Public Disclosure Authorized

Ghana Trade Competitiveness Diagnostic
Strengthening Ghana's Trade Competitiveness in the Context of AfCFTA

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List of Acronyms

AEO	Authorized Economic Operator
AfCTA	African Continental Free Trade Area
AFTA	ASEAN Free Trade Area
AHS	Effectively Applied
ASEAN	Association of South-East Asian Nations
AUC	African Union Commission
BEC	Broad Economic Category
BIAT	Boosting Intra-Africa Trade
CAGR	Compound Annual Growth Rate
CEMAC	Economic Community of East African States
CEN-SAD	Community of Sahel-Saharan States
CEPII	International Forecasting and Research Center (*Centre d'Études Prospectives et d'Informations Internationales*)
CET	Common External Tariff
CGE	Computable General Equilibrium
COMESA	Common Market for Eastern and Southern Africa
COVID	Coronavirus Disease
CUSFTA	Canada-United States Free Trade Agreement
DANIDA	Danish International Development Agency
EAC	East African Community
ECI	Economic Complexity Index
ECOWAS	Economic Community of West African States
EDD	Exporter Dynamics Database
EPI	Export Potential Index
EQI	Export Quality Index
ETLS	ECOWAS Trade Liberalization Scheme
EU	European Union
EVAD	Export Value Added

EXPY	Export Sophistication
FDI	Foreign Direct Investment
FERDI	International Development Research Foundation (*Fondation pour les Études et Recherches sur le Développement International*)
FTA	Free-Trade Agreement
FVAX	Foreign Value Added to Exports
G&S	Goods and Services
GCNet	Ghana Community Network
GDP	Gross Domestic Product
GEXIM	Ghana Export-Import Bank
GRA	Ghana Revenue Authority
GVC	Global Value Chain
GVW	Gross Vehicle Weight
HHI	Herfindahl-Hirschman Index
HS	Harmonized System
IBRD	International Bank for Reconstruction and Development
IC	Internal Combustion
ICT	Information and Communication Technology
ICUMS	Integrated Customs Management System
IDA	International Development Association
IEMP	Index of Export Market Penetration
IMF	International Monetary Fund
IT	Information technology
ITIP	Integrated Trade Intelligence Portal
JIMIS	Joint Inspection Management Information System
LDC	Least Developed Country
LMIC	Low- and Middle-Income Country
LSCI	Liner Shipping Connectivity Index
M&E	Monitoring and Evaluation

MEC	Measuring Export Competitiveness
MENA	Middle-East and North Africa
MFN	Most Favored Nation
MIT	Massachusetts Institute of Technology
MNE	Multinational Enterprise
MoF	Ministry of Finance
MOTI	Ministry of Trade and Industry
MPS	Median Port Services
NEDS	National Export Development Strategy
nes	Not Elsewhere Specified
nie	Not Included Elsewhere
NRCA	Normalized Revealed Comparative Advantage
NTB	Non-Tariff Barrier
NTE	Non-Traditional Export
NTFC	National Trade Facilitation Committee
NTM	Non-Tariff Measure
OECD	Organization for Economic Cooperation and Development
PPML	Poisson Pseudo Maximum Likelihood
PTA	Preferential Trading Area
R&D	Research and Development
RoW	Rest of the World
RTA	Regional Trade Agreement
SADC	Southern African Development Community
SIGMAT	Regional Customs Network for Transit Trade
SME	Small and Medium Enterprise
SSA	Sub-Saharan Africa
STRI	Services Trade Restrictiveness Index
TATFP	Trade Africa Trade Facilitation Project
TB	Trade Balance

TEFP	Trade Facilitation Enquiry Point
TEU	Twenty-Foot Equivalent Unit
TF	Trade Facilitation
TFA	Trade Facilitation Agreement
TRAINS	Trade Analysis Information System
TRALAC	Trade Law Center
TVE	Total Export Value
UK	United Kingdom
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
US	United States
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value-Added Tax
WBG	World Bank Group
WCO	World Customs Organization
WDI	World Development Indicator
WDR	World Development Report
WITS	World Integrated Trade Solution
WTO	World Trade Organization

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1. Executive Summary

1. **Trade expansion and integration into the global economy have historically been central to creating new, higher-productivity jobs that facilitate growth through structural transformation.** Recent literature on trade and development shows that developing countries have two different but complementary pathways for achieving economic transformation and growth through trade: namely manufacturing-led exports and services-led exports. The East Asian experience of manufacturing -led exports over the past three decades provides empirical evidence of the potential for trade to be an engine of growth and poverty reduction[1]. Historically, experts have been skeptical about the chances of Sub-Saharan Africa countries' ability to follow the development model of the East Asian countries, given the region's weak performance in the manufacturing sector. However, the potential for increased participation in Global Value Chains (GVCs) and deeper regional integration under the Africa Continental Free Trade Agreement (AfCFTA), represents a paradigm shift in exploiting both economies of scale and scope, accessing larger markets, increased avenues for technology diffusion and productivity spillovers.

2. **Empirical research has also shown that services trade, especially in the context of a strong digital infrastructure, is increasingly creating opportunities for scale and scope, innovation, and increased productivity.** According to recent research findings[2], the digital economy is expanding access to markets and opportunities for innovation in the services sector. Services are also becoming increasingly important as enablers for a wide range of sectors, as is best illustrated by the blurring lines between services and manufacturing. The choice for policy makers is no longer whether to support services or manufacturing, but how to best leverage the potential of the services sector to deliver productivity growth, export growth and job creation. By categorizing the services sector based on the same features that have characterized the manufacturing-led development model: scale and now scope, innovation, spillovers, and job creation for low-skilled labor, it provides a framework for countries to identify policy priorities that can help leverage the potential of the services sector for services trade, jobs and economic transformation.

3. **The report focuses on Ghana's export performance in goods and services and examines the possibility of leveraging trade policies to accelerate export diversification and economic transformation**. The first part examines Ghana's export performance for both goods and services, over the **pre-COVID** period (2010-2019).It focuses not only on growth and composition, but also on different performance dimensions, such as diversification, sophistication, and firm dynamics The second part explores how, going forward, Ghana can promote export diversification and higher value addition by strengthening the country's trade competitiveness, enhancing the regulatory environment of services trade, deeper integration into global value chains (GVCs), and the promotion of intra-Africa trade, as envisaged under the AfCFTA.

4. **The main findings of the report are as follows;** (i) Ghana's merchandise trade competitiveness has declined over the last decade, resulting in the decline in number of exporting firms and the participation in Global Value Chains (GVCs), (ii) nonetheless, there have been improvements in transport logistics and access to ICT infrastructure, which can be leveraged for more diversified trade and economic transformation. (iii) the impressive performance in services exports, especially in the innovative and dynamic segments of the

[1] See for instance Edwards (1992), Sachs & Warner (1995), Frankel & Romer (1999), Dollar & Kraay (2004), and Romalis (2007).

[2] Gaurav Nayyar, Mary Hallward-Dreimeier and Elwyn Davies (2021) : At your Service-The Promise of Services-led Development

sector, underscores the potential for leveraging the service sector for economic transformation in Ghana, and (iv) the establishment of AfCFTA offers significant opportunities for increased intra-Africa trade and deeper regional integration.

Recent Trade Outcomes (2010-2019)

5. **In the past decade (2010-2019) Ghana's external trade grew alongside a strong pre-COVID economy, thanks to its extractive sector**. Ghana's economy grew by annual average of 6.4 percent of GDP over the period 2010-2019, underpinned by a strong external trade performance. However, the level of concentration of Ghana's merchandise export base has increased over the past decade. In 2019, exports of extractives constituted more than 70 percent of total exports compared to close to 60 percent in 2010. Participation in global value chains declined and remain lower than key comparators such as Kenya and South Africa. Ghana's trade competitiveness declined during the same period. The recent entry into force of the African Continental Free Trade Area (AfCFTA) offers significant opportunities to Ghana to expand and diversify exports, improve productivity through reaping of scale economies, integrating into global value chains and attracting more inflows of foreign direct investments (FDIs).

6. **While the economy benefited significantly when primary commodity prices increased, the vulnerability of Ghana's economy to external shocks as was evidenced by the collapse in crude oil prices during the Covid-19 pandemic.** The shift of resources to the extractive sector resulted in little progress in improving the sophistication of exports, which remained below that of most comparators by 2019. Diversification of non-fuels goods exports was limited: while Ghanaian exporters appear to have had some success in capitalizing on entry into new markets to increase the range of their existing export products, the contribution to export growth of new non-fuel products over 2015-19 was minimal. Ghana does not appear to be taking advantage of export opportunities: as a share of the total available markets for its exported products, Ghana's exports are reaching 6.5 times less than South Africa and nearly four times less than the level of Vietnam. The increased importance of hydrocarbons exports also resulted in an increased concentration of exports and a decline in the number of exporters, relative to population and in absolute terms.

7. **The good news is that Ghana has strengthened its comparative advantage as a regional business hub, which can be leveraged for more diversified trade and economic transformation.** First, Ghana continues to make progress in terms of transport logistics; expansion and improvement of critical infrastructure such as the seaports and air transport services. Second, the potential benefit offered by the AfCFTA (about 0.5% additional GDP growth per annum over ten years) – is very significant and should motivate the Authorities to follow up with the outstanding negotiations and implementation of the AfCFTA protocols. Third, the impressive performance of Ghana's services trade over the last decade, is a good indicator of Ghana's potential for achieving its diversified trade agenda in the medium to long term. This is because improved services trade, particularly in dynamic and innovative subsectors, by itself contributes to structural transformation, trade diversification and export growth. Besides, improved performance of services sector is a critical input toward ensuring efficiency of the manufacturing sector and capacity for upgrading the country's participation in GVCs.

8. **Over the period under review, Ghana's trade in services quadrupled in value and more than doubled its contribution to GDP, from 14 percent to 31 percent**. Exports of services expanded almost six-fold, increasing from 5 to 15 percent of GDP. Imports of services, on the other hand, increased from 9 to 20

percent of GDP. Services generated nearly half of total export value added,[3] outperforming comparators, such as Kenya, South Africa, Cote D'Ivoire and Nigeria. Since 2015, Ghana's largest exported services were professional services, trade-related services, and other business services, which experienced a significant spike between 2014 and 2015, when it increased 15 times in trade value, due to the increased exports to the EU28. Such increase in the importance of services in Ghana has been driven by the services that support oil exports, which accounted for one-half of services value added. Over one-third of services added value supports the manufacturing exports (13 percent of total export value added).

Enhancing Participation in Global Value Chains

9. **Ghana's participation in GVCs is lower than comparators. The sum of backward and forward linkages in gross exports fell from 52.7 percent in 2009 to 44 percent in 2018.** Moreover, Ghana's participation in GVCs remains mostly in commodities. By contrast, Ghana's aspirational peers Kenya and South Africa have graduated from the commodity group into limited manufacturing group of participants in GVCs. Deepening integration into GVCs, especially in the manufacturing sector, would help to boost incomes by increasing access to markets, improving access to technology and skills, and increasing the domestic value-added in exports.

10. **The performance of GVC firms tends to exceed that of non-GVC firms. GVC firms tend to have higher levels of productivity than non-GVC firms do.** This reflects the relatively large size of GVC firms, economies of scale and better access to credit. In addition, participation in GVCs can improve access to higher quality and more sophisticated inputs and can increase opportunities for learning and technology transfers. Higher productivity is associated with higher profits and rent sharing, and thus higher wages.

11. **GVC firms in Ghana differ significantly by ownership.** Sixty percent of GVC firms in Ghana are domestically owned; they tend to be small- and medium-scale enterprises engaged in light manufacturing, while many foreign-owned GVC firms are large-scale enterprises engaged in heavy manufacturing. On average, foreign-owned GVC enterprises are more productive and pay higher wages than domestically owned GVC enterprises do. Domestically owned GVC firms have a higher share of their costs devoted to R&D activities than foreign-owned GVC firms do, perhaps because R&D for the latter is carried out in headquarters. However, foreign-owned GVC firms tend to have a higher share of their turnover in innovations that are new to Ghana.

Strengthening Trade Competitiveness

12. **Based on the levels of tariff and non-tariff barriers, Ghana's trade regime in goods was considered more restrictive than that of comparators in 2019.** Ghana's trade-weighted MFN tariff rate was 10.57 percent, higher than most comparators except Kenya, which has a trade-weighted MFN of ****. Ghana's trade-weighted MFN rates on agricultural imports (17.04 percent), industrial imports (9.15 percent), consumer goods (14.6 percent) and intermediate goods (9.2 percent) and capital goods (6.4 percent) were higher than those of most comparators. The number of non-tariff measures (NTMs) imposed by Ghana are higher than in Nigeria and Cote d'Ivoire but below levels in Vietnam although further analysis is required as ascertain the extent NTMs are enforced in a discriminatory way.

13. **Ghana's transport and logistics operations place it at the forefront of West Africa.** Maritime cargo volume increased by 7.6 percent on average per annum over period 2010–2020, with 26.3 million tons handled in 2020. Transit volumes increased faster than overall cargo and were mostly destined for Burkina

[3] Total export value added comprises direct value added plus forward linkages.

Faso. Recent investments at the ports of Tema and Takoradi have improved the infrastructure for maritime trade. Initial information suggests improvements in productivity and the strong improvement in UNCTAD's Liner Shipping Connectivity Index (LSCI), indicate increases in connectivity and trade flow. The quality of land transport infrastructure is mixed: 70 percent of the road network is in good or fair condition, and the railway network of three lines is deficient, with only 14 percent of the entire network in operation.

14. **Despite progress in the transport and logistics services, additional policy reforms in investment and trade facilitation could further enhance trade flows between Ghana and the sub region.** The planned improvement of the motorway (highway) from Tema to Accra should address significant access and congestion issues from the Tema Port. Administrative steps have been taken to reduce clearance times at the port by reducing the number of agencies intervening at the border, introducing the port electronic single window, and developing a comprehensive program for improving customs in conjunction with USAID and DANIDA. Further important administrative/regulatory steps include revising the outdated transshipment regime, reducing port charges, resolving the VAT treatment of transit trade services, and reducing the number of police checkpoints. Infrastructure investments that facilitate shipping through containers would reduce the inefficiencies related to the stripping of containers. Several steps are required to simplify and harmonize import and export procedures, and to overhaul the governance framework of the Port of Tema. Greater cooperation with regional partners, including cooperation on transit trade and compliance with ECOWAS commitments regarding exemption of duties and the Common External Tariff (CET), would support increases in trade.

15. **Ghana has embarked on key reforms to improve the cost of logistics and business environment, but progress under key competitiveness indices has stagnated.** According to the world Bank's Logistics Performance Index (LPI), which measures on-the-ground trade logistics, factoring in: (i) border control efficiency; (ii) quality of trade and transport infrastructure; (iii) international shipment competitiveness; (iv) quality of logistics services, ability to track consignments; and (v) timeliness of deliveries, Ghana's performance has stagnated since 2015. The country has underperformed all comparators[4] except Nigeria and the average for Lower Middle-Income countries. The Global Competitiveness Index (GCI) depicts a similar narrative of Ghana's stagnant and slightly deteriorating performance. Ghana dropped five ranks in the latest (2019) World Economic Forum's Global Competitive Index (GC1) from 106th in 2018 to 111th in 2019 associated with a slight decrease of the score of -0.1 to 51.2 Ghana's subcategories scores that are lagging its overage rank of 111th are in infrastructure (category rank is 118th), macroeconomic stability (category rank is 132nd), and financial system (category rank is 116th). This underscores volatility in Ghana's macroeconomic performance over the past decade, the financial sector clean-up that was necessitated in 2018 (and is ongoing), and the relatively low levels of capital expenditure that is insufficient to close the infrastructure gap.

[4] These comparator countries are Kenya, South Africa, Cote d'Ivoire and Nigeria

Streamlining the Regulatory Environment for Trade in Services

16. **The assessment of Ghana's regulatory environment for trade in services is based a recent update of the Services Trade Restrictiveness Database (STRD)[5].** The STRD offers comparable information on services trade policies for 68 economies in 23 subsectors across five broad areas—financial services, telecommunications, distribution, transportation, and professional services, and covering different modes of supply: cross border trade (mode 1), commercial presence (mode 3) and movement of natural persons (mode 4). Ghana has limited commitments (27 percent) under GATS; representing 36 out of the total of 155 non-overlapping services sectors.

17. **Recent growth of trade services, as well as the emergence of IT-enabled industries in Ghana point to the strategic importance of streamlining the regulatory environment to facilitate the trade and more broadly the growth key services sectors.** A preliminary analysis of Ghana's trade restrictiveness shows that Ghana's regime is already relatively liberal, but some sectors including the important ICT sector could do better. Trade in services and investments are also important for ensuring deeper integration into GVCs and efficiency of the manufacturing sector.

18. **Among the services subsectors that have high labor productivity in Ghana, two categories fall predominantly within the group of 'Global Innovator' services.** These are services that are heavily traded and offshored, have high R&D intensity and a high degree of linkages with other areas of the economy. This corresponds to the categories of 'Business Services' and 'Financial Services'. As discussed in Nayyar et al. (2021) these are the categories of services that are likely to yield the greatest development dividends considering their capacity to generate productivity spillovers and facilitate the exploitation of economies of scale through trade in services.

19. **The trade in services agreements under the AfCFTA negotiations, could be adjusted to significantly improve the capacity of the services sector as follows;** (i) lock-in the existing level of opening for trade in services in Ghana, (ii) significantly increase the level of confidence of services providers by improving regulatory transparency and predictability of remaining barriers to trade and (iii) lock-in future domestic reforms to reducing the level of protectionism for trade in services in the country.

Potential impact of the AfCFTA

20. **The signing of the AfCFTA is expected to have important effects on Ghana's internal and external competitiveness and represents an opportunity to support market opening reforms in the country.** Once completed, the AfCFTA will be the largest free trade area in the world in terms of membership and will potentially cover a market of 1.3 billion people with a gross domestic product (GDP) of 3.4 trillion dollars (World Bank, 2020). So far, the AfCFTA Treaty only contains the legal framework for trade in goods, trade in services, institutional set up and State-to-State dispute settlement provisions, while the specific terms of trade liberalization in both goods and services are still being negotiated. Under the trade components of

[5] STRD compilation was undertaken jointly by the World Bank (WBG) and the WTO as part of the support to Ghana's participation in the negotiations of the African Continental Free Trade Agreement (AfCFTA). The STRD, which serves as a basis for the Services Trade Restrictiveness Index (STRI) builds on a database developed by the WBG around a decade ago and draws on a recent Organization for Economic Co-operation and Development (OECD) database. In addition to trade policies, the database contains information on licensing conditions and data restrictions. Policy restrictiveness is quantified following a systematic approach that aggregates the information within a single consistent and transparent framework.

AfCFTA agreed in Phase I, countries have agreed to progressively eliminate tariffs on at least 90 percent of goods, as well as address non-tariff barriers (NTBs) and restrictions on trade in services. Substantial aspects of the AfCFTA remain to be negotiated, including the investment, competition, and intellectual property rights schedules that make up Phase II.

21. **Model simulations indicate a significant impact on incomes, but a more modest impact on poverty reduction from the AfCFTA.** The agreement has the potential to boost Ghana's income by 5.7 percent (above the baseline without the AfCFTA) by 2035, under a scenario considering the impact of reductions in intra-AfCFTA tariffs, non-tariff barriers in goods and services, and implementation of trade facilitation measures. Two thirds of AfCFTA gains would come from trade facilitation measures, and most of the rest from reductions in non-tariff barriers. Reduction of tariffs alone would increase income by only 0.2 percent. The simulation shows that 0.2 million people would be lifted out of extreme poverty and 1.8 million from moderate poverty. The gains in poverty reduction would be driven by faster growth in the wages of unskilled workers than of skilled workers. Wages for women also would increase more rapidly than wages for men.

22. **The liberalization under AfCFTA would almost double Ghana's trade with regional partners.** The share of African countries in Ghana's exports would increase by 6 percentage points, and the share of African countries in imports by 12 percentage points, compared to a baseline forecast without AfCFTA. A significant share of this increased regional trade is manufactures, which would reduce the concentration of exports and open up the potential for greater participation in regional value chains.

23. **The AfCFTA also would encourage greater foreign investment in Ghana, to serve the regional market and an expanded domestic market.** Simulations incorporating the impact of FDIs (which often arise from preferential agreements) show that Ghana could more than double the FDI it attracts (in part because it starts from a relatively low level). The increase in FDI would be even greater if further progress was made in the AfCFTA agreement on investment policy, competition policy and international property rights.

24. **Reaping the benefits of the AfCFTA will however require a concerted effort;** including national dialogues with all stakeholders, capacity building to agencies, managing trade policy, and cooperation on improving trade facilitation and connectivity. The success of the AfCFTA process will depend on the depth and breadth of detailed commitments to remove trade barriers, the implementation of these commitments, and complementary initiatives.

1. Introduction

1. **Trade expansion and integration into the global economy have historically been central to creating new, higher-productivity jobs that facilitate growth through structural transformation.** To maintain broad-based growth over the next decade, Ghana seeks to adopt an export-led growth strategy with complementary policies intended to move labor from low productivity jobs (mainly in agriculture and low-productivity services) to higher-productivity jobs in manufacturing or higher-productivity services. The East Asian experience of export-led growth over the past three decades provides real-world evidence of the potential for trade to be an engine of growth and poverty reduction.[6] Additionally, developing countries that participate in global value chains (GVCs) and deeper regional trade agreements such as the ASEAN Free Trade Area (AFTA) have experienced significant economic growth. This has been possible due to increased opportunities for exploiting economies of scale (what about economies of scope, which is inherent in digitalization and the main driver in services development??, accessing larger markets, and increased avenues for technology diffusion and productivity spillovers. Like most African countries, the challenge facing Ghana is the need to leverage trade to shift from a resource-dependent economy to a dynamic and diversified industrial economy.

2. **Recent literature on trade and development shows that developing countries have two different but complementary pathways for achieving economic transformation and growth through trade**: namely manufacturing-led exports and services-led exports. Traditionally, some experts have been skeptical about Sub-Saharan Africa (SSA) countries' ability to follow the development model of the East Asian countries. However, the emerging potential for increased participation in GVCs and deeper regional integration under the AfCFTA, represents a potential paradigm shift in the pursuit of industrial policy in SSA. The second pathway is the service-led exports. According to recent research findings[7], the digital economy is expanding access to markets and creating opportunities for innovation and both economies of scale and scope. Services are also becoming increasingly important as enablers for a wide range of sectors, as is best illustrated by the blurring lines between services and manufacturing. The choice for policy makers is no longer whether to support services or manufacturing, but how to best leverage the potential of the services sector to deliver productivity growth, export growth and job creation.

3. **Sustaining Ghana's growth and poverty reduction objectives remains a challenge in part, because of continued reliance on a few primary commodities for exports.** After nearly a decade of strong growth fueled by oil discoveries and the boom in commodity prices, Ghana's economy remains largely undiversified, with three commodities (gold, cocoa, and petroleum) accounting for more than 75 percent of total exports. Consequently, Ghana's economy remains exposed to external shocks arising from volatilities in global commodity prices. Additionally, the recent outbreak of the COVID-19 pandemic has negatively affected Ghana's international trade as global trade faces strong headwinds arising from disruptions in production and global supply chains. The World Trade Organization (WTO) estimates that global trade would fall between 13 -32 percent during 2020 and 2021.

4. **The launching of the Africa Continental Free Trade Agreement (AfCFTA) in July 2020 could provide impetus to Ghana's trade development agenda in terms of increased market access and increased valued-**

[6] See for instance Edwards (1992), Sachs & Warner (1995), Frankel & Romer (1999), Dollar & Kraay (2004), and Romalis (2007).

[7] Gaurav Nayyar, Mary Hallward-Dreimeier and Elwyn Davies (2021) : At your Service-The Promise of Services-led Development

added exports. The full implementation of AfCFTA will create the largest free trade area[8] in the world, connecting 55 countries with a combined USD3.4 trillion market economy of 1.3 billion people. This is expected to boost intra-African trade, promote industrialization, create jobs, and improve the competitiveness of African industries on the global stage. Furthermore, the agreement is set to offer huge opportunities for investors, both domestic and foreign, to do business with a single set of trade and investment rules across the continent. The agreement aims to reduce all trade costs and enable Africa to integrate further into global supply chains by eliminating 90 percent of tariffs, focus on outstanding non-tariff barriers, and create a single market with free movement of goods and services. Cutting red tape and simplifying customs procedures will also bring significant income gains.

5. **The Government's new export strategy seeks to leverage the manufacturing sector to diversify the export base, including trade in services, and to integrate deeper into GVCs.** In October 2020, the government launched the new National Export Development Strategy (NEDS), which envisages growth in non-traditional exports (NTE) from USD2.8 billion to USD25.3 billion over a 10-year period, to be accompanied by deep structural transformation and a competitive, export-led industrialized economy. Going forward, the government's strategy is to achieve inclusive and sustainable growth, with trade and the private sector as the main drivers. The government's aim is to build the most business-friendly economy in Africa through diversification of the export base, further integration into global value chains (GVCs), and promotion of intra-African trade. These strategic objectives constitute the three main components of the present analysis.

6. **The rest of the report is organized as follows**: Chapter 2 presents the recent trade performance of Ghana, measured against the standard benchmarks for per capita growth, export diversification, quality of exports and survival export firms; Chapter 3 examines the nature and drivers of participation in GVCs; Chapter 4 examines the firm level dynamics; chapter 5 examines the trends and drivers of Ghana's trade competitiveness; Chapter 6 examines the economic implication of regional integration under AfCFTA on Ghana's economy; and Chapter7 covers the conclusions and recommendations.

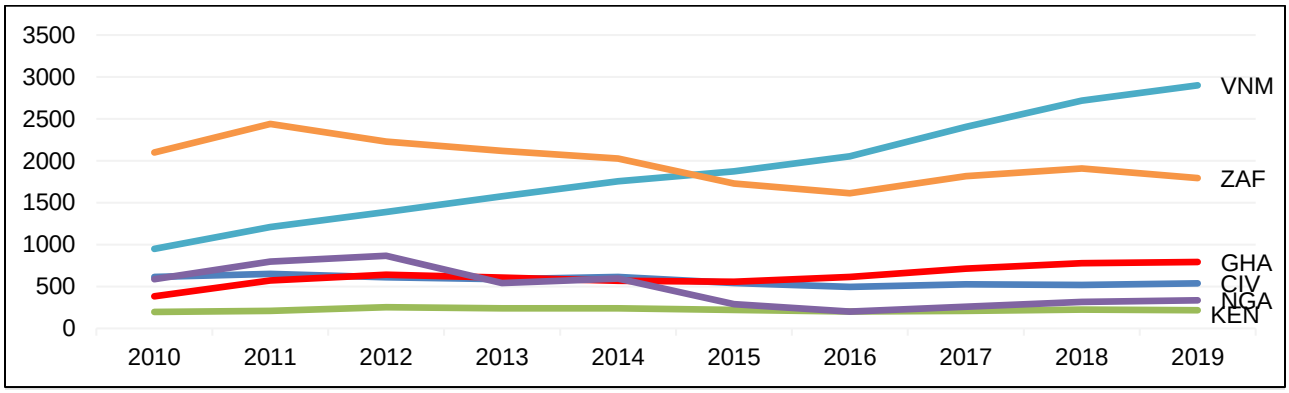
[8] AfCFTA is the largest free trade area in terms of the number of participating countries. As at April 2020, 54 African countries had signed the AfCFTA agreement, 24 countries had deposited their instruments of ratification, and only Eritrea is yet to sign the agreement.

2. Recent Trade Outcomes (2010-2019)

2.1. Trade Openness and GDP Growth[9]

8. **Over the period 2010-2019, Ghana's GDP expanded by an annual average of 6.4 percent, propelled largely by increased exports in the extractive sector and expansion in the services sector.** Ghana's exports of goods and services per capita doubled in value between 2010 and 2019, positioning the country in the midrange among key comparators.[10] A decade ago, Ghana lagged most comparators except for Kenya, compared to 2019 when Ghana outperformed Côte d'Ivoire, Nigeria, and Kenya while lagging Vietnam and South Africa. Ghana's levels of exports per capita suggest a lower capacity to leverage international trade for growth compared to South Africa and Vietnam. On the one hand, improved performance of services trade points to an emerging sector that can drive Ghana's economic transformation and job creation agenda. On the other hand, limited diversification of merchandise trade coupled with over-reliance on the extractive sector (hydrocarbons and gold (was wondering if cocoa should not be explicitly highlighted here to inform further discussion, especially a source for transformation)constrains the country's inclusive growth potential.[11]

Figure 1: Exports of goods and services (USD per capita)



Source: Based on WDI. *Note*: Exports of goods and services are divided by midyear population.

9. **Ghana's exports of goods have increased two-fold in value, expanding at an average of 8.6 percent per annum during 2010-2019**. However, merchandise as a share of total exports declined from 84 percent in 2010 to 62 percent in 2019 in line with the share of imports, which declined from 73 to 44 percent of total imports in 2019. Ghana's merchandise trade balance has been positive since 2017, reaching a surplus of 5.5 percent of GDP in 2019 after experiencing a deficit during 2014-2016.

10. **Ghana's trade in services quadrupled in value and doubled its contribution to GDP between 2010 and 2019.** However, Ghana remains a net importer of services. Between 2010-2019, Ghana's trade in services grew from 14 to 35 percent of GDP. The Export of services increased from US$1.5m to US$9.9m, which is

[9] In what follows, export data for Ghana are constructed by using mirror data for all sectors (i.e., data from Ghana's trade partners) except for chapter HS71 gold, for which Ghana's reported exports are used.

[10] The report selected the following key comparators as peers or aspirational countries to Ghana: Côte d'Ivoire, Kenya, South Africa, Vietnam, and Nigeria.

[11] Development theories (e.g., Barbier, 2003) suggest that the exploitation of the natural resources of a country is at the very least an important first step in its economic development.

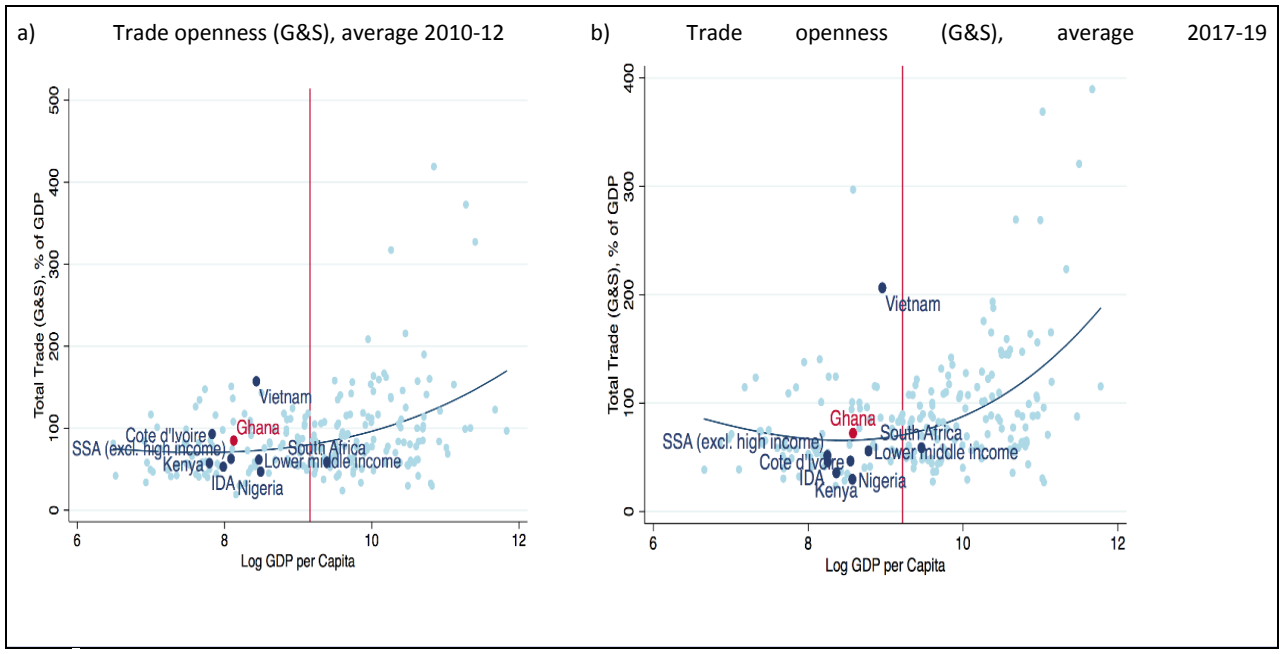
more than six-fold, and subsequently moving its relative share in GDP from 5 to 15 percent. Imports of services increased at an average 18.2 percent per annum from 9 to 20 percent of GDP. In terms of trade balance in services, Ghana has been a net importer of services during the last decade, during which the average trade deficit was stable at around 3.9 percent of GDP. In 2019, the trade deficit in services accounted for 5.3 percent of GDP (Table 1).

Table 1: Trade in goods and services

	USD billions			**CAGR (%)**			**% of GDP**		
	2010	2015	2019	2010-19	2015-19	2018-19	2010	2015	2019
Exports of goods	7.6	11.1	15.9	8.6	9.5	-2.4	23.5	22.8	23.8
Exports of services	1.5	6.1	9.9	23.6	12.7	31.1	4.6	12.6	14.8
Imports of goods	8.1	14.7	10.4	2.9	-8.2	-12.2	25.0	30.2	15.6
Imports of services	3.0	7.3	13.5	18.2	16.6	33.8	9.3	15.0	20.2
Exports of G&S	9.0	17.2	25.9	12.4	10.7	8.2	28.1	35.5	38.6
Imports of G&S	11.1	22.0	23.9	9.0	2.1	9.0	34.3	45.3	35.7
Total Trade G&S	20.1	39.2	49.8	10.6	6.2	23.5	62.4	80.7	74.3
Merchandise trade	15.6	25.8	26.4	6.0	0.6	-6.5	48.5	53.0	39.4
Services trade	4.5	13.5	23.4	20.2	14.9	32.6	13.9	27.7	35.0

Source: Author's calculations based on UN Comtrade, UNCTAD.

Figure 2: Trade openness (G&S) and per capita GDP:[12] Ghana and comparator countries

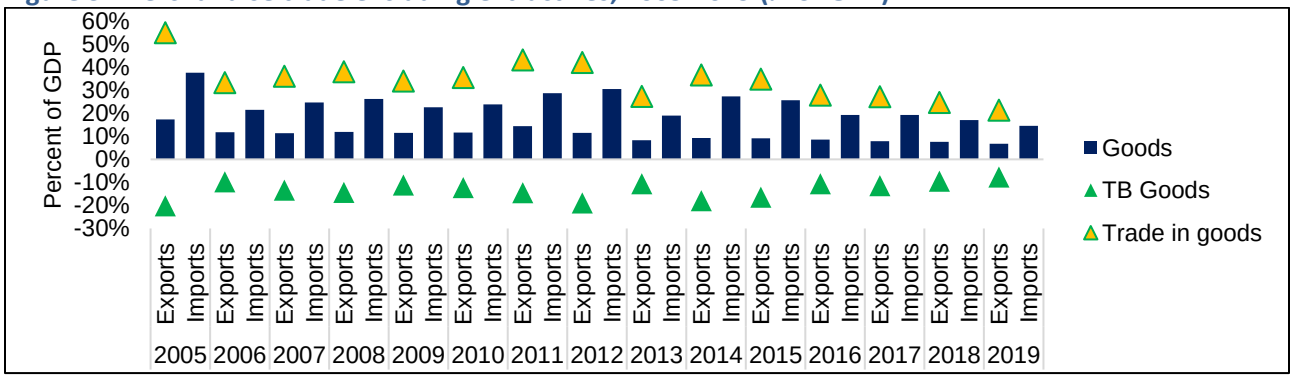


Source: Author's calculations using data from UN Comtrade and WDI. Note: (i) The relationship between the merchandise trade (excluding extractives) as a share of GDP and per capita income is explained by fractional-polynomial prediction.

2.2. Merchandise Trade

10. **Over the past decade, Ghana's trade in non-extractives has been on the decline as a share of GDP and has underperformed compared to the estimated potential of the country's development status.** Ghana's merchandise trade in non-extractive sectors has declined from 36 percent of GDP in 2010 to 21 percent in 2019. Ghana's non-extractive exports have stagnated as a share in GDP as well as in trade value since 2011 (Figure 3). Merchandise trade, excluding the extractive sector, has been estimated at below the levels expected of countries with similar levels of economic development over the past decade. During 2017-2019, Ghana's non-extractive trade has worsened in comparison to 2010-2012, moving further away from the predicted line, as shown in Figure 3.

Figure 3: Merchandise trade excluding extractives, 2005-2019 (% of GDP)



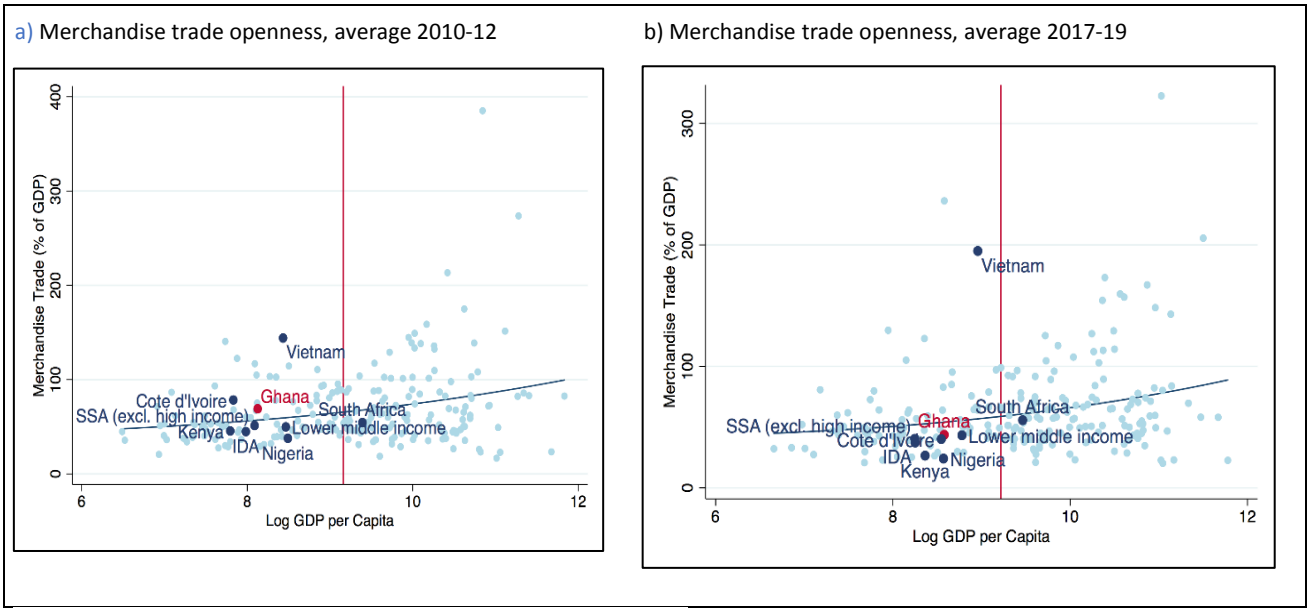
Source: Author's calculations using data from UN Comtrade (HS1996 nomenclature.*Note*: (i) TB – Trade Balance; (ii) Ghana's exports

[12] The predicted relationship (as a fractional-polynomial prediction) between trade in goods and services (G&S) as a share of GDP and per capita income has a convex shape, indicating that countries' trade openness tends to increase at higher income levels. The flatter curve of the fit line in 2010–12 indicates a slower rate of increase than in 2017–19.

are constructed by using the mixed mirror method (using mirror data for all sectors except HS71 gold). Import data are reported directly; (iii) The extractive sector includes minerals (HS 25-26), fuels (HS 27), and precious metals (HS 71).

11. **Merchandise trade as a share of GDP is below what would be expected given Ghana's level of economic development.** For the period 2017-2019, Ghana's merchandise trade openness is estimated to be below the levels expected of countries with similar levels of economic development. Moreover, the position has worsened in comparison with 2010-2012, when the country traded above expected levels (Figures 4a and 4b). While in nominal terms merchandise trade nearly doubled in value following the rapid expansion of the economy, its contribution to GDP declined from 48.5 percent in 2010 to 39.4 percent in 2019**.** Exports of goods as a share of GDP remained largely unchanged at between 23.5 percent in 2010 and 23.8 percent in 2019, while imports declined from 25 to 16 percent of GDP in 2019 (Table 2).

Figure 4: Merchandise trade openness and per capita GDP:[13] Ghana and comparator countries



Source: Author's calculations using data from UN Comtrade and WDI.
Note: (i) The relationship between merchandise trade (excluding extractives) as a share of GDP and per capita income is explained by fractional-polynomial prediction.

2.3. Composition of Trade

[13] The predicted relationship (as a fractional-polynomial prediction) between trade in goods and services as a share of GDP and per capita income has a convex shape, indicating that countries' trade openness tends to increase at higher levels of income. The flatter curve of the fit line in 2010–12 indicates a slower rate of increase than in 2017–19.

The composition of Ghana's merchandise export basket has become increasingly concentrated in the extractive sector, which now represents over 70 percent of total exports. Since 2010, when oil and gas production started, Ghana's total extractive exports have increased in trade value from a 50.4 percent in 2010 to 71.3 percent of merchandise exports in 2019 (Table 1). Between 2010-2019, exports of gold almost doubled in trade value but no longer represent the lion's share of merchandise exports, falling from 57.2 percent in 2010 to 35.4 percent in 2019 (Table 2). This is because exports of fuels have shown remarkable growth, even though their share declined from 40 percent in the first year of exports in 2011 to 31.3 percent in 2019. Extractive exports are distributed between gold and hydrocarbons, representing 55 percent and 45 percent of extractive exports respectively, in 2019. Ghana's extractive exports have been the driver of economic growth, exposing the Ghanaian economy to price shocks such as the one that occurred in 2020 due to collapsing oil prices during the global pandemic.

Table 2: Top 10 exports at six-digit product level, 2010-2019

		US$ million			% of goods exports			Growth (CAGR), %		
HS code	**Description**	**2010**	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2**
710813	Gold (incl. gold plated with platinum), non-monetary, in semi-manufactured forms	2990.8	4054.3	5928.8	57.2%	29.5%	35.4%	7.9%	10.0%	
270900	Petroleum oils & oils obt. from bituminous mins., crude	0.0	2620.5	5251.7	0.0%	19.1%	31.3%	0.0%	19.0%	
180100	Cocoa beans, whole/broken, raw/roasted	847.4	2729.8	1852.0	16.2%	19.8%	11.0%	9.1%	-9.2%	
260200	Manganese ores & concentrates, incl. ferruginous manganese ores & concentrates with a manganese content of 20%/more, calc. on the dry weight	77.3	74.8	349.5	1.5%	0.5%	2.1%	18.3%	47.0%	
180400	Cocoa butter, fat & oil	86.5	218.9	337.3	1.7%	1.6%	2.0%	16.3%	11.4%	
710812	Gold (incl. gold plated with platinum), in unwrought forms (excl. powder)	377.0	315.8	269.0	7.2%	2.3%	1.6%	-3.7%	-3.9%	
180310	Cocoa paste, not defatted	11.8	85.6	228.1	0.2%	0.6%	1.4%	39.0%	27.7%	
80131	Cashew nuts, in shell	13.4	285.2	222.4	0.3%	2.1%	1.3%	36.7%	-6.0%	
180320	Cocoa paste, wholly/partly defatted	21.2	377.7	181.5	0.4%	2.7%	1.1%	26.9%	-16.7%	
160414	Tunas, skipjack & bonito (Sarda spp.), prepared/preserved, whole/in pieces (excl. minced)	0.0	196.0	145.3	0.0%	1.4%	0.9%	229.1%	-7.2%	

Source: Author's calculations from Comtrade. *Note*: Products with exports above USD 1 million in 2019.

12. **Along with cocoa, Ghana's merchandise exports have been concentrated in three product categories since 2011**. In 2019, Ghana's three largest export sectors were precious minerals and glass (which includes gold) (37 percent), fuels (31.7 percent), and cocoa (15.1 percent). Together, these accounted for 86.3 percent of goods exports. However, cocoa exports have not mirrored the growth in extractives and have declined in value over the period.

13. **Beyond gold, oil, and cocoa, export diversification is modest.** Exports of vegetables grew robustly, accounting for 4 percent of total sales in 2019, as have exports of new minerals such as manganese, which have grown by over 20 percent per year to reach 2.5 percent of total exports in 2019. The latter growth is furthering Ghana's dependency on extractives (Table 3). More modest are exports of manufactured products (metals and plastics), which have grown at par with the economy and therefore not gained in share of total exports. Manufacturing exports nearly doubled in value but declined from 6.4 percent to 5.9 percent of goods exports between 2010 and 2019 (Figure 5 & 6).

Figure 5. Ghana: Goods exports by category, 2010-2019 (USD millions)

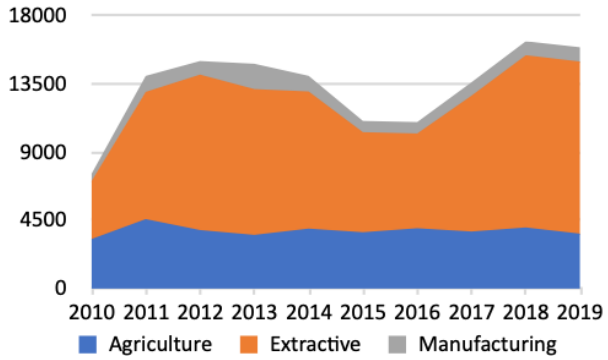
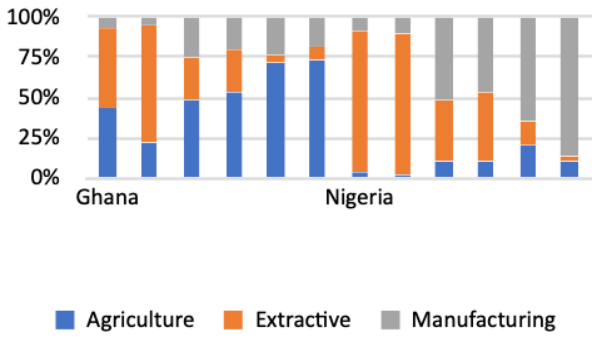


Figure 6. Ghana and peers: Goods exports by category, 2010-2019



Source: Author's calculations using data from UN Comtrade (HS1996 nomenclature). *Note*: The extractive sector includes minerals (HS 25-26), fuels (HS 27), and precious metals (HS 71)

Table 3. Merchandise exports by sector, 2010-2019

	USD millions			% of goods exports			CAGR (%)		
	2010	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2018-19**
68-71 Stone/Glass	3370	4380	6228	44.5	39.6	39.1	7.1	9.2	2.0
71 Gold	3368	4370	6199	44.5	39.5	38.9	7.0	9.1	1.7
27 Fuels	156	1986	4491	2.1	17.9	28.2	45.2	22.6	-4.2
16-24 Foodstuffs	2890	3090	2627	38.2	27.9	16.5	-1.1	-4.0	-11.7
18 Cocoa	2732	2823	2412	36.1	25.5	15.1	-1.4	-3.9	-11.5
06-15 Vegetables	326	582	938	4.3	5.3	5.9	12.5	12.7	-6.3
25-26 Minerals	289	242	670	3.8	2.2	4.2	9.8	29.1	14.0
44-49 Wood	210	257	312	2.8	2.3	2.0	4.5	5.0	-2.1
72-83 Metals	107	211	241	1.4	1.9	1.5	9.5	3.4	-18.1
39-40 Plastic/Rubber	64	67	104	0.8	0.6	0.7	5.5	11.6	6.5
86-89 Transportation	7	61	74	0.1	0.5	0.5	30.4	5.1	514.0
01-05 Animal	59	55	67	0.8	0.5	0.4	1.5	5.0	-0.2
84-85 Machinery/Electrical	34	57	64	0.4	0.5	0.4	7.4	3.0	-18.9
50-63 Textiles, Cloths	13	26	53	0.2	0.2	0.3	17.2	20.1	4.7

28-38 Chemicals	35	40	46	0.5	0.4	0.3	2.9	3.2	9.3
90-97 Miscellaneous	9	17	15	0.1	0.2	0.1	6.1	-2.6	29.0
41-43 Hides, Skins	1	1	3	0.0	0.0	0.0	21.9	46.6	7.2
64-67 Footwear	1	4	3	0.0	0.0	0.0	11.9	-9.0	-22.6
Total	*7571*	*11074*	*15937*	*100*	*100*	*100*	*8.6*	*9.5*	*-2.4*

Source: Author's calculations using data from UN Comtrade (HS1996 nomenclature).
Note: Export data for Ghana are constructed using the mixed mirror method (mirror data for all sectors except HS71 gold).

2.4. Imports

15. **Ghana's merchandise imports have been on a decline over the past decade although the composition has not changed significantly, being** mainly concentrated in machinery and electrical equipment, transportation, chemicals, metals, and vegetables. The top five import sectors accounted for 64.6 percent of total goods imports in 2019 compared to 69.9 percent in 2010. Imports of machinery and electrical equipment have traditionally been the largest import category, which has declined from 26 percent in 2010 to 20 percent of goods imports in 2019, followed by transport (16.4 percent), chemicals (10.5 percent), metals (9.6 percent), and vegetables (8.5 percent share). In 2019, Ghana's top five imports at the six-digit product level were vehicles designed for the transport of persons (4.2 percent), cement clinkers (2.3 percent), motor vehicles for the transport of goods (2.1 percent), broken rice (2 percent), and medication (1.7 percent). Imports of most of these products have been on a decline over the past five years 2015-2019, except for transport vehicles and medication (Table 4).

Table 4. Merchandise imports by sector, 2010-2019

	USD millions			**% of goods imports**			**Growth (CAGR, %)**		
	2010	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2018-19**
Machinery/Electrical	2063	2934	2044	25.6	20.0	19.6	-0.1	-8.6	-10.0
Transportation	1239	1907	1713	15.4	13.0	16.4	3.7	-2.6	-8.2
Chemicals	858.4	1329	1093	10.7	9.1	10.5	2.7	-4.8	-12.2
Metals	977.5	1317	999.5	12.1	9.0	9.6	0.2	-6.7	-15.2
Vegetables	466.6	1122	891	5.8	7.6	8.5	7.5	-5.6	-24.5
Plastic/Rubber	532.4	986.2	680.5	6.6	6.7	6.5	2.8	-8.9	-12.1
Foodstuffs	459.4	673.7	596.2	5.7	4.6	5.7	2.9	-3.0	-22.3
Wood	185.2	505.7	533.2	2.3	3.4	5.1	12.5	1.3	34.7
Animal	342.8	485.1	436.2	4.3	3.3	4.2	2.7	-2.6	-14.8
Minerals	267.4	513.8	382.5	3.3	3.5	3.7	4.1	-7.1	-8.1
Miscellaneous	202.4	593.7	300.9	2.5	4.0	2.9	4.5	-15.6	-31.3
Fuels	78.19	1286	299.9	1.0	8.8	2.9	16.1	-30.5	74.2

Textiles, Clothing	209.7	303.3	248.8	2.6	2.1	2.4	1.9	-4.8	-19.4
Stone/Glass	101.3	226.3	151.8	1.3	1.5	1.5	4.6	-9.5	-5.5
Footwear	38.56	59.46	45.16	0.5	0.4	0.4	1.8	-6.6	-29.1
Hides, Skins	18.15	28.9	20.68	0.2	0.2	0.2	1.5	-8.0	-27.6
Special	12.23	414.4	1E-04	0.2	2.8	0.0	-72.9	-97.8	-100.0
Total	8052	14685	10436	100	100	100	2.9	-8.2	-12.2

Source: Author's calculations using data from UN Comtrade.

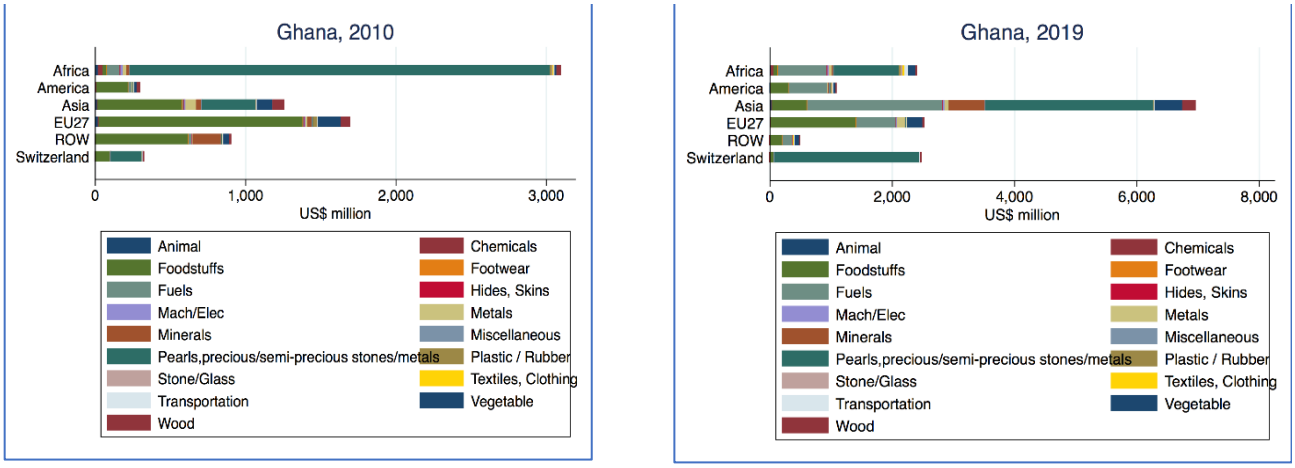
16. **At the aggregated level, Ghanaian exports have been on the rise to Asia and on a decline to Africa over 2010-2019 (Table 5).** In 2019, the top destination for Ghana's merchandise exports was Asia, accounting for 43.7 percent of goods exports, of which China and India received 16 and 14.5 percent share, respectively. The African market for Ghana's exports declined in importance from 41 percent share in 2010 to 15 percent share in 2019, which could be explained by the fact that extractive products are mainly destined to advanced economies. However, exports to Africa have started to gradually increase in recent years. The importance of the European Union (EU) as the destination for Ghanaian exports has been on a decline in recent years, from 28 percent share in 2015 down to 15.2 percent in 2019 (Table 5, Figure 7). According to the World Integrated Trade Statistics (WITS), Ghana's top five export markets in 2019 were China (16 percent), Switzerland (15.5 percent), India (14.5 percent), South Africa (10.6 percent), and the Netherlands (6.5 percent).

Table 5. Merchandise exports by main destination, 2010-2019

	USD millions			**% of goods exports**			**Growth (CAGR, %)**		
	2010	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2018-19**
Asia, of which:	1257	5083	6959	16.6	45.9	43.7	20.9	8.2	-9.4
China	123	1200	2544	1.6	10.8	16.0	40.0	20.7	5.0
India	156	2425	2305	2.1	21.9	14.5	34.9	-1.3	-35.6
EU27	1694	2645	2528	22.4	23.9	15.9	4.5	-1.1	-18.2
Switzerland	320	1369	2464	4.2	12.4	15.5	25.4	15.8	44.8
Africa	3096	1034	2406	40.9	9.3	15.1	-2.8	23.5	10.0
America	299	380	1091	3.9	3.4	6.8	15.5	30.2	33.2
RoW	904	563	488	11.9	5.1	3.1	-6.6	-3.5	-43.0

Source: Author's calculations using data from UN Comtrade.

Figure 7. Sector composition of global export markets, 2010 vs 2019



Source: Author's calculations using data from UN Comtrade.

17. **Within Africa, the most important export markets for Ghana have been the Southern African Development Community (SADC) led by South Africa, and the Economic Community of West African States (ECOWAS), led by Burkina Faso.** In 2019, the SADC region was the largest recipient of Ghana's exports within Africa, accounting for 10.7 percent of goods exports, or 70.6 percent of exports to the African continent. Compared to 2010, the SADC market received 37.1 percent of goods exports and 90.7 percent of Ghana's exports to Africa. SADC was the largest recipient of Ghana's exports over the past decade, except for 2016, when ECOWAS overtook it (Table 6, Figure 8). In 2010, Ghana's exports to SADC comprised mainly gold (99 percent of its exports to SADC). By 2019, sector composition of exports to SADC has shifted to encompass 62.3 percent of gold and 37 percent of fuels (Figure 9).

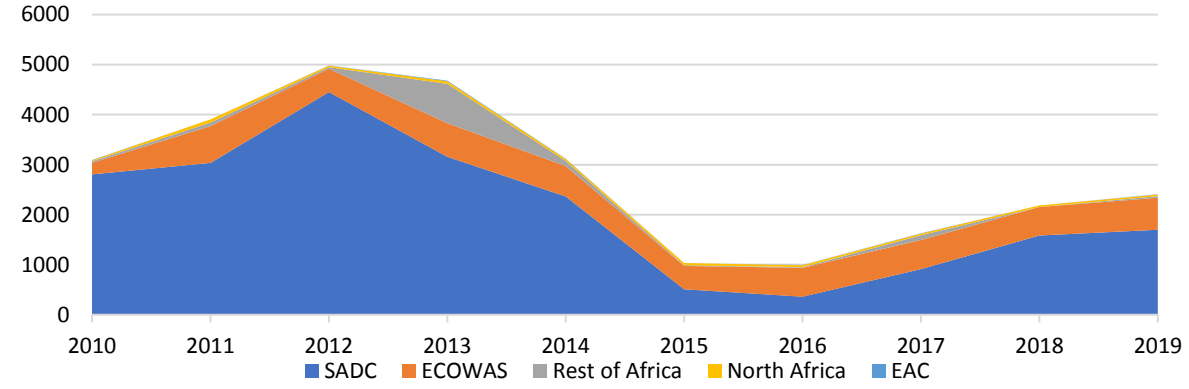
18. **Ghana's merchandise imports from Asia have increased over the past decade, becoming the largest source of imports.** Ghana's imports from Asia grew from 30.8 percent of merchandise imports in 2010 to 40 percent in 2019 but have been declining at 5.8 percent per year during 2015-2019. Goods imports from the EU28 and the US have also declined from 30.6 to 25.2 percent and from 19 to 14 percent in 2019, respectively (Table 6). Ghana's imports from Africa have been dominated by ECOWAS, followed by SADC and North Africa (Table 7). At the individual country level, 33 percent of Ghana's imports from Africa were from South Africa, followed by its ECOWAS neighbors of Burkina Faso (10.6 percent), Nigeria (10.3 percent), and Côte d'Ivoire (8.6 percent) in 2019.

Table 6. Regional export markets within Africa, 2010-2019

	USD millions			% of goods exports to Africa			% of goods exports			Growth (CAGR, %)		
	2010	**2015**	**2019**	**2010**	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2018-19**
SADC	2807	510	1699	90.7	49.3	70.6	37.1	4.6	10.7	-5.4	35.1	7.5
ECOWAS	227	469	639	7.3	45.4	26.6	3.0	4.2	4.0	12.2	8.0	12.2
Rest of Africa	33	13	36	1.1	1.2	1.5	0.4	0.1	0.2	1.0	29.3	2.2
North Africa	21	40	31	0.7	3.9	1.3	0.3	0.4	0.2	4.2	-6.2	4.4
EAC	8	2	2	0.3	0.2	0.1	0.1	0.0	0.0	15.9	0.2	30.8
Total Africa	*3096*	*1034*	*2406*	*100*	*100*	*100*	*41*	*9*	*15*	*-2.8*	*23.5*	*10.0*

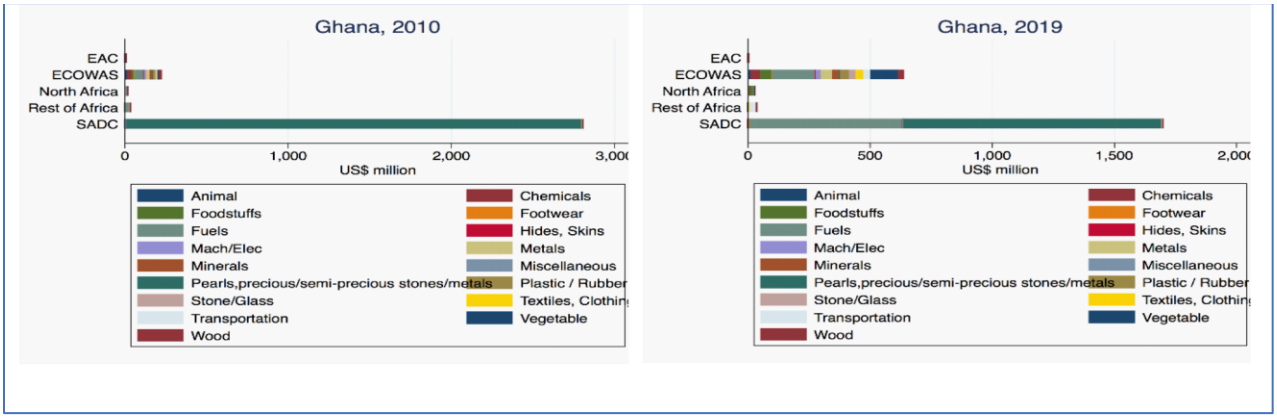
Source: Author's calculations using data from UN Comtrade.

Figure 8. Evolution of goods exports within Africa, 2010-2019



Source: Author's calculations using data from UN Comtrade.

Figure 9. Sector composition of export markets in Africa, 2010 vs 2019



Source: Author's calculations using data from UN Comtrade.

Table 7. Merchandise imports by main global destinations, 2010-2019

	USD millions			% of goods imports			Growth (CAGR, %)	
	2010	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**
Asia, of which:	2479	5294	4164	30.8	36.0	39.9	5.9	-5.8
China	1060	2479	1896	13.2	16.9	18.2	6.7	-6.5
EU28	2466	3395	2627	30.6	23.1	25.2	0.7	-6.2
America	1551	2471	1503	19.3	16.8	14.4	-0.3	-11.7
SSA	619	1349	932	7.7	9.2	8.9	4.7	-8.8
MENA	464	1124	585	5.8	7.7	5.6	2.6	-15.1
RoW	474	1052	625	5.9	7.2	6.0	3.1	-12.2
Total	*8052*	*14685*	*10436*	*100*	*100*	*100*	*2.9*	*-8.2*

Source: Author's calculations using data from UN Comtrade. *Note*: EU28 prior to the UK formally exiting in 2020, now EU27.

Table 8. Regional import markets within Africa

	USD millions			% of goods imports			% of goods imports from Africa			Growth (CAGR, %)	
	2010	**2015**	**2019**	**2010**	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**
ECOWAS	207	794	443	2.6	5.4	4.2	25.2	48.1	40.7	8.8	-13.6
SADC	361	487	390	4.5	3.3	3.7	43.8	29.5	35.8	0.9	-5.4
North Africa	205	300	156	2.6	2.0	1.5	25.0	18.2	14.3	-3.0	-15.1

Rest of Africa	45	64	94	0.6	0.4	0.9	5.5	3.9	8.6	8.4	10.2
EAC	5	5	6	0.1	0.0	0.1	0.6	0.3	0.6	2.5	7.2
Total	*824*	*1649*	*1088*	*10.2*	*11.2*	*10.4*	*100*	*100*	*100*	*3.1*	*-9.9*

Source: Author's calculations using data from UN Comtrade.

2.5. Export Diversification

19. **Ghana has the potential to diversify its export products further as it lagged most comparators except for Nigeria in 2019 (Figure 10).** The Herfindahl-Hirschman Index (HHI)[14] allows for comparison of export concentration of countries that may be equal in terms of the number of products (or markets) but may vary in terms of trade value concentration. Notwithstanding an increase in the number of exported products by 25 percent, Ghana's export diversification over the past decade did not improve. The share of Ghana's top five exported products at the six-digit level increased from 78.8 percent in 2010 to 81.6 percent of the value of goods exports in 2019.[15] However, Ghana's level of diversification in exported products lagged most comparators, outperforming only Nigeria in 2019 (Figures 10-13).

20. **Even though Ghana's export destinations have become more diversified over the past decade, they remained the most concentrated compared to peer countries in 2019.** Ghana's export markets became more diversified (less concentrated) over the past decade, as indicated by the commendable improvement in the HHI from 0.2 to 0.09 (Figures 12-13). The average number of export markets increased from 133 in 2010-2011 to 150 in 2018-2019. While the share of Ghana's top five markets declined from 63.4 percent share to 61.7 percent of goods exports, it was the highest market concentration among comparators (Figures 10-13).

[14] The Herfindahl-Hirschman Concentration (Diversification) Index (HHI) is calculated as the sum of squared shares of each product or export market in the country's total exports. Export products and markets are most diversified if the HHI is close to zero and highly concentrated if the HHI is close to one. The HHI allows for comparison of export concentration in countries that may be equal in terms of the number of products (or markets) but may vary in terms of trade value concentration, where S = is the share of export j (or export market) in the total exports of country i.

[15] The HHI decreased as a result of the emergence of oil exports, thus diluting the importance of gold and cocoa exports.

Figure 10. Number of exported products (HS6-digit)

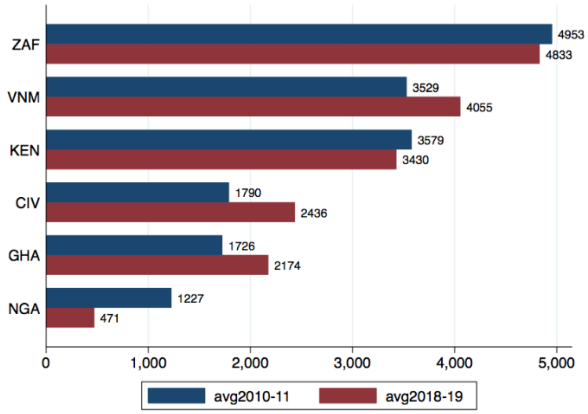
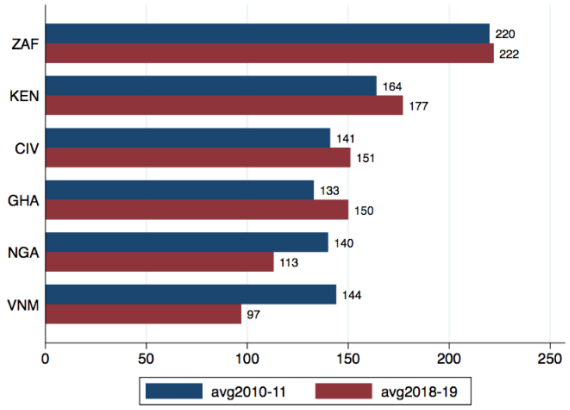


Figure 11. Number of export markets



Source: Author's calculations using data from UN Comtrade.
Note: CIV: Côte d'Ivoire; GHA: Ghana; KEN: Kenya; NGA: Nigeria; VNM: Vietnam; ZAF: South Africa

Figure 12. Herfindahl-Hirschman Index (HHI): Export products

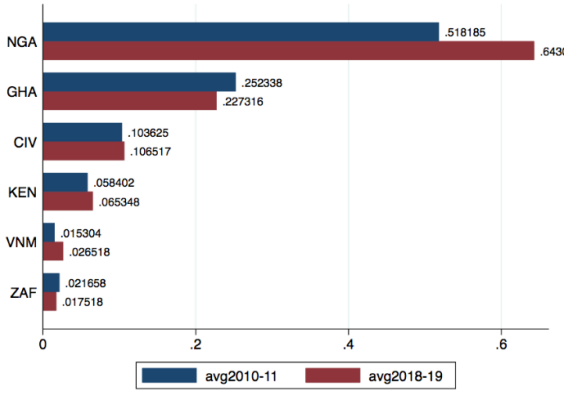
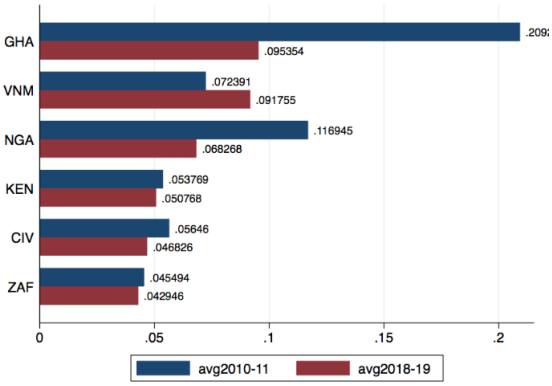


Figure 13. Herfindahl-Hirschman Index (HHI): Export markets



Source: Author's calculations using data from UN Comtrade.
Note: CIV: Côte d'Ivoire; GHA: Ghana; KEN: Kenya; NGA: Nigeria; VNM: Vietnam; ZAF: South Africa

Figure 14. Share of top five export products (HS6-digit)

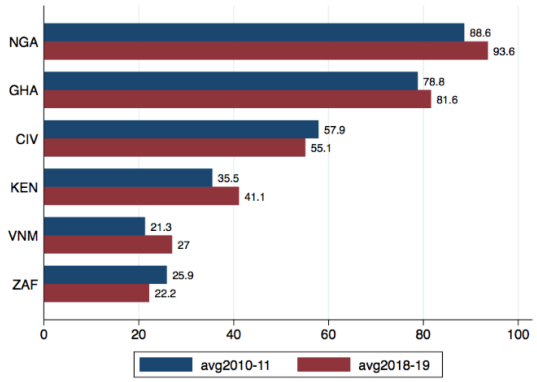
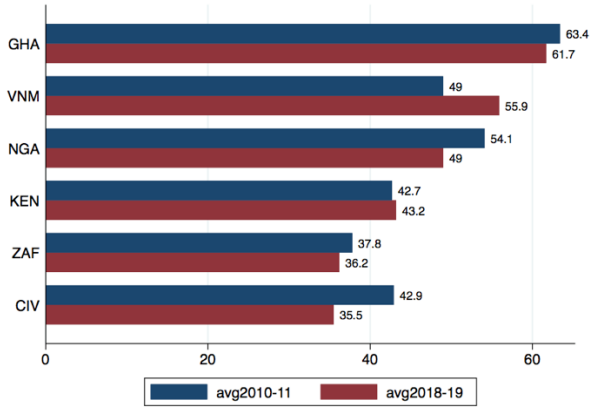


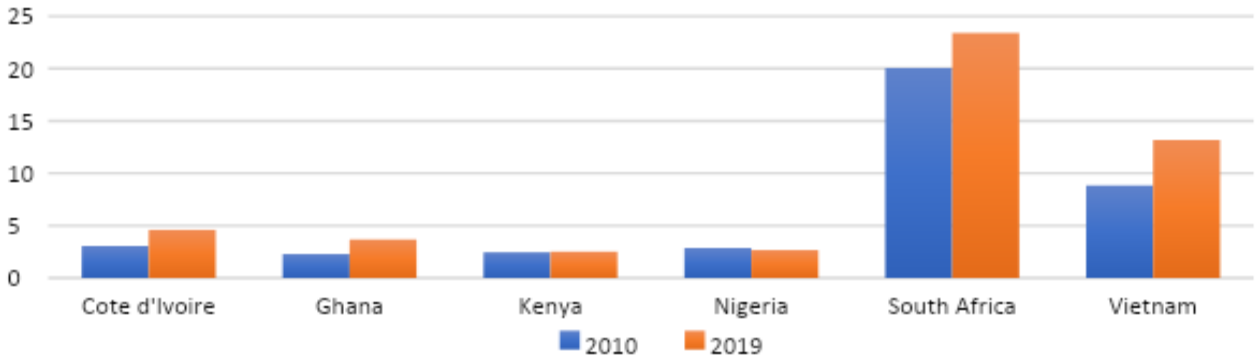
Figure 15. Share of top five export markets



Source: Author's calculations using data from UN Comtrade.
Note: CIV: Côte d'Ivoire; GHA: Ghana; KEN: Kenya; NGA: Nigeria; VNM: Vietnam; ZAF: South Africa

21. **Ghana's export market penetration has increased over the past decade, even though it lags most comparators except for Kenya and Nigeria. The** Index of Export Market Penetration (IEMP),[16] a more systematic measure of comparative success in exploiting export market opportunities across countries and years, reveals the degree of dynamism in exports. Ghana's IEMP ranking shows an increase in export market penetration over the past decade. As a share of total available markets for exported products, Ghana's exports reach 6.5 times less than South Africa's and nearly four times less those of Vietnam, which suggests that there is substantial potential for increasing the number of markets in which currently exported products are sold. In 2019, Ghana outperformed only Nigeria and Kenya in terms of export market penetration (Figure 16).

Figure 16. Index of export market penetration: Ghana and comparator countries, 2010 vs 2019



Source: Based on data from UN Comtrade/WITS.

[16] The Index of Export Market Penetration (IEMP) compares, for each exported product, the number of countries to which the country exports that product relative to the total number of countries that import it and then sums all products exported.

2.6. Export Sophistication and Quality

22. **As a logical consequence of the performance of the hydrocarbon and gold sectors, the majority of Ghana's export basket has evolved toward greater concentration in less sophisticated primary products, which accounted for over 70 percent of exports in 2019.** Upgrading technological sophistication or product quality can be a source of both export diversification and economic growth. Thus, the technological classification of Ghana's exports has not significantly changed since 2010, remaining within the primary products category, which tripled in value and increased from 69.2 percent to 72.4 percent of goods exports. The share of Ghana's primary exports is one of the highest among comparators, outperforming only by Nigeria, where primary products account for nearly 80 percent of merchandise exports.

23. **According to the Atlas of Economic Complexity,[17] Ghana ranks 103rd most complex country out of 133 countries in the Economic Complexity Index (ECI)**. Compared to a decade earlier, Ghana's economy has become less complex, dropping by two positions in the ECI ranking. This worsening complexity has been driven by increased concentration in few primary commodities largely dominated by the extractive sector. However, Ghana's exports are less complex than expected for its income level. This underpins the country's inability to grow to its full potential in the medium term given the country's factor endowment.

24. **In 2019, the share of Ghana's manufactured exports comprised:** 16.7 percent for medium technology manufactures, 7.9 percent for resource-based manufactures, 2.8 percent for low technology, and 0.2 percent for high technology (Figures 17 & 18).

Figure 17. Technological nature of exports, 2010-2019 (USD billions)

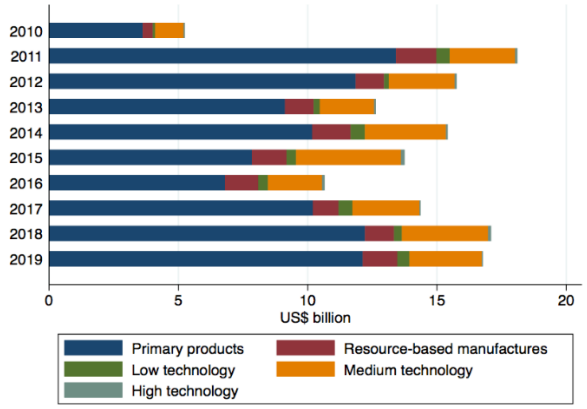
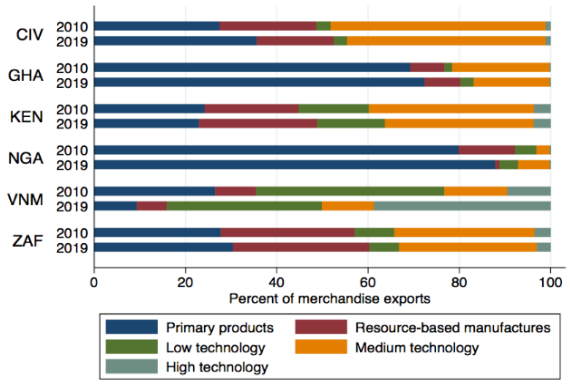


Figure 18. Technological nature of exports, Ghana and peers, 2010 vs 2019, share of goods exports



Source: Author's calculations using data from UN Comtrade.
Note: CIV: Côte d'Ivoire; GHA: Ghana; KEN: Kenya; NGA: Nigeria; VNM: Vietnam; ZAF: South Africa

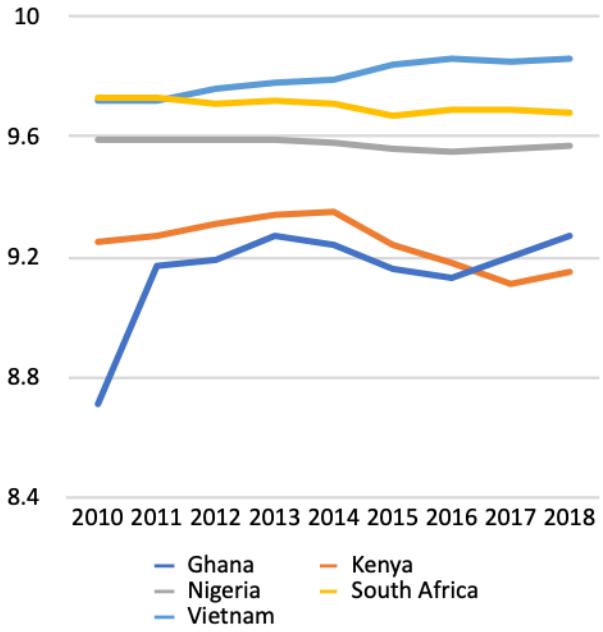
25. **Ghana's export sophistication as expressed by the income content of exports, or export sophistication (EXPY),[18] has stagnated after an initial rise following the discovery of oil in 2010.** The

[17] A visualization tool developed jointly by MTI and Harvard University for mapping out different paths for structural transformation.
[18] Export sophistication (EXPY) as proposed by Hausman, Hwang, and Rodrik (2007) measures the export-weighted level of per capita GDP associated with a country's export bundle. The EXPY Index is derived based on the PRODY index for a particular product. PRODY is an outcome-based measure of sophistication. If a product is mostly produced by rich countries, it is revealed to be a "rich" or

sophistication of a country's export products provides an insight into its economic development level and its location in the global value chain (GVC). After the initial spike in export sophistication associated with the discovery of oil in 2011, Ghana's exports have remained at the same level, scoring below most comparators over the past decade. Only in 2017-2018 did Ghana's export sophistication begin to slowly rise and score higher than in Kenya as Kenya's export sophistication declined (Figure 19).

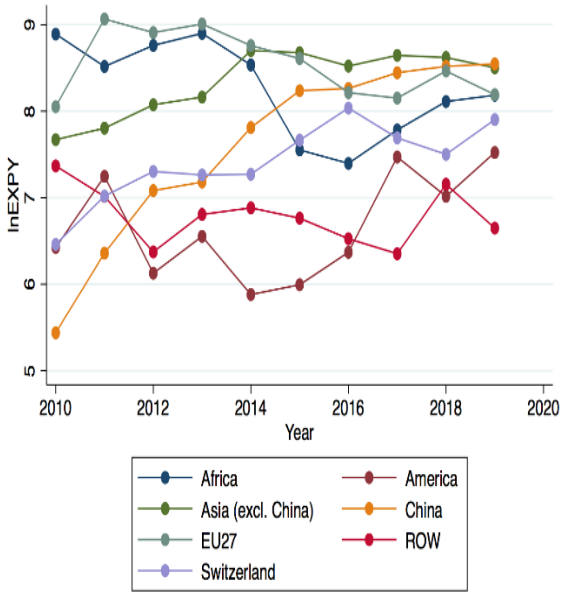
26. **Ghana's most sophisticated exports have been due to the rise of China and the rest of Asia, followed by the declining sophistication of exports to the EU over the past ten years.** In 2019, Ghana's most sophisticated exports were in demand from China followed by the rest of Asia, Africa, and the EU. While Ghana's export sophistication declined to Africa during 2010-2016, it has been on the rise ever since. Meanwhile, its most advanced exports went to the African continent **in 2010** (Figure 19). Ghana's merchandise export quality has been improving since 2000 but started to decline after 2011, falling below South Africa's and Côte d'Ivoire's in 2014 but exceeding Kenya's and Nigeria's (0).

Figure 19. Export sophistication (EXPY): Ghana and comparators, 2010-2019



Source: Based on WITS.

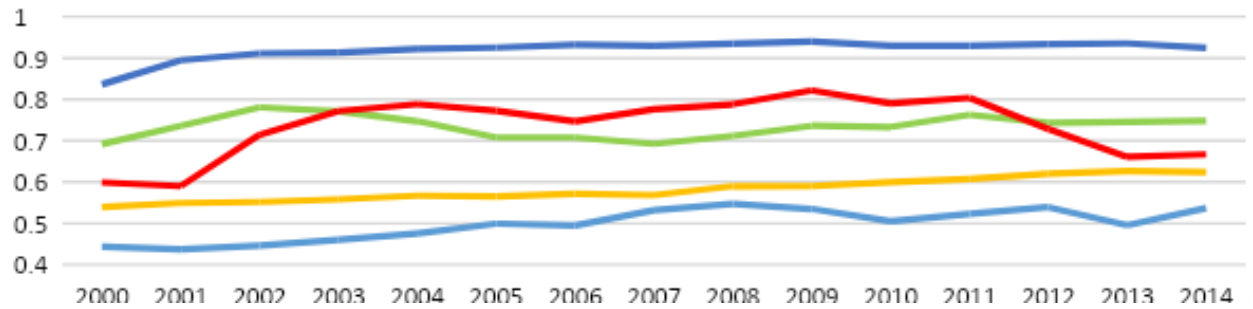
Figure 20. Export sophistication (EXPY) by main destinations, 2010-2019



Source: Author's calculations; data from UN Comtrade.

sophisticated product. PRODY is calculated as a weighted average of per capita GDP of countries producing that product, with weights derived from revealed comparative advantage. The country's expected per capita GDP EXPY is arrived at by summing all the PRODY values for the products exported by the country, each weighted by the product's share of total exports (UN Comtrade).

Figure 21. Ghana and comparators: Export Quality Index,[19] 2000-2014



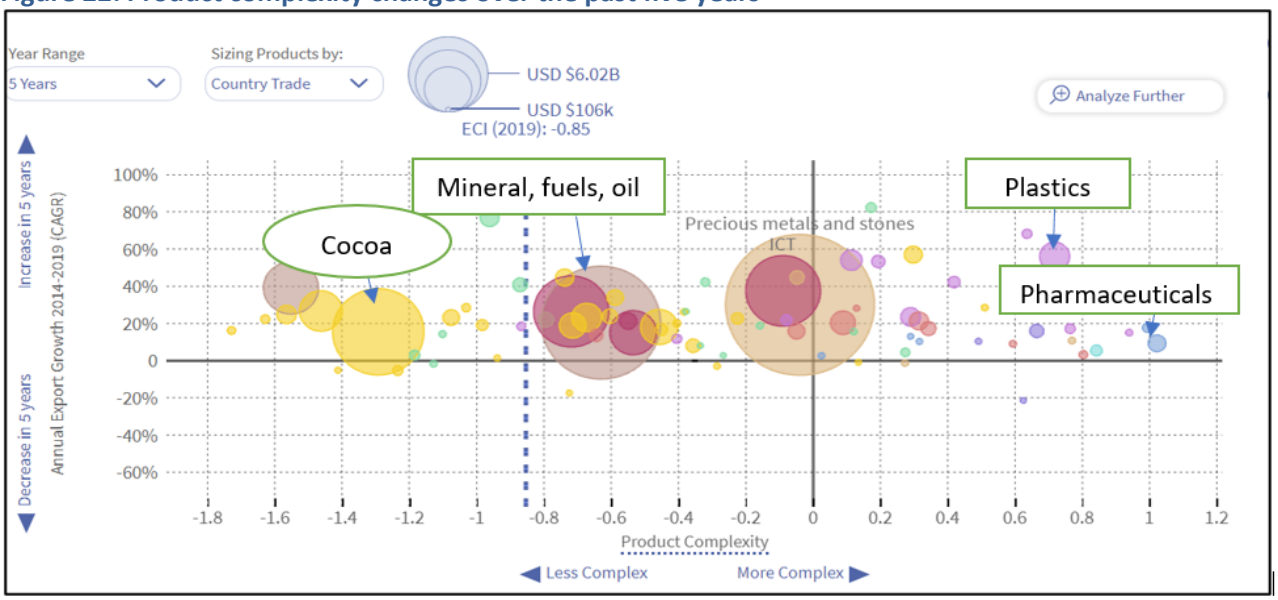
Source: Based on IMF data.

2.7. Export Dynamics

27. **According to the Atlas for Economic Complexity, Ghana's pattern of export growth has been static due to the largest contribution to export growth originating from moderately complex products, particularly precious metals and ICT products as opposed to more dynamic sectors such as plastics and pharmaceuticals**. Figure 22 shows that most products constituting a large share of exports are characterized by a low product complexity index score of below zero. Dynamic sectors and products such as plastics and pharmaceuticals are located on the far right-hand side of the chart, and bubble sizes are small because these exports constitute a relatively small share of total exports. Increasing the share of dynamic products, which would require intensified application of skills and technology, constitutes a potential source of economic transformation and growth.

[19] The IMF Export Quality Index (EQI) estimates quality based on unit values, which for any given product are adjusted for: (i) exporter's per capita income (to capture cross-country variations in production costs to proxy for capital versus labor-intensive sectors); (ii) distance between importer and exporter using gravity equations to accommodate selection bias (i.e., composition of exports to more distant destinations is tilted toward higher-priced goods because of higher shipping costs. The EQI is normalized, with a value of 1 signifying a quality level in line with the world frontier, taken to be the quality score at the 90th percentile observed among all exporters (IMF).

Figure 22: Product complexity changes over the past five years



Source: Atlas of Economic Complexity

28. **According to gravity model estimations,[20] Ghana's merchandise exports have performed below potential over the period 2010-2019.** Ghana's Export Potential Index[21] (EPI 14) shows that Ghana's merchandise exports should have been 32 percent higher[22] than the observed values during the decade. The total gap between Ghana's observed and predicted exports was, on average, estimated at USD3 billion between 2010-2019. Ghana's comparators that have also exported below the estimated potential during 2010-2019 were Kenya and Nigeria (Figure 23). These missed exports[23] are indicative of opportunities for export growth, provided frictions can be overcome. Based on EPI 68, Ghana's exports to the US should have been 5.2 times higher, suggesting an additional USD2 billion of potential exports. Meanwhile, its exports to Germany should have been 2.6 times higher, with USD450 million in missed exports, four times higher to Japan (421 million), almost 6 times higher to Brazil (USD345 million), and 8.7 times higher to Canada (USD313 million) (Figure 24).

[20] Alen Mulabdic obtained the data estimations for this section based on Mulabdic and Yasar (2021). The empirical methodology is presented in Annex 2.

[21] The Export Potential Index (EPI) varies between 100 and -100. The maximum value is obtained when observed bilateral trade flows are equal to 0, with the model predicting positive exports to the destination market, while the minimum value (-100) is obtained when the predicted value is equal to 0 and the observed values are positive. The EPI is defined as follows: *ExportPotentialIndexi,t=jX^ij,t-jXij,tjX^ij,t+jXij,t*100*

[22] For a given export potential, the relationship with respect to the observed trade flows is calculated as follows: *X^=1+ExportPotential1001-ExportPotential100*X*

[23] *Missed export value* is the extent to which predicted exports deviate from actual exports during the period of analysis.

Figure 1. Average Export Potential Index (EPI), average 2010-2019: Ghana and peers

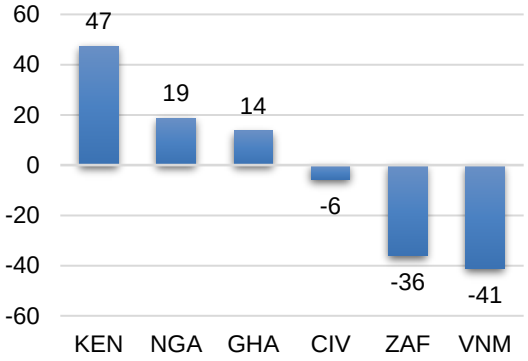
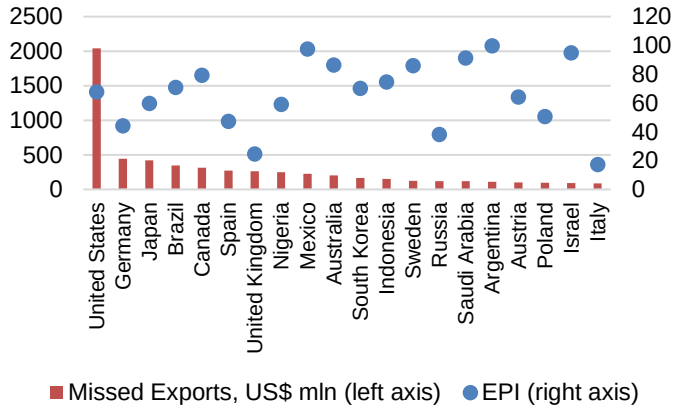


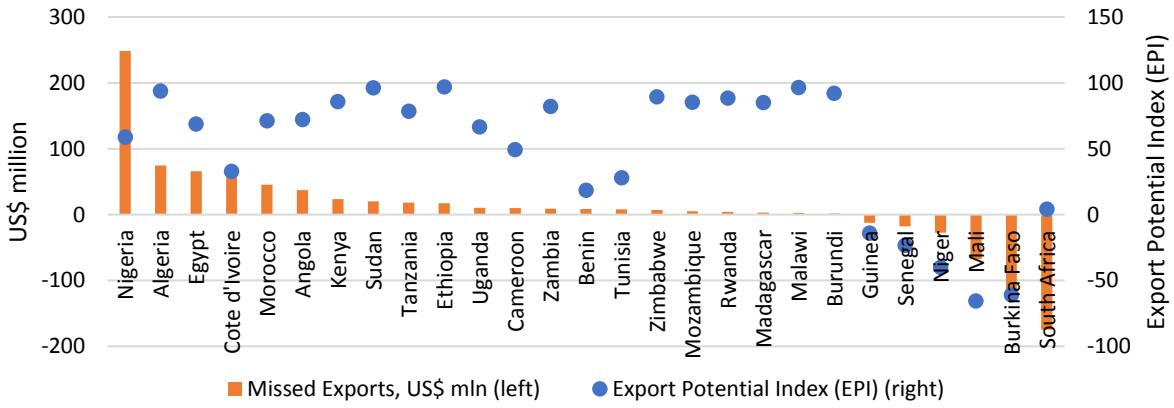
Figure 2 Ghana: EPI and Missing Exports in Top 20 markets, average 2010-2019 (US$ mln)



Source: Based on Mulabdic and Yasar (2021).

29. **Ghana's estimated export potential to African countries varies from the largest missed export destination (such as Nigeria) to the destination where Ghana's exports were higher than predicted (such as South Africa).** Nigeria was the only country on the African continent among the top 20 global export markets with untapped export potential, representing the eighth largest missed opportunity to the tune of USD250 million in potential additional exports, and a country to which Ghana's exports should have been nearly four times higher (Figure 25). On the African continent, Nigeria was the export destination with the largest missed opportunity for Ghana, followed by Algeria, Egypt, Côte d'Ivoire, and Morocco among the top five markets (Figure 29). Meanwhile, Ghana's exports to South Africa, Burkina Faso, Mali, Niger, Senegal, and Guinea have been estimated at above the predicted level, which shows that Ghana has done very well in those markets and additional opportunities may be limited.

Figure 25. Export Potential Index (EPI) and missing exports to Africa, average 2010-2019

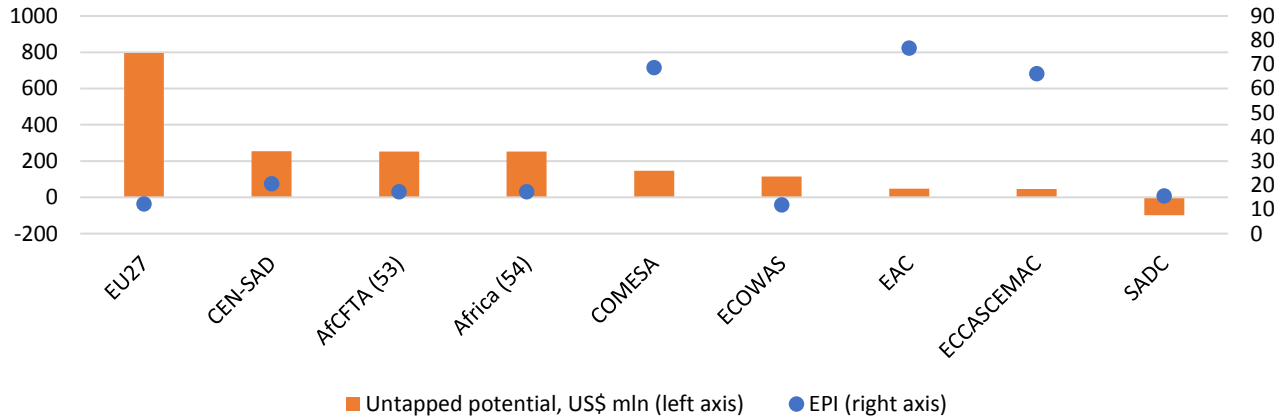


Source: Based on Mulabdic and Yasar (2021).

30. **The trade communities with the highest potential for Ghana's exports are the EU followed by the Community of Sahel–Saharan States (CEN-SAD) and AfCFTA.** Ghana's highest untapped opportunity (or missing trade value) to export is the European Union, where Ghana's predicted exports have been estimated

28 percent higher than the observed values, revealing a potential additional USD800 million of exports during 2010-2019. Ghana's exports to the Community of Sahel–Saharan States (CEN-SAD) should have been 50 percent higher, revealing USD254 million in missed (untapped) exports. Ghana's exports to the African region (AfCFTA) should have been 42 percent higher, with USD253 million in additional exports. There are also untapped export opportunities for Ghana in COMESA, ECOWAS, EAC, and ECCAS/CEMAC, though to a lesser degree. Meanwhile, Ghana's exports to SADC, the main export destination in Africa in 2019, were higher than what would be expected given the country's economic size, observable trade costs, and other characteristics (Figure 26).

Figure 26. EPI and missing exports, average 2010-20 by FTA

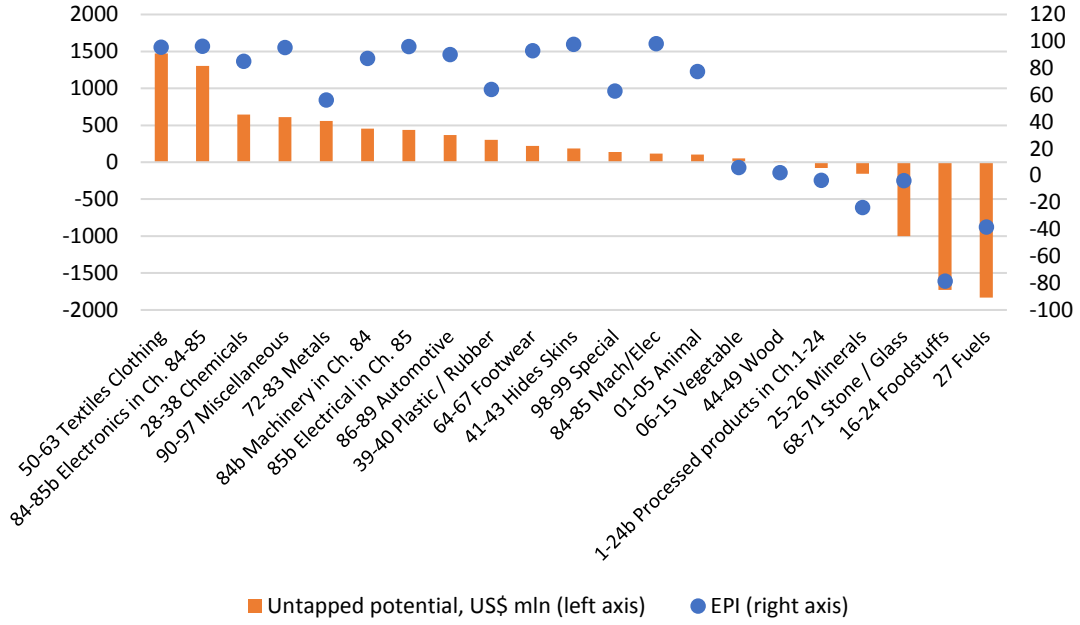


Source: Based on Mulabdic and Yasar (2021).

31. **At the industry level, Ghana's top three sectors with the greatest untapped export opportunities (or missing trade) were textiles and clothing, electronics, and chemicals**. Potential exports should have been 43 times more than the observed export flows during 2010-2019 (EPI 95), revealing an additional USD1.5 billion in trade opportunities. Ghana's exports of electronics (EPI 96) should have been 51 times actual values, leaving room to realize an additional USD1.3 billion of exports. Exports of chemicals, including pharmaceuticals, could have been 12.4 times higher (EPI 85), revealing USD644 million in untapped export opportunities. Meanwhile, Ghana's currently largest exports of fuels, foodstuffs, stone and glass, minerals, and processed products have been estimated at above predicted values, indicating that exports in these sectors are higher than expected given the observable characteristics. Ghana therefore has somewhat limited potential for expansion across these sectors as opposed to sectors with the highest export potential (Figure 27).

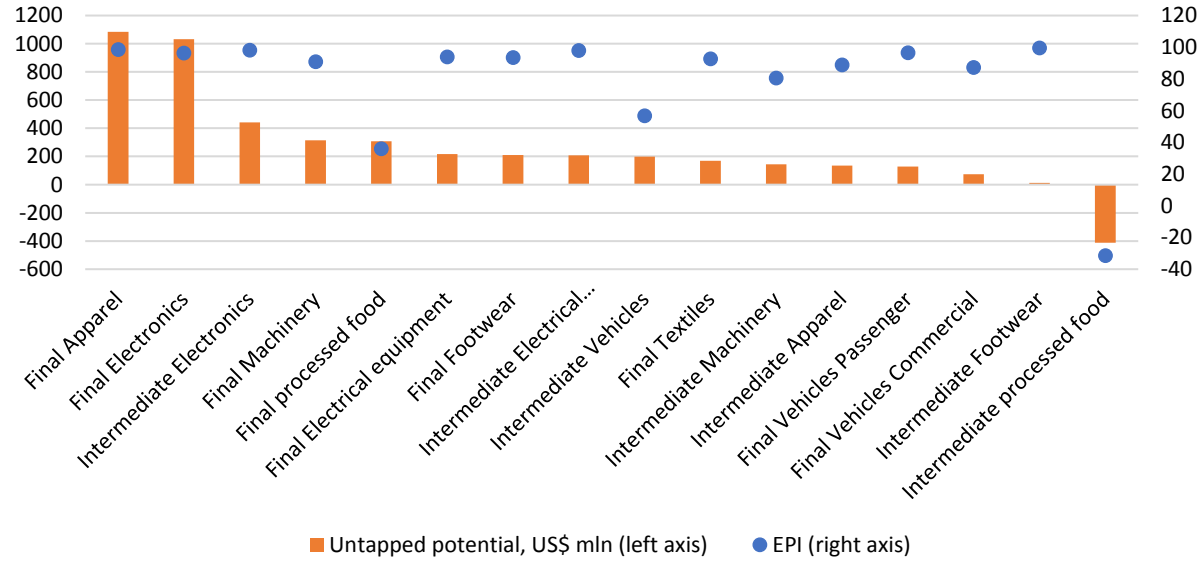
32. **In terms of processing stage and end-use sectors, Ghana's top three sectors with the greatest export opportunity (missing trade value) are final apparel, final electronics, and intermediate electronics.** Ghana's final apparel exports could have been 144 times higher than observed export flows during 2010-2019 (EPI 99), revealing an additional USD1.1 billion in trade opportunities. Predicted exports of final electronics reveal an additional USD1 billion in exports; in other words, Ghana's exports could have been 54 times higher (EPI 96). Ghana's exports of intermediate electronics have untapped export potential worth USD441 million, such that actual exports could have been over 100 times higher (EPI 98). Meanwhile, Ghana's exports of intermediate processed food are higher than expected given the observable characteristics **(Figure** 28).

Figure 27. Export Potential Index (EPI) and missing exports by sector, average 2010-2019



Source: Based on Mulabdic and Yasar (2021).

Figure 28. Export Potential Index (EPI) and missing exports by GVC sector, average 2010-2019



Source: Based on Mulabdic and Yasar (2021).

2.8. Trade in Services

2.8.1. Exports of Services

33. **Ghana's trade in services increased from 14 to 31 percent of GDP over the past decade (2010-2019), signaling the relative importance of the services sector to export diversification.** Since 2015, Ghana's largest exported services have become *technical, trade-related, and other business services*, which experienced a significant spike between 2014 and 2015 when they increased 15 times in trade value. These exported services accounted for 65 percent of services exports in 2019 compared to 23.2 percent in 2010. Ghana's exports of travel services more than doubled in trade value over the past decade but declined as a share from 41.9 percent in 2010 to 14.4 percent in 2019. Transport services exports have been growing modestly at a compound rate of 3.6 percent per year but have declined from 24.6 percent to 5 percent of services exports in 2019. Ghana's exports of modern services such as finance, telecommunications, and ICT are scarce, the latter export sector having emerged only recently and accounting for 1 percent of services exports in 2019 (Table 9, Figure 29).

34. **In Ghana, services generate nearly a half of total export value added,[24] outperforming all comparators, with one-half of services value added contributing to energy extraction.** Services are extensively used as inputs in manufacturing and agricultural exports. Services trade can boost the export competitiveness of other sector exports by increasing firms' productivity and enabling export diversification. Over the decade, Ghana's services value added has increased from a 34 percent share to a 48 percent share of total export value added, outperforming all comparators in 2014. Among the top three comparators, services value added accounted for 44 percent in Kenya, 42 percent in South Africa, and 36 percent of total export value added in Côte d'Ivoire (Figure 30).

35. **This increase in the importance of services in Ghana has been driven by services supporting oil exports, which accounted for one-half of services value added (or 24 percent of total export value added).** Meanwhile, over one-third of services value added supports the manufacturing exports (or 13 percent of total export value added). Ghana's services value added mostly contributes to other export sectors in the economy, indicating a high integration with other sectors as only one-eighth stays within the same sector (as direct value added), or 6.1 percent of total export value added. Transport services contribute the highest value added share across sectors, among which the sector with the largest share of transport services is energy extraction (Table 10). (Additional information per sector is presented in Annex 1.)

[24] Total export value added comprises direct value added plus forward linkages.

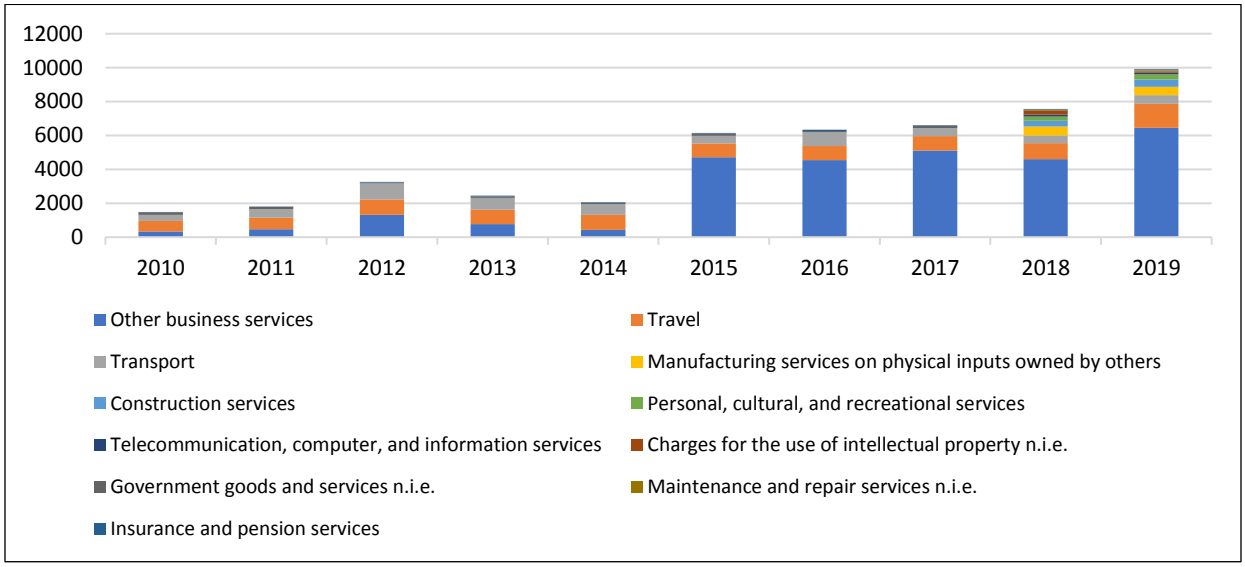
36.

Table 9. Services value added content of exports on sector basis, 2014 (% of total value added)

	Direct Value Added of Exports	Inputs to agriculture	Inputs to energy extraction	Inputs to manufacturing	Inputs to services	Total Value added of exports
Water and utilities	0.01	0.01	0.01	0.04	0.12	**0.2**
Construction	0.02	0.03	0.12	0.12	0.04	**0.3**
Distribution & trade	0.03	1.14	4.76	6.35	0.14	**12.4**
Transport	2.31	1.39	16.64	5.47	0.34	**26.2**
Communications	0.22	0.12	0.78	0.28	0.17	**1.6**
Finance	0.12	0.06	0.42	0.14	0.08	**0.8**
Insurance	0.05	0.01	0.09	0.03	0.02	**0.2**
Others (ICT)	0.12	0.06	0.39	0.14	0.10	**0.8**
Others (construction)	0.97	0.02	0.07	0.09	0.00	**1.1**
Other services	2.21	0.17	0.95	0.37	0.16	**3.9**
Services value added	**6.1**	**3.0**	**24.2**	**13.0**	**1.2**	**47.5**

Source: Author's calculations using data from WB EVAD.

Figure 29. Services exports by sector, 2010-2019 (USD millions)



Source: IMF Balance of Payments.

36. **Among OECD-reported countries, the importance of Ghana's services exports to the EU28 significantly declined between 2010 and 2018**. Over 2010-2018, Ghana's services exports to the EU28 declined from 49 percent to 10.2 percent of services exports, while their trade value doubled between 2010 and 2015 but declined to the levels of 2010 by 2018. The largest EU28 markets for Ghana's services exports at the country level in 2018 were the UK, Denmark, Belgium, Italy, and France (Table 10). The spike in Ghana's exports of services in 2015 seems to stem from increased exports to the EU28, shown later in this section (Figure 30).

Table 10. Services exports to EU28 and top 10 OECD-reported markets, 2010 vs 2018

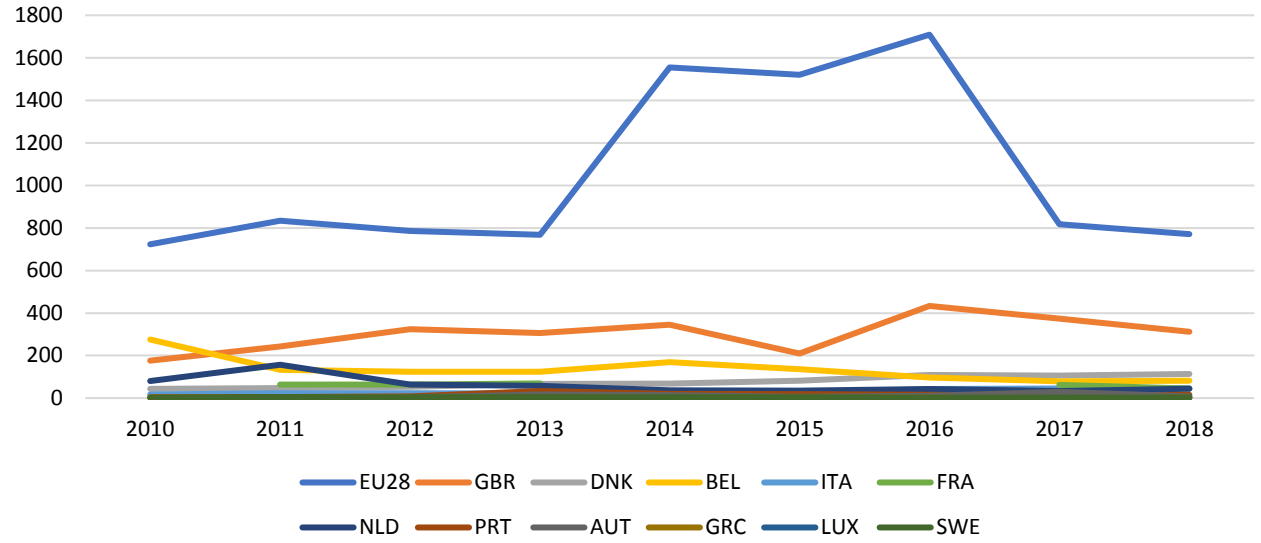
	USD millions*			**% of services exports****			**Growth (CAGR, %)**		
Sector	**2010**	**2015**	**2018**	**2010**	**2015**	**2018**	**2010-18**	**2015-18**	**2017-18**
EU28	723.3	1521.0	770.2	49.0	24.8	10.2	0.7	-15.6	-5.8
GBR	176.2	209.3	312.2	11.9	3.4	4.1	6.6	10.5	-16.3
DNK	43.4	81.3	113.5	2.9	1.3	1.5	11.3	8.7	7.2
BEL	275.5	136.4	81.4	18.6	2.2	1.1	-12.7	-12.1	3.2
ITA	17.5	24.6	45.1	1.2	0.4	0.6	11.1	16.4	-0.4
FRA			44.9	0.0	0.0	0.6			-27.6
NLD	80.9	34.7	44.6	5.5	0.6	0.6	-6.4	6.5	34.3
PRT	4.0	18.9	15.3	0.3	0.3	0.2	16.1	-5.1	51.5
AUT		6.7	8.3	0.0	0.1	0.1		5.5	-71.7
GRC	2.0	2.9	2.8	0.1	0.0	0.0	3.8	-0.9	12.0
LUX		2.2	2.4	0.0	0.0	0.0		2.2	4.3

Source: OECD Stat, IMF Balance of Payments.

Note: *Partner-level trade values obtained using mirror method; **Total trade values per year reported using IMF Balance of Payments.

AUT: Austria; BEL: Belgium; DNK: Denmark; FRA: France; GBR: United Kingdom; GRC: Greece; ITA: Italy; LUX: Luxembourg; NLD: Netherlands; PRT: Portugal

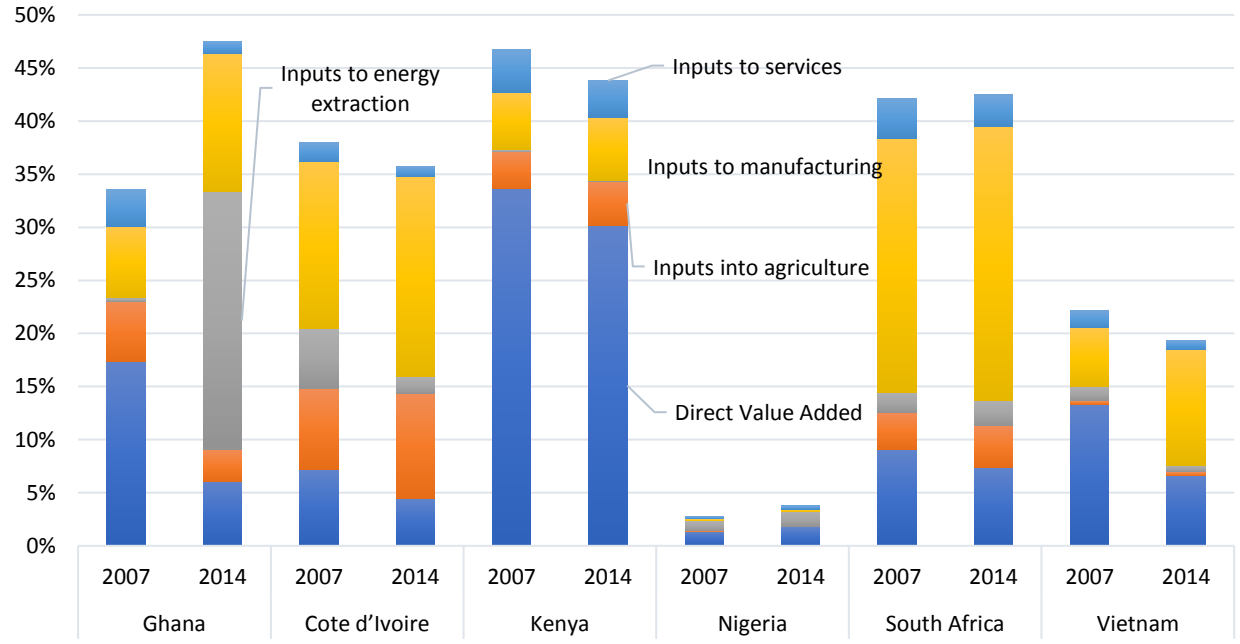
Figure 30. Services exports to EU28 and top 10 OECD-reported markets, 2010 vs 2018 (USD millions)



Source: OECD Stat. *Note*: Partner-level trade values obtained using mirror method.

AUT: Austria; BEL: Belgium; DNK: Denmark; FRA: France; GBR: United Kingdom; GRC: Greece; ITA: Italy; LUX: Luxembourg; NLD: Netherlands; PRT: Portugal; SWE: Sweden

Figure 31. Services value-added to exports: Ghana and comparators, 2007-2014 (% of value added)



Source: Author's calculations using data from WB EVAD.

2.8.2. Imports of Services

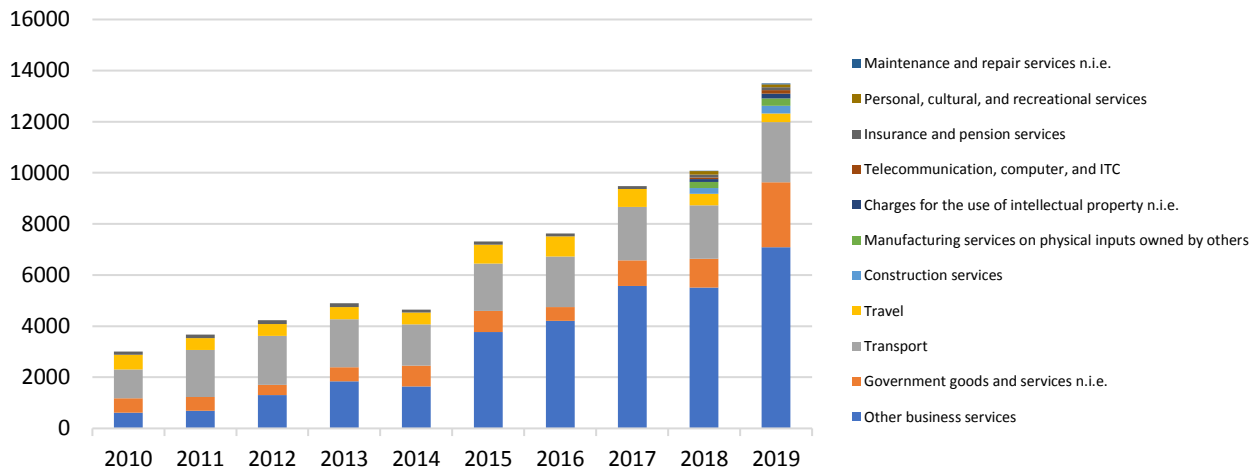
37. **In terms of composition of imported services, imports of technical, trade-related, and other business services have become the most important sector since 2015, when these imports more than doubled between 2014 and 2015, supplanting transport services as the largest sector.** Ghana's imports of technical, trade-related, and other business services have been on the rise, growing at an average rate of 31 percent per year between 2010 and 2019 and, increasing from 20.6 percent of services imports in 2010 to 52.5 percent in 2019. Imports of government goods and services accounted for 18.9 percent of services imports, followed by transport services (17.4 percent), travel (2.4 percent), and construction services (2.3 percent) among the largest import services in 2019 (Table 11).

Table 11. Services imports by sector, 2010-2019 (USD millions)

	USD millions			% of services imports			Growth (CAGR, %)	
Sector	**2010**	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**
Other business services: Technical, trade services	617.5	3772.9	7085.9	20.6	51.6	52.5	31.1	17.1
Government services	559.1	819.5	2549.2	18.6	11.2	18.9	18.4	32.8
Transport	1135.3	1860.9	2353.5	37.8	25.5	17.4	8.4	6.0
Travel	574.4	737.0	327.6	19.1	10.1	2.4	-6.1	-18.3
Construction services			310.1	0.0	0.0	2.3		
Manufacturing services			278.1	0.0	0.0	2.1		
Charges, Intellectual property			190.0	0.0	0.0	1.4		
Telecommunication, ICT			144.3	0.0	0.0	1.1		
Insurance and pensions	117.0	118.4	115.2	3.9	1.6	0.9	-0.2	-0.7
Personal, recreational			108.4	0.0	0.0	0.8		
Maintenance and repair			35.3	0.0	0.0	0.3		
Total	***3003***	***7309***	***13498***	***100***	***100***	***100***	***18.2***	***16.6***

Source: IMF Balance of Payments.

Figure 32. Services imports by sector, 2010-2019 (USD millions)



Source: IMF Balance of Payments.

38. **The significance?? of Ghana's services imports from the EU28 declined between 2010 and 2018**. Over 2010-2018, Ghana's services imports from the EU28 declined from 95.3 percent to 33 percent of services imports, while their trade value more than doubled between 2010 and 2015 but declined to the levels of 2011 by 2018. The largest EU28 markets for Ghana's services imports at the country level in 2018 were Hungary (12 percent), the UK (10.3 percent), Denmark (10.1 percent), Sweden (5 percent), and France (3.8 percent). Top ten OECD-reported markets accounted for around 50 percent of Ghana's services imports in 2018.

Table 12. Services imports from EU28 and top 10 OECD-reported markets, 2010-2018

	USD millions*			**% of services imports****			**Growth (CAGR, %)**		
Sector	**2010**	**2015**	**2018**	**2010**	**2015**	**2018**	**2010-18**	**2015-18**	**2017-18**
EU28	2861.0	6649.7	3331.8	95.3	91.0	33.0	1.7	-15.9	1.6
HUN	944.5	1186.0	1220.1	31.4	16.2	12.1	2.9	0.7	30.6
GBR	1135.5	2101.1	1035.9	37.8	28.7	10.3	-1.0	-16.2	-9.8
DNK	284.3	462.1	1022.1	9.5	6.3	10.1	15.3	22.0	10.0
SWE	668.9	690.1	501.3	22.3	9.4	5.0	-3.2	-7.7	6.0
FRA			384.8	0.0	0.0	3.8			-5.3
BEL	372.3	270.5	289.4	12.4	3.7	2.9	-2.8	1.7	-11.8

NLD	456.8	283.5	281.1	15.2	3.9	2.8	-5.3	-0.2	15.5
DEU	79.8	118.1	155.8	2.7	1.6	1.5	7.7	7.2	-0.3
GRC	11.0	111.0	125.9	0.4	1.5	1.2	31.1	3.2	19.8
LUX	103.1	189.7	95.4	3.4	2.6	0.9	-0.9	-15.8	-1.5

Source: OECD Stat, IMF Balance of Payments.

Note: *Partner-level trade values obtained using the mirror method; **Total trade values per year reported in IMF Balance of Payments.

BEL: Belgium; DEU: Germany; DNK: Denmark; FRA: France; GBR: United Kingdom; GRC: Greece; HUN: Hungary; LUX: Luxembourg; NLD: Netherlands; SWE: Sweden

3. Deepening Participation in Global Value Chains

3.1. Introduction

39. **Deepening integration into global value chains (GVCs) can increase the pace of industrialization in Ghana through increased access to markets as well as the percentage increase in the share of value-added exports.** A recent review of global trade since the 1990s concluded that GVCs account for about 50 percent of global trade and have been one of the key drivers of structural transformation in developing countries (World Development Report (WDR), 2020; see Box 1). This chapter examines: (i) Ghana's current participation in GVCs; (ii) The contribution of services trade to structural transformation; and (iii) Policy priorities for GVC upgrading.

Box 1: Benefits of Integration into GVCs

GVCs contribute to increased productivity, better jobs, and lower poverty in participating countries and are a major source of inflows of foreign direct investment (FDI). Among developing countries, East and Southeast Asia, particularly China, have been top beneficiaries of GVCs, followed by Latin America. Participation in GVCs is determined to a large extent by inherent factors such as location, endowments, and institutions. However, policy choices, especially regarding trade, FDI, connectivity, and deeper international cooperation can make a major difference. The key policy question is whether Africa, and especially Ghana, can integrate deeper into GVCs and leverage this process to achieve structural transformation.

Thanks to GVCs and access to global markets, developing countries can now participate in gains from producing sophisticated products by specializing in specific tasks rather than having to master the entire production process of a good, as was common in the earlier stages of industrialization. Countries can join GVCs by facilitating the entry of domestic firms or by attracting (FDI), an option that includes more direct access to foreign know-how and technology. African countries have managed to join GVCs in the apparel, food, and automotive industries as well as in some business services. Nevertheless, Africa's participation in global trade in intermediate goods is just 3 percent, reflecting the preponderance of agriculture and natural resources in African exports. Yet cross-country comparison among SSA countries shows that Ghana has the potential to integrate further into GVCs than is currently the case.

Countries integrate into GVCs in different ways depending on whether industry-specific GVCs are producer- or buyer-driven. By leveraging advances in transport and communications technologies, large multinational

enterprises (MNE), mostly from advanced countries, incorporate offshoring and outsourcing, mostly with developing countries, as key parts of their global strategies. This is reflected in increases in FDI and intra-firm international trade.

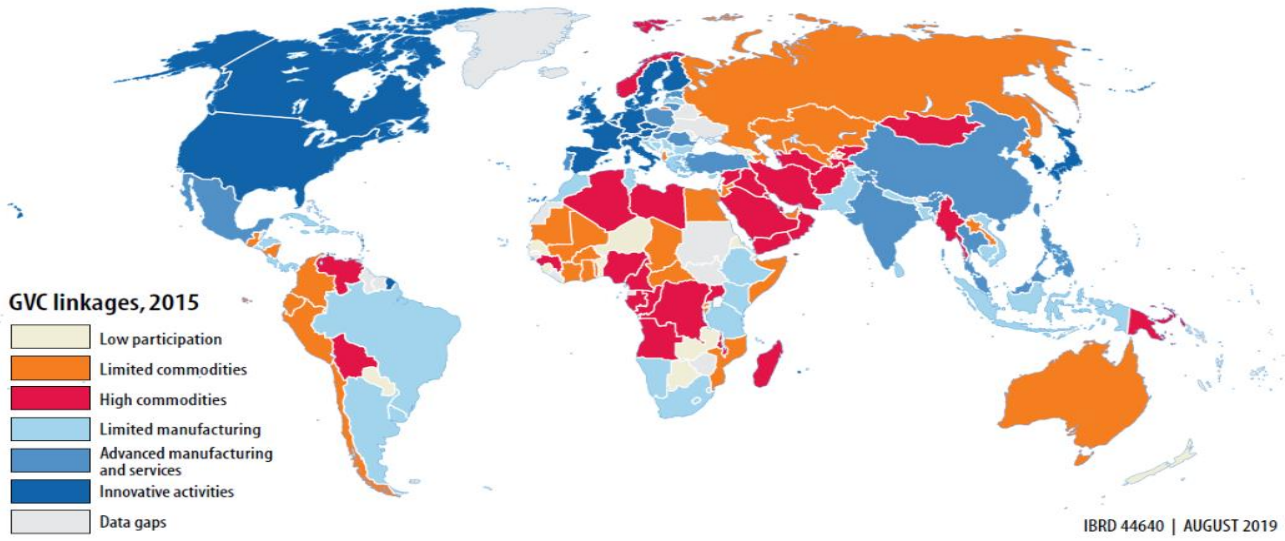
In producer-driven GVCs, MNEs play a central role in controlling the production system, including forward and backward linkages through their domestic and foreign subsidiaries and subcontractors. These types of GVCs are common in capital- or technology-intensive industries such as automotive industries, computers, aircraft, and electrical machinery. On the other hand, in buyer-driven GVCs, large retailers and brand-named companies play a pivotal role in setting up production networks. Examples of such GVCs are: (i) light manufacturing, labor-intensive, or consumer goods industries such as apparel, footwear, toys, and consumer electronics; (ii) agri-business; (iii) metal and mineral products; and (iv) services trade.

Source: WDR (2020) and other literature.

3.2. Ghana versus Comparators Participation in GVCs

40. **According to the WDR (2020) report, countries such as Ghana, Nigeria, and Côte d'Ivoire are classified as commodity exporters, while Kenya, South Africa, and Ethiopia are classified as limited manufacturing exporters (Figure 33).** [25] Ghana seeks to integrate deeper in GVCs, join the limited manufacturing group of exporters and thereby boost the country's industrialization strategy, increase access to markets through cross-border firm linkages, and increase the value-added share of exports.

Figure 33. Participation in GVCs in limited commodities country group



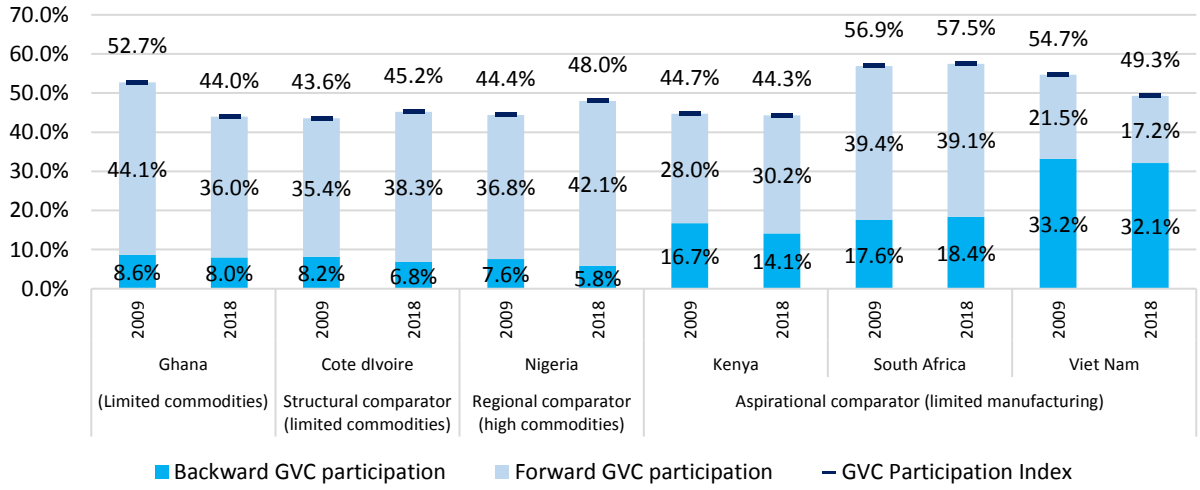
[25] The GVC country taxonomy was developed based on: (i) country's extent of backward GVC participation of the manufacturing sector as a share of country's total exports; (ii) sector specialization of domestic value added in exports; and (iii) measures of innovation (World Bank, 2020). There are four types of GVC participation, with different consequences for development: (i) commodities; (ii) limited manufacturing; (iv) advanced manufacturing and services; and (iv) innovative activities (WDR, 2020). Commodities GVC participants export raw materials for further processing linked to high forward integration since commodities are used in diverse downstream production processes that typically cross several countries. However, commodities GVC involve low value-added activities with limited scope for innovation or technological upgrading. The limited manufacturing group exports output (such as garments) that are less likely to be used as inputs in destination countries, hence forward participation decreases while backward participation increases. Advanced manufacturing and services GVC participants import inputs for assembly and produce and export complex goods and services with high value added and technology upgrading. Innovative activities GVC involves production of knowledge-intensive goods and services driven by high R&D intensity.

Source: WDR (2020).

41. **Ghana's total participation in global value chains (GVCs) declined over the past decade, scoring below most comparators.** According to the total GVC Participation Index as expressed by the sum of backward and forward linkages[26] in gross exports, Ghana's participation declined from 52.7 percent to 44 percent of gross exports over 2009-2018, lagging all comparator countries. Ghana's aspirational peers such as South Africa and Vietnam were integrated in GVCs with 57.5 and 49.3 percent shares of gross exports, respectively, in 2018. It is noteworthy that Ghana's aspirational peers Kenya and South Africa were able to graduate from the commodity group and have been upgraded to the limited manufacturing group, now falling within the same GVC category as Vietnam[27] (Figure 34).

42. **Ghana's backward GVC participation measured by the foreign value-added share of exports (FVAX) declined marginally over the period 2009-2018.** Ghana's backward participation was 8.6 percent of gross exports in 2009 but declined slightly to 8 percent in 2018, below all aspirational comparators, including Kenya, South Africa, and Vietnam. The Backward Linkage Index is generally a good indicator of the country's level of performance in GVCs. In 2018, backward linkages accounted for 32.1 percent of gross exports in Vietnam, 18.4 percent in South Africa, and 14.1 percent in Kenya (Figure 34). Increasing backward GVC participation would be beneficial to Ghana as increased imports of foreign intermediate inputs is associated with increased domestic value-added exports. Thus, Ghana's ambition to increase the share of higher value added in the country's total exports should be supported. According to econometric findings,[28] if Ghana were to increase its skilled labor share (7.5 percent in 2012) to the cross-country median (20 percent), its backward GVC participation and exports would grow by 42 percent and its forward GVC participation by 39 percent at the sample mean of sectoral skills intensity.

Figure 34. GVC Participation Index: Ghana and comparators, 2009 vs 2018 (% of gross exports)



Source: Author's calculations based on UNCTAD-EORA database.

[26] Backward GVC participation (upstream) is the use of foreign inputs embodied in gross exports, while Forward GVC participation (downstream) is the domestic value added in intermediate exports to third country exports.

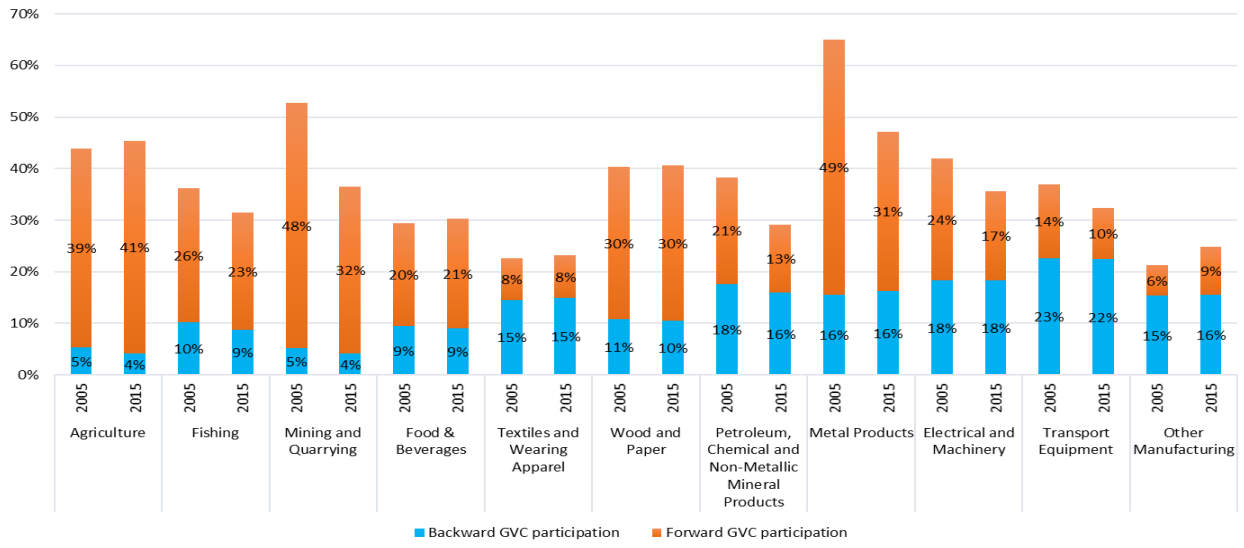
[27] World Bank (2020).

[28] Fernandes et al. (2020).

3.3. Sectoral GVCs

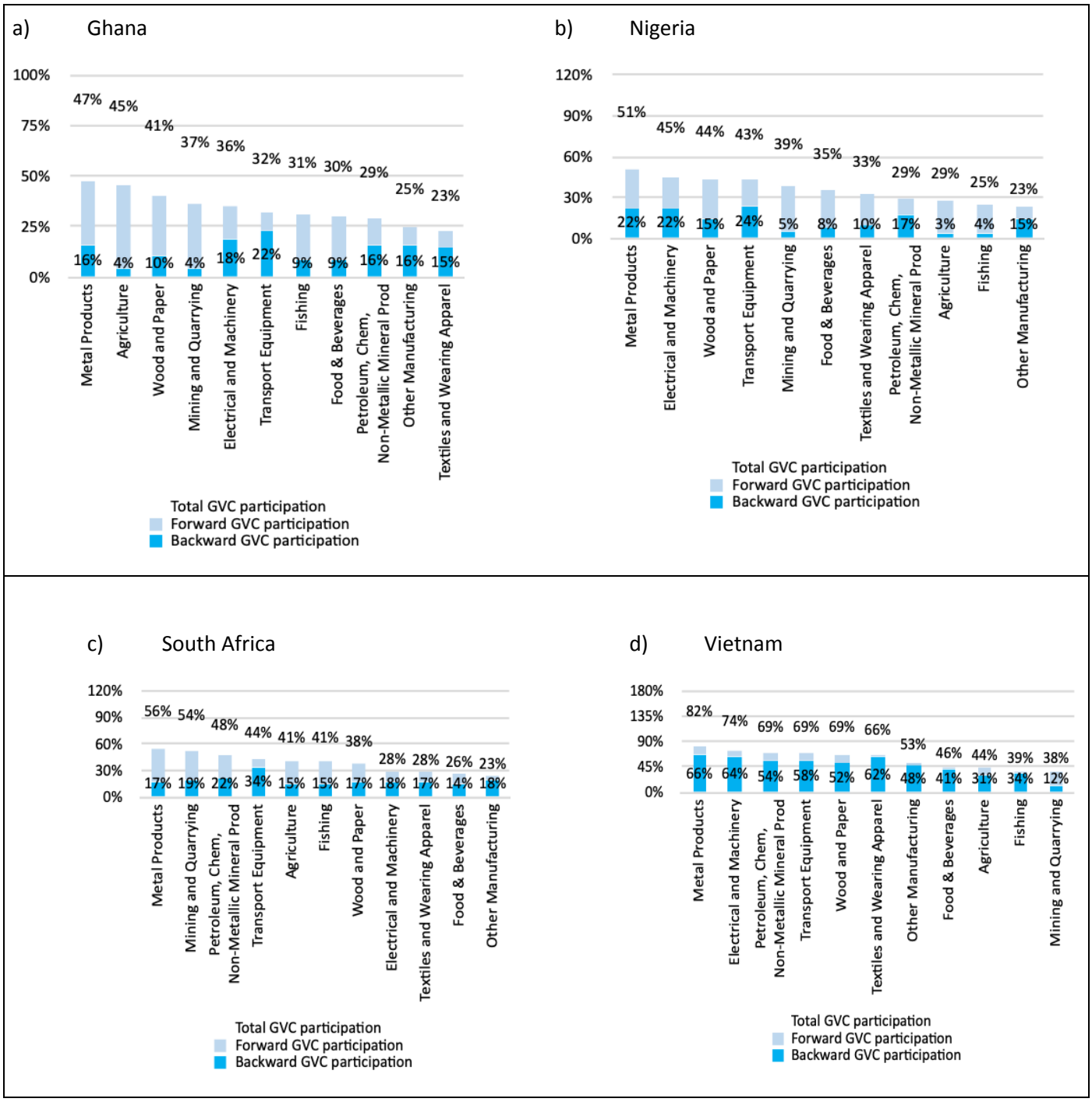
43. **At the sector level, Ghana's GVC participation level is in the mid-range or at the lower end across most sectors in comparison to peers, except in agriculture, where Ghana's total participation as a share of gross exports per sector exceeded comparators in 2015.** Metal products have been the most integrated sector in Ghana over the past decade, though they declined from 65 percent of gross exports in 2005 to 47 percent of gross exports in 2015, of which 31 and 16 percent, respectively, consisted of forward and backward participation. Total GVC participation in the agricultural sector accounted for 45 percent of gross exports in this sector, exceeding all comparators and comprising 41 percent of forward participation and 4 percent of backward participation. In 2015, the highest backward integration was in transport equipment, at 22 percent of gross export in this sector. The highest forward linkage was traditionally in mining and quarrying, at 32 percent of gross exports in the sector (Figure 35 & 36).

Figure 35. GVC Participation Index by sector, 2005 vs 2015 (% of gross exports)



Source: Author's calculations based on WDR 2020 GVC database.

Figure 36. GVC Participation by sector and selected comparators, 2015 (% of gross exports)



Source: Author's calculations based on WDR 2020 GVC database.

44. **During 1990-2015, Ghana's GVC linkages in agriculture intensified. Ghana's GVC participation in agriculture increased by 10 percentage points from 35 percent of gross exports in this sector in 1990 to 45 percent in 2015.** For comparison, the integration of the agricultural sector into GVCs grew from 31 percent to 43.5 percent of gross exports per section in Vietnam, from 32 to 42 percent in Kenya, and from 30 to 34 percent in Côte d'Ivoire (Figure 37). The GVC participation rate of Ghana's agri-food sector during the 1990-2015 period also increased from 23 percent to 30 percent of gross exports (Figure 38). Ghana's foodstuffs and vegetables exhibited revealed comparative advantage in 2015.

Figure 37. Ghana: Agriculture GVC participation, 1990 vs 2015

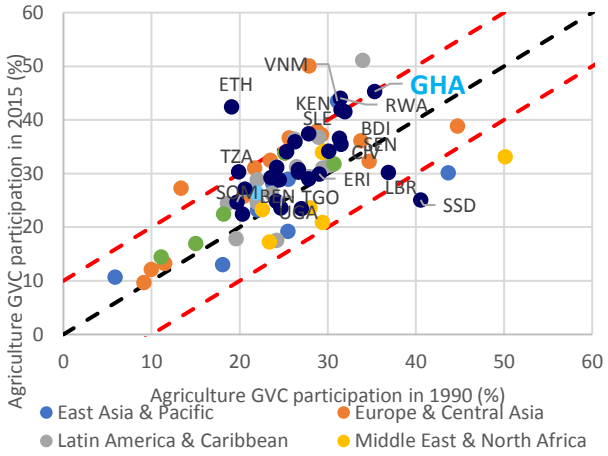
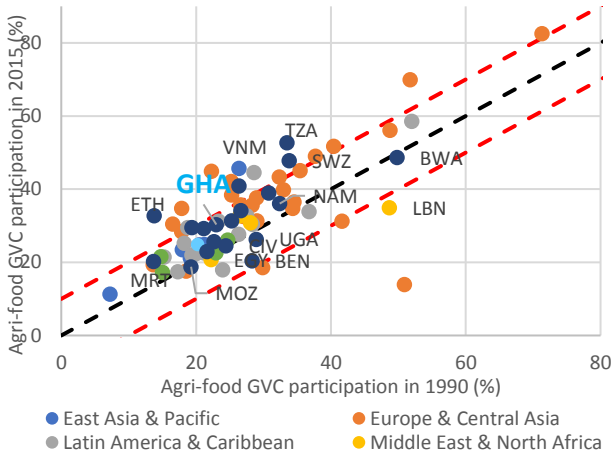


Figure38. Ghana: Agri-food GVC participation, 1990 vs 2015

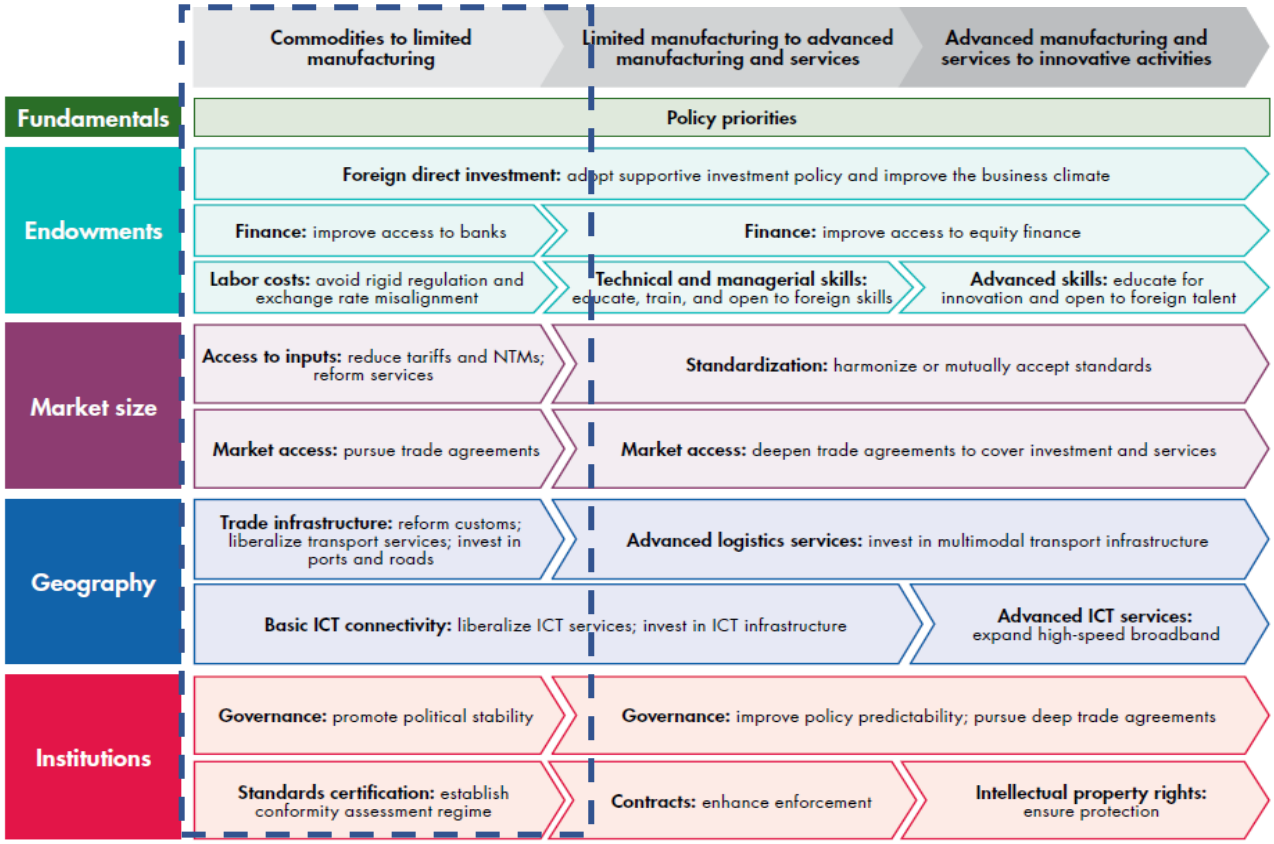


Source: WDR 2020, using data from EORA26 database.
Note: The blue 45-degree line marks instances in which GVC participation for a given country are the same in 1990 and 2015. The red 45-degree lines mark a 10-percentage point change in the rate of GVC participation between 1990 and 2015.

3.4. Policy priorities for GVC upgrading

45. **A key priority for Ghana is to strengthen a policy environment that will accelerate the country's move from a commodity exporter to limited manufacturing GVCs, which would drive diversification into non-commodity exports. P**olicies that would help Ghana catalyze GVC engagement by deepening levels of participation, adding greater value to existing exports, and capturing additional gains from GVCs are summarized below (Figure 39).

Figure 39. Policy priorities that can help Ghana upgrade its GVC participation



Source: World Bank (2020).Figure 41. Basic characteristics: Number of exporters per million population: Ghana and comparators

46. **Countries can join GVCs by facilitating the entry of domestic firms or by attracting foreign direct investment (FDI).** The FDI option includes more direct access to foreign know-how and technology. African countries have managed to join GVCs in textiles and apparel, processed foods, automotive industries, and some business services. However, Africa's participation in global trade in intermediate goods is just 3 percent, reflecting the preponderance of primary commodity exports, agriculture, and natural resources. However, cross-country comparison among SSA countries shows that Ghana has the potential to integrate further into GVCs than is currently the case.

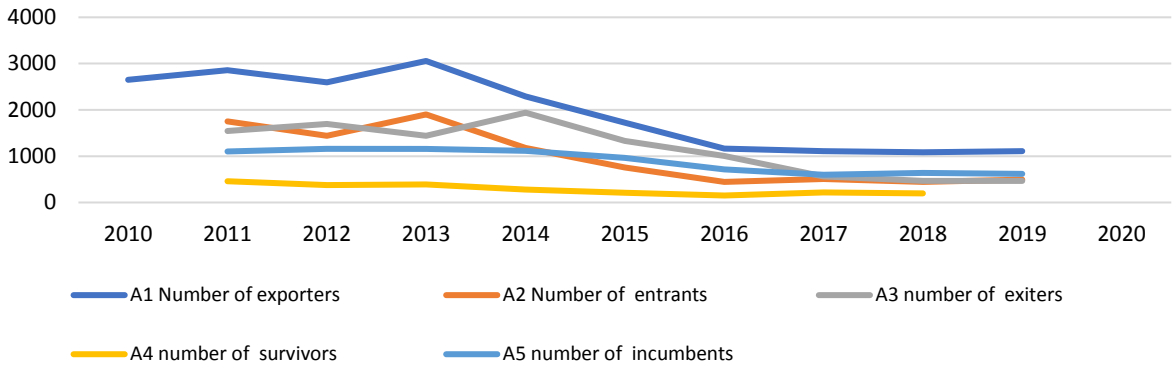
47. **The increasing importance of GVCs over the past two decades has significantly reshaped the global economy.** Though GVCs can be expected to generate substantial impacts on national economies, the size and direction of these effects are not yet fully understood because empirical evidence on GVCs remains limited and largely falls short of capturing their impact on national economies. The last few years have witnessed a growing number of case studies of integrated GVCs at the product level, but these analyses only depict the situation for specific products. Additional aggregate evidence has also been developed in order to get a more comprehensive picture of GVCs. The OECD in cooperation with the WTO has developed a large-scale project focusing on the measurement of trade in value-added terms.

4. Firm Level Export Dynamics

4.1. Number of Exporters[29]

48. **The number of exporters[30] in Ghana has sharply declined since the peak in 2013**. The total number of exporting firms in Ghana declined from over 3,000 in 2013 to 1,110 in 2019, due mainly to the exodus of exporters but also a dramatic overall decline in the number of entrants since 2013 (Figure 40). This development has been observable across all types of exporters.

Figure 40. Number of Exporters (including fuels HS27), 2010-2019



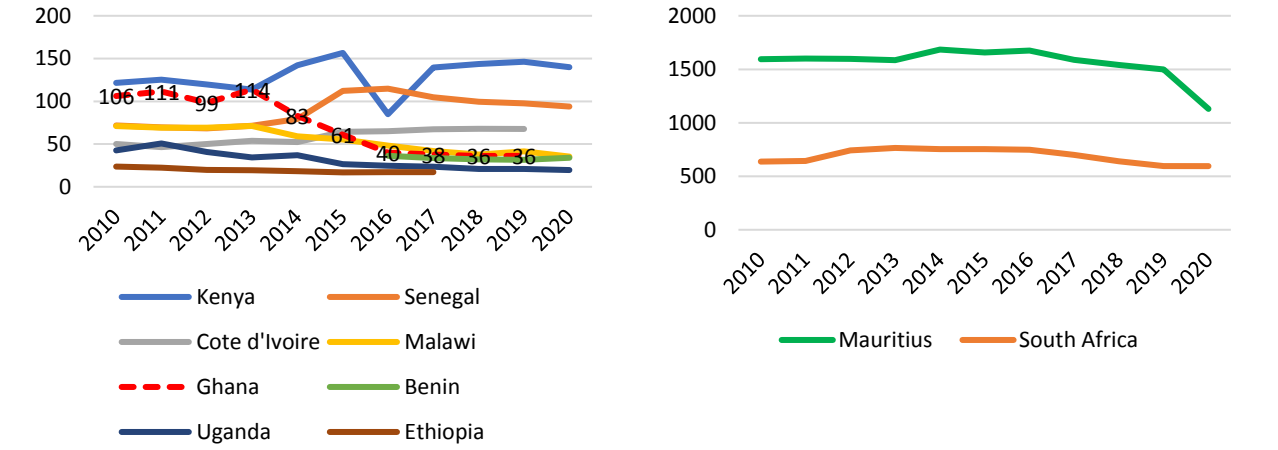
Source: Updates to Exporter Dynamics Database (EDD), described in Fernandes et al. (2016).

49. **Ghana has a small export base as the number of exporters per million of population was one of the lowest compared to other African countries with available data**. During 2010-2013, Ghana's number of exporters adjusted for population was lower than only the top three comparators (Mauritius, South Africa, and Kenya). However, Ghana's density of exporters per population has been on a decline since 2013, sliding below the majority of comparators, from 114 exporters per million population in 2013 to 36 by 2019. This compares to 1,130 exporting firms per million people in Mauritius, around 600 in South Africa, 140 in Kenya, 94 in Senegal, and 68 in Côte d'Ivoire. Ghana's exporters per million population in 2019 were on par with Malawi and higher than only Benin and Uganda among countries with data (Figure 2). In terms of other types of exporters, Ghana follows the same pattern vis-à-vis African countries. In 2019, the number of entrants in Ghana was nearly the same as the number of exiters at 16 and 15, respectively. Number of entering exporters in Ghana was only above Uganda's in 2019 (Figure 41).

[29] This section uses the standard set of EDD indicators that excludes exports of fuels (HS27) for all countries as per the EDD methodology, unless otherwise indicated.

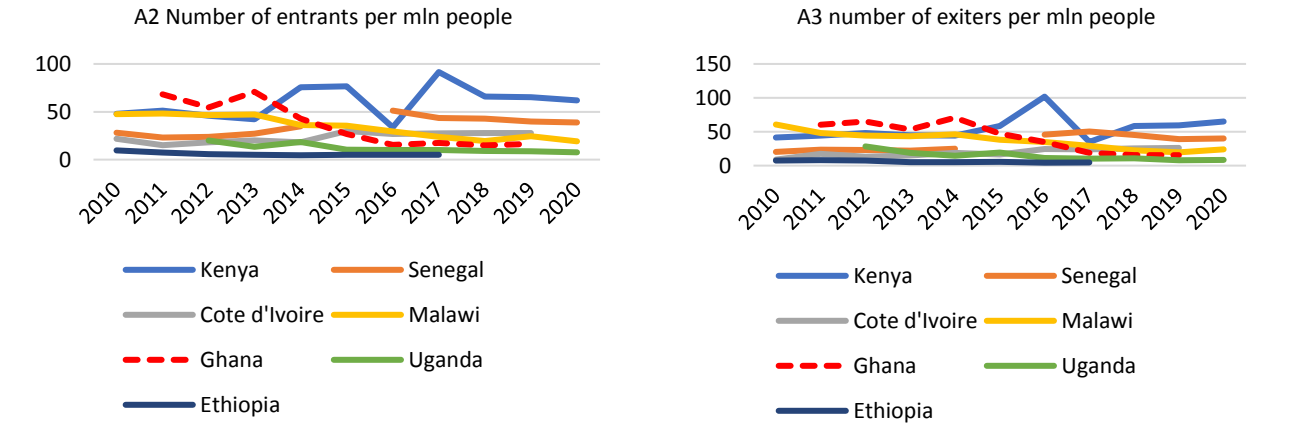
[30] The EDD methodology defines the terms as follows (see also Annex 1): $Exporter_t$: Any firm that exports in year t; $Entrant_t$: Firm that does not export in year $t-1$ but exports in year t; $Exiter_t$: Firm that exports in year $t-1$ but does not export in year t; $Incumbent_t$: Firm that exports in both years $t-1$ and t; $Survivor_t$: Firm that does not export in year $t-1$ but exports in both years t and $t+1$.

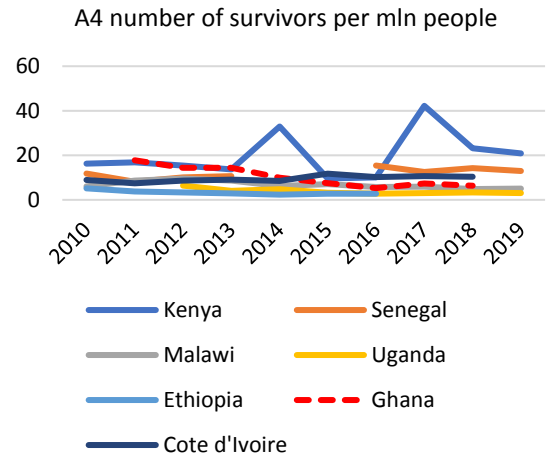
Figure 41. Number of exporters per million population: Ghana and comparators

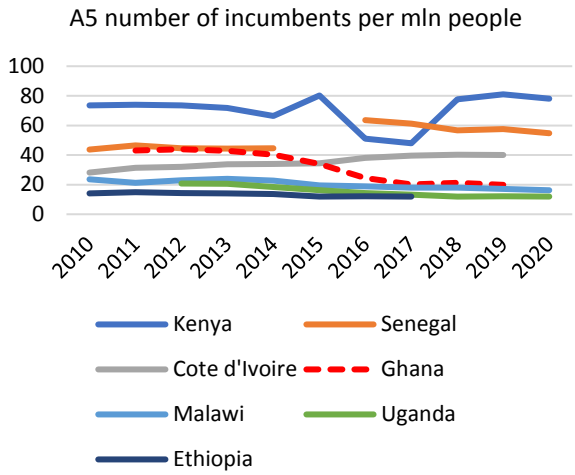


Source: Updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).
Note: Cross-country EDD data excludes fuels (HS27).

Figure 42. Number of exporters per million population: Ghana and comparators (excluding South Africa and Mauritius due to scale)





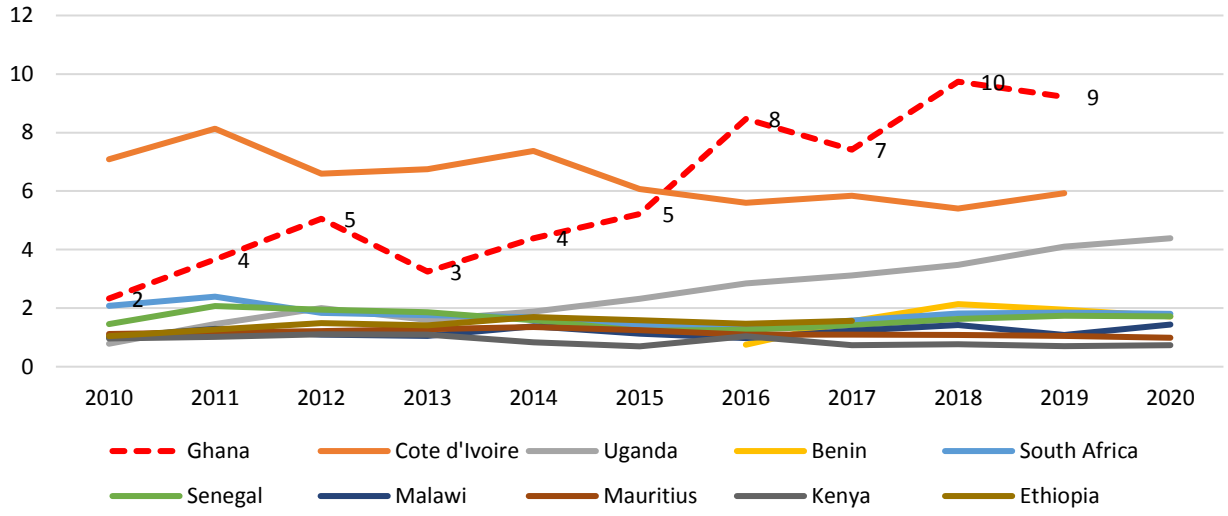


Source: Updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).
Note: Cross-country EDD data excludes fuels (HS27).

4.2. Average Exporter Size: Export Value per Firm[31]

50. **Average exporter size in Ghana has increased over the last decade, becoming the highest among African comparators with data since 2016.** During 2010-2019, export value per exporter more than quadrupled, from USD2 million to USD9 million. Prior to 2015, Ghana's average exporter size ranked only below Côte d'Ivoire's but has become the highest among African comparators since 2016. Ghana's low number of exporters per population in combination with the highest exporter size indicates highly concentrated exports among few firms (Figure 4).

Figure 43. Export value per exporter: Ghana and selected African countries (USD millions, mean)

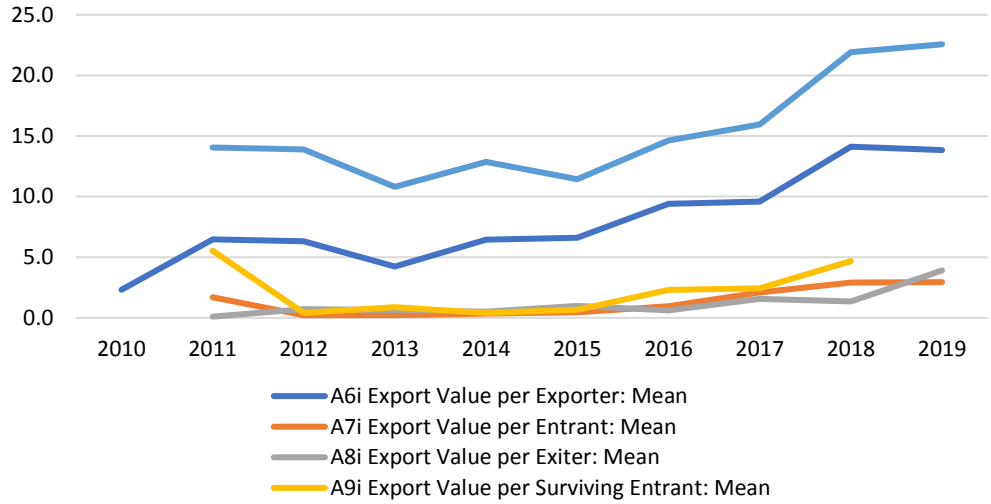


Source: updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016). *Note*: The cross-country EDD data excludes fuels (HS27).

[31] Export values in the cross-country EDD dataset are measured in US Dollars (USD) as Free on Board (FOB) figures except for Senegal, whose export values represent Cost, Insurance, and Freight (CIF) figures (Fernandes et al., 2016)

51. **Over 2010-2019, average export value per exporter across all sectors[32] in Ghana increased nearly seven times, from over USD2.3 to USD13.8 million.** Meanwhile, Ghana's largest firms in terms of average export value are incumbent firms (firms that have been exporting for at least two consecutive years). Over 2010-2019, average export value per incumbent increased from USD 14.1 to USD 22.6 million. A significant spike in average export value for entrants and surviving entrants in 2011 was associated with the beginning of commercial oil exporting in Ghana (Figure 44).

Figure 44. Export value per type of exporter (USD millions, mean)

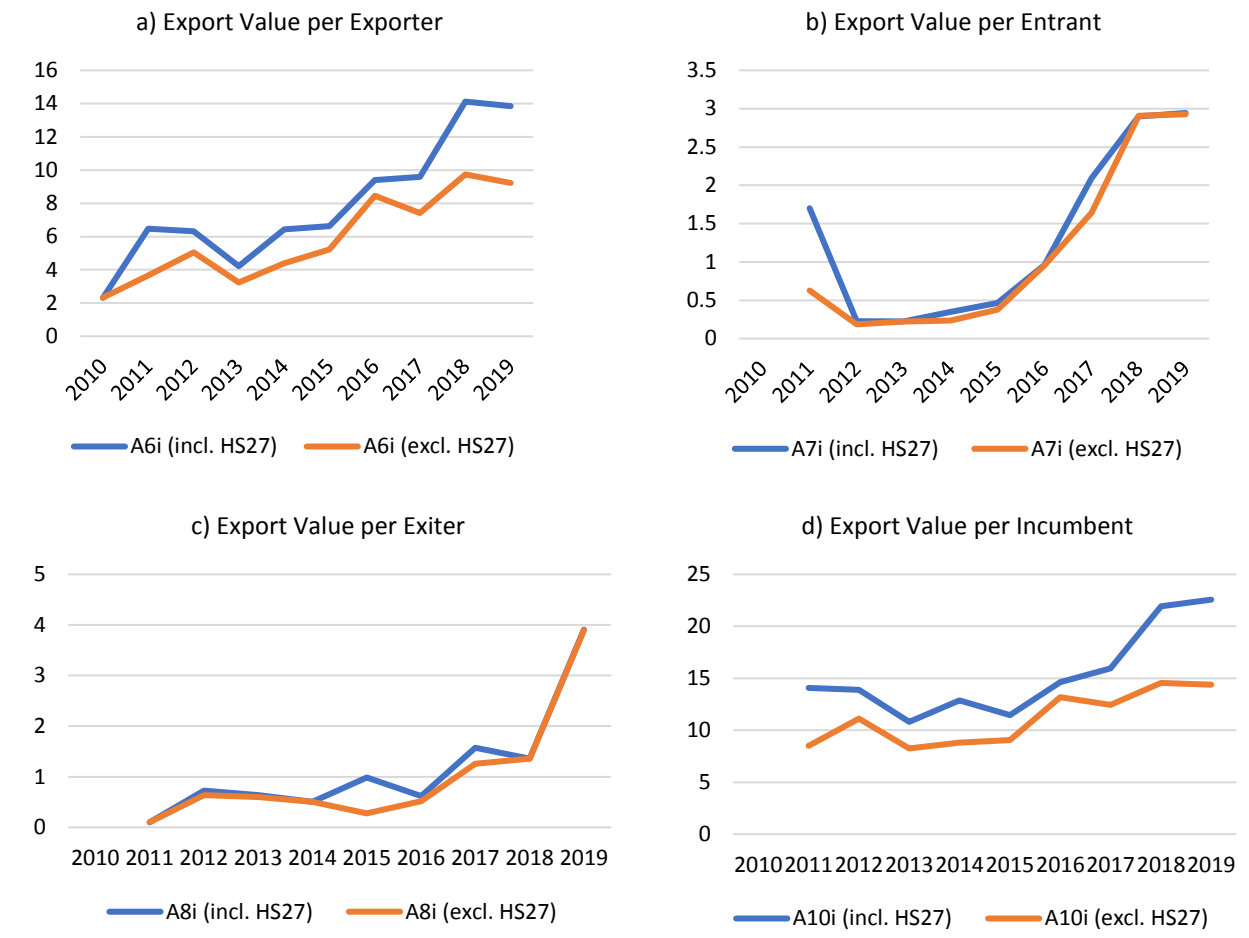


Source: Updates to Exporter Dynamics Database (EDD) described in Fernandes et al.. (2016). *Note*: This dataset includes fuels (HS27).

52. **Average export size is generally higher for exporters and incumbents in fuel sectors compared to firms in non-oil sectors.** Since 2010, average export size has increased for both oil and non-oil exporting firms in Ghana. However, with the entry of oil-exporting firms in 2011, the gap between oil and non-oil average export size widened by 2019, reaching USD13.8 million (when oil exporters are included) and USD9.2 million for non-oil exporters (Figure 45a). There was also a noticeable difference in export value per entrant firm between oil and non-oil exporters in 2011 when Ghana started exporting oil (Figure 45b). Based on Figure 45c, a few oil exporters exited in 2015 and 2016, during which average export size was higher for oil exporting exiters than for non-oil exporting exiters. Oil-exporting incumbent firms have also experienced higher average export size (Figure 45d).

[32] Including exporters of fuel (HS27).

Figure 45. Export value per type of exporter, including vs excluding fuels (HS27) (USD millions, mean)



Source: Updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).

4.2. Concentration and Diversification[33]

53. **Ghana's exporting firms are considerably concentrated relative to comparators**. The Herfindahl-Hirschman Index (HHI)[34] at the exporter level allows for comparing export concentration in countries that may be equal in terms of number of exporters but may vary in terms of export value. According to the firm-level HHI shown in Figure 46, Ghana's exporters are considerably more concentrated, at HHI 0.07 in 2019, compared to HHI 0.007 in Kenya, 0.016 in South Africa, and 0.017 in Côte d'Ivoire, with the top five percent of exporters accounting for 95 percent of total export value, the highest in 2019 compared to 91 percent in South Africa, 85 percent in Côte d'Ivoire, and 80 percent in Kenya (Figure 47). Meanwhile, the number of

[33] This section uses the standard set of EDD indicators, which excludes exports of fuels (HS27) for all countries as per the EDD methodology unless otherwise indicated.

[34] The Herfindahl-Hirschman Concentration (Diversification) Index (HHI) is calculated as the sum of squared shares of each product, firm, or export market in a country's total exports. Export products, firms, or markets are most diversified if the HHI is close to zero and highly concentrated if the HHI is close to one. The HHI allows for comparing export concentration in countries that may be equal in terms of the number of products (or markets) but may vary in terms of trade value concentration, where S = is the share of export or export market j in total exports of country i.

products at the six-digit level and destination per exporter was one of the lowest among comparators (Figure 48).

Figure 46. Firm-level Herfindahl-Hirschman Index (HHI): Ghana and comparators

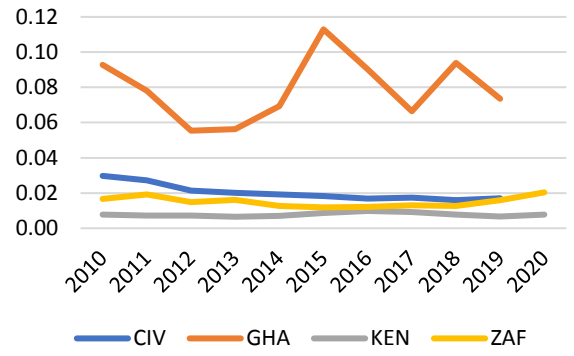
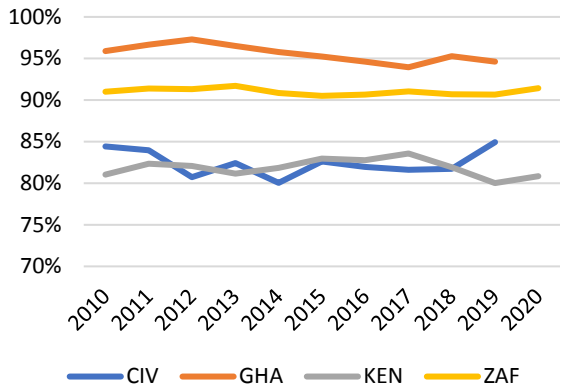
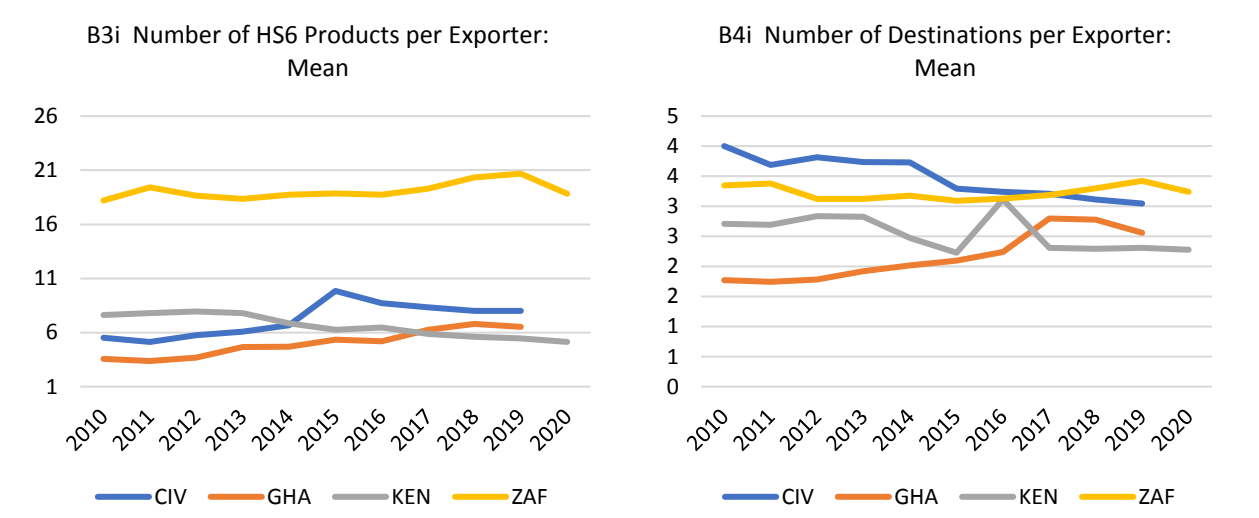


Figure 47. Share of top 5% Exporters in TEV (Total Export Value): Ghana and comparators



Source: updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).
Note: The cross-country EDD data excludes fuels (HS27).

Figure 48. Number of HS6 products and destinations per exporter

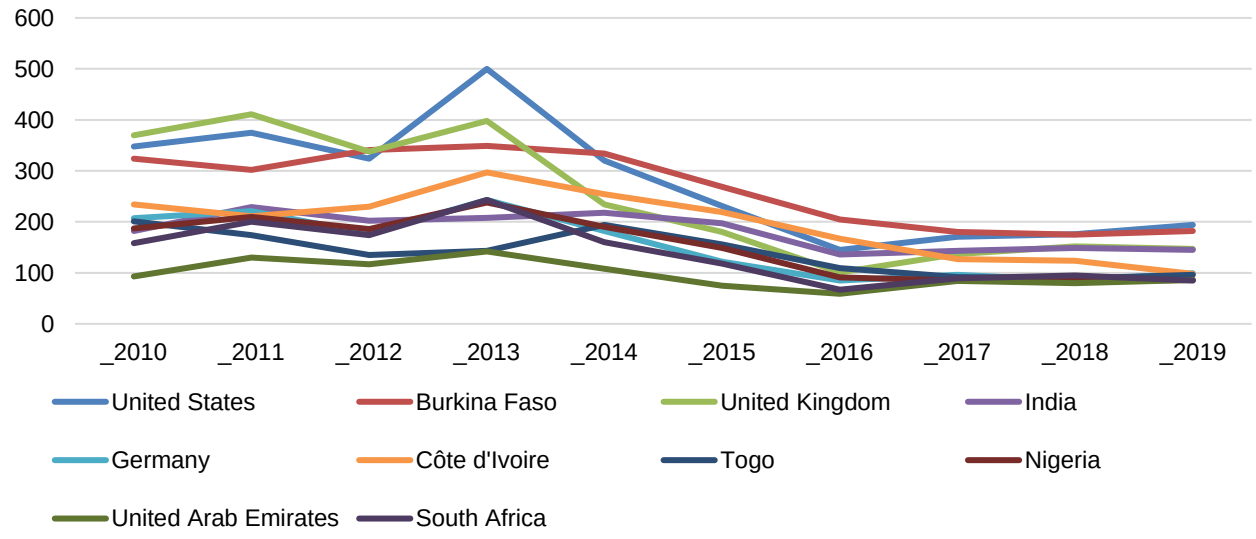


Source: updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).
Note: The cross-country EDD data excludes fuels (HS27).
CIV: Côte d'Ivoire; GHA: Ghana; KEN: Kenya; ZAF: South Africa

4.3. Destination Dynamics[35]

54. **In 2019, Ghana's largest destinations in terms of number of exporters were the United States (194), Burkina Faso (182), the United Kingdom 147, India (145), and Germany (99).** Ghana's destinations with the highest number of entrants were United States (109), India (90), United Kingdom (80), Burkina Faso (67), and United Arab Emirates (61). Interestingly, some of these countries are also among the destinations with the highest number of exiters, including India (94), United States (91), United Kingdom (85), Côte d'Ivoire (74), and Burkina Faso (60). Meanwhile, the top destinations with the highest average export value per exporter were Switzerland (USD70 million), Indonesia (USD50 million), Estonia (USD42 million), Ukraine (USD18 million), and United Kingdom (USD15 million) (Figures 49, 50, Figure A23, Figure A24).

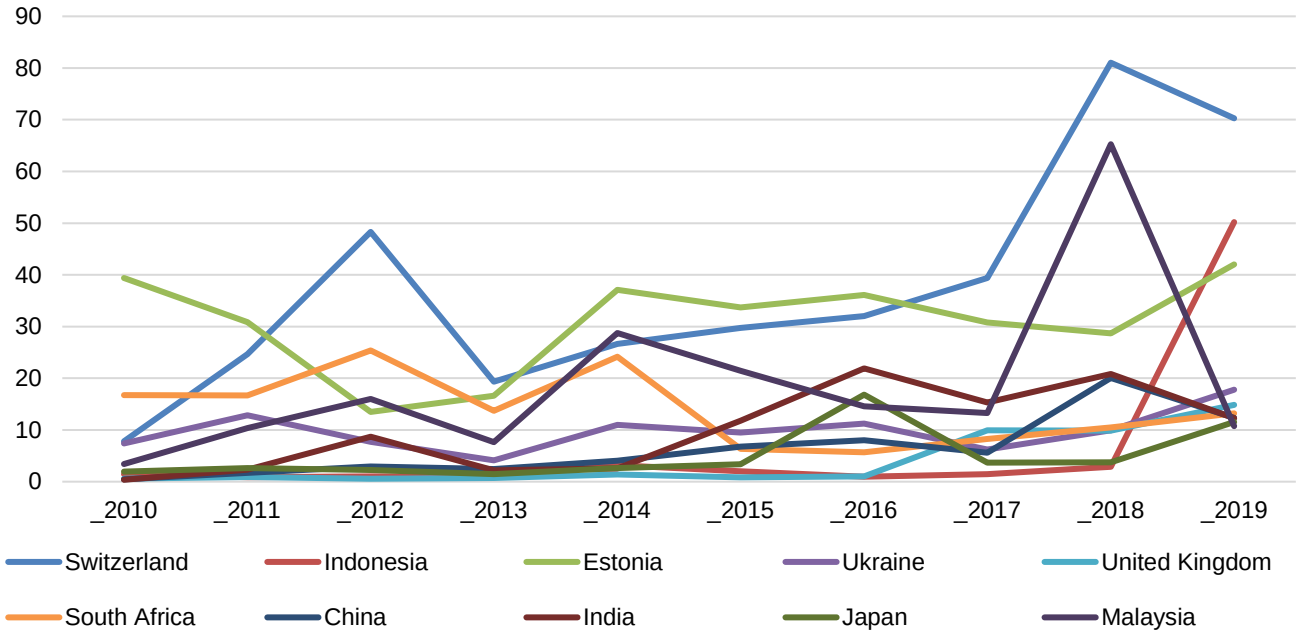
Figure 49. Top 10 destinations with highest number of exporters



Source: Updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).

[35] This section is based on EDD indicators, including Ghana's exports of fuels (HS27).

Figure 50. Top 10 destinations with highest export value per exporter (USD millions, mean)



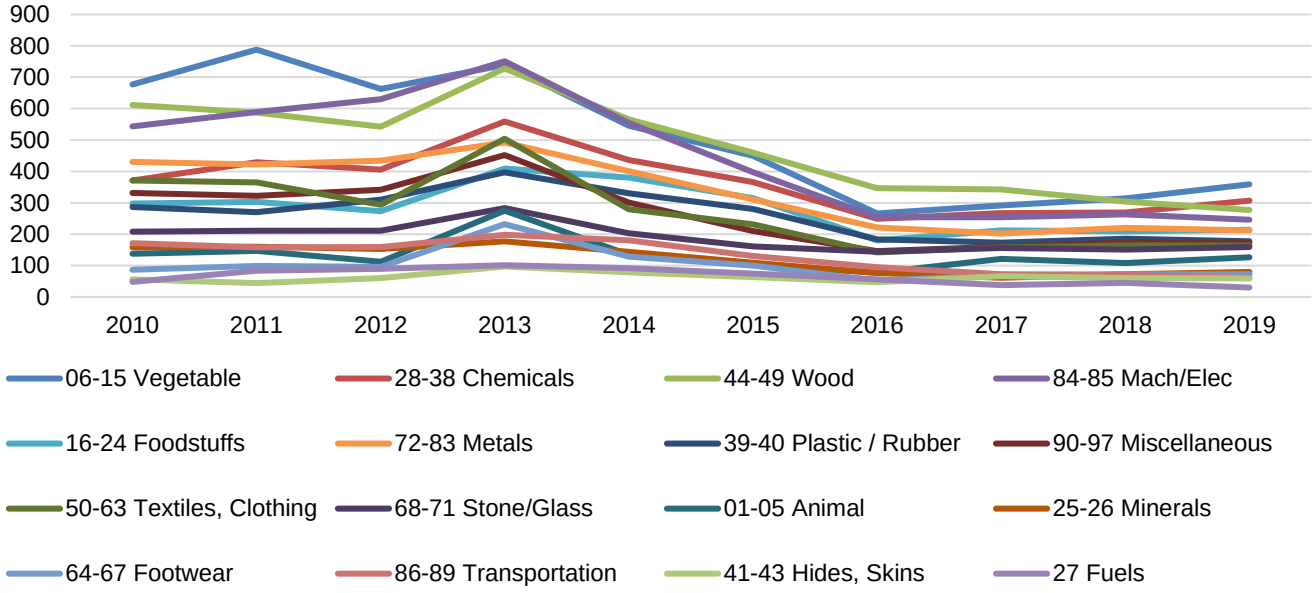
Source: Updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).

4.4. Sectoral Perspectives[36]

55. **Ghana's sectors with the largest number of exporters in 2019 were vegetables (359), chemicals (307), wood (277), machinery and electronics (246), and foodstuffs (214) (Figure 51). Ghana's sectors in which entrants exceeded exiters in 2019 were vegetables (45 net entrants), chemicals (38), animal (18), stone and glass (8), minerals (7), and foodstuffs (5) (Figure 52)**. A dramatic spike in the number of entrants across sectors in 2013 followed a wave of exits across the same sectors over 2014-2016. The sectors with the highest average export value per exporter were fuels (USD174 million), stone and glass (USD38 million), and foodstuffs (USD11 million). Average exporter size in the fuel sector increased nearly seven times between 2016 and 2019, indicating growing concentration among exporters in the sector (Figure 16).

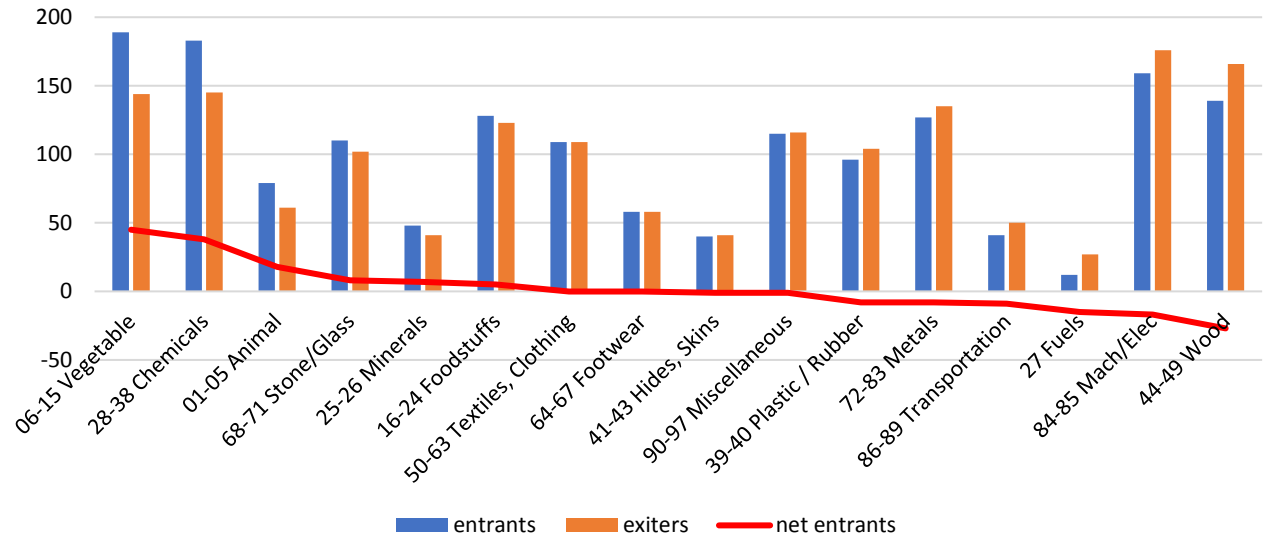
[36] This section is based on EDD indicators, including Ghana's exports of fuels (HS27).

Figure 51. Number of exporters per sector



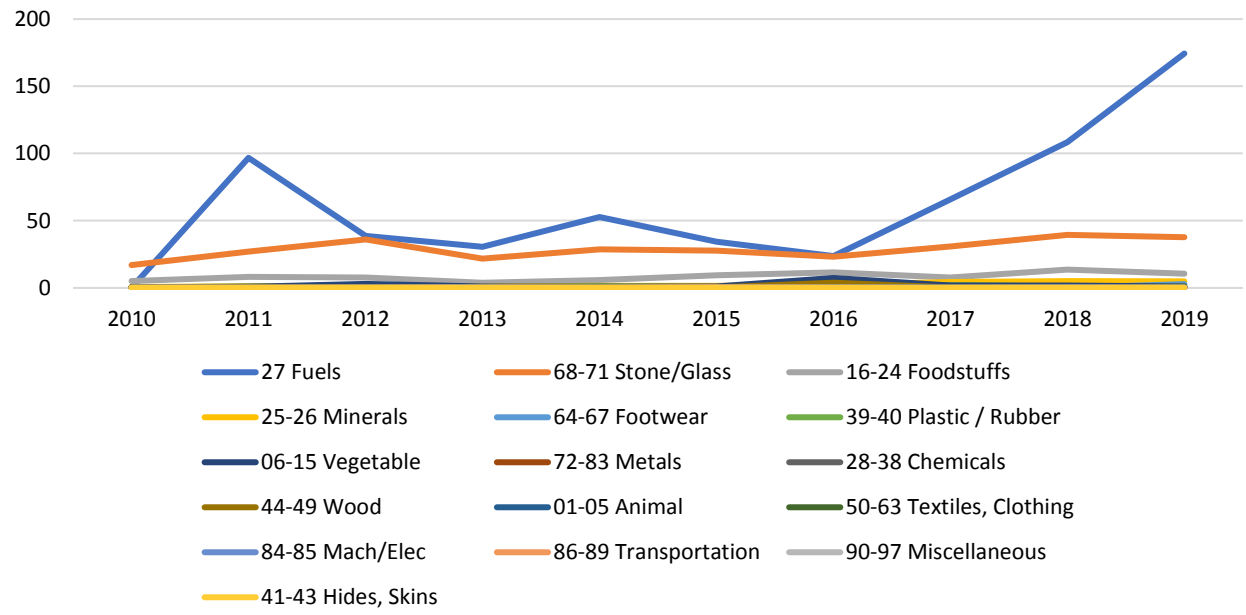
Source: Updates to Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).

Figure 52. Number of net entrants per sector, 2019



Source: Author's calculations based on updated Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).
Note: Net entrants equal the difference between entrants and exiters recorded in the same year.

Figure 53. Export value per exporter by sector (USD millions, mean)



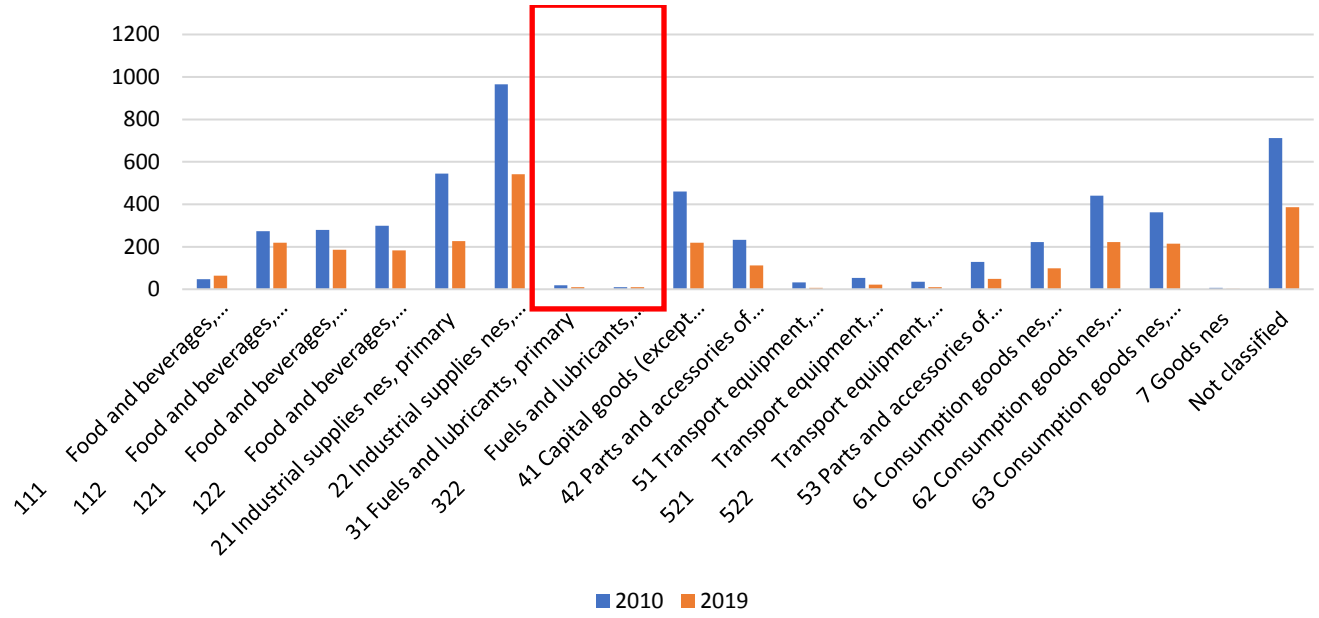
Source: Author's calculations based on updated Exporter Dynamics Database (EDD) described in Fernandes et al.(2016).

4.5. Broad Economic Categories (BEC rev. 4)[37]

According to BEC data, Ghana's sectors with the largest number of exporters in 2019 were: (i) processed industrial supplies (542); (ii) primary industrial supplies (227); (iii) semi-durable consumption goods (222); (iv) food and beverages (219); and (v) primary mainly for household consumption (219) (Figure 54). According to BEC data, the largest exporters were in the following categories: (i) primary fuels and lubricants; (ii) primary food and beverages mainly for industry; and (iii) processed industrial supplies (Figures 55 & 56). The primary fuel sector with the highest export value per exporter had one of the lowest number of exporters, thus corroborating earlier findings, showing a decline in the number of firms exporting, during the period 2010-2019.

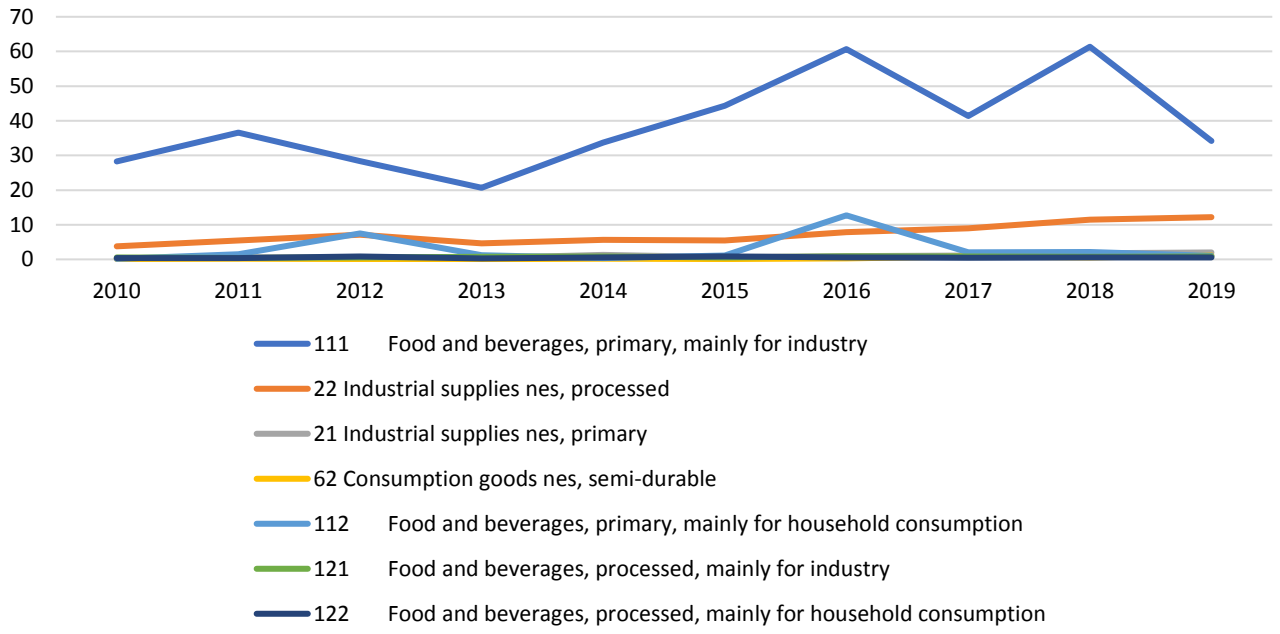
[37] EDD data converted from HS to BEC using UN nomenclature convergence tables. Since some product codes were not classified (shown in the graphs), the results should be interpreted with caution.

Figure 54. Number of exporters per BEC sector



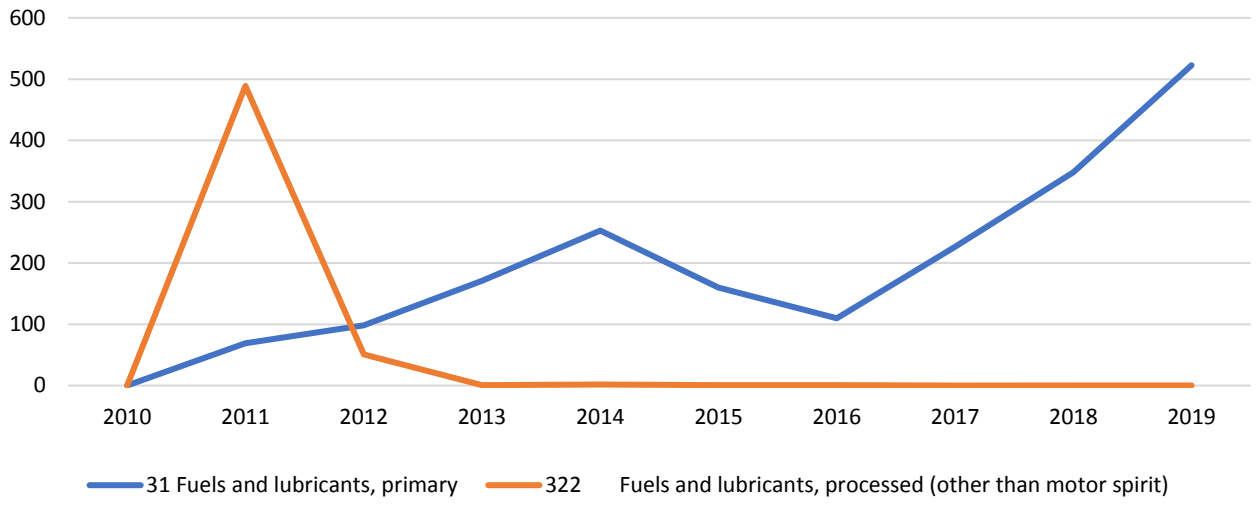
Source: Author's calculations based on updated Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).

Figure 55. Export value per exporter (USD millions, mean): non-fuel BEC sectors



Source: author's calculations based on the updated Exporter Dynamics Database (EDD) described in Fernandes, Freund, and Pierola (2016).

Figure 56. Export value per exporter (USD millions, mean): fuels BEC sectors



Source: Author's calculations based on updated Exporter Dynamics Database (EDD) described in Fernandes et al. (2016).

5. Strengthening Trade Competitiveness

5.1. Decomposition of Exports Growth

56. **Decomposing export growth from the supply side shows that Ghana's source of export growth has been on the extensive margin over 2010-2019.** The extensive margin contributed nearly 77.8 percentage points to Ghana's export growth during 2010-2014, of which nearly 50 percentage points were driven by the introduction of new products in old markets. During 2015-2019, the main source of the extensive margin (81.3 percentage points) shifted to product diversification in old markets, which contributed 75.3 percentage points (Table 13). Growth in the extensive margin over the past decade is linked to the rise in fuel exports (corroborated by Table 14).

Table 13. Export growth decomposition, 2010-2019 (percentage points)

	2010-14	**2015-19**
Net Intensive margin	***22.2***	***18.7***
Old products in old markets	24.8	48.8
Exits of old products in old markets	-2.6	-30.1
Net Extensive margin	***77.8***	***81.3***
Introduction of new products in new markets	0.0	0.0
Introduction of new products in old markets	49.5	6.0
Introduction of old products in new markets	0.1	0.0
Product diversification in old markets	28.2	75.3

Source: Based on WITS.

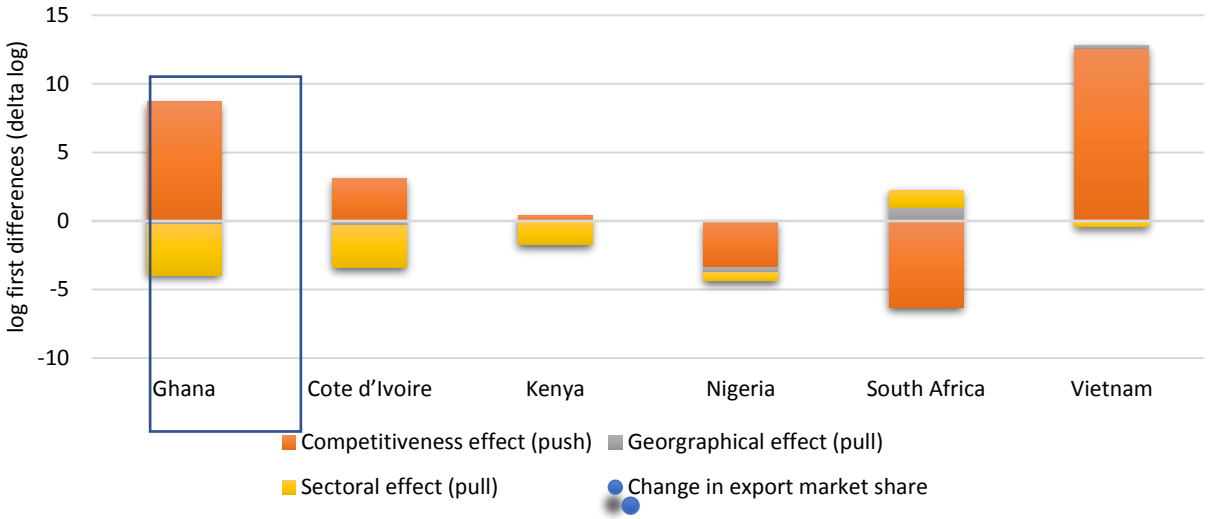
Table 14. Export growth decomposition by sector, 2010-2019 (percentage points)

	WTO Petroleum		WTO Industrial		WTO Agricultural	
	2010-14	**2015-19**	**2010-14**	**2015-19**	**2010-14**	**2015-19**
Net Intensive margin	***1.1***	***28.8***	***9.3***	***45.0***	***62.7***	***45.0***
Old products in old markets	1.1	31.8	12.3	61.1	64.4	61.1
Exits of old products in old markets	0.0	-3.0	-2.9	-16.1	-1.7	-16.1
Net Extensive margin	***98.9***	***71.2***	***90.7***	***55.0***	***37.3***	***55.0***
Introduction of new products in new markets	0.0	0.0	0.0	0.0	0.0	0.0
Introduction of new products in old markets	97.4	0.0	64.7	4.1	1.5	4.1
Introduction of old products in new markets	0.0	0.0	0.2	0.0	0.1	0.0
Product diversification in old markets	1.5	71.2	25.9	50.9	35.8	50.9

Source: Based on WITS.

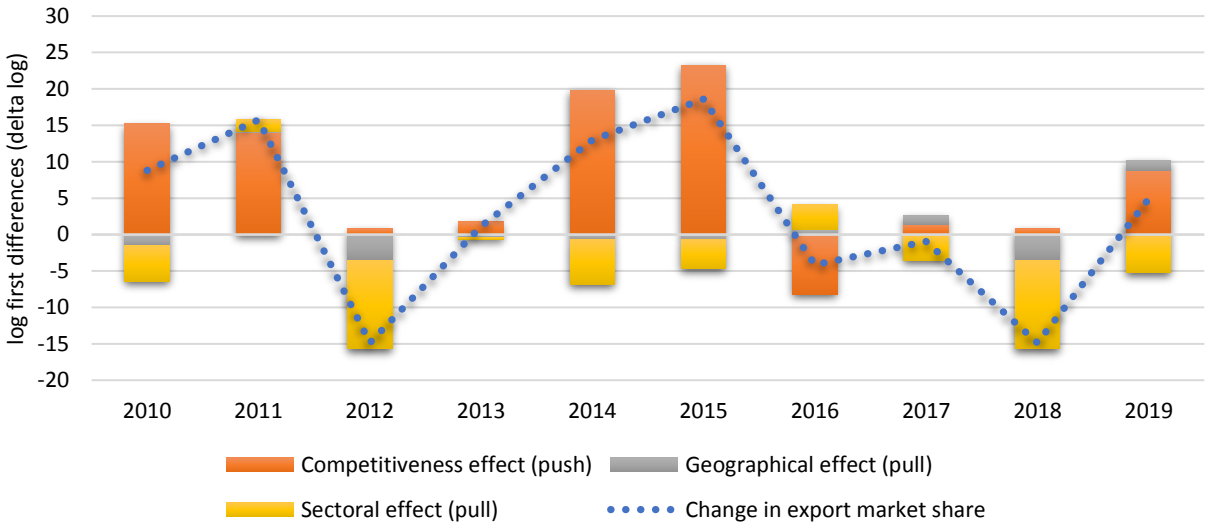
58. **Decomposing Ghana's export growth in terms of supply and demand, growth in Ghana's export market share was driven, on average, by domestic competitiveness gains (supply-side "push" factors) over 2010-2019.** Over the past decade, Ghana's average growth in export market share (in terms of trade value) was 4.7 percent, outperforming all comparators except for Vietnam (12.4 percent growth rate) (Figure 57). Ghana's average growth in export market share during 2010-2019 was due to an 8.7 percent improvement in domestic competitiveness ("push" factors), which was offset by external ("pull") factors such as, on average, a 3.7 percent decline due sectoral specialization and 0.2 percent decline due to unfavorable geographical specialization. However, these developments varied y-o-y (Figure 58).

Figure 57. Decomposition of change in export market share (trade value): Ghana and comparators, average 2010-Q1-2019-Q4



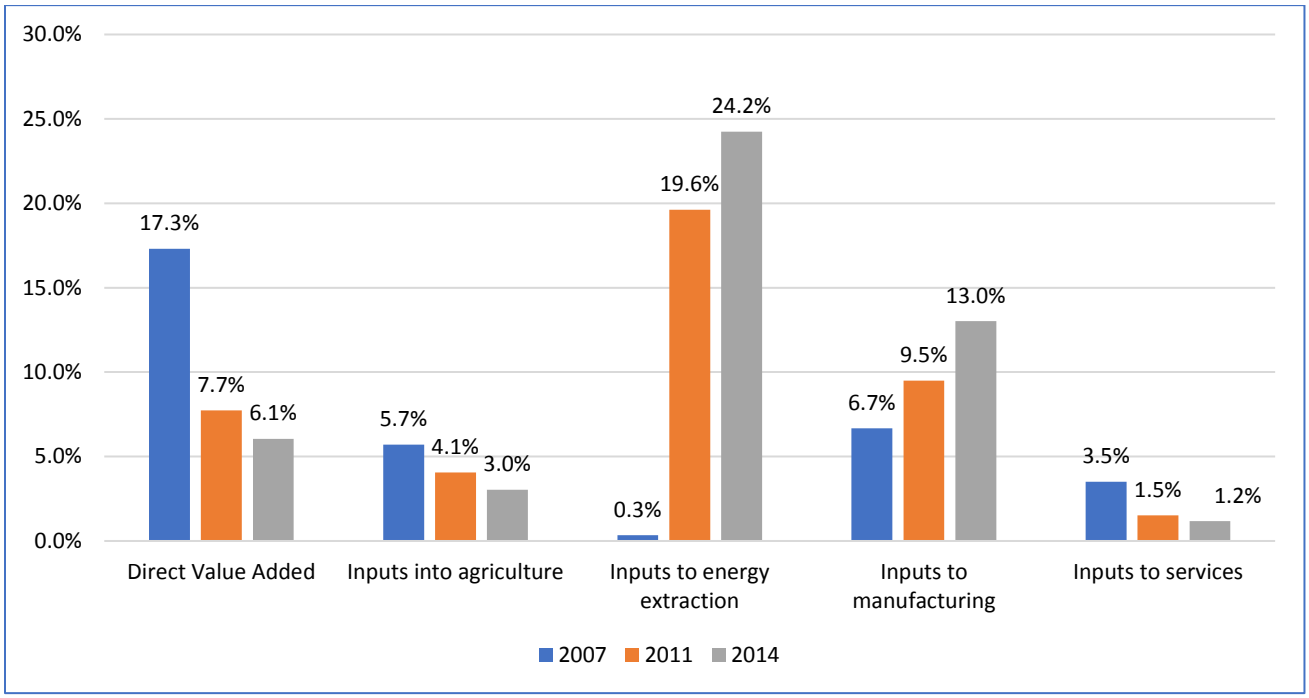
Source: Based on data from the WB MEC database. *Note*: Values are averages of y-o-y quarterly changes in natural logarithms (delta log) in 2010-Q1-2019-Q4, which preserve the additivity of its components.

Figure 58. Decomposition of change in export market share (trade value), 2010-2019



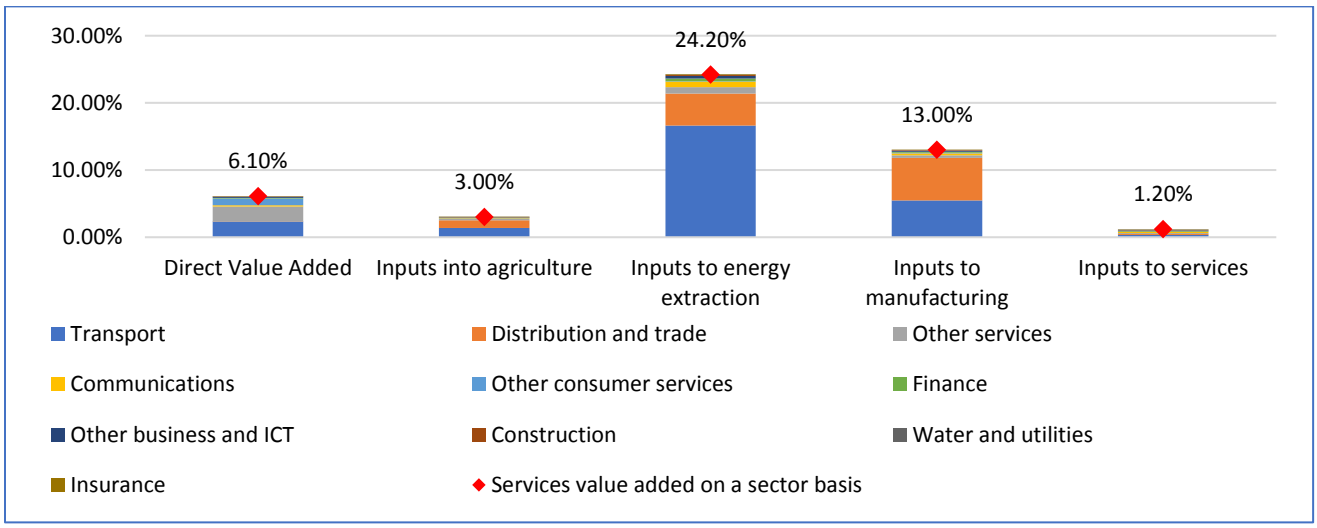
Source: Based on data from the WB MEC database.
Note: Values are averages of y-o-y quarterly changes in natural logarithms (delta log) in 2010-Q1-2019-Q4, which preserve the additivity of its components.

Figure 59. Services value added (percentage of total exports value added)



Source: Author's calculations using WB EVAD data.

Figure 60. Services value added by category, 2014 (percentage of total exports value added)



Source: Author's calculations using WB EVAD data.

5.2. Trade Policies for Enhancing Competitiveness

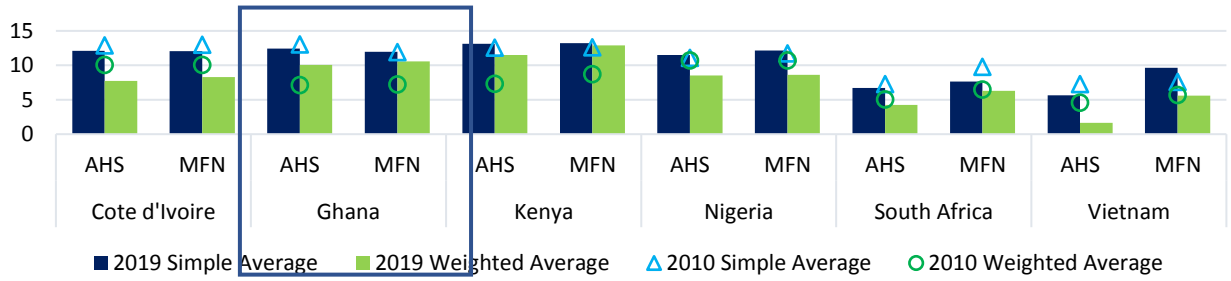
5.2.1. Tariff Measures

59. **Ghana's overall tariffs are on par with regional peers but higher in comparison with non-regional peers.** Ghana's simple average MFN (11.95 percent) and applied tariffs (12.41 percent) have not significantly changed over the past decade, being broadly on par with regional peers but higher than non-regional comparators such as South Africa (7.66 percent) and Vietnam (9.62 percent). Ghana's trade-weighted MFN

and applied tariff rates in 2019 were lower, at 10.57 percent and 10.08 percent, respectively, but higher than those of most comparators except Kenya (Figure 61). Over 2010-2019, Ghana admitted more duty-free tariff lines as a share of total lines (3 percent in 2010 and 9 percent in 2019) but fewer duty-free imports as a share of imported value, with 26 percent of imports being free in 2010 compared to 9 percent in 2019 (Table 15).

60. **Ghana's export market penetration has increased over the past decade, even though it still lags most comparators except for Côte d'Ivoire. The** Index of Export Market Penetration (IEMP)[38] reveals the degree of dynamism seen in exports, a more systematic measure of comparative success in exploiting export market opportunities across countries and years. Ghana's IEMP demonstrates an increase in export market penetration over the past decade. As a share of total available markets for exported products, Ghana's exports total 6.5 times less than South Africa and nearly 4 times less than the level of Vietnam, which suggests that there is substantial potential for increasing the number of markets in which currently exported products are sold. In 2019, Ghana outperformed Nigeria and Kenya in terms of export market penetration (Figure 61).

Figure 61. MFN and applied tariff rates, all products: Ghana and comparators, 2010 vs 2019 (%)



Source: TRAINS.

Table 15. Tariff profiles: Ghana and comparators, 2010 vs 2019

		2010						2019					
Importer	**Duty Type**	**Simple Average (%)**	**Weighted Average (%)**	**Free Lines (% tot)**	**Dutiable Lines (% tot)**	**Free Imports (% tot)**	**Dutiable Imports (% tot)**	**Simple Average (%)**	**Weighted Average (%)**	**Free Lines (% tot)**	**Dutiable Lines (% tot)**	**Free Imports (% tot)**	**Dutiable Imports (% tot)**
Cote d'Ivoire	AHS	12.88	10.06	14%	86%	20%	80%	12.11	7.74	12%	88%	25%	75%
	MFN	12.99	10.06	12%	88%	20%	80%	12.06	8.3	2%	98%	21%	79%
Ghana	AHS	13.02	7.14	3%	97%	26%	74%	12.41	10.08	11%	89%	9%	91%
	MFN	11.93	7.23	1%	99%	25%	75%	11.95	10.57	3%	97%	6%	94%
Kenya	AHS	12.55	7.32	35%	65%	56%	44%	13.12	11.5	36%	64%	42%	58%
	MFN	12.6	8.71	37%	63%	52%	48%	13.23	12.89	37%	63%	41%	59%
Nigeria	AHS	11.06	10.7	3%	97%	3%	97%	11.48	8.52	6%	94%	5%	95%
	MFN	11.72	10.7	2%	98%	3%	97%	12.13	8.63	3%	97%	4%	96%
South Africa	AHS	7.29	5.02	35%	64%	42%	58%	6.73	4.24	67%	32%	68%	32%
	MFN	9.76	6.47	32%	67%	37%	63%	7.66	6.31	55%	42%	56%	44%
Vietnam	AHS	7.27	4.57	57%	41%	62%	38%	5.65	1.66	52%	48%	77%	23%
	MFN	7.61	5.67	57%	41%	60%	40%	9.62	5.6	28%	70%	43%	57%

Source: TRAINS.

[38] The Index of Export Market Penetration (IEMP) compares for each exported product the number of countries to which the country exports that product relative to the total number of countries that import that product and then sums across all products exported.

61. **At the industry level, Ghana's most protected sector was agriculture, for which tariffs exceeded most comparators except Kenya in 2019.** At the industry level, Ghana's highest tariff was on agricultural imports, at 17.04 percent (as a trade-weighted average MFN rate), which slightly increased over 2010 at 16.38 percent. In 2019, Ghana's tariff on agriculture exceeded most comparators except Kenya (33 percent), including Côte d'Ivoire (12.5 percent), Nigeria (9.8 percent), South Africa (10.3 percent), and Vietnam (10.4 percent). Ghana's tariff on industrial imports (9.15 percent rate as trade-weighted MFN tariff) was the highest among all comparators in 2019 (Table 15).

62. **In terms of processing stages, Ghana's tariffs on imported raw materials and intermediate goods exceeded all comparators.** In terms of processing stages, Ghana's most protected sector was raw materials at 17.3 percent (as a trade-weighted average MFN rate) compared to 12 percent in 2010, and the highest across all comparators in 2019. Ghana's trade-weighted MFN rate on imported intermediate goods was 9.2 percent, exceeding all comparators, while 14.6 percent on consumer goods was on par with South Africa but below Vietnam and Kenya. The trade MFN tariff on imported capital goods exceeded most comparators except Nigeria and Côte d'Ivoire (Table 16).

Table 16. Tariffs by sector, 2010 vs 2019

			2010				2019 or latest available			
	Sector	Duty Type	Simple Average	Weighted Average	Free Lines (% of total)	Free Imports (% total)	Simple Average	Weighted Average	Free Lines (% of total)	Free Imports (% total)
By industry	Agricultural	AHS	18.41	16.38	2.4	2.1	17.66	15.61	6.9	7.4
		MFN	17.53	16.38	2.7	2.1	15.9	17.04	0.0	0.0
	Industrial	AHS	12.32	9.07	14.8	23.7	11.8	8.84	12.0	10.2
		MFN	12.32	9.07	13.7	23.7	11.4	9.15	2.9	7.7
	Petroleum	AHS	5.63	3.87	66.3	0.0	0	0	100.0	0.0
		MFN	6.63	3.87	60.9	0.0	7.66	0	8.3	0.0
By processing stage	Raw materials	AHS	15.48	11.97	4.0	2.9	14.67	15.18	6.3	11.7
		MFN	14.14	11.97	4.3	2.9	11.69	17.03	0.4	0.7
	Intermediate goods	AHS	13.43	10.66	4.7	16.3	10.28	8.74	8.3	10.7
		MFN	13.22	10.66	2.7	16.3	9.83	9.17	1.5	6.7
	Consumer goods	AHS	16.24	13.82	6.1	2.8	16.63	13.8	10.2	11.2
		MFN	16.64	13.82	4.8	2.8	17.57	14.57	3.2	7.7
	Capital goods	AHS	6.64	4.48	35.1	47.9	6.72	6.33	16.4	6.4
		MFN	5.31	4.48	48.5	47.9	7	6.42	5.0	5.3

Source: TRAINS.

5.2.2. Non-Tariff Measures

63. **The number of non-tariff measures (NTMs) imposed by Ghana are higher than in Nigeria and Côte d'Ivoire but below Vietnam. In addition, Ghana's sectors most affected by NTMs are vegetables, animal, food products, and fuel imports.** According to the latest available data, Ghana imposes 120 NTMs, which is higher than in Nigeria (97) and Côte d'Ivoire (106) but significantly below Vietnam (773) (Table 17). The import sectors most affected by NTMs in Ghana are vegetables, where NTMs are imposed on 99.89 percent of imported value as measured by the coverage ratio and 99.31 of imported products as measured by the frequency ratio. Imported animal products face NTMs on 99.76 percent of trade value and 95.05 percent of products. Fuel imports face NTMs on 98.52 percent of value but only on 48.57 percent of products. Finally, NTMs are imposed on 91.49 percent of imported food products and 98.23 percent of value (Figures 62 & 63).

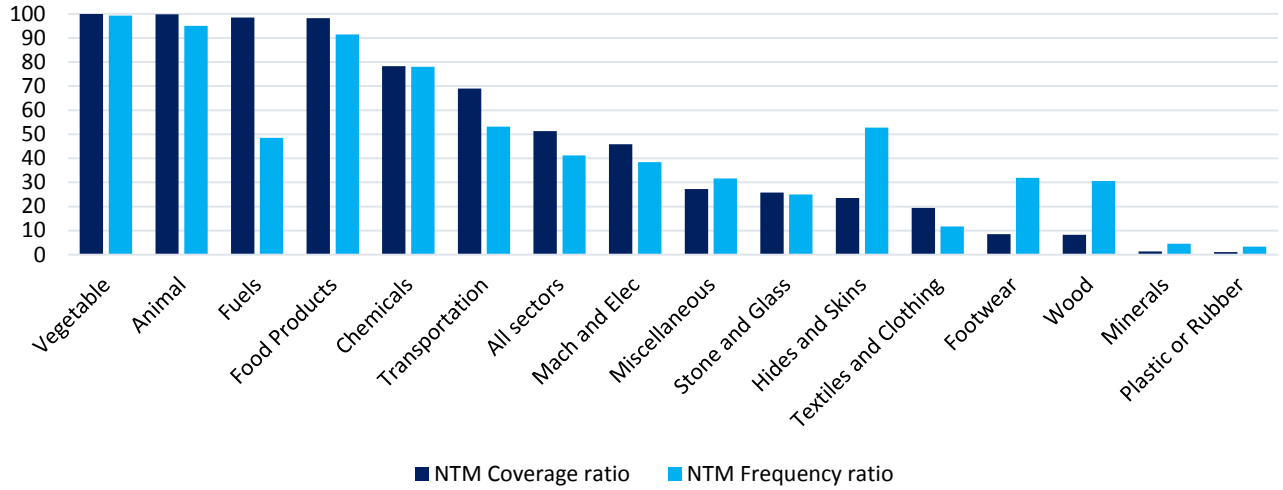
Table 17. Non-tariff measures by type: Ghana and comparators

			Ghana	Côte d'Ivoire	Nigeria	Vietnam
Imports	Technical measures	**Sanitary and Phytosanitary**	**20**	**69**	**51**	**114**
		All Members	20	16	51	114
		Bilateral		53		
		Technical Barriers to Trade	**25**	**7**	**26**	**318**
		All Members	25	7	26	313
		Bilateral				5
		Pre-shipment inspection	**7**	**1**	**1**	**7**
		All Members	7	1	1	7
	Non-technical measures	**Contingent trade protective measures**		**3**		**1**
		All Members		3		1
		Price control measures	**7**	**4**	**1**	**19**
		All Members	7	4	1	19
		Quantity control measures	**26**	**8**	**15**	**76**
		All Members	26	8	15	72
		Bilateral				4
		Other measures				**17**
		All Members				16
		Bilateral				1

Exports		**Export-related measures**	**35**	**14**	**3**	**221**
		All Members	33	14	3	145
		Bilateral	2			76
Total NTMs			**120**	**106**	**97**	**773**

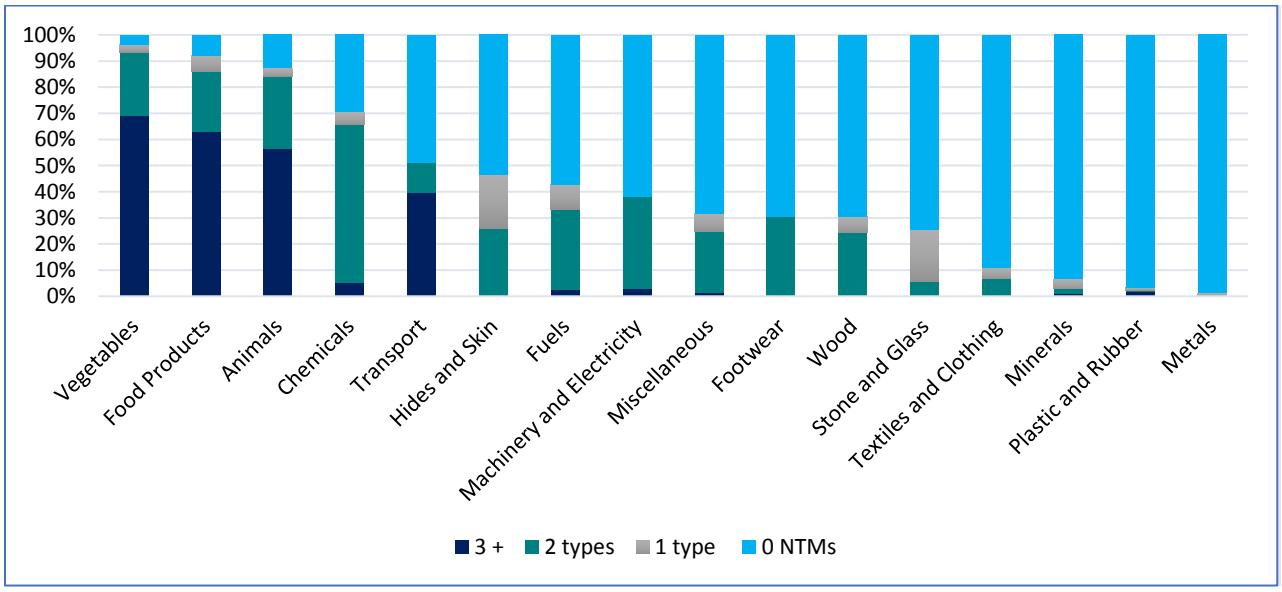
Source: UNCTAD, TRAINS NTM database through Integrated Trade Intelligence Portal (ITIP).

Figure 62. Non-tariff measures coverage and frequency ratios by sector



Source: WITS.
Note: *Coverage ratio* measures NTMs as percentage of total imported value. *Frequency ratio* measures NTMs as percentage of imported products.

Figure 63. Intensity of Non-Tariff Measures by sector



Source: WITS.

5.3. Trade Facilitation and logistics

5.3.1. Current performance and context

64. **Ghana's transport and logistics operations place it at the forefront of West Africa. Maritime cargo volume has experienced rapid growth, surging by 7.6 percent on average over 2010–2020, with 26.3 million tons handled in 2020, while container volumes grew at the same rate (7.4 percent over 2009-2019 for the port of Tema)**. Nearly all container trade is handled at Tema, one of the most important container ports in the West Africa region. and one of the five largest ports in West Africa for total traffic. Takoradi is an important port for minerals and oil and handled 7.5 million tons of traffic in 2020. Similarly, passenger throughput (2.1 million at Kokota airport in Accra in 2019) and air cargo (43,428 tons in 2020, a 20 percent decrease from 2018)[39] put Ghana in second position in the region behind Nigeria.

65. **Ghana's trade-related infrastructure is good by regional standards and has seen important investments in recent years led by the recently completed USD1.5 billion extension of the Tema Meridian Port Services terminal;** a joint venture between Bolloré Group, APM Terminals, and the Government of Ghana, and Takoradi's USD450 million expansion. Some 70 percent of the road network is in good or fair condition, and the distribution of Ghana's infrastructure networks generally reflects the spatial distribution of economic activity. However, selected investments are needed, notably between Accra and Tema so as to create space for increases in freight traffic (98 percent of freight cargo is transported by road), for the construction of which a USD570 million contract was recently awarded.[40] The existing railway network, which consists of three lines, is deficient, with only 14 percent of the entire network in operation. Also serving the hinterland and the transit corridor is the Boankra inland port project near Kumasi, for which a contract was recently awarded to a GhanaianKorean consortium to develop the USD330 million project, which is expected to be completed in 2023.

66. In addition to positioning Ghana as a maritime gateway, the country also hopes to become a regional hub for air transport. The government is pushing for the development of a national airline to fill that role. A USD400 million Accra airport expansion project is underway, with the construction of a new international terminal designed to accommodate 5 million passengers per year. Some 39 airlines operate at Accra airport.

67. While Ghana's role as a gateway for countries in the region has grown to 1.4 million tons (97 percent of Ghana transit goods go through the port of Tema), the share of transit traffic remains relatively modest. Transit volumes increased faster than overall cargo, by 11.6 percent on average over 2010-2020, and in 2020 represented 5.7 percent of total maritime traffic for Ghana and 7.7 percent of Tema traffic, up from 3.9 percent in 2010. Transit destination markets are primarily Burkina Faso followed by Mali. In this respect, the Ghana corridor is in direct competition with Lomé and Abidjan, the latter being the main gateway to Burkina Faso.

[39] Source: Ghana Airport Company Ltd.

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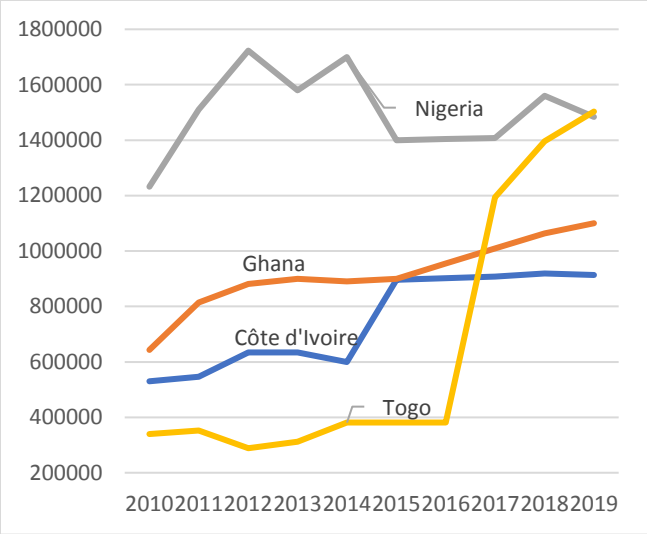
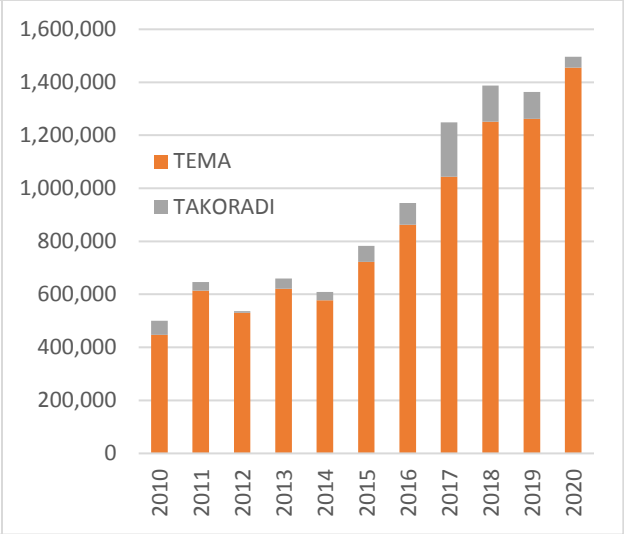
Figure 64. Container throughput (tons) (tons)



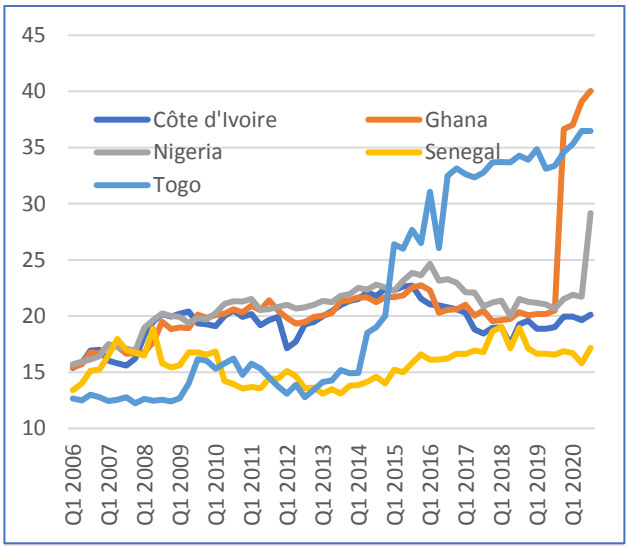
Source: UNCTAD

Figure 65. Transit cargo in Tema and Takoradi



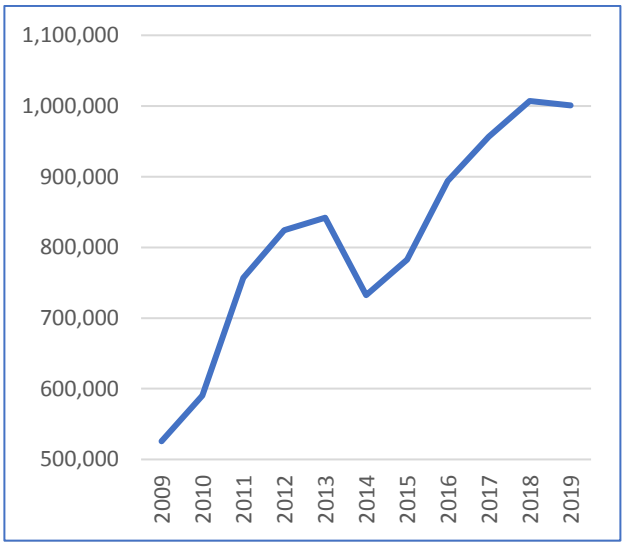
Source: Ghana port authority

Figure 66. Liner Shipping Connectivity Index



Source: UNCTAD

Figure 67. Container traffic at Tema (TEUs)



Source: Ghana port authority

68. **With the operationalization of the new MPS terminal and the added modern capacity this offers (about 2.5 times current container volumes), Ghana expects to become an attractive destination for container freight**. Initial information suggests improvements in productivity[41] as well as increases in

[41] https://www.marineinsight.com/shipping-news/mps-at-port-of-tema-breaks-productivity-record-as-transhipment-volumes-grow

connectivity, as suggested by strong improvement for Ghana in UNCTAD's Liner Shipping Connectivity Index (LSCI). Additional information also reports that shipping lines are establishing new operations in Tema.[42]

69. **One area of port business development targeted by port authorities is transshipment services for shipping lines (acting as a hub).**[43] This remains a highly marginal activity at Tema and has significantly decreased over the years, ultimately recording very low volumes. The port of Lomé has taken the lead in the region, and with a tripling of volume handled and with large port investments taking place in the region (Côte d'Ivoire, Nigeria's Lekki), there is plenty of potential competition. Starting from a very low base and with a new container terminal, Ghana can only gain market share.[44] The port of Takoradi is also positioning itself for transshipment and bunkering services of oil and gas.

Table 18. Comparison of transit times in corridors in West Africa, 2017

	Median transit time of goods (days) Baseline	
Port & Corridor	Corridor Transit time (imports to landlocked country)	Port Dwell Time for Imports
Abidjan-Ouagadougou	30	7
Tema-Ouagadougou	**20**	**7**
Lomé-Ouagadougou	25	11
Cotonou-Niamey	25	10
Dakar-Bamako	29	n.a.

Source: Trade Facilitation West Africa project

5.3.2. Key challenges and interventions

70. **To leverage an improved infrastructure, Ghana must investigate a number of complementary areas to ensure that the economy benefits from cheaper, faster, and more reliable access to transport and trade-related logistical services.** First, on the infrastructure side, inland connections present challenges to shippers, with road transport accounting for the near totality of freight transport. The connection from Tema to Accra and further north to Kumasi is the most important freight transport corridor. In this respect, the implementation of highway improvements between Tema and Accra should address significant access and congestion issues.

71. **Trucking practices involving the stripping of containers lead to many inefficiencies** compared to container transport, including longer waiting times, higher costs, risk to the cargo (damage, theft), higher space requirements, and overloading of trucks with associated deterioration of road infrastructure.

[42] For example, Hapag Lloyd opening new offices in Tema. https://www.freightwaves.com/news/hapag-lloyd-opens-new-tema-office

[43] http://mps-gh.com/2021/02/11/mps-terminal-3-named-key-port-in-new-cma-cgm-south-america-west-africa-samwaf-service

[44] https://www.marineinsight.com/shipping-news/mps-at-port-of-tema-breaks-productivity-record-as-transhipment-volumes-grow

72. **Regarding the port of Tema, a comprehensive process of mapping and assessing the efficiency of the port's trade processes and procedures for import, export, and transit regimes** conducted by the World Bank at the end of 2016 identified four major areas requiring priority attention:

(a) Facilitation of inbound and outbound transit trade flows:

- Creation of enabling environment for economically and financially feasible containerized transit regime for traders.

- Revision of the legal and regulatory framework related to VAT treatment of ancillary services for transit trade in alignment with ECOWAS provisions.

(b) Adoption of a new transshipment trade regime via the incorporatization of related reforms at the level of primary and secondary legislation.

(c) Simplification and harmonization of import & export processes and procedures:

- Streamlining of scanning processes and procedures

- Improvement in sampling & testing procedures

- Increased coordination among government agencies and improved engagement with the private sector (notably consultation on changes ton requirements and fees)

- Elimination of redundant requirements for submission of trade documentation and payment of legacy fees and charges

(d) Structural reforms related to the governance of the Port of Tema

73. **Qualitative evidence and data suggest a lack of progress on several of the above areas, including port processes and efficiency and border clearance processes (although improvement in customs was noted).** Despite noted improvements relating to treatment of transit freight at the port, operators keep reporting unacceptable levels of charges.[45] In addition, old transshipment regulations remain on the books, thus not positioning Ghana competitively to attract more business at Tema.

74. **Under the Trade Africa Trade Facilitation Project (TATFP) 2016-2018, USAID conducted a review of trade related fees and charges in 2017 and 2018 and found that they amounted to an average 2 percent of the *ad valorem* cost of imports on 10 products surveyed (only 0.2 percent *ad valorem* for exports). Moreover, not all were aligned with the costs of services rendered and were quasi-fiscal in nature**. An impact assessment of their removal was also conducted. It is unclear whether further action has been taken beyond the Ministry of Finance prohibiting new fees and charges without stakeholder consultations, various departments indicating that there would be destination charges for local shipping agents, and a study of NTBs conducted in 2018.

[45] Freight forwarders want government action on "nuisance'' charges (www.ghanaweb.com)

75. **Under the same TATFP project, the National Trade Facilitation Committee received support to increase its compliance with the WTO Trade Facilitation Agreement joined in 2017. The TATFP Project also provided direct capacity building support to the Ministry of Trade and Industry (MOTI), Ministry of Finance (MoF), Ghana Revenue Authority (GRA), and Ghana Export-Import Bank (GEXIM) (USAID, 2019)**. With UNCTAD support, in mid-2018, Ghana established a trade information portal and inquiry point, the Trade Facilitation Enquiry Point (TEFP) under the responsibility of MOTI.[46] A National Trade Facilitation roadmap 2018-2022 has also been agreed. Ghana has received support from UNCTAD to determine Category B and C measures, which were officially notified to the WTO Committee on Trade Facilitation in 2019.

76. **In an effort to reduce clearance times, several Executive Directives have been issued in 2017 on joint inspections by departments and agencies intervening at borders** (e.g., customs, agriculture, food and drugs, standards, etc.), reducing from 16 to 3 (GRA/Customs, Ghana Standards Authority, and Food and Drugs Administration) the number of agencies involved in border controls and in paperless ports. A Joint Inspection Management Information System (JIMIS) was also integrated into the electronic single window.[47]

77. **The port's electronic single window went paperless in 2017. According to sources, the single window reduced the time needed for port clearance from three days to 24 hours**. However, the contract of GCNet, which had managed the port single window since 2003, was recently terminated unilaterally by GRA despite running until 2023. A new system known as the Integrated Customs Management System (ICUMS), directly managed by Customs, is now replacing it. The switch from GCNet to ICUMS was opposed by some, who questioned the rationale for such a change.[48] Under the new UNIPASS system and according to the government, customs revenues have improved significantly in the second half of 2020 compared to the second half of 2019.[49]

78. **Furthermore, to expedite customs clearance and improve revenue collection, Ghana Customs with USAID and DANIDA support (USAID, 2019) was working on a comprehensive program for the improvement of customs processes, including**: (i) developing a customs risk management policy in conformity with WCO and WTO guidelines; (ii) implementation of pre-arrival submission of maritime manifests; (iii) designing and implementing an AEO program; (iv) improving the conduct of post clearance audits and intelligence gathering; (v) improving broker training and compliance; (vi) implementing monitoring and evaluation (M&E) systems; and (vi) capacity building in management. In an assessment highlighting that current risk management approaches were constraining the trading environment, USAID found that 76 percent of declarations are routed for physical examination or scanning when fewer than 2 percent of inspections yielded non-compliant findings. In addition, risk selectivity was not applied to 100 percent of declarations undergoing paperless document review (USAID, 2019).[50]

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[46] https://moti.gov.gh/tfep/home

[47] JIMIS currently includes Customs, Food and Drugs Authority, Ghana Standards Authority, and National Security.

[48] See, for example, IMANI https://imaniafrica.org/2020/01/31/imani-why-government-must-reconsider-its-decision-on-the-controversial-uni-pass-customs-and-ports-technology

[49] https://www.ghanaweb.com/GhanaHomePage/business/ICUMS-increased-revenues-by-176-from-July-to-December-2020-Alan-Kyeremanten-1193059

[50] https://www.usaid.gov/ghana

79. **The issue of 17.5** percent **VAT charged by the Ghana revenue authority on transit trade services has yet to be resolved**.[51-52] Ghana's borderless alliance also raises the issue of the number of police checkpoints along the corridor (Borderless, 2019).[53] This issue hurts Ghana's competitiveness in attracting more transit trade through its port when this is the segment of port activities that has been growing the fastest. Ghana has also failed to follow through with its initial efforts in previous years to join SIGMAT, the regional customs connectivity program and process for transit trade, which would reduce redundant processes at land border crossings and improve electronic sharing between customs administrations. Finally, there is a history of Ghana not coordinating well with its neighbors and taking initiatives – however well-intended – that did not lead to expected positive outcomes.[54]

80. **Implementation of regional integration commitments should be improved. In particular, compliance with longstanding ECOWAS commitments remains an issue.** Exemption of duties under the ECOWAS Trade Liberalization Scheme (ETLS) is not always applied, nor is the Common External Tariff (Borderless, 2019). In anticipation of the benefits of AfCFTA, the government has set up a working group responsible for implementing the Boosting Intra-Africa Trade (BIAT) initiative, which could provide new impetus for revisiting these questions.

81. The **impact of COVID-19 led to new challenges, including a return to manual clearance of goods at the ports, physical escorts of transit goods instead of tracking devices, and general delays leading to demurrage and rent charges**.[55] There have also been no changes in customs regulations with respect to imports and exports of essential medication, including COVID-19 vaccines and drugs.

5.3. Regulatory Environment for Trade in Services

82. **Ghana's score on the Services Trade Restrictiveness Index (STRI) in five broad sectors of activity comprising more than 20 sub-sectors is shown below. Figure 68 depicts concentric circles based on a sector scale ranging from 0 (totally open) to 100 (totally closed).** The graphic shows results for distribution (retail and wholesale), financial services (banking, insurance, and reinsurance), professional services (legal, accounting, auditing, engineering), telecommunications (fixed-line, mobile, and internet) and transport (air cargo and passenger, maritime, road, and rail). A first conclusion derived from Figure 68 below is that as a whole, while Ghana' regulatory framework is far from being extremely restrictive, empirical evidence shows that there are important discriminatory and non-discriminatory quantitative restrictions affecting trade in services in various sectors.

[51] https://www.modernghana.com/news/983065/enforce-vat-removal-on-transit-goods-now-shipp.html

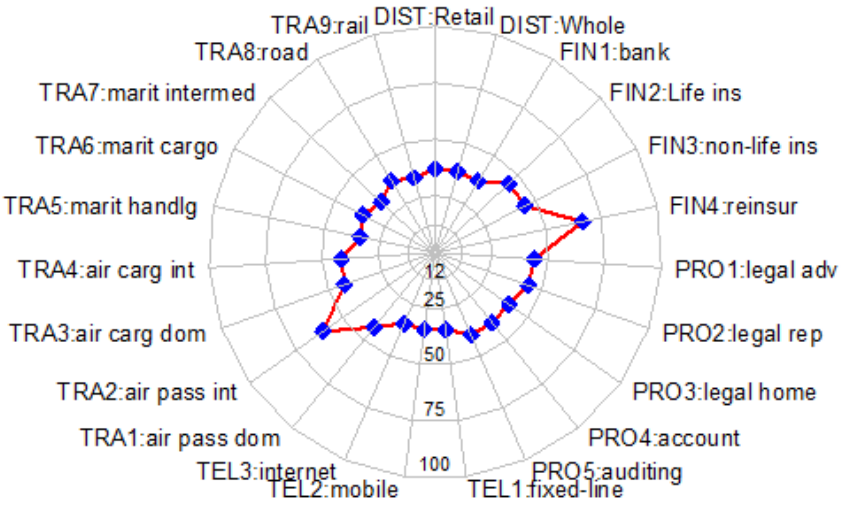
[52] https://www.hellenicshippingnews.com/ghana-ports-to-see-more-cargo-volumes-in-2020

[53] https://borderlesswa.com/borderless-conference-2019

[54] An example is the First Port Rule initiative, which aimed to eliminate controls along the corridor by stationing Burkina Customs at the port, though this was never followed through.

[55] Stakeholders review mid-year performance of transit trade (www.ghanaweb.com).

Figure 68. STRI Index by broad sector



Source: World Bank

83. **The STRI index[56] tends to oscillate between 25 and 50 for most sectors and sub-sectors, with two sectors falling into even more restrictive categories**: international air transport, and reinsurance services. Interestingly, by mode of supply, investment in services (Trade in Services Mode 3) is affected by various horizontal restrictions that affect all services sectors.

84. **Among the most important horizontal restrictions, all FDI projects in Ghana require prior approval and are affected by minimum capital requirements**, which not only entails trade costs in terms of red tape but also a degree of uncertainty as the authorities have legal power to turn down the setting up of certain projects. FDI screening is a practice that has become non-typical in most other developing countries. In fact, fewer than 30 percent of countries worldwide still implement it, and those that do tend to fall in lower-income categories.

85. **In addition to prior screening and minimum capital requirements, acquisition and use of land and real estate by foreigners is restricted**. Section 266(1) of the Constitution of the Republic of Ghana (Amendment) Act, 1996 (Act 527) states that no interest in or right over any land in Ghana shall be created that vests in a person who is not a citizen of Ghana a freehold interest in any land in Ghana. Further, a 1996 Amendment to the Constitution (Act 527) states that any agreement, deed, or conveyance of whatever nature that seeks to confer on a person who is not a citizen of Ghana any freehold interest in or right over any land is void. Further, services suppliers wishing to do business in Ghana are affected by quotas and

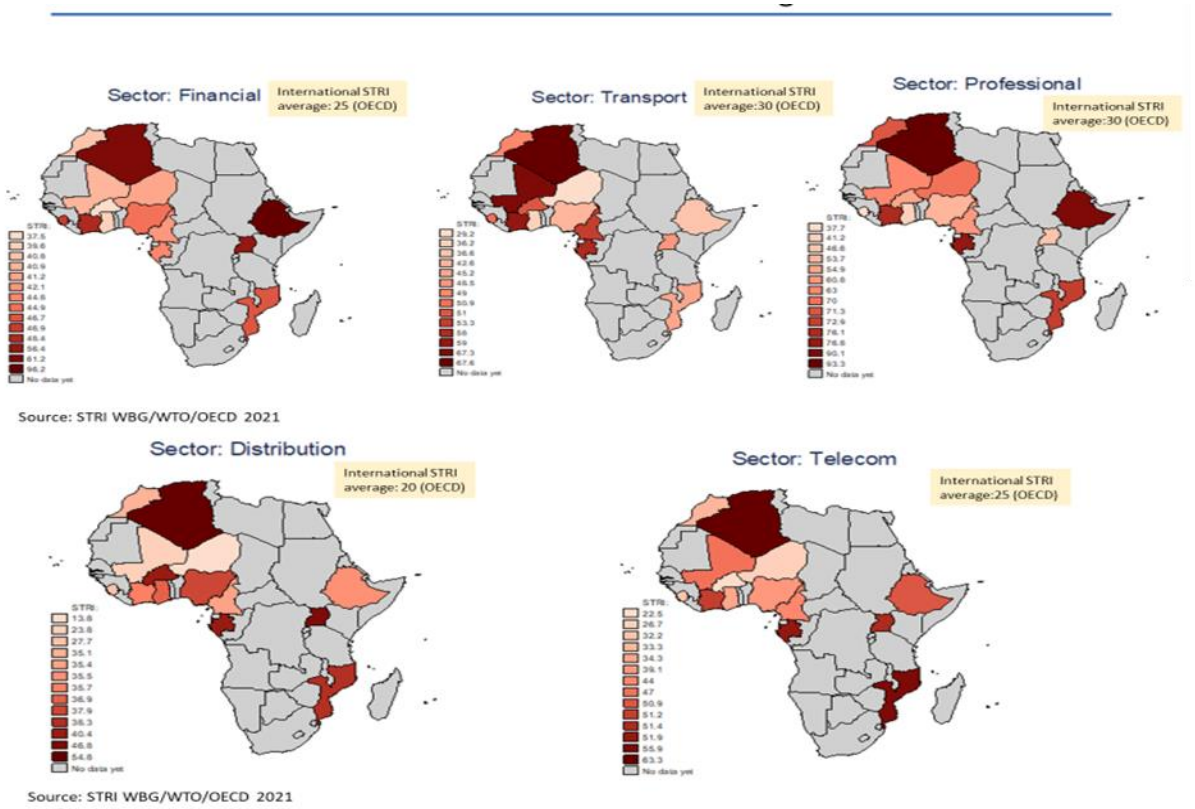
[56] Note: DIST retail: distribution services retail; DIST Whole: distribution services wholesale; FIN 1 bank: Financial services banking; FIN 2 life insurance: Financial services life insurance; FIN 3 non-life insurance: Financial services non-life insurance; FIN 4 reinsurance: Financial services reinsurance; PRO 1 legal advice: Professional services legal advice international; PRO 2 legal rep: Professional services legal representation; PRO 2: legal home: Professional services legal advice on home country law; PRO 4: Accounting services; PRO 5: Auditing services; TEL 1: Fixed line telecommunications services; Tel 2: Mobile telecommunications services; TEL 3: Internet telecommunication services; TRA 1: Air passenger domestic transport services; TRA 2: Air passenger international transport services; TRA 3: Air cargo domestic transport services; TRA 4: Air cargo international transport services; TRA 5: Maritime handling services; TRA 6: Maritime cargo transportation services; TRA 7: Maritime intermediation services; TRA 8: Road transport; TRA 9: Rail transport.

economic needs or labor market tests with respect to contractual service suppliers, independent professionals, and intra-corporate transferees.[57]

86. **In addition to horizontal restrictions, each broad sector and sub-sector is affected by additional restrictions on trade in services**. (Detailed identification and explanation of each of these barriers is presented in Annex 1.) However, a key question is where Ghana ranks among peer African and international countries that compete with Ghana to attract services suppliers. By summarizing trends by broad sector, it is possible to distinguish the following patterns.

87. **When compared to African peers, Ghana is far from being the most restrictive country as regards trade in services on the continent**. Compared with other economies such as Algeria, Ethiopia, or Mozambique, the Ghanaian regulatory framework is much more welcoming to international trade in services. However, when compared to international averages by broad sector, Ghana's STRI position in most sectors reveals slightly more restrictive policies to international trade in services in most of the five broad sectors covered by the STRI except in transport. In telecommunications, financial, professional, and distribution services, Ghana has a higher-than-average index ranking, showing a more protectionist stance across the board. Nor is the level of restrictiveness in the different services sector in Ghana homogeneous, with financial, transport and professional services tending to be less restricted than telecommunication and distribution services. Figure 69 below summarizes the results of the STRI analysis for each broad sector when compared to selected African peer countries and international averages.

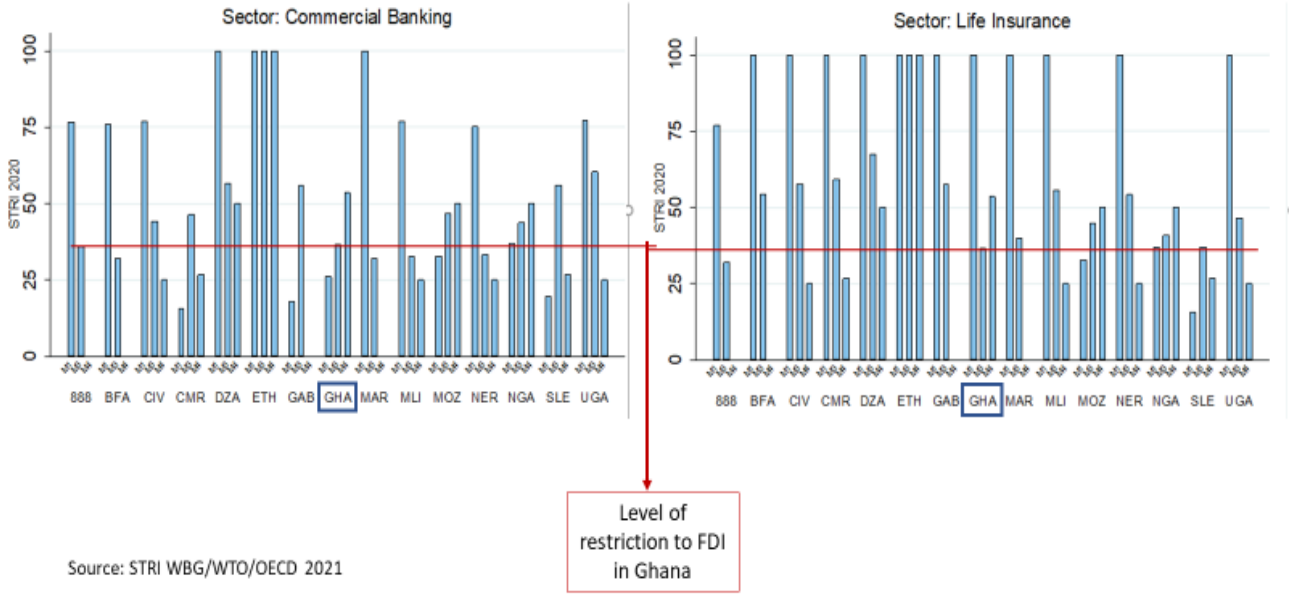
Figure 69. STRI Index for selected broad sectors relative to peer African countries



[57] See Annex 1 for further details and legal sources.

88. **However, STRI averages of broad services sectors need to be interpreted with caution. There is substantial variation in policy restrictiveness across modes of supply in specific sub-sectors**. For instance, in most African countries, cross-border supply (Mode 1) tends to be more restricted in financial services than in other sectors as regulators prefer to have foreign suppliers onsite for reasons of prudential oversight. This is visible in commercial banking and life insurance, both of which are depicted below (Figure 70). However, that is only partially the case in Ghana. In commercial banking, it is the movement of natural persons and investment what tends to be more restricted than cross border trade, while in the case of insurance, Ghana Mode 1 is more restricted than investment and movement of natural persons. Further, it is worth noting that in commercial banking and insurance, despite its horizontal restrictions to FDI, Ghana seems to have a more open regime for investment than many countries in the region.

Figure 70. STRI Index by financial services sub-sectors and mode of supply relative to peer African countries

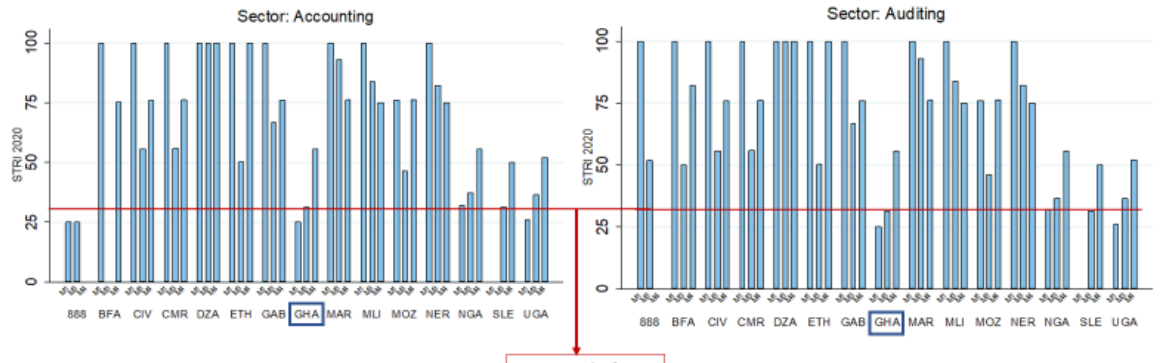


BFA: Burkina Faso; CIV: Côte d'Ivoire; CMR: Cameroon; DZA: Algeria; ETH: Ethiopia; GAB: Gabon; GHA: Ghana; MAR: Morocco; MLI:

89. **A similar pattern emerges in professional services. When compared to selected African peers, Ghana has a more open regime for trade in services**, in particular towards FDI in these sectors. This is particularly notable in auditing and accounting services, as shown in Figures 71 and 72 below. A different situation arises as a result of population flows, which tends to be quite restricted, not only in Ghana but also in peer countries.

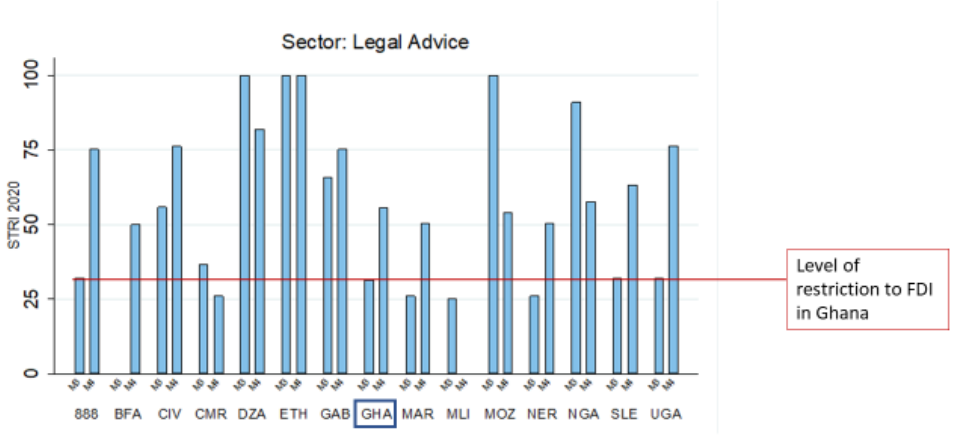
90. **In telecommunication services, the openness of the regulatory framework in Ghana is an outlier from patterns in other African countries**. While in other peer African countries policy restrictiveness tends to be much lower overall compared to professional services, there is greater receptiveness toward FDI in the sector in Ghana, which shows a relatively more restrictive approach even for FDI.

Figure 71. STRI Index by professional services sub-sectors and mode of supply relative to peer African countries



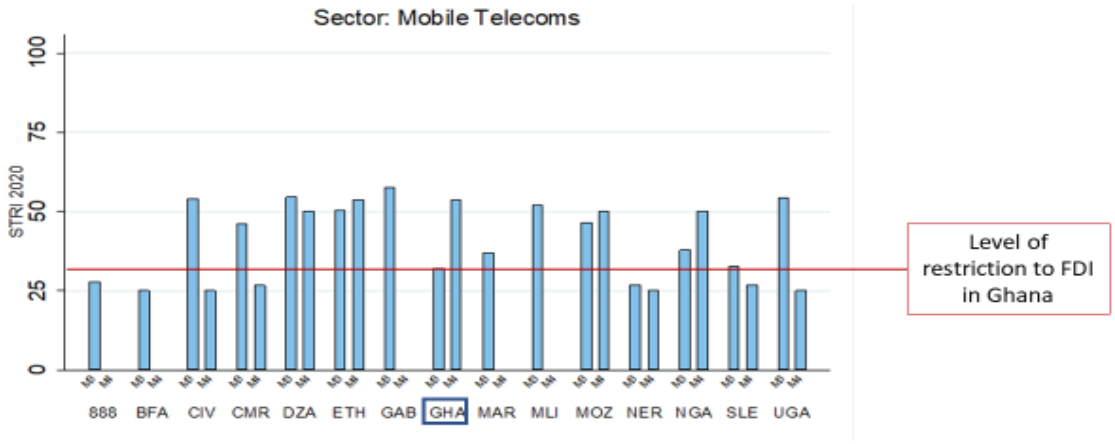
Source: STRI WBG/WTO 2021

Figure 71. STRI Index by professional services sub-sectors and mode of supply relative to peer African countries



Source: STRI WBG/WTO 2021

Figure 72. STRI Index by telecommunication services sub-sector and mode of supply relative to peer African countries



Source: STRI WBG/WTO 2021

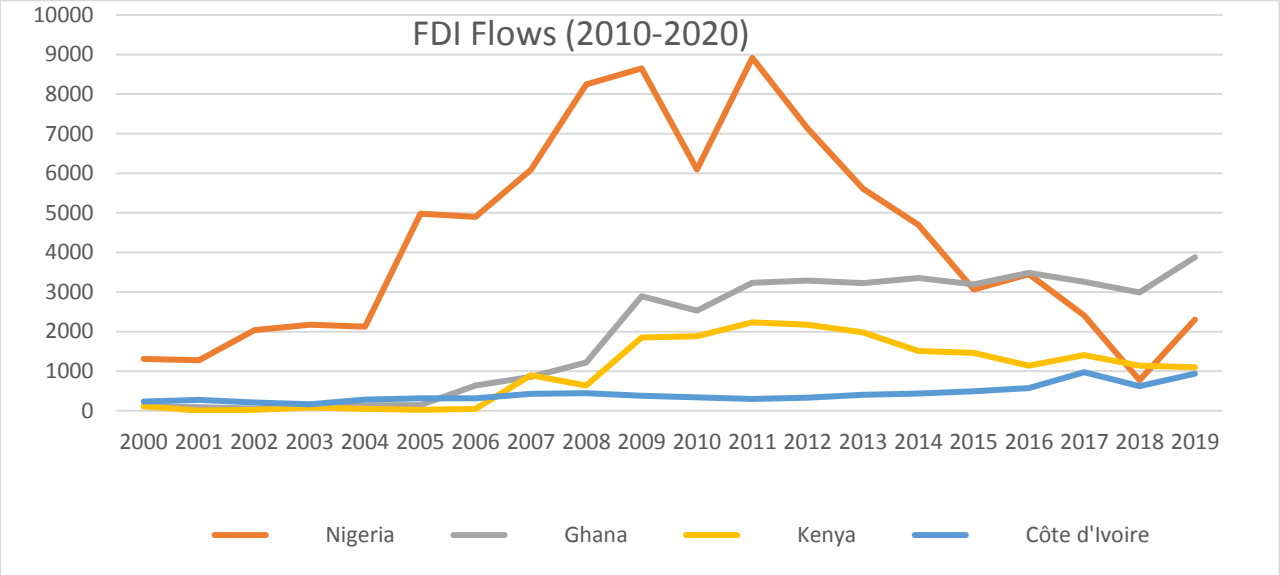
BFA: Burkina Faso; CIV: Côte d'Ivoire; CMR: Cameroon; DZA: Algeria; ETH: Ethiopia; GAB: Gabon; GHA: Ghana; MAR: Morocco; MLI: GHA: Ghana; MAR: Morocco; MLI: Mali; MOZ: Mozambique; NER: Niger; NGA: Nigeria; SLE: Sierra Leone; UGA: Uganda

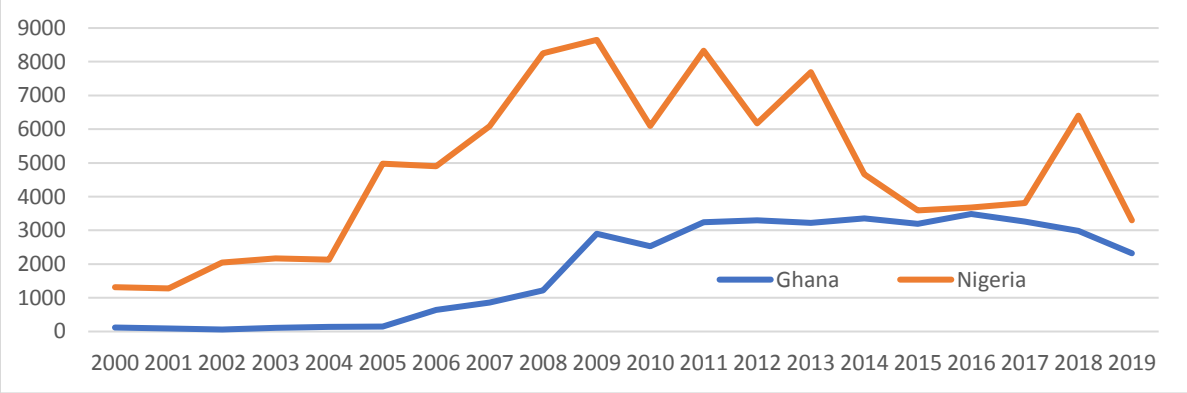
5.5. Foreign Direct Investment

91. **FDI inflows into Ghana increased very rapidly in the mid-2000s to reach an average of USD3 billion per year, on par with Nigeria**. However, investment has decreased in recent years to about USD2.3 billion in 2019 (UNCTAD, 2020).[58] According to UNCTAD's World Investment Report, FDI remains concentrated in extractive sectors: oil and gas, gold, and manganese.

[58] https://unctad.org/webflyer/world-investment-report-2020

Figure 73. Ghana and Nigeria: FDI inflows, 2000-2019 (USD millions)





Source: UNCTAD

92. **This is confirmed by data by transaction level, which show the net dominance of extractive sectors in FDI flows over the past 15 years**. Beyond investments in ore mining, hydrocarbon extraction, and their transformation (the top five sectors out of top 15 FDI recipients), services sectors (telecom and ICT), banking, energy, and construction represent other important destinations of FDI, including investments linked with agricultural production.

Table 19. Top sectors recipient of FDI, 2003-2019*

Sector	**Share of total FDI (%)**	**Cumulative (%)**
Oil & gas extraction	20	
Petroleum refineries	15	35
Alumina & aluminum production and processing	10	44

Other petroleum & coal products	7	52
Gold ore & silver ore mining	6	58
Pesticide, fertilizers, & other agricultural chemicals	4	62
Wireless telecommunication carriers	3	66
Warehousing & storage	3	69
Fossil fuel electric power	3	72
Retail banking	3	75
Crop production	2	77
Residential building construction	2	79
Commercial & institutional building construction	2	81
Wired telecommunication carriers	1	82
Data processing, hosting, & related services	1	83
Other	17	**100**

Source: FDI Markets Database; * partial data for 2019

93. **Among investor countries, South African investments dominate, linked with investments into extractives.** Five investor countries and territories represent over two-third of total investments: Italy, UK, US, and Hong Kong.

Table 20. Top 10 countries of origin or FDI, 2003-2019*

	Share (%)	**Cumulative (%)**
South Africa	20	
Italy	18	38
UK	12	50
United States	10	60
Hong Kong	9	69
India	5	75
China	4	78
Denmark	3	82
Nigeria	3	85
Canada	1	86

5.6. Conclusions and Recommendations

94. Ghana is well positioned to offer modern trade and logistics services to neighboring economies. Investment and reforms achieved in recent years have led to increased port traffic and transit volumes. However, work initiated to implement a number of reforms should be completed, and there remain numerous costly obstacles to trade. Finally, better coordination with neighbors as well as at the regional ECOWAS level should be achieved.

Areas of investigation for modernization:

Transit

- Remove VAT on transit services
- Implement SIGMAT customs connectivity for transit trade in imitation of ECOWAS
- Removal of redundant and ineffective checkpoints along the Tema-Paga trade corridor

Customs and trade facilitation

- Continue with the implementation of modern risk management techniques and authorized economic operator scheme
- Review ICUMS implementation in relation to transit trade
- Review implementation of Trade Facilitation roadmap and consider streamlining and integrating all committees mandating trade facilitation, including the National Trade Facilitation Committee (NTFC) and the working party tasked with the implementation of AfCFTA to ensure a holistic national approach to trade facilitation

Ports operations

- Adopt new transshipment regime
- Create enabling environment for economically and financially feasible containerized transit regime for traders
- Improve coordination with operators on the setting and reduction of fees

6. Modeling the Economic and Distributional Impact of AfCFTA on Ghana

6.1. African Continental Free Trade Area (AfCFTA)

95. **With the signing of AfCFTA, significant trade policy change and the opening of a large continent-wide market are expected to have important effects on Ghana's internal and external competitiveness.** AfCFTA also represents an opportunity to reposition Ghana as a better integrated economy as well as a mechanism for supporting market opening reforms in the country. This section provides a detailed analysis of the expected impact of AfCFTA liberalization on Ghana's economy.

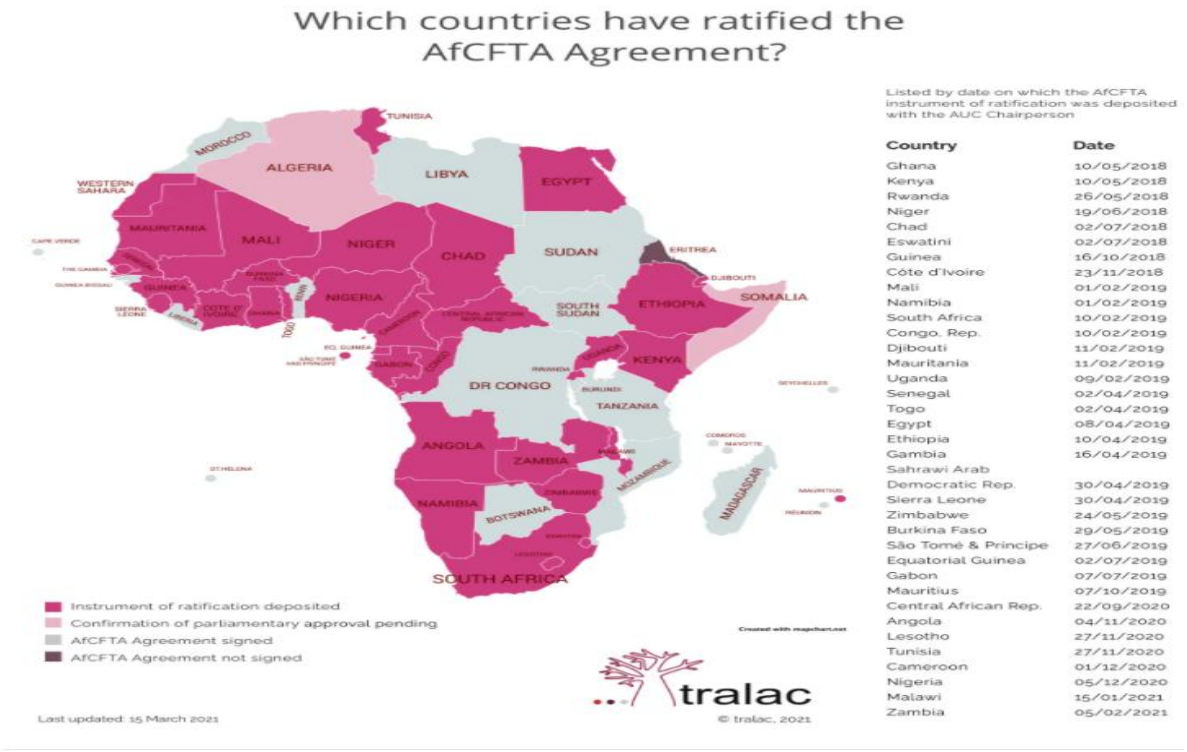
96. **The Agreement Establishing the African Continental Free Trade Agreement (AfCFTA) entered into force in May 2019 for the 22 countries that by then had deposited their instruments of ratification.** To date,

36 countries have ratified the agreement. In July 2019, the Heads of State adopted the Niamey Declaration, which launched the Operational Phase of AfCFTA and agreed to transfer the interim AfCFTA Secretariat to what will be its permanent seat in Accra, Ghana, in early 2020. Once completed, AfCFTA will be the largest free trade area in the world in terms of membership and will potentially cover a market of 1.3 billion people with a GDP of USD3.4 trillion (World Bank, 2020).

97. **So far, the AfCFTA Treaty only contains the legal framework for trade in goods and in services, the institutional set up, and State-to-State dispute settlement provisions.** The specific terms of trade liberalization in both goods and services are still being negotiated in the form of annexes to protocols to the Treaty. Official trading under AfCFTA tariffs started on January 1, 2021. While negotiation on trade in goods, including rules of origin, is expected to be finalized by June 2021, negotiation on trade in services has been delayed due to lack of data but is expected to be concluded by June 2021. Additional protocols on investment, competition policy, and intellectual property rights as well as e-commerce are expected to be negotiated in the second phase of negotiations, scheduled to conclude by December 2021.

98. **Under the trade components of AfCFTA agreed in Phase I, countries have agreed to progressively eliminate tariffs on at least 90 percent of goods as well as addressing non-tariff barriers (NTBs) and restrictions on trade in services.** Tariff reductions are scheduled over 5-15 years depending on a country's level of development (Figure 74). While the agreement allows for trade in 10 percent of goods to be liberalized over longer time frames or in some cases exempted, the aim is to fully liberalize intra-African trade. In addition, annexes to the Agreement require countries to cooperate on simplifying and harmonizing trade and transit procedures and establishing institutional structures and processes for monitoring the elimination of NTBs. Member countries have also agreed to make detailed commitments on liberalizing service sectors, including logistics and transport, financial services, tourism, professional services, energy services, construction, and communications.

Figure 74: AfCFTA ratification as of April 2021

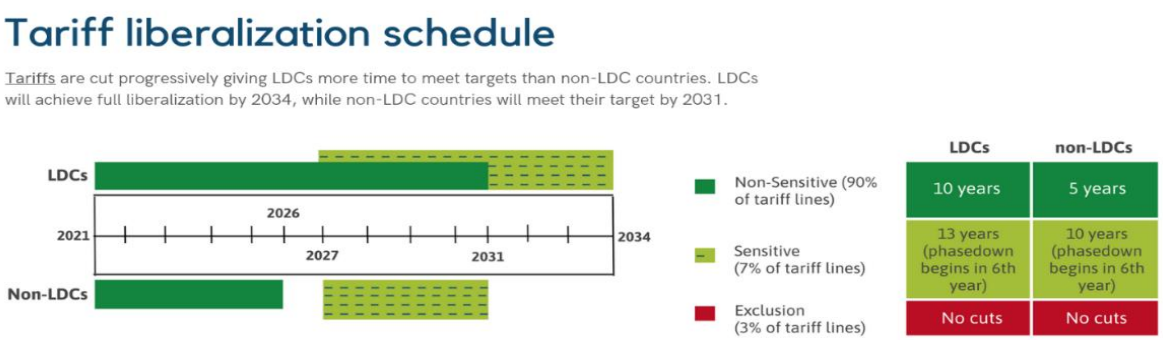


Source: TRALAC, Status of AfCFTA Ratification - tralac trade law centre

Source: AfCFTA Ratification Status, Trade Law Center (TRALAC)

99. **Under the negotiations of services commitments, AfCFTA parties are negotiating schedules of commitments to the services protocol, which should be complemented by specific regulatory principles guiding domestic regulations in various sectors.** AfCFTA countries have identified five priority services: business, communication, financial, transport, and tourism**.** The importance of addressing barriers to trade in services is twofold. Eliminating barriers to this type of trade will have an impact on the costs of production of tangible goods. That is because the cost of services used for production in manufacturing and agriculture is embedded in the cost structure of production. Moreover, the lion's share of FDI worldwide is in the services sectors, while the overwhelming majority of trade in services worldwide takes place under Mode 3 (Commercial Presence), which is in fact FDI (Echandi & Sauve 2020).

Figure 75: Tariff liberalization schedule under AfCFTA



Source: Authors' calculations

100. **While the liberalization instituted by Phase I focuses on intra-African trade, the stated objectives of AfCFTA go further given the intention of laying the foundation for a customs union and single market.** Movement toward a customs union implies not only fully liberalized trade among member states but also establishing a common external tariff. Such an approach would allow African nations to engage with external countries as a coherent grouping, simplifying trade arrangements, and increasing bargaining power. Likewise, movement toward a single market requires substantial further reforms so as to achieve the removal of all barriers to the internal movement of goods and services, labor, and capital, with the potential to bolster productivity and economic growth.

101. **Substantial aspects of AfCFTA remain to be negotiated, including the investment, competition, and intellectual property rights schedules that make up Phase II.** Harmonization in these policy areas is an important complement to trade liberalization efforts, providing for consistent protections that can support entrepreneurship and cross-border investment, and ensure that markets function fairly and efficiently. As with trade arrangements, investment, competition, and intellectual property rules and protections vary across Africa, with a range of overlapping national, bilateral, and regional initiatives. There is therefore considerable scope for Phase II negotiations to improve harmonization, with the potential to significantly bolster the overall effects of AfCFTA on intra-African integration.

6.2. Implementation of AfCFTA

102. **With 55 member countries once completed, AfCFTA will be the largest free trade area in the world in terms of membership.** Although free trade agreements create significant opportunities, maximization of potential benefits of these instruments is not automatic. A key issue is whether and how AfCFTA institutions and member states will address the weaknesses that have limited the impact of previous regional trade agreements in Africa.

103. **First and foremost, this means effectively implementing the obligations from the trade agreement.** It will be essential to use momentum and political attention as the new trade opportunities become reality once inter-African trade opens up on January 1, 2021. This will require the nationwide engagement of consumers, traders, and the private sector broadly, all of them likely long-term beneficiaries of AfCFTA and whose participation in the national dialogue will be an important complement to that of more traditional sectorial and vested interests. A similar experience from the successful opening of trade opportunities across

South East Asia has been that positive trader and private sector engagement has been important in implementing national and regional trade agreements.

104. **Effective regional integration goes well beyond simply removing tariffs, especially for Ghana, which has relatively little to gain from lower tariffs, as we saw above.** This means effectively addressing on-the-ground constraints that may paralyze the daily operations of ordinary producers and traders. This calls for regulatory reform and, equally importantly, for capacity building among institutions charged with enforcing regulations.

105. **Simultaneous action is required at both the supra-national and national levels.** Regional communities can provide the framework for reform, for example by bringing together regulators to define harmonized standards or to agree on mutual recognition of the qualification of professionals. Yet the responsibility for the agreement's implementation lies ultimately and equivocally with each member country.

106. **National integration agendas must cover services as well as goods (even if services are not covered by AfCFTA until the agreement's next negotiation phase).** Services are critical, job-creating inputs into the competitive edge of almost all other activities, for example in the role transport plays in manufacturing. To harvest the potential fruits of AfCFTA, implementation of the agreement must be underpinned by improved trade facilitation and connectivity. The agreement's Niamey Declaration contains important provisions about trade facilitation that will need to be implemented.

Trade Facilitation Implementation

The ***Niamey Declaration*** commits all member states to:

"… leverage Trade Facilitation to promote efficient and increased trade flows across the Continent. In this connection, it urges all Member States to:

a) put in place statutory, regulatory, and other measures to guarantee that goods can be traded under the AfCFTA trade regime;
b) facilitate transit and other formalities for goods passing through their territories;
c) align their national development and reform strategies to AfCFTA so that it delivers to meet the expectations of African citizens; and
d) undertake stakeholder sensitization and capacity building at national level as part of operationalizing the AfCFTA Agreement.

The ***Niamey Declaration*** also commits all member states to "cater for small to medium cross-border traders. To this end, it will collaborate with regional economic communities to develop a simplified trade regime that fully meets the needs of our hardworking people. "

107. **For historical reasons, bilateral and regional trade in Africa has been hampered by trade routes designed for export away from the continent rather than for facilitating intra-African trade.** Obstacles include long distances, inadequate transport services, and inefficient institutional and transit regimes. In many landlocked African countries, economic centers are located hundreds of kilometers from the closest seaport. Policy makers in all member countries and in transit countries in particular share a critical responsibility to help overcome geographical constraints or the lack of economies of scale due to small volumes. However, the experience is that many countries retain policies that favor closed, small, and inefficient services markets and that renewed focus on the efficiency of transport and logistics services is long overdue.

6.3. Modeling the Impact of AfCFTA on Ghana s economy

108. **This section evaluates the long-term implications of AfCFTA for growth and poverty reduction. It draws on a recent African Union Commission and World Bank study that quantifies the long-term economic**

and distributional implications of AfCFTA for the continent (AUC-WBG, 2020).[59] It assesses the implications for economic growth, international trade, poverty, and employment implications, including for female and male workers, and quantifies the short- and long-term implications for tariff revenues. The study's empirical approach uses a global computable general equilibrium (CGE) model and a microsimulation framework to quantify the agreement's impact. In line with ongoing negotiations, the model assumes reductions in both tariff and non-tariff barriers (NTB) as well as in trade facilitation bottlenecks.

109. **The policy scenarios considered under this assessment are the following:**

- Tariffs on intra-continental trade are progressively reduced in line with AfCFTA modalities. Starting in 2020, tariffs on 90 percent of tariff lines will be eliminated over a five-year period, or ten years for least developed countries (LDC). Starting in 2025, tariffs on an additional 7 percent of tariff lines will be eliminated over a five-year period, or eight years for LDCs. Up to 3 percent of tariff lines that account for no more than 10 percent of intra-African imports could be excluded from liberalization by the end of 2030 (2033 for LDCs).

- Non-Tariff Barriers (NTBs) on both goods and services are reduced on a most favored nation (MFN) basis. It is assumed that 50 percent of NTBs can be addressed with policy changes within the context of AfCFTA, with a cap of 50 percentage points. It is also assumed that there will be additional reductions in NTBs on exports.

- AfCFTA will be accompanied by measures that facilitate trade with commitments closely aligned with the Trade Facilitation Agreement (TFA). Estimates of the size of these trade barriers come from de Melo, Solleder, and Sorgho (2020). Trade cost reductions due trade facilitation measures range between 2 and 10 percent over 2020-2035.

110. **However, this framework fails to capture some dynamic gains expected from trade**. We would expect AfCFTA member countries to enjoy faster productivity gains by taking advantage of economies of scale in a larger market and to attract substantial FDI, leading to much larger gains. Finally, the model was developed before the onset of the global COVID-19 pandemic. While estimated gains may be affected in the medium run, as economies return to their long-term potential GDP growth paths, the key findings are likely to hold and the key messages should remain unaffected.

6.4. Findings Based on Model Simulations

111. **Ghana is a relatively open economy with low tariffs on intra-AfCFTA trade.** This leads to modest gains from tariffs reduction, with most benefits coming from NTB reductions and trade facilitation measures. Ghana initial tariffs are lower than those of half of the other AfCFTA members. With the implementation of AfCFTA tariff liberalization, the average trade-weighted tariff imposed by Ghana on imports from AfCFTA partners could see a reduction of 3 percentage points over 2020-2035 from around 3 percent to almost 0 percent. Meanwhile, tariffs faced by Ghana could decrease by 7 percentage points over 2020-2035 from 8 percent to 1 percent. Ghana initial NTBs are estimated at around 38 percent in 2020. This is a relatively high level compared with other AfCFTA members, with Tanzania reaching the highest level of the region, at 60 percent in 2020. The NTBs imposed by Ghana are assumed to fall by 50 percent, while NTBs faced by Ghana are assumed to see a reduction of almost 30 percent (see Table 21).

[59] Africa Continental Free Trade Area: Economic and Distributional Effects, African Union Commission and the World Bank, March 2020.

112. **Implementation of tariff and NTB reductions along with trade facilitation measures could boost real income by almost 6 percent in 2035, relative to baseline**. Most of the gains obtained are due to trade facilitation measures, which could boost real income by 4 percent in addition to gains generated by tariffs and NTBs reductions along (increase of 1.7 percent in 2035 relative to baseline), while a reduction of tariffs alone would be expected to increase real income by only 0.2 percent.

Table 21: Tariffs and NTBs affecting Ghana, 2020-2035

	Tariffs		NTBs	
	2020	2035	2020	2035
Imposed by Ghana	3.19	0.13	37.77	20.25
Faced by Ghana	8.19	1.14	21.12	14.86

Source: AfCFTA report (2020)[60]

Table 22: Real incomes, exports, and imports: Percentage change relative to baseline

%	Tariffs Only	Tariffs & NTBs	Tariffs, NTBs, & TF
Real Incomes (estimated)	0.2	1.7	5.7
Exports	1.1	14.3	18.7
Imports	1.1	13.3	25.6

Source: AfCFTA report (2020)

113. **As a result of trade liberalization, both real exports and imports could see a substantial increase, with an expansion of 18.7** percent and 25.6 percent in 2035, respectively relative to the baseline. Once AfCFTA is implemented, intra-AfCFTA trade could grow substantially, and Ghana could see its exports to the region increase up to 94 percent (USD5 billion) by 2035 relative to the baseline while its imports from AfCFTA partners could increase by 79 percent (USD12.5 billion). Ghana's total exports (to both African and non-African countries) could see an increase of 19 percent (USD10 billion) relative to the baseline while its imports could see an increase of 26 percent (USD14.5 billion).[61]

114. **AFCFTA should boost Ghana's integration into regional value chains.** As a result of AfCFTA, Ghana could see its share of exports to the region increase from 9 percent in 2020 to 16 percent in 2035, while without the FTA, the increase was expected to be only 1 percentage point to 10 percent. Imports are

[60] https://www.worldbank.org/en/topic/trade/publication/the-african-continental-free-trade-area

[61] The trade balance is assumed to be fixed as a share of GDP across scenarios.

characterized by the same pattern, with the share of imports increasing from 17 percent in 2020 to 40 percent thanks to the FTA, while growth relative to the baseline would be only 11 percentage points.

115. **The deepening of regional value chains in manufacturing is characterized by strong increases in Ghana's imports, both as total imports and imports from AfCFTA members.** Imports from within the AFCFTA region are expected to increase in all sectors, with manufacturing expanding the most with an increase of 90 percent (USD12 billion) relative to the baseline. This is mainly due to goods manufacturing sectors not elsewhere classified, with an increase in total imports of 170 percent (USD5 billion) and textiles and wearing apparel (147 percent, or USD744 million). Imports in agriculture should see a relatively small increase, with 37 percent (USD211 million) relative to the baseline. As regards Ghana's total imports, import growth should be highest in agriculture (38 percent relative to baseline). In monetary terms, manufacturing would see the highest increase (USD13 billion compared to the baseline) and agriculture would benefit by USD283 million. Total imports of services would also grow by 14 percent (USD1 billion).

Figure 76. Total exports relative to the baseline, 2035

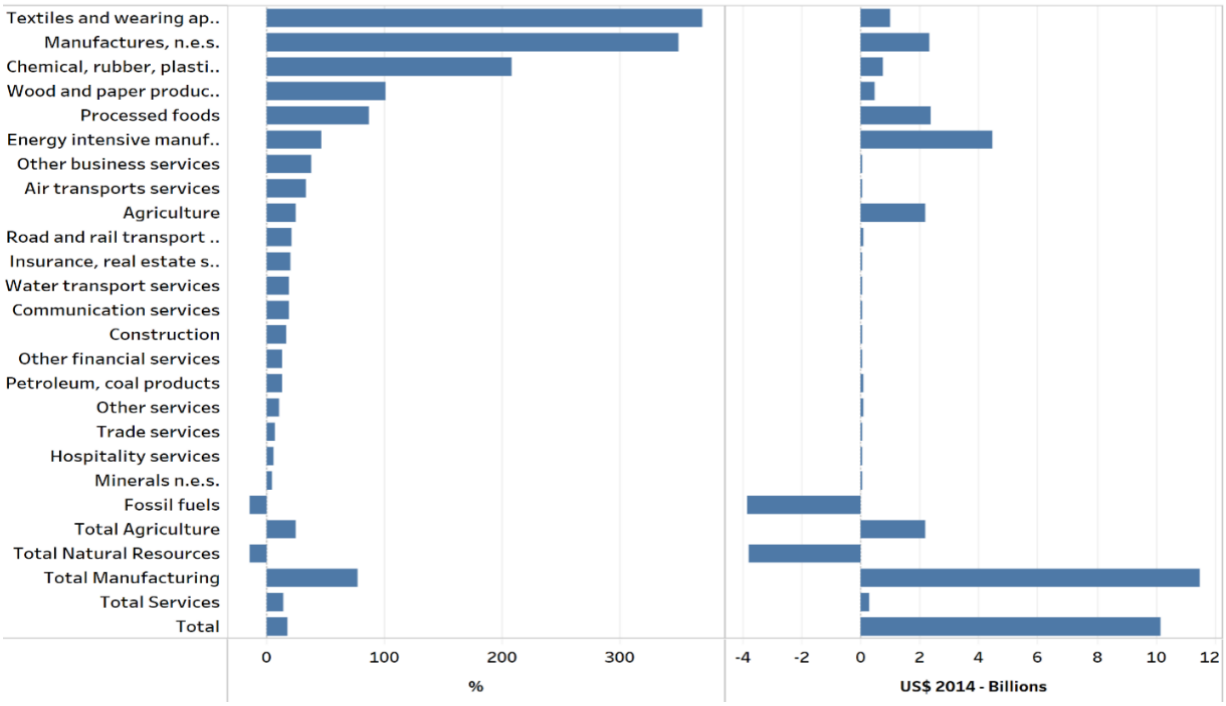
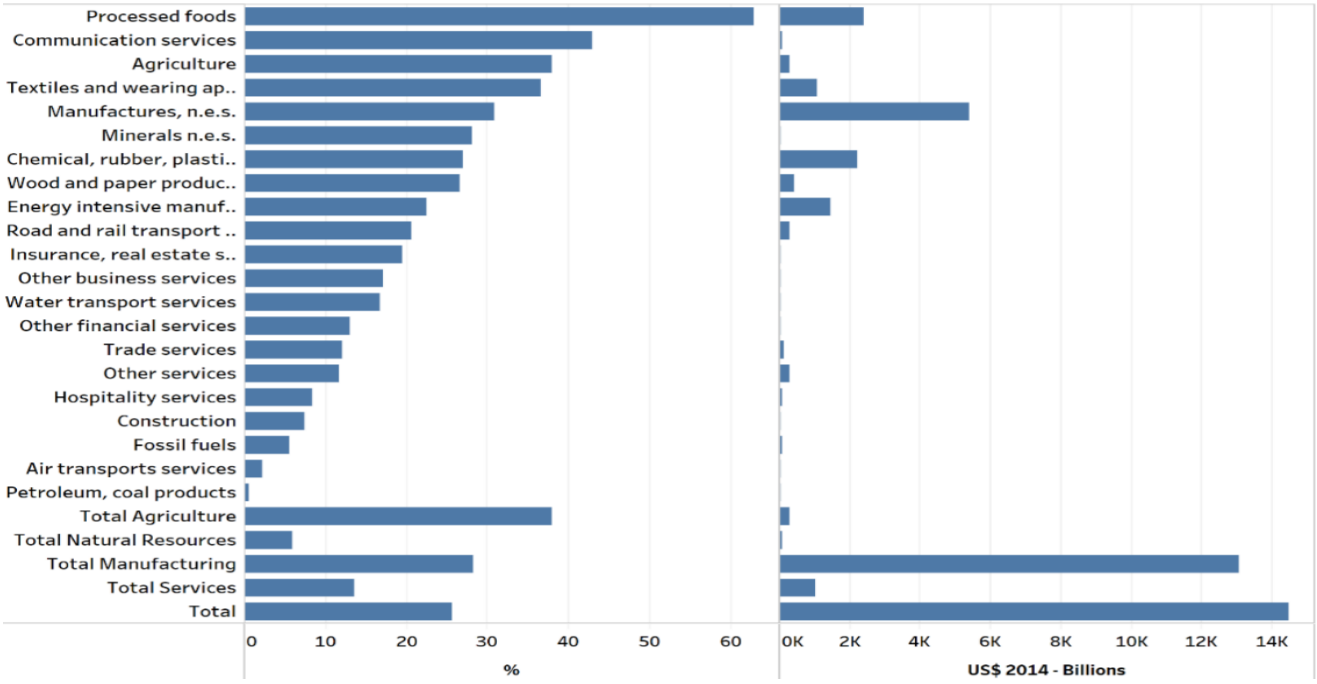
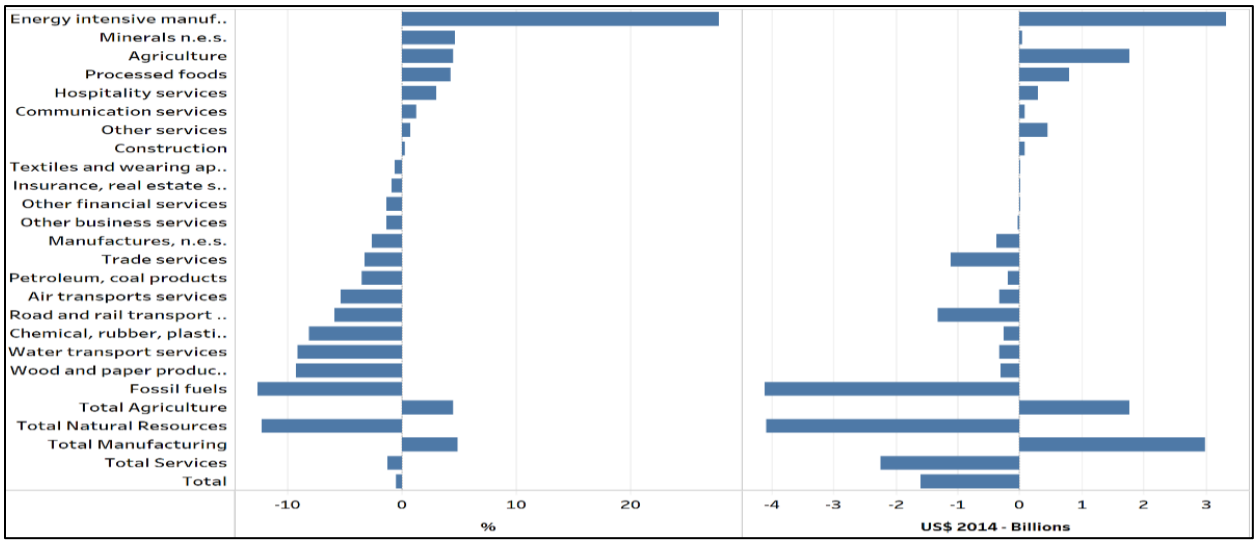


Figure 77. Total imports relative to the baseline, 2035



116. **Both Ghana exports and imports of manufacturing goods within the continent could register the highest boost under AfCFTA**. As regards Ghana exports within Africa, manufacturing would gain the most, with a 219 percent (USD5 billion) increase relative to the baseline. This would result from expansion in sectors such as textiles and wearing apparel (with a 644 percent increase relative to the baseline), manufactures n.e.s (403 percent increase), among others. Agriculture would show a smaller gain, with an increase of 71 percent (USD70 million) relative to the baseline. In terms of total exports, manufacturing could expand by 78 percent (USD11 billion), followed by agriculture, with an increase of 25 percent (USD2 billion). Services could also record a modest gain of 30 percent but from a relatively low base. As regards imports from within the continent, manufacturing could increase by 90 percent (USD12 billion) thanks to increases in manufactures n.e.s. (170 percent, USD5 billion), processed foods (110 percent, USD1.7 billion) and chemical, rubber, and plastic products (78 percent, USD2.3 billion). Agriculture imports from Africa could increase by 37 percent (USD221 million) while services could increase by 14 percent (USD66 million).

Figure 78. Production relative to the baseline, 2035



117. **Production increases the most for Ghana in manufacturing and agriculture.** In terms of broad sectors, production increases in manufacturing by 4.9 percent in 2035. relative to baseline (USD3 billion), followed by agriculture with 4.5 percent increase (USD1.7 billion). Within manufacturing, the sector of energy intensive manufacturing products such as mineral products, ferrous metals, and metals expands the most, with an increase of 27.7 percent (USD3.3 billion) and followed by processed foods, increasing by 4.4 percent (USD0.7 billion)**.** The impact on output in Ghana, is a consequence of growing exports and domestic demand driven by a reduction in production costs (access to cheaper intermediates), and better market access and lower trade costs both within Africa as well as with extra-AfCFTA partners.

118. **Poverty reduction gains are estimated to be modest with 0.2 million people being lifted out of extreme poverty, and 1.8 million from moderate poverty.** In terms of extreme poverty, the poverty headcount ratio is estimated to decline from 28.0 percent in 2020, to 10.9 percent, in the baseline.[62] With AfCFTA implementation the decline could reach 9.3 percent. This translates to more than 0.2 million people being lifted out of poverty by 2035**.** For moderate poverty, the poverty headcount ratio is estimated to decline from 72.3 percent in 2020 to 51 percent relative to the baseline. With AfCFTA implementation, the decline in the headcount ratio could be even higher, at 47.3 percent, with almost 1.8 million people lifted out of moderate poverty in Ghana.

119. **Unskilled and female wages in Ghana are expected to register faster growth under AfCFTA.** Unskilled workers, both male and female, could see the highest gains in terms of wages, partly driven by an increase of in employment in agriculture, which is the sector that employs the highest number of unskilled workers. Wages for female workers (both skilled and unskilled) should expand faster than those of male workers. For female skilled workers, this would be mainly thanks to an increase in production in services sectors such as hospitality services and other services, which employ large numbers of female skilled workers.

[62] As discussed in the Introduction, this analysis was conducted before the COVID-19 pandemic.

6.5. Downsides of Gains from AfCFTA

120. **To a great extent, whether or not AfCFTA becomes a milestone for development in the region will depend on**: (i) the depth and breadth of detailed commitments to remove trade barriers that are to be negotiated; (ii) the extent to which AfCFTA commitments are effectively implemented on the ground; and (iii) specific complementary initiatives ensuring a smooth transition to free trade and inducing greater flows of productive investment in non-traditional sectors and thus leading to more and better jobs. However, for many Member States the implementation of obligations in the trade agreement is likely to prove challenging, and the lessons from previous attempts to implement international agreements are that this should not be assumed to be automatic. AfCFTA institutions, and in particular Member States, will require additional support not only to effectively implement the agreement but also to identify critical bottlenecks and challenges in their economies and thus prioritize specific actions to ensure a smooth transition to free trade and attract increasing investment. This is in addition to the challenges involved in monitoring on-going implementation to ensure fairness and a level playing field for traders.

121. **Taking into consideration experiences of negotiations in different parts of the developing world, three fronts are key to maximizing the potential benefits of AfCFTA:** (i) treaty administration; (ii) trade-related implementation support; and (iii) transition to free trade. First, implementation and administration of the AfCFTA Agreement implies capacity building in the form of training, direct advice, and implementation support not only for Ministries of Trade but also for often forgotten border management agencies, especially customs, which will now be tasked with implementing an agreement they may have had no previous exposure to during the negotiation phase. This support will be essential to enabling compliance, administrative problem-solving, economic monitoring, and the socialization of AfCFTA. Second, trade-related institutional support for implementation presupposes building the capacity of various agencies from the Ministries of Trade in charge of trade and investment-related matters that will in practice affect the proper functioning of AfCFTA. Third, transition to free trade may entail sector-specific initiatives aimed at enabling domestic firms (in particular small and medium enterprises (SME) to address economic distortions affecting their competitiveness in a free trade environment.

7. 7. Conclusions and Policy Recommendations

122. **Ghana's strong trade performance during the decade prior to the COVID-19pandemic was a mixed blessing.** While high export growth contributed significantly to the high average growth rate over the period, the country's vulnerability to external shocks remained high because of limited improvement in trade diversification. A doubling of Ghana's exports of goods and services per capita reflected rapid growth in hydrocarbons and gold exports along with a six-fold increase in exports of services. While rapid growth in exports boosted incomes, goods exports became highly concentrated in few primary commodities and diversification into manufactures was limited. This increased the country's vulnerability to the collapse in global oil prices when the COVID-19 pandemic hit. Though the share of manufacturing sector employment increased over the period, the sector's exports and value-added contribution to GDP declined over the past decade, reflecting a decline in the productivity of the sector. The challenge is whether Ghana will be able to leverage the entry into force of AfCFTA along with its position as a potential regional hub to increase its exports of manufactures and to deepen participation in global value chains (GVC).

123. **Policy changes are necessary for Ghana to take advantage of the potential offered by AfCFTA.** Reducing tariffs, eliminating non-tariff measures that are not necessary for health and safety, and ensuring that remaining NTMs are not enforced in a discriminatory way will improve the competitiveness of Ghanaian

firms in both foreign and domestic markets. Removing prior approval and minimum capital requirements for FDI projects in all sectors where such requirements are not necessary to achieve legitimate public goals along with easing restrictions on the use of land by foreigners would attract more FDI to tradable sectors.

124. **Despite recent improvements, further steps are required to improve the efficiency of trade facilitation.** Strengthening customs administration could reduce the costs facing traders and improve efficiency. Key measures include continued implementation of modern risk management techniques and the authorized economic operator scheme and review of ICUMS implementation in relation to transit trade. Port operations could be improved by adopting a new transshipment regime, creation of an enabling environment that would improve the economic efficiency and financial feasibility of using containers in transit trade, reductions in port charges and improved coordination with operators when making decisions concerning the setting of fees, and an overhaul of the governance framework of the Port of Tema. Other trade facilitation improvements include removal of VAT on transit services, removal of redundant and ineffective checkpoints along the Tema-Paga trade corridor, planned improvements to the Tema-Accra highway (along with an extension further north to Kumasi), and review of the implementation of the Trade Facilitation (TF) roadmap and the streamlining and integration of all committees that mandate trade facilitation, including the National Trade Facilitation Committee (NTFC) and the working party tasked with the implementation of AfCFTA.

125. **Stronger regional cooperation would contribute to enhanced trade performance and potential for deepening integration into GVCs.** Compliance with ECOWAS commitments regarding exemption of duties and the Common External Tariff could be improved. Implementation of the SIGMAT system designed to connect customs systems within ECOWAS could help facilitate transit trade. Intensive involvement in those aspects of AfCFTA that remain to be negotiated, including the investment, competition, and intellectual property rights schedules that make up Phase II, would make Ghana's voice heard and improve prospects for the country's active participation in the agreement. National dialogues with all stakeholders and capacity building for agencies managing trade policy would strengthen the government's negotiating position and improve prospects for outcomes that would support the efficiency of Ghanaian firms. Complementarity between domestic policy changes and regional cooperation is indicated by a scenario showing that two thirds of the substantial income gains from AfCFTA would be generated by improvements in trade facilitation.

8. Annex 1. Trade Data

Table A1. Trade summary of goods and services

	USD billions			Growth (CAGR, %)			% of GDP		
	2010	2015	2019	2010-19	2015-19	2018-19	2010	2015	2019
Exports of goods	7.6	11.1	15.9	8.6	9.5	-2.4	23.5	22.8	23.8
Exports of services	1.5	6.1	9.9	23.6	12.7	31.1	4.6	12.6	14.8
Imports of goods	8.1	14.7	10.4	2.9	-8.2	-12.2	25.0	30.2	15.6
Imports of services	3.0	7.3	13.5	18.2	16.6	33.8	9.3	15.0	20.2
Exports of G&S	9.0	17.2	25.9	12.4	10.7	8.2	28.1	35.5	38.6
Imports of G&S	11.1	22.0	23.9	9.0	2.1	9.0	34.3	45.3	35.7
Total Trade G&S	20.1	39.2	49.8	10.6	6.2	23.5	62.4	80.7	74.3
Merchandise trade	15.6	25.8	26.4	6.0	0.6	-6.5	48.5	53.0	39.4
Services trade	4.5	13.5	23.4	20.2	14.9	32.6	13.9	27.7	35.0

Source: Author's calculations based on UN Comtrade, UNCTAD.

Table A2: Top 10 exports at six-digit product level, 2019

		USD millions			% of goods exports			Growth (CAGR, %)		
HS code	**Description**	**2010**	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2018-19**
710813	Gold (incl. gold plated with platinum), non-monetary, in semi-manufactured forms	2990.8	4054.3	5928.8	57.2	29.5	35.4	7.9	10.0	8.9
270900	Petroleum oils & oils obtained from bituminous minerals., crude	0.0	2620.5	5251.7	0.0	19.1	31.3	0.0	19.0	1.1
180100	Cocoa beans, whole/broken, raw/roasted	847.4	2729.8	1852.0	16.2	19.8	11.0	9.1	-9.2	-24.0
260200	Manganese ores & concentrates, incl. ferruginous manganese ores & concentrates with manganese content of 20% or more, calculated based on dry weight	77.3	74.8	349.5	1.5	0.5	2.1	18.3	47.0	21.3

180400	Cocoa butter, fat & oil	86.5	218.9	337.3	1.7	1.6	2.0	16.3	11.4	17.4
710812	Gold (incl. gold plated with platinum), in unwrought forms (excl. powder)	377.0	315.8	269.0	7.2	2.3	1.6	-3.7	-3.9	-58.5
180310	Cocoa paste, not defatted	11.8	85.6	228.1	0.2	0.6	1.4	39.0	27.7	96.4
80131	Cashew nuts, in shell	13.4	285.2	222.4	0.3	2.1	1.3	36.7	-6.0	-51.2
180320	Cocoa paste, wholly/partly defatted	21.2	377.7	181.5	0.4	2.7	1.1	26.9	-16.7	-35.2
160414	Tunas, skipjack & bonito (Sarda spp.), prepared/preserved, whole/in pieces (excl. minced)	0.0	196.0	145.3	0.0	1.4	0.9	229.1	-7.2	-5.9

Source: Author's calculations using data from UN Comtrade.

Table A3. Normalized Revealed Comparative Advantage (NRCA): Ghana and comparators, 2010-12 vs 2017-19

	CIV	GHA	KEN	NGA	VNM	ZAF
Stone / Glass	0.26	0.80	-0.67	-0.99	-0.54	0.60
Foodstuffs	0.85	0.70	0.43	-0.55	-0.16	0.13
Fuels	0.19	0.48	-0.60	0.80	-0.71	0.04
Minerals	-0.19	0.23	0.56	-0.79	-0.37	0.82
Vegetables	0.61	0.17	0.88	-0.59	0.30	0.28
Wood	-0.11	-0.28	-0.04	-0.96	-0.12	0.02
Plastic / Rubber	0.29	-0.37	-0.34	-0.90	-0.14	-0.38
Animal	-0.89	-0.63	-0.06	-0.90	0.13	-0.25
Footwear	-0.36	-0.69	-0.06	-0.93	0.78	-0.59
Metals	-0.85	-0.71	-0.21	-0.69	-0.23	0.27
Chemicals	-0.46	-0.82	-0.10	-0.92	-0.71	-0.20
Textiles, Clothing	-0.19	-0.83	0.28	-0.99	0.56	-0.49
Miscellaneous	-0.91	-0.97	-0.65	-1.00	0.07	-0.61
Hides, Skins	-0.92	-0.97	0.10	-0.59	0.43	-0.32
Machinery/Electrical	-0.94	-0.97	-0.86	-1.00	0.22	-0.55
Transportation	-0.58	-0.99	-0.82	-0.59	-0.73	0.11
Special		-1.00	-0.99	-1.00	-0.62	-0.88

Source: Author's calculations using data from UN Comtrade.
CIV: Côte d'Ivoire; GHA: Ghana; KEN: Kenya; NGA: Nigeria; VNM: Vietnam; ZAF: South Africa

Table A4. Top 10 export destinations, 2019

	USD millions			% of goods exports			Growth (CAGR, %)		
	2010	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2018-19**
China	123	1200	2544	1.6	10.8	16.0	40.0	20.7	5.0
Switzerland	320	1369	2464	4.2	12.4	15.5	25.4	15.8	44.8
India	156	2425	2305	2.1	21.9	14.5	34.9	-1.3	-35.6
South Africa	2801	500	1697	37.0	4.5	10.6	-5.4	35.7	7.5
United States	262	305	974	3.5	2.8	6.1	15.7	33.7	61.7
United Arab Emirates	345	328	856	4.6	3.0	5.4	10.6	27.1	64.0
Netherlands	532	694	846	7.0	6.3	5.3	5.3	5.1	-26.2
France	321	655	483	4.2	5.9	3.0	4.6	-7.4	-9.3
United Kingdom	487	305	349	6.4	2.8	2.2	-3.6	3.5	-34.6
Italy	86	380	332	1.1	3.4	2.1	16.2	-3.3	96.8

Table A5. Top 10 export destinations in Africa, 2019

	USD millions			% of goods exports to Africa			Growth (CAGR, %)		
	2010	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2018-19**
South Africa	2801	500	1697	90.5	48.4	70.5	-5.4	35.7	7.5
Burkina Faso	56	119	293	1.8	11.5	12.2	20.2	25.3	47.6
Côte d'Ivoire	15	45	113	0.5	4.4	4.7	24.8	26.0	21.5
Senegal	14	30	73	0.5	2.9	3.0	20.0	25.5	73.6
Nigeria	7	66	60	0.2	6.4	2.5	27.8	-2.4	20.9
Togo	33	59	56	1.1	5.7	2.3	5.8	-1.5	-33.5
Benin	8	21	43	0.3	2.0	1.8	20.2	20.1	90.9
Republic of Congo	30	4	34	1.0	0.4	1.4	1.3	74.1	1036.6

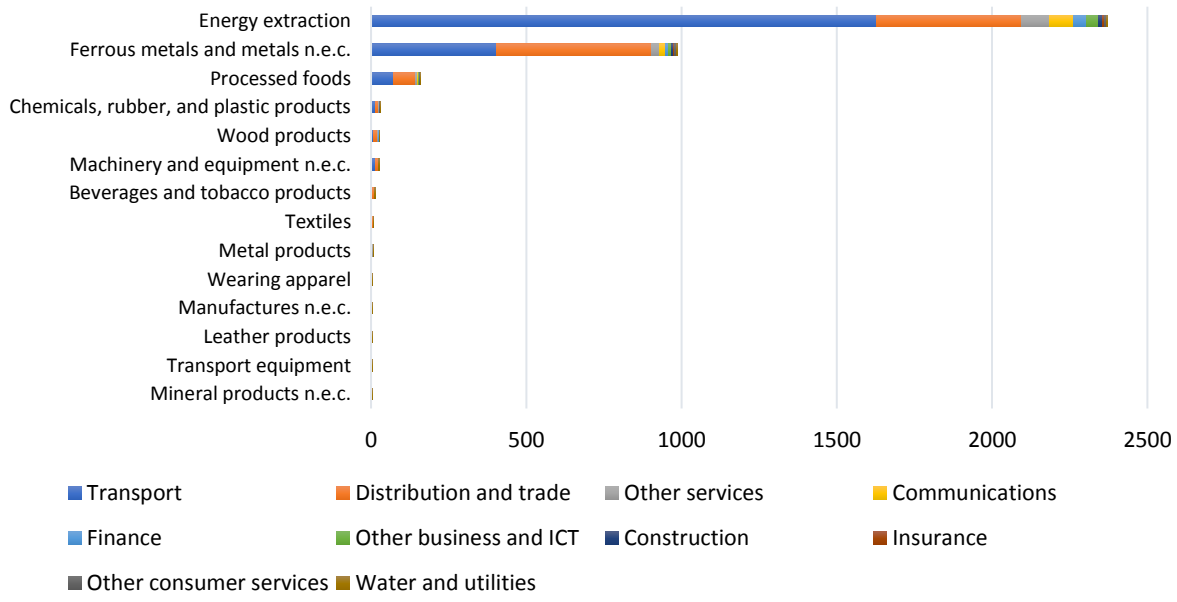
Egypt	10	17	14	0.3	1.6	0.6	3.7	-4.5	-9.5
Tunisia	3	17	12	0.1	1.7	0.5	14.8	-9.4	5.5

Table A6. Top 10 merchandise imports at six-digit product level, 2019

		US$ million			% of goods imports			Growth (CAGR, %)		
HS code	**Description**	**2010**	**2015**	**2019**	**2010**	**2015**	**2019**	**2010-19**	**2015-19**	**2018-19**
870323	Vehicles (excl. 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion reciprocating piston engine of a cylinder capacity >1500cc but not >3000cc	295.4	669.1	442.9	3.7	4.6	4.2	4.6	-9.8	-14.1
252310	Cement clinkers	182.9	366.0	244.6	2.3	2.5	2.3	3.3	-9.6	11.9
870421	Motor vehicles for the transport of goods (excl. 8704.10), with internal combustion (IC) piston engine (diesel/semi-diesel), g.v.w. not >5tonnes	165.8	193.6	214.9	2.1	1.3	2.1	2.9	2.6	-11.1
100640	Broken rice	137.7	433.5	210.5	1.7	3.0	2.0	4.8	-16.5	-15.0
300490	Medication (excluding goods under heading 30.02/30.05/30.06/3004.10-3004.50) consisting of mixed/unmixed products for therapeutic/prophylactic uses, put up in measured doses (including those in the form of transdermal administration systems)/in forms/packaging	61.1	132.3	177.6	0.8	0.9	1.7	12.6	7.7	-19.6
440610	Railway/tramway sleepers (cross-ties) of wood, not impregnated	0.0	0.0	175.7	0.0	0.0	1.7	0.0	2146.3	0.0
100630	Semi-milled/wholly milled rice, not polished or glazed	63.6	94.5	164.3	0.8	0.6	1.6	11.1	14.8	-18.1

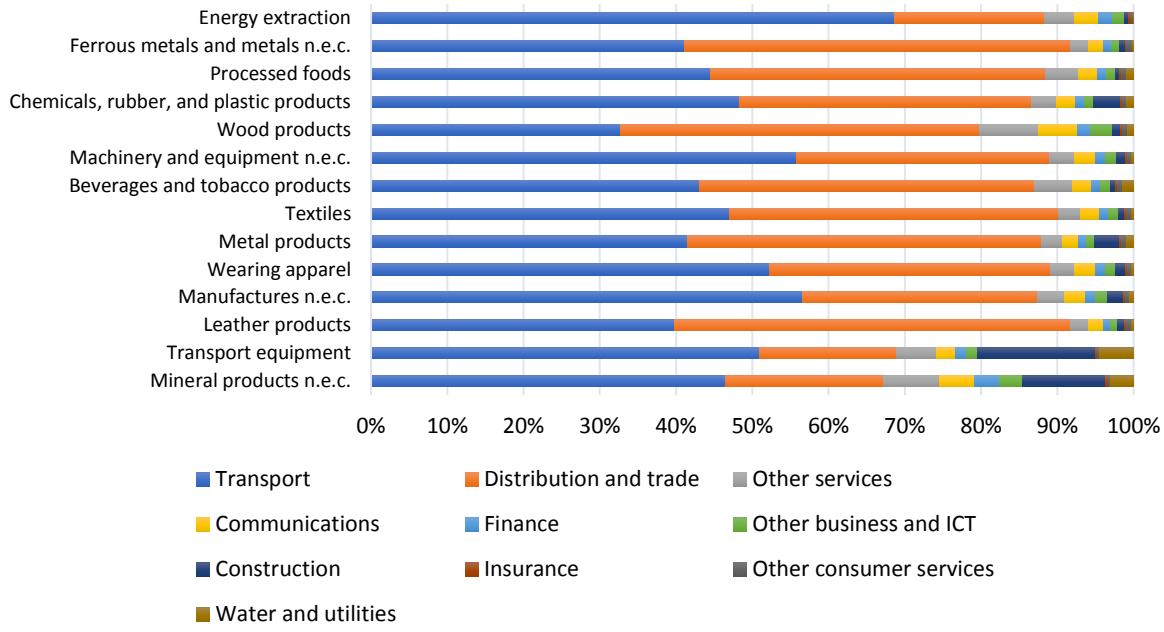
271019	Petroleum oils & oils obtained from bituminous minerals (other than crude) & preparations not elsewhere specified included, containing by weight 70 % more of petroleum oils/of oils obtained from bituminous minerals, these oils being the basic constituents	6.1	95.2	119.5	0.1	0.6	1.1	39.2	5.9	5.5
870324	Vehicles (excluding 87.02 & 8703.10) principally designed for the transport of persons, with spark-ignition internal combustion (IC) reciprocating piston engine of a cylinder capacity >3000cc	62.6	96.8	118.9	0.8	0.7	1.1	7.4	5.3	-7.3
170199	Cane/beet sugar & chemically pure sucrose, in solid form, not containing added flavoring or coloring matter	181.3	173.0	118.0	2.3	1.2	1.1%	-4.7	-9.1	-24.9

Figure A1. Value-added services content of manufacturing and energy exports, 2014 (USD millions)



Source: Author's calculations using data from WB EVAD.

Figure A2. Share of value-added services content of exports per manufacturing sector, 2014



Source: Author's calculations using data from WB EVAD.

			2010				2019 or latest available			
Importer	**Sector**	**Duty Type**	**Simple Average**	**Weighted Average**	**Free Lines (% of total)**	**Free Imports (% total)**	**Simple Average**	**Weighted Average**	**Free Lines (% of total)**	**Free Imports (% total)**
Ghana	Agricultural	AHS	18.41	16.38	2	2	17.7	15.6	7	7
		MFN	17.53	16.38	3	2	15.9	17.0	0	0
	Industrial	AHS	12.32	9.07	15	24	11.8	8.8	12	10
		MFN	12.32	9.07	14	24	11.4	9.2	3	8
	Petroleum	AHS	5.63	3.87	66	0	0.0	0.0	100	0
		MFN	6.63	3.87	61	0	7.7	0.0	8	0
Côte d'Ivoire	Agricultural	AHS	16.6	10.48	2	2	17.2	11.6	10	5
		MFN	14.55	10.83	0	0	15.8	12.5	0	0
	Industrial	AHS	12.61	8.77	3	6	11.6	8.4	12	15
		MFN	11.55	8.82	1	6	11.6	9.0	2	11

	Petroleum	AHS	7.86	0.47	4	94	0.0	0.0	100	74
		MFN	7.19	0.47	9	94	7.7	0.0	8	74
Kenya	Agricultural	AHS	19.78	18.58	22	50	21.0	26.3	19	22
		MFN	19.85	26.88	16	33	20.2	33.3	16	13
	Industrial	AHS	12.02	6.58	36	60	12.5	7.9	37	53
		MFN	11.52	7.11	40	57	12.3	7.9	40	53
	Petroleum	AHS	3.48	3.06	75	47	0.0	0.0	100	0
		MFN	5.17	3.08	70	47	4.3	0.0	72	0
Nigeria	Agricultural	AHS	15	9.84	0	0	14.5	9.5	3	2
		MFN	15.54	9.84	0	0	15.7	9.8	0	0
	Industrial	AHS	10.73	10.8	3	3	11.2	8.7	6	7
		MFN	11.15	10.8	2	3	11.5	8.8	3	6
	Petroleum	AHS	8.56	8.07	0	0	7.5	7.6	10	2
		MFN	8.58	8.07	0	0	6.8	7.8	8	0
Vietnam	Agricultural	AHS	14.11	4.78	18	41	10.8	5.0	40	56
		MFN	17.02	8.22	14	36	17.1	10.4	12	22
	Industrial	AHS	6.77	4.64	37	46	5.2	1.4	53	83
		MFN	8.66	5.96	35	41	8.5	5.2	31	47
	Petroleum	AHS	10.73	9.26	1	5	0.9	1.0	71	0
		MFN	13.06	9.72	9	5	11.7	1.0	4	0
South Africa	Agricultural	AHS	6.95	5.89	48	38	5.4	4.5	61	62
		MFN	8.92	8.32	41	27	8.5	10.3	40	28
	Industrial	AHS	7.29	5.39	58	60	6.9	4.9	67	69
		MFN	7.44	6.67	59	58	7.7	7.0	57	56
	Petroleum	AHS	2.72	1.06	46	78	0.0	0.0	100	66
		MFN	1.25	1.15	44	77	1.3	0.0	43	66

Table A7. Tariffs by industry: Ghana and comparators, 2010-2019

			2010		2019 or latest available					

Importer	Sector	Duty Type	Simple Average	Weighted Average	Free Lines (% of total)	Free Imports (% total)	Simple Average	Weighted Average	Free Lines (% of total)	Free Imports (% total)
Ghana	Raw materials	AHS	15.48	11.97	4	3	14.67	15.18	6	12
		MFN	14.14	11.97	4	3	11.69	17.03	0	1
	Intermediate goods	AHS	13.43	10.66	5	16	10.28	8.74	8	11
		MFN	13.22	10.66	3	16	9.83	9.17	2	7
	Consumer goods	AHS	16.24	13.82	6	3	16.63	13.8	10	11
		MFN	16.64	13.82	5	3	17.57	14.57	3	8
	Capital goods	AHS	6.64	4.48	35	48	6.72	6.33	16	6
		MFN	5.31	4.48	49	48	7	6.42	5	5
Côte d'Ivoire	Raw materials	AHS	13.06	2.75	2	71	14.59	3.21	11	79
		MFN	10.8	2.83	0	70	11.64	3.59	0	77
	Intermediate goods	AHS	10.46	8.15	2	2	9.82	7.74	10	7
		MFN	9.9	8.2	1	2	9.86	8.05	1	5
	Consumer goods	AHS	17.18	12	4	15	15.96	11.04	13	20
		MFN	17.52	12.22	3	13	17.68	11.76	3	17
	Capital goods	AHS	8.61	7.16	0	0	7.39	7.61	10	2
		MFN	7.61	7.16	0	0	7.49	7.76	0	0
Kenya	Raw materials	AHS	11.87	6.16	47	75	11.53	9.42	48	65
		MFN	14.69	7.95	35	68	13.51	10.8	38	59
	Intermediate goods	AHS	9.56	4.6	45	73	10.19	6.17	45	64
		MFN	9.77	6.89	45	68	10.2	6.28	45	64
	Consumer goods	AHS	18.97	12.89	17	24	20.4	16.76	14	19
		MFN	20.35	14.53	10	19	21.35	17.21	11	18
	Capital goods	AHS	5.71	3.73	56	70	5.37	5.41	59	59
		MFN	4.37	3.79	67	69	4.36	5.42	68	59
Nigeria	Raw materials	AHS	9.17	7.15	0	0	9.49	9.24	3	1
		MFN	10.74	7.15	0	0	11.63	9.27	0	0
	Intermediate goods	AHS	9.76	9.3	2	2	9.1	6.8	4	7
		MFN	9.81	9.3	2	2	9.69	6.87	2	6
	Consumer goods	AHS	16.29	15.33	3	4	16.72	11.66	8	9

		MFN	17.41	15.33	3	4	17.6	11.89	3	8
	Capital goods	AHS	7.16	7.74	4	2	7.99	7.48	6	3
		MFN	6.74	7.74	4	2	7.7	7.51	5	2
Vietnam	Raw materials	AHS	5.87	3.77	42	58	4.54	3.64	58	59
		MFN	9.88	5.18	28	52	9.41	5.78	26	31
	Intermediate goods	AHS	4.66	3.49	46	51	3.48	1.56	60	80
		MFN	5.7	4.27	43	47	5.86	4.86	38	42
	Consumer goods	AHS	13.79	10.19	17	5	10.17	3.27	39	49
		MFN	18.36	13.18	11	3	17.55	15.14	9	5
	Capital goods	AHS	3.71	3.3	43	55	2.64	0.63	57	91
		MFN	4.44	4.65	46	47	4.32	2.67	43	63
South Africa	Raw materials	AHS	2.26	0.54	76	94	1.96	0.93	76	96
		MFN	4.02	0.68	72	93	4.14	1.45	68	93
	Intermediate goods	AHS	4.11	2.14	65	68	3.76	1.95	74	80
		MFN	5.23	2.78	64%	64%	5.78	2.93	60%	68%
	Consumer goods	AHS	13.06	10.8	42%	29%	12.34	9.89	55%	42%
		MFN	15.42	13.14	35%	26%	15.91	14.83	34%	21%
	Capital goods	AHS	1.53	2.21	73%	74%	1.4	2.07	79%	78%
		MFN	1.95	2.94	75%	71%	2	2.93	74%	71%

Annex 2. Findings and Methodology: Gravity Model Estimation[63]

126. **According to gravity model estimations,[64] Ghana's merchandise exports have performed below potential over the period 2010-2019.** Ghana's Export Potential Index[65] (EPI 14) shows that Ghana's merchandise exports should have been 32 percent higher[66] than the observed values over the past decade. The total gap between Ghana's observed and predicted exports was, on average, estimated at USD3 billion in 2010-2019. Ghana's comparators that have also exported below their estimated potential during 2010-2019 were Kenya and Nigeria (Figure 27). The missed exports[67] are indicative of the opportunity for export growth if frictions can be overcome. Based on EPI 68, Ghana's exports to the United States should have been 5.2 times higher, revealing an additional USD2 billion of exports. Ghana's exports should have been 2.6 times higher to Germany with USD450 million worth of missed exports, 4 times higher to Japan with USD421 million of missed exports, almost 6 times higher to Brazil (with USD345 million), and 8.7 times higher to Canada (USD313 million of missed exports). (Figure 28).

Figure A3. Average Export Potential Index (EPI), 2010-2019: Ghana and peers

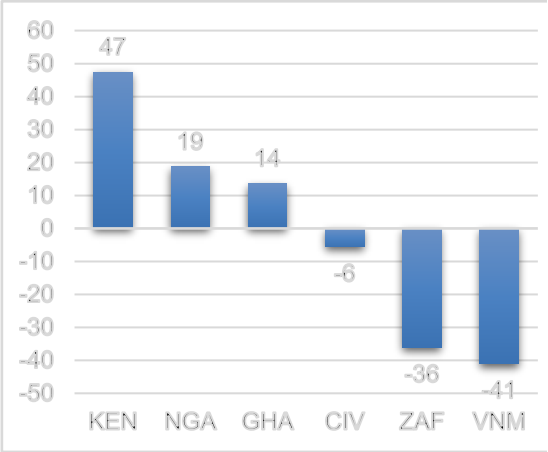
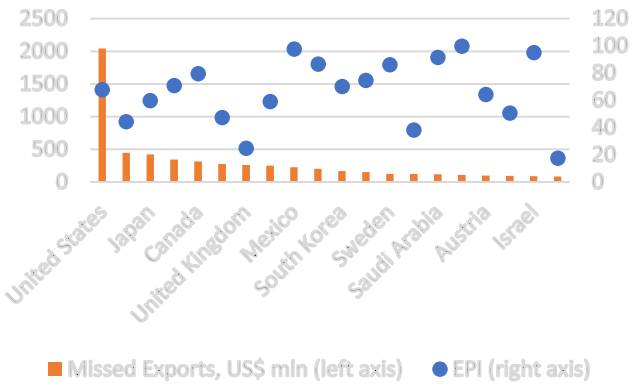


Figure A4. EPI and missing exports in top 20 markets, average 2010-2019 (USD millions)



Source: Based on Mulabdic and Yasar (2021).

CIV: Côte d'Ivoire; GHA: Ghana; KEN: Kenya; VNM: Vietnam; ZAF: South Africa

127. **Ghana's estimated export potential to African countries varies from the largest missed export destinations (such as Nigeria) to the destinations where Ghana's exports were higher than predicted (such as South Africa).** Nigeria was the only country on the African continent ranking among the top 20 global

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63 This annex was prepared by A. Mulabdic based on Mulabdic and Yasar (2021).

64 Mulabdic obtained the data estimations for this section based on Mulabdic and Yasar (2020).

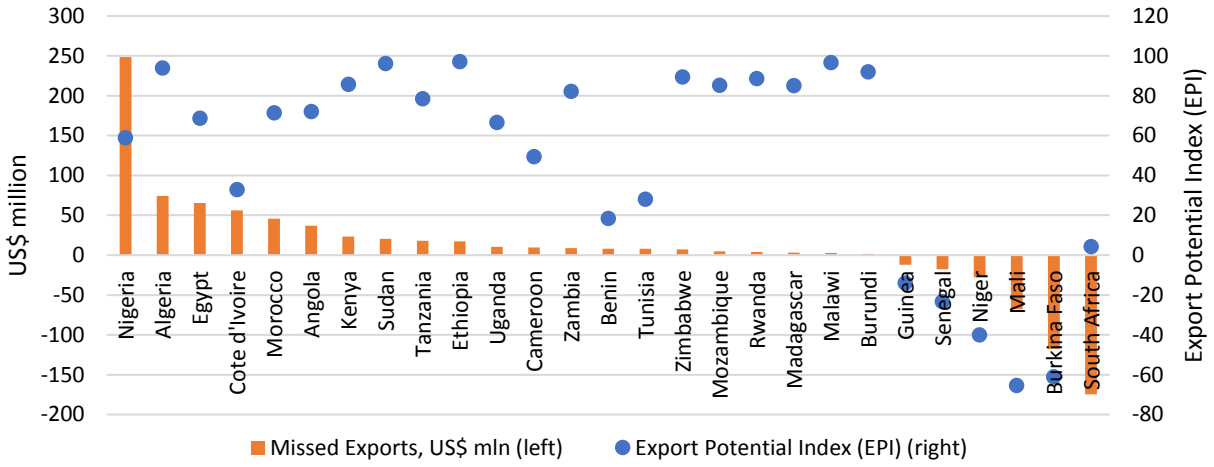
65 The Export Potential Index (EPI) varies between 100 and -100. The maximum value is obtained when observed bilateral trade flows are equal to 0 even though the model predicts positive exports to the destination market, while the minimum value (i.e., -100) is obtained when the predicted value is equal to 0 and the observed values are positive. The EPI is defined as follows: *ExportPotentialIndexi,t=jX^ij,t-jXij,tjX^ij,t+jXij,t*100*

66 For a given export potential, the relationship with respect to the observed trade flows is calculated as follows: *X^=1+ExportPotential1001-ExportPotential100*X*

67 *Missed export value* is the extent to which predicted exports deviate from actual exports during the period of analysis.

export markets with untapped export potential, representing the eighth largest missed opportunity, unveiling USD250 million in additional exports, and where Ghana's exports should have been nearly four times higher A4). On the African continent, Nigeria was the export destination with the largest missed opportunity for Ghana, followed by Algeria, Egypt, Côte d'Ivoire, and Morocco among the top five markets (Figure A5). Meanwhile, Ghana's exports to South Africa, Burkina Faso, Mali, Niger, Senegal, and Guinea have been estimated above the predicted level, suggesting that Ghana has done very well in those markets and additional opportunities might be limited.

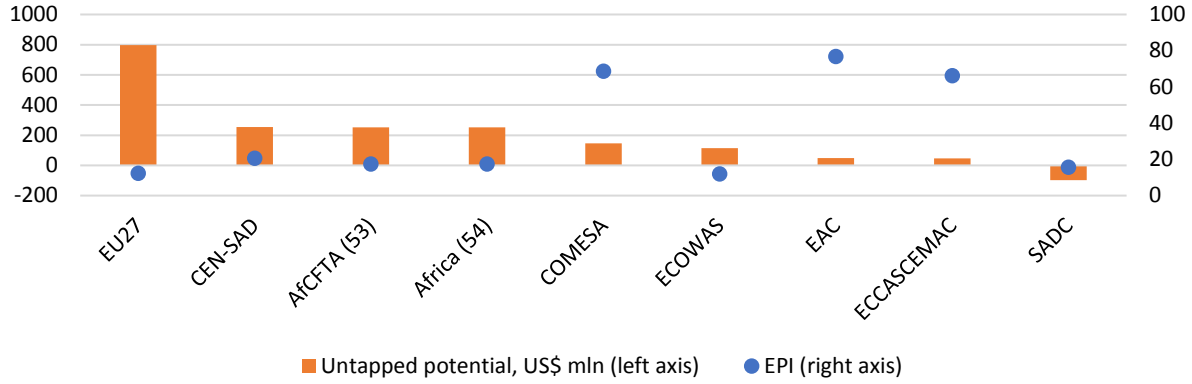
Figure A5. Export Potential Index (EPI) and missing exports to Africa, average 2010-2019



Source: Based on Mulabdic and Yasar (2021).

128. **The trade communities with the highest potential for Ghana's exports are the EU followed by the Community of Sahel–Saharan States (CEN-SAD) and AfCFTA.** Ghana's highest untapped opportunity (or missing trade value) to export is the EU, where Ghana's predicted exports have been estimated at 28 percent higher than the observed values, revealing an additional USD800 million in exports during 2010-2019. Ghana's exports to CEN-SAD should have been 50 percent higher, unveiling USD254 million in missed (untapped) exports. Ghana's exports to AfCFTA should have been 42 percent higher, with USD253 million worth of additional exports. There are also untapped export opportunities for Ghana in COMESA, ECOWAS, EAC, and to a lesser degree ECCAS/CEMAC. Meanwhile, Ghana's exports to SADC, the main export destination in Africa in 2019, were higher than what would be expected given economic size, observable trade costs, and other characteristics (Figure A6).

Figure A6. EPI and missing exports, average 2010-2019 by FTA

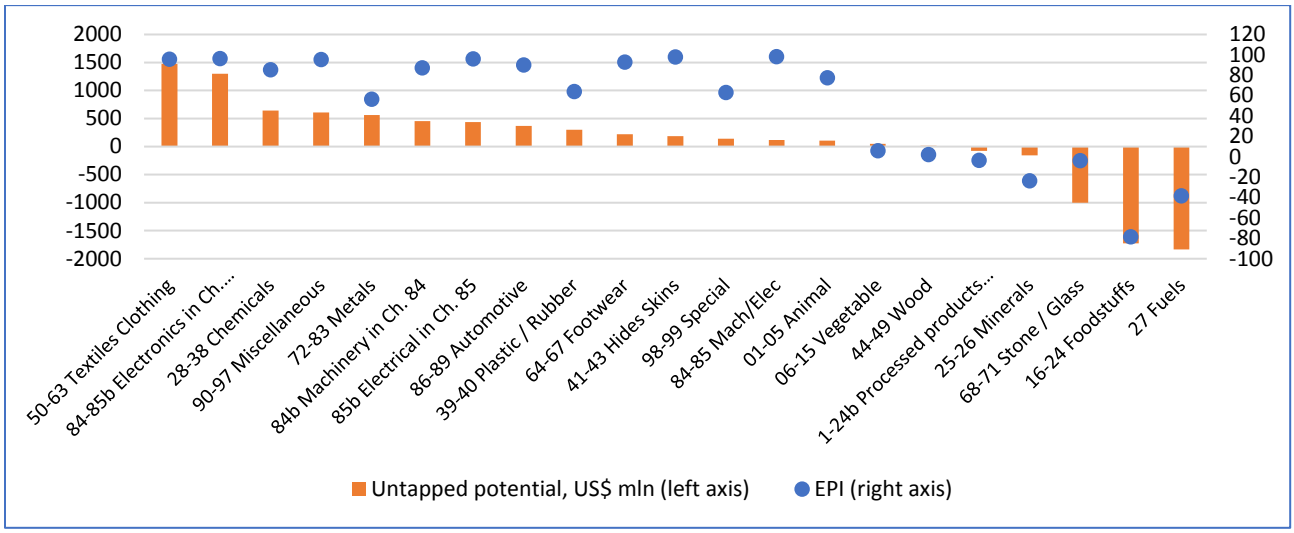


Source: Based on Mulabdic and Yasar (2021).

129. **At the industry level, Ghana's top three sectors with the greatest untapped export opportunities (missing trade) were textiles and clothing, electronics, and chemicals**. Ghana's sector with the largest estimated export opportunities is textiles and clothing, which should have been 43 times higher than observed export flows during 2010-2019 (EPI 95), revealing an additional USD1.5 billion in trade opportunities. Ghana's exports of electronics (EPI 96) should have been 51 times higher than actual values, leaving room to realize an additional USD1.3 billion in exports. Exports of chemicals could have been 12.4 times higher (EPI 85), revealing USD644 million in untapped export opportunities. Meanwhile, Ghana's currently largest exports of fuels, foodstuffs, stone and glass, minerals, and processed products have been estimated at above predicted values, indicating that Ghana's exports in these sectors are higher than expected given the observable characteristics. Ghana thus has somewhat limited potential for expansion across these sectors as opposed to sectors with the highest export potential (Figure A7).

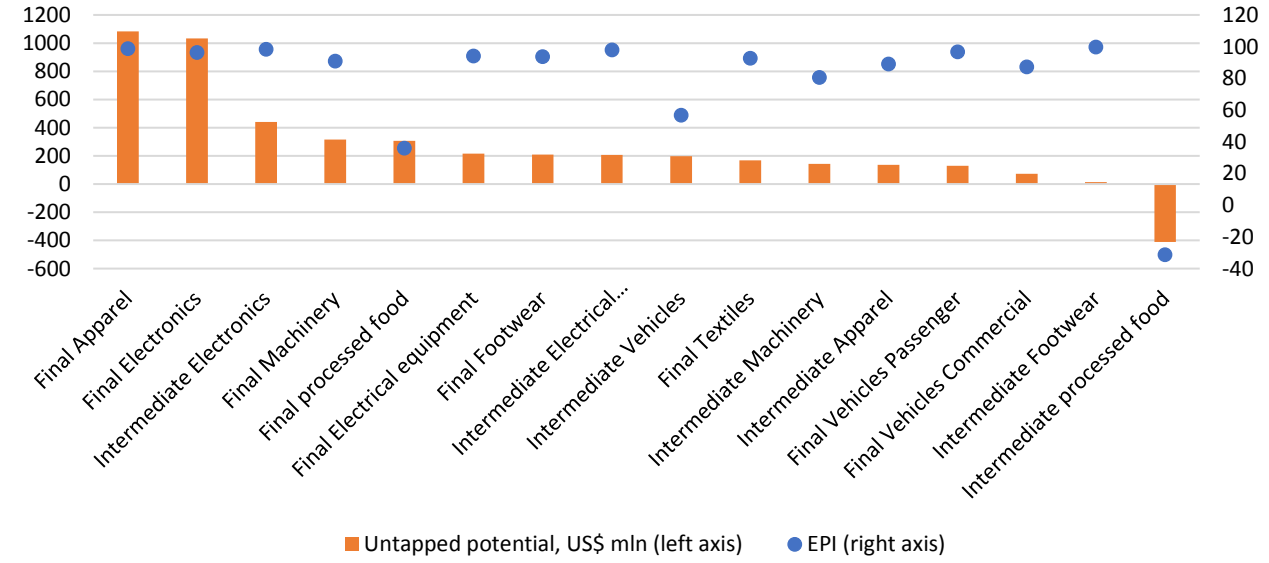
130. **In terms of processing stage and end-use sectors, Ghana's top three sectors with the greatest export opportunities (missing trade value) are final apparel, final electronics, and intermediate electronics.** Ghana's final apparel exports could have been 144 times higher than observed export flows during 2010-2019 (EPI 99), revealing an additional USD1.1 billion in trade opportunities. The predicted exports of final electronics reveal an additional USD1 billion in exports; in other words, Ghana's exports could have been 54 times higher (EPI 96). Ghana's exports of intermediate electronics have an untapped export potential worth of USD441 million, and actual exports could have been over 100 times higher (EPI 98). Meanwhile, Ghana's exports of intermediate processed food are higher than expected, given the observable characteristics (Figure A8).

Figure A7. Export Potential Index (EPI) and missing exports by sector, average 2010-2019



Source: Based on Mulabdic and Yasar (2021).

Figure A8. Export Potential Index (EPI) and missing exports by GVC sector, average 2010-2019



Source: Based on Mulabdic and Yasar (2021).

Methodology

131. This section provides details on the methodology, data sources, and measurement of the variables used in the empirical analysis to estimate Ghana's export potential based on Mulabdic and Yasar (2021). Data on trade flows and reported imports at the HS six-digit level (HS 1988/1992)[68] are taken from the World Bank's World Integrated Trade Solution (WITS). The data cover 105 countries across all geographic regions for the 2000-2019 period. The sample is restricted to countries with populations greater than five million in 2000. Population data are from the World Development Indicators (WDI) database. To analyze different industries, we aggregate the HS six-digit trade flows to obtain a new classification covering 20 sectors (Table A9). The 1-24 Food sector covers all processed products in HS Chapters 1-24, 28-38 Chemical includes the sum of all 767 products in HS Chapters 28-38, 84-85 Electronics consists of all electronics products under chapters 84-85, 84 Machinery includes machinery and mechanical appliances in Chapter 84, 85 Electrical covers electrical machinery and equipment in Chapter 85, and 86-89 Automotive includes all products in Chapters 86-89.[69]

Table A9: Industries

Sectors (HS Chapters)	Number of HS Six-digit Products
01-05 Animal	96
06-15 Vegetable	226
1-24 Food	381
16-24 Foodstuffs	26
25-27 Minerals	173
28-38 Chemicals	767
39-40 Plastic / Rubber	191
41-43 Hides, Skins	76
44-49 Wood	238
50-63 Textiles, Clothing	819
64-67 Footwear	55
68-71 Stone / Glass	196
72-83 Metals	597
84-85 Mach/Elec	23
84-85 Electronics	156
84 Machinery	438
85 Electrical	150

[68] https://www.oecd.org/industry/ind/41673246.pdf

[69] The concordance table between HS 1988/92 products and the new sectors is available upon request.

86-89 Automotive	133
90-97 Miscellaneous	389
98-99 Special	99

132. To empirically assess export potential, we estimate a simple gravity model, which is widely used in the literature to assess the effects of trade policy changes on trade flows (Head and Mayer, 2014). As shown in Costinot and Rodríguez-Clare (2014), the following gravity equation emerges from different theoretical frameworks:

$$X_{ij} = \frac{Y_i E_j}{Y}\left(\frac{\tau_{ij}}{\Pi_i P_j}\right)^{1-\sigma} \quad (1)$$

$$(\Pi_i)^{1-\sigma} = \sum_j \left(\frac{\tau_{ij}}{P_j}\right)^{1-\sigma} \frac{E_j}{Y} \quad (2)$$

$$\left(P_j\right)^{1-\sigma} = \sum_i \left(\frac{\tau_{ij}}{\Pi_i}\right)^{1-\sigma} \frac{Y_i}{Y} \quad (3)$$

where X_{ij} is the bilateral trade flow from country i to country *j*, E_j is country *j*'s total expenditure, $Y_i = \sum_j X_{ij}$ is country *i*'s income, σ is the elasticity of substitution among different varieties, and τ_{ij} is the bilateral trade costs between i and *j*. Π and P are the outward and inward multilateral resistances that capture i's and *j*'s market access, respectively.

Log-linearizing Equation (1) and assuming that the equation holds in each year t, we obtain the following gravity equation:

$$ln\,(X_{ijt}) = lnln(Y_{it}) + lnln\left(E_{jt}\right) - lnln(Y) + (1-\sigma)lnln\left(\tau_{ijt}\right) - (1-\sigma)lnln\left(P_{jt}\right) - (1-\sigma)ln\,(\Pi_{it}) \quad (4)$$

Mirrored exports X_{ijt} for 105 countries come from UN Comtrade.[70] As it is common in the gravity literature, we use exporter's and importer's nominal gross domestic product (GDP) from the World Bank's World Development Indicators (WDI) to proxy for total production (Y_{it}) and expenditure (E_{jt}). We also assume that bilateral trade costs are a function of the following observable variables from CEPII and other sources:

$$(1-\sigma)lnln\left(\tau_{ijt}\right) = \beta_1 lnln\left(1+tariff_{ijt}\right) + \beta_2 RTA_{ijt} + ln\beta_3 ln(Dist_{ij}) + \beta_4 Contig_{ij} + \beta_5 Lang_{ij} + \beta_6 Colony_{ij} \quad (5)$$

[70] We limit the analysis to countries with populations greater than five million.

$tariff_{ijt}$ are bilateral applied tariff duties, RTA_{ijt} comes from the Regional Trade Agreements database from Egger and Larch (2008) and is an indicator variable that takes a value of 1 if i and j have a trade agreement in year t, $Dist_{ij}$ is the geographical distance between i and j, $Contig_{ij}$ is an indicator variable that takes a value of 1 for country pairs sharing a border, $Lang_{ij}$ is a binary variable equal to 1 if i and j share the same language, and $Colony_{ij}$ captures the presence of any colonial ties. Bilateral tariff duties are from the Market Access Map (MAcMap) database[71] while all the other variables come from CEPII's gravity database.

133. To control for unobservable multilateral resistance terms defined in Equations (2) and (3), we construct remoteness indexes (Baier and Bergstrand, 2007; Wei, 1996). A popular alternative to this method requires the inclusion of exporter-year and importer-year fixed effects. These fixed effects, which account for multilateral resistance terms as well as any country-specific time determinants of trade, would impose a perfect fit in terms of total exports and total imports for each country in a Poisson Pseudo Maximum Likelihood (PPML) model. The two indexes of remoteness are defined as GDP weighted distance for exporters i and importer j:

$$RemExp_{it} = \sum_{j} \frac{Dist_{ij}}{\left(\frac{E_{jt}}{Y_t}\right)} \tag{6}$$

$$RemImp_{jt} = \sum_{i} \frac{Dist_{ij}}{\left(\frac{Y_{it}}{Y_t}\right)} \tag{7}$$

Finally, we include additional controls for factor endowments (Chor, 2009; Romalis, 2004). We follow Levchenko and Zhang (2014) and construct variables for capital stock per worker based on data from the Penn World Tables 9.1. We also include exporters' and importers' per capita GDP from the WDI to account for level of development, which can affect the composition of imports and exports as well as their quality.

As is standard in the trade literature, we use a Poisson Pseudo Maximum Likelihood (PPML) estimator to estimate the following gravity equation:

$$X_{ijt} = \exp\left(\beta_1 \ln\left(1 + tariff_{ijt}\right) + \beta_2 RTA_{ijt} + \beta_3 \ln\left(Dist_{ij}\right) + \beta_4 Contig_{ij} + \beta_5 Lang_{ij} + \beta_6 Colony_{ij} + \beta_7 \ln\left(GDP_{it}\right) + \beta_8 \ln\left(GDP_{jt}\right) + \beta_9 \ln\left(RemExp_{it}\right) + \beta_{10} \ln\left(RemExp_{jt}\right) + \beta_{11} \ln\left(\frac{K_{it}}{L_{it}}\right) + \beta_{12} \ln\left(\frac{K_{jt}}{L_{jt}}\right) + \beta_{13} \ln\left(GDPpc_{it}\right) + \beta_{14} \ln\left(GDPpc_{jt}\right)\right) + \varepsilon_{ijt} \tag{8}$$

[71] https://www.macmap.org

Equation (8) is obtained by substituting (5), (6), and (7) in the exponential form of Equation (4), and by adding the error term ε_{ijt}. Additional controls include exporters' and importers' GDP, per capita GDP, and capital stock per worker ratio. The PPML estimator accounts for the problem of zero trade flows as not all countries trade with all the countries in the world as well as for heteroskedasticity in trade data.

135. To estimate export potential, we implement a two-step procedure. In a first step, we use the estimated coefficients from Equation (8) to predict bilateral trade flows based on countries' observable characteristics. In a second step, we aggregate exports at the country level to calculate the aggregate export potential index, which is defined as follows:

1st Step

$$\hat{X}_{ijt} = exp\left(\hat{\beta}_1 ln\left(1 + tariff_{ijt}\right) + \hat{\beta}_2 RTA_{ijt} + \hat{\beta}_3 ln\left(Dist_{ij}\right) + \hat{\beta}_4 Contig_{ij} + \hat{\beta}_5 Lang_{ij} + \hat{\beta}_6 Colony_{ij} + \hat{\beta}_7 ln\left(GDP_{it}\right) + \hat{\beta}_8 ln\left(GDP_{jt}\right) + \hat{\beta}_9 ln\ln\left(RemExp_{it}\right) + \hat{\beta}_{10} ln\ln\left(RemExp_{jt}\right) + \hat{\beta}_{11} ln\ln\left(\frac{K_{it}}{L_{it}}\right) + \hat{\beta}_{12} ln\ln\left(\frac{K_{jt}}{L_{jt}}\right) + \hat{\beta}_{13} ln\ln\left(GDPpp_{it}\right) + \hat{\beta}_{14} ln\ln\left(GDPpp_{jt}\right)\right) \quad (9)$$

2nd Step

$$ExportPotentialIndex_{i,t} = \left(\frac{\sum_j \hat{X}_{ij,t} - \sum_j X_{ij,t}}{\sum_j \hat{X}_{ij,t} + \sum_j X_{ij,t}}\right) * 100 \quad (10)$$

A. Services-led Economic Transformation

136. Some of the largest development gains in history have been associated with industrialization. Those economies that led the Industrial Revolution are now among the richest in the world. More recently, the economic takeoff circa 1960 that resulted in East Asia's growth miracle coincided with the rapid growth of the manufacturing sector, reinforcing the development community's attention on the manufacturing export-led development model. The few countries that have reached high income levels without developing a manufacturing base have done so through either natural resource extraction or the exploitation of specific locational or other advantages.

Key Features of Manufacturing

137. Manufacturing-led development, particularly as exemplified by East Asia's success in export-led growth, has highlighted how a sector's key characteristics shape its potential to drive development. The experience with manufacturing underscores the sector's contributions from: (i) access to larger markets; (ii) the scope to augment labor with capital and technology; and (iii) linkages with other sectors, that is, the contributions of economies of scale, innovation, and spillovers.

138. Kaldor's growth laws, which are based on data from high-income economies in the 1960s, reflect the contributions of innovation, scale, and spillovers in delineating the manufacturing sector as the main engine of growth for an economy (Kaldor, 1966). These laws document three positive associations:

(a) Between growth in manufacturing output and *average GDP growth* (explained via a transfer of surplus labor from agriculture to manufacturing, where it can be combined with capital and technology);

(b) Between growth of manufacturing output and *manufacturing productivity* (attributable to static and dynamic economies of scale); and

(c) Between growth in manufacturing output and *overall productivity* of the economy (owing to spillover effects). Based on data from low- and middle-income countries (LMIC) between 1995 and 2018, Kaldor's three growth laws remain valid for the broad industrial sector. As further described below, these dynamics have led to productivity growth and substantial job creation for unskilled workers.

139. **Economies of scale.** Manufactured goods are storable and transferable so that production can be separated from consumption. This enabled the manufacturing sector to achieve enormous gains from *scale*, particularly when goods were traded and thus able to access demand beyond the domestic market. Although the agriculture sector was also traded, it typically faced price volatility in international markets.

140. Demand-side dynamics also underlie the global expansion of markets for manufactured goods (Szirmai, 2012). As per capita incomes rise, the share of agricultural products in total expenditure declines while the share of manufactured goods increases in accordance with a hierarchy of needs (Engel's law). The production of tradable manufactured goods facilitates economies of scale, technology diffusion, and greater competition which, in turn, underlie the catch-up phenomenon labor productivity in (formal) manufacturing exhibits across countries (Rodrik, 2012).

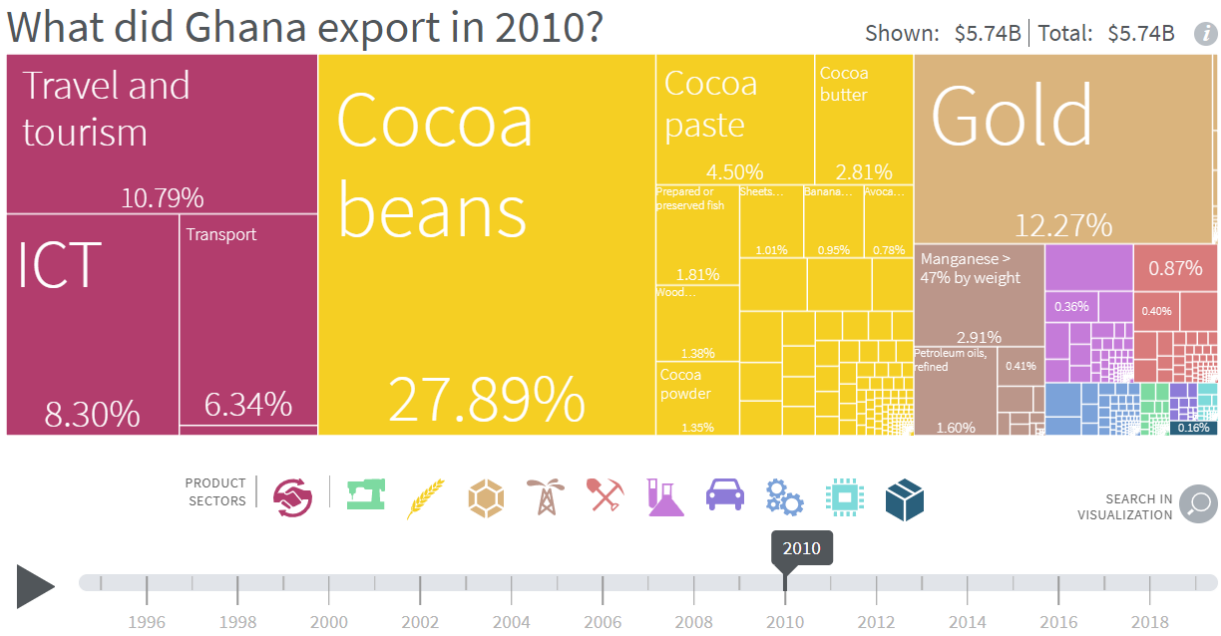
141. **Innovation.** The movement of surplus labor from (rural) agriculture to (urban) manufacturing and capital accumulation in the latter (Lewis, 1954) was integral to innovation dynamics in the manufacturing-led development model. Much of the innovation was focused on improving and deepening capital investment, most of which raises labor productivity (although automation can serve to replace labor, too, beyond a threshold) while also providing the benefits of economies of scale. This innovation through labor-augmenting capital accumulation is reflected in large, systematic differences in labor productivity between the agriculture and manufacturing sectors, and these inter-sectoral labor productivity gaps are wider in the poorest countries (Herrendorf, Rogerson, and Valentinyi, 2013; Restuccia, Yang, and Zhu, 2008).

142. **Spillovers.** Linkages between manufacturing sub-sectors also helped expand the productivity and growth dynamics of manufacturing through *spillovers*, for example from basic metals to machinery and equipment, whereby manufactured goods could in turn help make more, and more sophisticated, goods.

143. **Job creation.** The production process in the manufacturing sector typically absorbed large numbers of relatively unskilled workers from agriculture at a substantial productivity premium and subsequently placed that labor on a productivity path that rises up to the global frontier (Hausmann, Hwang, and Rodrik (2005) owing to opportunities for scale, innovation, and spillovers.

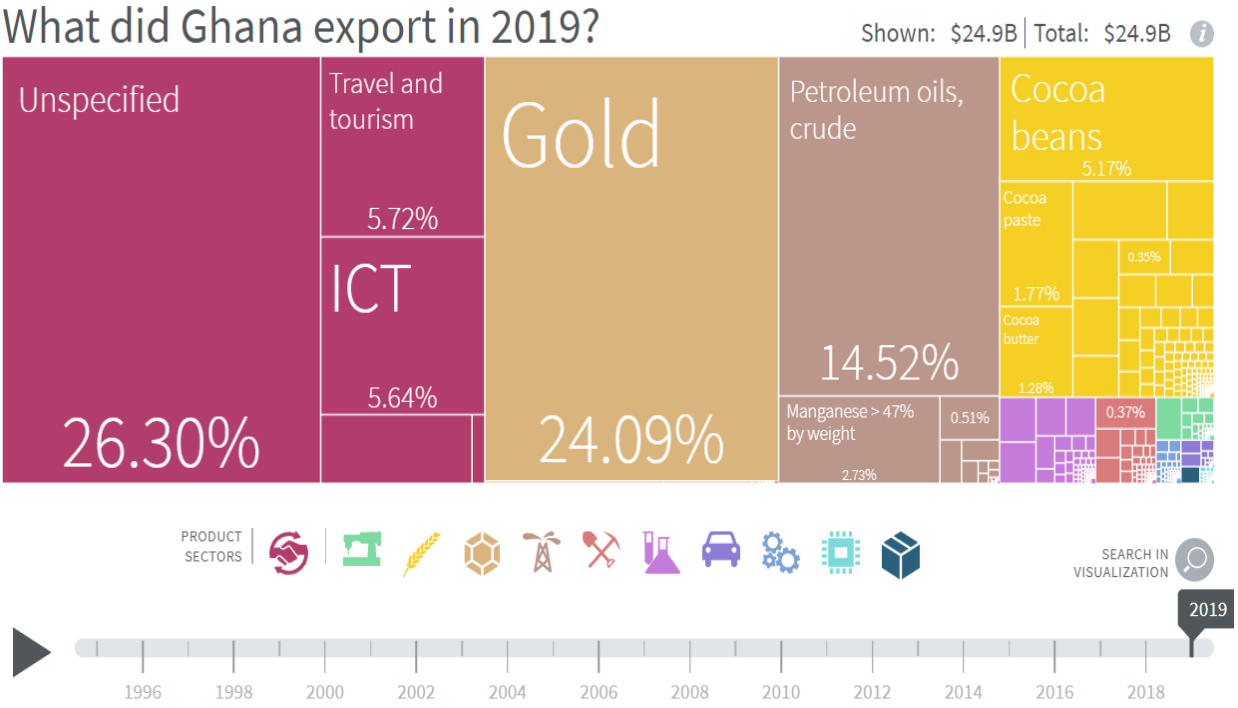
144. However, the contrast between the industrialization experiences in East Asia and Latin America is important here. Labor-intensive, export-oriented industrialization in East Asia integrated the countries into world markets, enabling them to achieve scale, face competition, and acquire foreign technology while creating jobs for unskilled labor. In contrast, import substitution industrialization in Latin American countries, an inward-oriented strategy implemented in the mid-twentieth century, used trade barriers to strengthen local producers and often employed capital-intensive techniques that did.

Figure A9: What Did Ghana Export in 2010?



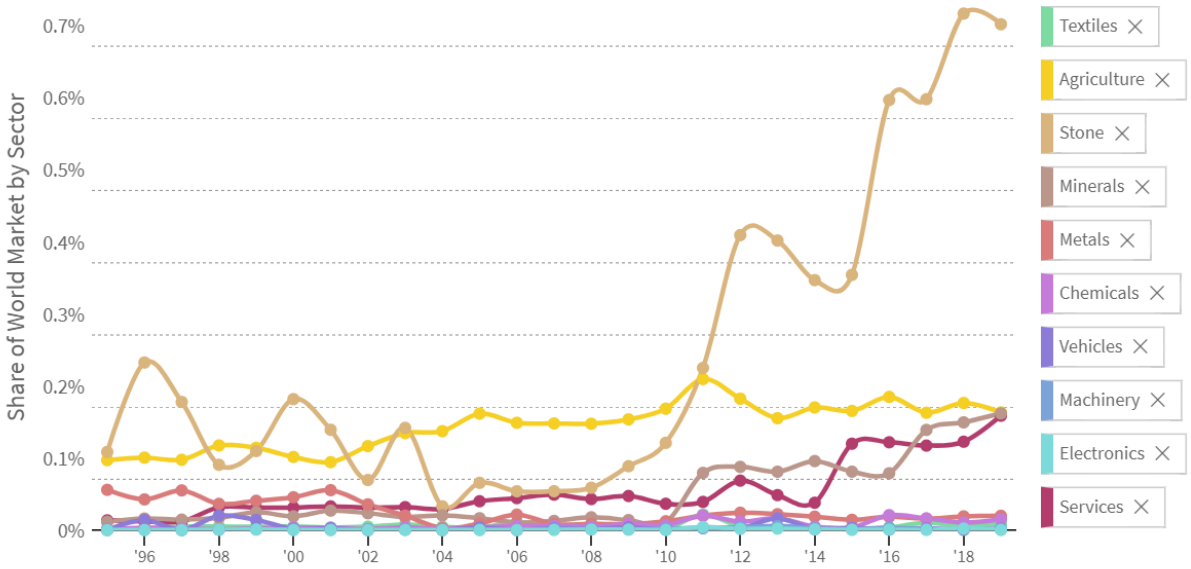
Source: Atlas of Economic Complexity 2010

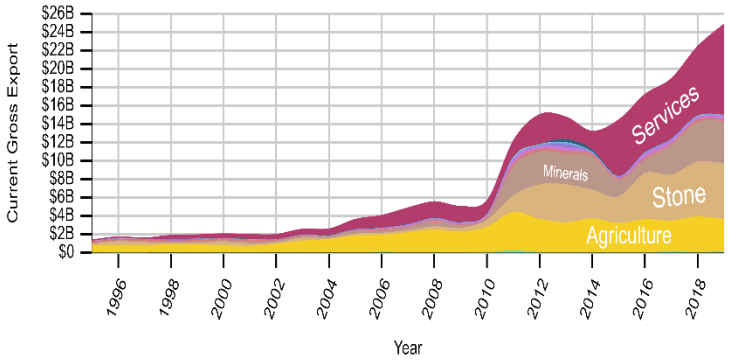
Figure A10: What Did Ghana Export in 2019?



Source: Atlas of Economic Complexity 2019

Figure A11: What Share of the Global Market Does Ghana Export?





Notes on GVCs

145. **Thanks to GVCs, it is now possible for developing countries to participate in gains from producing sophisticated products by specializing in tasks rather than having to master the entire production process of a good by large domestic firms**. Countries can join GVCs by facilitating the entry of domestic firms or by attracting foreign direct investment (FDI). The FDI option includes more direct access to foreign know-how and technology. African countries have managed to join GVCs in the apparel, food, and automotive industries and in some business services. However, Africa participation in global trade in intermediate goods is just 3 percent, reflecting the preponderance of agriculture and natural resources in African exports. Cross-country comparison among SSA countries shows that Ghana has the potential to integrate further into GVCs than is currently the case.

146. **Countries are integrated into GVCs in different ways depending on whether industry-specific GVCs are producer-driven or buyer-driven.** Leveraging advances in transport and communications technologies, large multinational enterprises (MNEs), mostly from advanced to developing countries, incorporate offshoring and outsourcing as key parts of their global strategies together with an increase in FDI and intra-firm international trade. GVCs are classified as either producer-driven or buyer-driven.[72] In producer-driven GVCs, MNEs play a central role in controlling the production system, including forward and backward linkages through their domestic and foreign subsidiaries and subcontractors. These types of GVCs are common in capital- or technology-intensive industries such as automotive industries, computers, aircraft and electrical machinery.

147. **On the other hand, in buyer-driven GVCs, large retailers and brand-named companies play a pivotal role in setting up production networks through different tiers of contractors**, though production is carried out by individual factories. Examples of such GVCs are labor-intensive, consumer goods industries such as apparel, footwear, toys, consumer electronics, and housewares. Honduras, Ethiopia, and Bangladesh (among others) are mostly engaged in simple manufacturing tasks while Malaysia, Poland, and the Philippines specialize in more complex manufacturing segments of the value chain or in services tasks that have become increasingly traded. In Africa, participation in GVCs by most countries is classified as either limited manufacturing or commodity exporters). Linked to GVCs are secondary or support activities that ensure efficiency in primary activities such as procurement, technology research, product development, and human resource management.[73]

148. However, **gains from GVCs are not automatic but rather depend on a host of country- and firm-level characteristics, which ultimately leads to within- and cross-country heterogeneity in gains from GVC trade.** For instance, in a study of gains from GVC integration, Sampath and Vallejo (2018) revealed the prominent role played by countries' innovation system. In a study of firms in South Africa, Mazzi et al. (2020) found evidence of export-productivity premiums but only for firms engaging simultaneously in GVC and R&D investment. In a study focusing on African countries, Owusu (2021) found that integration into GVCs leads to productivity growth and intra-sector reallocation but only in non-resource and non-oil intensive countries.

149. **What is the role of global value chains (GVCs) in the design of Preferential Trading Areas (PTA)?** Empirical evidence suggests that trade occurring through GVCs increases the probability of forming deep PTAs, i.e., agreements that include provisions that go beyond WTO coverage.[74] While tariff reductions on a preferential basis are a central feature of all bilateral and regional trade agreements, the inclusion of provisions that do not pertain directly to merchandise trade policies such as provisions liberalizing and protecting FDI and opening access to services markets have become increasingly common in PTAs. As a result, many PTAs regulate trade-related issues more extensively and more stringently than does the WTO. Simply put, PTAs, not the WTO, have become the main instrument used by countries to deepen trade policy cooperation. These GVC-trade effects are larger than those of gross exports, which include flows unrelated to GVCs. Results indicate that GVCs are an important driver of deep preferential liberalization.

[72] Gereffi (1994).

[73] Jones et al. (2019).

[74] Baccini et al. (

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