ISSN 2413-3175
2025/02

INTERNATIONAL TRADE WORKING PAPER

Industrialising Africa through Multilateral Trade

Collin Zhuawu

The Commonwealth

International Trade Working Paper 2025/02

ISSH 2413-3175

By Collin Zhuawu

Collin Zhuawu is Economic Adviser and Acting Head in the International Trade Policy Section, Commonwealth Secretariat, London. Any views expressed are those of the author and do not necessarily represent those of the Commonwealth Secretariat.

Please cite this paper as: Zhuawu, C. (2025) 'Industrialising Africa through Multilateral Trade', *International Trade Working Paper* 2025/02, Commonwealth Secretariat, London.

Abstract

This paper discusses the inequalities and imbalances in current World Trade Organization (WTO) trade rules that disadvantage African countries and hinder their industrialisation and economic transformation goals. It examines the progress of Africa's trade-driven industrialisation, the challenges faced and the implications of WTO rules for African industrial policies. It underscores the need for WTO reforms to promote industrialisation. It concludes by suggesting ways to help African countries advance their position on trade-driven industrialisation in the context of WTO reform discussions.

Contents

1. Introduction

Recent global developments, such as the COVID-19 pandemic and geopolitical tensions, have had negative impacts on the global trading landscape. These events have exposed the risk of setbacks in the trade-led development trajectories of African countries, threatening their hard-won development gains. Most African countries, including Commonwealth African countries,[1] rely heavily on trade, primarily in commodities, for economic growth and development. This narrow focus and the lack of diversification in their economies makes them particularly susceptible to significant changes in the global trading landscape, rendering them more vulnerable than developed countries.

For African countries,[2] the World Trade Organization (WTO) provides a vital framework that supports their trade ambitions, economic growth and sustainable development. WTO agreements offer multilateral guidelines and regulations for responsible policy formulation for many developing nations. For most African countries, the multilateral trading system (MTS) represents the best opportunity to create a more equitable global trade landscape. It also offers a global platform for articulating and advancing their trade and development goals, especially during global crises that disrupt trade, helping them recover to pre-crisis levels and revive their trade-focused development.

Since the inception of the WTO, African countries together with other developing countries have expressed concerns that the rules governing the WTO and multilateral trade are not to their advantage. For example, developed countries, especially the United States and the European Union, have maintained high levels of agricultural subsidies, which have disadvantaged farmers in developing countries by making it harder for them to compete in global markets (Schmitz et al., 2006). Meanwhile, the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) has imposed stringent intellectual property standards that have been challenging for developing countries to implement. This has often led to higher costs for essential medicines and technology (Watal, 2000).

In addition, while the Uruguay Round aimed to improve market access, the actual benefits were uneven. Developed countries gained more access to markets in developing countries, but the reverse was not as effectively realised (Stiglitz and Charlton, 2005). Furthermore, the inclusion of services on the WTO agenda primarily benefited developed countries, as they had more advanced services sectors. Developing countries struggled to compete and to adapt to the new regulations (Khor, 2001).

This has put developing countries and African countries at a disadvantage and hindered them from pursuing their economic transformation and industrialisation goals. As a result, developing countries have always demanded a guarantee of the full participation of all WTO members to ensure multilateral trade benefits everyone and contributes to global growth and development. In this regard, it is critical that the WTO preserve the rules-based nature of the MTS, ensure inclusivity and meet the development and industrialisation aspirations of the weaker members, and enhance their participation in the MTS.

The 1999 Seattle crisis, occurring five years after the WTO's establishment, underscored the need to address the needs of developing nations to ensure they benefited from the MTS. Facing potential collapse as developing countries threatened to withdraw, the WTO convinced these countries to engage in a new round of negotiations by promising a 'development round' focusing on their needs. This led to the Doha Development Round (DDR) in 2001. However, the DDR collapsed in Nairobi in 2015 without substantial outcomes on developmental issues of interest to developing countries. Since then, African countries have unsuccessfully tried to repackage their development concerns for WTO discussions.

African countries remain undeterred in their efforts to present proposals that back their development initiatives, particularly those targeting poverty reduction, accelerated recovery from global crisis such as the COVID-19 pandemic or better navigation of the challenges geopolitical conflicts present. They argue that the WTO should undergo reforms to better support their use of trade as a tool for economic transformation and sustainable development.

Reforming the WTO offers a chance to rebalance multilateral trade rules, promoting

industrialisation and tackling emerging issues like climate change and digital transformation. This can be achieved by revising trade rules to promote industrial development and strengthen resilience against global uncertainties in developing countries.

As Africa's population continues to grow, creating more and better jobs for youth is crucial to achieve poverty reduction and shared prosperity. Industrialisation is essential for economic transformation and plays a significant role in addressing various challenges, in sectors ranging from education to energy. This paper contends that positioning trade-driven industrialisation at the heart of Africa's economic transformation and job creation strategy necessitates deeper integration into the global trading system. This could be achieved by reforming WTO rules to support industrialisation. In this regard, the paper emphasises the need for WTO reforms that prioritise industrialisation to expand trade.

The paper starts in Section 2 by presenting an overview of the widespread rethinking on industrial policy, examining the renewed interest in industrial policy, highlighting that both developed and developing countries are using industrial policy to address modern challenges. Section 3 examines progress on industrialisation in Africa. Section 4 unpacks African countries' case for trade-driven industrialisation aimed at propelling economic growth, job creation and sustainable development on the continent, and considers the challenges faced in implementing trade-driven industrial policy. Section 5 examines the implications of WTO rules for African countries' industrial policies. Section 6 then discusses rethinking and updating WTO trade rules to promote industrial development and enhance resilience in African countries. The paper concludes by suggesting possible ways to help African countries advance their position on trade-driven industrialisation in the context of the discussions on WTO reform.

2. Rethinking industrial policy

Industrial policies are government actions designed to reshape the domestic economy to achieve specific objectives (Ilyina et al., 2024). They can also be defined as targeted government interventions aimed at supporting specific domestic firms, industries or economic activities to achieve various national objectives, including economic, security, social or environmental goals (Evenett et al., 2024). At the same time, industrial policy can have negative impacts, such as generating inefficiencies, hampering long-term competitiveness and creating dependency on government support, as well as implications for the wider global trading environment, such as greater trade protectionism (see Table 1).

However, when well crafted, these policies can address market failures, such as gaps in expertise or imperfections in capital markets, and offer economic benefits by promoting competition and enhancing research and funding (Ilyina et al., 2024).

In the past, numerous developing countries in Latin America, Africa and Asia adopted import substitution strategies, implementing high tariffs and subsidies to stimulate manufacturing. However, these policies frequently resulted in inefficient industries with minimal innovation. In contrast, successful Asian economies such as Korea flourished by fostering competitive export environments rather than relying heavily on industrial policies. By the time of the 2008 global financial crisis, industrial policies had largely fallen out of favour (Ilyina et al., 2024).

In recent years, there has been renewed interest in industrial policies by both developed and developing countries, in response to a challenging global environment. Factors driving this renewed interest include traditional competitiveness, climate change mitigation, national security and geopolitical concerns, and the need to improve the resilience of the supply chain. These new motives, particularly climate change and geopolitical concerns, have become more prominent. This resurgence reflects both traditional goals of boosting domestic industrial growth and new strategic objectives. For instance, China and the United States have initiated major efforts to promote the domestic production of computer

Table 1: Positive and negative impacts of industrial policies

Possible positive impacts	Possible negative impacts
Economic diversification. Reduces reliance on volatile sectors such as oil or agriculture, while promoting the growth of new industries, particularly in manufacturing and technology (Van Nostrand and Feiveson, 2023).	**Market distortion**. Government intervention can result in inefficient allocation of resources like capital and labour, often benefiting less competitive industries. Moreover, public support for specific sectors may crowd out private investment in other areas that could be more innovative or productive (Ilyina et al., 2024).
Job creation and skills development. Drives employment growth in targeted sectors and supports training and education programmes tailored to industry needs, enhancing workforce skills and capabilities (US Department of Labour, nd).	**Rent-seeking and corruption**. Companies may focus on lobbying for government support instead of enhancing competitiveness, fostering cronyism. Additionally, discretionary subsidies or protection measures can open the door to corruption and the misuse of public funds (Davis, 2024).
Innovation and technological advancement. Encourages investment in research and development through subsidies and incentives. Also supports the creation of innovation ecosystems, e.g. technology hubs and research clusters (Savchuk, 2019).	**Reduced competition**. Protectionist policies can reinforce the position of incumbent firms and deter new market entrants. Companies insulated from competition may have little incentive to innovate or enhance efficiency (World Bank, 2023).
Infrastructure development. Often involves investments in transport, energy and digital infrastructure, delivering widespread benefits across the broader economy (Christianson, 2023).	**Fiscal burden**. Subsidies, tax incentives and bailouts can place significant strain on public finances, particularly if the supported industries fail to yield adequate returns. Resources allocated to industrial policy might be more effectively invested in areas like education, infrastructure or health care (Farren and Mitchell, 2020).
Global competitiveness. Supports domestic firms in scaling up and competing on the international stage. Can also foster the emergence of national champions in key strategic sectors (Ilyina et al., 2024).	**Trade tensions**. Protectionist measures can trigger trade disputes or prompt retaliatory tariffs from other countries. In addition, certain policies may violate international trade agreements, resulting in sanctions or legal challenges (Ravindran, 2025).
Regional development. Focuses on underdeveloped areas to reduce geographic disparities and promote cluster development, stimulating local economic growth (Muro et al., 2022).	**Technological lock-in**. Government support may favour outdated or declining technologies, potentially locking the economy into less optimal development paths. Moreover, industrial policies often struggle to keep pace with rapid technological advancements and evolving global markets (Rodrik, 2004).
Environmental sustainability. Facilitates the shift towards green technologies and low-carbon industries. Also encourages innovation in areas such as clean energy, recycling and sustainable manufacturing (UNEP, nd).	
Strategic autonomy. Decreases dependence on foreign supply chains for essential goods such as semiconductors and pharmaceuticals. Additionally, strengthens national security by building domestic production capabilities (Mohseni-Cheraghlou, 2021).	

chips, electric vehicles and solar panels through subsidies and import barriers like tariffs and local content requirements.

The New Industrial Policy Observatory (NIPO 2.0) indicates a resurgence of targeted interventions by governments to transform specific firms, sectors and activities.[3] Since early 2024, there has been a notable rise in the use of local content requirements, foreign investment controls and public procurement localisation. This trend points to a growing readiness among governments to employ openly discriminatory

Table 2: Industrial policy measures taken by countries 2024 – initial assessment (change relative to 1 January 2017)

Country group	Number of measures	% of total measures
Developed countries	242	56
China	85	20
Developing countries excluding China	94	22
African countries	8	2
Total	429	100

Source: GTA NIPO 2.0 2024

measures, even those that violate WTO commitments (Ilyina et al., 2024).

Table 2 show that developed and developing counties, including African countries, are now adopting industrial policy measures, leading to significant cross-border impacts on global trade and the economic system. Over half (56 per cent) of the sample measures provided by NIPO had been adopted by developed countries. This is followed by developing countries, excluding China, at 21 per cent, and China at 20 per cent. Measures taken by African countries are minimal, accounting for just 2 per cent. Developed countries are more active in implementing new industrial policies (NIPs), primarily using subsidies, while emerging markets and developing economies frequently use trade restrictions (Evenett et al., 2024).

Countries have also implemented measures such as subsidies and tariffs to protect favoured sectors. Table 3 shows that these measures have targeted the critical raw materials downstream industries sector, the industrial raw materials sector and the information technology (IT) and digital services sector. For instance, out of the 120 measures aimed at the critical raw materials downstream industry, 58 per cent had been adopted by developed countries, followed by China at 32 per cent and developing countries excluding China at 10 per cent. Measures taken by African countries are minimal, accounting for just 1 per cent. This falls short of the ambition outlined in the Africa Green Minerals Strategy (AGMS), which prioritizes equitable resource-based industrialization, regional value chain development, and the adoption of green technologies (African Minerals Development Centre, 2024). Despite AGMS policy ambitions, 70 per cent of Africa's critical minerals are still exported in raw form (International IDEA, 2024).

The growing use of protectionist tools, such as subsidies and tariffs, to generate government revenues, promote favoured firms or sectors, and protect domestic investments has impacts on supply chains and foreign direct investment (FDI). Consumers also face market access challenges as a result of these selective measures.

However, more research is necessary to evaluate the effectiveness of NIPs and their economic impact. Additionally, examining the effectiveness of current trade rules and enforcement mechanisms in managing industrial policies is crucial.

Table 3: Measures to protect favoured sectors taken by countries, 2024 – initial assessment (change relative to 1 January 2017)

	Critical raw materials downstream industry		Industrial raw materials		IT or digital services	
Country group	No. of measures	% of total measures	No. of measures	% of total measures	No. of measures	% of total measures
Developed countries	69	58	33	42	32	74
China	38	32	27	34	6	14
Developing countries excluding China	12	10	17	22	5	12
Africa	1	1	2	3	0	0
Total	**120**	**100**	**79**	**100**	**43**	**100**

Source: GTA NIPO 2.0 2024

3. Progress on Africa's industrialisation

In Africa, industrialisation is crucial to achieving inclusive growth and job creation, as emphasised in various development strategies such as the Sustainable Development Goals (SDGs) and Agenda 2063. The African Development Bank (AfDB) underscores the importance of industrialisation in its Ten-Year Strategy and the Industrialise Africa initiative.

For many African countries, industrialisation is essential to economic growth and facilitating involvement in global production networks and supply chains. Connectivity plays a pivotal role in the continent's industrialisation, enhancing competitiveness in global value chains and unlocking economic potential, particularly for landlocked countries. Africa's development path depends on industrialisation bolstered through its integration into global markets. Industrialisation also significantly boosts physical and human capital, bringing informal and formal economies together and creating extensive linkages with various sectors. It drives demand for raw materials, energy and IT, while increasing the supply of products for consumer markets and other sectors. Rapid urbanisation and a burgeoning young workforce present a significant opportunity for Africa industrialisation, with a projected working-age population of 1.1 billion by 2034 (Prakash, 2019).

However, many African economies are heavily dependent on raw commodities, making them susceptible to global market fluctuations, as evidenced by the COVID-19 pandemic and the Russia–Ukraine conflict. These events have underscored the need for Africa to lessen its dependence on exporting raw materials to external markets and on external suppliers of essential goods and services.

To tackle these challenges, there is a need for African countries to boost industrialisation for growth. African governments should actively promote industrial development, especially in view of the de-industrialisation experienced in recent years (Kruse et al., 2021). Box 1 provides examples of the diverse challenges faced by African countries in maintaining and growing their industrial sectors.

Efforts to reverse de-industrialisation often focus on improving infrastructure, fostering investment and creating favourable policies for industrial growth. The African Industrialisation Index (AII) of the AfDB and others (2022)[4] indicates that most African countries are steadily advancing in terms of industrial development. A select few, including Côte d'Ivoire, Egypt, Equatorial Guinea, the Kingdom of Eswatini, Mauritius, Morocco, Namibia, Senegal, South Africa and Tunisia, have established advanced manufacturing capabilities. Noteworthy progress has been observed in Benin, Ethiopia, Eritrea, Gabon, Guinea, Mauritania, Mozambique, Senegal and Seychelles, which improved their rankings by five or more places between 2010 and 2019.

On the other hand, countries such as Eritrea and Mauritania demonstrated strong export performance, resulting in higher manufacturing value-added per capita. Mozambique experienced significant growth due to increased FDI, especially in the oil and gas sector. Notable improvements in business climates and infrastructure were observed in Burkina Faso, Côte d'Ivoire, Kenya, Mauritania, Niger, Tanzania, and Seychelles. Overall, the Index underscores both the progress made and the areas requiring further development to advance industrialisation across Africa. Also, some countries like Ghana, Ethiopia, and Mauritius have taken initiatives to kickstart industrialisation through public-private sector collaboration to support emerging industries through targeted investments in infrastructure, skills, and access to capital and markets (AfDB et al., 2022).

Nevertheless, progress has been slow, with Africa's share of global manufacturing output falling below 2 per cent, and job creation is not keeping up with population growth (AfDB et al., 2022). Despite efforts to diversify their economies and export baskets and promote industrial development, industrial and manufacturing output and value-added remains disappointing.

Figure 1 highlights the challenges African countries face in seeking to advance industrialisation. It shows that Africa's industrial value added in gross domestic product (GDP) remains among the lowest globally. African regions generally have lower industrial value added as a percentage of GDP compared to other regions. This indicates that the industrial

Box 1: Challenges faced by African countries in maintaining and growing their industrial sectors

De-industrialisation in Africa has involved the decline of industrial activity, particularly manufacturing, which has had significant economic and social impacts. Many African countries faced economic crisis in the 1980s and 1990s, leading to the imposition of structural adjustment programmes by international financial institutions. These programmes often resulted in reduced public spending and privatisation, with negative impacts on industrial sectors. African industries struggled to compete with more advanced and efficient industries in developed countries and emerging economies. This competition led to a decline in local manufacturing and an increase in imports. In addition, inadequate infrastructure, such as transportation and energy, and limited investment in technology and skills hindered industrial growth and also led to the closure of many manufacturing plants (Moyo, 1015).

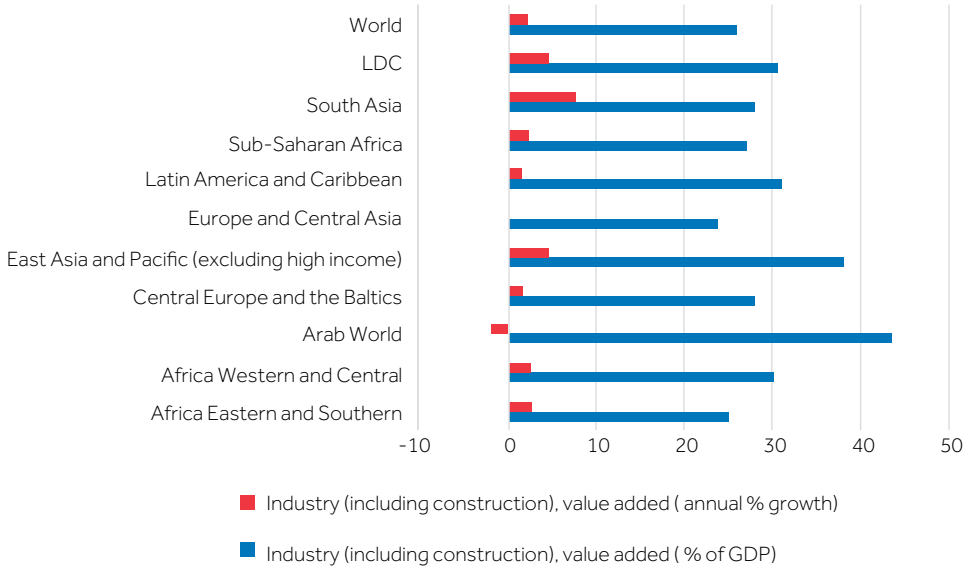
Rodrik (2015) argues that many developing countries are experiencing de-industrialisation at much lower levels of income compared to early industrialisers like the United States and Europe. This means these countries are losing industrial jobs and output before they have fully benefited from industrialisation. This de-industrialisation has had profound social impacts, including increased unemployment, reduced wages and the growth of informal sectors. As a result, many African economies have remained heavily dependent on the export of primary commodities, such as minerals and agricultural products, rather than developing a diversified industrial base, making them vulnerable to global price fluctuations.

Examples of de-industrialisation experiences in specific African countries include the following:

- South Africa's manufacturing sector has faced challenges as a result of global competition and economic policies that have favoured liberalisation. Reduced tariffs and the opening-up of markets have led to increased imports, with negative impacts on local industries (Dinh, 2023). Issues such as labour strikes and energy shortages have also contributed to the decline in manufacturing.
- Kenya's de-industrialisation has been influenced by the liberalisation policies of the 1990s, which led to the closure of many manufacturing firms that were unable to compete with imported goods (McMillan, 2024). The textile industry, once a significant sector, has suffered greatly as a result of competition from cheaper imports and second-hand clothing.
- Ghana's industrial sector has struggled as a result of inadequate infrastructure and high production costs. A shift towards a services-oriented economy and reliance on primary commodity exports have further hindered the country's industrial growth. The closure of several manufacturing plants has led to increased unemployment and economic instability.

Sources: Moyo (2015); Rodrik (2015); Dinh (2023); McMillan (2024)

Figure 1: Industrial value added (% of GDP and annual % growth), 2023



Source: World Bank World Development Indicators

sector's contribution to the overall economy is relatively smaller in African regions. For instance, regions like East Asia and the Pacific, and the Arab World, have higher percentages of industrial value added, reflecting a more significant industrial base (see Annex I for data on the individual performance of African countries).

The same scenario applies for annual growth in industrial value added, where African regions also have lower rates compared to other regions (see Annex I for disaggregated data on the performance of individual African countries). This suggests that the industrial sector in African regions is growing at a slower pace. In contrast, regions like East Asia and the Pacific and Latin America and the Caribbean show higher annual growth rates, indicating a more dynamic and rapidly expanding industrial sector. There is also a variation in these growth rates across Africa, particularly when comparing Western and Central Africa with Eastern and Southern Africa.

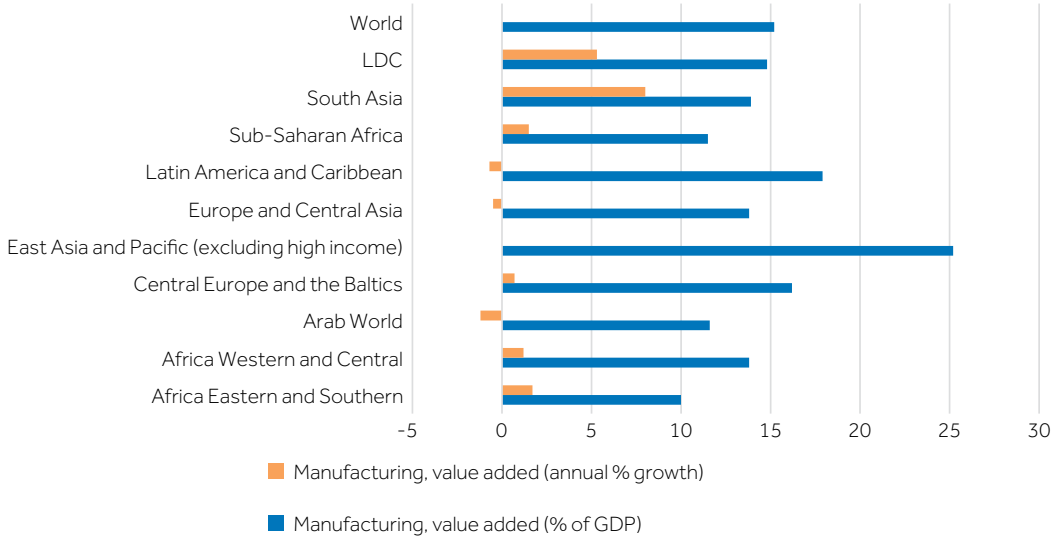
In addition, Africa's manufacturing value added (MVA) per GDP and annual growth remains among the lowest globally, highlighting the challenges in the sector. Figure 2 shows that African regions generally have low manufacturing value added as a percentage of GDP compared to other regions. For instance, regions like East Asia and the Pacific, and Latin America and the Caribbean, have higher percentages of manufacturing value added, reflecting a more significant manufacturing base (see Annex II for details on individual African country performance). This indicates that in African regions the manufacturing sector's contribution to the overall economy is relatively smaller.

The annual growth rates of manufacturing value added in African regions are also low compared to other regions (see Annex II for disaggregated data across individual African countries). This suggests that in African regions the manufacturing sector is growing at a slower pace. In contrast, regions like East Asia and the Pacific show higher annual growth rates, indicating a more dynamic and rapidly expanding manufacturing sector.

While some African countries, like South Africa, have extensive manufacturing capabilities and are integrated into global value chains in certain manufacturing industries, the poor manufacturing performance of some African countries has contributed to their exclusion from global value chains, with most exports remaining as unprocessed commodities. The lower percentages of manufacturing value added, and slower growth rates, suggest African regions need to enhance their industrial policies and strategies to boost manufacturing growth.

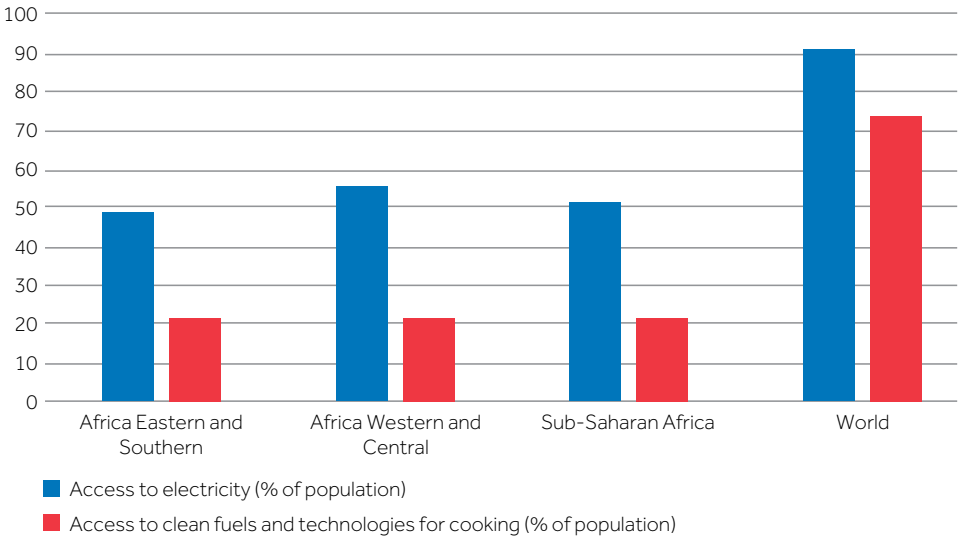
Hitherto, Africa faces significant challenges to industrialisation, compounded by various inherent factors. Many Africans lack access to energy and clean water, which are essential to industry. Figure 3 shows that access to electricity in Africa is below the global average. Specifically, in the Eastern and Southern Africa and Western and Central Africa regions, 49 per cent and 56

Figure 2: Manufacturing value added (% of GDP and annual % growth), 2023



Source: World Bank World Development Indicators

Figure 3: Access to energy (% of population), 2022



Source: World Bank World Development Indicators

per cent of the population have access to electricity, respectively, while sub-Saharan Africa stands at 52 per cent, compared to the world average of 91 per cent. Conversely, Figure 4 shows that, although Africa uses more water for agriculture, it uses less water for industry compared to the global average of 15 per cent.

High electricity costs and poor-quality supply hinder production. Low road density makes transportation expensive. The quality of education and access to higher education and vocational training lag behind. There is a significant skills gap, especially in digital and technical areas. Figure 5 shows that firms in African countries provide less training on average compared to the global standard. Specifically, 27 per cent, 28 per cent and 29 per cent of firms offer training in Eastern and Southern Africa, Western and Central Africa, and sub-Saharan Africa, respectively, compared to the world average of 32 per cent. Conversely, these countries export less high-technology products compared to the global average. Figure 6 shows that high-technology products exported from Eastern and Southern Africa, Western and Central Africa, and sub-Saharan Africa account for 6, 3 and 6 per cent of total manufacturing exports, respectively, compared to the global average of 23 per cent.

Africa's limited financial sector development restricts access to finance, which is a critical issue for small manufacturing enterprises. Firms often rely on retained earnings for investment, limiting growth. Figure 7 show

Figure 4: Fresh water usage (% of total freshwater withdrawal), 2021

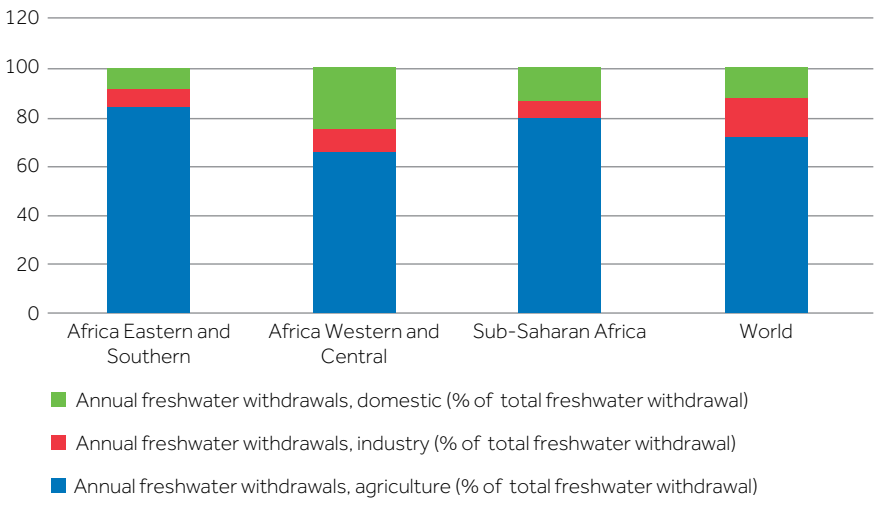
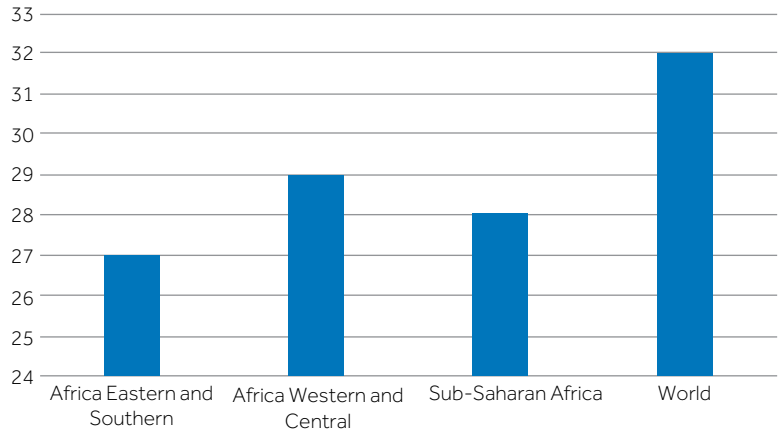
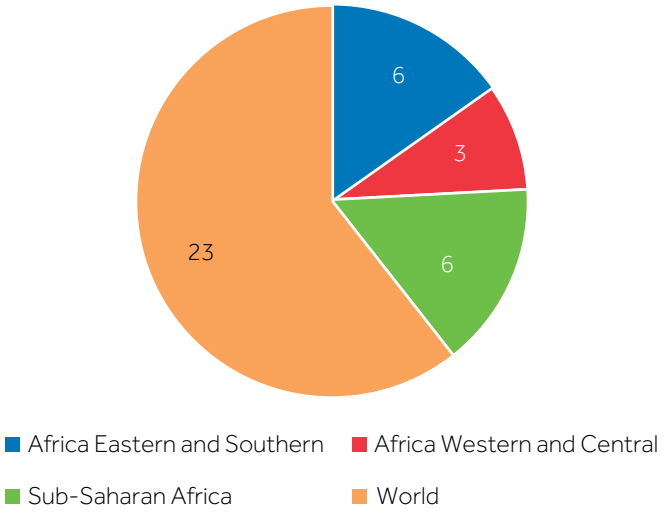


Figure 5: Firms offering formal training (% of firms), 2023



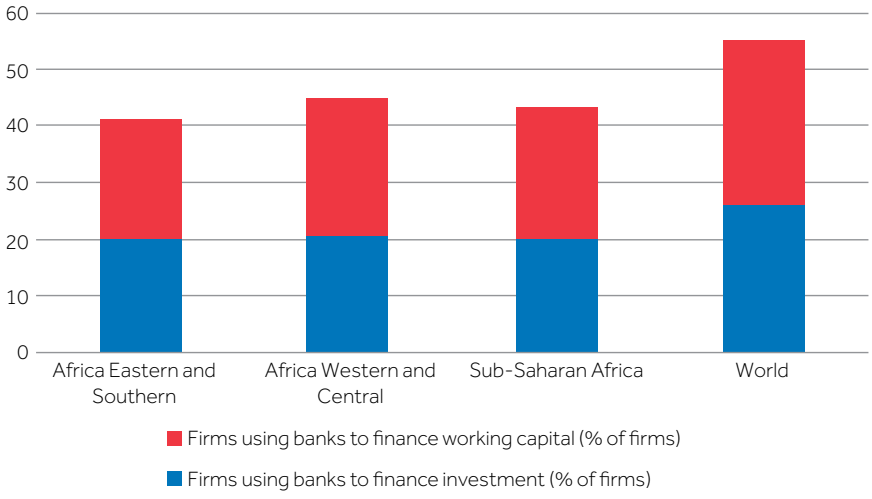
Source: World Bank World Development Indicators

Figure 6: Hi-technology exports (% of manufacturing exports), 2022



Source: World Bank World Development Indicators

Figure 7: Access to bank finance, 2023



Source: World Bank World Development Indicators

that, on average, firms using banks to finance investment in Eastern and Southern Africa, Western and Central Africa, and sub-Saharan Africa stand at 20, 21 and 20 per cent of firms, respectively, compared to the world average of 26 per cent. Also, the shares of firms using banks to finance working capital in Eastern and Southern Africa, Western and Central Africa, and sub-Saharan Africa stand at 21, 24 and 23 per cent, respectively, compared to the global average of 29 per cent.

Unreliable economic policies and high bureaucratic discretion create uncertainty and foster corruption, deterring long-term investment. This situation restricts the continent's ability to fully capitalise on its natural resources and makes its economies susceptible to global price fluctuations. To enhance industrialisation in Africa, significant advancements in infrastructure, education, finance and regulatory frameworks, along with trade expansion through integration into the global trading system, are essential.

4. Case for trade-driven industrialisation in Africa

4.1 The crucial role of trade in Africa's industrialisation and economic transformation

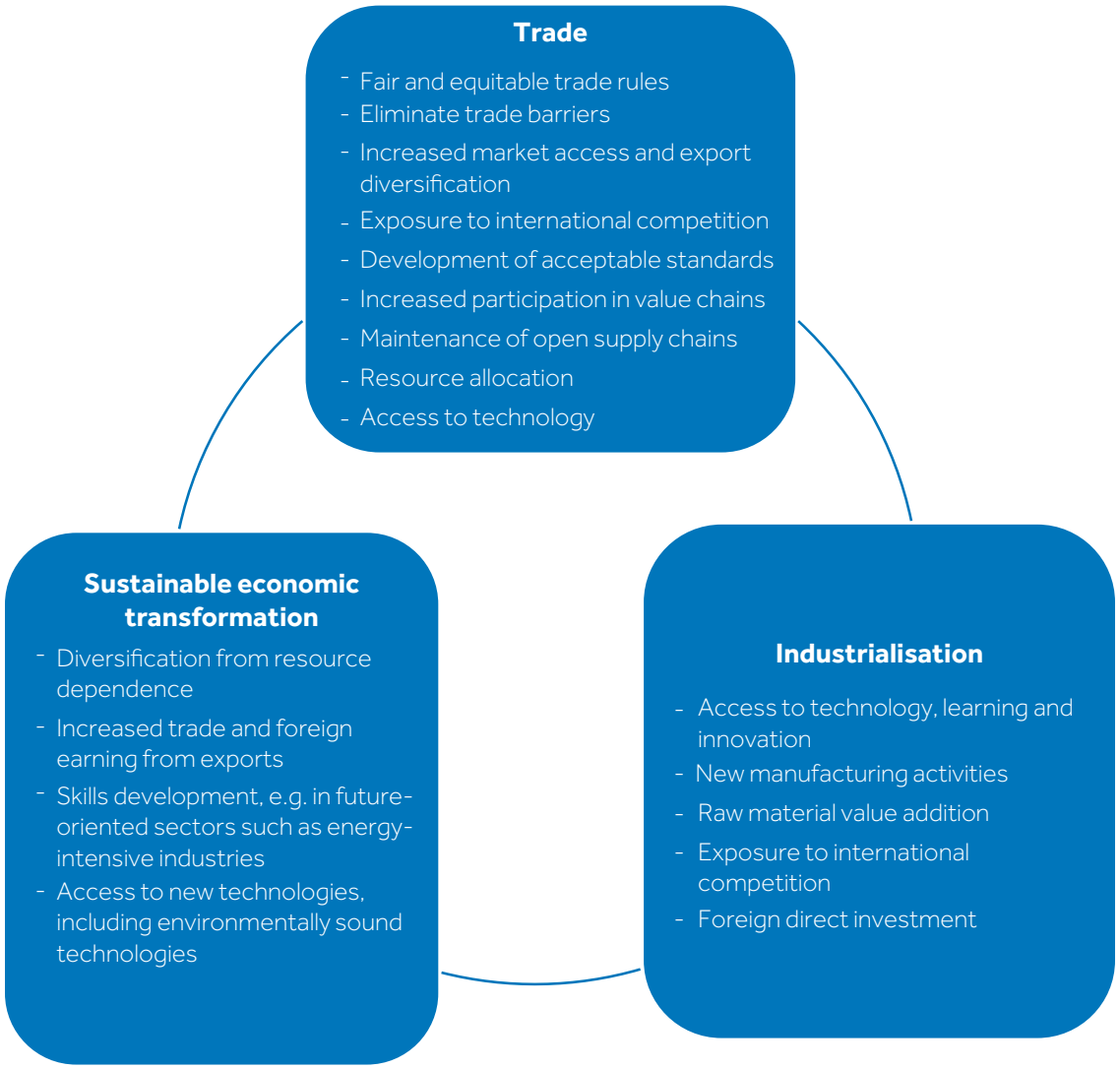
Despite Africa's underwhelming industrialisation, most African countries view this issue as crucial to economic transformation, productivity improvements, job creation and poverty reduction (Sommer et al., 2017). They also see trade as vital for industrialisation, offering potential for economies of scale, diversification and value addition. The quest by African countries to pursue industrial policies comes at a time when there is renewed interest in using trade policy to support industrialisation. According to Evenett et al. (2024), a high level of export concentration is positively associated with the number of industrial policy measures, suggesting a motive to diversify the economy. Industrialisation flourishes when there are markets for goods and services, and access to international markets is crucial in this context. This can help diversify production and exports, which is essential to resilience against global uncertainties and to reduce dependence on commodity exports and imports of finished products from advanced economies.

Standard Chartered (2023) projects that Africa's exports will reach US$952 billion by 2035, up from $645.3 billion in 2023. The nexus between international trade and industrialisation is complex and multi-faceted, involving various economic, policy and institutional factors (Mahmud and Ishnazorov, 2017). Addressing these factors effectively can potentially foster greater trade integration and industrial growth for Africa.

Africa holds immense potential for trade-driven industrial development, thanks to its youthful labour force, abundant natural resources and potential for expanding markets. For example, the global movement towards sustainable development, climate change mitigation and environmental protection has opened up significant opportunities for African countries to develop and expand their green industries. By identifying and leveraging their comparative advantages in these sectors, African countries could take crucial steps towards industrialisation, sustainable economic growth, climate resilience and active participation in global green value chains. Africa also holds 65 per cent of the world's arable land and 10 per cent of the planet's internal renewable fresh water source (African Union, 2023a).

Despite these resources, African industry is underperforming in terms of quality employment creation and total factor productivity, and the continent has not reached a satisfactory level of industrialisation (African Union, 2023a). To address this situation, achieving inclusive and sustainable industrialisation that is focused on adding value to natural resources and economic diversification in Africa has become a top priority on the development agenda (African Union, 2023b). Trade can promote both national industrialisation and development, and Africa is advocating for designing global and regional trade mechanisms that enable products produced in Africa to compete on fair and equitable terms. Figure 8 shows the complex interplay between industrialisation and trade and their multifaceted impacts on African economies.

Figure 8: Trade policy priorities and desired outcomes for African economies

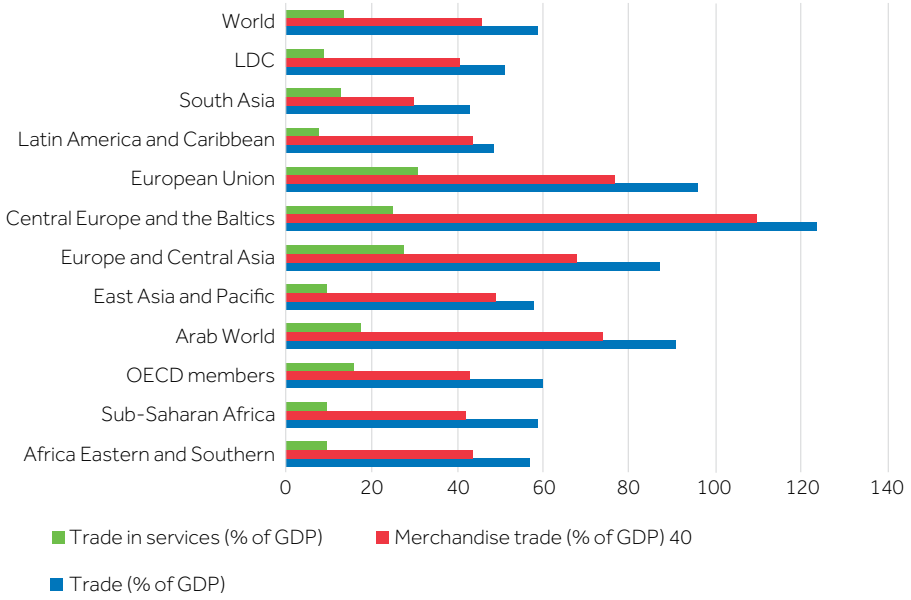


Source: Author

Despite the significant potential for trade-driven industrialisation, Africa remains a peripheral player in global trade. Historical exploitative trading patterns persist today, with Africa still exporting raw materials to developed countries and major developing economies such as China, while being discouraged from adding or lacking the capacity to add value and create jobs in the production process (Rockwell, 2023). These entrenched trading patterns have hindered African trade and kept the continent out of global supply chains that other developing countries use to advance economically. Additionally, barriers such as tariffs, customs, red tape and conflicting technical standards further impede African trade.

As a result, trade has not significantly driven the development of most African countries as intended. Figure 9 shows that trade as a percentage of GDP in African regions is moderate compared to other regions, indicating limited global trade integration. Collectively, countries in Eastern and Southern Africa have slightly lower trade-to-GDP ratios than those in sub-Saharan Africa, suggesting regional disparities in trade activity. On the other hand, regions like the European Union and Central Europe have much higher trade-to-GDP ratios, indicating greater global trade participation. East Asia and Pacific also outpaces Africa, and South Asia has a comparable trade-to-GDP ratio to that of Africa, suggesting a similar level of trade reliance. Annex III provides disaggregation across individual African countries, showing the total value of country exports and imports of goods and services as a percentage of GDP. Countries

Figure 9: Africa's trade (% of GDP) compared to other regions, 2023



Source: World Bank World Development Indicators

like Djibouti and Seychelles have high trade-to-GDP ratios, indicating significant integration into the global economy, with a notable emphasis on services in Seychelles. On the other hand, Nigeria and Sudan have lower trade-to-GDP ratios, suggesting less reliance on international trade. The differences in these metrics can be attributed to various factors, including economic structure, resource endowments and trade policies.

In addition, merchandise trade dominates trade activity in African regions, reflecting reliance on exports of raw materials and natural resources (e.g., minerals, oil and agricultural goods). Africa's trade in services is minimal in all regions, suggesting these regions rely less on services exports. This is unlike the situation for the European Union and Organisation for Economic Co-operation and Development members, which show more balanced trade activity, with merchandise and services contributing more evenly. Trade in services in these regions contributes significantly to GDP, reflecting diversified economies with strong services sectors. Even in East Asia and Pacific, trade in services is more pronounced than in African regions, reflecting emerging diversification in trade patterns.

Moreover, FDI and trade often come with conditions. African countries recognise that investment and trade agreements with global powers are accompanied by certain stipulations. This understanding has fostered the belief that Africa's economic future relies on its efforts to find ways to expand trade and participation in supply chains to drive industrialisation. In this regard, trade policy must play a pivotal role in the industrialisation and transformation of African economies.

Competition between global powers, particularly between China and the United States, presents Africa with an opportunity to leverage this rivalry to its advantage. For example, establishing beneficial trade and investment relationships with the United States is likely to be challenging, given its current policy direction – particularly with regard to tariffs. By building strong trade and investment relationships with all stakeholders, leveraging market access and insisting on local resource processing, African countries can enhance the effectiveness of their economic and industrial policies. Box 2 provides examples that illustrate how trade-driven industrial policies can significantly enhance industrial growth and economic development in Africa.

Nevertheless, industrialising also poses risks of resource misallocation and significant fiscal costs that may become apparent over time (Table 1). Additionally, industrial policies can have impacts on trade, investment, financial flows and global market prices, potentially affecting trade partners and the global economy significantly (Ilyina et al., 2024). Therefore,

Box 2: Examples of successful trade-driven industrial policies in Africa

Ethiopia export-oriented manufacturing, especially in textiles and garments
Ethiopia has developed several industrial parks focused on export-oriented manufacturing, with significant emphasis on the production of textiles and garments. These parks benefit from trade agreements and preferential access to markets in Europe and the United States, particularly through the African Growth and Opportunity Act.

Morocco automotives
Morocco has utilised trade agreements with the European Union and other regions to become a significant player in the automotive industry. The country has attracted major car manufacturers like Renault and PSA Peugeot-Citroën, establishing a robust export-oriented automotive sector.

Ghana and Côte d'Ivoire cocoa
These countries have implemented policies to add value to their cocoa production before export. By processing more cocoa locally, including in activities such as roasting, winnowing, grinding, pressing, conching and tempering, they aim to capture more value from their primary commodity exports. For example, Ghana Cocoa Processing Company Ltd processes cocoa beans into cocoa butter, cocoa cake, cocoa liquor and other cocoa products.

Kenya horticulture
Kenya has developed a thriving horticulture sector, particularly in flowers and vegetables, which are major export commodities. The sector benefits from trade agreements with the European Union, allowing Kenyan products to access European markets with reduced tariffs.

Source: Walter (2021); Zhuawu and Powell (2023); Odijie (2024)

caution is necessary when implementing new trade-driven industrial policies. Policies that enhance the general business environment are often more suitable than those targeting specific sectors, as they carry lower risks of resource misallocation and fiscal costs. Consequently, industrial policies in Africa should strike a balance between targeting specific sectors and improving the general business environment.

4.2 Other rationales for trade-driven industrialisation in Africa

Industrial policies now often target multiple objectives without clear prioritisation. Despite many objectives not being mutually exclusive, trade-offs are likely between different objectives supporting the same sector (EBRD, 2024).

4.2.1 Political economy considerations

Many African countries, including those that are Commonwealth members, experience political instability linked to economic dissatisfaction among their populations. Issues include high unemployment rates, poor education, food insecurity and inadequate health standards. Industrial policy can be influenced by political interests. There is a correlation between industrial policy measures and political factors, such as upcoming elections (Evenett et al. 2024; Ilyina et al., 2024).

On the other hand, domestic political economy considerations and geopolitical tensions can steer policy-makers away from optimal economic solutions and international co-operation. This can lead to the use of less costly but more distortionary instruments, such as export bans and quotas, forcing countries affected by such measures to seek alternative sources of supply. For example, recent geopolitical tensions and the COVID-19 pandemic underscored the need for developing countries to build capacity to manufacture medicines, fertilisers and agricultural chemicals to ensure minimal disruption to the delivery of health care and medical supplies as well as the availability of agricultural products and food as a result of supply line disruptions.

4.2.2 Mitigating climate change and ensuring environmental sustainability

Industrial policy can be a useful tool to shift a nation's industrial focus towards a greener economy: adopting industrialisation and investment measures helps countries pivot to greener practices and contribute to averting a looming climate disaster. Such policy will be critical to developing renewable energy infrastructure and green industries such as battery production or electric vehicles.

As governments around the world intensify their efforts to reduce carbon emissions through green technologies, securing resources

like lithium, nickel, cobalt, manganese, graphite and rare earth elements, which are essential for clean-energy batteries and wind turbines, is becoming critically important. Many African countries endowed with these resources have the opportunity to industrialise towards greener economies.[5]

Developing processing and refining industries to capitalise on the global demand for clean-energy batteries by processing raw materials before export would boost tax revenue, encourage new businesses and create jobs. This approach would also lead to downstream production of these materials. Consequently, African governments are increasing their demands on foreign investors and striving to develop domestic processing capacity. They are implementing measures such as bans on the export of raw materials like lithium ore, cobalt, manganese, graphite and rare earth minerals (Garg, 2024).

4.2.3 Access to technology and innovation

African countries recognise the vital role trade can play in enabling them to access the technologies and technical knowledge that are essential to improving productivity, promoting growth and attaining their development aspirations.

Advancements in technology, especially digital technology, are reducing the benefits of labour-intensive manufacturing globally. Robotics is transforming manufacturing into 'robofacturing' (Baldwin and Grozoubinski, 2023). There is a unique opportunity for African countries to incorporate digital connectivity and innovation into their growth plans. Digital infrastructure and knowledge can drive innovative businesses and market processes. In addition, digital technology is creating new opportunities for countries through services. Services are becoming more tradable, scalable and innovative, similar to manufacturing.

Technologies play a crucial role in the industrialisation of African countries and have significant impacts on global trade composition. This is despite the challenges facing these countries, hampering the adoption of these technologies owing to limited digital capabilities. Technological advancements have reshaped industrialisation patterns, fostering greater integration into regional and global value chains. African countries can harness information and communication technology (ICT) to enhance their participation in global trade, similar to the way in which Association of Southeast Asian Nations countries have successfully employed these strategies to boost economic growth and alleviate poverty. ICT-enabled production and consumption can provide African countries with the opportunity to leapfrog from being agriculture- and resource-based economies to being digital economies, modernising these sectors. ICT can also help bridge geographical distances, making African industries more attractive to international firms. This dual approach can transform Africa into an innovative hub.

African countries require technologies to develop hybrid seeds, fertilisers, pesticides and mechanical improvements to revolutionise agricultural trade. This underscores the imperative to explore ways to craft rules not only on technology transfer but also on broader aspects of technological development. Access to technology and technical know-how is critical to narrow the technological gap between developed and developing countries and enhance the integration of these countries into the MTS.

5. Implications of WTO rules for African countries' industrial policies

As briefly discussed above, it is challenging for African countries to adopt strategic trade policies for industrialisation, particularly in in the context of the WTO, because they are generally price-takers and lack the necessary information and political economy conditions for successful intervention. Certain WTO rules prohibit export subsidies for manufactured goods and limit tariff levels to curb nationalistic policies. Although the average use of tariffs and non-tariff measures (NTMs) has decreased, countries continue to impose high tariffs and core NTMs

in sensitive sectors they aim to promote, such as the automotive industry. This section examines the implications of the WTO rules for African countries' industrial policy.

5.1 General Agreement on Tariffs and Trade (GATT) 1994

Historically, many industrialised markets have used import protections and state interventions during their early development phases (Standard Chartered, 2023). The protection of infant industries aims to help domestic sectors develop a comparative advantage by shielding them from highly developed global competitors through imports. The goal is to give these industries time to gain competitiveness and economies of scale.

Articles I and III of the GATT establish most-favoured-nation and national treatment for imported goods. However, tariffs can still be used to protect infant industries up to the bound rate. Despite a general decline in tariff protection, peak tariffs persist in some industries. Import protection can also involve anti-dumping, countervailing duties and safeguard measures, which are often used in declining industries. The Final Agreement on Implementation of Article VI includes provisions to assist developing countries in expanding their exports, but systemic issues can hinder their efforts.

While governments can raise tariffs above WTO commitments they must notify and negotiate with trading partners. If no compensation is agreed, affected partners can retaliate with retaliatory tariffs – usually limited in scope and value to the level of harm caused (Shadikhodjaev, 2018). Countries can change domestic policies within WTO guidelines. If a policy violates WTO rules, consequences are limited to tariff retaliation to restore market access balance. Trading partners can demand compensation for adverse effects, potentially involving lost export market access and higher tariffs. The WTO authorisation of retaliation can deter efficient and first-best measures by African countries to address market failures, pushing governments towards less efficient policies (Bown, 2023).

On the other hand, an overview of the non-industrial tariff landscape post-Uruguay Round shows that developed countries have bound most of their non-agricultural tariffs at low levels. However, certain products, like textiles, clothing, leather, footwear and fish, have higher tariffs, affecting developing and least developed countries through tariff peaks and escalation. This negatively affects market access for African industrial goods, hindering industrialisation.

5.2 Agreement on Subsidies and Countervailing Measures (SCM Agreement)

As discussed above, subsidies are the most prevalent policy tool, with advanced economies typically opting for direct financial grants, state loans and state aid, while emerging markets and developing economies often resort to trade restrictions. The SCM Agreement regulates the use of subsidies and countervailing measures to prevent injury from subsidised imports, with a focus on non-agricultural products. It defines subsidies based on enterprise, industry or regional specificity and categorises them as prohibited, actionable or non-actionable. Prohibited subsidies include those for exports and domestic input preferences.

The SCM Agreement presents both opportunities and challenges for African countries. While there are gaps that allow them to use subsidies for industrial policy, these same gaps are also available to developed countries, preventing a competitive advantage. The utilisation of actionable subsidies is challenging for African countries as it requires them to navigate the cumbersome process of notifying the WTO. As such, the SCM Agreement's implications for African industrial policy are significant, as they lack the capacity to prove injury. Furthermore, the Agreement has weak regulations on production-based subsidies and does not cover agricultural and services trade (Bora et al., 2000), which are areas with significant potential for African industrialisation.

On the other hand, there are challenges involved in posting Non-Violation Nullification and Impairment claims, which is complicated by the need for extensive data and economic evidence, making the estimation of lost market access difficult. Meanwhile, WTO disputes involving subsidies can reach the recourse phase sooner and allow for larger countermeasures compared to other disputes (Bown, 2023).

5.3 Agreement on Trade-Related Investment Measures (TRIMs)

The TRIMs prohibits investment measures that are trade-distorting, such as local content requirements, to help create a more predictable and open investment environment. It clarifies policies in relation to the GATT 1947 text, identifying those that contravene GATT Articles III:4 and XI:1.

Currently, there are no active negotiations specifically focused on revising the TRIMs. Previously, however, African countries and many developing countries have raised concerns regarding the Agreement. They have argued that it should address foreign investment: it does not consider the nationality of ownership or the different levels of industrial capacity (WTO, 2023a). In addition, African countries and other developing countries have argued for the illustrative list of TRIMs not to be extended and have demanded an extension of the transition period for phasing-out measures to give them sufficient time to realise their development needs.

If negotiations resume, the demand to extend the TRIMs illustrative list would require difficult discussions, with developed countries likely to push for more inclusion and developing countries opposing this. Furthermore, the demand for special and differential treatment (S&DT) would likely face opposition from developed countries. Additionally, African countries view performance requirements as crucial to their development strategies. They have also previously sought extensions under Article 5.3 of the TRIMs. The main challenge would lie in allowing specific exceptions to certain policies.

5.4 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs)

The COVID-19 pandemic highlighted the inadequacies of the technology transfer flexibilities in the TRIPs. During the pandemic, countries were unable to utilise the TRIPs flexibilities to manufacture essential medicines, protective equipment, vaccines, therapeutics and diagnostics.

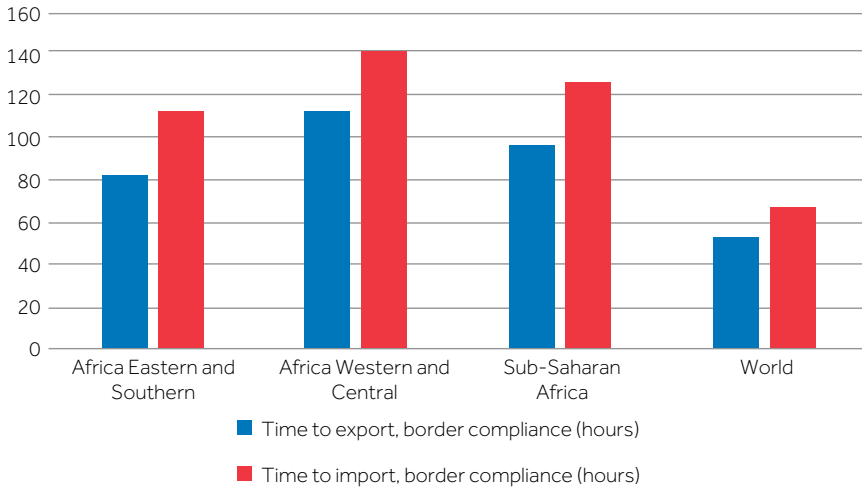
Access to technology can close the innovation gap by accelerating technological and scientific advancements, improving commercialisation and addressing skills gaps. For African countries, accelerating innovation requires openness to key technologies from other countries, such as maintaining low barriers for digital goods and services with developed countries. The TRIPs sets minimum standards for the protection of intellectual property rights, which can encourage innovation and technology transfer, crucial for industrial development. The Agreement includes standards, enforcement and dispute settlement, requiring significant changes in national laws to strengthen intellectual property rights. For domestic firms, stronger protection incentivises innovation; for foreign firms, it improves market access.

While the TRIPs aims to boost local innovation, FDI and technology transfer, it may also result in higher prices and limited technology diffusion. Developing countries, which lack a comparative advantage in innovation, must rely on technology transfer from abroad. Article 66.2 of the TRIPs mandates that developed countries promote technology transfer to least developed countries,[6] though implementation of this remains unclear. Discussions continue to focus on addressing the challenges facing least developed countries and improving the mechanisms for technology transfer.

5.5 General Agreement on Trade in Services (GATS)

The GATS covers trade in services, including those that are essential for industrialisation, such as financial, telecommunications and transport services. It affects industrial policy by setting rules for international trade in services, including through sectoral commitments on market access and national treatment across four supply modes: cross-border supply, consumption abroad, commercial presence and presence of natural persons. The GATS integrates foreign investment in services into the MTS, allowing its use as an industrial policy tool, notably in tourism. Liberalisation in infrastructure services (telecommunication, financial and transport) is crucial for industrialisation in developing countries. The GATS also addresses performance requirements, prohibiting them in inscribed sectors, aligning with the SCM Agreement's stance against *quid pro quo* measures (Bora et al., 2000). The GATS also promotes export sector development and induces home market competition.

Figure 10: Time required for border compliance to export and import (hours), 2023



Source: World Bank World Development Indicators, 2023

Digital technologies have transformed services, enabled cross-border trade and led manufacturing to become increasingly reliant on services inputs. Digitally enabled, tradable services, especially in ICT, show significant growth potential and drive labour productivity improvements in the services sector. These services require high skill levels, can be traded internationally and have strong linkages to industrialisation and other economic sectors.

However, African countries with interests in sectors such as tourism and professional services face challenges as a result of barriers to the movement of natural persons and the digital divide, among other factors. In addition, while services trade liberalisation is linked to increased competitiveness in manufacturing sectors, lowering trade restrictions does not imply a *laissez-faire* approach. In this regard, there is a need to facilitate services trade by establishing fair and transparent rules.

In addition, African countries are concerned about premature de-industrialisation caused by moving directly from agriculture or commodities to low-value services. This is worrying because manufacturing plays a unique role in economic growth and development, exhibiting unconditional convergence in output per worker regardless of economic institutions, governance and education quality (EBRD, 2024).

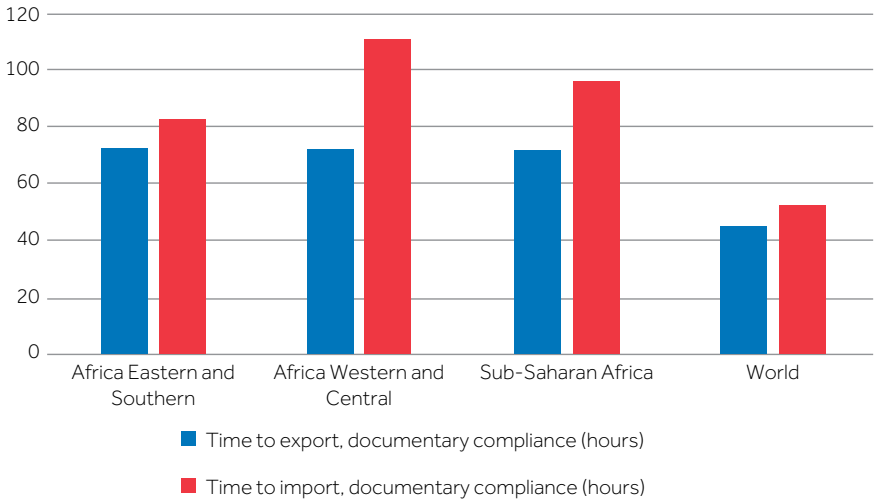
5.6 Trade Facilitation Agreement (TFA)

The TFA aims to expedite the movement, release and clearance of goods, which can reduce costs and improve efficiency for industries. It offers opportunities to facilitate industrialisation in Africa by addressing areas that can play a pivotal role in driving trade, industrial development and economic growth.

Figure 10 provides insights into the time required for border compliance in African countries. It highlights the significant time delays facing exporters and importers as a result of border compliance procedures. These delays can be a major hindrance to trade efficiency and competitiveness. The figure shows that the time required for border compliance for exports and imports in African countries is considerably higher compared to global averages (see Annex IV for a breakdown of individual performance across African countries). This includes the time taken for customs clearance, inspections and other regulatory procedures. The prolonged border compliance times contribute to higher trade costs and can deter foreign investment and participation in global value chains.

On the other hand, Figure 11 provides insights into the time required for documentary compliance in African countries. It highlights the significant time delays facing exporters and importers as a result of documentary compliance procedures (see Annex V for a breakdown of performance across individual African countries). As with the broader measure of border compliance, the figure shows that the time required for documentary compliance for exports and imports in African countries is considerably higher compared to global averages.

Figure 11: Time required for documentary compliance to export and import (hours), 2023



Source: World Bank World Development Indicators, 2023

This includes the time taken for preparing, processing and submitting required documents for customs clearance and other regulatory procedures. The prolonged documentary compliance times contribute to higher trade costs and can deter foreign investment and participation in global value chains.

By simplifying and harmonising customs procedures, the TFA lowers the costs and time associated with cross-border trade. This makes it easier and more cost-effective for African businesses to import raw materials and export finished goods. Streamlined trade processes can help improve the efficiency of African industries, making them more competitive in the global market by removing non-tariff barriers and facilitating smoother trade.

Streamlining trade process can also assist in attracting FDI and encourage the growth of local industries. This is because improved trade facilitation can create a more predictable and transparent business environment, which is attractive to investors. This can lead to increased investment in infrastructure, manufacturing and other industrial sectors (Sithole, 2021).

In addition, simplified trade procedures benefit micro, small and medium-sized enterprises (MSMEs) by reducing the administrative burden and costs associated with exporting and importing. This can help MSMEs grow and integrate into global supply chains. Furthermore, easier access to international markets can facilitate the transfer of technology and knowledge, which is crucial for industrial development and innovation in Africa.

However, implementing the TFA presents several challenges for African countries. Many African countries struggle with the financial burden of implementing the necessary infrastructure and technology to comply with TFA provisions. As a result, poor infrastructure, such as inadequate ports, roads and customs facilities, continue to hinder the effective implementation of trade facilitation measures (Gumbo and Nkala, 2023).

Weak institutional frameworks and a lack of co-ordination among various government agencies also tend to impede the smooth implementation of the TFA. This is exacerbated by lack of capacity among customs officials and other stakeholders to understand and implement the new procedures (WTO, 2017). On the other hand, complex and outdated regulations can pose significant barriers to the implementation of trade facilitation measures (Lakatos, 2016). Linked to this is the challenge of ensuring active participation by and co-operation from the private sector, which is crucial for the success of trade facilitation initiatives (WTO, 2017).

5.7 Special and differential treatment provisions

WTO S&DT provisions offer developing countries flexibility in implementing WTO agreements, allowing them to protect their nascent industries and gradually integrate into the global trading system. S&DT in industrial policy includes delays in implementation,

preferential disciplines, temporary protection increases and flexible liberalisation approaches. For example, S&DT under Article XVIII of the GATT 1947 allows developing countries flexibility in tariffs to protect their balance of payments and infant industries.

Developing countries are also often granted extended timeframes to implement agreements and commitments, allowing them more time to adjust and develop their industries (Hegde and Wouters, 2020a) The WTO also provides technical assistance and capacity-building programmes to help developing countries build the necessary infrastructure and expertise to comply with international trade rules (Hegde and Wouters, 2020b).

Furthermore, developing countries are given preferential access to markets in developed countries. This can include reduced tariffs and other trade barriers, making it easier for their industries to export goods. For example, Article XXXVII of the GATT 1994 outlines commitments by developed countries to support the trade interests of developing countries when formulating and implementing trade policies. The commitment areas include exercising self-restraint in imposing trade barriers that could adversely affect the exports of developing countries; progressively dismantling existing trade barriers that hinder the exports of developing countries; avoiding creating new trade barriers that could negatively affect the trade interests of developing countries; maintaining trade margins at equitable levels; and adopting measures that favour and give special consideration to the trade interests of developing countries.

However, developing countries are concerned that these provisions do not adequately promote their interests. For example, Article XVIII, section C (infant industry protection), has rarely been used owing to compensation requirements.

6. Rethinking and updating WTO trade rules for industrialisation

6.1 Calls for WTO reform

Industrial policy is becoming a significant issue for the WTO in areas like supply chain resilience, responsiveness to quickly and effectively produce new goods and manage supply chains, and climate change mitigation. In current supply chains, markets lack the ability to adapt to shocks, prompting concern among policy-makers. Meanwhile, innovations in transportation and ICT have fragmented production, creating geographic concentration of production and thus leading to vulnerabilities. Increased frequency and intensity of climate shocks, such as storms and droughts, pose risks to areas where production is concentrated. As such, countries are co-ordinating industrial policies to retain the benefits of fragmentation and comparative advantage, rather than just reshoring (Bown, 2023).

As discussed above, the resurgence of industrial policies and heightened protectionism could disrupt trade and investment, as some countries increasingly impose tariffs and provide substantial subsidies to bolster domestic production and employment in strategic areas. A global subsidy competition could place African countries at a disadvantage (Ruta, 2024).

Additionally, there is a renewed effort to secure access to critical minerals essential to the clean energy transition. Many African countries are key producers of these minerals, which means opportunities exist to drive resource-based industrialisation through local value addition and integration into the broader economy.

In addition, climate change is a global externality driving modern industrial policy, but differing from other market interventions. Some developed countries are taking measures to boost the development of clean industries. For example, China and the United States are subsidising clean energy industries to lower energy prices, benefiting local energy-intensive industries. Other major economies are using carbon pricing, which may be more efficient if learning-by-doing effects are small (Bown, 2023). In this regard, the WTO should look at modern industrial policy, given its significant international externality concerns.

While the preamble to the Marrakesh Agreement emphasises that international trade should raise living standards and ensure full employment, and stresses the need for developing countries to secure a share in the growth of international trade, the WTO has faced various challenges, including a crisis of multilateralism and asymmetries in trade rules that favour developed countries. To this end, developing countries have called for reforms to address these issues and ensure all members have an equal say in decision-making (WTO, 2022).

WTO reforms are necessary to maintain a stable trading environment with the WTO at its centre and to ensure the global trading system works for all. Such reforms need to position the WTO better to address the structural factors impeding the fuller participation of developing countries in the global trading system and to provide mechanisms to ensure they benefit from trade liberalisation. The reforms should encompass the divergent interests of member countries and be able to firmly uphold the MTS to play a greater role in global economic governance.

6.2 Industrial policy and WTO reform

As discussed in the previous section, African countries face several challenges to expanding their exports under existing WTO rules. These rules limit direct government intervention to boost exports, particularly export subsidies for industrial products. More generally, they restrict the industrial policy tools available to member countries. Additionally, rules on subsidies, contingent protection and intellectual property have become stricter, curtailing countries' flexibilities to pursue industrialisation, economic transformation and other development goals.

The WTO can play a meaningful role in ensuring industrial policy remains relevant and fit for purpose for international trade (Bown, 2023). The WTO assists countries in co-ordinating policies to reduce negative externalities through reciprocal tariff reductions, thereby enhancing global trade efficiency. Supporting industrialisation by protecting infant industries has its own risks, such as of souring relationships with major trading partners, promoting inefficiency, stifling competition, misallocation of resources, etc. (Table 1). However, multilateral trade rules can be improved to contribute to industrial development. This is particularly important for African countries that cannot afford to join the industrialisation race and risk suffering from the negative cross-border impacts of larger economies' industrial programs (Espa, 2023). At the same time, the WTO provides a platform for dialogue to establish shared rules and mitigate negative cross-border spillovers of industrial programmes.

There is a greater need for current WTO reform discussions to address the diminishing scope for import protection and to increase flexibility for developing countries in a transparent manner. This might include exploring ways in which a grace period can be given to developing countries to use local content policies to establish their industries, as increasing local content often requires displacing imports. Such sunset clauses have become more common in industrial policies, making it easier to phase out policies. Around one-third of all industrial policies globally have an end date, with end dates being more common for policies with higher fiscal costs and those targeting regional development (EBRD, 2024).

Given that industrial subsidies are being used widely, especially by developed countries, reforming the WTO should include issues related to reforming subsidies rules, particularly in the context of industrialisation-related WTO disputes. The WTO must provide a legal cushion for certain types of developing countries' industrialisation subsidies. Such reform must take into account the revision of subsidies rules, particularly in the context of industrialisation-related WTO disputes (Espa, 2023). The reform must find ways to balance trade-distortive effects with the positive impacts of industrialisation, shielding non-discriminatory subsidies whose industrialisation benefits outweigh their trade-distortive impact. The discussions on subsidies should raise questions about subsidies for critical inputs like research and education. Different funding priorities (e.g., vocational training versus research universities) can benefit certain sectors. However, the challenge is how to broaden the scope of what WTO rules should consider as subsidies (Bown, 2023).

7. Way forward and conclusion

Trade-driven industrialisation is a complex and controversial domain with potential discriminatory effects, trade impacts and environmental outcomes that are yet to be fully understood. A fact-based dialogue among African countries is crucial to develop a case for reforming multilateral trade rules to support trade-driven industrialisation on the continent.

African policy-makers and negotiators should first understand what they are trying to achieve and whether there is something in the multilateral trade rules that they are trying to correct. The design of such a complex requirement demands the consideration of various factors, including variation across firms, the cyclicality of the market and the different types of measures and instruments that can be used. Since developed and developing countries have vested interests in industrial policy, co-operation at the WTO may provide a path forward in creating fair and enforceable trade rules that would support industrialisation in all countries. African countries should prepare to participate meaningfully in reforming multilateral trade rules to support trade-driven industrialisation.

At the 13th WTO Ministerial Conference, African ministers emphasised the need for WTO reforms that facilitate the effective, full and inclusive participation of African economies in the MTS. They stressed the importance of a rules-based and development-oriented MTS that addresses historical imbalances and delivers on the SDGs (WTO, 2024).

At present, the WTO is not well equipped to support trade-led industrialisation in African countries. Therefore, African countries should intensify their proactive steps to reform multilateral trade rules to facilitate trade-driven industrialisation. WTO reform provides African countries with an opportunity to advance their interest on reforming trade rules for industrialisation. Box 3 provides examples of proposals to reform the Agreement on Agriculture (AoA) in relation to domestic support with a view to contributing to the development of agri-based industries in Africa.

In addition, African countries should consider participating in new areas of discussion, such as trade and climate change, trade and plastic pollution, fossil fuel subsidy reforms, and trade and digitalisation, with a view to ensuring new rules facilitate trade-driven industrialisation (Box 4).

It is against this backdrop that African countries should make strategic choices to prioritise the reform to existing WTO rules to promote

Box 3: AoA domestic support reform for agri-based industries

Current efforts by the Africa Group to pursue policy flexibilities in AoA domestic support can contribute to the development of agri-based industries on the continent. The Group has tabled proposals on disciplines on domestic support specified under Article 6.3, Article 6.5 and Annex 2 of the AoA to prevent the application of domestic support measures in a trade-distorting manner.

There are significant disparities, and the potential for trade-distorting support within the WTO's agricultural subsidy framework, with implications for the deployment of industrial policies to support the development of agri-based industries in Africa. For example, as of 2018, only 32 WTO members had Final Bound Aggregate Measurement of Support (FBAMS) entitlements, totalling US$174.37 billion. Developed countries hold 88.81 per cent of these entitlements, while a few developing countries hold 11.19 per cent. The remaining 104 developing country members have zero FBAMS entitlements. In addition, there is skewed distribution among entitlement holders: six WTO members (Canada, European Union, Japan, Russia, Switzerland, United States) accounted for 87.58 per cent of total FBAMS entitlements in 2018. The European Union alone accounts for 49 per cent of these entitlements.

Domestic support, particularly Amber Box support, could be beneficial in aiding the development of agri-based industries in Africa, enhancing their competitiveness and providing assistance during crisis. However, African countries face constraints in terms of policy space and finances, limiting their ability to support agriculture. Therefore, it is essential to expand policy space in the AoA for developing countries to support agricultural production and public food distribution systems, especially during crisis.

The Blue Box subsidies under Article 6.5 of the AoA could also be utilised to support the development of agri-based industries, as they offer more policy space than *de minimis* and can be used simultaneously with Amber Box subsidies, thereby expanding the ability to subsidise specific products. However, Blue Box measures can potentially distort trade since they do not require an actual reduction in production.

Specified under Annex 2 of the AoA, Green Box support is not clearly decoupled from production and has caused global trade distortions, negatively affecting producers in developing and least developed countries. These subsidies can influence production through various channels, such as risk, land prices, credit, labour participation and expectations. Consequently, Green Box subsidies are both production-enhancing and trade-distorting, benefiting developed countries by increasing their productivity and efficiency.

Disciplining these subsidies to minimise their trade-distorting impacts and limiting them to producers with low levels of income, landholding and production could support the development of agri-based industries in Africa.

Source: WTO (2023b)

Box 4: Potential to develop industries in energy transition

Governments worldwide are accelerating the transition to cleaner energy in response to the threats of climate change, which are leading to significant socio-economic changes. Different countries are progressing at different rates, with many developing countries providing corporate subsidies to encourage private sector participation (Kleimann et al., 2024).

African countries have long depended on natural resources for export earnings, a reliance that has persisted for decades without fostering export diversification, wider economic diversification or growth. However, with their abundant resources for cleaner energy, African countries have the potential to develop industries in energy transition. This development could help address modern challenges such as those related to the green transition, supply chain resilience, job creation and geopolitical competition. It will also help Africa move out of its position at the bottom of the global trade hierarchy, associated with the export of raw materials and the import of green goods produced elsewhere.

However, the impact of China's dominance in new climate change and environmental protection industries may represent a threat to industrialisation in African countries, especially given China's use of industrial subsidies. Developing countries are unlikely to join an alliance against China's industrial subsidies for products they cannot produce themselves (Paterson, 2024). African countries aspiring to build their own industrial bases would find industrialisation in energy transition industries challenging without protection from subsidised Chinese competition.

In this regard, African countries should search for appropriate WTO mechanisms to address the balanced use of industrial subsidies. They should also demand mandatory S&DT under the new rules, especially for the protection of infant industries to allow them to protect their emerging industries in energy transition. The focus should be on eligibility criteria and duration for S&DT. In addition, African countries should seek rules that allow them to access technology for them to be able to process their raw materials for the energy transition. Currently, green and digital technologies are concentrated in a few advanced industrial economies, which perpetuates global power imbalances. The expansion of small-scale manufacturing is seen as crucial for development, potentially meeting domestic demand and providing employment. The use of both traditional and modern technologies in these firms suggests small-scale activities could be a stepping stone for modern industrial activity in Africa (Kruse et al., 2021).

industrialisation. Certain labour-intensive manufacturing sub-sectors, such as the garment industry, demonstrate significant potential. Additionally, the pharmaceutical industry is a promising sector, especially in light of the COVID-19 experience. Conversely, advancing digitalisation can enhance the capabilities of MSMEs as well as of major enterprises, fostering mutual co-operation and driving industrial growth. The use of industrial impact assessments should be considered to align rules with African productive capacities and trade-driven industrialisation for economic transformation.

Africa's industrialisation could benefit from active participation in discussions about the acceptable policy space for industrial subsidies. A solution that incorporates the principles of non-actionability and non-countervailability could potentially support Africa's industrialisation efforts. In this regard, African countries should demand greater policy space for their industrial subsidy policies. This includes affirming non-actionability and non-countervailability for subsidies granted by African countries and other developing countries that do not have the capacity to distort trade above a certain threshold or that are directed towards industries with positive impacts on the most vulnerable or poorest communities. An option contemplating non-countervailability of

carved-out industrial policies might go further in protecting the interests of African countries (Espa, 2023).

Additionally, African countries should consider ways to limit the proliferation of trade remedies imposed on access to technologies. This could involve capping the number of trade remedies that may be applied to infant industry goods simultaneously, placing a limit on how long they can be maintained or introducing an upper bound on the size of the additional tariff (Espa, 2023). To this end, African countries need to conduct more systematic and comprehensive analysis on the multiple effects of trade remedy tariffs imposed on access to technologies and components, particularly the negative impacts on their industrialisation efforts. Exposing these negative impacts would enable African countries to build a strong case at the WTO.

The negotiations on industrial goods are crucial for developing countries' industrialisation strategies, entailing potential benefits from tariff reductions. African countries should demand that S&DT under WTO rules be made mandatory and useful in the protection of infant industries. Article XVIII of the GATT 1947 allows developing countries to protect their emerging industries. Furthermore, Article XVIIIb allows temporary tariffs for industry development, but its use is limited. The focus should be on eligibility criteria and duration for S&DT. The use of distortionary trade-related industrial policy measures, such as tariffs, non-tariff barriers and export subsidies by developed countries, should be discouraged as they can distort resource allocation, trigger retaliatory policies and threaten the international trade system.

Re-energising negotiations on services should not be overlooked as these play a significant role in industrialisation and economic growth – and there is a need for improved market access commitments in core services sectors. Manufacturing is becoming increasingly reliant on services, given the fragmentation of production in global value chains and the fact that services are becoming increasingly embedded in manufacturing goods. In 2020, the 'servicification' of manufacturing in emerging markets contributed to nearly one-third of the total value added in manufacturing exports (EBRD, 2024). In developed European countries also, it accounted for one-third of the total value added. The largest contributions to this value added in manufacturing exports came from low-skill tradable services such as transport, followed by global innovator services (ibid.).

There is potential for the incorporation of investment facilitation for development rules in WTO agreements. African countries might benefit from incremental progress such as investment facilitation for skills and inputs. To drive industrialisation, African countries should adopt flexible strategies to foster structural transformation and boost productivity in both large and small enterprises. The Investment Facilitation for Development Agreement has the potential to encourage foreign investment, nurture local enterprises and promote digitalisation, all grounded in practical insights and strong public–private collaborations.

Measures at the multilateral level should be augmented by regional efforts to support industrialisation. In establishing the African Continental Free Trade Area (AfCFTA), African member states unanimously decided to boost competitiveness at both the industry and the enterprise levels by capitalising on opportunities for scale economies, access to the continental market and the effective distribution of resources. In addition, to enhance industrial development, the AfCFTA allows restrictions on exports of domestic materials to ensure essential quantities of such materials to come from a domestic processing industry during periods when the domestic price of such materials is held below the world price as part of a governmental stabilisation plan. As such, the AfCFTA presents an opportunity for its members to leverage expanding trade and investment to boost growth and living standards across Africa.

Significant reductions in tariff and non-tariff trade barriers among African countries has the potential to increase merchandise trade flows between African countries. Africa's impetus for industrialisation can be strengthened through creating conditions and investing in regional value chains (Kuwonu, 2015). Greater participation in regional trade can reduce the additional costs associated with doing business abroad and ease regulatory burdens, which, together, will lower the fixed costs of internationalisation (ibid.). Combined with substantial improvements in the trade and investment environment, the benefits of industrialisation could be significantly higher, reducing extreme poverty across the continent.

Notes

1 Of the 45 members of the World Trade Organization (WTO) Africa Group, 21 are Commonwealth African members: Botswana, Cameroon, Gabon, The Gambia, Ghana, Kenya, Eswatini, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Sierra Leone, South Africa, Tanzania, Togo, Uganda and Zambia.

2 While this paper generally refers to Africa as a collective, it acknowledges the significant diversity across the continent in terms of development level, economic size and other relevant factors. Country-specific examples are included to offer a more nuanced discussion and further analysis to illustrate the varying challenges, opportunities and policy approaches that may be required in different national and regional contexts.

3 NIPO is a new monitoring exercise aimed at capturing developments in industrial policy. The database tracks changes in over 60 types of policy intervention undertaken by governments, including corporate subsidies, many of which have been associated with industrial policies over the years, and at the time of writing contained information on over 61,000 distinct interventions. The term 'new' industrial policies (NIPs) is used to highlight the expanding set of objectives and targets beyond traditional sectors like steel and automotives.

4 The AII seeks to enhance data on industrial development, covering 52 countries from 2010 to 2019. It evaluates industrial progress across three dimensions: manufacturing performance, direct determinants (capital and labour) and indirect determinants (macroeconomic stability and quality policies). The Index assists countries in benchmarking their progress and formulating effective industrial policies.

5 Many of the leading producers of these resources are African countries. Namibia and Zimbabwe are notable producers of lithium, with African lithium production expected to increase more than tenfold this decade (Pistilli, 2024a). South Africa is the world's largest producer of manganese. Three of the top 10 cobalt producers are African countries, with Democratic Republic of Congo ranking first (Pistilli, 2023). Madagascar and Mozambique are the world's second and third largest producers of graphite, respectively (Pistilli, 2024b).

6 Of the 37 members of the WTO Africa Group, 27 are African countries. Among these, 10 are Commonwealth countries: The Gambia, Lesotho, Malawi, Mozambique, Rwanda, Sierra Leone, Tanzania, Togo, Uganda and Zambia.

References

AfDB (African Development Bank), African Union and United Nations Industrial Development Organization (2002) 'Africa Industrialization Index 2022'. 24 November. https://www.afdb.org/en/documents/africa-industrialization-index-2022

African Minerals Development Centre (AMDC) (2024) African Union's Mineral Resources Strategy for the Just Transition and Decarbonising Future. Available at: https://au.int/sites/default/files/documents/44539-doc-AGMS_Final_doc.pdf

African Union (2023a) 'Africa's Industrial Revolution: Industrial Policy Set to Shift from the Business as Usual Approach'. 18 October. https://au.int/en/press-releases/20221018/africas-industrial-revolution-industrial-policy-set-shift-business-usual

African Union (2023b) 'African Leaders Nairobi Declaration on Climate Change and Call to Action'. www.afdb.org/sites/default/files/2023/09/08/the_african_leaders_nairobi_declaration_on_climate_change-rev-eng.pdf

Baldwin, R. and D. Grozoubinski (2023) 'Out of the Factory and into the Back Office: Globotics for Sustainable Development'. https://rbaldwin.substack.com/p/out-of-the-factory-and-into-the-back

Bora, B., P. J. Lloyd and M Pangestu. (2000) 'Industrial Policy and the WTO'. *Policy Issues in International Trade and Commodities Study 6*. UNCTAD, Geneva.

Bown, C. P. (2023) 'Modern Industrial Policy and the WTO'. *Working Paper* 23–15. Peterson Institute for International Economics, Washington, DC.

Christianson, M. (2023) 'Tracking Electric Vehicle Investments in the Infrastructure Investment and Jobs Act and Inflation Reduction Act'. EESI, 30 October. www.eesi.org/articles/view/tracking-electric-vehicle-investments-in-the-infrastructure-investment-and-jobs-act-and-inflation-reduction-act

Davis, H. (2024) 'Corruption, Lobbying, and Capture: A Comprehensive Review of Corruption in the United States'. *Law, History and Society* 1(1). https://journals.flvc.org/LHS/article/view/137000

Dinh, H. T. (2023) 'Industrialization in Africa: Issues and Policies'. *Research Paper*. Policy Center for the New South, Rabat.

Espa, I. (2023) 'Green Industrial Policy and International Trade'. White Paper for Workshop on Trade and Climate Action: Shifting the Paradigm for a Just Transition and Sustainable Development.

EBRD (European Bank for Reconstruction and Development) (2024) 'Transition Report 2024-25: Navigating Industrial Policy'. www.ebrd.com/transition-report-2024-25

Evenett, S., A. Jakubik, M. Martín and M Ruta. (2024) 'The Return of Industrial Policy in Data'. *Working Paper* WP/24/1. IMF, Washington, DC.

Farren, M. D. and M. D. Mitchell (2020) 'Targeted Economic Development Subsidies Don't Work. An Interstate Compact Could End Them'. Policy Spotlight, 11 August. https://www.mercatus.org/research/policy-spotlights/targeted-economic-development-subsidies-dont-work-interstate-compact

Garg, K. (2024) 'Special Focus on Africa's Critical Minerals: Enhancing Sustainability in Africa's Critical Minerals Sectors'. *Trade Hot Topics* 193. Commonwealth Secretariat, London.

Gumbo, N. and P Nkala. (2023) 'A Qualitative Meta-Analysis of Issues and Challenges of Trade Facilitation in Developing Countries'. *International Journal of Research in Business and Social Science* 12(6): 157–175.

Hegde, V. and J Wouters. (2020a) 'Special and Differential Treatment under the World Trade Organization: A Legal Typology'. *Working Paper* 227, November. https://ghum.kuleuven.be/ggs/publications/working_papers/wp227-special-and-differential-treatment-wto-legal.pdf.

Hegde, V. and J. Wouters (2020b) 'Special and Differential Treatment under the World Trade Organization: A Legal Typology'. Working Paper 227, November (updated 29 March 2021). https://sielnet.org/wp-content/uploads/2021/04/WP227-Special-and-Differential-Treatment-WTO-Legal-Typology-Hegde-Wouters.pdf

Ilyina, A., C. Pazarbasioglu and N. Ruta (2024) 'Industrial Policy Is Back. Is That a Good Thing?' Econofact, 21 October. https://econofact.org/industrial-policy-is-back-is-that-a-good-thing

International IDEA (2024) Round Table on Africa's Critical Mineral Resources. Available at: https://www.idea.int/sites/default/files/2025-02/round-table-on-africas-critical-mineral-resources.pdf

Khor, M. (2001) 'Basic Development Issues in the WTO Services Negotiations'. Third World Network. https://martinkhor.org/wp-content/uploads/2020/02/BASIC-DEVELOPMENT-ISSUES-IN-THE-WTO-SERVICES-NEGOTIATIONS.pdf

Kleimann, D., S. Evenett, I. Espa and C. Brandi (2024) 'Green Industrial Policy: How G20 Members Can foster Better Practices through Disclosure, Evaluation, and Dialogue'. *T20 Policy Brief*. https://www.global-tradealert.org/reports/152

Kruse, H., E. Mensah, K. Sen and G. de Vries (2021) 'A Manufacturing Renaissance? Industrialization Trends in the Developing World'. *Working Paper* 2021/28. United Nations University WIDER, Helsinki.

Kuwonu, F. (2015) 'Using Trade to Boost Africa's Industrialization: Deliberate Trade Policies Could Lead to Growth'. Africa Renewal, 19 June. https://africarenewal.un.org/en/magazine/using-trade-boost-africas-industrialization

Lakatos, A. (2016) 'Challenges for Implementing the Trade Facilitation Agreement'. *International Trade and Economics Series*. WTO, Geneva.

Mahmud, S. F. and D Ishnazorov. (2017) 'Trade-Growth Nexus and Industrial Policy'. In Yülek, M. (ed.) *Industrial Policy and Sustainable Growth. Sustainable Development*. Springer, Singapore.

McMillan, M. (2014) 'The Myth of De-Industrialisation in Sub-Saharan Africa'. Blog, 21 May. https://www.ifpri.org/blog/myth-de-industrialisation-sub-saharan-africa/

Mohseni-Cheraghlou, A. (2021) 'Foreign Direct Investment: A New Strategy for the United States'. Blog, 5 August. www.atlanticcouncil.org/blogs/foreign-direct-investment-a-new-strategy-for-the-united-states/

Moyo, T. (2015) 'Industrialisation in Africa: Selected Country Experiences'. https://www.academia.edu/15146484/Industrialisation_in_Africa_Selected_country_experiences

Muro, M., R. Maxim, J. Parilla and X. de Souza Briggs (2022) 'Breaking Down an $80 Billion Surge in Place-Based Industrial Policy'. Brookings Commentary, 15 December https://www.brookings.edu/articles/breaking-down-an-80-billion-surge-in-place-based-industrial-policy/

Odijie, M. E. (2024) 'Strategic Industrial Policy for Sustainable Development in Africa: The Case of Cement Manufacturing'. Africa Policy Research Institute, 6 August. https://afripoli.org/strategic-industrial-policy-for-sustainable-development-in-africa-the-case-of-cement-manufacturing

Paterson, S. (2024) 'How Should Democracies Respond to China's BRI?' Hinrich Foundation, 4 June. https://www.hinrichfoundation.com/research/wp/us-china/how-should-democracies-respond-to-china-bri/

Pistilli, M. (2023) 'Top 10 Cobalt Producers by Country'. https://investingnews.com/where-is-cobalt-mined/

Pistilli, M. (2024a) 'Top 9 Lithium-producing Countries (Updated 2024)'. https://investingnews.com/daily/resource-investing/battery-metals-investing/lithium-investing/lithium-production-by-country/

Pistilli, M. (2024b) 'Top 10 Graphite-producing Countries (Updated 2024)'. https://investingnews.com/daily/resource-investing/battery-metals-investing/graphite-investing/top-graphite-producing-countries/

Prakash, A. (2019) The Role of Industrialisation and ICT in Africa's Growth and Integration into Global Value Chains. Economic Research Institute for ASEAN and East Asia Policy Brief NO. 2019-01. Available at: https://www.eria.org/uploads/media/ERIA_PB_FY2019_01.pdf

Ravindran, A. M. (2025) 'Protectionism and Tariff Wars: Lessons from History and Rising Global Risks'. Policy Circle, 12 February. www.policycircle.org/economy/protectionism-and-tariff-wars-lessons/

Rockwell, K. M. (2023) 'African Drums Echoing: Africa Arising Clout in Global Trade and Geopolitics'. Hinrich Foundation, 8 August. www.hinrichfoundation.com/research/wp/trade-and-geopolitics/africa-rising-clout-in-global-trade/

Rodrik, D. (2004) 'Industrial Policy for the Twenty-first Century'. Paper for UNIDO. https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/industrial-policy-twenty-first-century.pdf

Rodrik, D. (2015) 'Premature De-industrialization'. *Journal of Economic Growth* 21: 1–33.

Ruta, M. (2024) 'Michele Ruta on Trade Shifts'. IMF podcast, 8 January. https://podcasts.apple.com/us/podcast/michele-ruta-on-trade-shifts/id1029134681?i=1000664064338&utm_medium=email&utm_source=govdelivery

Savchuk, K. (2019) 'The Five Best Policies to Promote Innovation — and One Policy to Avoid'. Insights, 7 October. www.gsb.stanford.edu/insights/five-best-policies-promote-innovation-one-policy-avoid

Schmitz, A., T. G. Schmitz and F Rossi. (2006) 'Agricultural Subsidies in Developed Countries: Impact on Global Welfare'. *Review of Agricultural Economics* 28(3): 416–425.

Shadikhodjaev, S. (2018) 'Cross-Retaliation: Dispute Settlement System of the World Trade Organization (WTO)'. Oxford Public International Law. https://opil.ouplaw.com/display/10.1093/law-mpeipro/e1423.013.1423/law-mpeipro-e1423

Sithole, L. (2021) 'The Role of Trade Facilitation in Addressing Non-Tariff Barriers in the African Continental Free Trade Area'. Afronomics Law, 28 March. www.afronomicslaw.org/category/analysis/role-trade-facilitation-addressing-non-tariff-barriers-african-continental-free

Sommer, L., L. Calabrese, M. Mendez-Parra and D Luke. (2017) 'Smart Industrialisation through Trade in the Context of Africa's Transformation'. *Policy Brief*. UNIDO, Vienna.

Standard Chartered (2023) 'Future of Trade: Africa Spotlight on the African Continental Free Trade Area'. https://av.sc.com/corp-en/nr/content/docs/SC-Future-of-Trade-Africa.pdf

Stiglitz, J. E. and A Charlton. (2005) *Fair Trade for All: How Trade Can Promote Development*. Oxford University Press, Oxford.

UNEP (United Nations Environmental Programme) (nd) 'Green Industrial Policy'. www.unep.org/explore-topics/green-economy/what-we-do/economic-and-trade-policy/green-industrial-policy

US Department of Labour (nd) 'Office of Workforce Investment'. https://www.dol.gov/agencies/eta/workforce-investment

Van Nostrand, E. and L. Feiveson (2023) 'The Inflation Reduction Act and US Business Investment'. US Department of the Treasury, 16 August. https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-and-us-business-investment

Walter, M. (2021) 'Industrial Policy Makes a Comeback in Africa'. Brookings, 1 December: www.brookings.edu/articles/industrial-policy-makes-a-comeback-in-africa/

Watal, J. (2000) 'Access to Essential Medicines in Developing Countries: Does the WTO TRIPS Agreement Hinder It?' *Science, Technology and Innovation Discussion Paper* 8. Center for International Development, Harvard University.

Word Bank (2023) 'Protectionism Is Failing to Achieve Its Goals and Threatens the Future of Critical Industries'. Feature Story, 29 August. www.worldbank.org/en/news/feature/2023/08/29/protectionism-is-failing-to-achieve-its-goals-and-threatens-the-future-of-critical-industries

WTO (World Trade Organization) (2001) 'Doha Ministerial Declaration'. WT/MIN(01)/DEC/1, 20 November.

WTO (2017) 'National Committees on Trade Facilitation: Current Practices and Challenges'. *Trade Facilitation: Experience Sharing Series*. WTO, Geneva.

WTO (2022) 'Strengthening the WTO to Promote Development and Inclusivity: Communication from the African Group, Cuba, India and Pakistan'. WT/GC/W/778/Rev.5, 18 July.

WTO (2023a) 'G-90 Document for the Special Session of the Committee on Trade and Development (CTD-SS) on Special and Differential Treatment Proposals on Article 66.2 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (Transfer of Technology)'. JOB/TN/CTD/8, 28 November.

WTO (2023b) 'Domestic Support: Communication from the African Group and Pakistan'. JOB/AG/242/Rev.1, 27 July.

WTO (2024) 'African Ministers of Trade Meeting on WTO Issues Declaration of Abu Dhabi on WTO Negotiations'. WT/MIN(24)/42, 15 March.

Zhuawu, C. and K Powell. (2023) 'Cocoa'. In Commonwealth Secretariat (ed.) *Sustainable Production and Trade: Perspectives from the Commonwealth*. London, Commonwealth Secretariat.

Annex I: Industrial value added (% of GDP and annual % growth), 2023

Country	Industry (including construction), value added (% of GDP)	Industry (including construction), value added (annual % growth)
Algeria	37.8	3.9
Angola	45.3	−1
Benin	17.3	7.3
Botswana	34.3	2.3
Burundi	9.6	2.7
Burkina Faso	29.3	5.3
Cabo Verde	10.6	1.3
Tanzania	20.7	−10.3
Comoros	9	0
Congo, Dem. Rep.	46.5	14.6
Congo, Rep.	45.2	0.7
Cote d'Ivoire	23.9	6.1
Djibouti	15.3	10
Equatorial Guinea	46.5	−12.9
Eritrea	..	..
Ethiopia	24.5	6.9
Gambia, The	16.7	10.1
Gabon	53.5	3.9
Ghana	29.5	−1.2
Guinea	26.3	10.9
Guinea-Bissau	18.8	11.6
Kenya	16.9	1.9
Lesotho	28.7	−8.3
Liberia	24.2	13.8
Libya	77.3	17.8
Malawi	15.3	2.5
Madagascar	22.4	2.9
Mali	19.9	−1.2
Mauritania	30.6	5.8
Mauritius	18.6	10.5
Morocco	24.6	1.3
Mozambique	21.3	13.8
Niger	20.2	2.9
Nigeria	32.6	0.7
Sao Tome and Principe	2.8	−2.1
Senegal	24.3	3.7
Seychelles	12	2.1
Sierra Leone	26	14.4
Somalia	..	..
South Africa	24.6	−0.4
Sudan	5.1	−19.7
Tanzania	28	4.8
Togo	20.2	6.7
Uganda	25.8	4
Zambia	35.1	0.9
Zimbabwe	26.3	3.2

Annex II: Manufacturing value added (% of GDP and annual % growth), 2023

Country	Manufacturing, value added (% of GDP)	Manufacturing, value added (annual % growth)
Algeria	9.3	2.4
Angola	8	1.4
Benin	10.1	7.1
Botswana	5.6	1.9
Burundi	..	..
Burkina Faso	10.7	5.6
Cabo Verde	4.7	11.2
Central African Republic	18	−10.3
Comoros	..	..
Congo, Dem. Rep.	18	2.6
Congo, Rep.	..	..
Côte d'Ivoire	14.4	3.7
Djibouti	..	..
Equatorial Guinea	24.6	−9.9
Eritrea	..	..
Ethiopia	4.5	7
Gambia, The	1.5	21.6
Gabon	20.2	2.2
Ghana	11.2	0.9
Guinea	..	..
Guinea-Bissau	11.9	9.5
Kenya	7.6	2
Lesotho	14	−14.2
Liberia	..	..
Libya	..	..
Malawi	9.5	0.3
Madagascar	..	..
Mali	15.1	−3.8
Mauritania	6.5	−2.8
Mauritius	11.1	2.1
Morocco	14.5	2.7
Mozambique	7.1	−4.6
Niger	7.2	5.3
Nigeria	15.4	1.4
São Tomé and Príncipe	..	..
Senegal	15.2	4.3
Seychelles	5.6	−1.7
Sierra Leone	7.7	2
Somalia	..	..
South Africa	13	0.3
Sudan	..	..
Tanzania	8.4	5.3
Togo	12.7	..
Uganda	15.6	3.1
Zambia	8.5	4.5
Zimbabwe	16.4	2.1

Annex III: African trade (% of GDP), 2023

Country	Trade (% of GDP)	Merchandise trade (% of GDP)	Trade in services (% of GDP)
Algeria	44	40	5
Angola	67	64	10
Benin	51	46	..
Botswana	69	63	9
Burundi	30	51	18
Burkina Faso	65	51	..
Cabo Verde	95	41	39
Cameroon	37	26	..
Central African Republic	43	25	..
Chad	92	46	..
Comoros	48	29	24
Congo, Dem. Rep.	91	42	8
Congo, Rep.	96	86	..
Côte d'Ivoire	53	50	..
Djibouti	343	206	46
Egypt, Arab Rep.	40	32	14
Equatorial Guinea	61	70	..
Eswatini	..	88	14
Eritrea	..	29	..
Ethiopia	21	13	9
Gambia, The	42	63	21
Gabon	91	71	..
Ghana	69	40	27
Guinea	90	64	15
Guinea-Bissau	42	37	..
Kenya	32	24	9
Lesotho	141	120	20
Liberia	..	72	..
Libya	155	82	
Malawi	..	32	12
Mali	69	59	..
Madagascar	61	50	..
Mauritania	91	86	12
Mauritius	109	59	36
Morocco	94	76	24
Mozambique	106	86	14
Namibia	110	103	25
Niger	30	26	..
Nigeria		29	6
Rwanda	66	45	14
São Tomé and Principe	..	31	..
Senegal	71	53	..
Seychelles	183	93	132

Country	Trade (% of GDP)	Merchandise trade (% of GDP)	Trade in services (% of GDP)
Sierra Leone	56	51	6
Somalia	93	45	..
South Sudan	..	48	63
South Africa	65	63	9
Sudan	2	11	..
Tanzania	38	27	11
Togo	61	52	..
Tunisia	107	94	30
Uganda	33	38	12
Zambia	78	74	10
Zimbabwe	51	47	6

Annex IV: Time required for border compliance to export and import (hours), 2023

Country	Time to export, border compliance (hours)	Time to import, border compliance (hours)
Algeria	80	210
Angola	164	72
Benin	78	82
Botswana	5	3.5
Burundi	59	154
Burkina Faso	74.5	102
Cabo Verde	72	60
Central African Republic	141	122
Comoros	51	70
Congo, Dem. Rep.	296	336
Congo, Rep.	276	397
Côte d'Ivoire	239	125
Djibouti	72	118
Equatorial Guinea	132	240
Eritrea	..	..
Ethiopia	51	72
Gambia, The	109	87
Gabon	96	84
Ghana	108	80
Guinea	72	79
Guinea-Bissau	118	84
Kenya	16	194
Lesotho	4	4.5
Liberia	193	217
Libya	72	79
Malawi	78	55
Madagascar	70	99
Mali	48	98
Mauritania	62	69
Mauritius	24	41
Morocco	6	57
Mozambique	66	9
Niger	48	78
Nigeria	128	242
São Tomé and Príncipe	83	150
Senegal	61	53
Seychelles	82	97
Sierra Leone	55	120
Somalia	44	85
South Africa	92	87
Sudan	180	144
Tanzania	96	402
Togo	67	168
Uganda	59	145
Zambia	120	120
Zimbabwe	88	228

Annex V: Time required for documentary compliance to export and import (hours), 2023

Country	Time to export, documentary compliance (hours)	Time to import, documentary compliance (hours)
Algeria	149	96
Angola	96	96
Benin	48	59
Botswana	18	3
Burundi	120	180
Burkina Faso	84	96
Cabo Verde	24	24
Central African Republic	48	120
Comoros	50	26
Congo, Dem. Rep.	192	174
Congo, Rep.	120	208
Côte d'Ivoire	84	89
Djibouti	60	50
Equatorial Guinea	154	240
Eritrea	..	..
Ethiopia	76	194
Gambia, The	48	31.5
Gabon	60	120
Ghana	89	36
Guinea	139	156
Guinea-Bissau	60	36
Kenya	19	60
Lesotho	1	1
Liberia	144	144
Libya	72	96
Malawi	75	55
Madagascar	50	58
Mali	48	77
Mauritania	51	64
Mauritius	9	9
Morocco	26	26
Mozambique	36	16
Niger	51	156
Nigeria	74	120
São Tomé and Príncipe	46	17
Senegal	26	72
Seychelles	44	33
Sierra Leone	72	82
Somalia	73	76
South Africa	68	36
Sudan	190	132
Tanzania	96	240
Togo	11	180
Uganda	24	96
Zambia	96	72
Zimbabwe	99	81