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Leveraging the AfCFTA Under a Unified Industrial Policy for Africa

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Executive summary

The African Continental Free Trade Area will, once fully operational, create many new opportunities for accelerated industrialisation on the continent through increased intra-African trade. However, many longstanding supply-side constraints, which have hindered the growth of industrial sectors in most African countries, remain. These need to be addressed through the implementation of sound industrial policies and/or strategies if the benefits of the free trade area are to be maximised. Africa's current policy landscape is complicated by the multiple overlapping industrial policies at the continental, regional and national levels. At the continental level, the African Union introduced the Plan of Action for the Accelerated Industrial Development of Africa with a view to strengthening Africa's industrial capacity and global competitiveness. Several regional economic communities, in turn, have their own industrial policies/strategies, as do individual countries at a national level. This setup means that many countries are subject to three or more industrial policies/strategies – including multiple regional policies/strategies in the event of their belonging to several regional economic communities. These overlapping commitments have created significant implementation challenges for governments.

The Plan of Action for the Accelerated Industrial Development of Africa represents an attempt by the African Union to harmonise all industrial policies being implemented on the continent. This has been done by encouraging regional economic communities to harmonise the national policies of their members in line with the regional policies and, in turn, to harmonise the regional policies under one continental framework. However, this has done little to achieve a meaningful consolidation of all the industrialisation efforts that are under way on the continent as it is merely a reconfiguration of existing institutional arrangements that support the current plethora of policies. What Africa needs (and what this paper proposes) is a unified industrial policy that pools the collective resources at the continental, regional and national levels, and focuses on collective solutions to shared challenges.

Among the elements that the paper proposes for the unified industrial policy for Africa are: 1) continental or regional infrastructure programmes run as joint projects using pooled resources; 2) regional (product) specialisation aimed at enhancing value chains on the continent; 3) SME-led manufacturing growth; 4) clean energy-based industrialisation; 5) the promotion and development of African innovation and technologies. It is envisaged that the proposed changes to the industrialisation modus operandi on the continent will minimise some of the coordination challenges associated with the current policy setup as well as project-related delays caused by a lack of commitment and/or capacity on the part of individual countries.

Introduction

Africa remains the least industrialised continent. The industrial sector in Sub-Saharan Africa (SSA) contributes less than 28% of the region's gross domestic product (GDP), which is lower than other low-income regions in the world. Data from the World Bank's World Development Indicators shows that in 2019 SSA's industrial output stood at $194 billion – much less than other low-income regions, such as South Asia ($491.6 billion) and Latin America and the Caribbean ($762 billion).

Small and stagnant manufacturing sectors have been the main cause of the low level of industrialisation in the region. The data shows that annual manufacturing growth in SSA averaged 1.78% between 1990 and 2020, which is marginal for an economy that is yet to undergo industrialisation. Furthermore, the sector is heavily concentrated in low-technology and low-value-added products, such as processed food and clothing and textiles, with most countries having yet to graduate to the medium- and high-technology segments of global manufacturing which are characterised by dynamism and rapid growth.

Regional economic integration has long been a favoured approach to facilitating the growth and development of Africa's industries. Consequently, a series of initiatives, such as the New Partnership for Africa's Development (NEPAD), have been implemented with the aim of putting in place soft and hard infrastructure that would drive regional development. The African Continental Free Trade Area (AfCFTA) is another major initiative designed to facilitate regional growth through increased intraregional trade. Once fully operational, it is expected to pave the way for the creation of African value chains which will cater to the needs of African countries, specifically across the agro-processing, pharmaceutical, textile and clothing, and automotive sectors.

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With the AfCFTA set to take care of trade issues at the continental level, the implementation of a harmonised industrial policy to guide industrial growth at the regional level seems to be the next logical step. While most African countries and some regional economic communities (RECs) have industrial policy strategies, few linkages between such strategies exist. This denies Africa's industries the opportunity to benefit from regional economies of scale, which would enhance the trade benefits delivered by the AfCFTA. In an effort to adopt a harmonised approach to Africa's industrialisation, the African Union Commission (AUC) formulated the Action Plan for the Accelerated Industrial Development

of Africa (AIDA). This is a strategy that aims to mobilise resources to help boost Africa's competitiveness vis-à-vis the rest of the world. However, to achieve meaningful industrial development, a broader strategy that addresses a broader set of issues is needed.

This paper explores ways in which the current policy landscape for Africa's industrialisation can be enhanced to maximise the gains from a more integrated continent. More specifically, the paper takes a critical look at the existing policies to determine how best they can be synergised to amplify the benefits of the AfCFTA. The motivation behind this is the realisation that although the AfCFTA is expected to promote industrialisation on the continent (by expanding markets for industrial inputs and output), such an outcome is constrained by the fact that Africa currently has a production capacity problem. Thus, to leverage the AfCFTA's benefits, parallel efforts need to go into increasing the productive capacity of industrial goods produced on the continent.

The state of African industries

Status of development

This section looks at the current state of Africa's industrial sector to determine the level of progress that has been achieved to date.[1] The primary objective of national and regional industrialisation policies in Africa is to accelerate the growth of the industrial sector, in a departure from its slow-growth status over the last couple of decades. Data indicates that the industrial sector's value added in the SSA region grew from $224.64 billion in 1981 to $419.48 billion in 2020.[2] This translates into an 86% growth rate (less than double) over a 40-year period and an annual growth rate of about 1.7% – a rate too low for a region that is yet to undergo its own 'industrial revolution'. Over the same period, overall GDP more than tripled from $574.01 billion in 1981 to $1.79 trillion in 2020, with an average annual growth rate of 3%. This growth was driven largely by the primary sector. Because of this, the contribution of the industrial sector to overall GDP declined over time (see Figure 1), a phenomenon referred to as 'de-industrialisation'.[3]

The consistent underperformance of Africa's industrial sector compared to its primary sector means that Africa's economic growth has not been industry led; rather, it has been driven by the primary sector. Economic activity has been concentrated in the primary sector – primarily agriculture which still employs over half of SSA's labour force (see Figure 2). This

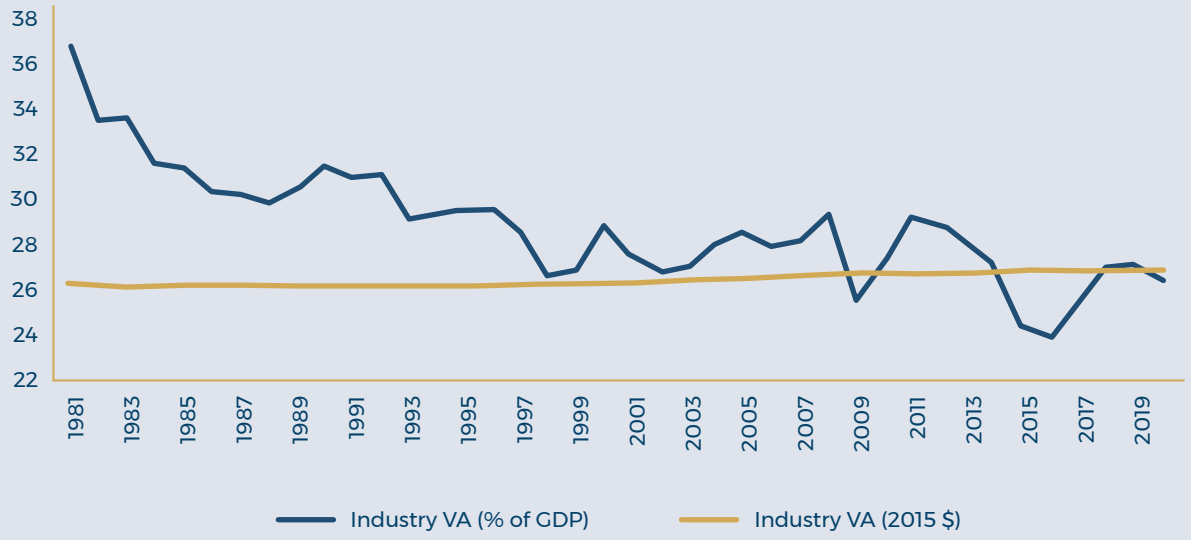
1 Here, the 'industrial sector' follows the World Bank's definition of 'industry'. It consists of mining and quarrying, manufacturing, construction, and public utilities (electricity, gas, and water), in accordance with divisions 2–5 (ISIC 2) or categories C–F (ISIC 3) or categories B–F (ISIC 4).

2 See The World Bank, 'Industry (including construction), value added (constant 2015 US$),' https://data.worldbank.org/indicator/NV.IND.TOTL.ZS.

3 De-industrialisation also refers to a general reduction in industrial activity or capacity in an economy. This has not been the case in the SSA region since in absolute terms industrial activity has increased, as shown in Figure 1.

in turn has ensured that Africa's capacity to expand its value chains and participate in the high-end segments of global value chains remains underdeveloped.

Figure 1 Industry value-added (VA) trends in Sub-Saharan Africa



Note: Here data on 'industry value-added (VA) is transferred to its natural logarithm

Source: The World Bank, 'Industry (including construction), value added (% of GDP),' https://data.worldbank.org/indicator/NV.IND.TOTL.ZS; The World Bank, 'Industry (including construction), value added (% of GDP)'

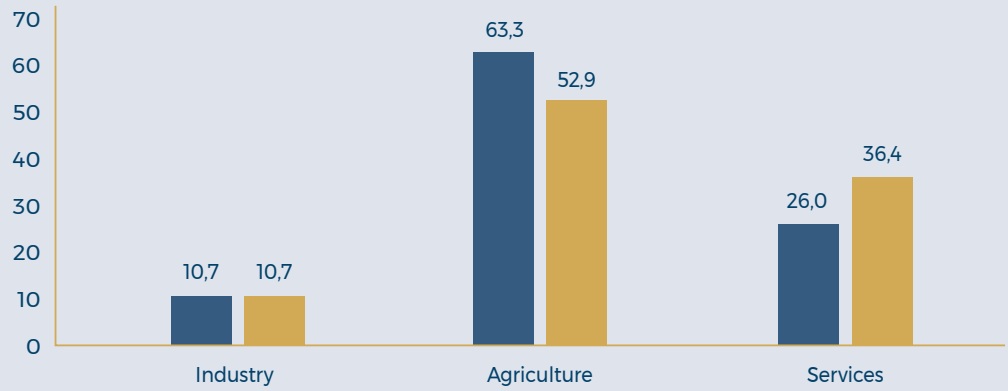
In terms of employment, the share of people working in Africa's industrial sector has remained low and largely the same for at least the last three decades. As of 2019, only 10.7% of employed people in the region worked in the industrial sector compared to 52.9% in the agriculture, forestry and fisheries sectors and 34.6% in the services sector (see Figure 2). The trend has been that while the agriculture sector has been losing its share of the labour force, it has been losing it to the services sector and not to industries such as manufacturing, as would be the case in regions that are undergoing industrialisation. This trend is also a manifestation of the de-industrialisation that has taken place in the region and continues to do so.

Africa's value chains

Africa mainly produces and exports primary commodities, mostly from agriculture and natural resource activities. These commodities are consumed without much value addition or exported as raw materials and intermediate goods to be used for manufacturing of higher-value goods elsewhere across the globe. Data on export and import composition by

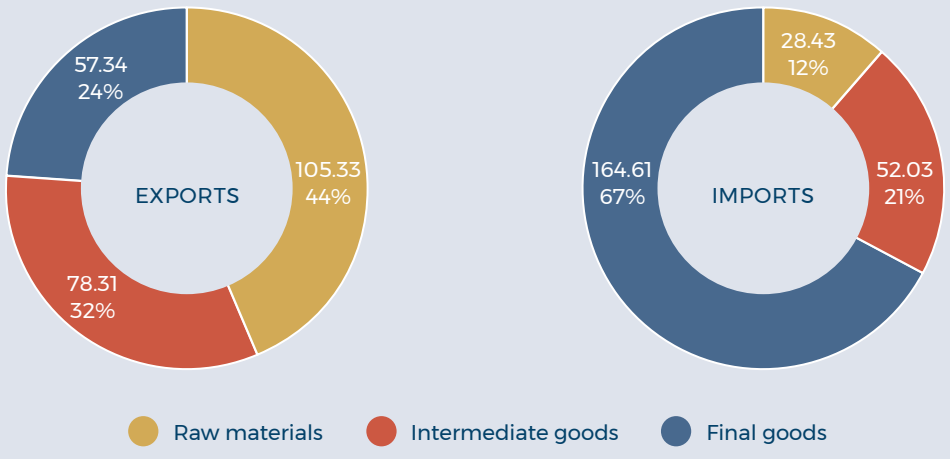
stages of production for the SSA region (see Figure 3) shows that as of 2019, 44% of goods exported from the region were raw materials and another 32% were intermediate goods. Less than one-quarter (24%) of goods exported were final goods.

Figure 2 Sector employment as a percentage of total employment in Sub-Saharan Africa



Source: The World Bank, 'Employment in industry (% of total employment) (modeled ILO estimate),' https://data.worldbank.org/indicator/SL.IND.EMPL.ZS; 'Employment in agriculture (% of total employment) (modeled ILO estimate),' https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS; 'Employment in services (% of total employment) (modeled ILO estimate),' https://data.worldbank.org/indicator/SL.SRV.EMPL.ZS?locations

Figure 3 Export and import composition in Sub-Saharan Africa by stages of production



Source: The World Bank, World Integrated Trade Solution (WITS), 'Sub-Saharan Africa trade statistics: Exports, Imports, Products, Tariffs, GDP and related Development Indicator,' https://wits.worldbank.org/CountryProfile/en/SSF

Even Africa's two biggest economies, Nigeria and South Africa, engage heavily in and depend on natural resources extraction for their export earnings, particularly crude oil in the case of Nigeria and minerals in the case of South Africa. While South Africa is also heavily engaged in the production of final industrial goods and has a significant footprint in the high-end segments of global value chains, including in the automobile industry, such a level of industrial development can be considered an outlier in the region. In fact, Africa's participation in global value chains is largely in the early stages of value addition, which in turn generates little value for the region as a whole.

TABLE 1 BREAKDOWN OF TOTAL GOODS TRADE IN SUB-SAHARAN AFRICA, 2019

Product	Export share (%)	Import share (%)
Fuels	28.96	16.34
Stone and glass	14.39	3.19
Metals	12.00	6.59
Minerals	8.22	1.46
Food products	7.28	4.32
Transportation	7.05	10.33
Vegetables	5.47	5.28
Chemicals	5.33	10.10
Machine and electric	3.49	20.32
Textile and clothing	2.01	3.20
Animal	1.74	2.50
Plastic or rubber	1.57	4.39
Wood	1.30	3.86
Miscellaneous	0.77	7.14
Footwear	0.22	0.66
Hides and skins	0.18	0.21

Source: The World Bank, World Integrated Trade Solution (WITS), 'Sub-Sahara Africa trade statistics: Exports, Imports, Products, Tariffs, GDP and related Development Indicator,' https://wits.worldbank.org/CountryProfile/en/SSF

Constraints to Africa's industrial development

The industrialisation of the African continent faces several challenges/constraints which continue to slow the process. These constraints have been well documented in the various regional industrialisation policies and/or strategies. Among them are poor infrastructure ('hard' and 'soft' infrastructure); a business-unfriendly environment; limited capacity in innovation, science and technology; highly fragmented markets with trade barriers; a lack of comparative advantage in industrial products; and unfavourable macroeconomic conditions.

Poor infrastructure

The African continent is characterised by poor energy, water, transport and telecommunication infrastructure, which are important facilitators of the industrialisation process. Energy is crucial for industrial production as most production processes are mechanised and therefore require an adequate and sustained power supply. Good transport and telecommunication infrastructure are also necessary for industrialisation since the former facilitates the movement of goods (industrial inputs and output) and the latter facilitates transactions – both of which support the development of the industrial sector. Last but not least, water and sanitation infrastructure are also important for industries as most if not all production processes utilise water and require convenient and safe ways to dispose of waste.

However, Africa falls well short of the required infrastructure in all the above-mentioned categories. Regarding energy, for instance, many countries on the continent currently do not have the capacity to meet their energy demand because of inadequate or poor energy infrastructure. As of 2019, only 46.75% of the SSA population had access to electricity, and in several countries, such as Burundi, Chad, Central African Republic, and Malawi, less than 15% of the population had such access.[4]

Africa also lags well behind in terms of water and sanitation, transport and telecommunications infrastructure. Despite Africa having many sources of fresh water, most countries do not have proper infrastructure to optimise its use and manage distribution. As for transport, the sector is dominated by one mode – road transportation – while the other modes (rail, air, and water) are practically non-existent in some countries in the region. With road transportation being relatively more expensive and less efficient, this raises the cost of production and trade considerably. The continent also has among the weakest telecommunications infrastructure in the world, resulting in limited coverage and generally poor services (including internet and telephone services).

Low capacity in innovation, science and technology

Countries that have successfully industrialised have done so on the back of new innovations and/or an ability to adopt and adapt technological advances from other countries. The industrial revolution in Europe (led by Britain) and the US in the 18th and 19th centuries is a classic case of industrialisation through innovation. During that period many countries saw significant changes in their production processes, where manufacturing shifted from production by hand to production by (newly invented) machines. In the case of most recently industrialised countries, including China and the four 'Asian tigers' (South Korea, Singapore, Hong Kong and Taiwan), the adoption of technology from already-industrialised countries has played a more significant role in their respective journeys toward industrialisation.

4 The World Bank, 'Access to electricity (% of population),' https://data.worldbank.org/indicator/EG.ELC.ACCS.ZS

Africa's inability to produce its own innovations at the pace needed for effective industrialisation, coupled with its inability to adopt a sizeable range of technologies that are already available in developed countries, is a major constraint to its industrialisation efforts. While economies such as China and the Soviet Union managed to catch up with their Western counterparts through technology adoption (including reverse engineering), African countries have largely settled for the importation of finished industrial products. The Global Innovation Index, which measures innovation performance of different economies, ranked South Africa (which is ranked the most innovative country in the SSA region) only 61st in the world rankings. Only three other countries in the region made it into the top 100 innovators in the rankings – Kenya (85th), Tanzania (90th) and Namibia (100th). Africa's disappointing performance in terms of innovation is a reflection of its capacity gaps in the fields of science and technology, which are essential for innovation, and the difficulty it faces in adopting or adapting readily available technologies.

Business-unfriendly environment

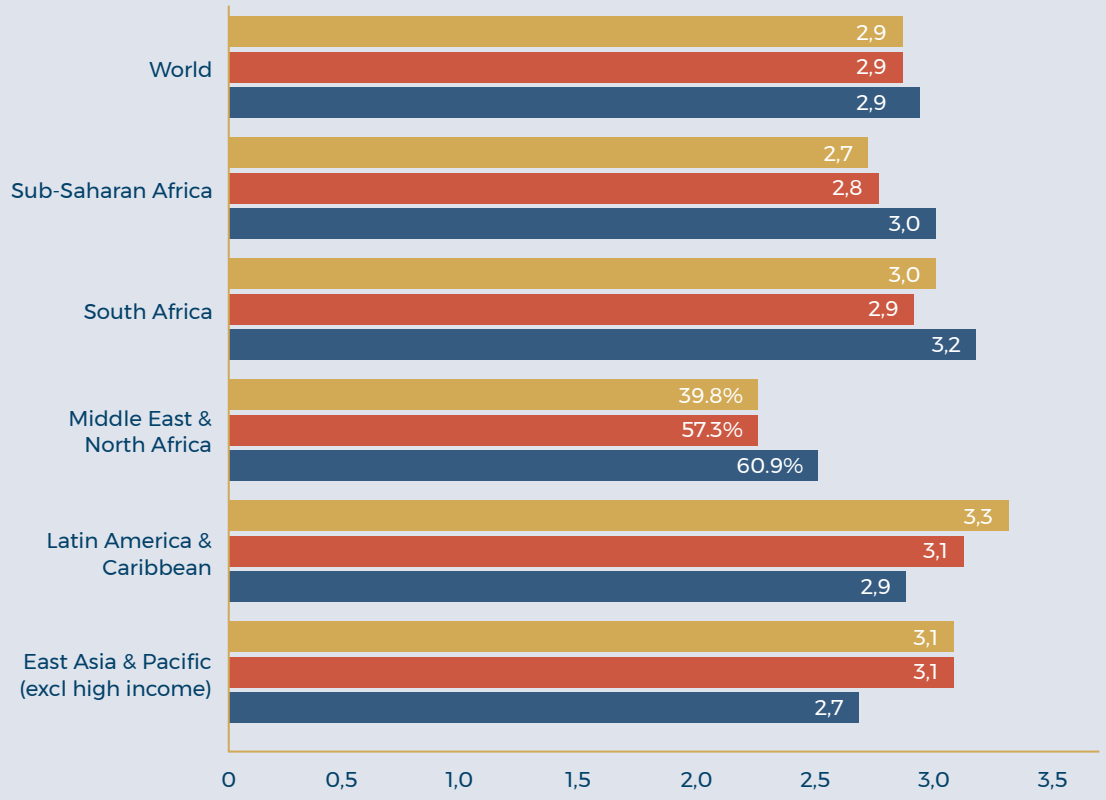
An environment that is accommodating of businesses, especially start-ups and other new entrants in the market, is essential for the growth of industries. Unfortunately, most countries in Africa are known to have weak institutions and regulations governing domestic business operations, inadequate protection of property rights, and a highly corrupt and ineffective public sector. In the World Bank Country Policy and Institutional Assessment (CPIA) ratings, the SSA region attracts low scores (less than 3 out of 6) in all three categories (see Figure 4). It ranks below the world average and other developing regions (except for the Middle East and North Africa) in terms of property rights and rule-based governance, as well as transparency, accountability and corruption in the public sector. The environment created by these shortcomings makes it hard for innovative entrepreneurs to succeed and for much-needed foreign direct investment (FDI) to flow into the region.

Highly fragmented markets with trade barriers

The African market is highly fragmented, mainly because of the poor connectivity between countries resulting from poor infrastructure and trade barriers such as high tariffs. While some RECs have over the years been somewhat successful in boosting trade among their members (which the AfCFTA should capitalise on), intraregional trade remains limited in Africa.[5] Data from the UN Conference on Trade and Development (UNCTAD) shows that intra-African trade during the period 2015–2017 amounted to only 15.2%, compared to 47% in America, 61% in Asia and 67% in Europe. Through the AfCFTA, Africa is hoping to experience a shift towards greater industrialisation in the wake of increased intra-African trade.

5 Intraregional trade in Africa is the average of intra-African exports and imports.

Figure 4 Regional (developing country) comparisons of CPIA ratings



Source: The World Bank, 'CPIA business regulatory environment rating (1=low to 6=high),' https://data.worldbank.org/indicator/IQ.CPA.BREG.XQ; 'CPIA property rights and rule-based governance rating (1=low to 6=high),' https://data.worldbank.org/indicator/IQ.CPA.PROP.XQ; 'CPIA transparency, accountability, and corruption in the public sector rating (1=low to 6=high),' https://data.worldbank.org/indicator/IQ.CPA.TRAN.XQ

Lack of a competitive and a comparative advantage in industrial products

The African continent lags very far behind other regions in the world in terms of its capacity to produce industrial goods. As such, the continent lacks both a competitive advantage and a comparative advantage in producing industrial products. Consequently, Africa remains heavily reliant on imports of industrial goods, while exporting primary commodities to finance these imports.

Unfavourable macroeconomic conditions

High inflation, the high cost of credit and unstable exchange rates, among other worrying macroeconomic indicators, are a deterrent to the growth and development of Africa's industries. The invoicing of goods in US dollars as opposed to the currencies of the parties involved also increases the cost of doing business, thus further impacting the industrial sector.

Industrial policy landscape in Africa

Industrial policy in Africa is on three levels, namely the national level, the REC level, and the continental level. At the national level, most countries on the continent have their own national industrialisation policies and/or strategies which supposedly reflect the industrialisation priorities of those countries. For countries that are also subject to regional policies, the national industrial policies serve to ensure that the national priorities are aligned to, and thus operationalise, the regional ones.

At the REC level, four of the eight RECs on the continent have industrial policies or strategies to which members have expressed their commitment (see Annexure 1). These four RECs are the Common Market for Eastern and Southern Africa (COMESA), the Southern African Development Community (SADC), the East African Community (EAC) and the Economic Community of West African States (ECOWAS). Although the RECs' industrial policies are coordinated by REC secretariats, most of the implementation responsibility is devolved down to the national level. In terms of the financing of industrial policies, some RECs, such as SADC, have launched regional funds which are used to finance some of the initiatives embarked upon under the policies – particularly infrastructure development and capacity building. Such pooled resources are complemented by countries' own resources allocated to activities being implemented in those countries. The RECs have also engaged the private sector through public–private partnerships (PPPs) and other arrangements to help finance the industrial policies.

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What is notable in terms of the implementation of regional industrial policies is the limited diversity of RECs' priority value chains. For instance, all four RECs have prioritised agro-processing and pharmaceuticals, three RECs (COMESA, SADC and EAC) have prioritised minerals beneficiation, and many other products are being prioritised by two or more RECs. Furthermore, the broad definitions adopted for priority value chains, such as the SADC's prioritisation of 'consumer goods' and 'capital goods', pave the way for a potential lack of value chain specialisation among the RECs, as these definitions cover a broad range of products.

At the continental level, the 2008 AIDA remains the continent-wide strategy for fast-tracking Africa's industrial development. This plan, which was spearheaded by the AU in collaboration with partners such as the UN Industrial Development Organization (UNIDO) and the UN Economic Commission for Africa (UNECA), identifies seven priorities that

need to be addressed to achieve its intended outcomes. These priorities are: infrastructure development policy on product and export diversification; natural resources management and development; human capital development and sustainability; innovation, science and technology; development of standards and compliance; development of legal, institutional and regulatory frameworks; and resource mobilisation for industrial development. The plan proposes several actions to be undertaken at the national, regional, continental and international levels.

The execution of the plan is based on the implementation strategy carved out by the Council of Ministers of Industries and private-sector players led by the AUC. The implementation strategy identifies seven programme clusters that are closely aligned to the seven priority areas.[6] From the programme clusters, 49 projects were identified for implementation under 16 programmes. The projects were grouped into three categories: immediate (21 projects), medium-term (17 projects) and long-term (11 projects). The projects identified by the AIDA are mostly soft projects targeting human and institutional capacity-building needs which are necessary for facilitating other industrialisation initiatives.

The institutional arrangement for implementing the AIDA centres on the work of programme-specific steering committees. Each programme has three steering committees – one at the AU, one at the regional level consisting of secretariats of the RECs involved, and a national steering committee composed of relevant government ministries, the private sector and support institutions. Each of the three steering committees is responsible for overseeing implementation at their level. Thus, for the successful implementation of the projects, commitment and capacity at all three levels are required.

Shortcomings in the current policy landscape

The current industrial policy landscape suggests that many countries in Africa are subject to three or more industrial policies/strategies (national policy, REC policy and the AIDA). Some countries, including Kenya, Tanzania, Uganda, Malawi, Eswatini, Zambia and Zimbabwe, belong to two or more RECs, thus implying that these countries are subject to as many as four industrial policies. However, REC policies may differ from national policies in terms of focus areas, implementation timelines and other aspects, which may hinder the smooth delivery of intended outputs and outcomes. For example, South Africa implements its industrial policy (the National Industrial Policy Framework) using an iterative framework, while the SADC industrial policy, to which South Africa subscribes, has a fixed implementation period. This can create coordination challenges between actions outlined in the national and REC policies and overwhelm countries in their industrialisation efforts.

6 These clusters are: 1) industrial policy and institutional direction; 2) upgrading production and trade capacities; 3) promoting infrastructure and energy for industrial development; 4) human resources development for industry; 5) industrial innovation systems, R&D and technology development; 6) financing and resource mobilisation; and 7) sustainable development.

Another drawback of the current policy setup is that its success heavily depends on the efforts of individual countries. When projects are implemented as a collection of country-level projects instead of one regional or continental project, a lack of capacity or commitment on the part of some member states can delay the whole initiative. This is particularly evident in transport infrastructure projects involving multiple countries where delays experienced in some countries can delay or even sink the whole project. An example of this is the implementation of the SADC Regional Infrastructure Development Master Plan (RIDMP). The plan was adopted in 2012 but as of 2017 over 50% of the projects had not gone beyond the pre-feasibility or feasibility stage.[7] This is largely a reflection of differences in commitment and/or capacity levels among the SADC member states.

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To its credit, the AIDA calls for the integration of all industrial policies by encouraging RECs to harmonise the various national policies and, furthermore, to have all REC policies harmonised at the continental level. However, even if this were successfully executed, Africa's industrial policy would remain more a collection of national and REC policies than a strategy formulated for the continent as a whole.

Consolidating Africa's industrial policy in the context of the AfCFTA

To maximise the gains from increased trading under the AfCFTA, African countries need to adequately address the supply-side issues that stand in the way of the continent's industrial development. As such, Africa needs to rethink the current policy setting and consolidate industrialisation efforts into one simplified strategy that allows countries/RECs to collectively remove the constraints to industrial growth in an efficient and effective manner. In broad terms, an industrial policy for Africa should do the following:

- **Implement joint continental infrastructure programmes**
  Among the key objectives of the AfCFTA is a reduction in the high non-tariff trade costs that characterise intra-African trade. Currently, non-tariff trade costs both at the intra-

7 Lesley Wentworth and Deon Cloete, 'SADC Infrastructure Futures: Pathways to Complementary Regional Interconnectivity' (Policy Insight 124, South African Institute of International Affairs, Johannesburg, February 2022).

REC and national levels are very high, with ECOWAS–EAC costs averaging more than 400% between 2015 and 2019.[8] One of the main reasons for such high costs is poor and/or an outright lack of infrastructure, especially in the transport sector. Transportation costs are a major component of non-tariff trade costs in goods trade. Thus, to minimise these costs, substantial investments are required in transport infrastructure that connects all major corridors on the continent. This could be achieved through a stronger collaborative effort which pools resources from all African countries.

To maximise the gains from increased trading under the AfCFTA, African countries need to adequately address the supply-side issues that stand in the way of the continent's industrial development

In the current setting, infrastructure development is largely left to national governments with the expectation that if all countries do their part, the continent will be fully connected. The problem with this arrangement is that priorities, capacity and standards differ across countries, which results in delays and sometimes the outright failure of projects. An example is the Mozambique–Malawi Nacala Corridor development which saw significant delays on the part of Malawi, while its Mozambican counterparts finished their portion of the project on time. A more effective approach would be to implement these projects as a single project, utilising a common budget from a consolidated resource pool, such as the European Regional Development Fund and the proposed SADC Development Fund. An African industrial policy would have to incorporate such a modus operandi so that efforts to develop continental infrastructure are made collectively, supported by a shared commitment to the success thereof.

The AU, through the Programme for Infrastructure Development in Africa (PIDA), coordinates infrastructure development at the continental level. The programme offers a common framework for African stakeholders to build the necessary infrastructure for more integrated transport, energy, ICT and water networks. However, as the AU notes, operationalising the institutional architecture for the implementation of the programme remains a challenge as it entails coordinating the responsibilities of continental and regional institutions and member states. Furthermore, the financing of the programme depends on the backing of these entities – either in the form of direct funding or through the provision of guarantees to private financiers and investors. A common source of these challenges is that the current framework

8 Tralac, 'Intra-Africa Non-tariff Trade Costs for the period 2015-2019,' February 28, 2022, https://www.tralac.org/resources/infographic/15537-intra-africa-non-tariff-trade-costs-for-the-period-2015-2019.html.

merely aims to coordinate the efforts of the member states and RECs as opposed to modifying the institutional arrangement to make it more efficient and effective.

The AU is still in a better position to oversee infrastructure development at the continental level. However, its responsibility should extend beyond coordinating what RECs and member states are doing individually. Instead, a common budget for infrastructure development should be established at the AU, into which resources will be pooled from member states and drawn out for the implementation of the continental projects. One way in which this could be done is for countries to commit a share of their income (say, up to 1% of GDP) which would be used for projects whose implementation would be coordinated by the AU (in close collaboration with RECs and member states in which the projects are being implemented).

The AU should also partner with financiers such as the African Development Bank (AfDB) to develop and leverage sustainable financing facilities that can be used to fund some of the much-needed infrastructure. Initiatives such as the Green Infrastructure Alliance for Africa, which aims to encourage private-sector players to finance green infrastructure projects on the continent, should also be prioritised as financing mechanisms that underpin industrial policy.

- **Promote regional specialisation for enhanced African value chains**.
  Trade theory and practice show that countries maximise their gains from trade when they specialise in goods in which they have a comparative advantage.[9] Thus, a country like South Africa, which can produce more sophisticated industrial goods such as automobiles, can gain from trade with a country like Uganda which cannot produce either sophisticated goods (eg, automobiles) or less sophisticated goods (eg, agro-processed goods) as efficiently as South Africa. This is because both countries reduce the opportunity cost of producing one item over the other – in the case of South Africa, the opportunity cost of producing agro-processed goods over manufacturing automobiles, and in the case of Uganda, the opportunity cost of producing automobiles over agro-processed goods. While this arrangement may be difficult to uphold in practice, the underlying principle pointing to the advantages of specialisation holds.

  The AfCFTA, by facilitating trade across the African continent, creates the conditions for regions (and countries) to exploit industries in which they have a comparative advantage over other regions (and countries) on the continent. Yet, since most African countries have underdeveloped manufacturing capacities, which forces them to focus on the same low-complexity value chains,[10] the question of who specialises in what becomes even more complex.

9 The comparative advantage of a country is its ability to produce a good at a lower opportunity cost than its trading partners. David Ricardo, in his book, *On the Principles of Political Economy and Taxation*, proved that countries would benefit more if they concentrated on producing goods in which they have a comparative advantage and trading these for the products in which they do not have a comparative advantage.

10 This can be seen in the fact that the four RECs' industrial policies have prioritised similar value chains (see Table 1).

Africa has a more diverse resource endowment than is reflected in its current level of specialisation. For example, some regions are endowed with favourable weather and arable land, while others are not (eg, the Horn of Africa). This provides an opportunity for the arable regions to concentrate on food production (and integrate into the food value chain) and feed regions that lack the conditions for agriculture. The 'non-agricultural' regions, in turn, have an opportunity to redirect their efforts towards other activities in which they have an advantage (eg, minerals beneficiation). Specialisation can also be achieved within the same value chains. For instance, countries with higher manufacturing capabilities like South Africa can concentrate on the high end of the value chains, while the less well-equipped countries can focus on the lower end of the chains, thus gradually achieving some forward integration.

For regional-level comparative advantage, one would imagine that older, established customs unions, such as SACU, EAC, the West African Economic and Monetary Union (WAEMU) and the Customs and Economic Union of Central Africa (CEMAC), might be able to identify their specific advantages more easily than the more diverse free trade agreement areas, such as COMESA, SADC, ECOWAS and the Community of Sahel-Saharan States (CEN-SAD). However, the Arab Maghreb Union (AMU) and the Intergovernmental Authority on Development (IGAD) preferential trade areas have a great deal in common, not only in terms of resources but also culture and the socioeconomic context. This may help them to forge a potentially unique comparative advantage over the rest of Africa.

- **Promote SMEs**

  Africa's economy is characterised by a large, informal sector which is mainly composed of small and medium enterprises (SMEs), some of which engage in informal cross-border trade (ICBT). This makes ICBT an important factor in the promotion of inclusive growth in Africa. Some RECs, including COMESA and SADC, have made significant headway in facilitating ICBT by limiting tariffs on small consignments which are normally the focus of ICBT. With the advent of the AfCFTA, the important role played by ICBT in the African economy cannot be overstated.

  As ICBT expands under the AfCFTA, the growth and development of SMEs in Africa can and should be given a boost. This is because SMEs have the potential to forward integrate within the value chains, thus promoting industrialisation. Many successful companies that now produce sophisticated products (Microsoft, Toyota, Apple, Samsung and many more) all started as small businesses before they upgraded and scaled up their production. Africa's industrial policy must therefore promote these SMEs so that they are able to contribute to the industrialisation of their countries and regions, while in the process promoting inclusive growth.

  The AU's SME Strategy and Master Plan 2017–2021 has been a good starting point in this regard. Among other things, the strategy aimed to improve the continent's business environment, increase the rate of business formation, support the formalisation of growth-oriented informal enterprises and start-ups, increase SMEs'

and entrepreneurs' participation in regional and global value chains, and promote innovative financing. The strategies/actions therein should be incorporated into Africa's industrial policy and should be seen to be essential for the achievement of its objectives. The industrial policy should also leverage the opportunities for increased ICBT provided by the AfCFTA (and any other bilateral and REC-level initiatives/agreements). The aim should be to empower African SMEs with information, digital platforms and financial facilities to help them fully integrate into cross-border trading, thereby improving their market access and their chances of growing into larger businesses.

- **Promote a clean energy transition**
  Africa's industrial policy should be one that incorporates current global issues, particularly climate change. Industrialisation comes with its own challenges, including environmental pollution due to the introduction of new production technologies that may not be clean. With the world increasingly looking to replace existing technologies with sustainable (green) ones, Africa can lead this transition since its industries lag behind those of other regions and have not yet fully adopted these less sustainable technologies. This paves the way for an industrial policy that promotes technological leapfrogging through the use of decarbonised (and digitised) energy and production processes.

  One area in which such technological leapfrogging can occur is in the development and use of clean energy. At a time when the world is talking about transitioning from traditional sources of power (such as coal-fired power plants) to cleaner energy sources (such as solar and hydrogen power), Africa remains largely unelectrified. Given the complications that come with transitioning from one source of energy to the other, particularly the political and immediate economic costs (eg, job losses and the increased burden on public finances), Africa's underdeveloped energy sector provides an opportunity to move straight into the newer and cleaner energy sectors, with fewer complications. As things stand at present, REC industrial policies differ significantly in the amount of emphasis they give to sustainable industrialisation. Some, such as the EAC Industrialisation Policy, focus heavily on this. Accordingly, Africa's industrial policy should build on these efforts to ensure that all regions are put on a sustainable industrialisation path.

  However, an important question to ask is whether Africa could ever create a competitive manufacturing sector on the back of clean energy instead of the cheaper but 'dirty' carbon-based energy. Moreover, if the developed economies industrialised using carbon-based energy, why should African countries not do the same? Indeed, a case can be made against Africa focusing on clean energy at this stage in its development. However, climate change remains one of the biggest threats to African economies and therefore requires effort from all actors throughout the world.[11]

11 According to the AfDB, Africa is the continent that is most vulnerable to the impact of climate change under all climate scenarios above 1.5°C.

Therefore, although an abrupt energy transition may not be desirable, an optimal way has to be found, which in turn must be advocated in the policy. For instance, attention can be given to promoting energy-efficient production technologies, water-saving production methods and recycled inputs in production.

- **Develop African technologies**
  Africa's industrial development should be enhanced by African innovations that are promoted and shared among countries. This will ensure that the industrialisation process is not held back by a lack of capacity to adopt and adapt the technologies emanating from countries outside Africa. Moreover, indigenous technologies tend to be designed to address locally identified needs, which helps to facilitate their full acceptance and adoption within the region. Furthermore, SMEs can derive much benefit from indigenous technologies which are less expensive than foreign technologies. The success of the 'M-Pesa' mobile money transfer service is a testimony of the importance of developing local technological solutions to local problems. Since its launch in 2007, the M-Pesa service (and its variants in other countries) has helped promote financial inclusion by recognising the limitations of the ICT and banking infrastructure on the continent and focusing on technologies that are more readily available to African populations.

  The industrial policy can promote locally developed technologies by, among other things, supporting tech-hubs that help nurture new innovations. However, the success of these hubs will also depend on the type of knowledge that young Africans acquire as a result of the education system. Therefore, Africa's industrial policy should also provide support to educational institutions to enable them to design and offer programmes that teach young people how to be innovative and develop technological solutions to local problems.

Conclusion

This policy insight paper reviewed the status of industrial policy in Africa, identifying its shortcomings and proposing changes that will help the continent realise the full potential of trading under the AfCFTA. The paper noted that the current industrial policy setting, in which countries are subject to multiple and sometimes overlapping industrial policies or strategies at the national, REC and continental levels, can be a source of inefficiencies and possible failures in the face of so many coordination challenges.

The paper proposes the formulation of a new continental industrial policy, building on the AIDA. Such a policy would need to be implemented collectively by African member countries after they have established (among other things) a more concrete way of pooling resources for crucial activities such as infrastructure development. The paper further recommends that an African industrial policy should include a joint approach to implementing infrastructure programmes, promoting regional specialisation in African value chains, promoting the role of SMEs and ICBT in Africa's industrialisation efforts, advocating the use of clean energy and facilitating the development of African technologies.

Annexure 1

African RECs' industrial policies and related priority value chains

REC	Name of industrial policy/ strategy	Priority value chains
Common Market for Eastern and Southern Africa (COMESA) Members: Burundi, Comoros, Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Eswatini, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Uganda, Zambia, Zimbabwe	COMESA Industrial Policy 2015–2030	i. Agro-processing ii. Energy iii. Textiles and garments iv. Leather and leather products v. Minerals beneficiation vi. Pharmaceuticals vii. Chemicals and agro-chemicals viii. Light engineering ix. The blue economy x. Construction materials
Southern African Development Community (SADC) Members: Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia, Zimbabwe	SADC Industrialisation Strategy 2015–2063	i. Agro-processing ii. Minerals beneficiation and related mining operations iii. Pharmaceuticals iv. Consumer goods v. Capital goods vi. Services
East African Community (EAC) Members: Burundi, Kenya, Rwanda, South Sudan, Tanzania, Uganda	East African Community Industrialisation Policy 2012–2032	i. Agro-processing ii. Fertilisers and agro-chemicals iii. Iron-ore and other minerals processing iv. Pharmaceuticals v. Petro-chemicals and gas processing vi. Energy and bio-fuels
Economic Community of West African States (ECOWAS) Members: Benin, Burkina Faso, Cabo Verde, Côte d'ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo	West African Common Industrial Policy 2010–2030	i. Food and agro-industry ii. Pharmaceuticals iii. Construction materials iv. Automotive and machinery assembly

Economic Community of Central African States (ECCAS) Members: Angola, Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Rwanda, and Sao Tome and Principe	None	NA
Arab Maghreb Union (UMA) Members: Algeria, Libya, Mauritania, Morocco, Tunisia	None	NA
Community of Sahel-Saharan States (CEN-SAD) Members: Benin, Burkina Faso, Central African Republic, Chad, the Comoros, Côte d'Ivoire, Djibouti, Egypt, Eritrea, Gambia, Ghana, Guinea-Bissau, Libya, Mali, Mauritania, Morocco, Niger, Nigeria, Senegal, Sierra Leone, Somalia, Sudan, Togo, Tunisia	None	NA
Intergovernmental Authority on Development (IGAD) Members: Djibouti, Eritrea, Ethiopia, Somalia, Sudan, South Sudan, Kenya, Uganda	None	NA.

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