African Development Bank

# Africa Industrialisation **Index** 2025

## Report

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## Acknowledgements

The African Industrialization Index (AII) initiative was initially developed within the framework of the cooperation between the African Development Bank, the African Union Commission (AUC), and the United Nations Industrial Development Organization (UNIDO), under the joint roadmap of the Third Industrial Development Decade for Africa (IDDA III), whose strategic objective 2 was to "enhance the capacity of key stakeholders to produce objective industrial policies informed by evidence-based research."

The inaugural edition of the African Industrialization Index (AII) was launched at the African Union Summit on Industrialization and Economic Diversification, held in Niamey, Niger, in November 2022. It was subsequently recognized, together with AIO, as a top priority of the AUC in the Action Plan for the implementation of the Niamey Summit decisions.

This Africa Industrialization Index 2025 Report is an outcome of a strong collaboration between the Industrial and Trade Development Department and the Statistics Department of the African Development Bank. The production of the report was task managed by Maxime Weigert (Principal Industrial Policy Officer) and Anouar Chaouch (Senior Statistician). The conceptual framework of the Index was developed with valuable contributions from the African Union Commission (AUC), under the supervision of Mrs. Ron Osman (Director for Industry, Minerals, Entrepreneurship and Tourism) and by the United Nations Industrial Development Organization (UNIDO), under the supervision of Victor Djemba (Chief of the Regional Bureau for Africa). We also gratefully acknowledge valuable insights and inputs of William Simwanza, John Youhanes Magok, and Robine Okello from the AUC as well as Fernando Cantu Bazaldua, Dong Guo and Shuaichang Shao from UNIDO.

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# Acronyms

| | |
|---|---|
| **AFCFTA** | African Continental Free Trade Area |
| **AFTA** | ASEAN Free Trade Area |
| **AIDA** | Accelerated Industrial Development of Africa |
| **AIDI** | Africa Industrialization Development Index |
| **AMV** | African Mining Vision |
| **ASEAN** | Association of Southeast Asian Nations |
| **AUC** | African Union Commission |
| **CBAM** | Carbon Border Adjustment Mechanism |
| **COMESA** | Common Market for Eastern and Southern Africa |
| **EAC** | East African Community |
| **ECOWAS** | Economic Community of West African States |
| **ESG** | Environmental, Social, and Governance |
| **EU** | European Union |
| **FDI** | Foreign Direct Investment |
| **GDP** | Gross Domestic Product |
| **GVC** | Global Value Chains |
| **IIAG** | Ibrahim Index of African Governance |
| **ISIC** | International Standard Industrial Classification |
| **IT** | Information Technology |
| **MVA** | Manufacturing Value Added |
| **PIDA PAP** | Priority Action Plan of the Programme for Infrastructure Development in Africa |
| **R&D** | Research and Development |
| **REC** | Regional Economic Community |
| **RVC** | Regional Value Chains |
| **SAARC** | South Asian Association for Regional Cooperation |
| **SEZ** | Special Economic Zones |
| **STR** | Simplified Trade Regime |
| **TVET** | Technical and Vocational Education and Training |
| **UNCTAD** | United Nations Conference on Trade and Development |
| **UNIDO** | United Nations Industrial Development Organization |

# Foreword

For African economies, industrialization remains the most effective pathway to achieving structural transformation, creating quality jobs, driving prosperity and building more resilient and diversified economies. However, in a rapidly evolving global context, advancing industrialization requires an approach that is grounded in evidence, driven by investment, and anchored in strong institutions. Against this backdrop, this African Industrialization Index 2025 report is a critical tool: it tracks African economies' industrialization trajectories, and informs the strategic policymaking and priority interventions needed to drive inclusive and sustainable industrial development across Africa.

The findings of the 2025 edition of the African Industrialization Index report, which covers all African countries, highlight both progress and persistent gaps. The results underscore the urgency of mobilizing and scaling up productive investments, strengthening Africa's financial and institutional architecture, harnessing the continent's demographic potential, and accelerating value addition through industrial development. These four priorities align with the Four Cardinal Points strategic compass of the African Development Bank Group and can form the cornerstone of a renewed vision for Africa's transformation that moves beyond the export of raw materials toward the development of competitive industries.

The report stresses regional industrialization's importance in unlocking Africa's industrial potential and overcoming its fragmented markets. By connecting production, value addition, and markets across borders, regional value chains can foster competitiveness, attract investment, and enable economies of scale. Advancing this agenda will require closer coordination among countries, including greater alignment of policies and investment priorities.

In providing robust and comparable data across countries and sectors, the report is designed to equip policymakers with a clear understanding of the challenges they face, enabling them to identify opportunities and design targeted, evidence-based interventions. More importantly, it can support a shift toward more strategic, coordinated, and results-oriented approaches to industrialization, particularly at the regional level.

The African Development Bank Group remains steadfast in its support for its member countries, working to mobilize investment, strengthen institutional capacity, and translate ambition into tangible, high-impact industrial outcomes.

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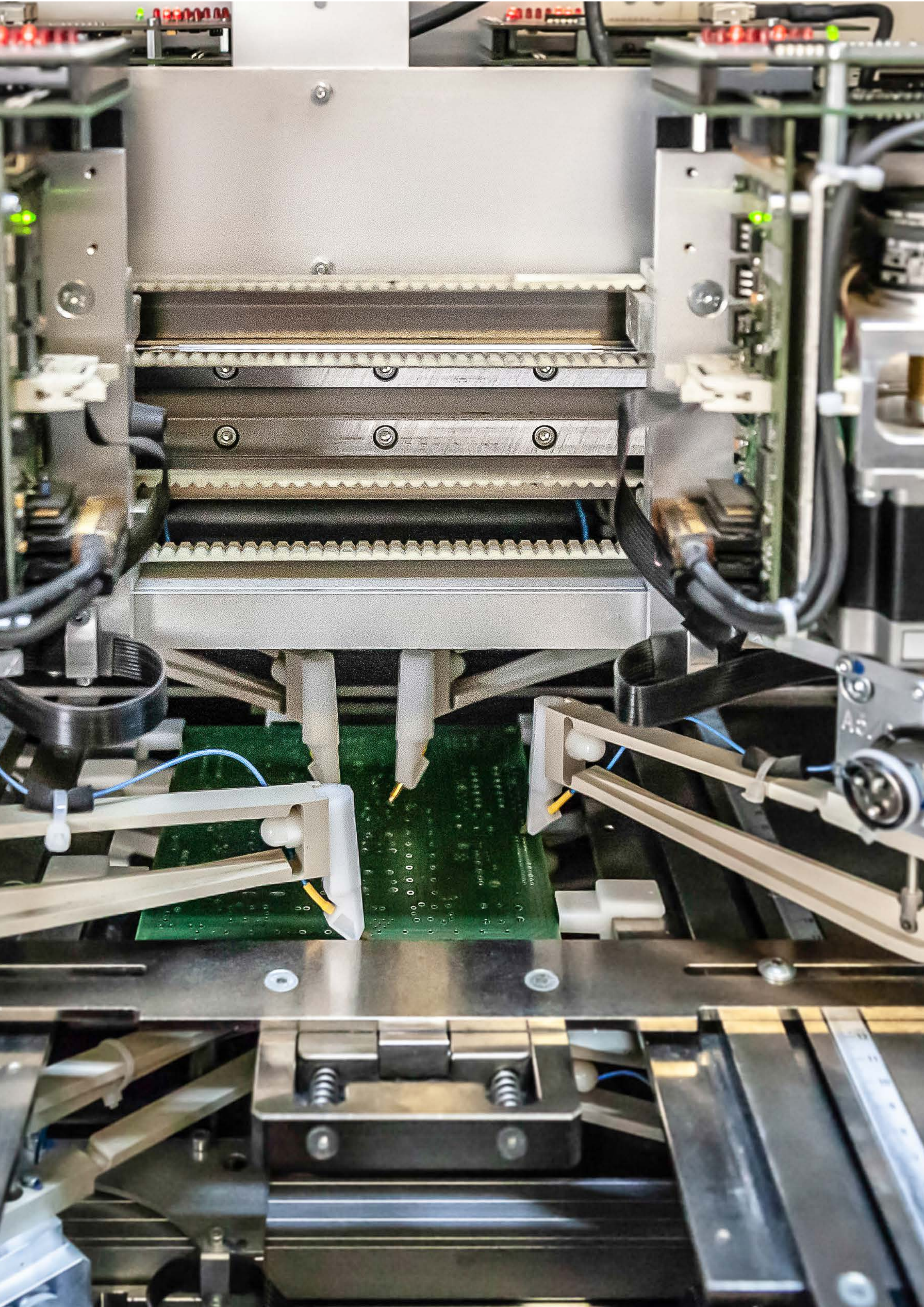

# Executive summary

Industrialization remains the most credible pathway for Africa to achieve structural transformation, generate productive employment at scale, diversify exports, strengthen economic resilience, and secure long-term prosperity. In a rapidly evolving global economic environment shaped by geopolitical realignment, technological disruption, climate transition, and supply chain restructuring, the urgency for Africa to industrialize has never been greater.

Despite growing policy attention and a renewed momentum in industrial strategies across the continent, Africa's industrial transformation continues to progress at a slow pace.. Although manufacturing value-added has increased steadily in absolute terms–from USD 285 billion in 2020 to USD 351 billion in 2025–the continent continues to account for less than 2 per cent of global manufacturing output and only 1.4 per cent of global manufacturing exports. Africa's manufacturing value-added per capita remains below pre-2014 levels, underscoring the fact that industrial growth has not yet to translated into broad-based structural transformation.

This second edition of the *Africa Industrialization Index (AII)* Report presents a comprehensive assessment of industrial development across all 54 African countries over the 2010–2024 period. This edition incorporates several important enhancements compared with the previous maiden edition. These include methodological enhancements, expanded country coverage, and the introduction of new indicators that capture technological sophistication, export diversification, and industrial transformation dynamics. In addition, the index now features a dedicated policy section with a thematic analysis, which in this edition focuses on the imperative of strengthening regional industrialization across the continent. The report also includes an in-depth analysis of industrial policy instruments, with particular focus on special economic zones as a key mechanism for advancing Africa's industrialization. Finally, a more comprehensive and nuanced regional analysis is presented in Section V, offering deeper insights into industrial development patterns across Africa. Overall, the AII offers a multidimensional framework for assessing not only industrial performance, but also the enabling conditions that shape industrial competitiveness and readiness on the continent.

The *2025 AII Report* reveals that Africa has made measurable, albeit uneven, progress in industrialization. It shows that between 2010 and 2024:

- 41 out of 54 African countries recorded improvement in their industrialization scores
- Continental AII performance increased by 6 per cent
- Median country performance increased by 6.4 per cent
- Progress was strongest among lower-performing countries, indicating gradual convergence

However, these gains remain modest relative to the scale of Africa's industrialization challenge. Manufacturing performance remains the weakest of the three AII dimensions across the continent, highlighting persistent weaknesses in productive capacity, competitiveness, export sophistication, and industrial deepening

## Major Findings from the Policy Analysis

1. **Africa's industrial integration remains underdeveloped**

Intra-African trade remains structurally low at 14.4 per cent of total trade, reflecting weak regional production integration, limited intermediate goods trade, and fragmented industrial ecosystems. The lack of regional industrial integration remains one of the most significant structural barriers to scaling industrialization on the continent

2. **From shallow to deep integration**

To advance regional industrialization in Africa, regional integration must evolve beyond “shallow” integration centered on tariff reduction and formal agreements toward “deep” integration that addresses behind-the-border constraints. Achieving this transition requires robust enabling systems, including well-developed economic corridors, integrated and quality transport infrastructure, and harmonized regulatory and technical standards.

3. **SME integration into regional value chains:**

Strengthening the integration of small and medium-sized enterprises (SMEs) into regional value chains should constitute a core pillar of regional industrialization strategies. As critical drivers of industrial development, SMEs require enhanced access to finance, markets, and formalization mechanisms. Without their effective integration, industrialization risks remaining fragmented and exclusionary.

4. **Special economic zones can be effective instruments to promote industrialization**

While special economic zones (SEZs) and industrial parks have expanded rapidly across Africa and contributed to export performance, their broader impact remains limited due to weak strategic alignment, insufficient integration with local economies, and persistent governance gaps. The success of SEZs in Africa will depend on their ability to function as integrated platforms for industrial upgrading, innovation, and inclusive growth.

## Major Insights from the Index

1. **Morocco emerges as Africa’s leading industrial economy**

Morocco surpasses South Africa to emerge as the highest-ranked industrial economy in Africa over the coverage period, reflecting sustained industrial upgrading, export diversification, and effective implementation of strategic industrial policies.. While South Africa remains a continental industrial powerhouse, it continues to experience a steady decline in industrial competitiveness.

2. **Industrialization remains highly concentrated**

Industrial capacity remains heavily concentrated in a limited number of countries. North Africa and Southern Africa continue to dominate the continent’s industrial landscape, accounting for most of the manufacturing output, export sophistication, and industrial competitiveness.

3. **Regional disparities in industrial development persist**

North Africa remains Africa’s most industrialized region, followed by Southern Africa. However, East Africa, West Africa, and Central Africa continue to lag significantly behind, despite gradual progress in recent years.

## Strategic Imperatives for Advancing Africa’s Industrial Development

The findings of AII 2025 underscore that Africa cannot achieve transformative industrialization through isolated national industrial strategies alone. The next phase of Africa’s industrial development must be driven by:

- **Regional industrial integration**, enabled by the African Continental Free Trade Area (AfCFTA);
- **The development of regional value chains and industrial corridors;**

- **The strategic deployment of industrial policy instruments**, including SEZs and industrial parks;
- **Sustained investments in productive infrastructure, skills, and innovation ecosystems;**
- **The mobilization of large-scale industrial finance and blended capital.**

Industrialization in Africa must therefore transition from fragmented national production systems toward integrated regional industrial ecosystems, capable of leveraging economies of scale, deepening value addition, and positioning the continent competitively within regional and global value chains.

## Contribution of the AII 2025 Report

Africa stands at a critical industrial crossroads. The AfCFTA, combined with demographic growth, digital transformation, green industrialization opportunities, and shifting global supply chains, offers the continent a historic window to reposition itself within the global economy. Yet realizing this opportunity will require coordinated and decisive action by governments, regional institutions, development finance institutions, and the private sector.

The *Africa Industrialization Index 2025 Report* serves as both a diagnostic and strategic policy tool to guide this transformation. It provides policymakers, investors, and development partners with an evidence-based framework to benchmark progress, identify industrialization constraints, and design targeted interventions that accelerate Africa's transition toward inclusive, sustainable, competitive industrial economies.

# Africa Industrialization Index 2025

# I. Introduction

Industrialization, if pursued through green and sustainable pathways, is widely regarded as an essential route to achieving structural transformation in Africa[1]. This view is increasingly shared by African governments and development partners. This reflects a broader global trend that has brought industrial policy back into the spotlight[2]. According to *the New Industrial Policy Observatory*, which tracks government interventions worldwide[3], the use of industrial policy increased ninefold globally between 2017 and 2023, with emerging and developing economies accounting for one third of the measures implemented during this period[4]. Africa is an active industrial policymaker, with about 800 measures introduced between 2022 and 2025[5]. In recent years, the African Development Bank has supported the design and implementation of industrial policy frameworks and measures in Côte d'Ivoire, Egypt, Ethiopia, Madagascar, Morocco, Rwanda, Senegal, and Tunisia, while also backing public and private investments, policy reforms, and infrastructure projects that promote industrial development across most African countries.

Addressing the industrial policy gap is a necessary step, but Africa's most urgent challenge lies in effective implementation. Despite average annual manufacturing growth of 2.8 per cent since 2000, the continent's share of global manufacturing output has remained below 2 per cent for two decades[6]. Structural challenges such as weak infrastructure and low access to finance have contributed to low manufacturing thus holding back Africa's potential to achieve structural transformation for inclusive growth and sustainable development. The enduring inability of Africa to establish itself as a leading player in global industrialization represents a deviation from its expected structural transformation trajectory. The resulting imbalance carries costs, including foregone opportunities for employment creation, export diversification, and strategic autonomy. It also limits the continent's participation in global value chains (GVC) and the international division of labor, thereby constraining access to key benefits such as technology transfer, skilled job creation, and trade-related productivity gains.

Within the broader issue of implementation, a critical question concerns the extent to which industrialization strategies are aligned with both countries' level of readiness for industrialization and the specific needs of African economies. At the global level, Africa as a "latecomer" faces challenges in carving out its place, amid a shifting geopolitical environment that is reshaping international trade and global production chains through new drivers of reliability, like reshoring, friendshoring and nearshoring[7]. These challenges are compounded by the rapid pace of technological change, which is redefining the determinants of competitiveness for global industrial territories, including skills, infrastructure, and environmental performance.

At the local level, Africa must also rely on industrialization to address its own distinctive challenges, such as a large youth population, extensive rurality, the need for greater spatial and social inclusion, particularly of women, high levels of informality, and the generally small size of its enterprises, which are predominantly small and medium enterprises (SMEs).

Regional industrialization is not a new concern in the continental cooperation agenda. The Action Plan for the Accelerated Industrial Development of Africa (AIDA), adopted in 2008, the African Mining Vision (AMV), adopted in 2009, and the various industrial policies adopted by African Regional

1 See for instance, Rodrik, D. (2016). Premature Deindustrialization. *Journal of Economic Growth*, 21(1), 1–33; Dinh, Hinh T. (2023). Industrialization in Africa: Issues and Policies. Research paper, Policy Center for the New South. World Bank. (2024). World Development Report 2024: The Middle-Income Trap. Washington, DC: World Bank; United Nations Industrial Development Organization. (2026). Industrial Development Report 2026, Vienna; United Nations Economic Commission for Africa. 2016. Economic Report on Africa 2016: Greening Africa's industrialization. Addis Ababa: UNECA.

2 Cherif, Reda and Fuad Hasanov. 2019b. The Return of the Policy That Shall Not Be Named: Principles of Industrial Policy. *IMF Working Paper* 19/74.

3 New Industrial Policy Observatory (NIPO). Global Trade Alert Data. Online [https://globaltradealert.org/reports/new-industrial-policy-observatory-nipo]

4 Ohnsorge, F., Raiser, M., & Xie, Z. L. (2024, October 29). *The renaissance of industrial policy: Known knowns, known unknowns, and unknown unknowns.* World Bank Blogs. Online: World Bank Blog (https://blogs.worldbank.org/en/developmenttalk/the-renaissance-of-industrial-policy--known-knowns--known-unknow] (NIPO). Global Trade Alert Data

5 (NIPO). Global Trade Alert Data

6 United Nations Industrial Development Organization (2024). Quarterly Report, Q2 2024 World Manufacturing Production

7 Reshoring is the return of production activities to the home country, while nearshoring refers to their relocation to geographically close countries. Friend-shoring, in contrast, involves restructuring supply chains toward politically aligned stances and trusted partner countries. See M. Nebe, P. Economou & Abruzzese L. (2024) Shifting Shores: FDI Relocations and Political Risk. Washington, DC: MIGA, World Bank.

economic communities (RECs)[8] have guided this process over the past two decades. The launch of the African Continental Free Trade Area (AfCFTA) in 2019, however, marked a major turning point in this dynamic, offering an avenue to address these by facilitating Africa's expansion of its local markets and improve the continents productive system. On the demand side, this regional integration is expected to create a consumer market of 1.3 billion people whose purchasing power, although still low compared with other regions, is steadily increasing as the continent develops and urbanizes, leading to the emergence of growing African middle classes. On the supply side, the facilitation of intra-African trade could support the establishment of regional production chains and entail new inter-firm opportunities and diversifying local sourcing channels for African producers.

The unprecedented nature of these transformations, both globally and within Africa, combined with the diverse levels of maturity characterizing the industrial trajectories of African countries, calls for the design of industrial policies and strategies aimed at scaling up productive structures. Meeting this challenge will require a combination of adopting lessons from what has worked elsewhere and innovating in ways specific to the African context, including constraint-based innovation. Above all, it requires a deeper understanding of the industrialization dynamics currently unfolding on the continent – its trends, its successes, and its challenges. This new edition of the African Industrialization Index (AII) aims to contribute to that understanding by providing a comparative overview of the 54 African countries' current level of industrial development, as well as a dynamic perspective covering the past 15 years.

This edition introduces several new features in both its composition and structure. First, the index has been enriched with additional indicators that allow for a more detailed industrial profile for each country, and newly available data for this expanded set of indicators has made it possible to include all 54 African countries in the index. Second, the index now contains a policy section featuring a thematic analysis of industrialization that will focus, for this edition, on the need for enhanced regional industrialization on the continent. The report also includes an industrial policy instrument analysis, focused on special economic zones as a key tool in Africa's industrialization. A more comprehensive regional analysis is also presented in the AII results section, that will focus on Southern Africa.

### Box 1. Why the AII matters now?

Africa's industrialization agenda is gaining renewed urgency amid major global and continental transformations reshaping the international economic landscape.

Globally, shifting geopolitical dynamics, supply chain fragmentation, and the rise of friendshoring and nearshoring are creating opportunities for new manufacturing hubs to emerge. At the same time, the climate-industrial transition is generating new demand for green manufacturing, sustainable industrial infrastructure, and critical minerals value addition. Within Africa, rapid population growth, urbanization, and the implementation of the African Continental Free Trade Area (AfCFTA) are expanding the continent's market size and strengthening the foundations for industrial expansion and regional value chain development.

Against this backdrop, the Africa Industrialization Index 2025 provides a timely strategic tool to benchmark industrial performance, identify structural constraints, and guide policymakers, investors, and development partners in prioritizing interventions to accelerate Africa's industrial transformation.

As Africa seeks to position itself as the world's next major industrial frontier, AII 2025 offers a critical framework to inform evidence-based industrial policy and investment decision-making.

8 Including the ECOWAS West Africa Common Industrial Policy 2010-30; the EAC Industrialization Policy 2012-2032; the SADC Industrialization Strategy and Roadmap 2015-2063; and the COMESA Industrialization Policy 2015–2030.

# II. AFCFTA: Addressing the Unfinished Agenda of Regional Industrialization

Africa's manufacturing sector has remained relatively robust despite global headwinds, with manufacturing value-added increasing from US$285 billion in 2020 to US$351 billion in 2025[9]. The sector's contribution to gross domestic product (MVA/GDP) has strengthened to 10.8 per cent, consolidating its share since it hit its lowest point of 9.8 per cent in 2012[10]. This remains below the global average of 16.5 per cent, with MVA/GDP standing at 15.2 per cent in the European Union (EU), 15.4 per cent in the South Asian Association for Regional Cooperation (SAARC), and 21.7 per cent in the Association of Southeast Asian Nations (ASEAN). In fact, Africa's manufacturing output levels remain relatively low, despite ongoing growth, with Africa's share of global manufacturing output and exports still modest at 2.0 per cent and 1.4 per cent, respectively[11]. Manufacturing value-added per capita reached $226.7 in 2025, still below the $254.9 peak of 2014, indicating that despite absolute growth, the manufacturing sector has not yet established itself as a driver of structural transformation.

Africa's industrial development continues to face structural constraints, including weak infrastructure, limited access to finance and technology, small and fragmented markets, and persistent gaps in human capital. Political and institutional challenges at both national and regional levels, high levels of informality, and the concentration of production in low value-added activities further hinder structural transformation. Another major obstacle to scaling up industrialization is the limited development of regional industrial integration. Despite notable achievements in regionalism, including the operationalization of the AfCFTA, progress in tariff liberalization, and the strengthening of regional frameworks, Africa continues to face challenges in economic integration, such as non-tariff barriers, uneven implementation across countries, infrastructure gaps, and limited policy and standard harmonization[12].

Africa's industrial space remains indeed largely disintegrated. Intra-African trade accounted for only about 14.4 per cent of Africa's total trade over the 2022–2024 period, compared with 60 per cent in Asia and 57 per cent in Europe[13]. This weak level of intra-regional trade reflects the dominance of a standalone industrial model on the continent, largely oriented toward supplying extra-regional markets with raw materials and low value-added products. This also results from late implementation of trade agreements that maintain high tariffs, as well as the prevalence of non-tariff barriers (customs procedures, technical, sanitary and phytosanitary measures, etc.) which significantly increase the cost of trade and hinder exchanges between African countries – non-tariff barriers are estimated to restrict intra-African trade three times more than regular customs tariffs on average, depending on the country or regional trading bloc[14]. This is a major hindrance to the establishment of functional regional value chains, is as reflected in the low magnitude of intra-regional trade in intermediate goods, which represented only 12.8 per cent of Africa's total industrial input exports in 2022, while most intermediate goods continued to be exported outside the continent, mainly to Asia (32.1 per cent) and Europe (31.1 per cent)[15].

9 AFDB data

10 AFDB data

11 United Nations Industrial Development Organization. (2025). Factsheet: Africa Highlights from the International Yearbook of Industrial Statistics 2025.

12 African Union Commission. (2025). *African Integration Report 2025.* Addis Ababa: African Union Commission.

13 UNCTAD Stat. Calculations of the author.

14 UNCTAD (2024) Economic development in Africa report Unlocking Africa's trade potential Boosting regional markets and reducing risks, United Nations publication, New York and Geneva

15 Christophe Degain and Florian Eberth, *Trade in intermediate goods on the rise in Africa*, WTO Blog, 20 November 2024, online [https://www.wto.org/english/blogs_e/data_blog_e/blog_dta_20nov24_e.htm#_edn1]

This pattern contrasts sharply with global trends in industrial development over recent decades, which have been characterized by the regionalization of manufacturing production networks[16]. In other regions, multinational enterprises have played a key role in building regional value chains by exploiting differences in comparative advantages, expanding the pool of human capital, increasing production capacity, and accessing new markets, while benefiting from geographic proximity and reduced exposure to global risks[17]. South-East Asia provides a clear illustration of this model. A large share of its already high level of intra-regional trade consists of intermediate goods exchanged within and across industries. During the 2000–2010 period, intermediate goods accounted for up to 70 per cent of Asia's intra-regional exports, highlighting the central role of regional value chains in driving industrial integration and competitiveness[18].

## Shifting from shallow to deep integration

A key policy challenge for Africa's regional integration is the development of an integrated regional market and production base that enables manufacturing to expand across borders. Scaling up regional demand and supply would allow firms to benefit from economies of scale, access a broader skills base, benefit from technological diffusion[19], including through increased foreign direct investments (FDI), and strengthen regional value chains. This situation does not emerge overnight; rather, it is the outcome of sustained and long-term cooperation aimed at shifting from shallow integration, centered mainly on tariffs, to deep integration, which refers to the process whereby countries gradually create a supranational economic space, designed as a "common marketplace" that enables firms to operate and trade easily across borders[20]. Beyond tariff reductions, this process entails measures aimed at reducing transaction costs across regional production networks, including the removal of technical and non-tariff barriers, the development of cross-border infrastructure, the harmonisation of institutions, standards, and legal frameworks, as well as labour and investment regulations[21]. It also requires stronger coordination of national and regional policies as integration deepens.

Whereas the European Union (EU) is a typical example of deep industrial integration, the ASEAN, created in 1967, best epitomizes this strategic approach in the developing world. In the last decades, this group of South-East Asian nations, initially comprised of Indonesia, Malaysia, Philippines, Thailand, and Singapore (ASEAN-5) and later joined by Brunei Darussalam, Cambodia, the Lao People's Democratic Republic, Myanmar, and Viet Nam, have implemented a regional collaborative growth model based on multi-country coordination. First, these countries have significantly reduced their average tariff rates, particularly through the establishment of the ASEAN Free Trade Area (AFTA) adopted in 1992. This has led to a situation where almost all goods traded within the region are now subject to zero tariffs[22]. Second, ASEAN governments facilitated firm-led regional integration by reducing trade barriers, attracting foreign direct investment, improving infrastructure, and simplifying trade procedures. This enabled multinational companies to efficiently organize regional value chains, leverage labour force and investment pooling, cost differentials, cross-border logistics, and sectoral complementarities, thereby creating fully fledged regional production networks in key export sectors, particularly electronics[23]. The size effect, associated with economies of scale, larger volumes of supply, and intra-regional trade growth, has allowed the region to emerge as a leading manufacturing hub on the global stage[24]. Furthermore, the process has evolved in the form of an economic open

16 Rugman, A. M., and Verbeke A. (2004). A Perspective on Regional and Global Strategies of Multinational Enterprises. *Journal of International Business Studies* 35(1): 3–18.

17 Verbeke, A., & Asmussen, C. G. (2016). Global, local, or regional? The locus of MNE strategies. Journal of Management Studies, 53(6), 1051-1075.

18 Asia Regional Integration Center (2011), Intermediate goods dominate intraregional trade in developing Asia. Online [https://aric.adb.org/blog/intermediate-goods-dominate-intraregional-trade-in-developing-asia]

19 Bustos, P. (2011). Trade liberalization, exports, and technology upgrading: Evidence on the impact of MERCOSUR on Argentinian firms. *American economic review*, 101(1), 304-340.

20 Evans, David, Raphael Kaplinsky, and Sherman Robinson (2006). "Deep and Shallow Integration in Asia: Towards a Holistic Account." Institute of Development Studies, IDS Bulletin. Vol. 37, No. 1 (January), pp. 12-22.

21 Kim, S. Y. (2015). Deep integration and regional trade agreements (pp. 360-379). Oxford: Oxford University Press

22 Baek, N., Chahande, K., Eklou, K. M., Kinda, T., Nahata, V., Rawat, U., & Stepanyan, A. (2023). ASEAN-5: Further Harnessing the Benefits of Regional Integration amid Fragmentation Risks. IMF Working Papers, 2023 (191)

23 ASEAN-Japan Centre, Paper 1 (Revised) Global Value Chains in ASEAN: A Regional Perspective, / January 2019

24 Athukorala, P. C. (2011). Production networks and trade patterns in East Asia: Regionalization or globalization? Asian Economic Papers, 10(1), 65-95

regionalism, allowing periphery countries of the region like Viet Nam, Cambodia, Lao and Myanmar to progressively join the production networks steered by the forerunners[25].

To emerge as such a cohesive and competitive production space, Africa must advance industrial integration beyond trade liberalization toward the creation of integrated productive ecosystems capable of translating market integration into industrial output, value addition, and competitiveness. Achieving deep integration requires not only to remove barriers to trade, but to build strategic economic and industrial spaces that connect infrastructure development, industrial policy, and investment promotion within coherent territorial development frameworks. This implies a shift from a model of "integration for trade" to one of "integration for production." The process requires a coordinated approach to removing tariff and non-tariff barriers, supported by key operational instruments such as effective rules of origin, harmonized standards, and mutual recognition mechanisms to reduce transaction costs. More broadly, achieving continental integration calls for a shift from nationally focused industrial strategies toward a model of developmental regionalism, centered on coordinated industrial policies, targeted infrastructure development, and the promotion of private sector–led regional value chains across Africa[26].

## The AfCFTA as a catalyst for regional industrial development

The launch of the AfCFTA is a timely opportunity for Africa to enhance its industrial integration, helping to consolidate and further advance the efforts undertaken under the Accelerated Industrial Development of Africa (AIDA) strategic framework and regional industrial policies. While regional cooperation in Africa has faced many difficulties in the past, the chances of success of this new initiative are increased by a combination of structural and circumstantial factors, which make the case for this transformation, especially if it is actively leveraged. The expected gains from its effective implementation are substantial, with income projected to rise by about 7 per cent by 2035 and up to US$450 billion in added value[27]. Most of these gains will come from improved trade facilitation, which reduces border delays and compliance costs, boosts regional trade, and helps African businesses integrate into regional and global supply chains, contributing to significant poverty reduction. Full implementation of the AfCFTA agreement would indeed result in significant growth in intra-African trade, with an estimated increase of 60 per cent in agrifood, 48 per cent in manufacturing, and 34 per cent in services by 2045[28].

First, after two decades of sustained growth, Africa's combined consumer and labor markets have reached a scale that is increasingly attractive for manufacturing investment oriented toward the continental market. The emergence of a growing middle class, with rising purchasing power and evolving consumption patterns, is strengthening domestic demand for manufactured goods, with private household consumption accounting for more than half of domestic absorption of these products[29]. Although this middle class remains unevenly distributed, it is increasingly concentrated in several economic growth poles, such as Kenya, Nigeria, and South Africa, where large populations and rising household incomes prevail[30]. These countries can play a pivotal role in AfCFTA-driven industrialization by acting as regional anchors that channel trade, investment, migration, and technology flows, generating spillover effects for neighboring economies through regional value chains[31].

Second, Africa can leverage the ongoing technological transformation across the continent. The expansion of digitalization creates opportunities for leapfrogging, notably by

25 Obashi, A., & Kimura, F. (2017). Deepening and widening of production networks in ASEAN. Asian Economic Papers, 16(1), 1-27.

26 Nesadurai, H. E. (2003). Attempting developmental regionalism through AFTA: the domestic sources of regional governance. *Third world quarterly*, 24(2), 235-253

27 World Bank. (2022). Africa Continental Free Trade Area: Leveraging Trade and Foreign Direct Investment to Boost Growth and Reduce Poverty, World Bank Group, Washington.

28 United Nations Economic Commission for Africa. (2025), Economic Report on Africa 2025: Advancing the Implementation of the Agreement Establishing the African Continental Free, UNECA, Addis Abeba

29 United Nations Industrial Development Organization. 2017. Industrial Development Report 2018. Demand for Manufacturing: Driving Inclusive and Sustainable Industrial Development. Vienna

30 Ogunleye, E.K., 2011. Structural Transformation in Sub-Saharan Africa: The Regional Growth Poles Strategy. 25-28 October 2011. Paper presented at the 2011 African Economic Conference, Addis Ababa.

31 Terence McNamee. (2016). Harnessing the Power of Africa's Swing States: The Catalytic Role of Nigeria, Kenya and South Africa', Brenthurst Foundation, Johannesburg.

improving access to finance, reducing transaction costs, and increasing business and public sector efficiency. Digital tools also support the integration of informal firms and low-income consumers into the formal economy. In addition, paperless procedures and cashless payment systems facilitate cross-border trade and investment by reducing non-tariff barriers that constrain regional economic integration.

Third, Africa's private sector includes a growing number of national and regional champions with the capacity to expand across borders. These firms are well positioned to take advantage of the continental market, including through partnerships with extra-regional investors. Their strong embeddedness in local markets and long experience operating in constrained environments have fostered specific capabilities[32] that underpin their competitive advantage relative to non-African firms[33].

Lastly, the AfCFTA can capitalize on strong political momentum, which is a critical success factor for initiatives of this scale involving a diverse set of countries. Past attempts to implement large free trade areas – such as the Free Trade Area of the Americas or the Union for the Mediterranean – failed, in part, due to a lack of political consensus or changing geopolitical circumstances[34]. In contrast, the AfCFTA has achieved broad agreement despite opposition during negotiations, reflecting a shared recognition among African countries of the continent's economic opportunities.

## Steering the process

While regional integration may be shaped by different dynamics, ranging from market-driven processes and the gradual deepening of economic interdependence to state-led cooperation and institutional coordination, African regionalism is largely characterised by approaches in which RECs and regional or pan-African specialized institutions act as key designers and implementers of the integration process[35]. This makes of these regional bodies, which can build on their experience in trade liberalization, rules of origin, standards, and industrial policy coordination, the most relevant institutional framework for implementing in-depth integration arrangements. Moreover, as fragmented regionalism and overlapping sub-regional trade and industrial policy frameworks continue to constrain enhanced integration at the continental level, RECs can help reduce coordination failures and progressively align national and regional approaches to industrial development. However, their effectiveness remains constrained by limited mandates and weak enforcement capacity, especially in the face of persistent national resistance and divergent state interests, which continue to shape both the pace and depth of Africa's regional integration (Box 2).

RECs should play a central role in developing regionally defined industrialization objectives and anchoring them within national development strategies, while managing the uneven costs and benefits of integration through transitional protections, compensation mechanisms, and targeted support for less competitive economies. A pragmatic pathway toward continental deep integration thus lies in scaling up successful REC-level initiatives under the AfCFTA framework. This approach combines progressive harmonization of policies, standards, and regulations with targeted measures that preserve policy space for infant and strategic industries, thereby ensuring that Africa's integration process is both economically effective and politically viable.

32 Van Den Waeyenberg, S. and Hens, L. (2012). Overcoming institutional distance: expansion to base-ofthe- pyramid markets, *Journal of Business Research*, Vol. 65 No. 12, pp. 1692-1699.

33 Dupoux, P., Ivers, L., Abouzied, A., Chraïti, A., Dia, F., Maher, H. and Niavas, S. (2015). Dueling with Lions: Playing the New Game of Business Success in Africa. Boston Consulting Group.

34 Herreros, S. (2019). The failure of the Free Trade Area of the Americas: a cautionary tale for the African Continental Free Trade Arean, *Inclusive Trade in Africa* (pp. 35-48). Routledge

35 African Union Commission. (2025).

**Box 2. What factors hamper deep regional integration?**

Industrial regionalism, like most supranational integration processes, faces strong national resistance. A major obstacle lies in diverging national interests within regions. These differences often reflect structural asymmetries between large and small economies, as well as competitive pressures among countries with similar production structures. By increasing both internal and external competition through the removal of tariff and non-tariff barriers, deep integration produces uneven costs and benefits across countries, depending on the capacity of national industries to adapt to a more open and competitive environment. This adjustment process implies a reallocation of production factors across the region and raises concerns about potential job losses, particularly in weaker or less competitive industries[35]. In addition, deep integration tends to generate a "hub effect", whereby the most central and economically advanced countries capture a disproportionate share of the benefits, often at the expense of more peripheral economies[36]. Addressing these distributional effects is essential to ensure the political sustainability and inclusiveness of deep regional integration.

In Africa, this challenge is further compounded by the fact that countries have historically followed state-centered nation-building trajectories, which calls for gradual adjustments in approaches and modes of action, with deep integration thus unfolding through processes that are often long, incremental, and uneven across contexts. Moving to a higher level of integration requires more than political recognition and stakeholder awareness: it calls for proactive policies, appropriate institutional frameworks, and the adoption of new instruments and modes of cooperation.

# Supporting the operationalization of regional industrialization

In the process of deepening its integration, Africa is faced with a range of foundational challenges, as outlined above. To overcome these obstacles, the continent could promote regional industrialization through a pragmatic approach that combines top-down, public sector–driven interventions with bottom-up, market-driven incentives. This dual approach aims to lay the foundations for regional industrialization while scaling up existing economic dynamics.

Policy responses to support deep regional integration usually distinguish between horizontal measures, which are designed to address market failures and improve coordination among economic actors at both the regional and domestic levels, and vertical measures, which refer to targeted government interventions that support specific sectors, firms, or technologies[38]. Horizontal support focuses on strengthening the overall business and regulatory environment and is available to all firms regardless of their activity, technology, or location, while vertical support targets specific sectors, value chains, location or strategic activities where failures are most binding[39]. Building on this typology, potential forms of horizontal support can be categorized as follows:

## The horizontal approach to regional industrialization

As industrial policies in African countries remain largely driven by national priorities, a key challenge for regional industrial policies is to complement domestic agendas without undermining local industries. Beyond cross-cutting measures such as macroeconomic convergence, regional energy projects, and business climate reforms, regional policies should focus on areas that directly support regional industrial development and reduce market failures affecting intra-regional trade, notably regional infrastructure, quality policy harmonization, and human capital development.

### Regional connectivity in corridors

RECs and regional organizations have the legitimacy to promote regional infrastructure that strengthens integration and enables the free movement of goods and people. A key approach is the development of regional industrial platforms, which correspond to spatially concentrated and economically interconnected production ecosystems that combine climate-resilient infrastructure, industrial clusters, logistics systems,

36 Baldwin, R. E., & Venables, A. J. (1995). Regional economic integration. Handbook of international economics, 3, 1597-1644.

37 Krugman, P. (1993). The hub effect: or, threeness in interregional trade. Theory, policy and dynamics in international trade, 29-37

38 Juhász, R., Lane, N., & Rodrik, D. (2024). The new economics of industrial policy. *Annual review of economics*, 16(1), 213-242.

39 Criscuolo, C., Gonne, N., Kitazawa, K., & Lalanne, G. (2022). "An industrial policy framework for OECD countries: Old debates, new perspectives", *OECD Science, Technology and Industry Policy Papers*, No. 127, OECD Publishing, Paris,

skills development, energy supply, and business services to facilitate productive activity and economies of scale. In practice, these platforms often develop through coordinated investments within dedicated territorial development frameworks, such as cross-border industrial corridors.

Overall, a corridor can be defined as a linear land, inland water or maritime route connecting centers of economic activity across one or more neighboring countries[40]. In the last decade, the concept has become a key development instrument at the continental, regional, and national levels, particularly for connecting landlocked countries to coastal states and improving their access to markets. Implemented largely under REC protocols, they also constitute a complementary tool to policy-driven regionalism, by promoting a form of decentralized integration, focused on optimizing market-driven cross-border trade dynamics, expanding production, labor, and consumption basins, leveraging productive complementarities, and improving market access. The corridor concept has evolved in recent years, giving rise to updated or refined approaches such as smart corridors and integrated corridors (Box 3).

## Intra-Africa Trade Facilitation

Trade complications continue to hinder the development of intra-African value chains, affecting both intra-firm and inter-firm trade by increasing transaction costs, delays, and uncertainty across borders. These constraints limit the ability of firms to build reliable production networks and reduce the competitiveness of regional industries. Despite advances in trade liberalization, persistent non-tariff barriers, inefficient customs procedures, and fragmented regulatory frameworks remain key obstacles. Addressing these challenges requires strengthening regional integration mechanisms and promoting the harmonization of standards and regulations through frameworks such as the African Continental Free Trade Area, the Regional Economic Communities, as well as the the Pan-African Quality Infrastructure (PAQI) institutions, which include the African Accreditation Cooperation (AFRAC), the Intra-Africa Metrology System (AFRIMETS), the African Electrotechnical Standardization Commission (AFSEC), and the African Organisation for Standardisation (ARSO). Enhancing institutional capacities and fostering coordinated implementation are critical to enabling smoother and more predictable cross-border trade flows.

### Box 3. The integrated corridor approach

Initially, the concept of corridors referred primarily to transport corridors, focusing on integration through multimodal infrastructure aimed at improving logistics performance, enhancing interconnectivity between transport systems, and facilitating freight flows to boost trade and support private sector development[40]. However, this paradigm has evolved in recent years with the emergence of the concept of integrated corridors. Beyond infrastructure alone, this approach provides a strategic framework for development that seeks to maximize the economic, social, and environmental impacts of investments. It is based on a holistic vision combining connectivity, industrial development, job creation, inclusion (notably gender), and climate sustainability, while fostering synergies across sectors (transport, energy, digital, etc.) and strengthening linkages between urban and rural areas[41].

This approach is aligned with continental frameworks such as the AfCFTA and Agenda 2063. The second Priority Action Plan of the Programme for Infrastructure Development in Africa (PIDA-PAP2 2021–2030) operationalizes this integrated corridor approach by prioritizing multi-sectoral projects that incorporate cross-cutting dimensions such as gender inclusion, climate alignment, job creation, rural connectivity, and broader economic and financial development. International partners are increasingly investing in corridor development to secure supply chains and accelerate the energy transition, reflecting a growing convergence around those instruments to promote trade and industrialization on the continent[42]. For instance, the European Union has identified 11 strategic corridors under its Global Gateway initiative[43]. The convergence of interests and investments toward this new model of regional integration promotion calls for stronger multi-level coordination and enhanced governance frameworks among national and local governments, development partners, civil society, and both international and local private sector actors.

40 Mulenga, G. (2013). Developing economic corridors in Africa: Rationale for the participation of the African Development Bank. NEPAD, Regional Integration and Trade Department, 1, 1-12.

41 Kunaka, C., & Carruthers, R. (2014). *Trade and transport corridor management toolkit.* World Bank Publications.

42 African Union (2021), The Integrated Corridor Approach: "A Holistic Infrastructure Planning Framework to establish PIDA-PAP 2, *Strategic Note*, African Union, Addis Abeba

43 OECD/AfDB/AUDA-NEPAD/UNECA/UN-Habitat (2026), Corridors, trade and local development in Africa: An agenda for action, online [https://www.oecd.org/content/dam/oecd/en/publications/reports/2026/02/corridors-trade-and-local-development-in-africa_5cd1d40a/660aa24e-en.pdf?utm_source=chatgpt.com]

44 EU-Africa strategic corridors [https://international-partnerships.ec.europa.eu/policies/global-gateway/transport/eu-africa-strategic-corridors_en]

Improving trade facilitation depends on the combined development of physical infrastructure and institutional systems that support trade operations. Investments in transport connectivity, border management, and logistics must be complemented by strengthened customs capacities and expanded distribution networks. Improved national and regional quality infrastructure is also essential, as compliance with product standards remains a major constraint on export diversification and business competitiveness (Box 4). Integrated approaches that link infrastructure development with measures to reduce non-tariff barriers are essential to lowering transport costs and transit times while improving market access.

### Human capital development

The manufacturing sector is a key source of employment in Africa, offering opportunities for both low-skilled workers, who remain essential for sustaining production processes, and high-skilled personnel engaged in more complex functions such as management, design, logistics, and technology upgrading. While low-skilled labour underpins production capacity, higher-skilled workers are critical for improving productivity, modernising firms, enhancing management practices, adopting new technologies, and improving access to finance. However, industrial development in Africa remains constrained by significant skills shortages and information asymmetries, reflecting weaknesses in education and training systems that remain insufficiently aligned with labour market and industrial needs, despite improvements in access to education over recent decades. In response, countries are increasingly required to develop high-quality technical and vocational education and training (TVET) systems tailored to local industrial contexts and skills demand. This involves better policy coordination, updated curricula, improved infrastructure, enhanced trainer qualifications, stronger industry partnerships, and expanded work-based learning

A regional approach to TVET, combined with policies supporting industrial research and development (R&D), intellectual property, and higher education partnerships, offers an important opportunity to address these challenges. Implementing such a regional architecture would contribute to expanding the talent pool, fostering innovation, and enhancing industrial integration with local resources by generating economies of scale, reducing training costs, facilitating labour mobility, strengthening peer learning and policy exchange among countries, and better aligning skills development with regional economic corridors and value chains.

## The vertical approach to regional industrialization

Alongside horizontal measures, regional stakeholders can promote key sectors driving regional industrialization by developing regional value chains, supporting SMEs, investing in special economic zones, and addressing market failures that hinder cross-border trade and production, particularly those affecting regional value chain operators.

### Box 4. The role of quality infrastructure

Regional quality policies and systems, including metrology, standardization, quality assurance, accreditation, (SQAM) management, and conformity assessment, are key instruments for industrial integration. As illustrated by the EU's harmonized standards policy, harmonization and mutual recognition of standards and accreditation help remove non-tariff barriers, reduce technical costs in intra-regional trade, and enable pooled procurement of extra-regional inputs. In Africa, however, fragmented technical regulations and divergent certification, testing, and inspection practices remain major obstacles to intra-African trade[44].

Since its entry into force in May 2019, the AfCFTA has accelerated the harmonization of African standards by providing a platform for cooperation on quality infrastructure systems[45]. Technical barriers to trade and sanitary and phytosanitary measures fall within its scope, as set out in Annexes 6 and 7, while RECs remain central to advancing standards in line with the continental agenda. This calls for stronger coordination among RECs and across regions to anticipate continental harmonization. Given the costs and complexity of full harmonization, a prioritization strategy focusing on key products or sectors with immediate trade gains, particularly health and safety standards for food and pharmaceuticals, is essential[46].

45 UNECA (2020), Identifying priority products and value chains for standards harmonization in Africa, Economic Commission for Africa, Addis-Ababa.

46 Umutoni, N., Niwemahoro, C., & Nsengiman, H. *Quality Infrastructure for the Common African Market*, in Mangeni, F., & Gor, S. O. (2024). Portrait of a Common Market. In F. Mangeni & S. O. Gor (Eds.), Consolidating the African Continental Free Trade Area: Portrait of a Common Market. Zambian Arts Publications

47 UNCTAD (2015). Building the African Continental Free Trade Area, UNCTAD, Geneva.

## Promoting regional value chains

Manufacturing-led industrialization materializes, at the regional level, with the spread of regional value chains (RVCs) being either focused on supplying global markets or intended for regional consumption. RVCs are seen as an alternative to the GVC strategy, which has been posing challenges to African economies in the recent decades, such as confinement to low value-added segments of production and exogenous pressures from buyer multinational companies or end-markets, including excessively demanding standards[48]. RVCs offer a safer pathway for developing regional industries, by targeting more accessible markets, better aligning regional supply and demand, and reducing exposure to global shocks.

Numerous potential value chains have been identified for the continent. This for instance includes automotive, agro-processing, minerals beneficiation, distribution, forestry, cosmetics and tourism in the SADC region[49]; pharmaceuticals and leather in the Common Market for Eastern and Southern Africa (COMESA) region; textile, pharmaceuticals, cocoa and chocolate in the Economic Community of West African States (ECOWAS) region[50]; automotive, pharmaceuticals and fish products in North Africa. This non-exhaustive list of priority RVCs can guide RECs' and development partners' interventions to address regional barriers constraining these sectors and to foster market-driven industrial integration. A key initial challenge, however, lies in building awareness and consensus among member countries on the benefits of a regional approach, particularly in the context of limited support capacity where governments may prioritize other promising sectors at the national level.

## Fostering innovation

The promotion of innovation lies at the intersection of horizontal and vertical approaches: on the one hand, it involves building an enabling innovation system that supports the entire economic fabric (horizontal dimension); on the other, it requires targeted support to specific actors, sectors, or value chains (vertical dimension).

African SMEs face significant barriers to technology adoption and innovation. Many SMEs lack the capabilities, skills, and financial resources to move toward higher-value or innovative products, which is essential for sustained industrial upgrading. These constraints are compounded by weak innovation systems, insufficient investment in R&D, limited protection of intellectual property, poor quality of education and training systems, and restrictive regulatory environments that hinder competition and efficient resource allocation.

Addressing these challenges requires both a comprehensive and multi-level approach. Key priorities include strengthening linkages between SMEs and large firms, including multinationals, as FDI provide a key channel to knowledge and technology transfers, through exposure to international markets, human capital exchanges and technological spillovers[51]. Promoting industrial clusters and agglomeration to facilitate knowledge spillovers, investing in skills development to support technology absorption, and providing targeted support instruments such as innovation grants, collaborative R&D programmes, and technology extension services, is also essential to correct market failures affecting SMEs[52].

A regional approach is critical for promoting innovation, as the regional level constitutes a key layer within innovation systems. In a context where knowledge flows, value chains, and production networks increasingly transcend national borders, effective innovation and industrial policies must indeed operate across multiple levels (local, national, and regional) with strong coordination to align strategies, avoid duplication, and scale successful approaches. The European Union illustrates this model well, combining supranational frameworks with coordinated national and regional implementation[53]. This perspective is particularly relevant in Africa, where fragmented markets and limited national scale constrain industrial development. In this context, strengthening both the national and regional innovations systems becomes a central objective. This includes supporting research institutions, improving intellectual property frameworks, fostering public–private collaboration, and promoting FDI in key regional value chains.

48 Mold A. and Mveyange A. (2020). Trade in uncertain times: Prioritizing regional over global value chains to accelerate economic development in East Africa, *Brookings*, Africa in Focus

49 UNCTAD (2021). Transforming Southern Africa, Harnessing Regional Value Chains and Industrial Policy for Development, UNCTAD, Geneva and SAIIA, Value Chains in Southern Africa Programme, online [https://saiia.org.za/toolkits/value-chains-in-southern-africa/]

50 AfCFTA Secretariat, UNDP. (2021). which value chain for made In Africa Revolution? *African Continental Free Trade Area (AfCFTA) Futures Report*

51 Blalock, G., & Gertler, P. J. (2008). Welfare gains from foreign direct investment through technology transfer to local suppliers. *Journal of international Economics*, 74(2), 402-421.

52 Ambashi, M. (2020). ASEAN development and innovation strategy in the era of new industrialisation (No. PB-2020-06). Economic Research Institute for ASEAN and East Asia (ERIA).

53 Cirera, Xavier, Jaime Frías, Justin Hill, and Yanchao Li. (2020). A Practitioner's Guide to Innovation Policy. Instruments to Build Firm Capabilities and Accelerate Technological Catch-Up in Developing Countries. Washington, DC: World Bank.

## Supporting SME development

The private sector generates over 80 per cent of Africa's GDP and is the main source of employment, providing jobs for about 90 per cent of the employed working-age population. MSMEs form the backbone of the economic fabric, representing 90 per cent of the enterprises operating on the continent[54]. The segment is vital for economic growth and employment, yet it faces substantial barriers: a shortage of medium- to long-term financing, inappropriate credit terms, weak capitalization and poor record-keeping on the financial side; and on the business support side, inadequate infrastructure, burdensome regulations favoring large firms, weak marketing capacity, and limited coordinated support programs, especially for women entrepreneurs. As a result, much SME activity remains informal and un-integrated into the formal, taxable economy, undermining Africa's potential to leverage its natural and other resources for growth.

Private sector linkages play a central role in regional industrialization in Africa, given their contribution to cross-border trade. But most of this contribution is made of informal cross-border exchanges, which represents approximately 7-16 per cent of total formal intra-African trade and as much as 30-72 per cent of trade when considering trade between neighboring countries alone[55]. Simplified Trade Regimes (STRs), implemented by RECs such as COMESA, EAC, and SADC, offer a practical solution to support inclusive regional industrialization by facilitating the formalization and upgrading of informal SMEs[56]. By reducing trade barriers through simplified documentation, duty-free access for low-value consignments, and harmonized product lists, STRs are expected to enable greater participation of small traders, particularly women, in intra-regional trade and contribute to the strengthening of regional value chains and the scaling up of regional supply chains[57]. A recent assessment of the COMESA STR found that the mechanism has increased trade flows and traders' incomes in the border areas and has contributed to the formalization of small-scale trading units, particularly those owned and operated by women[58]. In practice, however, most African STRs continue to face challenges to full implementation, due to limited awareness, uneven implementation, and persistent barriers at borders, which constrain their effectiveness and prevent the full realization of their potential to foster intra-regional productive linkages[59].

## Expanding industrial and special economic zones

Special Economic Zones (SEZs) have emerged as a key industrial policy instrument in developing economies, including Africa, by providing a more conducive regulatory and infrastructural environment for investment and industrial activity. Beyond addressing domestic structural constraints, greater regional coordination of SEZ development, particularly around regional value chains, offers potential to enhance industrial integration and collective gains, as illustrated by experiences in other regions. Against this background, the role of SEZs will now be examined in greater detail through an industrial policy instrument focus, analyzing their use in Africa and their contribution to regional industrialization.

54 African Union [https://au.int/fr/node/41140]

55 United Nations Economic Commission for Africa (2023). 'Measuring informal cross-border trade is key to monitoring intra-African Trade' https://www.uneca.org/stories/measuring-informal-cross-border-trade-is-key-to-monitoring-intraafrican-trade

56 Fundira T. (2018). A Look at the Simplified Trade Regimes in East and Southern Africa, Bridges Africa, Vol 7-4.

57 Rwatida Mafurutu. (2022). SADC Simplified Trade Regime: Tracing development and implementation progress, *TRALAC Trade Brief.* June 2022.

58 COMESA Secretariat. (2022). Review of the Suitability of the Threshold for the Simplified Trade Regime (STR). Lusaka, Zambia: Common Market for Eastern and Southern Africa.

59 Apiko, P. & Byiers, B. (2024). Stepping up action on simplified trade regimes for a more inclusive AfCFTA and common African market. Maastricht: European Centre for Development Policy Management (ECDPM)


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# III. Special Economic Zones as a Strategic Industrial Policy Instrument in Africa

Special Economic Zones (SEZs) are designated geographic areas within a country where business and trade laws differ from the national framework to create a more favorable environment for investment and industrial activity[60]. They encompass a wide range of formats, including free trade zones, export processing zones, industrial parks, special agro-processing zones (SAPZs), and freeports, which are all aimed at fostering trade expansion, industrialization, and regional development[61]. Most often administered by a dedicated authority, SEZs offer regulatory, fiscal, and administrative advantages, such as simplified customs procedures, tax incentives, and flexible investment rules, to enhance business efficiency and competitiveness relative to the rest of the economy.

For developing economies, SEZs have become a central instrument of industrial policy and economic diversification while addressing broader structural constraints, including unreliable power and transport infrastructure, regulatory inconsistencies, technological gaps, social and environmental performance, and fiscal sustainability pressure. Their establishment typically pursues four core objectives: attracting domestic and FDI, developing and diversifying exports while maintaining selective protection, generating employment, and serving as laboratories for new policies or broader economic reforms[62]. When effectively managed, SEZs can help overcome structural constraints, such as inadequate infrastructure or complex regulations, by providing an enabling environment for both domestic and foreign investors, while facilitating technology transfer and industrial upgrading.

Globally, the SEZ model has evolved to address a broader spectrum of policy priorities. Governments are increasingly leveraging SEZs not only for export promotion but also for import substitution, agro-industrial development, and the creation of smart, sustainable industrial ecosystems. The new generation of SEZs seeks to align industrial growth with environmental sustainability, urbanization trends, and social inclusion objectives. Whether publicly, privately, or jointly managed, SEZs are now viewed as platforms for experimentation in industrial policy, functioning as testing grounds for innovation, green technologies, and inclusive economic reforms before their wider national or regional adoption.

## Special economic zones in Africa

The number of SEZs on the continent rose from about 20 in 1990 to an estimated 230 SEZs that are legally established across 43 African countries in 2025[63]. This proliferation indicates the strong interest of African governments for this industrial policy instrument. The degree of operational maturity, however, remains uneven, with a few long-standing and well-structured programs, such

60 Gómez Zaldívar, F., & Molina, E. (2018). Special economic zones and their impact on regional economic development. *Problemas del desarrollo*, 49(193), 11-32.

61 FIAS (Foreign Investment Advisory Service) (2008). Special Economic Zones. Performance, Lessons Learned, and Implications for Zone Development. Washington, DC: World Bank.

62 FIAS (Foreign Investment Advisory Service) (2008).

63 Azuelos, S., Boubekeur, S., Githinji, P. K., Hornok, C., Mulyukova, A., Ouari, Z., & Gourdon, J. (2025). Reassessing the Role of Special Economic Zones in Africa: Evidence on Export Performance and Socioeconomic Impacts, Agence Française de Développement, Paris.

as those in Mauritius, Morocco, and South Africa, contrasting with a large proportion of zones that are either still under construction or at an early stage of development in most other countries.

Recent evidence showed that SEZs have contributed to improving Africa's export performance by expanding market access and supporting the production of diversified[64] and sophisticated goods[65] enhancing export competitiveness. However, their broader impact on export diversification and regional value chain integration remains limited, as many zones continue to operate with an external rather than regional focus. In fact, African SEZ performance varies widely depending on their structure and governance model. Overall, most of them continue to underperform in terms of utilization, which remains below expectations: a recent survey found that a significant proportion of SEZ remain underutilized[66], with over 40 per cent of 39 zones studied having filled less than a quarter of their capacity, and only 15 per cent operating at full capacity. Several factors help explain this situation, including overly optimistic demand projections, shortages of local skills, limited private sector interest, and governance challenges in the management of these zones[67].

These limitations indicate that SEZs can be both an efficient and a risky undertaking, and that there is a need to integrate them into a coherent strategic framework designed to ensure their profitability and broader developmental impact. A narrow focus on attracting FDI, for instance, may ultimately prove a misguided choice. SEZs require substantial upfront investment in infrastructure and often rely on tax and customs incentives, which can lead to short-term revenue losses, particularly if investors later relocate to lower-cost or strategically more attractive destinations. Moreover, while foreign direct investment is expected to stimulate local economic activity, particularly through SME linkages, these benefits do not materialize automatically. Limited local capabilities, skills gaps, and competitiveness constraints may prevent SMEs from meaningfully participating in SEZ-driven value chains, increasing the risk that SEZs become isolated industrial enclaves locked into low-value production activities, with little or no spillover into the domestic economy[68].

SEZ development strategies in Africa must be grounded in a broader reflection on the type of industrialization to be pursued, as SEZs are not an end in themselves but a means to structure and implement a coherent industrial vision. Support for SEZs should begin with a strategic dialogue to clarify the role these zones are expected to play within national industrial policy and to ensure their design aligns with long-term development priorities. SEZs reflect the same industrial challenges as their host economies and must be conceived within that reality, guided by forward-looking industrial planning that integrates both global competitiveness imperatives and local development needs, with a focus on promoting local MSME growth. On this basis, three key areas can be identified to ensure that SEZs effectively contribute to inclusive and sustainable industrialization.

## The need for strategic alignment

Industrialization is a dynamic process of learning, upgrading, and structural transformation that unfolds in sequential stages. For SEZs to effectively be integrated SEZs into the broader industrial trajectory, they must not remain confined to the initial stages of low-cost, labor-intensive production. Instead, they should serve as catalysts within a comprehensive industrial policy aimed at developing local skills, enhancing absorptive capacity for technology transfer, and linking domestic enterprises to regional and global value chains. This strategic alignment ensures that SEZs evolve from simple export enclaves into engines of industrial upgrading and innovation.

64 Talla Fokam, D. N. D., Youmto, E., & Fomba Kamga, B. (2026). Special Economic Zones and Export Diversification in Africa: The Role of Infrastructure and Human Capital. *The International Trade Journal*, 1–16.

65 Azuelos et al. (2025)

66 UNCTAD (2021), *Handbook on special economic zones in Africa*, UNCTAD, Geneva

67 Fernandes, Ana Margarida, and Tristan Reed. 2026. Industrial Policy for Development: Approaches in the 21st Century. Policy Research Reports. Washington, DC: World Bank.

68 OECD (2023), *Policy Toolkit for Strengthening FDI and SME Linkages*, OECD Publishing, Paris,

In this context, the integration of SMEs operating in priority value chains is a critical dimension of sustainable SEZ development. Embedding SEZs within inclusive industrial ecosystems helps ensure that the benefits of investment extend. This is a challenge in practice as the spatial design of SEZs, which distinguishes between insiders and outsiders in access to incentives, creates a risk of economic dualism, where firms outside zone boundaries are disadvantaged. It is then essential that new-generation SEZs actively pursue stronger integration with the local economy, fostering productive complementarities and circular linkages beyond the zones themselves, fostering linkages with local suppliers, service providers, and entrepreneurs.

The African Union has developed a policy framework and action plan to support their integration and growth within SEZs. It highlights six key drivers needed to build sustainable business ecosystems that foster local economic development: access to finance, business development support, market access, a favourable regulatory environment, quality infrastructure, and a skilled workforce. Operationalizing such an approach requires ensuring that preferential treatment is tied to genuine value addition and productive contribution rather than mere location or fiscal advantages, as well as targeted policy measures focused on the role of SMEs in SEZs[69]. Those include cluster reinforcement initiatives that strengthen inter-firm linkages within SEZs, the establishment of sourcing-linkage mechanisms between SEZ firms and local suppliers, thereby enabling local firms to contribute to Rules of Origin compliance and integrate into regional value chains, the implementation of programmes that incentivize local MSMEs to enter SEZs. and the promotion of entrepreneurship and innovation through SME accelerators located within the zones[70]. These measures can help ensure that SEZs act as catalysts for SME development.

## Developing climate-resilient infrastructure

Although SEZ policies mention labour and environmental standards, in practice compliance is often limited, as governments have long prioritized attracting investors through generous incentives, sometimes at the expense of workers' rights and environmental protection[71]. The development strategy for SEZ based on low labor costs and weak socio-environmental standards is increasingly misaligned with global trade and investment dynamics. As sustainability requirements shape market access and competitiveness for firms and countries, illustrated by instruments such as the EU's Carbon Border Adjustment Mechanism (CBAM), socio-environmental performance has become a core policy lever rather than a constraint. Public policy should position SEZs as platforms for responsible industrialization by embedding high standards of environmental management, circularity, labor protection, and social inclusion into their regulatory frameworks, governance models, and infrastructure provision. Promoting SEZs as Eco-Industrial Parks, which integrate economic, social, and environmental objectives throughout planning and operations, can enhance regulatory compliance, stimulate innovation, attract higher-value investment, and strengthen SEZs' contribution to inclusive and sustainable industrial development (Box 5)[72].

69 Cowaloosur, H. (2024). Harmonizing Africa's Special Economic Zones Under the Africa Continental Free Trade Area. In F. Mangeni & S. O. Gor (Eds.), Consolidating the African Continental Free Trade Area: Portrait of a Common Market (pp. 220–243). Zambian ARTS Publications

70 UN Trade and Development (UNCTAD) (2023). *Promoting MSME development and entrepreneurship in and around Special Economic Zones in Africa: A guide to practitioners.* UNCTAD, Geneva

71 African Union Commission. (2023).

72 UNIDO, World Bank Group & GIZ (2021), *An International Framework for Eco-Industrial Parks, Version 2.0*, International Bank for Reconstruction and Development / World Bank, United Nations Industrial Development Organization & Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH.

**Box 5. The Atlantis Special Economic Zone**

Situated on the West Coast of South Africa, 40 km from Cape Town, the Atlantis Special Economic Zone (ASEZ) in South Africa is Africa's first green-focused SEZ. It is considered an example of green technology, both from an industry perspective and in the way it is designed and operated. ASEZ particularly focuses on attracting low-carbon, resource-efficient, and socially inclusive investments. Targeted sectors include renewable energy production, such as wind turbines and solar panels, as well as biofuels, e-mobility, green building materials, recycling, and waste management, among others. In addition to its sectoral focus on the green economy, ASEZ also aims to be environmentally and socially sustainable in its development and operations. The goal is to contribute to broader community development by building skills and businesses within the zone and its surroundings for the green economy, with the creation of 293 jobs since its inception and the integration of local enterprises into its supply chain through targeted support programmes[72]. This also includes generating its own renewable energy, being a net-zero water consumer, producing little to no landfill waste, and operating in harmony with nature and the environment. A particular emphasis has been placed on skills development for ASEZ and the wider regional economy, developing linkages with local entrepreneurs, and engaging the community.

# Regionalizing SEZs

Regional cooperation offers African countries a strategic alternative to competing over their SEZs. Coordinating SEZ development around regional value chains could generate far greater collective benefits, as demonstrated in ASEAN, where SEZs have long been central to export-led industrialization. With more than 1,600 zones, ASEAN countries have created an interconnected network of production and logistics hubs built on a regional division of specialization, enabling them to leverage complementarities, attract cross-border investment, and expand access to regional markets[74]. Replicating such a model in Africa requires moving beyond fragmented, country-by-country approaches and aligning SEZ strategies with regional industrial policies. Indeed, a major issue in the expansion of a competitive African network of SEZs lies in the lack of coherence across regional and national frameworks. Regional Economic Communities such as the EAC and COMESA, for instance, adopt different definitions and rules for zones, while national policies are often misaligned with regional commitments and vary widely in how they regulate SEZs, EPZs, and industrial parks[75]. This fragmentation complicates harmonization and creates inconsistencies in how incentives, production rules, and market access are applied across countries.

The AfCFTA provides a unique opportunity to shift SEZs in Africa from isolated export enclaves into drivers of continental integration[76]. In 2023, the AfCFTA Council of Ministers adopted the regulations that govern goods produced in SEZs, enabling these goods to be treated as originating goods[77]. This policy framework for SEZs aims to balance trade openness with the protection and promotion of local industries, allowing products from SEZs to benefit from preferential treatment if they meet origin criteria (locally sourced production). By linking tariff preferences to local value addition through rules of origin and implementing safeguards against unfair trade, SEZs are designed to actively support industrialization and foster regional economic integration across Africa.

73 *The Atlantis Special Economic Zone: A vision for green economic growth and sustainable development.* Online: https://www.transportevolution.com/the-atlantis-special-economic-zone-a-vision-for-green-economic-growth-and-sustainable-development/

74 OECD-UNIDO (2019). Integrating Southeast Asian SMEs in Global Value Chains: Enabling Linkages with Foreign Investors, OECD Publishing, Paris.

75 Cowaloosur, H. (2024). Harmonizing Africa's Special Economic Zones Under the Africa Continental Free Trade Area. In F. Mangeni & S. O. Gor (Eds.), Consolidating the African Continental Free Trade Area: Portrait of a Common Market (pp. 220–243). Zambian ARTS Publications

76 United Nations Conference on Trade and Development. (2019). World Investment Report 2019: Special Economic Zones. United Nations publication, New York and Geneva.

77 AU Assembly Decision on the report of HE Issoufou Mahamadou on the AfCFTA - February 2023

## Going forward

Overall, Africa's experience with SEZs points to a gap between ambition and outcomes. Although SEZs have become a central instrument of industrial policy, their development has often been driven by investment attraction objectives rather than by a clearly articulated vision of structural transformation. This has resulted in fragmented approaches, underutilized infrastructure, and limited linkages with local firms, particularly SMEs.

Going forward, maximizing the developmental impact of SEZs will require a shift from enclave-based models toward more integrated and strategic approaches. This includes aligning SEZs with national and regional industrial priorities, considering green aspects, strengthening linkages with domestic value chains, and ensuring that SMEs can effectively participate in SEZ-driven ecosystems. Ultimately, the success of SEZs in Africa will depend not on their number, but on their ability to function as integrated platforms for industrial upgrading, innovation, and inclusive growth.


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# IV. Update of the Index

The **Africa Industrialization Index (AII)**, first published in November 2022, is designed to track industrialization trends across the continent. This updated edition introduces additional and revised indicators to better capture the dynamics of industrial development beyond those reflected in the original index. The AII now covers 54 African countries, incorporating newly available data for Somalia and South Sudan. Through methodological enhancements, improved data transparency, and the adaptation of indicators to emerging industrial realities, the revised AII offers a more nuanced and policy-relevant assessment of Africa's industrial landscape.

## A reminder on the methodology

In the presentation of the inaugural edition of the index, the technical scope of industrial development adopted in the index was described, defining manufacturing activities in line with the International Standard Industrial Classification of All Economic Activities (ISIC)[78]. In this edition also, manufacturing is understood as encompassing the transformation of agricultural and mineral raw materials into finished and semi-finished products, including early-stage processing activities[79]. This approach is particularly relevant for Africa, where industrialisation is closely linked to the processing of abundant agricultural and mineral resource.

It was also emphasized that manufacturing output alone provides an incomplete picture of an industrial trajectory, as industrialisation depends on a broader set of enabling conditions, including policies, skills, infrastructure, and industry-oriented services that are not fully captured in production statistics. To address these limitations, the index adopted a multidimensional analytical framework combining manufacturing performance indicators with direct and indirect determinants reflecting the economic, private sector, and governance environments in which industrial activities take place. This conceptual and methodological foundation provides the basis for introducing the new technical refinements and changes presented in the current edition.

The inaugural edition also highlighted the main limitations of the index. First, as a comparative scoring tool, it relies on harmonized and regularly updated data, which remain scarce in the African context, particularly for measuring industrial output, due to limited statistical capacity and the predominance of informal and small-scale production. As a result, existing indicators partly rely on extrapolation methods to correct for underreporting, underscoring the difficulty of expanding the indicator set. Second, the index is constrained by the growing "servicification" of manufacturing, whereby essential industry-related services such as transport, logistics, finance, and IT, are deemed to account for over 30 per cent of the total value added in manufactured goods worldwide[80], are statistically classified under services rather than industry. This structural limitation blurs the boundary between industry and services and leads to an underestimation of industrialization, despite the relevance of these activities along industrial value chains.

78 United Nations, 2008. International Standard Industrial Classification of All Economic Activities Revision 4. Department of Economic and Social Affairs Statistics Division. New York.

79 Industry corresponds to ISIC divisions 10-45. Manufacturing industries belong to ISIC divisions 15-37.

80 AfDB, OECD, UNDP (2014), African Economic Outlook 2014: Global Value Chains and Africa's Industrialisation.

The *Index* incorporates three categories of indicators designed to capture not only countries' performance in terms of industrial production, but also the direct and indirect determinants that shape the conditions under which industrialisation takes place. Accordingly, three spheres of indicators are distinguished as follows:

i. The performance indicators, which measure manufacturing activity in terms of trade, output and the nature of goods produced, including the diversity and technological content.

ii. The direct determinants, which assess availability of core resources essential to industrial development, including financial, physical, and human capital.

iii. The indirect determinants, which capture the broader governance context within which industries operate.

## Revised structure of the index

Table 1 outlines the components of the *Index* and the constituent, which are broadly consistent with the framework adopted for the maiden edition published in 2022. While the three-dimensional framework remains unchanged, the distribution and nature of the indicators have been refined to reflect an updated assessment of the key performance factors and drivers of industrial competitiveness. The remainder of this section presents, sphere by sphere, the revised points and the rationale underlying the update.

**Table 1. Composition of the Africa Industrialisation Index 2022**

| Dimension | Weight | Indicators | Source |
|---|---|---|---|
| **I. Performance** | 3/6 | 1.Manufacturing value added per capita | 1/19 |
| | | 2. Export of manufactured goods per capita | 1/19 |
| | | 3.Manufacturing value added (per cent of GDP) | 1/19 |
| | | 4. Export of manufactured goods as of total goods exports | 1/19 |
| | | 5. Manufacturing value added as a share of the Africa | 1/19 |
| | | 6. Export of manufactured goods as a share of the Africa | 1/19 |
| **II. Direct Determinants** | 2/6 | **Capital** | |
| | | 7. Gross capital formation – private sector in per cent of GDP | 1/19 |
| | | 8. FDI inward stock per capita as a share of Africa | 1/19 |
| | | 9. Domestic credit to the private sector (per cent of GDP) | 1/19 |
| | | **Labour** | |
| | | 10. Employment in manufacturing (per cent) | 1/19 |
| | | 11. School life expectancy, (primary to tertiary, both sexes) in years | 1/19 |
| **III. Indirect Determinants** | 1/6 | **Business environment** | |
| | | 12. Market size (GDP) | 1/19 |
| | | 13. East of doing business – global score | 1/19 |
| | | 14. Corruption Perceptions Index | 1/19 |
| | | 15. Safety and rule of law | 1/19 |
| | | **Infrastructure** | |
| | | 16. Digital and IT infrastructure (EIU/ITU) | 1/19 |
| | | 17. Africa Infrastructure Development Index (AIDI) | 1/19 |
| | | **Macroeconomic stability** | |
| | | 18. Total debt outstanding (per cent of GDP) | 1/19 |
| | | 19. Inflation, consumer prices (annual per cent) | 1/19 |

## The performance dimension

In the AII, industrial performance refers to a country's capacity to produce and export manufactured goods. In the inaugural edition, the selected indicators for this dimension included measures of manufacturing value added and export volumes, as well as two relative indicators capturing their share of GDP and total exports, and two further indicators reflecting the share of manufacturing value added and exports relative to the African total. Although this table was relevant, it was somewhat incomplete. As a result, additional indicators were considered and incorporated into this dimension.

### Manufacturing employment as a performance

The indicator "manufacturing employment as a share of total employment" measures the actual outcome of a country's industrial activity, that is, the extent to which the manufacturing sector contributes to employment in practice. It reflects industrial performance, because it quantifies the tangible results of a country's industrialization process, rather than the underlying conditions or enablers. Thus, this indicator has been moved from the second dimension to the first compared with the 2022 edition.

### The dynamic aspects of industrial performance

The initial indicators of the dimension provided an interesting quantitative picture of industrial performance, but they offered limited insight into the internal dynamics of industrial transformation within countries. Africa's industrial landscape is heterogeneous, with countries at different stages of development, including latecomers or constrained economies. An index focused solely on current performance may provide a partial view of industrial dynamics, as it does not capture ongoing structural transformation, technological upgrading, or sectoral diversification.

A key challenge for all countries is to transition towards higher productivity, more technology-intensive, and higher-return activities, while broadening their industrial base to reduce reliance on a few sectors. To provide a more forward-looking and comprehensive assessment of industrial performance, it is important to incorporate dynamic indicators which measure changes in productive activities, technological advancement, and sectoral diversification.

To better capture this aspect, output indicators are added in this new edition to provide information on the nature and diversity of manufactured goods.

The first indicator is the technological content of manufacturing exports, available in the UNCTAD database through the indicators on medium- and high-skill and technology-intensive manufactured exports. This indicator reflects a country's capacity to upgrade and sophisticate its production system, as well as its ability to diversify production and increase domestic value added. In the African context, it also signals a country's ability to sustain the industrialization process by developing new capabilities and adapting to technological change.

The second indicator is UNCTAD's export diversification index, which measures the extent to which the export (or import) structure of a given economy differs from the world pattern. This indicator captures a country's ability to broaden and diversify its production structure by developing new or higher-quality products, thereby highlighting the dynamic dimension of industrial development.

### Updated Composition of the Dimension

In light of the above, the performance dimension has been rebuilt around the following nine indicators:

- Manufacturing value-added per capita is the total net-output of all resident manufacturing units, obtained by adding up outputs and subtracting intermediate inputs. It thereby measures the share of the manufacturing process that takes place on the territory of each country. As a per capita figure, it allows for comparison across countries irrespective of their size.

- The second indicator measures the value of manufacturing exports, also on a per capita basis. Manufacturing exports are an important measure because, in a globalised economy, export-oriented manufacturing firms tend to be the most productive. This indicator shows the ability of the country's manufacturing sector to compete in international markets.

- Manufacturing value added as a share of GDP shows the weight of manufacturing within the economy and can be used to track structural economic change. It corresponds with Target 9.2 of the Sustainable Development Goals, which calls for doubling industry's share of output in low-income countries by 2030.

- Manufacturing exports as a share of total goods exports shows the extent to which the country is adding value to its commodities prior to export. This is a key measure for countries that are trying to reduce their dependence on unimproved commodities.

- The fifth and sixth indicators – manufacturing value-added and manufacturing exports as a share of the African total – measure each country's manufacturing performance relative to other African countries.

- Employment in manufacturing measures the total number of individuals employed in the sector, expressed as a percentage of total employment. This reflects the realized industrial impact on the labour market

- The Diversification index score captures a country's ability to upgrade its production system by shifting towards more technology and skill-intensive manufacturing activities.

- The Share of medium and high-tech exports in total manufacturing exports reflects the extent to which a country diversifies its production and export structure by developing a broader and more varied range of manufactured products

## The Direct Determinants dimension

In the AII, direct determinants encompass key input factors for industrial development. In the inaugural edition, this sphere focused on investment and the labour force. The investment dimension was measured using three indicators: gross fixed capital formation by the private sector, which captures private sector capital outlays; inward FDI stock per capita, reflecting long-term trends in foreign investment attractiveness; and domestic credit to the private sector as a share of GDP, which measures the capacity of the domestic financial system to provide financing to private firms. The second direct determinant considered was labour availability, measured through employment in manufacturing as a percentage of total employment. This indicator has since been reclassified under the performance sphere, as explained above, and two additional modifications have been done. Two additional modifications have been introduced.

### FDI inward stock rather than FDI stock per capita

Using FDI inward stock as a share of Africa provides a more meaningful perspective on industrial development dynamics than FDI stock per capita in the African context. The per capita indicator is highly sensitive to demographic size and population growth, which can mechanically dilute values and limit cross-country comparability. By contrast, expressing each country's FDI stock relative to the continental total highlights its relative position in attracting long-term foreign capital within Africa and better reflects its integration into regional and global investment patterns. Moreover, although FDI stock data are not disaggregated by sector, they at least indicate the degree of economic openness and the country's ability to attract external capital, technology, and know-how, which are essential factors for expanding, modernizing, and upgrading the manufacturing sector. This approach is more relevant for assessing industrial development, as it captures the concentration and distribution of productive investment across countries, rather than spreading investment values across populations with very different demographic structures.

### Infrastructure as a direct determinant of industrial development

The traditionally recognized factors of production are land and natural resources, labor and skills, capital, and a coordinating entrepreneurial function that organizes these inputs[81]. In manufacturing, these factors do not contribute equally to industrial transformation. Large natural resource endowments may both slow or accelerate structural change, while manufacturing performance depends mainly on labor, capital, and entrepreneurship. Capital, in this context, refers primarily to physical and infrastructure assets used directly in production. Financial capital, while not a productive input in itself, plays a critical supporting role by enabling investment, facilitating private sector participation and expansion, and allowing entrepreneurs to combine labor and physical capital effectively. Access to finance conditions both the accumulation of productive capital and the ability of firms to operate and scale.

From a growth and industrialization perspective, industrial development relies on the joint availability of physical and infrastructure capital, human capital, investment, and technological progress[82]. Investment flows, supported by financial capital, are essential to build and maintain infrastructure, upgrade machinery, and adopt new technologies. Where investment is constrained, weak infrastructure and limited productive capacity continue to hold back industrial activity[83]. This remains a key challenge in many African economies,

81 Coase, R. H. (1937). "The Nature of the Firm", Economica (Vol. 4, No. 16, pp. 386–405),

82 Solow, R.M., (1956). *A Contribution to the Theory of Economic Growth.* The Quarterly Journal of Economic, 70(1), 65-94

83 African Development Bank. (2018). "The Africa infrastructure development index", Statistics Department, African Development Bank, Abidjan.

where insufficient investment in transport, energy, and other core infrastructure reduces industrial output and firms' competitiveness[84]. Reliable access to finance underpins infrastructure development and strengthens the capacity of entrepreneurs and firms to invest, grow, and compete in manufacturing and industry more broadly.

Infrastructure goes beyond an enabling condition and should be treated as a direct determinant of industrialization. Reliable electricity allows continuous production and lowers operating costs, transport infrastructure connects firms to inputs and markets, telecommunications support modern production and trade, and water infrastructure sustains both industrial processes and upstream supply chains[85]. The African Infrastructure Development Index (AIDI), which captures both economic and social infrastructure (transport, energy, ICT, water, and sanitation infrastructure), reflects these core productive inputs. On this basis, AIDI is moved back into the direct determinants sphere, as infrastructure directly affects manufacturing performance and industrial outcomes.

In addition, it was necessary to remove the IIAG Digital and IT Infrastructure indicator from the index calculation to avoid redundancy. Both composite indicators capture closely related dimensions of infrastructure development, with overlap in sub-indicators related to internet usage, digital connectivity, and device adoption. Retaining both measures would have resulted in double counting similar infrastructure attributes, thereby distorting the assessment of countries' industrial enabling conditions.

### Updated Composition of the Dimension

In light of the above, the direct determinants dimension has been rebuilt around the following nine indicators:

- **Gross capital formation by the private sector** measures investment in fixed assets plus net changes in inventory levels among firms. It is a useful short-term indicator of capital investment by business.

- **FDI inward stock as a share of total Africa FDI** measures what level of foreign investment is being attracted into the country relative to other African countries.

- **Domestic credit to the private sector**, as a share of GDP, measures the extent to which the domestic financial sector is able to provide capital to private firms.

- **School life expectancy** (primary to tertiary) is the number of years that a child of school-entering age can expect to achieve, based on current enrolment rates. The assumption is that a longer school life leads to a labour force better qualified for producing more sophisticated manufacturing goods.

- **The African Infrastructure Development Index**, compiled by the AfDB, measures each country's overall progress across electricity, transport, ICT, and water and sanitation infrastructure.

## The Indirect Determinants dimension

The third dimension of the Index, indirect determinants, was initially built on three pillars covering the key underlying conditions enabling industrial development: the business environment, infrastructure development, and macroeconomic stability. However, as explained above, infrastructure was moved to the direct determinants sphere due to its foundational role as a productive input for industrial performance. In this updated edition, the indirect determinants focus on the business environment and macroeconomic considerations.

Regarding the business environment, a key issue in this edition was that the Ease of Doing Business Index was discontinued by the World Bank in 2021 and is no longer available. Additionally, the initial market size indicator, based solely on domestic GDP, had to be revised because it presented limitations, as it did not capture the regional dimension of African markets, which often extend beyond national borders, formally or informally. From this edition onward, this indicator will be replaced by the IIAG Business & Labour Environment. This indicator is relevant for the index because it captures the regulatory, financial, and institutional conditions that directly enable private sector development, support fair competition, and ensure productive and secure employment. By assessing factors such as regional integration, economic diversification, access to banking, and labour relations, it provides a comprehensive view of the environment in which industrial and manufacturing activities can thrive.

84 See O. Ajakaiye & Ncube M. (2010). Infrastructure and Economic Development in Africa: An Overview, *Journal of African Economies*, Volume 19, Issue suppl_1, 2010, Pages i3–i12 and Fagboyo, R.J., Ajisafe, R.A. (2023). Industrialization and Economic Development in Sub-Saharan Africa: The Role of Infrastructural Investment. In: Aigbavboa, C., et al. Sustainable Education and Development – Sustainable Industrialization and Innovation. ARCA 2022. Springer

85 Azolibe CB & Okonkwo JJ. (2020), Infrastructure development and industrial sector productivity in Sub-Saharan Africa. *Journal of Economics and Development*, Vol. 22 No. 1 pp. 91–109,

The third and fourth indicators in the inaugural edition focused on corruption (Transparency International) and safety and rule of law (IIAG Security and Rule of Law composite). However, the Corruption Perceptions Index from Transparency International overlapped with the IIAG composite, which already included anti-corruption among its 27 indicators. To avoid duplication, the Transparency International indicator was removed from the Business Environment sub-sphere, while the IIAG Security and Rule of Law indicator was retained as a comprehensive measure. The second retained pillar of the sub-index focuses on macroeconomic stability. This overarching component is critical because the macroeconomic context in which industries operate influences market growth, capital expenditures, access to finance, and price competitiveness, including factors related to monetary stability and currency valuation. The two key indicators selected in the inaugural edition are retained: total public debt as a percentage of GDP and inflation.

### Rethinking Market Size for Industrial Development

While focusing on individual countries is useful for comparing performance, it is less effective for capturing the enablers of industrialization. A country's industrial trajectory is strongly influenced by its spatial configuration and regional context, including whether it is coastal, landlocked, or an island. Market size, for example, often extends beyond domestic borders, as access to neighboring markets can offset the limitations of small domestic markets. Small countries can also benefit from proximity to larger industrial poles. Lesotho illustrates this: a landlocked country of 2.1 million people, it performed well in manufacturing exports in 2022, with 56 per cent of total exports being manufacturing goods, over half directed to South Africa. This highlights how regional context and spatial configuration shape industrial capabilities and export performance.

To better capture the role of local and regional demand in driving industrial development, a more comprehensive market size indicator has been adopted. This measure combines the size of the national economy with the economic weight of the surrounding regional market, reflecting the influence of cross-border trade, workforce mobility, and remittances. In practice, the indicator assigns a weight of 75 per cent to the country's own GDP and 25 per cent to the combined GDP of neighbouring countries in the region, ensuring that both domestic and regional market potential are represented. For island countries, market size-GDP is measured using only the national GDP, reflecting their specific insular and often more isolated market structure. This approach provides a more accurate assessment of market attractiveness for manufacturing investment and aligns with the AfCFTA agenda, supporting industrial trade and regional integration across Africa.

### Updated Composition of the Dimension

In light of the above, the direct determinants dimension has been rebuilt around the following nine indicators:

- **The GDP (current US dollars)** indicator, as a proxy for market size, captures both domestic and regional market potential by assigning a weight of 75 per cent to the country's own GDP and 25 per cent to the combined GDP of neighbouring countries.
- **The Business & Labour Environment** measures the quality of regulations, financial access, and labour conditions that enable industrial and private sector development.
- **Safety and rule of law** is a composite indicator from the Mo Ibrahim Index of African Governance, made up of 27 indicators of the rule of law, transparency and accountability, personal safety and national security.
- **Total public debt** (percentage of GDP) is included, because high levels of public indebtedness acts as a deterrent to investment and industrial development.
- **Inflation** (consumer price index) is also relevant, as price stability is important for attracting investment into manufacturing.

Taking into account the modifications described above, Table 2 presents the dimensions of the index along with the updated set of 19 indicators used to compute the scores.

Table 2. Composition of the Africa Industrialization Index 2025

| Dimension | Weight | Indicators | Source |
|---|---|---|---|
| Performance | 3/6 | 1. Manufacturing value added per capita | 1/19 |
| | | 2. Export of Manufactured goods per capita | 1/19 |
| | | 3. Manufacturing value added (per cent of GDP) | 1/19 |
| | | 4. Export of Manufactured goods as of total goods exports | 1/19 |
| | | 5. Manufacturing value added as a share of Africa | 1/19 |
| | | 6. Export of Manufactured goods as a share of Africa | 1/19 |
| | | 7. Manufacturing employment | 1/19 |
| | | 8. Diversification index | 1/19 |
| | | 9. Share of medium and high tech | 1/19 |
| Direct Determinants | 2/6 | 10. Private sector, gross capital formation (per cent of GDP) | 1/19 |
| | | 11. FDI Inward stock as a share of Africa | 1/19 |
| | | 12. Domestic credit to private sector (per cent of GDP) | 1/19 |
| | | 13. School life expectancy (primary to tertiary), in year | 1/19 |
| | | 14. Africa Infrastructure Development Index (AIDI) | 1/19 |
| Indirect Determinants | 1/6 | 15. Market size-GDP | 1/19 |
| | | 16. Business environment | 1/19 |
| | | 17. Safety and rule of law | 1/19 |
| | | 18. Total debt outstanding as share of GDP | 1/19 |
| | | 19. Inflation, consumer prices (annual per cent) | 1/19 |


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# V. The AII 2025 Highlights

The overall AII scores for each year from 2010 to 2024 are presented in Table 3, with countries ranked and grouped into five quintiles. For the first time over the period covered by the Index, Morocco overtakes South Africa to become the highest-ranked industrial economy in Africa, reflecting sustained industrial upgrading, export diversification, and strategic industrial policy implementation. South Africa remains a continental industrial powerhouse but continues to experience a long-term gradual decline in industrial competitiveness. Both economies are leading a group of four manufacturing frontrunners – Egypt, Tunisia – that continue to outperform their peers by a wide margin. At the lower end of the index, a small group of countries, largely affected by conflict, continues to lag behind.

**Table 3. Africa Industrialization Index**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Morocco | 0,7807 | 0,7806 | 0,7869 | 0,7961 | 0,7930 | 0,7920 | 0,7966 | 0,7983 | 0,8099 | 0,8225 | 0,8268 | 0,8323 | 0,8222 | 0,8333 | 0,8415 | Top |
| South Africa | 0,8819 | 0,8615 | 0,8659 | 0,8617 | 0,8448 | 0,8442 | 0,8301 | 0,8371 | 0,8442 | 0,8518 | 0,8321 | 0,8392 | 0,8388 | 0,8401 | 0,8396 | Top |
| Egypt | 0,7545 | 0,7231 | 0,7416 | 0,7515 | 0,7409 | 0,7450 | 0,7511 | 0,7380 | 0,7440 | 0,7608 | 0,7808 | 0,7909 | 0,7926 | 0,7835 | 0,7827 | Top |
| Tunisia | 0,7763 | 0,7782 | 0,7791 | 0,7829 | 0,7799 | 0,7673 | 0,7655 | 0,7569 | 0,7542 | 0,7680 | 0,7596 | 0,7630 | 0,7623 | 0,7751 | 0,7760 | Top |
| Mauritius | 0,6812 | 0,6651 | 0,6775 | 0,6787 | 0,6800 | 0,6748 | 0,6686 | 0,6605 | 0,6663 | 0,6756 | 0,6677 | 0,6579 | 0,6522 | 0,6610 | 0,6731 | Top |
| Algeria | 0,5977 | 0,6028 | 0,5930 | 0,6056 | 0,6414 | 0,6247 | 0,6178 | 0,6141 | 0,6545 | 0,6486 | 0,6455 | 0,6288 | 0,6414 | 0,6612 | 0,6661 | Top |
| Eswatini | 0,6658 | 0,6594 | 0,6513 | 0,6552 | 0,6442 | 0,6493 | 0,6340 | 0,6420 | 0,6463 | 0,6627 | 0,6379 | 0,6438 | 0,6386 | 0,6445 | 0,6509 | Top |
| Senegal | 0,5739 | 0,5771 | 0,5832 | 0,5838 | 0,5729 | 0,5753 | 0,5810 | 0,5875 | 0,5944 | 0,6032 | 0,6164 | 0,6211 | 0,6245 | 0,6293 | 0,6368 | Top |
| Namibia | 0,6332 | 0,6275 | 0,6264 | 0,6259 | 0,6117 | 0,6131 | 0,6038 | 0,6162 | 0,6392 | 0,6240 | 0,6220 | 0,6260 | 0,6243 | 0,6251 | 0,6295 | Top |
| Côte d'Ivoire | 0,5793 | 0,5571 | 0,5673 | 0,6104 | 0,5909 | 0,5887 | 0,5888 | 0,5825 | 0,5687 | 0,5861 | 0,5928 | 0,5886 | 0,5909 | 0,6166 | 0,6173 | Top |
| Kenya | 0,5761 | 0,5747 | 0,5820 | 0,5890 | 0,5936 | 0,5849 | 0,5857 | 0,5732 | 0,5891 | 0,5907 | 0,5932 | 0,5910 | 0,5886 | 0,5947 | 0,6058 | Upper-middle |
| Gabon | 0,5189 | 0,5440 | 0,5764 | 0,5835 | 0,5899 | 0,5902 | 0,6044 | 0,5565 | 0,5989 | 0,6004 | 0,5979 | 0,5960 | 0,5855 | 0,5920 | 0,6021 | Upper-middle |
| Congo, Dem. Rep. | 0,4976 | 0,5016 | 0,5237 | 0,5342 | 0,5315 | 0,5594 | 0,5418 | 0,5688 | 0,6005 | 0,5889 | 0,5783 | 0,5885 | 0,5541 | 0,5981 | 0,5987 | Upper-middle |
| Nigeria | 0,5689 | 0,5716 | 0,5736 | 0,5894 | 0,6081 | 0,5929 | 0,5597 | 0,5623 | 0,5812 | 0,5987 | 0,5971 | 0,6019 | 0,6232 | 0,6068 | 0,5914 | Upper-middle |
| Botswana | 0,6049 | 0,5889 | 0,5894 | 0,5817 | 0,5835 | 0,5866 | 0,5812 | 0,5748 | 0,5840 | 0,5936 | 0,5894 | 0,5738 | 0,5711 | 0,5848 | 0,5853 | Upper-middle |
| Uganda | 0,5520 | 0,5454 | 0,5534 | 0,5719 | 0,5577 | 0,5538 | 0,5478 | 0,5396 | 0,5506 | 0,5579 | 0,5652 | 0,5674 | 0,5557 | 0,5929 | 0,5822 | Upper-middle |
| Equatorial Guinea | 0,5905 | 0,6052 | 0,5965 | 0,5967 | 0,5863 | 0,5569 | 0,5614 | 0,5506 | 0,5776 | 0,5754 | 0,5345 | 0,5611 | 0,5326 | 0,5718 | 0,5767 | Upper-middle |
| Ghana | 0,5582 | 0,5749 | 0,5760 | 0,5912 | 0,5760 | 0,5734 | 0,5758 | 0,5720 | 0,5630 | 0,5796 | 0,5894 | 0,5914 | 0,5828 | 0,5819 | 0,5735 | Upper-middle |
| Zambia | 0,5353 | 0,5374 | 0,5603 | 0,5712 | 0,5579 | 0,5484 | 0,5481 | 0,5566 | 0,5521 | 0,5470 | 0,5386 | 0,5455 | 0,5534 | 0,5639 | 0,5703 | Upper-middle |
| Libya | 0,6169 | 0,5447 | 0,5796 | 0,6039 | 0,5984 | 0,5773 | 0,5513 | 0,5321 | 0,5338 | 0,5295 | 0,5478 | 0,5403 | 0,5423 | 0,5544 | 0,5552 | Upper-middle |
| Cameroon | 0,5435 | 0,5618 | 0,5546 | 0,5605 | 0,5530 | 0,5467 | 0,5460 | 0,5430 | 0,5450 | 0,5505 | 0,5564 | 0,5434 | 0,5399 | 0,5401 | 0,5547 | Upper-middle |

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Congo, Rep.** | 0,5431 | 0,5510 | 0,5347 | 0,5671 | 0,5818 | 0,6001 | 0,6210 | 0,6122 | 0,5750 | 0,5547 | 0,5684 | 0,5657 | 0,5379 | 0,5528 | 0,5547 | Upper-middle |
| **Tanzania** | 0,5106 | 0,5124 | 0,5299 | 0,5245 | 0,5268 | 0,5177 | 0,5056 | 0,5138 | 0,5441 | 0,5325 | 0,5370 | 0,5318 | 0,5365 | 0,5416 | 0,5530 | Middle |
| **Benin** | 0,4834 | 0,4971 | 0,4931 | 0,5275 | 0,5397 | 0,5248 | 0,5047 | 0,5231 | 0,5336 | 0,5152 | 0,5315 | 0,5310 | 0,5327 | 0,5545 | 0,5519 | Middle |
| **Togo** | 0,5074 | 0,5241 | 0,5216 | 0,5428 | 0,5303 | 0,5195 | 0,5266 | 0,5076 | 0,5136 | 0,5212 | 0,5384 | 0,5135 | 0,5017 | 0,5088 | 0,5479 | Middle |
| **Lesotho** | 0,5593 | 0,5489 | 0,5446 | 0,5472 | 0,5267 | 0,5392 | 0,5518 | 0,5415 | 0,5538 | 0,5515 | 0,5495 | 0,5493 | 0,5342 | 0,5355 | 0,5378 | Middle |
| **Seychelles** | 0,5230 | 0,5446 | 0,5096 | 0,5059 | 0,5194 | 0,5203 | 0,5226 | 0,5544 | 0,5494 | 0,5531 | 0,5622 | 0,5160 | 0,5245 | 0,5131 | 0,5364 | Middle |
| **Zimbabwe** | 0,5176 | 0,5124 | 0,5327 | 0,5395 | 0,5261 | 0,5220 | 0,5083 | 0,5244 | 0,5274 | 0,5307 | 0,5232 | 0,5182 | 0,5344 | 0,5365 | 0,5343 | Middle |
| **Angola** | 0,5156 | 0,5236 | 0,5430 | 0,5380 | 0,4841 | 0,5322 | 0,5325 | 0,5242 | 0,4957 | 0,5059 | 0,5070 | 0,5087 | 0,5144 | 0,5369 | 0,5338 | Middle |
| **Djibouti** | 0,4129 | 0,4040 | 0,4260 | 0,4347 | 0,4179 | 0,3990 | 0,4717 | 0,4880 | 0,4839 | 0,5018 | 0,5195 | 0,5180 | 0,5047 | 0,5342 | 0,5335 | Middle |
| **Ethiopia** | 0,4690 | 0,4639 | 0,4890 | 0,4897 | 0,4905 | 0,4963 | 0,5051 | 0,5129 | 0,5127 | 0,5213 | 0,5276 | 0,5085 | 0,5115 | 0,5220 | 0,5265 | Middle |
| **Rwanda** | 0,4496 | 0,4428 | 0,4516 | 0,4583 | 0,4664 | 0,4687 | 0,4544 | 0,4619 | 0,4767 | 0,4934 | 0,4837 | 0,5115 | 0,5006 | 0,5105 | 0,5242 | Lower-middle |
| **Mozambique** | 0,4590 | 0,4830 | 0,5276 | 0,5330 | 0,5416 | 0,5240 | 0,5197 | 0,5056 | 0,5337 | 0,5271 | 0,5354 | 0,5258 | 0,5178 | 0,5079 | 0,5203 | Lower-middle |
| **Mauritania** | 0,4412 | 0,4615 | 0,4702 | 0,4760 | 0,4974 | 0,4819 | 0,4394 | 0,4585 | 0,4900 | 0,4802 | 0,4935 | 0,4721 | 0,4835 | 0,5106 | 0,5130 | Lower-middle |
| **Mali** | 0,4912 | 0,4880 | 0,4868 | 0,4852 | 0,5027 | 0,4951 | 0,4800 | 0,5063 | 0,4903 | 0,4815 | 0,5150 | 0,4985 | 0,4929 | 0,5243 | 0,5100 | Lower-middle |
| **Burkina Faso** | 0,4674 | 0,4774 | 0,4776 | 0,4860 | 0,4834 | 0,4828 | 0,4913 | 0,4845 | 0,4913 | 0,4897 | 0,4965 | 0,4899 | 0,4881 | 0,5182 | 0,5043 | Lower-middle |
| **Cabo Verde** | 0,4987 | 0,5066 | 0,5069 | 0,5081 | 0,4932 | 0,5314 | 0,5198 | 0,5044 | 0,4783 | 0,4897 | 0,4923 | 0,5039 | 0,4727 | 0,4828 | 0,4970 | Lower-middle |
| **Madagascar** | 0,4719 | 0,4748 | 0,4806 | 0,4888 | 0,4853 | 0,4729 | 0,4859 | 0,4790 | 0,4880 | 0,4970 | 0,4956 | 0,4933 | 0,4991 | 0,4979 | 0,4912 | Lower-middle |
| **Malawi** | 0,4463 | 0,4611 | 0,4399 | 0,4404 | 0,4645 | 0,4494 | 0,4430 | 0,4428 | 0,4441 | 0,4511 | 0,4531 | 0,4641 | 0,4619 | 0,4595 | 0,4854 | Lower-middle |
| **Niger** | 0,4834 | 0,5001 | 0,5097 | 0,5207 | 0,5107 | 0,5166 | 0,5100 | 0,5082 | 0,4771 | 0,4727 | 0,4961 | 0,4877 | 0,4762 | 0,5048 | 0,4835 | Lower-middle |
| **Guinea** | 0,4025 | 0,4103 | 0,4279 | 0,4459 | 0,4588 | 0,4669 | 0,4477 | 0,4813 | 0,4881 | 0,4814 | 0,4957 | 0,4940 | 0,4917 | 0,4734 | 0,4675 | Lower-middle |
| **Liberia** | 0,4242 | 0,4423 | 0,4546 | 0,4623 | 0,4599 | 0,4507 | 0,4563 | 0,4519 | 0,4528 | 0,4510 | 0,4478 | 0,4507 | 0,4591 | 0,4577 | 0,4629 | Bottom |
| **Sudan** | 0,4589 | 0,4572 | 0,4886 | 0,4750 | 0,4680 | 0,4760 | 0,4828 | 0,4571 | 0,4555 | 0,4651 | 0,4498 | 0,4583 | 0,4493 | 0,4653 | 0,4565 | Bottom |
| **Chad** | 0,4427 | 0,4422 | 0,4266 | 0,4358 | 0,4342 | 0,4448 | 0,4440 | 0,4461 | 0,4511 | 0,4494 | 0,4375 | 0,4310 | 0,4312 | 0,4409 | 0,4374 | Bottom |
| **Sierra Leone** | 0,3787 | 0,3911 | 0,4035 | 0,4083 | 0,3883 | 0,3905 | 0,3910 | 0,3963 | 0,4339 | 0,4309 | 0,4313 | 0,4297 | 0,4330 | 0,4411 | 0,4371 | Bottom |
| **Somalia** | 0,3278 | 0,3332 | 0,3497 | 0,3583 | 0,3656 | 0,3562 | 0,3662 | 0,3657 | 0,3664 | 0,3701 | 0,3719 | 0,3874 | 0,3908 | 0,4205 | 0,4324 | Bottom |
| **Central African Rep.** | 0,4121 | 0,4200 | 0,4238 | 0,4010 | 0,3979 | 0,4407 | 0,4285 | 0,4435 | 0,4362 | 0,4579 | 0,4375 | 0,4193 | 0,4279 | 0,4154 | 0,4319 | Bottom |
| **Comoros** | 0,3958 | 0,4031 | 0,3949 | 0,4052 | 0,4065 | 0,3957 | 0,4049 | 0,4096 | 0,4174 | 0,4266 | 0,4198 | 0,4247 | 0,4208 | 0,4225 | 0,4278 | Bottom |
| **Eritrea** | 0,3894 | 0,4056 | 0,4047 | 0,4107 | 0,4094 | 0,4027 | 0,4067 | 0,4070 | 0,4197 | 0,4205 | 0,4160 | 0,4099 | 0,4045 | 0,4291 | 0,4188 | Bottom |
| **Gambia** | 0,3992 | 0,4109 | 0,4195 | 0,4151 | 0,4130 | 0,4057 | 0,3823 | 0,3785 | 0,4002 | 0,3968 | 0,4037 | 0,3835 | 0,3868 | 0,4154 | 0,4120 | Bottom |
| **Guinea-Bissau** | 0,3369 | 0,3435 | 0,3576 | 0,3606 | 0,3724 | 0,3536 | 0,3661 | 0,3742 | 0,3870 | 0,4231 | 0,4063 | 0,4040 | 0,3999 | 0,4045 | 0,4115 | Bottom |
| **Burundi** | 0,3639 | 0,3664 | 0,3732 | 0,3824 | 0,4040 | 0,3908 | 0,3936 | 0,3821 | 0,3921 | 0,3906 | 0,3911 | 0,3965 | 0,4014 | 0,4105 | 0,4061 | Bottom |
| **South Sudan** | 0,2512 | 0,2500 | 0,2557 | 0,2922 | 0,3385 | 0,3255 | 0,3427 | 0,3415 | 0,3286 | 0,3344 | 0,3548 | 0,3640 | 0,3858 | 0,3870 | 0,3768 | Bottom |
| **São Tomé & Principe** | 0,4049 | 0,3983 | 0,3901 | 0,3824 | 0,3821 | 0,3748 | 0,3730 | 0,3771 | 0,3991 | 0,3931 | 0,3815 | 0,3799 | 0,3770 | 0,3738 | 0,3747 | Bottom |

* Figures in bracket are the countries' ranks in the corresponding year. Source: AfDB, Statistics Department.

# Overview of AII 2025 scores

Overall, many countries recorded significant progress in their industrial development over the 2010–2024 period, with 41 out of 54 Regional Member Countries experiencing improved AII scores. However, improvements were uneven: some countries recorded only marginal gains that were insufficient to improve their ranking, while others posted stronger performances. As a result, only 24 countries improved their rank, and 5 remained in the same position as in 2010.

The median AII score increased from 0.5031 in 2010 to 0.5353 in 2024, representing a 6.4 per cent rise. Similarly, the continental AII score rose from 0.5134 to 0.5445 over the same period, an increase of 6 per cent. The score range among the top ten countries narrowed, declining from 0.5977–0.8819 in 2010 to 0.6173–0.8415 in 2024, reflecting a slight convergence at the top. By contrast, the score range of the bottom ten countries improved markedly, rising from 0.2512–0.4049 to 0.3747–0.4371.

On average, countries in the bottom quintile recorded the strongest gains over the period, with an average increase of 10 per cent, followed by the middle quintile (7.9 per cent) (Table 4). The top quintile registered a more modest improvement of 2.7 per cent. Progress in the performance component was most pronounced among bottom-quintile countries (17.5 per cent), followed by those in the middle quintile (8.7 per cent). Improvements in direct determinants were also strongest for the bottom quintile (11.3 per cent). Across all quintiles, the score for indirect determinants is the one that increased the least over the period, indicating more limited progress in the general business environment and macroeconomic stability - it is noteworthy, however, that the bottom quintile, despite being composed of fragile countries, is the one that has made the most progress in this dimension.

**Table 4. Distribution by quintiles**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2010–2024 growth |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Top quintile** | 0,6925 | 0,6832 | 0,6872 | 0,6952 | 0,6900 | 0,6874 | 0,6837 | 0,6833 | 0,6922 | 0,7003 | 0,6982 | 0,6992 | 0,6988 | 0,7070 | 0,7114 | **2,7 per cent** |
| **Upper-middle quintile** | 0,5588 | 0,5584 | 0,5667 | 0,5784 | 0,5765 | 0,5725 | 0,5687 | 0,5618 | 0,5709 | 0,5722 | 0,5714 | 0,5722 | 0,5639 | 0,5779 | 0,5792 | **3,6 per cent** |
| **Middle quintile** | 0,4999 | 0,5035 | 0,5099 | 0,5166 | 0,5068 | 0,5079 | 0,5143 | 0,5211 | 0,5238 | 0,5259 | 0,5329 | 0,5217 | 0,5216 | 0,5315 | 0,5395 | **7,9 per cent** |
| **Lower-middle quintile** | 0,4611 | 0,4706 | 0,4779 | 0,4842 | 0,4904 | 0,4890 | 0,4791 | 0,4833 | 0,4858 | 0,4864 | 0,4957 | 0,4941 | 0,4884 | 0,4990 | 0,4996 | **8,4 per cent** |
| **Bottom quintile** | 0,3835 | 0,3895 | 0,3956 | 0,3992 | 0,4030 | 0,4006 | 0,4029 | 0,4023 | 0,4108 | 0,4161 | 0,4115 | 0,4107 | 0,4129 | 0,4218 | 0,4220 | **10 per cent** |

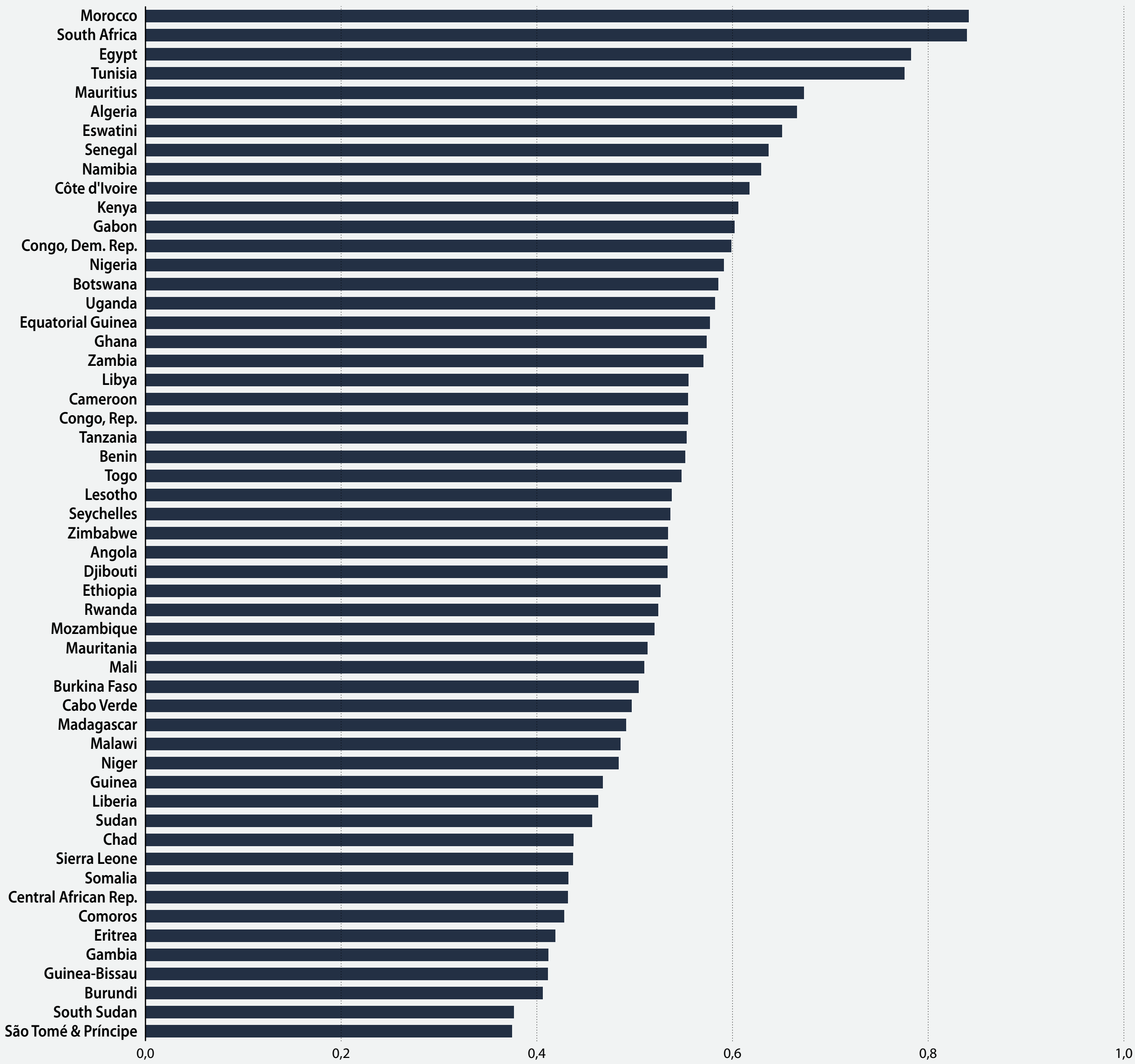
* Source: AfDB, Statistics Department..

# Country by country comparisons

The AII 2025 results are presented in Figure 1 and its three component indices in Figure 2. The scores range from 0 (worst) to 1 (best), and countries are ranked from the best to the worst score

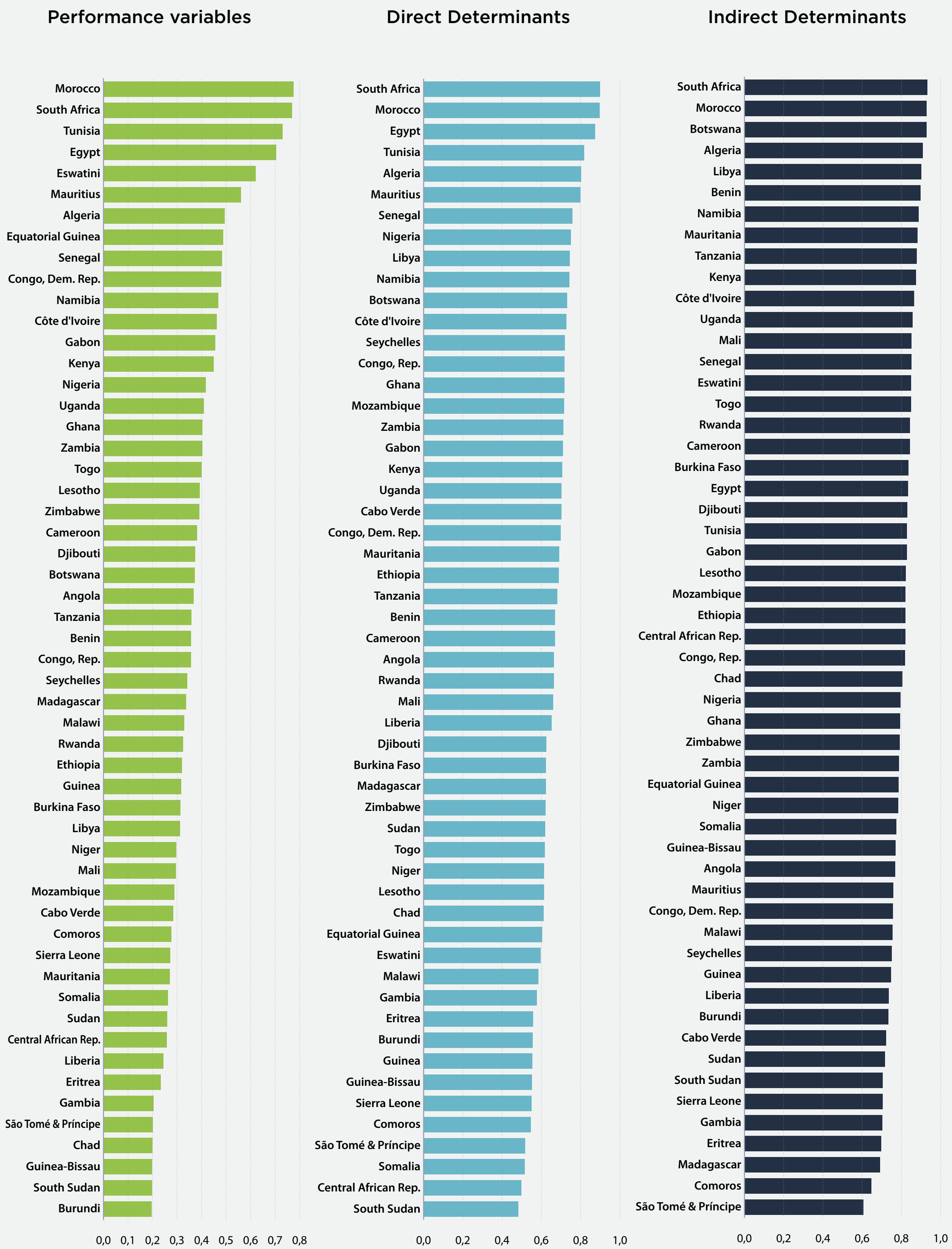
The AII 2025 shows that 26 of 54 countries stand above the average imputed for the entire continent.  Most countries in the North region of Africa stand in the top-ranked countries (having a score above the average of Africa), excluding Libya and Mauritania, which stand in the middle and lower-middle quintiles respectively. South Africa is the only sub-Saharan country to compete the North African countries. Mauritius, Eswatini and Namibia (top) follow South Africa in the top-ranked countries within the Southern region. In West Africa, Senegal, Cote d'Ivoire (top), Nigeria and Ghana (upper-middle) are the advanced countries in industrial development. Kenya, Uganda and Tanzania (upper-middle) stand at the best in East Africa, whereas Central Africa is led by Gabon followed by the Democratic Republic of Congo, Equatorial Guinea and Cameroon (upper middle). These countries are characterized mainly by the strong performance of their manufacturing sector compared to other countries (Figure 2).

**Figure 1. AII 2025, country score**




Source: AfDB, Statistics Department.

## Figure 2. AII 2025, country sub-index score




Source: AfDB, Statistics Department

The performance sub-index consistently records the lowest scores among the three AII components (Figure 2). This highlights the need to place greater emphasis on strengthening manufacturing performance and competitiveness as a core priority of Africa's industrialisation agenda. Given that this component exhibits the weakest outcomes across countries, industrial policies should focus more decisively on expanding productive capacity, upgrading manufacturing capabilities, and boosting export performance. Although the average score increased by 6.9 per cent between 2010 and 2024, this improvement remains modest, underscoring the need for stronger and more targeted policy interventions.

Seven African countries, most notably South Africa, experienced a decline in the direct determinants component, while the vast majority recorded improvements. Overall, this component registered an average increase of 7.95 per cent over the period, reflecting a general strengthening of financial and infrastructure-related indicators. Finally, the indirect determinants component emerges as the sub-index on which all countries record the highest scores overall. The sphere nevertheless recorded a notable decline of 4.96 per cent over the period 2010–2024, reflecting a general deterioration in security conditions and macroeconomic stability across the continent.

# The top and bottom ten performers

## The top ten performers

One of the major highlights of the 2025 Industrialization Index is Morocco's rise to the top position, with the country overtaking South Africa, which had consistently held the first place since 2010. This shift reflects South Africa's gradual decline across key performance indicators, while Morocco is now reaping the benefits of its steady and sustained progress. Morocco is now the closest economy to the industrial development frontier, with a score of 0.8415, placing it 0.1585 points below the maximum value of 1 (Table 3). This gap highlights the remaining scope for improvement, even for the top-ranked economy.

By contrast, South Africa recorded a score of 0.8396 in 2024, which is its highest level since 2020, yet still below its pre-COVID performance of 0.8518. While this reflects the significant impact of recent shocks, it also confirms a longer-term downward trend, with performance declining from 0.8819 in 2010 and reaching a low of 0.8301 in 2016.

Egypt, with a score of 0.7827 is ranked third in 2024, followed by Tunisia (0.7760). The latter has shown a renewed upward trend since 2022, narrowing the gap with Egypt. Overall, this leading quartet remains well ahead in the index. The fifth-ranked country, Mauritius, trails significantly, with a score of 0.6731 in 2024 – more than 0.1 points below the top four countries.

Algeria (0.6661), Eswatini (0.6509), Senegal (0.6368), Namibia (0.6295) and Côte d'Ivoire (0.6173) complete the group of the top ten performers. The composition of this leading group has remained largely stable over time, with the main change occurring in the sixth position, which has alternated between Algeria and Eswatini since 2010 (except in 2023 where Algeria overtook Mauritius in rank fifth). Among these countries, South Africa, Tunisia, Mauritius, Eswatini, and Namibia recorded lower scores in 2024 than in 2010. Egypt overtook Tunisia to rank third in 2020.In 2010, the top ten included Libya and Botswana. By 2024, Senegal and Côte d'Ivoire had overtaken them, entering the top quintile in 2016 and 2023 respectively, while Libya and Botswana experienced sharp declines, falling into the middle quintile.

## Top ten advancers

Comparing the 2024 score to the one of 2010, some countries have made significant gains in their industrial development. In terms of ranking, the Democratic Republic of the Congo (DRC), Djibouti, Gabon, Benin, Mauritania, Somalia, Senegal, Rwanda, Guinea and Sierra Leone were the top performers, getting five or more places over the coverage period (Table 5).

The DRC's improvement is driven by gains across most performance indicators, notably manufacturing value added (MVA) per capita, which more than doubled between 2010 and 2024, from USD 51 to USD 122.1, and by a strong expansion in production capacity, as the country's share of African MVA increased from 1.5 per cent in 2010 to 4.1 per cent in 2024. Improvements in Djibouti and Gabon are largely explained by stronger performance scores, a pattern also observed in Guinea, Mauritania, Rwanda, and Sierra Leone, which recorded notable growth in their performance dimensions. Somalia also improved its performance indicators, particularly in exports, and showed progress in the other dimension, reflecting a recovery of private sector development driven by stabilization and an overall improvement in the business environment. Benin and Senegal mainly progressed through improvements in their direct determinants, particularly investment and private sector financing, while Tanzania recorded more moderate but balanced progress across all three components.

**Table 5. Top advancers**

| Country | 2010 | | 2022 | | 2023 | | 2024 | | Ranks gained (2010-2024) |
|---|---|---|---|---|---|---|---|---|---|
| | Score | Rank | Score | Rank | Score | Rank | Score | Rank | |
| **Congo, Dem. Rep.** | 0.4976 | 29 | 0.5541 | 17 | 0.5981 | 12 | 0.5987 | 13 | 16 |
| **Djibouti** | 0.4129 | 43 | 0.5047 | 31 | 0.5342 | 28 | 0.5335 | 30 | 13 |
| **Gabon** | 0.5189 | 23 | 0.5855 | 13 | 0.5920 | 15 | 0.6021 | 12 | 11 |
| **Benin** | 0.4834 | 31 | 0.5327 | 25 | 0.5545 | 20 | 0.5519 | 24 | 7 |
| **Mauritania** | 0.4412 | 41 | 0.4835 | 38 | 0.5106 | 33 | 0.5130 | 34 | 7 |
| **Somalia** | 0.3278 | 53 | 0.3908 | 51 | 0.4205 | 48 | 0.4324 | 46 | 7 |
| **Senegal** | 0.5739 | 14 | 0.6245 | 6 | 0.6293 | 8 | 0.6368 | 8 | 6 |
| **Rwanda** | 0.4496 | 38 | 0.5006 | 33 | 0.5105 | 34 | 0.5242 | 32 | 6 |
| **Guinea** | 0.4025 | 46 | 0.4917 | 36 | 0.4734 | 40 | 0.4675 | 41 | 5 |
| **Sierra Leone** | 0.3787 | 50 | 0.4330 | 44 | 0.4411 | 44 | 0.4371 | 45 | 5 |

Source: AfDB, Statistics Department

## The bottom ten countries

The bottom ten countries in the African Industrialization Index remained largely unchanged over the period. Seven countries – Burundi, Comoros, Eritrea, Guinea-Bissau, São Tomé and Príncipe, Somalia, and South Sudan – were consistently positioned in the bottom quintile throughout the period, while The Gambia exited this group only once, in 2011. Guinea and Djibouti improved their industrial development levels and permanently exited the bottom quintile in 2012 and 2016, respectively, moving into the lower-middle quintile.

In 2024, the bottom ten comprised Sierra Leone, Somalia, the Central African Republic, Comoros, Eritrea, The Gambia, Guinea-Bissau, Burundi, South Sudan and São Tomé and Príncipe. Overall, these countries rank lowest across all components of the Index and continue to experience deindustrialization, with most recording a decline in their performance sub-index between 2010 and 2024. This trend reflects the fact that these fragile or conflict-affected states are affected by systemic weaknesses in their productive and institutional systems.

## Top decliners

Libya, Lesotho, Cabo Verde, São Tomé & Príncipe, Niger, Botswana, Equatorial Guinea, Sudan, Seychelles, Mali and Madagascar experienced the biggest drop in the ranking, losing 5 ranks or more (Table 6). Most of these countries experienced a decline in manufacturing sector performance and a shrinking pace in enhancing key input of industrial development

Botswana, Lesotho, Libya and Seychelles exhibit a similar pattern of decline, driven exclusively by underperformance in the performance dimension. These countries continued to make progress in the other dimensions, with the exception of Lesotho in the indirect determinants and Seychelles in the direct determinants. The four countries, which recorded strong productive performance in 2010, are now characterized by a significant decline in their productive capacity and their performance in manufactured exports. In Niger and Mali, the decline is explained by a deterioration in performance indicators combined with a decrease in the score of the indirect determinants sphere. Madagascar is characterized by having improved its score across all dimensions, but at a slower pace than its competitors, which explains its decline in ranking. Moreover, the overall underperformance of Cabo Verde, the Comoros, São Tomé and Príncipe, and the Seychelles suggests that small island states face structural difficulties in sustaining industrialization, regardless of their level of fragility, as these four countries exhibit very different profiles.

### Table 6. Bottom performers

| Country | 2010 | | 2022 | | 2023 | | 2024 | | Ranks gained (2010-2024) |
|---|---|---|---|---|---|---|---|---|---|
| | Score | Rank | Score | Rank | Score | Rank | Score | Rank | |
| Libya | 0.6169 | 8 | 0.5423 | 19 | 0.5544 | 21 | 0.5552 | 20 | -12 |
| Lesotho | 0.5593 | 16 | 0.5342 | 24 | 0.5355 | 27 | 0.5378 | 26 | -10 |
| Cabo Verde | 0.4987 | 28 | 0.4727 | 40 | 0.4828 | 39 | 0.4970 | 37 | -9 |
| São Tomé & Príncipe | 0.4049 | 45 | 0.3770 | 54 | 0.3738 | 54 | 0.3747 | 54 | -9 |
| Niger | 0.4834 | 32 | 0.4762 | 39 | 0.5048 | 37 | 0.4835 | 40 | -8 |
| Botswana | 0.6049 | 9 | 0.5711 | 15 | 0.5848 | 16 | 0.5853 | 15 | -6 |
| Equatorial Guinea | 0.5905 | 11 | 0.5326 | 26 | 0.5718 | 18 | 0.5767 | 17 | -6 |
| Sudan | 0.4589 | 37 | 0.4493 | 43 | 0.4653 | 41 | 0.4565 | 43 | -6 |
| Seychelles | 0.5230 | 22 | 0.5245 | 27 | 0.5131 | 32 | 0.5364 | 27 | -5 |
| Mali | 0.4912 | 30 | 0.4929 | 35 | 0.5243 | 29 | 0.5100 | 35 | -5 |
| Madagascar | 0.4719 | 33 | 0.4991 | 34 | 0.4979 | 38 | 0.4912 | 38 | -5 |

Source: AfDB, Statistics Department.

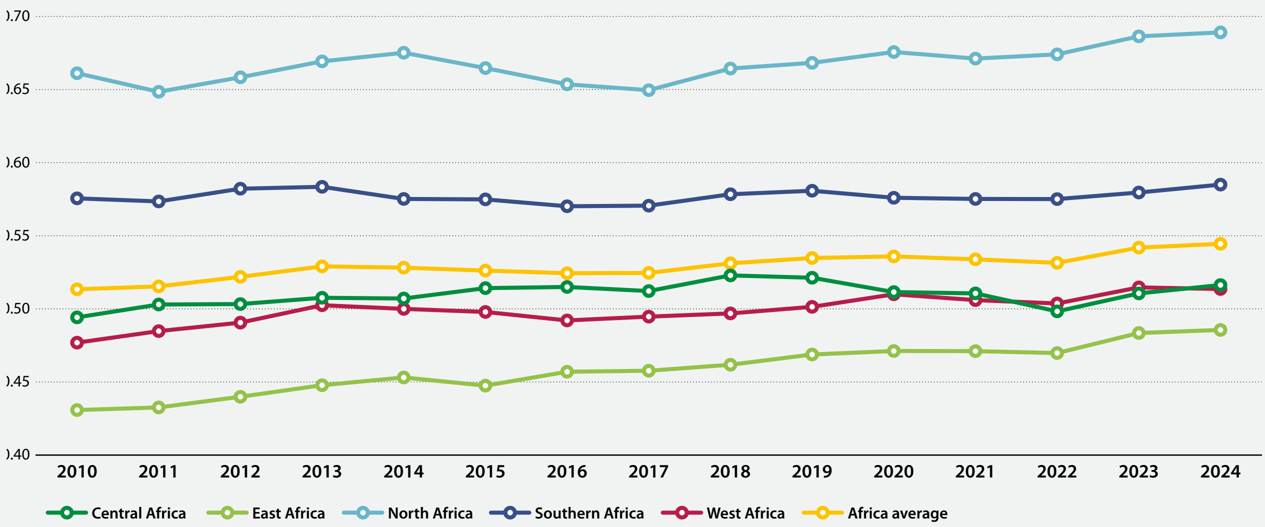
## Sub-regional analysis

In 2024, North Africa (0.6891) remains the most advanced subregion in terms of industrial development in Africa, followed by Southern Africa (0.5850), Central Africa (0.5163), West Africa (0.5136), and East Africa (0.4856) (Table 7). The ranking of these five subregions has remained broadly unchanged over the 2010–2024 period, with the exception of 2022 and 2023, when West Africa temporarily overtook Central Africa as the third most industrialized subregion. Overall, however, West, Central, and East Africa continue to lag behind North and Southern Africa, which host the continent's main industrial hubs, including South Africa, Egypt, and the Maghreb countries (Figure 3).

### Table 7. The AfDB country grouping scheme

| Central Africa | East Africa | North Africa | Southern Africa | West Africa |
|---|---|---|---|---|
| Cameroon | Burundi | Algeria | Angola | Benin |
| Central Africa Republic | Comoros | Egypt | Botswana | Burkina Faso |
| Chad | Djibouti | Libya | Eswatini | Cape Verde |
| Democratic Republic of the Congo (DRC) | Ethiopia | Mauritania | Lesotho | Côte d'Ivoire |
| Equatorial Guinea | Eritrea | Morocco | Madagascar | Gambia |
| Gabon | Kenya | Tunisia | Malawi | Ghana |
| | Rwanda | | Mauritius | Guinea |
| | Seychelles | | Mozambique | Guinea Bissau |
| | Somalia | | Namibia | Liberia |
| | South Sudan | | São Tomé and Príncipe | Mali |
| | Sudan | | South Africa | Niger |
| | Tanzania | | Zambia | Nigeria |
| | Uganda | | Zimbabwe | Senegal |
| | | | | Sierra Leone |
| | | | | Togo |

**Figure 3. Trend in AII by region**




Source: AfDB, Statistics Department.

In terms of progress over time, East Africa recorded the strongest improvement, with an average annual growth rate of 0.86 per cent, followed by West Africa (0.53 per cent). Southern Africa recorded the weakest performance, with an average annual growth rate of 0.12 per cent. This sluggish growth over the 2010–2024 period is largely driven by South Africa's declining performance.

Regarding the AII sub-components, North and Southern Africa remain the most advanced regions in terms of performance (Figure 4). However, East and West Africa recorded the strongest progress over 2010–2024, with average annual score increases of 1.32 per cent and 0.53 per cent. In contrast, Southern Africa's performance showed little to no improvement, remaining virtually unchanged in 2024 compared with 2010. However, a substantial gap persists between North Africa and the other regions in this sub-index, despite the region recording consistent annual progress, averaging 0.45 per cent per year over the 2010–2024 period.

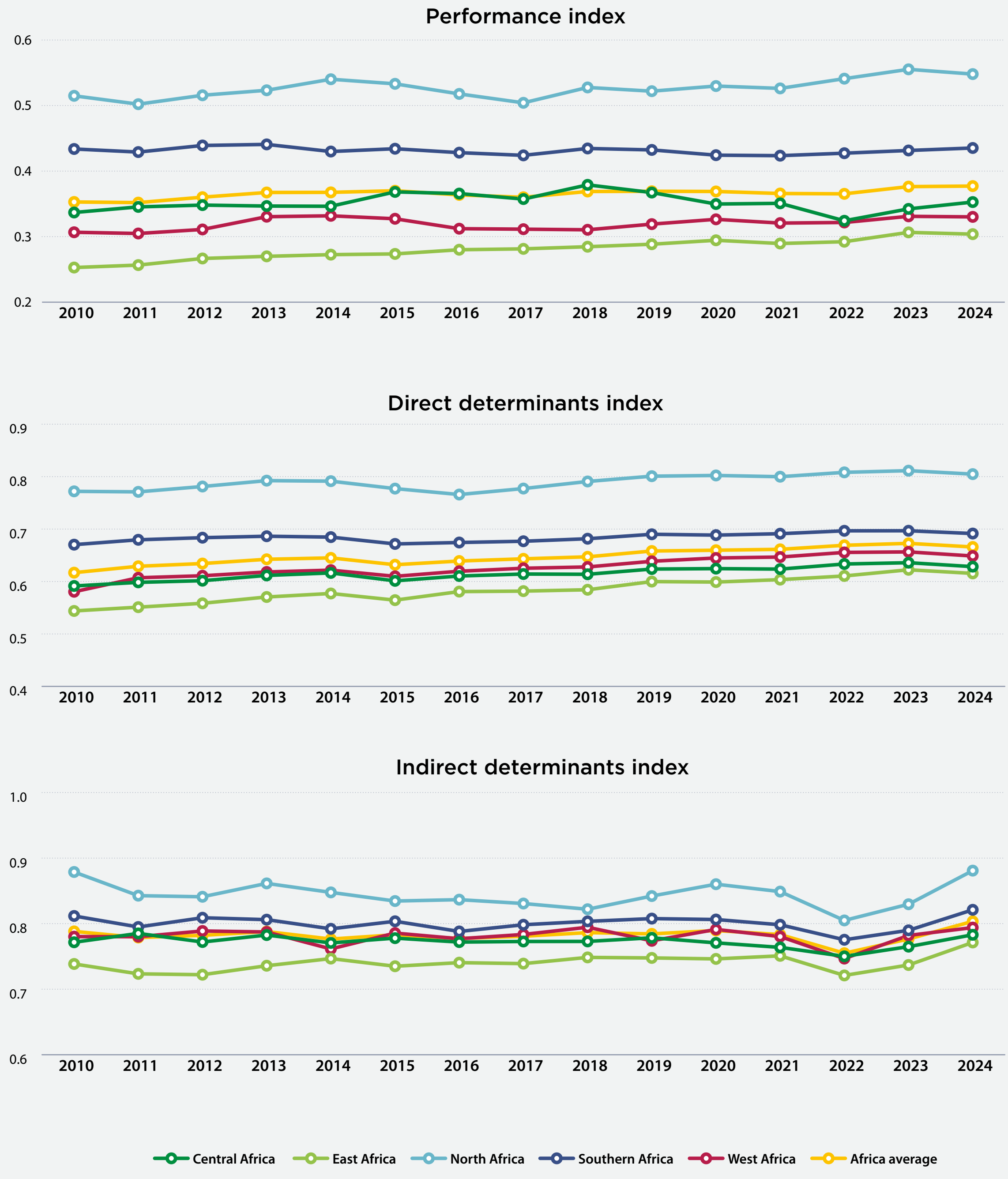
East and West Africa recorded the highest average annual increases in the direct determinants sub-index, at 0.89 per cent and 0.8 per cent, respectively. In contrast, the indirect determinants sub-index saw the smallest gains across all regions. East Africa showed the largest variation in this component, with an average annual decrease of 0.31 per cent.

In general, the improvement recorded by East, West, as well as Central Africa, despite an index score lower than the Africa average, depicts that these subregions still have room for considerable improvement.

## Regional spotlight: Southern Africa

Industrial development remains a central challenge for Southern Africa, the continent's second most industrialized region after North Africa. The thirteen countries of the region vary widely in demographics, political systems, spatial structures, and resource endowments, leading to uneven manufacturing capacities and diverse industrial strategies. A defining feature is the pivotal role of South Africa, which drives most of the region's industrial performance, accounting for 14.3 per cent of Africa's

**Figure 4. Sub-regional trend on the three AII's components**



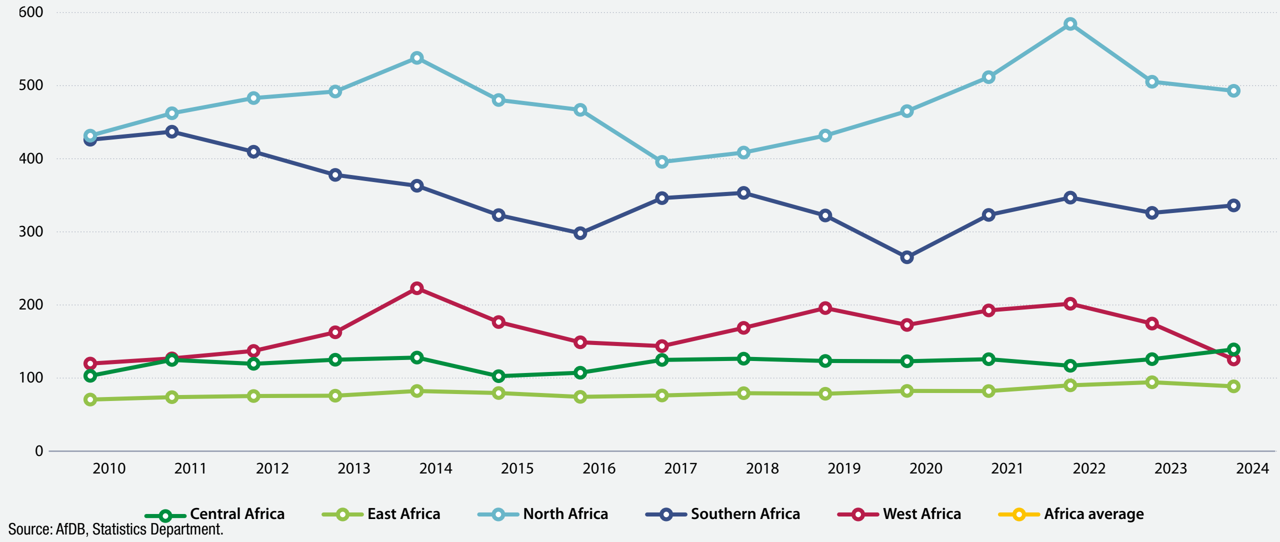

Source: AfDB. Statistics Department

total manufacturing value added in 2024 and roughly two-thirds of the region's USD 75 billion output. South Africa functions both as a production base and a "headquarter economy," providing technology, management, and R&D while also sustaining large-scale manufacturing. While other countries such as Mauritius, Eswatini, and Namibia show notable sectoral results, the region still lags in structural transformation, however.

## Manufacturing capacities and dynamics in the region

By the main metrics of industrial development, Southern Africa remains insufficiently industrialized, although it is the second-best performing region in Africa. Except for Eswatini, where MVA represented 28.1 per cent of GDP in 2024, manufacturing still accounts for a relatively small share of GDP

Figure 5. MVA per capita, per region (USD)




Source: AfDB, Statistics Department.

across the region, ranging from 15.5 per cent in Zimbabwe to 5.5 per cent in Botswana and just 1 per cent in São Tomé and Príncipe[86] (Table 8). On average, manufacturing contributed 11.6 per cent to regional GDP in 2024, which is above the African average of 10,6 per cent the same year, but which remains slightly below the 2010 level – this however still reflects a steady increase since the low point of 10.15 per cent in 2014.

The diagnostic is more negative when using the MVA per capita indicator, which corrects the relative effects of the MVA indicator and better captures manufacturing growth dynamics. Here again, Southern Africa remains the second most industrialized region of Africa. In 2024, the region recorded an average MVA per capita of USD 336, one third below that of North Africa (USD 493) (Figure 5). This represents a decline from USD 426 in 2010, corresponding to an average annual decrease of 1.7 per cent over the period. The region has been driven down by the underperformance of South Africa, whose MVA per capita has dropped from USD 1105 to USD 800 over the period (negative CGAR of 2.3 per cent) (Table 8).

Table 8. Manufacturing value added in Southern Africa

| Country | MVA share in GDP in 2010 | MVA Share in GDP 2024 | MVA CGAR 2010–2024 | MVA per capita (USD) in 2010 | MVA per capita (USD) in 2024 | CGAR in MVA per capita 2010–2024 | Population 2024 (million) |
|---|---|---|---|---|---|---|---|
| Angola | 4,5 | 7,6 | 5,3 per cent | 184,0 | 234,3 | 1,7 per cent | 37.8 |
| Botswana | 8,5 | 5,5 | 0,0 per cent | 528,6 | 425,6 | -1,5 per cent | 2.5 |
| eSwatini | 32,5 | 28,1 | -0,1 per cent | 1298,7 | 1152,6 | -0,8 per cent | 1.2 |
| Lesotho | 13,1 | 13,6 | 5,1 per cent | 149,0 | 125,6 | -1,2 per cent | 21.7 |
| Madagascar | 9,0 | 11,3 | -0,1 per cent | 40,3 | 61,6 | 3,1 per cent | 2.3 |
| Malawi | 9,9 | 11,5 | 1,3 per cent | 46,5 | 64,1 | 2,3 per cent | 1.3 |
| Mauritius | 14,2 | 10,8 | 5,8 per cent | 1104,7 | 1333,1 | 1,4 per cent | 32 |
| Mozambique | 10,0 | 8,2 | 3,3 per cent | 49,8 | 51,9 | 0,3 per cent | 34.6 |
| Namibia | 12,6 | 10,6 | 0,1 per cent | 667,2 | 469,4 | -2,5 per cent | 3 |
| São Tomé & Príncipe | 4,7 | 1,0 | -0,7 per cent | 49,1 | 34,4 | -2,5 per cent | 0.2 |
| South Africa | 13,9 | 12,8 | -0,9 per cent | 1105,0 | 800,1 | -2,3 per cent | 64 |

86 Unless specified otherwise, all data in this sub-section are based on African Industrialization Index stats.

| Country | MVA share in GDP in 2010 | MVA Share in GDP 2024 | MVA CGAR 2010–2024 | MVA per capita (USD) in 2010 | MVA per capita (USD) in 2024 | CGAR in MVA per capita 2010–2024 | Population 2024 (million) |
|---|---|---|---|---|---|---|---|
| Zambia | 7,6 | 9,3 | 3,4 per cent | 110,0 | 114,7 | 0,3 per cent | 21.3 |
| Zimbabwe | 9,2 | 15,5 | 13,6 per cent | 83,0 | 399,6 | 11,9 per cent | 16.6 |
| **Southern Africa** | **8,4 per cent** | **8,7 per cent** | **0,7 per cent** | **426** | **336** | **-1,68 per cent** | **238.7** |

Source: AII 2025, Calculation of the author.

## Manufacturing employment

An important argument for industrial development and structural transformation, particularly in the African context, is that the manufacturing sector is a major generator of jobs, offering a wide range of opportunities for both unskilled and skilled workers. As reflected in the limited share of manufacturing employment in total employment, Southern Africa performs poorly in terms of industrial jobs. Apart from Lesotho and Eswatini, all Southern African countries record single-digit percentages of manufacturing employment, far below the global average of 13.74 percent (Table 9). By comparison, in highly industrialized regions such as ASEAN, manufacturing accounts for more than 14 percent of total employment.

### Table 9. Manufacturing employment in Southern Africa

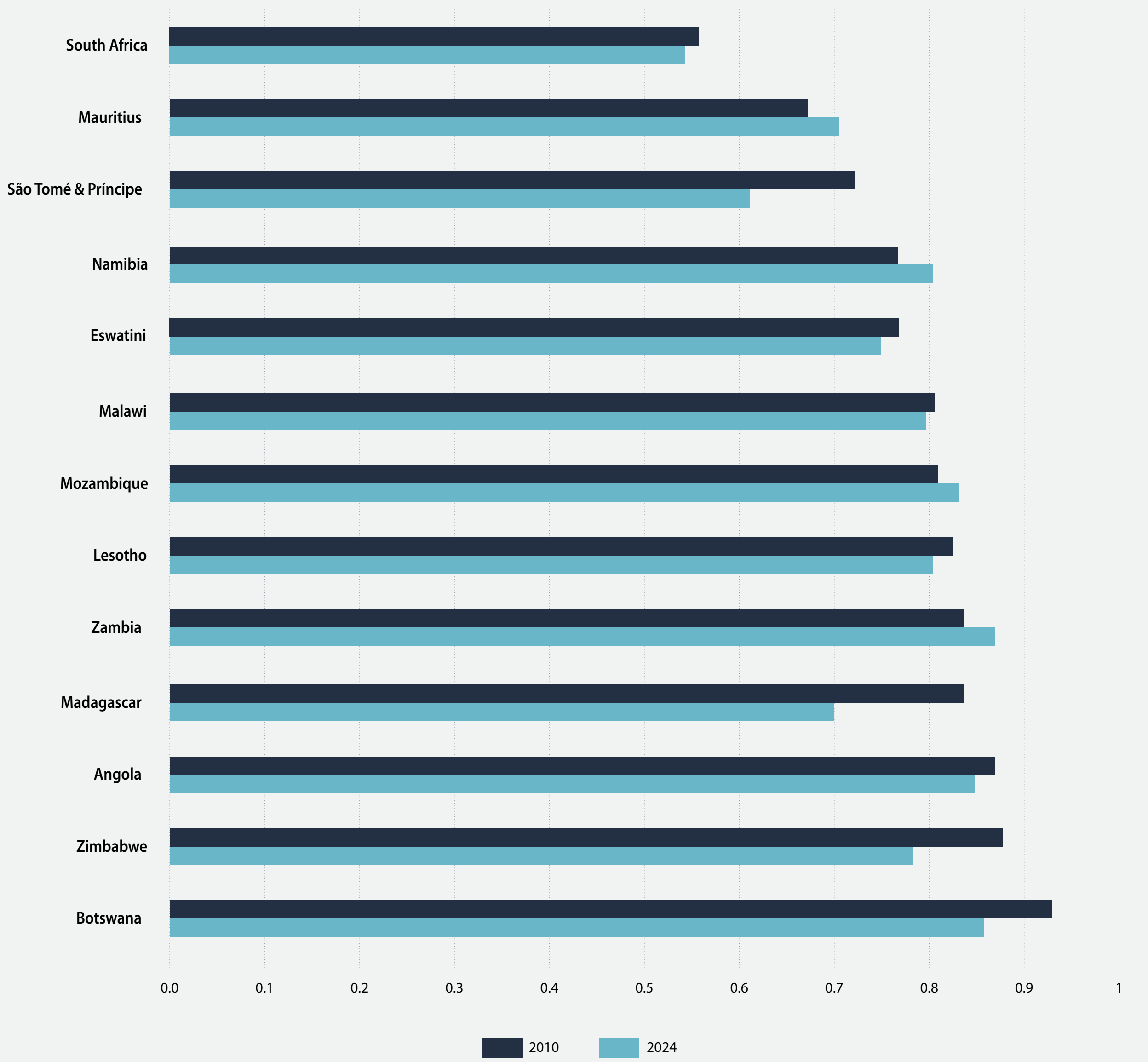
| Country | Proportion of manufacturing employment in total employment (percent) | |
|---|---|---|
| | 2010 | 2024 |
| Angola | 2,4 | 2,1 |
| Botswana | 6,6 | 6,6 |
| eSwatini | 17,9 | 12,0 |
| Lesotho | 15,2 | 22,9 |
| Madagascar | 4,4 | 5,4 |
| Malawi | 4,3 | 3,9 |
| Mauritius | 17,1 | 9,6 |
| Mozambique | 2,0 | 4,8 |
| Namibia | 4,9 | 7,8 |
| São Tomé & Príncipe | 6,4 | 6,5 |
| South Africa | 11,8 | 8,1 |
| Zambia | 3,8 | 5,7 |
| Zimbabwe | 5,2 | 4,7 |

Source: AII 2025.

## Structure of manufacturing production by exports

The sectoral composition of manufactured exports in Southern Africa reveals a strong pattern of primary or mono-sectoral specialization, which constrains productive diversification across the region (Table 10). Resource-rich economies are overwhelmingly dominated by basic metals, notably Zimbabwe (92.2 per cent), Zambia (85.7 per cent), Mozambique (65.8 per cent), and South Africa (52.2 per cent). This concentration reflects a persistent reliance on extractive and metallurgical value chains, which offer limited scope for downstream industrial upgrading, although they do present some opportunities for mineral beneficiation. By contrast, a small number of countries exhibit more balanced export profiles: Malawi combines agro-processing (38.4 per cent) and metals (37.4 per cent), while Namibia shows a relatively diversified structure across metals (28.5 per cent), food and beverages

**Figure 6. Export Diversification Index**




(22.9 per cent), and machinery (5.8 per cent). The low share of high-technology exports, particularly machinery and appliances (most often below 6 per cent) underscores the limited extent of technological upgrading in the region.

Other economies exhibit a specialization more oriented toward light manufacturing, particularly labor-intensive sectors. Lesotho and Madagascar are notable examples, with a strong predominance of textiles and apparel (73.8 per cent and 35.5 per cent respectively). Mauritius presents a more diversified export structure, combining textiles (28.9 per cent), food and beverages (30.8 per cent), and chemicals (12.5 per cent), reflecting a relatively mature manufacturing base. The export diversification index[87] reinforces this picture: South Africa (0.555) is the most diversified economy, while countries such as Botswana, Angola, and Zimbabwe show very high levels of specialization (>0.85). Since 2010, only three countries – Mauritius, Namibia, and Mozambique – have managed to diversify their export structures, while all others have increased their specialization (Figure 6).

87 The diversification index indicates to what extent the structure of exports by product of a given economy or group of economies differs from the world pattern. Values close to 1 often indicate concentration and values close to 0 indicate diversification.

### Table 10. Sectoral Composition of Manufactured Exports and Export Diversification in Southern Africa

| Country | Basic metals | Food & beverages | Textiles & Apparel | Chemicals | Machinery & appliances | Furniture & other | Export diversification index |
|---|---|---|---|---|---|---|---|
| Angola | 5.5 | 4.1 | 0.1 | 8.4 | 4.8 | 4 | 0,87 |
| Botswana | 6.1 | 2.3 | 1.7 | 6.6 | 3.0 | 63.4 | 0,926 |
| Lesotho | 0 | 9.1 | 73.8 | 0.3 | 0.2 | 7.5 | 0,825 |
| Madagascar | 38.0 | 11.6 | 35.5 | 6.6 | 0.5 | 3.3 | 0,836 |
| Malawi | 37.4 | 38.4 | 2.2 | 1.3 | 4.6 | 0.6 | 0,804 |
| Mauritius | 1.2 | 30.8 | 28.9 | 12.5 | 2.2 | 7.6 | 0,674 |
| Mozambique | 65.8 | 7.7 | 0.6 | 3.2 | 0.8 | 5.9 | 0,811 |
| Namibia | 28.5 | 22.9 | 0.3 | 2.1 | 5.8 | 0 | 0,769 |
| South Africa | 52.2 | 5.5 | 0.9 | 8.5 | 5.8 | 5.2 | 0,555 |
| Zambia | 85.7 | 4.9 | 0.1 | 2.6 | 0.7 | 2.0 | 0,835 |
| Zimbabwe | 92.2 | 1.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0,873 |

Source: UNIDO, Industrial Analytics Platform

Overall, Southern Africa remains characterized by a duality between extractive-driven economies and those with textile-driven industrial structures. Manufacturing diversification and deeper integration into more complex regional value chains remain limited but represent a critical opportunity for strengthening regional resilience and industrial development.

# VI. Policy & Investment Implications: Accelerating Africa's Industrial Transformation

The Africa Industrialization Index 2025 highlights that while industrialization has progressed across much of the continent, the pace and scale of transformation remain insufficient to meet Africa's development ambitions. To close the industrialization gap and position Africa competitively in the evolving global economy, policymakers and development partners must move beyond diagnosis toward coordinated and targeted implementation.

The findings of this report suggest that Africa's industrial acceleration requires differentiated but mutually reinforcing interventions across five strategic pillars.

## Transitioning from National to Regional Industrial Development Models

Africa's fragmented market structure remains one of the greatest constraints to industrial competitiveness. Most African economies individually lack sufficient domestic market size, productive scale, and industrial diversification to support globally competitive manufacturing ecosystems. Industrial development strategies should therefore progressively move beyond nationally confined industrialization models toward regional production systems that leverage AfCFTA integration, RECs, specialized regional value chains, shared infrastructure, and integrated corridors.

The promotion of regional industrialization requires raising awareness of its benefits and strengthening coordination and policy design capacities among RECs and national governments. The intended result is a stronger alignment between national industrial policies and regional integration frameworks, with a view to mainstreaming and anchoring regional industrialization as a priority in domestic policy agendas. Policy dialogue and technical assistance, within the framework of AfCFTA and RECs initiatives, should help anchor regional industrialization priorities within national development strategies and investment programmes.

## Scaling Strategic Economic and Industrial Corridors

The lack of physical and functional integration continues to constrain the development of intra-African value chains by increasing transaction costs, delays, and uncertainty across borders. Despite progress in tariff liberalization, persistent non-tariff barriers, inefficient customs procedures, and fragmented regulatory frameworks remain major obstacles to regional industrialization and competitiveness.

Spatial development frameworks such as industrial corridors should therefore become a central instrument for regional industrialization, by combining infrastructure, industrial clusters, energy systems, and logistics into integrated growth poles. Priority should be given to strengthening trade facilitation along these corridors through coordinated investments in both hard and soft infrastructure. This includes improving transport and logistics connectivity, modernizing customs and border management systems, and advancing the harmonization of standards and regulations. Enhancing quality infrastructure is also critical to reducing technical barriers to trade, supporting export diversification, and enabling firms to integrate into regional value chains. Existing corridor initiatives provide an effective operational framework and should be reinforced through improved multi-country governance and financing mechanisms.

## Repositioning SEZs as Catalysts of Industrial Ecosystems

While SEZs have become a central instrument of industrial policy in Africa, their impact has often fallen short of expectations. Their development has frequently been driven by investment attraction objectives rather than by a clear vision of structural transformation, resulting in fragmented approaches, underutilized infrastructure, and weak linkages with domestic firms, particularly SMEs.

Within this context, maximizing the developmental impact of SEZs requires a shift from enclave-based models toward more integrated and strategic approaches. This implies aligning SEZs with national and regional industrial priorities and enhancing regional coordination in SEZ specialization and development, adapting them to country-specific contexts and local comparative advantages, embedding them within regional value chains, strengthening linkages with domestic SMEs and suppliers, and integrating environmental sustainability considerations.

Ultimately, SEZs should not be assessed by their number, but by their ability to function as integrated industrial platforms that support upgrading, innovation, and inclusive growth, while being tailored to local conditions and development potential, and effectively contributing to regional production systems that endure the pressures of climate change and drive sustainable value addition.

## Investing in Productive Capabilities and Competitiveness

Sustainable industrialization depends on strengthening the productive capabilities of firms, workers, and institutions. Key constraints include persistent skills gaps, weak innovation systems, and limited SME competitiveness, which continue to limit productivity growth and structural transformation.

African countries should therefore focus on upgrading skills through TVET and advanced manufacturing, strengthening quality infrastructure and standards harmonization, and promoting SME formalization and upgrading. A key priority is to better coordinate TVET systems at the regional level with the actual needs of industry and regional value chains, ensuring that skills development is demand-driven, aligned with evolving production structures across countries, and effectively contributes to productivity enhancement.

SME development and upgrading is also a critical complement to skills upgrading efforts. Beyond labor force training, SMEs require an enabling business environment and innovation system, as well as targeted support to enhance their access to technology, improve managerial and productive capacities, strengthen competitiveness, and facilitate gradual formalization. Strengthening their integration into regional value chains will be essential to translating skills development into productivity gains and broader industrial transformation.

# VII. Conclusion / Strategic Outlook

Africa's industrialization challenge is no longer one of strategy design, but of effective implementation at scale. The continent possesses the demographic, resource, geographic, and institutional foundations required for industrialization; however, unlocking this potential will depend on stronger policy coordination, more effective institutions, deeper regional cooperation, and sustained long-term investment.

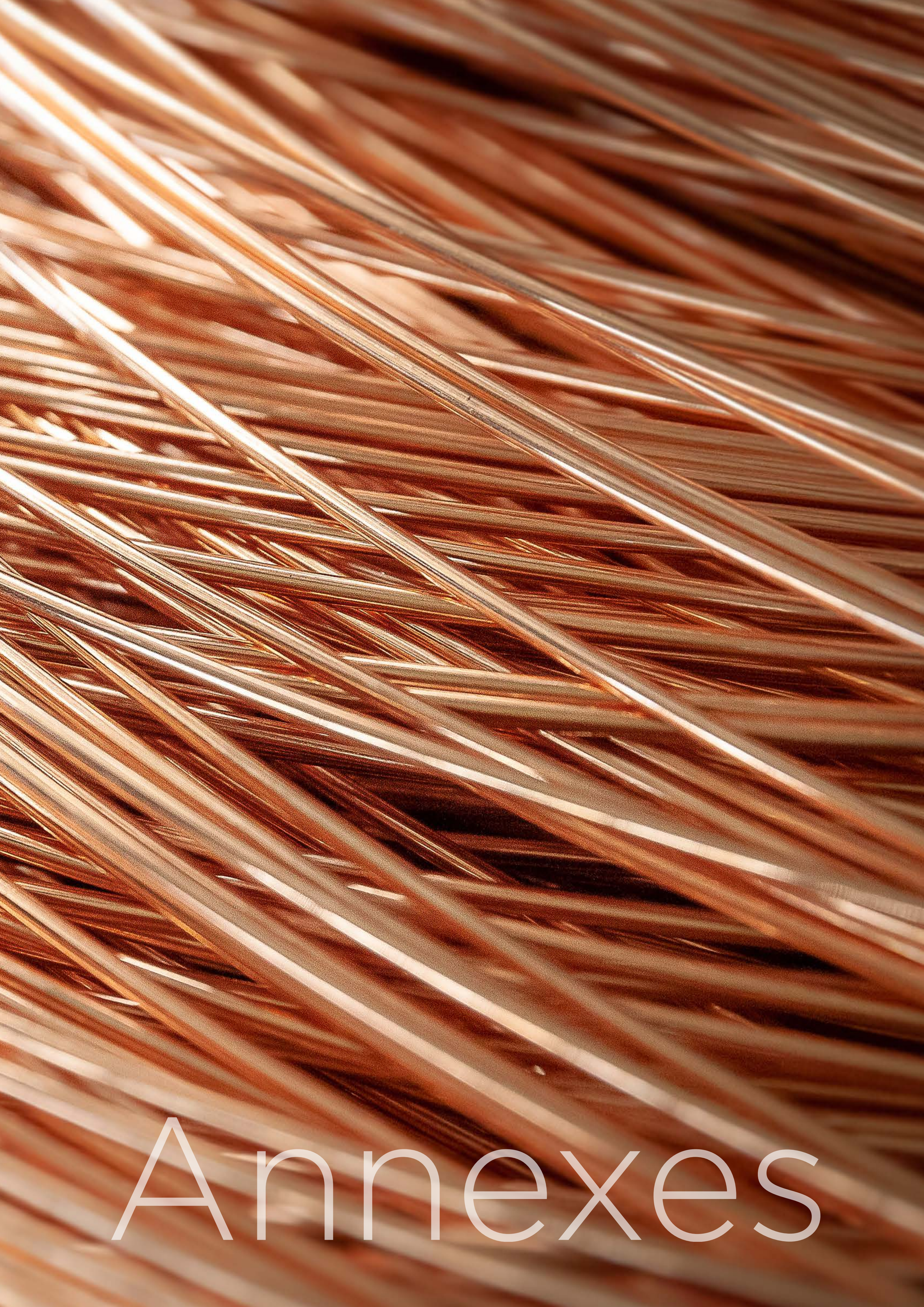
The coming decade will be decisive. While the findings of the Africa Industrialization Index 2025 highlight tangible progress across the continent, they also reveal that the pace and depth of structural transformation remain insufficient to meet Africa's long-term development ambitions and to position it competitively in the rapidly evolving global economy.

At the same time, Africa stands at a critical juncture. The convergence of the African Continental Free Trade Area, shifting global value chains, the green transition, rapid digitalization, and strong demographic growth offer a unique and potentially transformative opportunity for the continent to emerge as a globally competitive industrial bloc. Realizing this potential will require moving beyond fragmented, nationally driven approaches toward coordinated, large-scale, and implementation-focused industrial policies.

Industrialization in Africa must therefore evolve from isolated productive initiatives into integrated industrial ecosystems anchored in regional value chains, strategic industrial platforms, productive infrastructure, and innovation-driven competitiveness. This transition will demand stronger policy coordination, deeper regional integration, increased private sector participation, and significantly greater investment in productive sectors.

Ultimately, the question facing Africa is no longer whether industrialization is necessary, but how rapidly and effectively it can be delivered. The Africa Industrialization Index 2025 serves as both a diagnostic benchmark and a strategic policy tool to support governments, development finance institutions, and investors in designing evidence-based interventions that accelerate industrial transformation, strengthen competitiveness, and unlock inclusive and sustainable prosperity across the continent.

The decisions taken today will determine whether Africa emerges as the next frontier of global industrial growth, or whether its vast industrial potential remains unrealized. The time for accelerated action is now.



# Annexes

# VIII. Annexes

## Africa Industrialization Index and its three-dimension scores

Table 11. Africa Industrialization Index

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Morocco | 0,7807 | 0,7806 | 0,7869 | 0,7961 | 0,7930 | 0,7920 | 0,7966 | 0,7983 | 0,8099 | 0,8225 | 0,8268 | 0,8323 | 0,8222 | 0,8333 | 0,8415 | Top |
| South Africa | 0,8819 | 0,8615 | 0,8659 | 0,8617 | 0,8448 | 0,8442 | 0,8301 | 0,8371 | 0,8442 | 0,8518 | 0,8321 | 0,8392 | 0,8388 | 0,8401 | 0,8396 | Top |
| Egypt | 0,7545 | 0,7231 | 0,7416 | 0,7515 | 0,7409 | 0,7450 | 0,7511 | 0,7380 | 0,7440 | 0,7608 | 0,7808 | 0,7909 | 0,7926 | 0,7835 | 0,7827 | Top |
| Tunisia | 0,7763 | 0,7782 | 0,7791 | 0,7829 | 0,7799 | 0,7673 | 0,7655 | 0,7569 | 0,7542 | 0,7680 | 0,7596 | 0,7630 | 0,7623 | 0,7751 | 0,7760 | Top |
| Mauritius | 0,6812 | 0,6651 | 0,6775 | 0,6787 | 0,6800 | 0,6748 | 0,6686 | 0,6605 | 0,6663 | 0,6756 | 0,6677 | 0,6579 | 0,6522 | 0,6610 | 0,6731 | Top |
| Algeria | 0,5977 | 0,6028 | 0,5930 | 0,6056 | 0,6414 | 0,6247 | 0,6178 | 0,6141 | 0,6545 | 0,6486 | 0,6455 | 0,6288 | 0,6414 | 0,6612 | 0,6661 | Top |
| Eswatini | 0,6658 | 0,6594 | 0,6513 | 0,6552 | 0,6442 | 0,6493 | 0,6340 | 0,6420 | 0,6463 | 0,6627 | 0,6379 | 0,6438 | 0,6386 | 0,6445 | 0,6509 | Top |
| Senegal | 0,5739 | 0,5771 | 0,5832 | 0,5838 | 0,5729 | 0,5753 | 0,5810 | 0,5875 | 0,5944 | 0,6032 | 0,6164 | 0,6211 | 0,6245 | 0,6293 | 0,6368 | Top |
| Namibia | 0,6332 | 0,6275 | 0,6264 | 0,6259 | 0,6117 | 0,6131 | 0,6038 | 0,6162 | 0,6392 | 0,6240 | 0,6220 | 0,6260 | 0,6243 | 0,6251 | 0,6295 | Top |
| Côte d'Ivoire | 0,5793 | 0,5571 | 0,5673 | 0,6104 | 0,5909 | 0,5887 | 0,5888 | 0,5825 | 0,5687 | 0,5861 | 0,5928 | 0,5886 | 0,5909 | 0,6166 | 0,6173 | Top |
| Kenya | 0,5761 | 0,5747 | 0,5820 | 0,5890 | 0,5936 | 0,5849 | 0,5857 | 0,5732 | 0,5891 | 0,5907 | 0,5932 | 0,5910 | 0,5886 | 0,5947 | 0,6058 | Upper-middle |
| Gabon | 0,5189 | 0,5440 | 0,5764 | 0,5835 | 0,5899 | 0,5902 | 0,6044 | 0,5565 | 0,5989 | 0,6004 | 0,5979 | 0,5960 | 0,5855 | 0,5920 | 0,6021 | Upper-middle |
| Congo, Dem. Rep. | 0,4976 | 0,5016 | 0,5237 | 0,5342 | 0,5315 | 0,5594 | 0,5418 | 0,5688 | 0,6005 | 0,5889 | 0,5783 | 0,5885 | 0,5541 | 0,5981 | 0,5987 | Upper-middle |
| Nigeria | 0,5689 | 0,5716 | 0,5736 | 0,5894 | 0,6081 | 0,5929 | 0,5597 | 0,5623 | 0,5812 | 0,5987 | 0,5971 | 0,6019 | 0,6232 | 0,6068 | 0,5914 | Upper-middle |
| Botswana | 0,6049 | 0,5889 | 0,5894 | 0,5817 | 0,5835 | 0,5866 | 0,5812 | 0,5748 | 0,5840 | 0,5936 | 0,5894 | 0,5738 | 0,5711 | 0,5848 | 0,5853 | Upper-middle |
| Uganda | 0,5520 | 0,5454 | 0,5534 | 0,5719 | 0,5577 | 0,5538 | 0,5478 | 0,5396 | 0,5506 | 0,5579 | 0,5652 | 0,5674 | 0,5557 | 0,5929 | 0,5822 | Upper-middle |
| Equatorial Guinea | 0,5905 | 0,6052 | 0,5965 | 0,5967 | 0,5863 | 0,5569 | 0,5614 | 0,5506 | 0,5776 | 0,5754 | 0,5345 | 0,5611 | 0,5326 | 0,5718 | 0,5767 | Upper-middle |
| Ghana | 0,5582 | 0,5749 | 0,5760 | 0,5912 | 0,5760 | 0,5734 | 0,5758 | 0,5720 | 0,5630 | 0,5796 | 0,5894 | 0,5914 | 0,5828 | 0,5819 | 0,5735 | Upper-middle |
| Zambia | 0,5353 | 0,5374 | 0,5603 | 0,5712 | 0,5579 | 0,5484 | 0,5481 | 0,5566 | 0,5521 | 0,5470 | 0,5386 | 0,5455 | 0,5534 | 0,5639 | 0,5703 | Upper-middle |
| Libya | 0,6169 | 0,5447 | 0,5796 | 0,6039 | 0,5984 | 0,5773 | 0,5513 | 0,5321 | 0,5338 | 0,5295 | 0,5478 | 0,5403 | 0,5423 | 0,5544 | 0,5552 | Upper-middle |

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Cameroon** | 0,5435 | 0,5618 | 0,5546 | 0,5605 | 0,5530 | 0,5467 | 0,5460 | 0,5430 | 0,5450 | 0,5505 | 0,5564 | 0,5434 | 0,5399 | 0,5401 | 0,5547 | **Upper-middle** |
| **Congo, Rep.** | 0,5431 | 0,5510 | 0,5347 | 0,5671 | 0,5818 | 0,6001 | 0,6210 | 0,6122 | 0,5750 | 0,5547 | 0,5684 | 0,5657 | 0,5379 | 0,5528 | 0,5547 | **Upper-middle** |
| **Tanzania** | 0,5106 | 0,5124 | 0,5299 | 0,5245 | 0,5268 | 0,5177 | 0,5056 | 0,5138 | 0,5441 | 0,5325 | 0,5370 | 0,5318 | 0,5365 | 0,5416 | 0,5530 | **Middle** |
| **Benin** | 0,4834 | 0,4971 | 0,4931 | 0,5275 | 0,5397 | 0,5248 | 0,5047 | 0,5231 | 0,5336 | 0,5152 | 0,5315 | 0,5310 | 0,5327 | 0,5545 | 0,5519 | **Middle** |
| **Togo** | 0,5074 | 0,5241 | 0,5216 | 0,5428 | 0,5303 | 0,5195 | 0,5266 | 0,5076 | 0,5136 | 0,5212 | 0,5384 | 0,5135 | 0,5017 | 0,5088 | 0,5479 | **Middle** |
| **Lesotho** | 0,5593 | 0,5489 | 0,5446 | 0,5472 | 0,5267 | 0,5392 | 0,5518 | 0,5415 | 0,5538 | 0,5515 | 0,5495 | 0,5493 | 0,5342 | 0,5355 | 0,5378 | **Middle** |
| **Seychelles** | 0,5230 | 0,5446 | 0,5096 | 0,5059 | 0,5194 | 0,5203 | 0,5226 | 0,5544 | 0,5494 | 0,5531 | 0,5622 | 0,5160 | 0,5245 | 0,5131 | 0,5364 | **Middle** |
| **Zimbabwe** | 0,5176 | 0,5124 | 0,5327 | 0,5395 | 0,5261 | 0,5220 | 0,5083 | 0,5244 | 0,5274 | 0,5307 | 0,5232 | 0,5182 | 0,5344 | 0,5365 | 0,5343 | **Middle** |
| **Angola** | 0,5156 | 0,5236 | 0,5430 | 0,5380 | 0,4841 | 0,5322 | 0,5325 | 0,5242 | 0,4957 | 0,5059 | 0,5070 | 0,5087 | 0,5144 | 0,5369 | 0,5338 | **Middle** |
| **Djibouti** | 0,4129 | 0,4040 | 0,4260 | 0,4347 | 0,4179 | 0,3990 | 0,4717 | 0,4880 | 0,4839 | 0,5018 | 0,5195 | 0,5180 | 0,5047 | 0,5342 | 0,5335 | **Middle** |
| **Ethiopia** | 0,4690 | 0,4639 | 0,4890 | 0,4897 | 0,4905 | 0,4963 | 0,5051 | 0,5129 | 0,5127 | 0,5213 | 0,5276 | 0,5085 | 0,5115 | 0,5220 | 0,5265 | **Middle** |
| **Rwanda** | 0,4496 | 0,4428 | 0,4516 | 0,4583 | 0,4664 | 0,4687 | 0,4544 | 0,4619 | 0,4767 | 0,4934 | 0,4837 | 0,5115 | 0,5006 | 0,5105 | 0,5242 | **Lower-middle** |
| **Mozambique** | 0,4590 | 0,4830 | 0,5276 | 0,5330 | 0,5416 | 0,5240 | 0,5197 | 0,5056 | 0,5337 | 0,5271 | 0,5354 | 0,5258 | 0,5178 | 0,5079 | 0,5203 | **Lower-middle** |
| **Mauritania** | 0,4412 | 0,4615 | 0,4702 | 0,4760 | 0,4974 | 0,4819 | 0,4394 | 0,4585 | 0,4900 | 0,4802 | 0,4935 | 0,4721 | 0,4835 | 0,5106 | 0,5130 | **Lower-middle** |
| **Mali** | 0,4912 | 0,4880 | 0,4868 | 0,4852 | 0,5027 | 0,4951 | 0,4800 | 0,5063 | 0,4903 | 0,4815 | 0,5150 | 0,4985 | 0,4929 | 0,5243 | 0,5100 | **Lower-middle** |
| **Burkina Faso** | 0,4674 | 0,4774 | 0,4776 | 0,4860 | 0,4834 | 0,4828 | 0,4913 | 0,4845 | 0,4913 | 0,4897 | 0,4965 | 0,4899 | 0,4881 | 0,5182 | 0,5043 | **Lower-middle** |
| **Cabo Verde** | 0,4987 | 0,5066 | 0,5069 | 0,5081 | 0,4932 | 0,5314 | 0,5198 | 0,5044 | 0,4783 | 0,4897 | 0,4923 | 0,5039 | 0,4727 | 0,4828 | 0,4970 | **Lower-middle** |
| **Madagascar** | 0,4719 | 0,4748 | 0,4806 | 0,4888 | 0,4853 | 0,4729 | 0,4859 | 0,4790 | 0,4880 | 0,4970 | 0,4956 | 0,4933 | 0,4991 | 0,4979 | 0,4912 | **Lower-middle** |
| **Malawi** | 0,4463 | 0,4611 | 0,4399 | 0,4404 | 0,4645 | 0,4494 | 0,4430 | 0,4428 | 0,4441 | 0,4511 | 0,4531 | 0,4641 | 0,4619 | 0,4595 | 0,4854 | **Lower-middle** |
| **Niger** | 0,4834 | 0,5001 | 0,5097 | 0,5207 | 0,5107 | 0,5166 | 0,5100 | 0,5082 | 0,4771 | 0,4727 | 0,4961 | 0,4877 | 0,4762 | 0,5048 | 0,4835 | **Lower-middle** |
| **Guinea** | 0,4025 | 0,4103 | 0,4279 | 0,4459 | 0,4588 | 0,4669 | 0,4477 | 0,4813 | 0,4881 | 0,4814 | 0,4957 | 0,4940 | 0,4917 | 0,4734 | 0,4675 | **Lower-middle** |
| **Liberia** | 0,4242 | 0,4423 | 0,4546 | 0,4623 | 0,4599 | 0,4507 | 0,4563 | 0,4519 | 0,4528 | 0,4510 | 0,4478 | 0,4507 | 0,4591 | 0,4577 | 0,4629 | **Bottom** |
| **Sudan** | 0,4589 | 0,4572 | 0,4886 | 0,4750 | 0,4680 | 0,4760 | 0,4828 | 0,4571 | 0,4555 | 0,4651 | 0,4498 | 0,4583 | 0,4493 | 0,4653 | 0,4565 | **Bottom** |
| **Chad** | 0,4427 | 0,4422 | 0,4266 | 0,4358 | 0,4342 | 0,4448 | 0,4440 | 0,4461 | 0,4511 | 0,4494 | 0,4375 | 0,4310 | 0,4312 | 0,4409 | 0,4374 | **Bottom** |
| **Sierra Leone** | 0,3787 | 0,3911 | 0,4035 | 0,4083 | 0,3883 | 0,3905 | 0,3910 | 0,3963 | 0,4339 | 0,4309 | 0,4313 | 0,4297 | 0,4330 | 0,4411 | 0,4371 | **Bottom** |
| **Somalia** | 0,3278 | 0,3332 | 0,3497 | 0,3583 | 0,3656 | 0,3562 | 0,3662 | 0,3657 | 0,3664 | 0,3701 | 0,3719 | 0,3874 | 0,3908 | 0,4205 | 0,4324 | **Bottom** |
| **Central African Rep.** | 0,4121 | 0,4200 | 0,4238 | 0,4010 | 0,3979 | 0,4407 | 0,4285 | 0,4435 | 0,4362 | 0,4579 | 0,4375 | 0,4193 | 0,4279 | 0,4154 | 0,4319 | **Bottom** |
| **Comoros** | 0,3958 | 0,4031 | 0,3949 | 0,4052 | 0,4065 | 0,3957 | 0,4049 | 0,4096 | 0,4174 | 0,4266 | 0,4198 | 0,4247 | 0,4208 | 0,4225 | 0,4278 | **Bottom** |
| **Eritrea** | 0,3894 | 0,4056 | 0,4047 | 0,4107 | 0,4094 | 0,4027 | 0,4067 | 0,4070 | 0,4197 | 0,4205 | 0,4160 | 0,4099 | 0,4045 | 0,4291 | 0,4188 | **Bottom** |
| **Gambia** | 0,3992 | 0,4109 | 0,4195 | 0,4151 | 0,4130 | 0,4057 | 0,3823 | 0,3785 | 0,4002 | 0,3968 | 0,4037 | 0,3835 | 0,3868 | 0,4154 | 0,4120 | **Bottom** |
| **Guinea-Bissau** | 0,3369 | 0,3435 | 0,3576 | 0,3606 | 0,3724 | 0,3536 | 0,3661 | 0,3742 | 0,3870 | 0,4231 | 0,4063 | 0,4040 | 0,3999 | 0,4045 | 0,4115 | **Bottom** |
| **Burundi** | 0,3639 | 0,3664 | 0,3732 | 0,3824 | 0,4040 | 0,3908 | 0,3936 | 0,3821 | 0,3921 | 0,3906 | 0,3911 | 0,3965 | 0,4014 | 0,4105 | 0,4061 | **Bottom** |
| **South Sudan** | 0,2512 | 0,2500 | 0,2557 | 0,2922 | 0,3385 | 0,3255 | 0,3427 | 0,3415 | 0,3286 | 0,3344 | 0,3548 | 0,3640 | 0,3858 | 0,3870 | 0,3768 | **Bottom** |
| **São Tomé & Príncipe** | 0,4049 | 0,3983 | 0,3901 | 0,3824 | 0,3821 | 0,3748 | 0,3730 | 0,3771 | 0,3991 | 0,3931 | 0,3815 | 0,3799 | 0,3770 | 0,3738 | 0,3747 | **Bottom** |

## Table 12. Performance Index

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Morocco | 0,6822 | 0,6766 | 0,6888 | 0,7037 | 0,7086 | 0,7166 | 0,7143 | 0,7100 | 0,7275 | 0,7471 | 0,7496 | 0,7581 | 0,7648 | 0,7774 | 0,7755 | Top |
| South Africa | 0,8296 | 0,8024 | 0,8143 | 0,8025 | 0,7896 | 0,7880 | 0,7699 | 0,7691 | 0,7743 | 0,7860 | 0,7571 | 0,7641 | 0,7657 | 0,7770 | 0,7695 | Top |
| Tunisia | 0,7327 | 0,7166 | 0,7236 | 0,7306 | 0,7220 | 0,7110 | 0,7073 | 0,6932 | 0,6939 | 0,7089 | 0,7075 | 0,7081 | 0,7135 | 0,7339 | 0,7304 | Top |
| Egypt | 0,6423 | 0,6242 | 0,6579 | 0,6697 | 0,6680 | 0,6765 | 0,6697 | 0,6507 | 0,6569 | 0,6821 | 0,7104 | 0,7130 | 0,7257 | 0,7114 | 0,7041 | Top |
| Eswatini | 0,6502 | 0,6444 | 0,6461 | 0,6456 | 0,6377 | 0,6494 | 0,6337 | 0,6270 | 0,6172 | 0,6324 | 0,6138 | 0,6088 | 0,6063 | 0,6089 | 0,6203 | Top |
| Mauritius | 0,5797 | 0,5787 | 0,5913 | 0,5979 | 0,6023 | 0,5907 | 0,5717 | 0,5532 | 0,5658 | 0,5702 | 0,5556 | 0,5468 | 0,5553 | 0,5594 | 0,5606 | Top |
| Algeria | 0,3873 | 0,3997 | 0,4045 | 0,3959 | 0,4602 | 0,4395 | 0,4296 | 0,4155 | 0,4814 | 0,4516 | 0,4411 | 0,4490 | 0,4779 | 0,5052 | 0,4939 | Top |
| Equatorial Guinea | 0,5172 | 0,5515 | 0,5346 | 0,5369 | 0,5250 | 0,4699 | 0,4680 | 0,4545 | 0,5032 | 0,4790 | 0,4194 | 0,4771 | 0,4107 | 0,4774 | 0,4883 | Top |
| Senegal | 0,4543 | 0,4633 | 0,4622 | 0,4596 | 0,4562 | 0,4493 | 0,4522 | 0,4550 | 0,4600 | 0,4645 | 0,4761 | 0,4781 | 0,5036 | 0,4860 | 0,4838 | Top |
| Congo, Dem. Rep. | 0,3496 | 0,3512 | 0,3702 | 0,3774 | 0,3678 | 0,4307 | 0,3986 | 0,4665 | 0,5312 | 0,4838 | 0,4722 | 0,4878 | 0,4050 | 0,4776 | 0,4797 | Top |
| Namibia | 0,5143 | 0,4970 | 0,4945 | 0,4903 | 0,4661 | 0,4551 | 0,4488 | 0,4732 | 0,5126 | 0,4768 | 0,4632 | 0,4732 | 0,4738 | 0,4722 | 0,4676 | Upper-middle |
| Côte d'Ivoire | 0,4422 | 0,4130 | 0,4207 | 0,4949 | 0,4651 | 0,4636 | 0,4546 | 0,4331 | 0,3980 | 0,4254 | 0,4305 | 0,4288 | 0,4378 | 0,4612 | 0,4614 | Upper-middle |
| Gabon | 0,3522 | 0,3819 | 0,4422 | 0,4460 | 0,4640 | 0,4850 | 0,4898 | 0,4001 | 0,4828 | 0,4652 | 0,4591 | 0,4546 | 0,4403 | 0,4442 | 0,4551 | Upper-middle |
| Kenya | 0,4481 | 0,4462 | 0,4630 | 0,4590 | 0,4602 | 0,4564 | 0,4502 | 0,4295 | 0,4331 | 0,4407 | 0,4404 | 0,4386 | 0,4450 | 0,4509 | 0,4497 | Upper-middle |
| Nigeria | 0,4035 | 0,3856 | 0,3892 | 0,4119 | 0,4387 | 0,4186 | 0,3574 | 0,3703 | 0,4107 | 0,4385 | 0,4275 | 0,4317 | 0,4726 | 0,4370 | 0,4171 | Upper-middle |
| Uganda | 0,3950 | 0,3951 | 0,4077 | 0,4121 | 0,3946 | 0,3973 | 0,3826 | 0,3631 | 0,3586 | 0,3680 | 0,3840 | 0,3845 | 0,3906 | 0,4425 | 0,4100 | Upper-middle |
| Ghana | 0,4041 | 0,4232 | 0,4158 | 0,4441 | 0,4149 | 0,4107 | 0,4076 | 0,4000 | 0,3761 | 0,4066 | 0,4252 | 0,4294 | 0,4115 | 0,4227 | 0,4038 | Upper-middle |
| Zambia | 0,3570 | 0,3558 | 0,3841 | 0,4020 | 0,3867 | 0,3717 | 0,3740 | 0,3722 | 0,3761 | 0,3675 | 0,3629 | 0,3717 | 0,3802 | 0,3924 | 0,4031 | Upper-middle |
| Togo | 0,3643 | 0,3838 | 0,3664 | 0,4007 | 0,3875 | 0,3700 | 0,3772 | 0,3496 | 0,3448 | 0,3531 | 0,3838 | 0,3465 | 0,3449 | 0,3368 | 0,4008 | Upper-middle |
| Lesotho | 0,4348 | 0,4310 | 0,4248 | 0,4141 | 0,3895 | 0,4175 | 0,4391 | 0,4193 | 0,4309 | 0,4297 | 0,4167 | 0,4212 | 0,4023 | 0,3852 | 0,3924 | Upper-middle |
| Zimbabwe | 0,3527 | 0,3339 | 0,3710 | 0,3750 | 0,3733 | 0,3636 | 0,3485 | 0,3664 | 0,4005 | 0,4052 | 0,3932 | 0,3766 | 0,3954 | 0,3905 | 0,3907 | Upper-middle |
| Cameroon | 0,3670 | 0,3963 | 0,3791 | 0,3870 | 0,3723 | 0,3740 | 0,3671 | 0,3546 | 0,3546 | 0,3650 | 0,3743 | 0,3593 | 0,3650 | 0,3698 | 0,3823 | Upper-middle |
| Djibouti | 0,2005 | 0,1989 | 0,2227 | 0,2204 | 0,2363 | 0,2525 | 0,3236 | 0,3493 | 0,3502 | 0,3588 | 0,3749 | 0,3788 | 0,3633 | 0,3768 | 0,3735 | Middle |
| Botswana | 0,4453 | 0,4187 | 0,4268 | 0,4099 | 0,4117 | 0,4224 | 0,3989 | 0,3848 | 0,3979 | 0,3957 | 0,3848 | 0,3851 | 0,3933 | 0,3981 | 0,3724 | Middle |
| Angola | 0,3048 | 0,3048 | 0,3453 | 0,3394 | 0,2442 | 0,3251 | 0,3350 | 0,3237 | 0,2834 | 0,3058 | 0,3089 | 0,3139 | 0,3283 | 0,3731 | 0,3683 | Middle |
| Tanzania | 0,3331 | 0,3267 | 0,3556 | 0,3481 | 0,3416 | 0,3566 | 0,3313 | 0,3428 | 0,3873 | 0,3504 | 0,3522 | 0,3351 | 0,3367 | 0,3372 | 0,3590 | Middle |
| Benin | 0,3109 | 0,3097 | 0,3154 | 0,3473 | 0,3891 | 0,3478 | 0,3252 | 0,3300 | 0,3427 | 0,3244 | 0,3468 | 0,3331 | 0,3234 | 0,3559 | 0,3577 | Middle |
| Congo, Rep. | 0,3989 | 0,4080 | 0,3728 | 0,4164 | 0,4279 | 0,4650 | 0,4981 | 0,4796 | 0,4081 | 0,3647 | 0,3924 | 0,3871 | 0,3326 | 0,3536 | 0,3573 | Middle |
| Seychelles | 0,3474 | 0,3764 | 0,3330 | 0,3234 | 0,3270 | 0,3435 | 0,3510 | 0,3980 | 0,3923 | 0,3922 | 0,4101 | 0,3513 | 0,3430 | 0,3362 | 0,3417 | Middle |
| Madagascar | 0,3266 | 0,3253 | 0,3195 | 0,3394 | 0,3345 | 0,3293 | 0,3403 | 0,3309 | 0,3382 | 0,3456 | 0,3423 | 0,3459 | 0,3526 | 0,3497 | 0,3364 | Middle |
| Malawi | 0,2728 | 0,2861 | 0,2461 | 0,2643 | 0,3041 | 0,2930 | 0,2691 | 0,2647 | 0,2571 | 0,2708 | 0,2678 | 0,2791 | 0,2862 | 0,2800 | 0,3292 | Middle |

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rwanda | 0,2419 | 0,2447 | 0,2538 | 0,2551 | 0,2543 | 0,2564 | 0,2396 | 0,2392 | 0,2542 | 0,2775 | 0,2865 | 0,3017 | 0,3086 | 0,3220 | 0,3243 | Lower-middle |
| Ethiopia | 0,2640 | 0,2681 | 0,2987 | 0,2956 | 0,2949 | 0,3066 | 0,3095 | 0,3152 | 0,3103 | 0,3193 | 0,3372 | 0,2962 | 0,2948 | 0,3080 | 0,3195 | Lower-middle |
| Guinea | 0,2431 | 0,2246 | 0,2562 | 0,2835 | 0,3000 | 0,3119 | 0,2347 | 0,3269 | 0,3346 | 0,3157 | 0,3365 | 0,3334 | 0,3290 | 0,3321 | 0,3169 | Lower-middle |
| Burkina Faso | 0,3089 | 0,2896 | 0,2914 | 0,2877 | 0,3094 | 0,2944 | 0,2952 | 0,2731 | 0,2795 | 0,2953 | 0,2952 | 0,2970 | 0,3103 | 0,3254 | 0,3134 | Lower-middle |
| Libya | 0,4464 | 0,3665 | 0,3915 | 0,4048 | 0,3973 | 0,4011 | 0,3450 | 0,3146 | 0,3168 | 0,2926 | 0,3013 | 0,2994 | 0,3052 | 0,3099 | 0,3128 | Lower-middle |
| Niger | 0,3207 | 0,3224 | 0,3365 | 0,3545 | 0,3514 | 0,3491 | 0,3382 | 0,3274 | 0,2639 | 0,2669 | 0,2881 | 0,2822 | 0,2569 | 0,3062 | 0,2969 | Lower-middle |
| Mali | 0,3174 | 0,2987 | 0,3017 | 0,2973 | 0,3149 | 0,3059 | 0,2832 | 0,3108 | 0,2752 | 0,2714 | 0,3208 | 0,2872 | 0,2922 | 0,3129 | 0,2956 | Lower-middle |
| Mozambique | 0,2377 | 0,2725 | 0,2889 | 0,3010 | 0,3066 | 0,2811 | 0,3055 | 0,2849 | 0,3077 | 0,2839 | 0,2973 | 0,2844 | 0,2792 | 0,2849 | 0,2889 | Lower-middle |
| Cabo Verde | 0,2662 | 0,2672 | 0,2718 | 0,2809 | 0,2572 | 0,3371 | 0,3222 | 0,2662 | 0,2498 | 0,2692 | 0,2681 | 0,2888 | 0,2611 | 0,2607 | 0,2850 | Lower-middle |
| Comoros | 0,2558 | 0,2363 | 0,2350 | 0,2393 | 0,2453 | 0,2295 | 0,2425 | 0,2461 | 0,2581 | 0,2825 | 0,2583 | 0,2669 | 0,2763 | 0,2753 | 0,2763 | Lower-middle |
| Sierra Leone | 0,2069 | 0,2040 | 0,2355 | 0,2540 | 0,2078 | 0,2281 | 0,2280 | 0,2256 | 0,2927 | 0,2792 | 0,2788 | 0,2728 | 0,2740 | 0,2791 | 0,2723 | Bottom |
| Mauritania | 0,1982 | 0,2289 | 0,2278 | 0,2351 | 0,2848 | 0,2540 | 0,2407 | 0,2410 | 0,2892 | 0,2491 | 0,2686 | 0,2293 | 0,2590 | 0,2938 | 0,2712 | Bottom |
| Somalia | 0,1409 | 0,1524 | 0,1681 | 0,1822 | 0,1925 | 0,1652 | 0,1712 | 0,1815 | 0,1997 | 0,1863 | 0,1762 | 0,1911 | 0,1963 | 0,2334 | 0,2631 | Bottom |
| Sudan | 0,2630 | 0,2584 | 0,3075 | 0,2756 | 0,2662 | 0,2867 | 0,3014 | 0,2475 | 0,2566 | 0,2693 | 0,2565 | 0,2567 | 0,2599 | 0,2750 | 0,2605 | Bottom |
| Central African Rep. | 0,2189 | 0,2289 | 0,2584 | 0,2142 | 0,2166 | 0,2927 | 0,2778 | 0,3013 | 0,2729 | 0,3157 | 0,2691 | 0,2519 | 0,2679 | 0,2328 | 0,2583 | Bottom |
| Liberia | 0,2178 | 0,2310 | 0,2362 | 0,2690 | 0,2673 | 0,2489 | 0,2487 | 0,2405 | 0,2432 | 0,2404 | 0,2313 | 0,2409 | 0,2438 | 0,2353 | 0,2450 | Bottom |
| Eritrea | 0,1978 | 0,2142 | 0,2106 | 0,2277 | 0,2403 | 0,2340 | 0,2182 | 0,2215 | 0,2480 | 0,2182 | 0,2210 | 0,2106 | 0,2107 | 0,2497 | 0,2329 | Bottom |
| Gambia | 0,2137 | 0,2186 | 0,2326 | 0,2353 | 0,2426 | 0,2346 | 0,1965 | 0,1894 | 0,2104 | 0,2057 | 0,1972 | 0,1596 | 0,1604 | 0,2115 | 0,2047 | Bottom |
| São Tomé & Príncipe | 0,2259 | 0,2126 | 0,2072 | 0,1916 | 0,1998 | 0,1822 | 0,1828 | 0,1687 | 0,2426 | 0,2264 | 0,2008 | 0,1911 | 0,1830 | 0,1922 | 0,2018 | Bottom |
| Chad | 0,2650 | 0,2324 | 0,2206 | 0,2039 | 0,1973 | 0,2465 | 0,2432 | 0,2336 | 0,2365 | 0,2383 | 0,2105 | 0,1975 | 0,1892 | 0,1911 | 0,1991 | Bottom |
| Guinea-Bissau | 0,1261 | 0,1373 | 0,1328 | 0,1355 | 0,1748 | 0,1388 | 0,1611 | 0,1726 | 0,1750 | 0,2301 | 0,1905 | 0,2005 | 0,2025 | 0,2022 | 0,1979 | Bottom |
| South Sudan | 0,1051 | 0,1015 | 0,1038 | 0,1692 | 0,1587 | 0,1561 | 0,1711 | 0,1892 | 0,1524 | 0,1591 | 0,1919 | 0,1996 | 0,2201 | 0,2023 | 0,1974 | Bottom |
| Burundi | 0,1749 | 0,1871 | 0,1964 | 0,1795 | 0,2000 | 0,1996 | 0,1993 | 0,1961 | 0,2018 | 0,1892 | 0,1962 | 0,1983 | 0,1984 | 0,2058 | 0,1966 | Bottom |

## Table 13. Direct determinants Index

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| South Africa | 0,9297 | 0,9265 | 0,9238 | 0,9352 | 0,9149 | 0,8967 | 0,8971 | 0,9152 | 0,9119 | 0,9204 | 0,9064 | 0,9121 | 0,9287 | 0,9112 | 0,8984 | Top |
| Morocco | 0,8666 | 0,8745 | 0,8753 | 0,8843 | 0,8747 | 0,8579 | 0,8722 | 0,8828 | 0,8912 | 0,8997 | 0,9091 | 0,9081 | 0,9023 | 0,9085 | 0,8965 | Top |
| Egypt | 0,8378 | 0,8253 | 0,8260 | 0,8229 | 0,8202 | 0,8142 | 0,8377 | 0,8340 | 0,8448 | 0,8568 | 0,8496 | 0,8571 | 0,8779 | 0,8700 | 0,8748 | Top |
| Tunisia | 0,7969 | 0,8290 | 0,8342 | 0,8409 | 0,8361 | 0,8159 | 0,8141 | 0,8244 | 0,8352 | 0,8378 | 0,8141 | 0,8235 | 0,8361 | 0,8372 | 0,8179 | Top |
| Algeria | 0,7658 | 0,7615 | 0,7599 | 0,7769 | 0,7808 | 0,7772 | 0,7850 | 0,7929 | 0,8004 | 0,8131 | 0,8222 | 0,8104 | 0,8033 | 0,8138 | 0,8028 | Top |
| Mauritius | 0,7801 | 0,7654 | 0,7680 | 0,7771 | 0,7674 | 0,7492 | 0,7537 | 0,7667 | 0,7650 | 0,7756 | 0,7795 | 0,7824 | 0,7878 | 0,8028 | 0,7993 | Top |
| Senegal | 0,6283 | 0,6405 | 0,6456 | 0,6547 | 0,6607 | 0,6470 | 0,6554 | 0,6695 | 0,6839 | 0,7028 | 0,7219 | 0,7317 | 0,7549 | 0,7706 | 0,7593 | Top |
| Nigeria | 0,6892 | 0,7243 | 0,7228 | 0,7361 | 0,7510 | 0,7351 | 0,7266 | 0,7182 | 0,7147 | 0,7249 | 0,7366 | 0,7468 | 0,7502 | 0,7548 | 0,7503 | Top |
| Libya | 0,7341 | 0,6909 | 0,7341 | 0,7606 | 0,7723 | 0,7491 | 0,7495 | 0,7391 | 0,7442 | 0,7534 | 0,7641 | 0,7372 | 0,7445 | 0,7518 | 0,7453 | Top |
| Namibia | 0,6771 | 0,7028 | 0,7026 | 0,7130 | 0,7141 | 0,7185 | 0,7171 | 0,7149 | 0,7100 | 0,7231 | 0,7256 | 0,7336 | 0,7435 | 0,7456 | 0,7436 | Top |

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Botswana** | 0,7136 | 0,7251 | 0,7160 | 0,7030 | 0,6978 | 0,6891 | 0,6932 | 0,7074 | 0,7145 | 0,7332 | 0,7393 | 0,7194 | 0,7205 | 0,7309 | 0,7324 | **Upper-middle** |
| **Côte d'Ivoire** | 0,6534 | 0,6471 | 0,6459 | 0,6631 | 0,6549 | 0,6482 | 0,6567 | 0,6679 | 0,6787 | 0,6910 | 0,7004 | 0,7034 | 0,7139 | 0,7314 | 0,7269 | **Upper-middle** |
| **Seychelles** | 0,7337 | 0,7310 | 0,7314 | 0,7210 | 0,7296 | 0,7145 | 0,7233 | 0,7239 | 0,7284 | 0,7281 | 0,7257 | 0,7138 | 0,7151 | 0,7280 | 0,7205 | **Upper-middle** |
| **Congo, Rep.** | 0,6144 | 0,6224 | 0,6533 | 0,6734 | 0,6914 | 0,7098 | 0,7208 | 0,7050 | 0,7020 | 0,7106 | 0,7119 | 0,7072 | 0,7149 | 0,7251 | 0,7188 | **Upper-middle** |
| **Ghana** | 0,6821 | 0,7038 | 0,7173 | 0,7217 | 0,7301 | 0,7268 | 0,7322 | 0,7296 | 0,7383 | 0,7439 | 0,7445 | 0,7436 | 0,7480 | 0,7206 | 0,7180 | **Upper-middle** |
| **Mozambique** | 0,6347 | 0,6510 | 0,7075 | 0,7345 | 0,7420 | 0,7281 | 0,7435 | 0,7299 | 0,7502 | 0,7471 | 0,7624 | 0,7581 | 0,7686 | 0,7248 | 0,7168 | **Upper-middle** |
| **Zambia** | 0,6794 | 0,6856 | 0,6902 | 0,6984 | 0,7085 | 0,7081 | 0,7064 | 0,7126 | 0,7153 | 0,7238 | 0,7078 | 0,7022 | 0,7043 | 0,7145 | 0,7122 | **Upper-middle** |
| **Gabon** | 0,6175 | 0,6462 | 0,6528 | 0,6713 | 0,6880 | 0,6734 | 0,6781 | 0,6692 | 0,6856 | 0,7039 | 0,7063 | 0,7037 | 0,7090 | 0,7168 | 0,7095 | **Upper-middle** |
| **Kenya** | 0,6337 | 0,6681 | 0,6606 | 0,6707 | 0,6870 | 0,6628 | 0,6722 | 0,6828 | 0,6919 | 0,6996 | 0,7052 | 0,7025 | 0,7062 | 0,7118 | 0,7055 | **Upper-middle** |
| **Uganda** | 0,6436 | 0,6584 | 0,6614 | 0,6806 | 0,6653 | 0,6631 | 0,6669 | 0,6710 | 0,6805 | 0,6885 | 0,6863 | 0,6923 | 0,6988 | 0,7073 | 0,7028 | **Upper-middle** |
| **Cabo Verde** | 0,7381 | 0,7751 | 0,7613 | 0,7643 | 0,7756 | 0,7469 | 0,7535 | 0,7648 | 0,7111 | 0,7169 | 0,7321 | 0,7346 | 0,7215 | 0,7175 | 0,7027 | **Upper-middle** |
| **Congo, Dem. Rep.** | 0,6008 | 0,6077 | 0,5948 | 0,6169 | 0,6258 | 0,6130 | 0,6243 | 0,6357 | 0,6365 | 0,6425 | 0,6624 | 0,6672 | 0,6851 | 0,7036 | 0,6978 | **Upper-middle** |
| **Mauritania** | 0,6306 | 0,6447 | 0,6574 | 0,6689 | 0,6645 | 0,6485 | 0,5367 | 0,5909 | 0,6292 | 0,6444 | 0,6546 | 0,6632 | 0,6851 | 0,6871 | 0,6914 | **Middle** |
| **Ethiopia** | 0,6148 | 0,5951 | 0,6230 | 0,6335 | 0,6416 | 0,6386 | 0,6581 | 0,6711 | 0,6791 | 0,6875 | 0,6801 | 0,6857 | 0,6928 | 0,6969 | 0,6898 | **Middle** |
| **Tanzania** | 0,6470 | 0,6635 | 0,6694 | 0,6667 | 0,6682 | 0,6155 | 0,6134 | 0,6200 | 0,6274 | 0,6470 | 0,6561 | 0,6650 | 0,6781 | 0,6853 | 0,6816 | **Middle** |
| **Benin** | 0,5489 | 0,5755 | 0,5840 | 0,6080 | 0,6133 | 0,5988 | 0,6035 | 0,6201 | 0,6296 | 0,6338 | 0,6335 | 0,6372 | 0,6575 | 0,6741 | 0,6700 | **Middle** |
| **Cameroon** | 0,6314 | 0,6419 | 0,6440 | 0,6511 | 0,6518 | 0,6312 | 0,6409 | 0,6535 | 0,6602 | 0,6629 | 0,6668 | 0,6501 | 0,6637 | 0,6748 | 0,6691 | **Middle** |
| **Angola** | 0,7130 | 0,7338 | 0,7282 | 0,7246 | 0,7120 | 0,7353 | 0,7228 | 0,7099 | 0,6880 | 0,6896 | 0,6937 | 0,6851 | 0,6710 | 0,6713 | 0,6642 | **Middle** |
| **Rwanda** | 0,5609 | 0,5676 | 0,5774 | 0,5846 | 0,5991 | 0,5994 | 0,6115 | 0,6183 | 0,6252 | 0,6402 | 0,6457 | 0,6553 | 0,6598 | 0,6642 | 0,6638 | **Middle** |
| **Mali** | 0,5606 | 0,5934 | 0,6000 | 0,6043 | 0,6049 | 0,5971 | 0,6122 | 0,6190 | 0,6278 | 0,6396 | 0,6386 | 0,6527 | 0,6620 | 0,6684 | 0,6605 | **Middle** |
| **Liberia** | 0,5922 | 0,6282 | 0,6381 | 0,6299 | 0,6311 | 0,6286 | 0,6404 | 0,6385 | 0,6372 | 0,6390 | 0,6417 | 0,6342 | 0,6555 | 0,6577 | 0,6527 | **Middle** |
| **Djibouti** | 0,5655 | 0,5549 | 0,5655 | 0,5824 | 0,5115 | 0,4526 | 0,5333 | 0,5437 | 0,5304 | 0,5839 | 0,5966 | 0,5885 | 0,5966 | 0,6254 | 0,6248 | **Lower-middle** |
| **Burkina Faso** | 0,5450 | 0,5732 | 0,5856 | 0,6016 | 0,5985 | 0,5875 | 0,6065 | 0,6160 | 0,6257 | 0,6301 | 0,6204 | 0,6142 | 0,6269 | 0,6392 | 0,6243 | **Lower-middle** |
| **Madagascar** | 0,5889 | 0,5985 | 0,6077 | 0,6076 | 0,6087 | 0,5948 | 0,5974 | 0,6059 | 0,6245 | 0,6240 | 0,6114 | 0,6094 | 0,6334 | 0,6305 | 0,6236 | **Lower-middle** |
| **Zimbabwe** | 0,6029 | 0,6155 | 0,6188 | 0,6217 | 0,6228 | 0,6219 | 0,6001 | 0,5868 | 0,5911 | 0,5981 | 0,5966 | 0,6026 | 0,6255 | 0,6342 | 0,6211 | **Lower-middle** |
| **Sudan** | 0,6138 | 0,6199 | 0,6433 | 0,6586 | 0,6439 | 0,6320 | 0,6301 | 0,6420 | 0,6479 | 0,6678 | 0,6091 | 0,6347 | 0,6216 | 0,6398 | 0,6204 | **Lower-middle** |
| **Togo** | 0,5648 | 0,5990 | 0,6022 | 0,6144 | 0,6065 | 0,6000 | 0,6036 | 0,6155 | 0,6120 | 0,6233 | 0,6273 | 0,6205 | 0,6223 | 0,6307 | 0,6174 | **Lower-middle** |
| **Niger** | 0,5515 | 0,5686 | 0,5728 | 0,5817 | 0,5861 | 0,5767 | 0,5757 | 0,5884 | 0,5892 | 0,6016 | 0,6107 | 0,6114 | 0,6161 | 0,6261 | 0,6138 | **Lower-middle** |
| **Lesotho** | 0,5920 | 0,5822 | 0,5797 | 0,5940 | 0,5928 | 0,5721 | 0,5910 | 0,5867 | 0,5923 | 0,6053 | 0,6065 | 0,6108 | 0,6161 | 0,6231 | 0,6137 | **Lower-middle** |
| **Chad** | 0,5262 | 0,5437 | 0,5611 | 0,5661 | 0,5718 | 0,5425 | 0,5618 | 0,5805 | 0,5757 | 0,5831 | 0,5743 | 0,5917 | 0,6044 | 0,6143 | 0,6113 | **Lower-middle** |
| **Equatorial Guinea** | 0,6379 | 0,6146 | 0,6135 | 0,6127 | 0,6058 | 0,5898 | 0,6041 | 0,5900 | 0,5969 | 0,6297 | 0,6097 | 0,6123 | 0,6139 | 0,6120 | 0,6044 | **Lower-middle** |
| **Eswatini** | 0,5924 | 0,5985 | 0,5912 | 0,5887 | 0,5745 | 0,5550 | 0,5665 | 0,5766 | 0,5893 | 0,6027 | 0,5744 | 0,5973 | 0,5909 | 0,6000 | 0,5972 | **Bottom** |
| **Malawi** | 0,5627 | 0,5867 | 0,5833 | 0,5594 | 0,5779 | 0,5479 | 0,5645 | 0,5656 | 0,5810 | 0,5816 | 0,5913 | 0,6070 | 0,5883 | 0,5836 | 0,5849 | **Bottom** |
| **Gambia** | 0,5214 | 0,5374 | 0,5419 | 0,5412 | 0,5295 | 0,5192 | 0,5196 | 0,5145 | 0,5290 | 0,5441 | 0,5584 | 0,5704 | 0,5805 | 0,5836 | 0,5778 | **Bottom** |
| **Eritrea** | 0,5431 | 0,5514 | 0,5390 | 0,5510 | 0,5403 | 0,5274 | 0,5416 | 0,5398 | 0,5391 | 0,5582 | 0,5651 | 0,5485 | 0,5591 | 0,5653 | 0,5581 | **Bottom** |

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Burundi** | 0,4631 | 0,4696 | 0,4732 | 0,5270 | 0,5355 | 0,5089 | 0,5167 | 0,5041 | 0,5081 | 0,5232 | 0,5287 | 0,5393 | 0,5493 | 0,5604 | 0,5564 | **Bottom** |
| **Guinea** | 0,4890 | 0,5429 | 0,5412 | 0,5545 | 0,5734 | 0,5776 | 0,6334 | 0,5941 | 0,6024 | 0,6104 | 0,6218 | 0,6207 | 0,6204 | 0,5539 | 0,5538 | **Bottom** |
| **Guinea-Bissau** | 0,4476 | 0,4765 | 0,4983 | 0,5035 | 0,5123 | 0,4761 | 0,4768 | 0,5083 | 0,5160 | 0,5419 | 0,5491 | 0,5412 | 0,5566 | 0,5616 | 0,5524 | **Bottom** |
| **Sierra Leone** | 0,4958 | 0,5225 | 0,5079 | 0,4934 | 0,4974 | 0,4828 | 0,4975 | 0,5154 | 0,5218 | 0,5355 | 0,5362 | 0,5383 | 0,5454 | 0,5576 | 0,5507 | **Bottom** |
| **Comoros** | 0,4765 | 0,5150 | 0,5156 | 0,5145 | 0,5156 | 0,5069 | 0,5127 | 0,5226 | 0,5276 | 0,5324 | 0,5346 | 0,5360 | 0,5501 | 0,5506 | 0,5458 | **Bottom** |
| **São Tomé & Príncipe** | 0,5975 | 0,5976 | 0,5816 | 0,5821 | 0,5712 | 0,5627 | 0,5521 | 0,5839 | 0,5502 | 0,5543 | 0,5534 | 0,5623 | 0,5664 | 0,5353 | 0,5182 | **Bottom** |
| **Somalia** | 0,4131 | 0,4156 | 0,4343 | 0,4408 | 0,4466 | 0,4533 | 0,4678 | 0,4575 | 0,4365 | 0,4634 | 0,4777 | 0,4944 | 0,5084 | 0,5284 | 0,5157 | **Bottom** |
| **Central African Rep.** | 0,5059 | 0,5132 | 0,5117 | 0,5191 | 0,5254 | 0,4877 | 0,5020 | 0,4963 | 0,5035 | 0,5034 | 0,5117 | 0,4954 | 0,5097 | 0,5052 | 0,4982 | **Bottom** |
| **South Sudan** | 0,2648 | 0,2664 | 0,2777 | 0,2816 | 0,4111 | 0,4141 | 0,4356 | 0,4035 | 0,4172 | 0,4261 | 0,4331 | 0,4516 | 0,4696 | 0,4909 | 0,4818 | **Bottom** |

## Table 14. Indirect determinants Index

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **South Africa** | 0,9432 | 0,9086 | 0,9048 | 0,8925 | 0,8703 | 0,9076 | 0,8766 | 0,8850 | 0,9186 | 0,9119 | 0,9084 | 0,9185 | 0,8781 | 0,8868 | 0,9324 | **Top** |
| **Morocco** | 0,9046 | 0,9050 | 0,9042 | 0,8969 | 0,8829 | 0,8866 | 0,8921 | 0,8942 | 0,8946 | 0,8945 | 0,8937 | 0,9031 | 0,8341 | 0,8510 | 0,9296 | **Top** |
| **Botswana** | 0,8660 | 0,8268 | 0,8240 | 0,8549 | 0,8702 | 0,8742 | 0,9043 | 0,8796 | 0,8811 | 0,9079 | 0,9034 | 0,8488 | 0,8059 | 0,8527 | 0,9296 | **Top** |
| **Algeria** | 0,8926 | 0,8945 | 0,8251 | 0,8925 | 0,9061 | 0,8749 | 0,8482 | 0,8522 | 0,8821 | 0,9104 | 0,9052 | 0,8050 | 0,8079 | 0,8243 | 0,9093 | **Top** |
| **Libya** | 0,8941 | 0,7867 | 0,8347 | 0,8878 | 0,8539 | 0,7620 | 0,7736 | 0,7706 | 0,7639 | 0,7925 | 0,8548 | 0,8690 | 0,8489 | 0,8930 | 0,9019 | **Top** |
| **Benin** | 0,8701 | 0,9028 | 0,8442 | 0,9067 | 0,8443 | 0,9080 | 0,8458 | 0,9087 | 0,9144 | 0,8502 | 0,8817 | 0,9125 | 0,9107 | 0,9111 | 0,8981 | **Top** |
| **Namibia** | 0,9024 | 0,8686 | 0,8697 | 0,8586 | 0,8435 | 0,8763 | 0,8423 | 0,8477 | 0,8772 | 0,8676 | 0,8913 | 0,8694 | 0,8373 | 0,8425 | 0,8874 | **Top** |
| **Mauritania** | 0,7914 | 0,7931 | 0,8229 | 0,8134 | 0,8015 | 0,8322 | 0,8410 | 0,8460 | 0,8143 | 0,8450 | 0,8459 | 0,8179 | 0,7542 | 0,8082 | 0,8816 | **Top** |
| **Tanzania** | 0,7701 | 0,7676 | 0,7737 | 0,7692 | 0,7993 | 0,8051 | 0,8129 | 0,8146 | 0,8479 | 0,8497 | 0,8532 | 0,8556 | 0,8528 | 0,8674 | 0,8780 | **Top** |
| **Kenya** | 0,8448 | 0,7735 | 0,7817 | 0,8155 | 0,8070 | 0,8145 | 0,8194 | 0,7848 | 0,8515 | 0,8227 | 0,8280 | 0,8251 | 0,7841 | 0,7921 | 0,8750 | **Top** |
| **Côte d'Ivoire** | 0,8425 | 0,8093 | 0,8500 | 0,8517 | 0,8403 | 0,8448 | 0,8558 | 0,8601 | 0,8606 | 0,8585 | 0,8647 | 0,8386 | 0,8039 | 0,8527 | 0,8657 | **Upper-middle** |
| **Uganda** | 0,8400 | 0,7702 | 0,7746 | 0,8339 | 0,8321 | 0,8046 | 0,8051 | 0,8062 | 0,8666 | 0,8663 | 0,8666 | 0,8662 | 0,7646 | 0,8152 | 0,8575 | **Upper-middle** |
| **Mali** | 0,8735 | 0,8452 | 0,8159 | 0,8105 | 0,8614 | 0,8585 | 0,8060 | 0,8674 | 0,8608 | 0,7956 | 0,8502 | 0,8241 | 0,7566 | 0,8702 | 0,8521 | **Upper-middle** |
| **Senegal** | 0,8243 | 0,7920 | 0,8216 | 0,8146 | 0,7476 | 0,8098 | 0,8189 | 0,8213 | 0,8189 | 0,8196 | 0,8266 | 0,8290 | 0,7263 | 0,7764 | 0,8506 | **Upper-middle** |
| **Eswatini** | 0,8594 | 0,8259 | 0,7871 | 0,8170 | 0,8033 | 0,8373 | 0,7702 | 0,8177 | 0,8479 | 0,8736 | 0,8374 | 0,8419 | 0,8307 | 0,8399 | 0,8504 | **Upper-middle** |
| **Togo** | 0,8218 | 0,7953 | 0,8263 | 0,8258 | 0,8063 | 0,8069 | 0,8210 | 0,7656 | 0,8233 | 0,8214 | 0,8246 | 0,8001 | 0,7310 | 0,7808 | 0,8504 | **Upper-middle** |
| **Rwanda** | 0,8505 | 0,7875 | 0,7932 | 0,8155 | 0,8373 | 0,8440 | 0,7847 | 0,8173 | 0,8475 | 0,8473 | 0,7511 | 0,8532 | 0,7582 | 0,7687 | 0,8447 | **Upper-middle** |
| **Cameroon** | 0,8973 | 0,8982 | 0,9022 | 0,8995 | 0,8977 | 0,8958 | 0,8927 | 0,8869 | 0,8856 | 0,8823 | 0,8818 | 0,8826 | 0,8172 | 0,7816 | 0,8430 | **Upper-middle** |
| **Burkina Faso** | 0,7875 | 0,8489 | 0,8202 | 0,8495 | 0,7750 | 0,8382 | 0,8490 | 0,8558 | 0,8575 | 0,7920 | 0,8527 | 0,8196 | 0,7435 | 0,8547 | 0,8365 | **Upper-middle** |
| **Egypt** | 0,9244 | 0,8154 | 0,8241 | 0,8542 | 0,8009 | 0,8121 | 0,8221 | 0,8082 | 0,8037 | 0,8047 | 0,8548 | 0,8919 | 0,8230 | 0,8265 | 0,8342 | **Upper-middle** |
| **Djibouti** | 0,7451 | 0,7173 | 0,7568 | 0,7820 | 0,7759 | 0,7313 | 0,7930 | 0,7928 | 0,7922 | 0,7667 | 0,7993 | 0,7946 | 0,7453 | 0,8240 | 0,8312 | **Upper-middle** |

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Quintile 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tunisia | 0,8657 | 0,8613 | 0,8352 | 0,8238 | 0,8410 | 0,8388 | 0,8430 | 0,8129 | 0,7733 | 0,8056 | 0,8068 | 0,8067 | 0,7612 | 0,7745 | 0,8289 | Upper-middle |
| Gabon | 0,8216 | 0,8260 | 0,8260 | 0,8201 | 0,7710 | 0,7394 | 0,8006 | 0,8003 | 0,7736 | 0,7993 | 0,7975 | 0,8046 | 0,7740 | 0,7856 | 0,8279 | Middle |
| Lesotho | 0,8679 | 0,8359 | 0,8340 | 0,8527 | 0,8063 | 0,8386 | 0,8113 | 0,8178 | 0,8456 | 0,8092 | 0,8340 | 0,8107 | 0,7658 | 0,8113 | 0,8224 | Middle |
| Mozambique | 0,7717 | 0,7784 | 0,8839 | 0,8262 | 0,8461 | 0,8445 | 0,7149 | 0,7193 | 0,7787 | 0,8168 | 0,7961 | 0,7856 | 0,7321 | 0,7427 | 0,8214 | Middle |
| Ethiopia | 0,7926 | 0,7890 | 0,7919 | 0,7846 | 0,7751 | 0,7811 | 0,7856 | 0,7894 | 0,7874 | 0,7953 | 0,7938 | 0,7912 | 0,7988 | 0,8144 | 0,8208 | Middle |
| Central African Rep. | 0,8037 | 0,8069 | 0,7445 | 0,7254 | 0,6867 | 0,7907 | 0,7335 | 0,7649 | 0,7916 | 0,7933 | 0,7940 | 0,7690 | 0,7440 | 0,7837 | 0,8202 | Middle |
| Congo, Rep. | 0,8329 | 0,8369 | 0,7829 | 0,8068 | 0,8241 | 0,7858 | 0,7901 | 0,8245 | 0,8217 | 0,8130 | 0,8096 | 0,8184 | 0,7997 | 0,8060 | 0,8184 | Middle |
| Chad | 0,8092 | 0,8683 | 0,7754 | 0,8705 | 0,8696 | 0,8445 | 0,8106 | 0,8146 | 0,8454 | 0,8154 | 0,8450 | 0,8101 | 0,8109 | 0,8432 | 0,8044 | Middle |
| Nigeria | 0,8248 | 0,8242 | 0,8287 | 0,8286 | 0,8303 | 0,8313 | 0,8329 | 0,8264 | 0,8258 | 0,8268 | 0,8270 | 0,8231 | 0,8212 | 0,8203 | 0,7965 | Middle |
| Ghana | 0,7724 | 0,7724 | 0,7743 | 0,7717 | 0,7513 | 0,7547 | 0,7676 | 0,7730 | 0,7731 | 0,7698 | 0,7720 | 0,7728 | 0,7662 | 0,7820 | 0,7937 | Middle |
| Zimbabwe | 0,8415 | 0,8418 | 0,8456 | 0,8685 | 0,7910 | 0,7974 | 0,8038 | 0,8735 | 0,7811 | 0,7725 | 0,7662 | 0,7742 | 0,7694 | 0,7790 | 0,7915 | Lower-middle |
| Zambia | 0,7820 | 0,7856 | 0,8290 | 0,8240 | 0,7705 | 0,7590 | 0,7539 | 0,7975 | 0,7541 | 0,7315 | 0,7272 | 0,7538 | 0,7710 | 0,7774 | 0,7879 | Lower-middle |
| Equatorial Guinea | 0,7157 | 0,7472 | 0,7478 | 0,7441 | 0,7310 | 0,7519 | 0,7561 | 0,7600 | 0,7622 | 0,7558 | 0,7294 | 0,7109 | 0,7358 | 0,7747 | 0,7862 | Lower-middle |
| Niger | 0,8349 | 0,8960 | 0,9033 | 0,8976 | 0,8380 | 0,8988 | 0,8942 | 0,8902 | 0,8927 | 0,8321 | 0,8911 | 0,8566 | 0,8545 | 0,8580 | 0,7831 | Lower-middle |
| Somalia | 0,7176 | 0,7110 | 0,7252 | 0,7213 | 0,7230 | 0,7348 | 0,7480 | 0,7348 | 0,7263 | 0,7349 | 0,7477 | 0,7621 | 0,7389 | 0,7659 | 0,7738 | Lower-middle |
| Guinea-Bissau | 0,7477 | 0,6964 | 0,7506 | 0,7503 | 0,6853 | 0,7528 | 0,7600 | 0,7105 | 0,7652 | 0,7647 | 0,7684 | 0,7402 | 0,6785 | 0,6969 | 0,7705 | Lower-middle |
| Angola | 0,7533 | 0,7594 | 0,7653 | 0,7608 | 0,7479 | 0,7474 | 0,7445 | 0,7542 | 0,7482 | 0,7391 | 0,7279 | 0,7406 | 0,7595 | 0,7594 | 0,7691 | Lower-middle |
| Mauritius | 0,7881 | 0,7235 | 0,7552 | 0,7245 | 0,7386 | 0,7786 | 0,7892 | 0,7700 | 0,7703 | 0,7916 | 0,7805 | 0,7422 | 0,6717 | 0,6820 | 0,7583 | Lower-middle |
| Congo, Dem. Rep. | 0,7355 | 0,7406 | 0,8419 | 0,8393 | 0,8343 | 0,8384 | 0,8062 | 0,7420 | 0,7367 | 0,7972 | 0,7283 | 0,7331 | 0,7394 | 0,7487 | 0,7579 | Lower-middle |
| Malawi | 0,7338 | 0,7351 | 0,7349 | 0,7310 | 0,7189 | 0,7216 | 0,7217 | 0,7313 | 0,7312 | 0,7307 | 0,7325 | 0,7329 | 0,7362 | 0,7495 | 0,7547 | Lower-middle |
| Seychelles | 0,6287 | 0,6761 | 0,5955 | 0,6236 | 0,6762 | 0,6622 | 0,6361 | 0,6843 | 0,6626 | 0,6862 | 0,6917 | 0,6144 | 0,6874 | 0,6143 | 0,7521 | Bottom |
| Guinea | 0,7075 | 0,7025 | 0,7168 | 0,7158 | 0,7058 | 0,7106 | 0,7153 | 0,7191 | 0,7202 | 0,7206 | 0,7213 | 0,7224 | 0,7224 | 0,7362 | 0,7469 | Bottom |
| Liberia | 0,7077 | 0,7046 | 0,7425 | 0,7066 | 0,6956 | 0,7002 | 0,7109 | 0,7127 | 0,7129 | 0,7070 | 0,7094 | 0,7130 | 0,7120 | 0,7251 | 0,7366 | Bottom |
| Burundi | 0,7326 | 0,6976 | 0,7038 | 0,7017 | 0,7528 | 0,7279 | 0,7305 | 0,6963 | 0,7307 | 0,7298 | 0,7004 | 0,7054 | 0,7143 | 0,7249 | 0,7339 | Bottom |
| Cabo Verde | 0,7176 | 0,6879 | 0,7035 | 0,6770 | 0,6368 | 0,6831 | 0,6455 | 0,6983 | 0,6984 | 0,6967 | 0,6852 | 0,6876 | 0,6102 | 0,6799 | 0,7219 | Bottom |
| Sudan | 0,7364 | 0,7283 | 0,7227 | 0,7059 | 0,7217 | 0,7320 | 0,7327 | 0,7160 | 0,6672 | 0,6474 | 0,7113 | 0,7101 | 0,6727 | 0,6869 | 0,7166 | Bottom |
| South Sudan | 0,6623 | 0,6626 | 0,6677 | 0,6824 | 0,7326 | 0,6566 | 0,6716 | 0,6744 | 0,6801 | 0,6769 | 0,6868 | 0,6816 | 0,7154 | 0,7336 | 0,7050 | Bottom |
| Sierra Leone | 0,6598 | 0,6894 | 0,6988 | 0,7008 | 0,7113 | 0,6935 | 0,6668 | 0,6699 | 0,6814 | 0,6766 | 0,6793 | 0,6831 | 0,6855 | 0,6944 | 0,7045 | Bottom |
| Gambia | 0,7115 | 0,7346 | 0,7352 | 0,7020 | 0,6911 | 0,6922 | 0,6655 | 0,6738 | 0,7117 | 0,6756 | 0,7140 | 0,6812 | 0,6782 | 0,6908 | 0,7021 | Bottom |
| Eritrea | 0,6568 | 0,6884 | 0,7187 | 0,6792 | 0,6546 | 0,6596 | 0,7027 | 0,6978 | 0,6960 | 0,7520 | 0,7026 | 0,7308 | 0,6767 | 0,6947 | 0,6981 | Bottom |
| Madagascar | 0,6735 | 0,6758 | 0,7097 | 0,6991 | 0,6907 | 0,6596 | 0,6995 | 0,6699 | 0,6643 | 0,6973 | 0,7239 | 0,7034 | 0,6699 | 0,6774 | 0,6910 | Bottom |
| Comoros | 0,6547 | 0,6797 | 0,6333 | 0,6840 | 0,6718 | 0,6718 | 0,6765 | 0,6745 | 0,6746 | 0,6471 | 0,6750 | 0,6756 | 0,5958 | 0,6078 | 0,6465 | Bottom |
| São Tomé & Príncipe | 0,5571 | 0,5568 | 0,5556 | 0,5552 | 0,5507 | 0,5768 | 0,5856 | 0,5890 | 0,5668 | 0,5709 | 0,5800 | 0,5814 | 0,5800 | 0,5954 | 0,6061 | Bottom |

## Table 15. Sub-regional Index, 2010–2024

**All**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Central Africa | 0,4942 | 0,5030 | 0,5033 | 0,5076 | 0,5071 | 0,5142 | 0,5150 | 0,5122 | 0,5229 | 0,5213 | 0,5115 | 0,5106 | 0,4983 | 0,5106 | 0,5163 |
| East Africa | 0,4308 | 0,4326 | 0,4399 | 0,4478 | 0,4531 | 0,4475 | 0,4570 | 0,4577 | 0,4618 | 0,4688 | 0,4712 | 0,4711 | 0,4698 | 0,4835 | 0,4856 |
| North Africa | 0,6612 | 0,6485 | 0,6584 | 0,6693 | 0,6752 | 0,6647 | 0,6536 | 0,6496 | 0,6644 | 0,6683 | 0,6757 | 0,6712 | 0,6741 | 0,6864 | 0,6891 |
| Southern Africa | 0,5756 | 0,5735 | 0,5822 | 0,5835 | 0,5752 | 0,5749 | 0,5702 | 0,5706 | 0,5784 | 0,5808 | 0,5760 | 0,5752 | 0,5751 | 0,5796 | 0,5850 |
| West Africa | 0,4769 | 0,4848 | 0,4906 | 0,5025 | 0,5000 | 0,4979 | 0,4921 | 0,4947 | 0,4969 | 0,5014 | 0,5100 | 0,5060 | 0,5037 | 0,5147 | 0,5136 |
| Africa average | **0,5134** | **0,5154** | **0,5219** | **0,5291** | **0,5282** | **0,5262** | **0,5244** | **0,5246** | **0,5312** | **0,5348** | **0,5359** | **0,5339** | 0,5315 | 0,5419 | 0,5445 |

**Performance**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Central Africa | 0,3368 | 0,3454 | 0,3481 | 0,3467 | 0,3463 | 0,3683 | 0,3657 | 0,3574 | 0,3790 | 0,3673 | 0,3497 | 0,3508 | 0,3242 | 0,3423 | 0,3528 |
| East Africa | 0,2529 | 0,2566 | 0,2667 | 0,2699 | 0,2725 | 0,2736 | 0,2800 | 0,2813 | 0,2846 | 0,2884 | 0,2944 | 0,2895 | 0,2923 | 0,3065 | 0,3038 |
| North Africa | 0,5149 | 0,5021 | 0,5157 | 0,5233 | 0,5401 | 0,5331 | 0,5178 | 0,5042 | 0,5276 | 0,5219 | 0,5298 | 0,5262 | 0,5410 | 0,5553 | 0,5480 |
| South Africa | 0,4337 | 0,4290 | 0,4391 | 0,4407 | 0,4298 | 0,4341 | 0,4281 | 0,4240 | 0,4345 | 0,4323 | 0,4243 | 0,4235 | 0,4273 | 0,4314 | 0,4352 |
| West Africa | 0,3067 | 0,3048 | 0,3110 | 0,3304 | 0,3318 | 0,3273 | 0,3121 | 0,3114 | 0,3104 | 0,3191 | 0,3264 | 0,3207 | 0,3216 | 0,3310 | 0,3301 |
| Africa average | **0,3529** | **0,3519** | **0,3602** | **0,3674** | **0,3675** | **0,3700** | **0,3637** | **0,3600** | **0,3689** | **0,3692** | **0,3689** | **0,3658** | **0,3653** | **0,3763** | **0,3771** |

**Direct determinants**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Central Africa | 0,5915 | 0,5984 | 0,6016 | 0,6116 | 0,6164 | 0,6013 | 0,6105 | 0,6143 | 0,6138 | 0,6238 | 0,6246 | 0,6237 | 0,6334 | 0,6359 | 0,6284 |
| East Africa | 0,5439 | 0,5511 | 0,5585 | 0,5705 | 0,5772 | 0,5645 | 0,5808 | 0,5817 | 0,5843 | 0,5999 | 0,5990 | 0,6036 | 0,6106 | 0,6224 | 0,6155 |
| North Africa | 0,7720 | 0,7710 | 0,7812 | 0,7924 | 0,7914 | 0,7772 | 0,7659 | 0,7773 | 0,7908 | 0,8009 | 0,8023 | 0,7999 | 0,8082 | 0,8114 | 0,8048 |
| South Africa | 0,6703 | 0,6796 | 0,6836 | 0,6864 | 0,6847 | 0,6717 | 0,6744 | 0,6768 | 0,6816 | 0,6901 | 0,6885 | 0,6912 | 0,6967 | 0,6968 | 0,6915 |
| West Africa | 0,5805 | 0,6072 | 0,6110 | 0,6182 | 0,6217 | 0,6099 | 0,6196 | 0,6253 | 0,6278 | 0,6386 | 0,6449 | 0,6467 | 0,6555 | 0,6565 | 0,6487 |
| Africa average | **0,6169** | **0,6291** | **0,6343** | **0,6424** | **0,6451** | **0,6320** | **0,6391** | **0,6433** | **0,6471** | **0,6582** | **0,6597** | **0,6614** | **0,6691** | **0,6728** | **0,6659** |

**Indirect determinants**

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Central Africa | 0,7716 | 0,7851 | 0,7720 | 0,7826 | 0,7706 | 0,7779 | 0,7719 | 0,7728 | 0,7729 | 0,7784 | 0,7707 | 0,7638 | 0,7501 | 0,7649 | 0,7830 |
| East Africa | 0,7385 | 0,7234 | 0,7221 | 0,7358 | 0,7467 | 0,7350 | 0,7405 | 0,7390 | 0,7485 | 0,7477 | 0,7462 | 0,7509 | 0,7210 | 0,7369 | 0,7713 |
| North Africa | 0,8788 | 0,8427 | 0,8410 | 0,8614 | 0,8477 | 0,8345 | 0,8366 | 0,8307 | 0,8220 | 0,8421 | 0,8602 | 0,8489 | 0,8049 | 0,8296 | 0,8809 |
| South Africa | 0,8117 | 0,7949 | 0,8090 | 0,8061 | 0,7921 | 0,8036 | 0,7881 | 0,7983 | 0,8035 | 0,8077 | 0,8063 | 0,7983 | 0,7754 | 0,7898 | 0,8211 |
| West Africa | 0,7802 | 0,7801 | 0,7888 | 0,7873 | 0,7614 | 0,7856 | 0,7770 | 0,7835 | 0,7945 | 0,7738 | 0,7912 | 0,7803 | 0,7467 | 0,7820 | 0,7940 |
| Africa average | **0,7882** | **0,7788** | **0,7822** | **0,7879** | **0,7765** | **0,7830** | **0,7774** | **0,7808** | **0,7863** | **0,7844** | **0,7895** | **0,7833** | **0,7549** | **0,7766** | **0,8035** |

### Table 16. Rank variation of the top performers on the AII's sub-indices, 2010–2024

| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|
| South Africa | South Africa | South Africa | South Africa | South Africa | South Africa | South Africa | South Africa |
| Morocco | Morocco | Morocco | Morocco | Morocco | Morocco | Morocco | Morocco |
| Tunisia | Tunisia | Tunisia | Tunisia | Tunisia | Tunisia | Tunisia | Tunisia |
| Egypt | Egypt | Egypt | Egypt | Egypt | Egypt | Egypt | Egypt |
| Mauritius | Mauritius | Mauritius | Mauritius | Mauritius | Mauritius | Mauritius | Mauritius |
| Eswatini | Eswatini | Eswatini | Eswatini | Eswatini | Eswatini | Eswatini | Eswatini |
| Namibia | Namibia | Namibia | Namibia | Algeria | Algeria | Congo, Rep. | Namibia |
| Libya | Equatorial Guinea | Equatorial Guinea | Côte d'Ivoire | Namibia | Namibia | Algeria | Algeria |
| Botswana | Algeria | Algeria | Algeria | Nigeria | Congo, Rep. | Gabon | Congo, Rep. |
| Algeria | Botswana | Botswana | Libya | Libya | Nigeria | Namibia | Senegal |

| 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|
| South Africa | South Africa | South Africa | South Africa | South Africa | South Africa | Morocco |
| Morocco | Morocco | Morocco | Morocco | Morocco | Morocco | South Africa |
| Tunisia | Tunisia | Egypt | Egypt | Egypt | Egypt | Egypt |
| Egypt | Egypt | Tunisia | Tunisia | Tunisia | Tunisia | Tunisia |
| Mauritius | Mauritius | Mauritius | Mauritius | Mauritius | Algeria | Mauritius |
| Algeria | Eswatini | Algeria | Eswatini | Algeria | Mauritius | Algeria |
| Eswatini | Algeria | Eswatini | Algeria | Eswatini | Eswatini | Eswatini |
| Namibia | Namibia | Namibia | Namibia | Senegal | Senegal | Senegal |
| Congo, Dem. Rep. | Senegal | Senegal | Senegal | Namibia | Namibia | Namibia |
| Gabon | Gabon | Gabon | Nigeria | Nigeria | Côte d'Ivoire | Côte d'Ivoire |

### Table 17. Rank variation of main underperformers on the AII's sub-indices, 2010–2024

| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|
| Guinea | Eritrea | Gambia | Eritrea | Eritrea | Eritrea | Eritrea | Malawi |
| Gambia | Djibouti | Eritrea | Sierra Leone | Comoros | Djibouti | Comoros | Comoros |
| Comoros | Comoros | Sierra Leone | Comoros | Burundi | Comoros | Burundi | Eritrea |
| Eritrea | São Tomé & Príncipe | Comoros | Central African Rep. | Central African Rep. | Burundi | Sierra Leone | Sierra Leone |
| Sierra Leone | Sierra Leone | São Tomé & Príncipe | São Tomé & Príncipe | Sierra Leone | Sierra Leone | Gambia | Burundi |
| Burundi | Burundi | Burundi | Burundi | São Tomé & Príncipe | São Tomé & Príncipe | São Tomé & Príncipe | Gambia |
| Guinea-Bissau | Guinea-Bissau | Guinea-Bissau | Guinea-Bissau | Guinea-Bissau | Somalia | Somalia | São Tomé & Príncipe |
| Somalia | Somalia | Somalia | Somalia | Somalia | Guinea-Bissau | Guinea-Bissau | Guinea-Bissau |
| South Sudan | South Sudan | South Sudan | South Sudan | South Sudan | South Sudan | South Sudan | Somalia |

| 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|
| Central African Rep. | Chad | Central African Rep. | Sierra Leone | Chad | Chad | Sierra Leone |
| Sierra Leone | Sierra Leone | Sierra Leone | Comoros | Central African Rep. | Eritrea | Somalia |
| Eritrea | Comoros | Comoros | Central African Rep. | Comoros | Comoros | Central African Rep. |
| Comoros | Guinea-Bissau | Eritrea | Eritrea | Eritrea | Somalia | Comoros |
| Gambia | Eritrea | Guinea-Bissau | Guinea-Bissau | Burundi | Central African Rep. | Eritrea |
| São Tomé & Príncipe | Gambia | Gambia | Burundi | Guinea-Bissau | Gambia | Gambia |
| Burundi | São Tomé & Príncipe | Burundi | Somalia | Somalia | Burundi | Guinea-Bissau |
| Guinea-Bissau | Burundi | São Tomé & Príncipe | Gambia | Gambia | Guinea-Bissau | Burundi |
| Somalia | Somalia | Somalia | São Tomé & Príncipe | South Sudan | South Sudan | South Sudan |

# Methodological Brief

## Measuring industrial development

The 2015 agreements on Sustainable Development Goals (SDGs) has defined under SDG 9 a global indicator framework to “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.” This framework defines 12 indicators, split into eight targets that cover economic, social and environmental dimensions, to measure industrial development.

Furthermore, the UN Industrial Development Organization (UNIDO) has also attempted to measure industrial performance and competitiveness through the development of the Competitive Industrial Performance (CIP) index. The CIP index covers eight indicators, split into three categories, namely the capacity to produce and export, technological upgrading and deepening, and the impact on world production and trade. Among the eight indicators included in the CIP, three are taken from SDG 9’s global indicator framework.

## AII’s approach

The methodological framework of the AII uses an approach tailored to fit the African Development Bank’s vision of industrial development for the continent, whereby African countries need to embark on a bold agenda driven by private sector-led investments in industrial transformation. Therefore, industrialization is multi-sectoral with a synergy between public and private actors.

A critical diagnosis of both sectors - private sector development and government policy - about the challenges of industrialization, has led to the selection of 19 indicators, split into three dimensions, namely performance, direct determinants and indirect determinants (cf. Table 1).

The Performance dimension assesses the competitiveness of manufacturing activity output. In other words, this component captures African economies’ capacity to produce and export industrial goods, as well as their share of Africa’s aggregated trade. The direct determinants dimension assesses some key inputs for manufacturing sector development, including private sector-led investments and the workforce in the manufacturing sector. The third dimension, indirect determinants, measures industrialization readiness by taking into account the general business environment and macroeconomic stability. This component captures how government actions facilitate industrial development through macroeconomic policy, law enforcement, security, and infrastructure development.

## Constructing the AII

Under the theoretical framework and after a critical review of available data to cover the maximum number of countries, nineteen indicators were identified to constitute the AII. Data was collected from various sources and cover all Regional Member Countries (RMCs) over the period 2010 to 2024.

The scores of the Africa Industrialization Index (AII) and its three dimensions range from 0 (worst) to 1 (best) for comparability over time and across countries. The construction process is a statistical exercise based on the User Manual on the Construction of Composite Indicators of the

European Commission (JRC / OECD, 2008). Once the raw data is collected, the process follows six steps of data transformation, including the imputation of missing data, outlier identification and cleaning, multivariate analyses, normalization and aggregations (Annex 4.2 details the approach used in each step).

In essence, once indicators are normalized, they are aggregated through an equally weighted geometric mean to generate the dimension indices. Subsequently, the African Industrialization Index is computed as a weighted arithmetic mean of the dimension indices (the weights are as indicated in table 18 above).

### Table 18. Breakdown of weightings by dimension and by indicator

| Dimension | Weight | Indicator | Weight |
|---|---|---|---|
| Performance | 3/6 | 1. Manufacturing value added per capita | 1/19 |
| | | 2. Export of Manufactured goods per capita | 1/19 |
| | | 3. Manufacturing value added (per cent of GDP) | 1/19 |
| | | 4. Export of Manufactured goods as of total goods exports | 1/19 |
| | | 5. Manufacturing value added as a share of Africa | 1/19 |
| | | 6. Export of Manufactured goods as a share of Africa | |
| | | 7. Manufacturing employment | |
| | | 8. Diversification index | |
| | | 9. Share of medium and high tech | |
| Direct Determinant | 2/6 | 10. Private sector, gross capital formation (per cent of GDP) | 1/19 |
| | | 11. FDI Inward stock as a share of Africa | 1/19 |
| | | 12. Domestic credit to private sector (per cent of GDP) | 1/19 |
| | | 13. School life expectancy (primary to tertiary), in year | 1/19 |
| | | 14. Africa Infrastructure Development Index (AIDI) | 1/19 |
| Indirect Determinant | 1/6 | 15. Market size-GDP | 1/19 |
| | | 16. Business environment | 1/19 |
| | | 17. Safety and rule of law | 1/19 |
| | | 18. Total debt outstanding as share of GDP | 1/19 |
| | | 19. Inflation, consumer prices (annual per cent) | 1/19 |

The underlying idea of the equal distribution of weight on indicators (1/19) is driven by the multivariate analysis, which returns positive (negative for total debt and inflation) and statistically significant correlations among indicators. In addition, the geometric mean was used to aggregate indicators because it has the advantage of being less sensitive and limits any compensation in the country's scores, which is not the case for the arithmetic mean, particularly when several indicators are involved in the aggregation. Thus, using the geometric mean allows a well-balanced comparison among countries as any country needs to record higher values for all indicators to achieve a better score.

Following discussions with industry experts in the Bank, it was agreed to use a system of varying weights for the dimensions to calculate the overall AII. The underlying idea is that the main component in the appreciation of industrial development is the capacity to produce and export industrial goods, which is captured in the performance dimension. The second important component comprises the direct determinants, which remains important, but at a lower degree compared to the performance dimension. Furthermore, since the direct determinants is more closely related to industrial development than the indirect determinant, it is allocated a greater weight than the latter.

Finally, the use of the arithmetic mean for calculating the overall AII is motivated by the use of unequal weights for the dimensions, and because its simplicity makes the Index easier to interpret for policy purposes.

## How to use the AII

The AII score, as well as its underlying sub-indices, measures African countries' industrial development, which encompasses the performance and competitiveness of manufacturing activity, the potential in terms of inputs for manufacturing sector development, and the readiness of the general environment toward industrialization. This tool allows any African country to assess and benchmark their development in the sector compared to other countries in the region. Since the coverage of the AII is limited to Africa, the Index cannot be used to compare African countries to the rest of the world.

For a given country, any positive change in the overall Index means progress in industrial development. However, this analysis should not be made separately from the analysis with respect to dimensions, in order to ensure that all dimensions contribute positively to the overall result and that the latter is not driven by any compensation among the dimensions.

As a benchmark tool, the AII conveys lessons and best practices for policymakers as they can identify factors or policies on which their partners or competitors successfully perform. For this purpose, the analysis made in this report examines how countries can prioritize the AII's three dimensions (cf. Annex 4.6). Furthermore, country grouping by quintile (top, upper-middle, middle, lower-middle and bottom) helps to identify similarities, strengths and weaknesses of each group. Countries with the most similarities could combine their resources, as part of the African Continental Free Trade Area (AfCFTA), and collectively implement corrective policy measures.

## Comparison with other composite measures

The CIP index from UNIDO can be considered the most similar index to the AII. The CIP covers 150 countries in the world, including only 32 African countries in 2023. The AII provides an easy-to-use measure covering a wider range of factors, and for all African countries (52 over 54). Furthermore, only the performance component in the AII can be strictly comparable to the CIP Index.

While being developed using different approaches, both indices aim to assess industrial development. The fact that both indices share this common goal raises some non-negligible similarities. This is confirmed by the Spearman rank correlation test, which returns a statistically significant correlation of 0.94.

In addition, the AII's grouping by quintile does not significantly differ from what is conveyed by other development indices, such as the Human Development Index (HDI). As found with the CIP, the Spearman rank correlation test returns a statistically significant correlation of 0.738 between the AII and the HDI. The high correlation is to be expected since countries recording higher performance in terms of human capital and income levels tend to have a higher level of industrial development, as depicted on the direct and indirect determinants dimensions of the AII.

## Challenges and recommendations

The Africa Industrialization Index (AII) is an analytical tool initiated by the African Development Bank to assist African countries in their industrial development policies. The three sub-components covered under this initiative are all important. It is recommended that countries with a lower score in the AII should act simultaneously on each sub-component in order to achieve any significant improvement of the overall index.

Concerted efforts, as the Africa Industrialization Index highlights, can improve the lives of people in Africa since industrialization remains a powerful driver of economic and social change, and offers a high potential for growth and job creation. An important challenge in this regard is the availability of quality data to track this industrialization. Easily accessible, reliable, up-to-date and exhaustive data will expose the real state of African countries.

During the literature review, a number of useful variables for the AII were identified. However, due to the lack of data for a number of countries and the differences in methodology for the compilation of the data they could not be included in the AII. Some noteworthy indicators include:

- the number of industrial establishments;
- variables on innovation;
- variables on higher education and training;
- development of the financial system (credit to manufacturing/private sector);
- the share of FDI going to the manufacturing sector; and
- index of industrial production.

The Africa Industrialization Index remains an innovative initiative that has strong linkages to the Bank's High 5s priorities and the Sustainable Development Goals (SDG 2, 8 and 9). It is recommended that the Index be further improved and effectively used to track industrial development in Africa. In this context, the following actions are recommended:

- the collection of relevant data;
- training and capacity building of country officials in RMCs;
- institutionalize industrialization data collection in Africa by mainstreaming industrialization statistics in the work programs of National Statistical offices;
- the establishment of a monitoring and evaluating team for the AII; and
- wide dissemination of the AII so that it is effectively used for policy purposes.

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# Methodology of compilation

The compilation of the AII follows the following steps:

**Step 1. Gap fill of missing values.** There were a few data gaps in the series, particularly for the more recent years. Missing values were either estimated or imputed, as they can significantly affect the value of the different sub-indices (Saisana and Saltelli, 2010) and the final value of the overall index. The main method used is the nearest year (Chen and Shao 2000, Engels and Diehr 2003, Zhang 2008).

**Step 2. Outlier identification and cleaning.** To avoid any bias in the country score and the comparison, the raw data were analysed to identify and treat values that lie far away from the rest of the distribution. However, it was decided to consider the wide disparity among African economies. This reality indicates that while some values stand far away from the mass, they cannot be strictly labelled as outliers. For this reason, instead of applying one method to identify outliers, two methods were combined.

**Method 1.** The Tukey fences formula has been used. However, instead of the interquartile range (Q3–Q1), the difference between the 90$^{th}$ percentile and 10$^{th}$ percentile has been used, which is multiplied by

130 per cent instead of 150 per cent. This choice is motivated by the disparity among African countries. The formula then becomes:

$$Upper\ limit\_1 = Q_{90} + 1.3\ x\ (Q_{90} - Q_{10})$$

$$Lower\ limit\_1 = Q_{10} - 1.3\ x\ (Q_{90} - Q_{10})$$

**Method 2.** The process uses the trimmed moments. Observations that were in the bottom 2.5 per cent and top 2.5 per cent have been removed, while keeping the 95 per cent central part of the distribution as the trimmed sample. The upper and lower limits are then given by:

$$Upper\ limit\_2 = trimmed\ mean + 3\ x\ trimmed\ standard\ deviations$$

$$Lower\ limit\_2 = trimmed\ mean - 3\ x\ trimmed\ standard\ deviations$$

Combining both methods, any value greater (respectively lower) than the maximum between the *Upper limit 1* and 2 (resp. the minimum between Lower limit 1 and 2) is considered an outlier and replaced by the maximum (resp. the minimum).

In the AII computation, four variables were treated for outliers: manufacturing value added per capita, export of manufactured goods per capita, total debt outstanding as a share of GDP, and domestic credit to the private sector as a share of GDP.

**Step 3. Multivariate analysis.** This step was applied to identify and figure out how indicators are associated. What are the main components that emerge from the dataset?

**Step 4. Normalization Procedure.** The units of measurement may introduce bias in the calculation of the sub-components. The observations of each indicator are normalized to take values between 0 and 1 over the indicated period. In the literature, several methods can be used for the normalization of indicators. We compared several standard normalization methods (such as min–max rescaling and z score standardization) and evaluated them in terms of (i) their impact on the distribution of the indicators, (ii) the robustness of country rankings over time, and (iii) their consistency with the multiplicative aggregation (geometric mean) used at the dimension level. It was decided to use the distance to a reference country for indicator normalization, as it is used in many composite index studies and has the advantage of being simple, user-friendly and matches with the use of the geometric average method selected for the aggregation at the dimension level.

The distance to a reference country method takes the ratios of the variable $x_c^t$ for a generic country c and time t with respect to the value $x_{c=\bar{c}}^t$ for the reference country at the time $t$. For each indicator, the reference country has been set as the best country. It means that for the indicator having a positive trend with industrialization, the best country is the maximum:

$$x_{c=\bar{c}}^t = \frac{x_c^t}{x_{c=\bar{c}}^t}\ ;\ \text{where } x_{c=\bar{c}}^t = \max(x^t).$$

In regards to indicators that trend oppositely with industrialization such as the total debt, the formula below was used, since the best country is the minimum.

$$x_{c=\bar{c}}^t = 1 - \frac{x_c^t}{x_{c=\bar{c}}^t}\ ;\ \text{where } x_{c=\bar{c}}^t = \max(x^t).$$

In this case, the worst (most indebted) country, which should receive 0 after applying the normalization formula, will receive instead the lower value among countries that is different to 0. This means the score of the second worst country in the year. This treatment avoids the concerning country to have 0 in the dimension score as the geometric mean will be used for the aggregation.

The inflation indicator has also followed a different method of normalization as the best values of inflation are those within [0; 3[, while some countries record inflation below 0 or higher than 3.

$$x^t_{c=\bar{c}} = \begin{cases} 0.25 & \text{if} \quad x^t_c < 0 \\ 1 & \text{if} \quad 0 \leq x^t_c < 3 \\ 0.5 & \text{if} \quad 3 \leq x^t_c < 5 \\ 0.25 & \text{if} \quad 5 \leq x^t_c < 7 \\ 0.1 & \text{if} \quad 7 \leq x^t_c \end{cases}$$

**Step 5: Calculate a Composite Index for each Dimension.** The composite index is calculated as a weighted geometric mean of indicators for each dimension. Based on the correlation test, an equal weight of 1/19 were set among indicators. Then, for each dimension, we have for the country c and year $t$:

$$D^t_c = \left( \prod_{i=1}^{n} X^t_{ci} \right)^{1/19}$$

where $X^t_{ci}$ is the normalized value of the indicator i, and n is the number of indicators per dimension: 9 in the first dimension, 4 in the second and 6 in the third.

**Step 6: Generate the AII.** The AII score is generated using the sub-index scores of the three dimensions calculated in the previous step through a weighted arithmetic mean. The ponderation 3, 2 and 1 is used respectively for the performance dimension, the direct determinants dimension and the indirect determinants dimension. For a country $c$ and year $t$, the AII score is given by:

$$AII^t_c = \frac{1}{6} \left( 3 * Score_{Performance} + 2 * Score_{Direct\ determinants} + Score_{Indirect\ determinants} \right)$$

Following the AII calculation, indices by sub-region (North, Southern, West, East and Central Africa) are calculated as a simple arithmetic average of the country scores.

## Calculating the AII: an example

To illustrate, consider the employment in manufacturing (as a percentage of total employment) of Cote d'Ivoire, which was 6.8 per cent in 2024. The reference country records in this year 22.95 per cent. Cote d'Ivoire's normalized employment in manufacturing score is then given as:

$$\frac{6.8}{22.95} = 0.2964$$

The same process is applied to all indicators with a positive impact on the AII. The normalized inflation score is equal to 1, as the inflation ranges between 0 and 3, and finally, its normalized total debt as a share of GDP score is given by:

$$1 - \frac{37.01}{201.79} = 0.8161$$

For total debt as a share of GDP, the impact direction is negative and this reversed transformation formula ensures that the scores remain between 0 and 1 and still match for the worst and the best performance respectively.

To compute dimension indices, the equally weighted geometric mean of the normalized scores is applied. In the case of Cote d'Ivoire in 2024, the scores of its direct determinant indicators are: private sector, gross capital formation 0.5435, FDI Inward stock as a share of Africa 0.0944, domestic credit to the private sector (per cent of GDP) 0.2503, and school life expectancy (primary to tertiary, both sexes) 0.6780. Then, the direct determinants index is given by:

$$(0.5435 * 0.0944 * 0.2503 * 0.2982 * 0.678)^{1/19} = 0.7791$$

The other dimension indices follow the same process, which generates 0.4614 for performance dimension and 0.7778 for indirect determinants.

Cote d'Ivoire's industrialization index score in 2022 is calculated as:

$$\frac{1}{6}\ 3 * 0.4614 + 2 * 0.7791 + 0.7778 = \mathbf{0.6200}$$

# Description of indicators and data sources

### Table 19. Indicators and data sources

| Dimension | Indicator | Description | Source |
|---|---|---|---|
| **Performance variables** | 1. Manufacturing value added per capita* | Sum of the value added of all manufacturing activities divided by the total population | AfDB, Statistics Department |
| | 2. Export of manufactured goods per capita** | Total value of manufactured goods exported divided by the total population | UNCTAD |
| | 3. Manufacturing value added ( per cent of GDP) | Sum of the value added of all manufacturing activities over the GDP | AfDB, Statistics Department |
| | 4. Export of manufactured goods as a share of total good exports | Total value of manufactured goods exported over the total exports of goods | UNCTAD |
| | 5. Manufacturing value added as a share of Africa | Sum of the value added of all manufacturing activities over the total aggregated for Africa | AfDB, Statistics Department |
| | 6. Export of manufactured goods as a share of Africa | Total value of manufactured goods exported over the total aggregated for Africa | UNCTAD |
| | 7. Employment share in manufacturing | Total employment in manufacturing sector over the total employment in all sectors | ILO |
| | 8. Diversification index | The diversification index indicates to what extent the structure of exports or imports by product of a given economy or group of economies differs from the world pattern. | UNCTAD |
| | 9. Share of medium and high tech | Measures the proportion of manufacturing output belonging to industries that require significant technological know-how and skilled labor, such as chemicals, electronics, machinery, and precision instruments. | UNCTAD |
| **Direct Determinant** | 10. Private gross capital formation ( per cent of GDP) | The outlays on additions to the fixed assets plus net changes in the level of inventories by the private sector | AfDB, Statistics Department |
| | 11. FDI inward stock as a share of Africa | The inward FDI stock is the value of foreign investors' equity in and net loans to enterprises residing in the reporting economy | UNCTAD |
| | 12. Domestic credit to private sector ( per cent of GDP) | All financial resources such as loans, purchases of non-equity securities, and trade credits provided to the private sector | WEF/WB |
| | 13. School life expectancy (primary to tertiary, both sexes), in year | Number of years a person can expect to spend from primary to tertiary level | UNESCO |

| Dimension | Indicator | Description | Source |
|---|---|---|---|
| **Indirect Determinant** | 14. Market size-GDP | Measured by the Gross Domestic Product: 0.75*GDP of country+0.25*Regional GDP | AfDB, Statistics Department |
| | 15. Transport Network (Mo Ibrahim) | The "Transport Network" indicator in the Mo Ibrahim Index assesses the quality, coverage, and efficiency of a country's transport infrastructure, including roads, railways, and air transport. | Mo-Ibrahim |
| | 16. Africa Infrastructure Development Index (AIDI) | Evaluates the status and progress of infrastructure development in African countries covering the following areas: roads, water and sanitation, electricity, transport, and IT | AfDB, Statistics Department |
| | 17. Safety and rule of law | The "Safety and Rule of Law" is a core category in the Mo Ibrahim Index of African Governance that measures the extent to which a country ensures personal safety, upholds the rule of law, enforces accountability, and combats corruption. | Mo-Ibrahim |
| | 18. Total debt outstanding as share of GDP | Total external debt stock in percentage of GDP | AfDB, Statistics Department |
| | 19. Inflation, consumer prices (annual per cent) | Annual percentage change in the cost to the average consumer of acquiring a basket of goods and services as measured by the Consumer Price Index (CPI) | AfDB, Statistics Department |

* Manufacturing goods refer to goods belonging to the Standard International Trade Classification (SITC) 5 to 8 less 667 and 68 (revision 4). This means manufactured goods are (5) chemicals and related products, not elsewhere specified, (6) manufactured goods classified chiefly by material, (7) machinery and transport equipment and (8) miscellaneous manufactured articles, and do not include (667) pearls, precious & semi-precious stones and (68) non-ferrous metals.
Manufacturing refers to industries belonging to the International Standard Industrial Classification (ISIC) divisions 15-37.
Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs.
** Exports of goods represent the value of merchandise provided to the rest of the world.
Source: AfDB, Statistics Department.

## Increasing industrial performance

In the first dimension, **nine indicators** were identified to capture the performance of African economies through their capacity to produce and export industrial goods, as well as their contribution to Africa's aggregated trade. Increasing performance remains quite vital to industrial sector development, as it provides economic opportunities not only for people, but also for other sectors of the economy.

**Manufacturing value added per capita** is a key measure of the sector's performance, as it reflects the level of transformation of raw materials within a country for domestic consumption or exports. Similarly, **export of manufactured goods per capita** captures the economy's competitiveness in international markets. Both indicators are calculated on a per capita basis to adjust for differences in country size.

Other important indicators include **manufacturing value added as a share of GDP**, which signals the weight of industry in domestic economic activity, and **export of manufactured goods as a share of total exports**, which shows the extent to which export structures rely on industrial products rather than primary commodities. In addition, the **manufacturing value added as a share of Africa and export of manufactured goods as a share of Africa** reflect how much each country contributes to Africa's aggregated industrial output and trade.

Beyond output and trade performance, labor market and structural development aspects are encapsulated in three other indicators. The **employment share in manufacturing** highlights the role of the sector in generating jobs. The **diversification index** measures how varied and resilient an economy's industrial base is compared to global structures of production and trade. Lastly, the **share of medium - and high-technology industries** in manufacturing output provides insights into the technological intensity and sophistication of industrial activities, encompassing industries such as chemicals, electronics, machinery, and precision instruments.

For each of these nine indicators, an increase signals relative progress in industrial performance, while a decrease indicates weaker performance.

## Enhancing the direct key determinants for industrial development

Enhancing industrialization requires fostering the direct determinants that underpin a country's capacity to produce and export manufactured goods. Industrial success is closely tied to sufficient capital, private sector-led investment, and the quality of the labor force.

**Private gross capital formation ( per cent of GDP)** captures the outlays on additions to fixed assets and the net changes in inventories by the private sector, reflecting the depth of long-term investment that supports industrial expansion. Complementing this, **domestic credit to the private sector (per cent of GDP)** serves as an indicator of the financial resources made available to private enterprises, whether through loans, trade credit, or securities purchases, supporting both operational and investment activities.

The ability to attract foreign resources is measured by **FDI inward stock as a share of Africa**, which accounts for the value of foreign investors' equity and net loans to domestic enterprises, benchmarked against the continent's overall inward FDI stock. While optimal measurement would focus specifically on manufacturing, current data are for the private sector as a whole.

Human capital formation remains a cornerstone of industrial development. **School life expectancy (primary to tertiary, both sexes, in years)** reflects the anticipated duration individuals spend in the education system, indicating the potential for a more qualified and skilled labor force required for higher value-added production.

For each of these direct determinants, an increase indicates relative progress in building and sustaining the foundations for industrialization, while a decrease signals a weakening of fundamental capacity.

## Readiness for industrial development

Ensuring a stable macroeconomic and business environment is essential for industrial development. This dimension is assessed through six indirect determinants that collectively reflect readiness for industrialization.

**Market size-GDP** is determined using a weighted average of national and regional GDP, capturing both local demand and broader market potential required for industrial investment and growth. **Transport network**, as measured by the Mo Ibrahim Index, evaluates the quality, coverage, and efficiency of a country's infrastructure across roads, railways, and air transport, all fundamental to effective industrial logistics and integration.

Comprehensive infrastructure development is further measured by the **Africa Infrastructure Development Index (AIDI)**, which examines progress in key areas including roads, water and sanitation, electricity, transport, and IT. **Safety and rule of law**, a core category of the Mo Ibrahim Index, assesses a country's ability to maintain personal safety, uphold the rule of law, enforce accountability, and combat corruption – each crucial for a predictable and attractive business climate.

Other indirect determinants of industrial development include **inflation** and **total debt outstanding as a share of GDP**. Higher public debt is a deterrent to investment and industrial development. Inflation is also relevant since price stability remains a critical indicator to attract investment and developing manufacturing activities.

For each of these indirect determinants, an upward trend reflects enhanced industrial readiness, while a downward trend signals increasing challenges and constraints exepted the debt. The six indirect determinants of industrial readiness focus on macroeconomic stability and the business environment.

## About the report

This publication presents the 2025 edition of the Africa Industrialization Index (AII 2025), a comprehensive framework assessing industrial development across 54 African countries from 2010–2024. The report provides a multidimensional evaluation of industrial performance, productive capacity, competitiveness, and the conditions needed for sustainable industrial transformation on the continent. The AII 2025 introduces improved methodologies, expanded country coverage, and new indicators, alongside policy analyses of regional industrialization and the role of Special Economic Zones (SEZs) in accelerating Africa's industrial development.

The report's findings highlight both progress and persistent structural challenges, identifying the continent's leading industrial economies as well as countries facing the widest constraints. It underscores the importance of deeper regional integration, stronger regional value chains, improved productive infrastructure, and more effective industrial policies. The Africa Industrialization Index 2025 is intended as both a diagnostic and strategic tool for policymakers, development finance institutions, investors, and regional organizations supporting competitive, inclusive, and sustainable industrial growth across Africa.

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