.org/WITS/docs/TradeOutcomes-UserManual.pdf. Note: The revealed comparative advantage (RCA) index is a measure of a country's relative advantage or disadvantage in a specific industry as evidenced by trade flows. An index above the unit indicates that a country's share of exports in that sector exceeds the global export share of the same sector. If this is the case, we infer that the country has a comparative advantage in that sector. Because high export volumes can result from market distortions, such as subsidies or under-valued exchange rates, RCA has been argued to be a misnomer in that it is a better measure of competitiveness than comparative advantage (Siggel 2006).

9. Understanding Benin's firm dynamics – key dimensions and methodology

Approach to the Enterprise Survey analysis

Section 4.3 is constructed on the Enterprise Survey (ES) data for Benin, covering 3 rounds from 2004-16. This allows both to assess progress over time as well as to compare it to peer countries. Generally, the units in the results are based on "the percent of firms responding yes", unless otherwise specified.

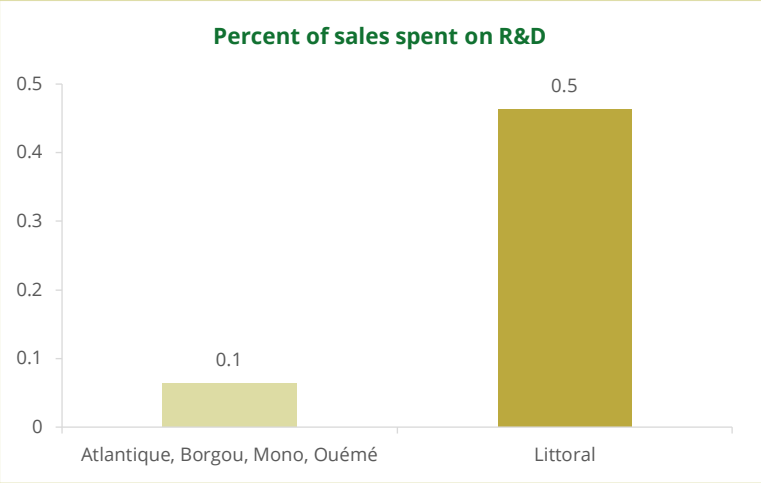
Benin's latest data (2016) is compared to the following peers, with their latest ES data:

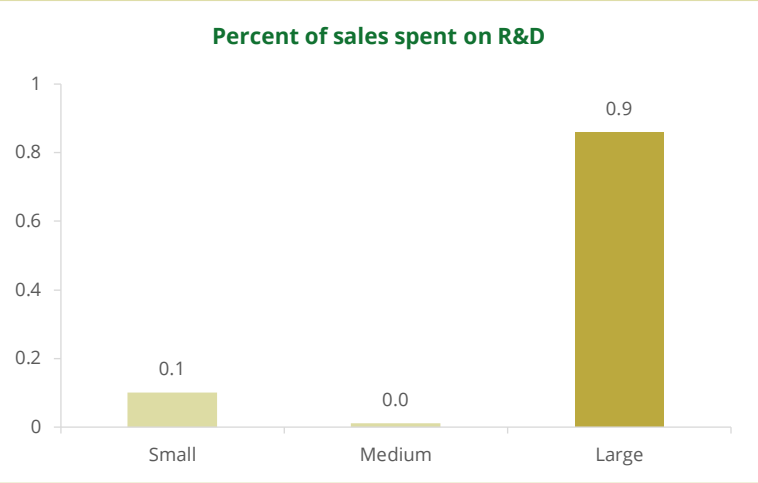
- Structural: Rwanda (2019), Togo (2016), Senegal (2014)
- Aspirational: Ghana (2013), Sri Lanka (2011), Morocco (2019)

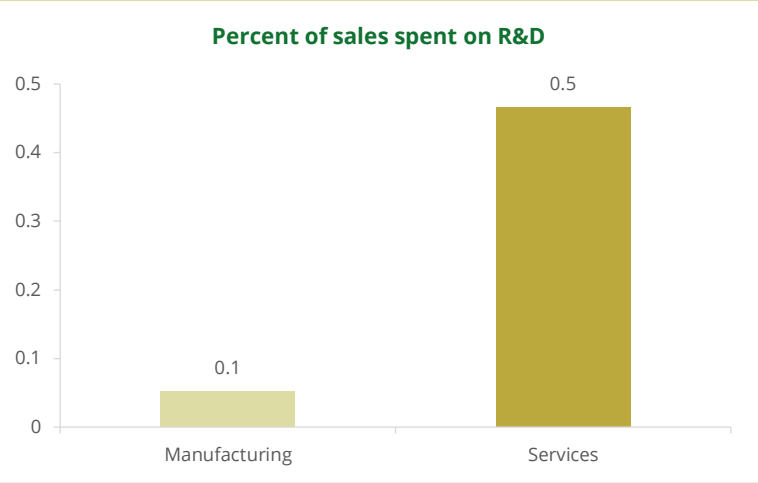
In addition, the ES data is analyzed along four dimensions of heterogeneity: i) region, ii) firm size, iii) sector and iv) trade status. For the 2 most recent survey rounds, the ES is representative across region, size and sector albeit not necessarily across exporter status.

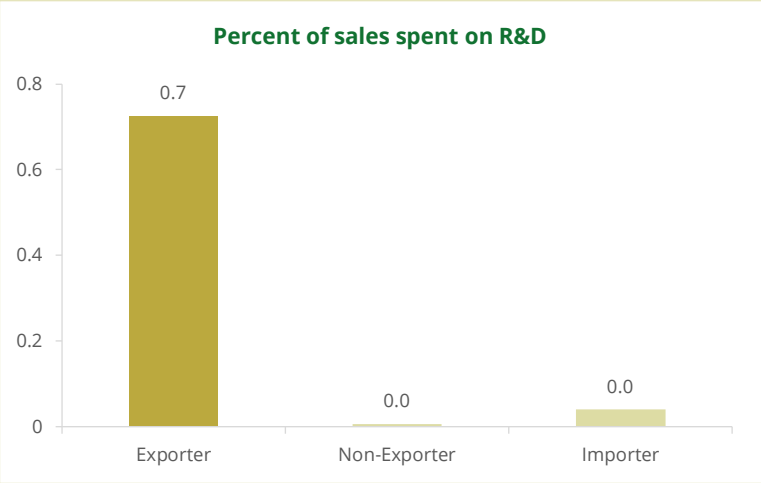
This analysis will be supplemented by a *Business Pulse Survey,* for which data collection is still ongoing.

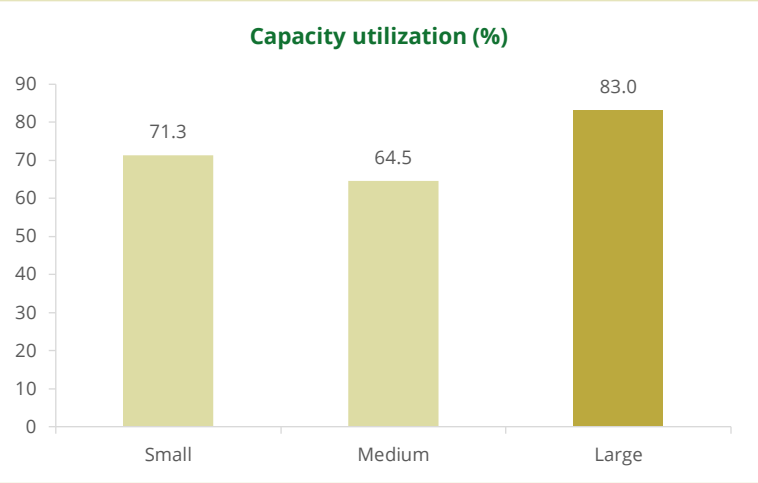
10. R&D expenditure is higher among large firms, services, exporters and in Littoral, with larger firms performing better than others in general.

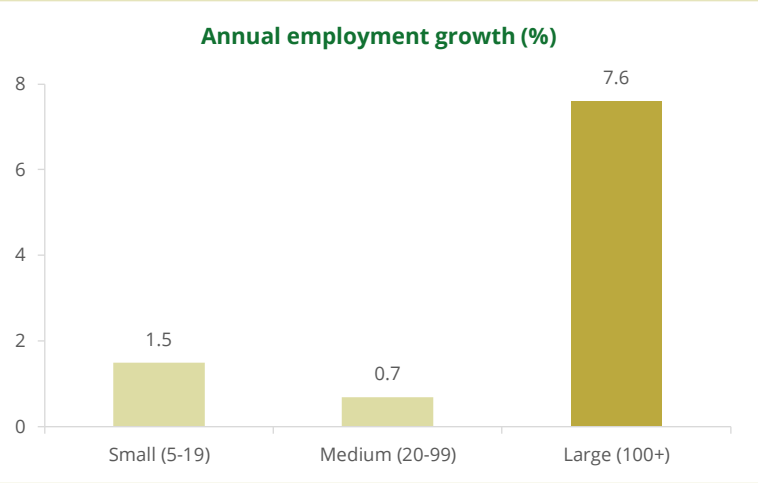












11. The use of quantitative spatial models in the case of informal trade

Economic activity is highly unevenly distributed across space, as reflected in the existence of cities. The balance between agglomeration and dispersion forces that underlie these concentrations of economic activity is central to a range of economic phenomena. The impact of public policy interventions, such as transport infrastructure investments and place-based policies, is crucially determined by how these policies affect the equilibrium balance between these centripetal and centrifugal forces (Redding & Rossi-Hansberg 2017).

Recent research has developed quantitative models of the spatial distribution of economic activity within countries. These models are rich enough to incorporate a large number of locations with heterogenous geography, productivity, amenities, local factors, and trade in goods, migration, and commuting. They are sufficiently tractable as to enable quantitative counterfactuals to evaluate numerically, in a realistic setup, a variety of policies and counterfactual scenarios.

When informal trade is pervasive, such models can simulate trade flows between locations based on gravity forces between economic centers and fundamentals that can be observed such as incomes and population. Gravity forces assume that more trade should happen between richer and more populated locations considering trade and transport costs. Economic distance and opportunities affect trade flows. Closer districts will tend to trade more, richer districts too. Parameters to calibrate the models are taken from contexts where trade data can be observed. Such a model can be used to simulate flows between locations that differ from the observed official flows that only partially describe the reality for Benin.

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