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Progress, challenges, opportunities and priority actions to accelerate the achievement of Sustainable Development Goal 9

I. Introduction

1. Goal 9 of the 2030 Agenda for Sustainable Development is to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. Infrastructure provides the basic physical systems and structures essential to the operation of a society or enterprise. Industrialization drives economic growth, creates job opportunities and thereby reduces income poverty. Innovation advances the technological capabilities of industrial sectors and prompts the development of new skills. Inclusive and sustainable industrial development is an income generator that allows for rapid and sustained increases in living standards, and provides the technological solutions needed for environmentally sound industrialization.

2. Functional and resilient infrastructure is the foundation of every successful community. To meet future challenges, industries and infrastructure in Africa must be upgraded. This requires the continent to promote innovative sustainable technologies and to ensure equal and universal access to information and financial markets.

3. Goal 9 has eight targets: develop sustainable, resilient and inclusive infrastructure (target 9.1); promote inclusive and sustainable industrialization (target 9.2); increase access to financial services and markets (target 9.3); upgrade all industries and infrastructure for sustainability (target 9.4): enhance research and upgrade industrial technologies (target 9.5); facilitate sustainable infrastructure development for developing countries (target 9.a); support domestic technology development and industrial diversification (target 9.b); and provide universal access to information and communications technology (target 9.c).

4. Goal 9 is linked to the aspirations articulated in Agenda 2063: The Africa We Want, of the African Union, in particular aspiration 2: an integrated continent, politically united, based on the ideals of Pan-Africanism and the vision of Africa's renaissance. In this regard, Africa aspires to have, by 2063, world class, integrated infrastructure that crisscrosses the continent. It is envisaged that the infrastructure

* ECA/RFSD/2023/1.

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needed to support the continent's accelerated integration and growth, technological transformation, trade and development, will be in place by 2063. This will be a catalyst for manufacturing, skills development, sustainable and innovative technologies, research and development, integration and intra-African trade, investment and tourism. Flagship projects of Agenda 2063 that are linked to Sustainable Development Goal 9 include a continental integrated high-speed train network; implementation of the Grand Inga Dam project; establishment of the Single African Air Transport Market; formulation of an African commodities strategy; establishment of African financial institutions; a pan-African e-network; and an African passport and the free movement of people.[1]

II. Trends and progress towards the achievement of Sustainable Development Goal 9 and the related goals of Agenda 2063

A. Trends in infrastructure investment

1. Commitments to infrastructure investment

5. According to the Infrastructure Consortium for Africa,[2] the total commitments to infrastructure investment in Africa in 2020 were 10 per cent lower than in 2019, mainly due to the impact of the coronavirus disease (COVID-19) pandemic on the economy. The decline in infrastructure commitments in Africa, caused by the more restrained financing by China and by the effects of the pandemic, resulted in an increasing gap between the annual investment needed to provide basic infrastructure services to the African population and the actual financing amounts committed to African infrastructure in 2019 and 2020. The Infrastructure Consortium for Africa estimates the annual cost to achieve basic infrastructure needs in Africa at $137 billion–$177 billion and the financing gap at $59 billion–$96 billion.[3]

6. African Governments continued to provide the largest share of commitments to infrastructure investment on the continent, and commitments from the private sector reached $19 billion in 2020, compared with $11.8 billion in 2018. Public-private partnerships continued to contribute to overall infrastructure investment, with 27 public-private partnership projects closed in 2019 and the same number closed in 2020. The share of commitments to transport increased from 32 per cent in 2018 to 42 per cent in 2020. Financing gaps remained substantial in all sectors except for the information and communications technology sector and increased markedly in the water and sanitation sector between 2018 and 2020 (see table 1).

[1] More information is available at https://au.int/en/agenda2063/flagship-projects.

[2] The Infrastructure Consortium for Africa, *Infrastructure Financing Trends in Africa 2019–2020* (Abidjan, African Development Bank, 2022).

[3] Ibid.

Table
Trends in financing gap by sector, 2017–2020
(Billions of United States dollars)

Sector	*Financing gap*			
	2017	*2018*	*2019*	*2020*
Transport	3–15	4–16	3–15	4–16
Water	45–55	43–53	46–56	49–59
Energy	8–23	5–20	4–19	6–21
Information and communications technology	2–5	0–3	0	Negative

Source: Infrastructure Consortium for Africa, *Infrastructure Financing Trends in Africa 2019–2020* (Abidjan, African Development Bank, 2022).

7. Although transport was the only sector that had an increase in commitments in 2020 over 2019, its financing gap increased from a range of $3–$15 billion in 2019 to $4–$16 billion in 2020. In 2019, the annual financing gap for water was in the range of $46–$56 billion and grew to a range of $49–$59 billion in 2020. After significant investment in power and growth in electricity access in the latter half of the past decade, the energy sector gap was lowest in 2019, when it was in the range of $4–$19 billion. This progress was reversed in 2020, when the gap increased to a range of $6–$21 billion, and the rate of electricity access declined for the first time in more than a decade.[4]

2. Universal access to information and communications technology

8. In response to target 9.c, many countries have established communal funds known as universal service and access funds, which are dedicated to expanding digital connectivity to unserved and underserved communities.[5] Besides the funds, some of the progress made under this target includes the elaboration of universal service strategies, the establishment of community networks, the promotion of public-private partnerships, and the promotion of infrastructure-sharing to reduce the cost of deployment and therefore lower service access charges. Progress was also made on skills development. As a result, 82 per cent of the African population has access to at least a 3G network. Africa is still the least connected region, however, in terms of the percentage of the population being offline (67 per cent);[6] deliberate efforts to improve this are vital for the continent to attain the target.

9. The gender gap in access to and usage of digital technologies remains a challenge for individuals and societies. Despite the progress made, the gender divide in access to information and communications technologies is significant in Africa, compared with the rest of the world. For example, even though 68 per cent of countries had a universal service and access fund, just 3 of the 37 countries had universal access policies with the explicit aim of connecting women and girls through the fund. In addition, the sparse population in rural areas makes it expensive to extend services to populations in those areas. Challenges such as limited power supply for information and communications technology infrastructure, unaffordable services, inadequate digital skills, and insufficient attention to the requirements of people with

[4] Ibid.

[5] For additional information on universal service and access funds, see https://webfoundation.org/docs/2018/03/Using-USAFs-to-Close-the-Gender-Digital-Divide-in-Africa.pdf.

[6] See www.itu.int/itu-d/reports/statistics/global-connectivity-report-2022/.

special needs, all exacerbate the digital divide. Other challenges include unspent funds and low disbursement rates.[7]

10. In 2021, African Heads of State and Government adopted the second Priority Action Plan for the Programme for Infrastructure Development in Africa, with a total of 69 projects in the areas of transport (28), energy (18), water (12) and information and communications technology (11) to be implemented at an estimated cost of $160.8 billion. The second Priority Action Plan is accompanied by an implementation strategy, a financing strategy and a partnership strategy. The development of the action plan and strategies was coordinated by a task force that included the African Union Commission, the African Union Development Agency and its New Partnership for Africa's Development, the African Development Bank, the Economic Commission for Africa (ECA) and regional economic communities. The partnership strategy, developed under the leadership of ECA, emphasizes that the Programme for Infrastructure Development in Africa should be mainstreamed into African strategic infrastructure partnerships. The financing strategy, developed under the leadership of the African Development Bank, identifies options for financing the Programme's projects,[8] including the use of green funds.

3. Infrastructure development and the African Continental Free Trade Area

11. Infrastructure development is key to promoting regional integration and industrialization and to harnessing the full potential of the Agreement Establishing the African Continental Free Trade Area. A recent study by ECA indicates that the Agreement will lead to an increase in intra-African freight demand of around 28 per cent, compared with a scenario without the Agreement.[9] Investment opportunities were analysed, from which the following remarkable findings were revealed:

(a) Implementation of the Agreement will lead to an increase in demand for road, rail, maritime and air freight by 22, 8, 62 and 28 per cent, respectively;

(b) The modal share on rail would increase from 0.3 per cent to approximately 7 per cent, but road transport will continue to hold the lion's share (70 per cent);

(c) Africa would require close to 2 million additional trucks, more than 100,000 rail wagons, 250 aircraft and more than 100 vessels by 2030, if the Agreement is fully implemented; aircraft demand to support trade flows within West Africa would increase by 13.2 per cent by 2030. Trade between North Africa and West Africa would increase demand for aircraft by 12.9 per cent, while demand within Southern Africa would increase by 12.2 per cent.

12. The above findings highlight the need for, among other things, the implementation of such continental programmes and instruments as the Programme for Infrastructure Development in Africa, the intergovernmental agreement on the harmonization of norms and standards of the Trans-African Highway Network, and the Single African Air Transport Market.

B. Trends in industrial development in Africa

1. Africa lags behind in manufacturing activities

13. Inclusive and sustainable industrialization in Africa is crucial for promoting structural transformation, enhancing manufactured-value addition and manufacturing

[7] A full report on the digital gender divide is available at www.oecd.org/digital/bridging-the-digital-gender-divide.pdf.

[8] Information on the Programme's approved projects is available at https://pp2.au-pida.org/approved-projects/.

[9] *The African Continental Free Trade Area and Demand for Transport Infrastructure and Services* (United Nations publication 2022).

output, and creating decent jobs, especially for women and young people. This in turn will support efforts to eradicate poverty, reduce inequality and fully harness the demographic dividend on the continent.

14. In 2021, global manufacturing activity rose above the pre-pandemic level, signaling the recovery of the manufacturing sector from the repercussions of the COVID-19 pandemic. Recovery has been uneven across countries, however, as the least developed countries lagging behind, with a share of manufacturing value added in total gross domestic product (GDP) of 12.5 per cent in 2021, compared with 26.8 per cent and 21.1 per cent in East and South-East Asia, respectively.[10] The slow recovery of the manufacturing sector in least developed countries is due to trade disruption, continued decline in global demand, and limited policy space to deploy fiscal stimulus measures to help the industrial sectors, in particular small industrial enterprises which have been facing significant challenges in gaining access to finance.[11]

15. After the slump in manufacturing in 2020 caused by the COVID-19 pandemic and its subsequent recovery in 2021, world manufacturing continued to grow at a stable pace, with a year-over-year growth rate of 3.1 per cent in the second quarter of 2022. Available data on manufacturing output in Africa show a growth rate of 3.3 per cent, slightly higher than the global average.[12]

16. In general, approximately 87 per cent of African countries have a comparative advantage in primary commodities, implying that very few countries on the continent have a comparative advantage in manufacturing. In 2018, total African trade accounted for around 3 per cent of global trade. The continent's share of global exports was approximately 1 per cent between 2010 and 2018, while South Africa alone contributed nearly 0.37 per cent to global exports of manufactures between 2010 and 2019. The share of intra-African exports in total African exports reached a peak of 19 per cent in 2015, while the intra-African share of African imports rarely exceeded 15 per cent between 2001 and 2019; however, relative to 2015 levels, the value of African exports is projected to grow by more than twentyfold and imports by nearly fifteenfold by 2063. In addition, by 2063, African trade is projected to represent 12.5 per cent of global trade.[13] The level of integration of African economies into global value chains is limited, while a few countries dominate regional value chains. Many African firms are small in scale, remote and primary-product producers, and are characterized by low productivity. Ultimately, there is a need to leverage the Agreement Establishing the African Continental Free Trade Area to promote the structural transformation and diversification of African economies.

2. Industrialization and the Agreement Establishing the African Continental Free Trade Area

17. The Agreement holds significant potential to promote inclusive and sustainable industrialization through economies of scale and to foster a more competitive manufacturing sector. It also has the potential to promote value addition, industrialization and economic diversification, and develop local and regional value chains. The World Bank estimates that the Agreement, if fully implemented, could bring income gains on the continent of between 7 per cent ($450 billion) and 9 per cent ($571 billion) by 2035 – above the baseline without the Agreement – and could lift up to 50 million people out of extreme poverty. This would be through a

[10] United Nations Industrial Development Organization, national accounts database. Available at https://stat.unido.org/database/National%20Accounts%20Database (accessed on 22 December 2022)..

[11] Report of the Secretary-General on progress towards Sustainable Development Goals, *The Sustainable Development Goals Report 2022* (United Nations publication, 2022).

[12] United Nations Industrial Development Organization, *World Manufacturing Production, Quarter II 2022 Report*; and *International Yearbook of Industrial Statistics 2022* (Vienna, 2022).

[13] Garth le Pere, "Harnessing Africa's external trade partnerships for Agenda 2063", International Trade Working Paper, No. 2017/02 (London, Commonwealth Secretariat, 2017).

significant increase in foreign direct investment flows, channeled mainly into the manufacturing, agribusiness and services sectors, with a substantial impact on the volume and diversification of African exports.[14]

18. The significance of the African Continental Free Trade Area to industrialization in Africa informed the decision of African countries to place industrialization at the core of the Agreement. In addition, the continent's regional economic communities recognized the critical role of industrialization in regional integration and their development agendas.[15] Intraregional trade has tremendous potential to increase economies of scale, diversification and value addition. To realize the objectives of the Agreement, African countries need to articulate effective policies, strategies and programmes, create specific action plans to promote trade (especially exports) and identify new opportunities for diversification, industrialization and value-chain development.

III. Challenges, constraints and emerging issues

19. African countries face challenges in mobilizing domestic and external financial resources for economic growth and job creation, structural transformation of their economies, and realizing their development potential. The mobilization of domestic and external finance is essential to meet their investment needs, estimated at around $1.3 trillion a year. As of early 2021, the Sustainable Development Goal financing gap in developing countries was estimated to have increased by at least 50 per cent from $3.7 trillion in 2020.[16] The COVID-19 pandemic has magnified the "scissors effect" of the gap by increasing the need for finance while decreasing the availability of resources. Traditional sources of financing – both domestic and external – have proved insufficient to meet these financing needs over the years.

20. With a rising debt-to-GDP ratio, an existing average tax-to-GDP ratio on the continent of 16 per cent,[17] and the narrowing of public spending space as a result of the pandemic, complementary financial models are essential to sustain the progress made in African development. Crowding-in private sector investment is, therefore, vital to providing sustainable finance for the continent's development, complementing ongoing public sector efforts.

A. Impact of the pandemic on infrastructure investment

21. The infrastructure sector, especially the energy, transport and water subsectors, faced a wide range of challenges because of the COVID-19 pandemic. Country resources were diverted towards emergency spending on health, social issues, and economic stimulus efforts. Infrastructure projects suffered, as many countries and financial institutions were affected by rating downgrades that made it more difficult to obtain finance. In Africa, 56 per cent of rated countries were downgraded – significantly above the global average of 31.8 per cent and the averages in other regions (45 per cent in the Americas, 28 per cent in Asia and 9 per cent in Europe).[18]

[14] Roberto Echandi, Maryla Maliszewska and Victor Steenbergen, *Making the Most of the African Continental Free Trade Area: Leveraging Trade and Foreign Direct Investment to Boost Growth and Reduce Poverty* (Washington, D.C,World Bank, 2022).

[15] *Economic Report on Africa 2015: Industrializing Through Trade* (United Nations publication, 2015).

[16] For additional information on the Sustainable Development Goal financing gap in the pandemic era, see www.oecd.org/dev/OECD-UNDP-Scoping-Note-Closing-SDG-Financing-Gap-COVID-19-era.pdf.

[17] African Tax Administration Forum, and others, "Revenue statistics in Africa 2022". Available at www.oecd.org/tax/tax-policy/brochure-revenue-statistics-africa.pdf.

[18] The Infrastructure Consortium for Africa, *Infrastructure Financing Trends in Africa 2019–2020* (Abidjan, Côte d'Ivoire, African Development Bank, 2022).

22. Travel restrictions and lockdowns resulted in delays in project preparation. Negotiations between the public and private sectors that were necessary to close complex public-private-partnership projects proved more difficult to do via video conference than face to face. Supply chain disruptions and price increases affected the implementation of many energy projects, especially solar projects. A number of projects under construction were affected by foreign contractors leaving the continent at the beginning of the pandemic.[19]

23. The broad decline in economic activity also resulted in job losses that reduced the ability of consumers to pay tariffs, especially electricity tariffs. As a result, it was estimated that some 30 million people would lose access to electricity, which would, in turn, negatively affect the finances of multiple electric utilities.[20] Proposed power utility investment involving the private sector that was not finalized before COVID-19 hit was affected by investor concerns about financial risks arising from the pandemic. The decline in total infrastructure commitments from $85 billion in 2019 to $81 billion in 2020 was, in part, due to the shift by some bilateral and multilateral organizations from infrastructure to operations to address the effect of the COVID-19 pandemic.[21]

B. Multiple crises compounding industrialization challenges in Africa

24. Africa is the region of the world that is lagging behind the most in terms of industrialization. According to the latest estimates of the United Nations Industrial Development Organization (UNIDO), manufacturing accounted for only 10.5 per cent of African GDP, a figure significantly lower than the world share (16.9 per cent) and below all other developing regions. In addition, although industrial production at the global level experienced a rapid recovery, reaching its pre-pandemic level by the end of 2020, industrial recovery in African countries has been much slower, reaching its pre-pandemic level only by the end of 2021 (see figure I).[22]

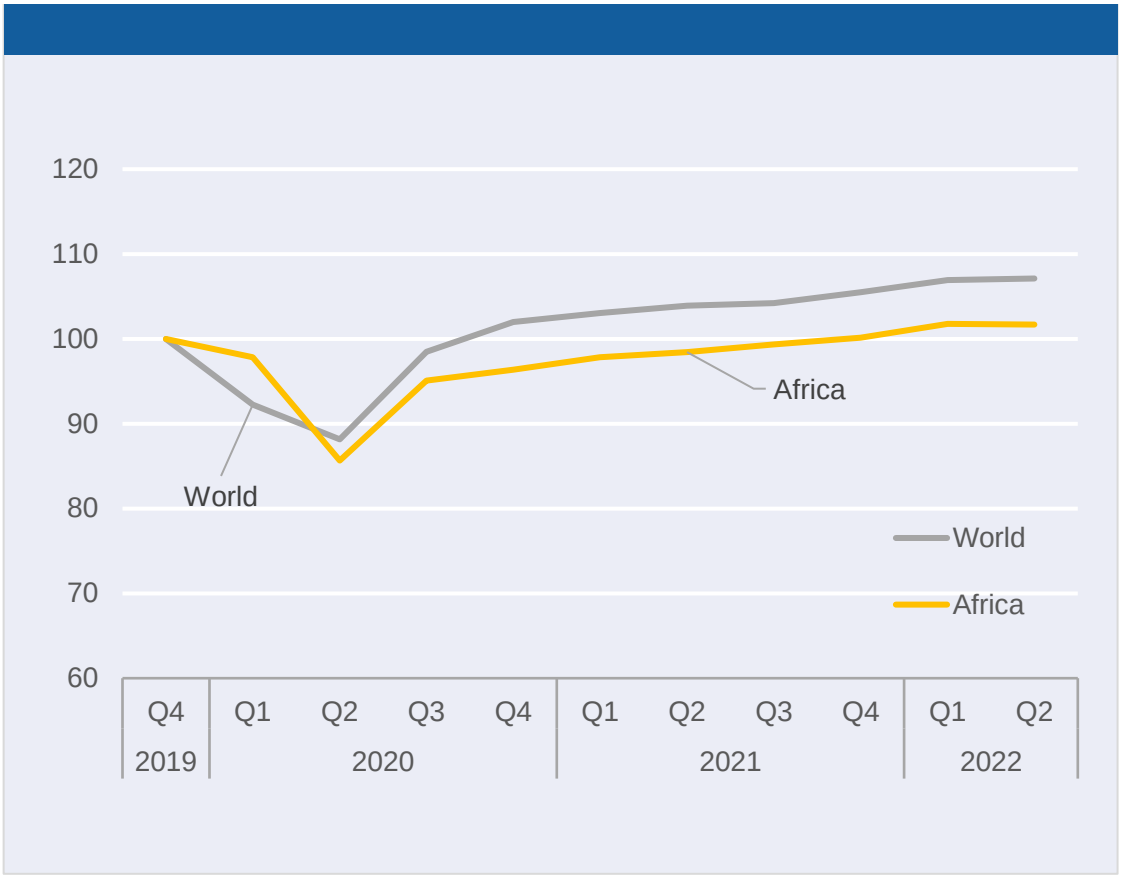
[19] Ibid.

[20] International Energy Agency, and others, *Tracking SDG 7: The Energy Progress Report* (Washington, D.C., World Bank, 2021).

[21] The Infrastructure Consortium for Africa, *Infrastructure Financing Trends in Africa 2019–2020* (Abidjan, Côte d'Ivoire, African Development Bank, 2022).

[22] *Industrial Development Report 2022: The Future of Industrialization in a Post-Pandemic World* (United Nations publication, 2021).

Figure I
Industrial production during the pandemic: seasonally adjusted index, December 2019–June 2022
(December 2019=100)

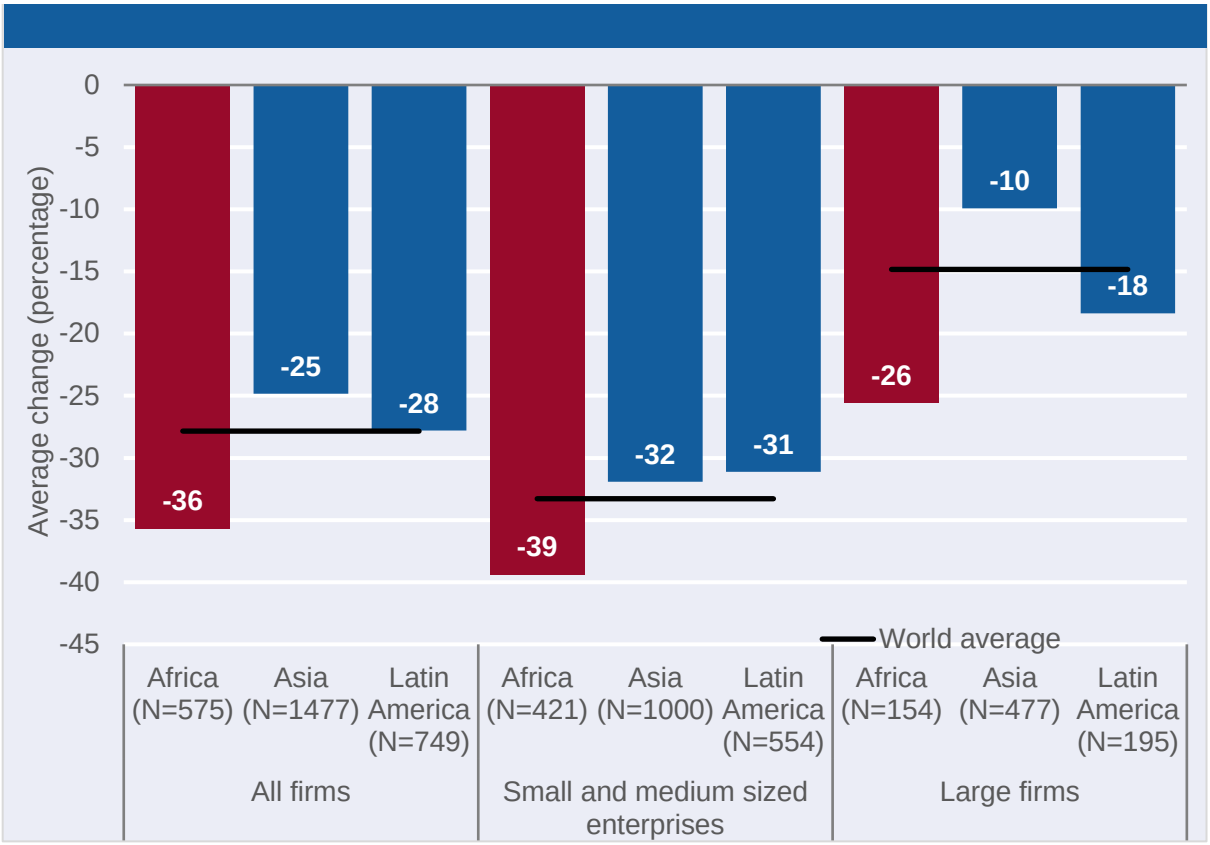


Source: UNIDO elaboration based on information taken from the Quarterly Index of Industrial Production database.
Abbreviations: Q1, first quarter; Q2, second quarter; Q3, third quarter; Q4, fourth quarter.

25. The strong impact observed in aggregate industrial data was also confirmed by firm-level data collected by UNIDO during the pandemic.[23] The survey results revealed that the pandemic had a strong impact on African firms: on average, they experienced a 36 per cent decline in profit when compared with pre-pandemic levels (see figure II). Notably, the impact was much more significant in small and medium-sized enterprises than in large firms (39 per cent versus 26 per cent). Overall, African firms reported larger losses than firms in other developing regions, such as Asia and Latin America.

[23] More information on the UNIDO survey is available at www.unido.org/covid19_surveys.

Figure II
Impact of the pandemic across manufacturing firms: change in yearly profits (2020 versus 2019), by region and by firm size



Source: UNIDO elaboration based on UNIDO COVID-19 firm-level surveys.
Abbreviation:N, number of firms.

26. The pandemic has had a negative impact on the continent's sovereign debt situation, triggering concerns that, in the face of diminishing resources and increasing costs, African countries risk tipping into debt distress. An already precarious fiscal environment, in which debt repayments account for a disproportionately high share of public expenditure, has been exacerbated by pandemic-induced economic shutdowns, capital flight and currency volatility.[24] At present, 22 African countries are either in debt distress or are at high risk of debt distress. This indicates that African Governments are struggling to pay the debts they have incurred.[25]

27. This situation has been exacerbated by the war in Ukraine, which is endangering the recovery of African countries from the pandemic and is creating new tensions in terms of macroeconomic stability (debt distress and inflation) and food security. It is also leading to increased inflation in commodity prices, especially food and gasoline, and is disrupting global supply chains of critical goods such as fertilizer. This might make it even more difficult for the African industrial sector to flourish.

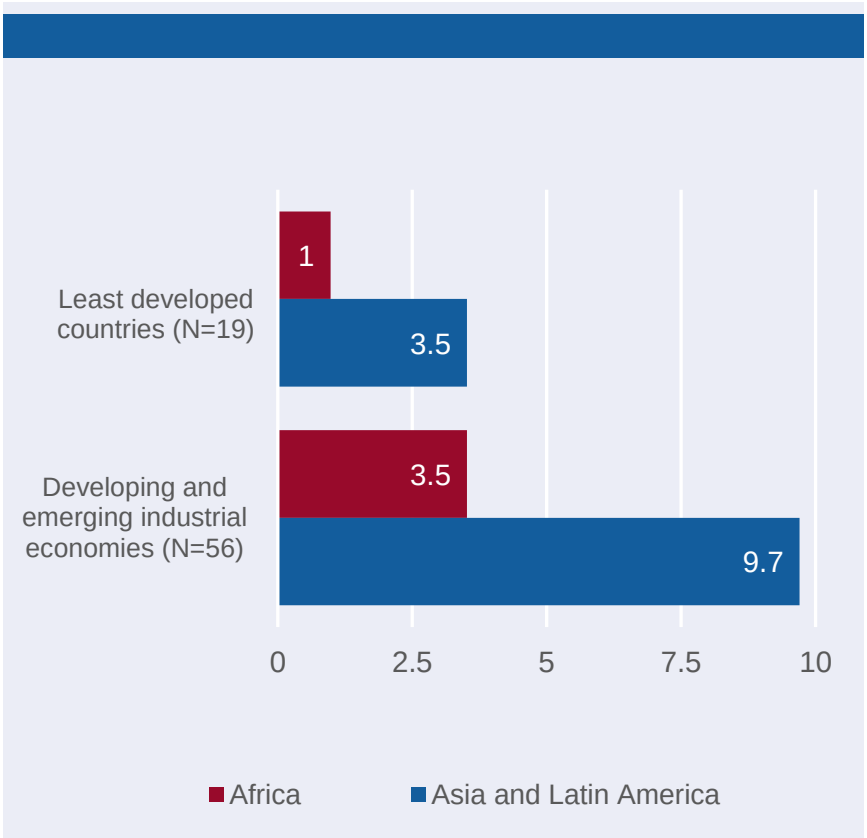
[24] Ben Chandler, "COVID-19 & African debt: further distress or the beginning of new paradigm?" Mo Ibrahim Foundation, June 2022.

[25] Danny Bradlow, "Debt distress in Africa: biggest problems, and ways forward", DownToEarth, 12 May 2022.

C. Constraints to industrialization

28. Advancing towards inclusive and sustainable industrial development is at the core of Goal 9. Accelerating progress towards realizing Goal 9 requires building industrial capability and fostering the digitalization of manufacturing firms. In both dimensions, African countries are lagging behind when compared with their peers in other regions. According to the UNIDO competitive industrial performance index, which reflects a country's industrial capability, the values for least developed countries and developing and emerging industrial economies in Africa are approximately one third of those of their peers in Asia and Latin America (see figure III).

Figure III
Industrial capability: competitive industrial performance index, 2021



Source: UNIDO elaboration based on UNIDO competitive industrial performance index for 2021 Database (Competitive Industrial Performance Index 2019 score).

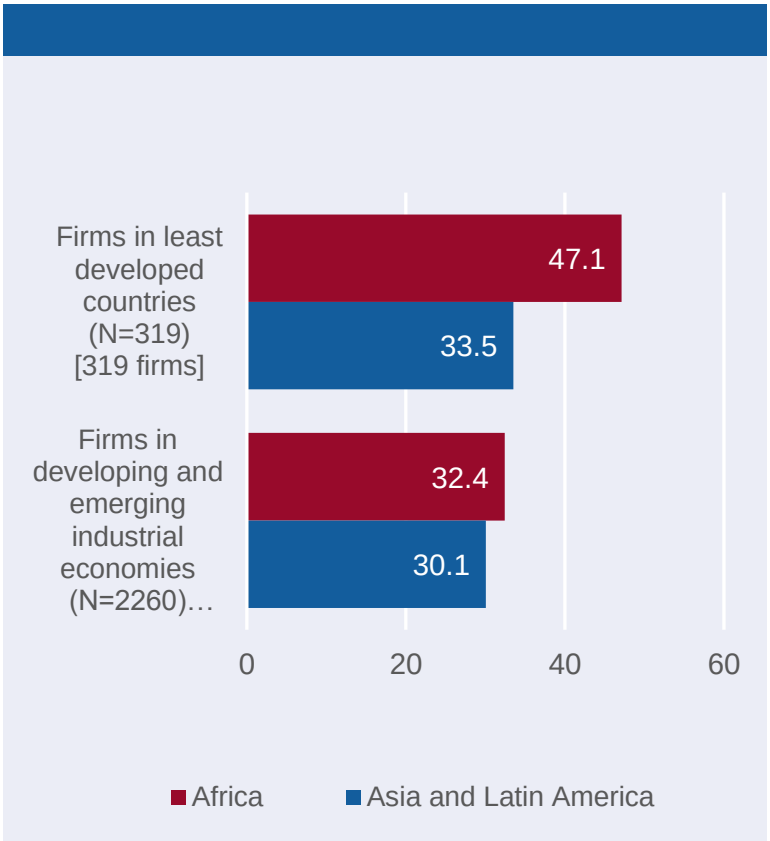
Note: Competitive industrial performance index scores were multiplied by 100 for better visualization.

Abbreviation:N, number of countries.

29. In addition, Africa lags behind Asia and Latin America in terms of technological advancement. According to UNIDO,[26] the share of firms in Africa not using digital technology, which is a proxy for the extent of the digital gap, is higher than that of those in other regions (see figure IV). Given the present circumstances, African countries will continue to lag behind in achieving Goal 9 unless rapid action is taken.

[26] UNIDO, *Industrial Development Report 2022: The Future of Industrialization in a Post-Pandemic World* (United Nations publication, 2022).

Figure IV
Share of firms not using digital technology
(Percentage)



Source: UNIDO, *Industrial Development Report 2022: The Future of Industrialization in a Post-Pandemic World* (United Nations publication, 2022).
Abbreviation:N, number of firms.

30. Overall, the low level of industrialization in Africa is attributed to numerous factors such as: inconsistency in industrial and trade policies; trade facilitation constraints; inadequate productive capacity and trade-related infrastructure; trade finance gaps; high cost of access to the global capital market; inadequate trade information; constraints to free movement of people and labour; and asymmetric shocks to countries arising from the implementation of regional agreements.

D. Emerging issues

31. New industrial policies are needed for African countries to accelerate their progress towards achieving Sustainable Development Goal 9. These policies should promote a green, inclusive and resilient recovery from the COVID-19 pandemic.[27] Green industrial policy should simultaneously target demand and supply. From the supply side, Governments can provide incentives to improve the resource and energy efficiency of firms and promote green innovation. From the demand side, Governments can shift consumer behaviour through demand-side instruments.

32. To make industrial policy more inclusive, Governments need to pay particular attention to industries that have been more vulnerable to the pandemic. In the case of

[27] Ibid.

small and medium-sized enterprises, for example, strong efforts should be devoted to facilitating the uptake of new technologies, especially advanced digital production technologies, and to promoting market diversification. In parallel, African Governments need to enhance their safety net provisions and support the employability of young people and female and informal workers.

33. An effective industrial policy should also strengthen the resilience of countries to potential shocks in the future. To do so, Governments can raise awareness and foster the creation and exchange of knowledge about existing and potential risks to mitigate the impact of future crises. Firms can also be supported in the analysis of industry vulnerability data and in the use of monitoring and evaluation mechanisms. Such mechanisms can help firms to strengthen their crisis preparedness.

IV. Transformative action, partnerships and ambition

A. Innovative finance

34. Barriers relating to financial market depth, governance, project-specific characteristics, and favourable skills and infrastructure have stifled private investment in Africa. Harnessing investment opportunities in Africa will require innovation in financing structures and strategic deployment of public capital to crowd-in private investment.

(1) Green and sustainable products

35. Concessional finance is not adequate in either scale or scope to meet the continent's financing needs for its post-pandemic green recovery. As a market-based innovative instrument, the green, social and sustainability bonds can help to fill the gap in financing the Sustainable Development Goals, and exclusively direct resources to projects with positive climate and environmental outcomes. Such bonds can help countries to go beyond the $100 billion per year climate finance goal.[28] More important, it can help to build deeper, resilient and sustainable financing for African countries.

36. On the demand side, there has been considerable interest in green, social and sustainability bonds, as investors are actively seeking to make long-term investments with strong environmental, social and governance characteristics. Development finance institutions and multilateral development finance institutions can use blended finance to develop a pipeline of projects that can be aggregated to issue those bonds. In such regions as sub-Saharan Africa, where access to capital markets and impact reporting are limited, this would enable greater transparency and disclosure.

(2) Liquidity and Sustainability Facility

37. Repurchase agreements – commonly known as repos – have been the backbone of global markets for many years. Exchanging securities (e.g., bonds) for cash and repurchasing them at a higher price has proved extremely popular in developed economies as a means of increasing liquidity and reducing borrowing costs. A drawback of purchasing African bonds is that they cannot be recycled, or made liquid, as easily as other bonds. A reason for this is the lack of well-developed repo markets. African bonds are associated with limited redemption capacity and liquidity, making transactions time-consuming and costly. Low liquidity and a lack of well-functioning repo markets lead investors to demand higher compensation.

[28] At the fifteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Copenhagen in 2009, developed countries committed to a collective goal of mobilizing $100 billion per year for climate action in developing countries. The goal was later formalized at the sixteenth session of the Conference of the Parties, held in Cancun in 2010 (www.oecd.org/climate-change/finance-usd-100-billion-goal/.).

38. In essence, African countries pay excessive borrowing costs. The continent's payments on its Eurobond issuances are estimated at 100–260 basis points higher than countries in other regions with similar macroeconomic fundamentals and risk profiles.

39. Against the above background, ECA launched the Liquidity and Sustainability Facility in 2021 with a dual objective of supporting the liquidity of Eurobonds held by African countries and incentivizing green and Sustainable Development Goal-related investment on the continent. The Facility provides African Governments and private investors with a liquidity structure on par with international standards, which can improve the liquidity of African-held Eurobonds and help to lower the cost of capital market financing through a repo facility. The Liquidity and Sustainability Facility can save African countries approximately $11 billion in lending costs in the coming five years.

(3) Blended instruments

40. Blended finance is the use of catalytic funding from public and philanthropic sources to mobilize additional private sector investment to realize the Sustainable Development Goals. There are approximately $2 trillion in assets held by institutional investors in Africa.[29] The majority of these assets are currently invested in government securities, with only a small fraction invested in Sustainable Development Goal-tailored investment, including alternative investment such as infrastructure. To build resilient portfolios, domestic institutional investors must diversify their investment. Pension funds in South Africa and Kenya are permitted to allocate up to 10 per cent of their assets to alternative investment. Those in Nigeria (tier II) can allocate up to 5 per cent of their assets, while those in Namibia and Botswana can allocate up to 3.5 per cent and 2.5 per cent, respectively.

41. African pension funds were estimated to have held assets worth $676 billion in 2017, which grew substantially to $1.1 trillion by 2020. The Office of the Special Adviser on Africa, in its flagship report on *Financing for Development in the era of COVID-19: The Primacy of Domestic Resource Mobilization*,[30] shows that if African countries were able to allocate 2.8 per cent of their pension fund assets to infrastructure, similar to South Africa, this would generate an additional $20.9 billion per year for infrastructure development and reduce the infrastructure financing gap by 30 per cent.

B. Overcoming industrialization challenges in Africa: strategies and actions

42. The industrialization strategy for African countries should be based on a two-pronged approach. One aspect involves the time-honored import substitution industrialization approach, which should benefit the continent not only by expanding the size of its middle class, but also by improving its trade balance, which would, in turn, contribute to building strong domestic resource mobilization systems. The other aspect involves prioritizing domestic and regional production of basic items that are currently imported and constitute the low-hanging fruit of import substitution-based industrialization, which would increase the productive capacity, economic growth and policy space of African countries. This would enable them to generate decent jobs, harness the demographic dividend and expand the financial inclusion of women, young people and small and medium-sized enterprises, including by formalizing the informal economy and thus increasing the tax base.

[29] See www.afdb.org/en/news-and-events/press-releases/african-development-bank-africa50-and-newly-launched-african-sovereign-investors-forum-signal-strong-desire-jointly-mobilize-capital-infrastructure-projects-52677.

[30] United Nations publication, 2022.

43. A combination of the aforementioned factors should help to promote the structural transformation and the diversification of African economies, thus allowing the continent to reduce its reliance on a narrow base of raw-commodity exports and move further upstream in the regional and global value chains, with more value addition at or close to the source in Africa.

44. Specific challenges to industrialization in Africa should be addressed through the following actions:

(a) Adopting and implementing coherent and efficient industrial and trade policies at the national, regional and continental levels to boost intra-Africa trade;

(b) Removing non-physical barriers to trade such as unnecessary roadblocks, differentiated and cumbersome customs and transit procedures, and burdensome documentation and regulations across Africa;

(c) Strengthening productive capacity through intra-Africa investment and increased flows of foreign capital by prioritizing the implementation of continental programmes such as the Action Plan for Accelerated Industrial Development for Africa, and improving and harmonizing investment regulations across Africa;

(d) Prioritizing the implemention of the Programme for Infrastructure Development in Africa, mobilizing resources and encouraging private sector participation in regional infrastructure and industrial projects;

(e) Enhancing the capacity of regional and continental financial institutions, improving payment systems and creating a favourable environment for providers of financial services to extend and guarantee export credits;

(f) Articulating Africa-wide coordinated action to attract significant external development finance to facilitate the continent’s industrialization in the context of the African Continental Free Trade Area;

(g) Establishing interconnected centres to facilitate the exchange of trade-related information and the digitalization of industrial activities in Africa;

(h) Operationalizing existing policies and protocols on free movement of people and labour migration, and articulating agreements on mutual recognition of qualifications;

(i) Strengthening statistical capabilities and enhancing the availability of statistics for better evidence-based policymaking in Africa.

V. Key messages

45. In the light of the above review, the following key messages are put forward for further consideration:

(a) African countries should establish conducive legal and regulatory frameworks for universal service and access funds, with a view to attracting private sector investment and ensuring meaningful connectivity to unserved and underserved areas. Special attention should be given to putting in place foundational regulations for cybersecurity, data protection and digital identity that are crucial to meaningful connectivity and the adoption of emerging technologies;

(b) Productive transformation in Africa is critical to the success and sustainability of the African Continental Free Trade Area. Countries on the continent should, therefore, build resilient regional value chains to develop productive and competitive economies at the continental and global levels, in order to achieve the objectives of the Agreement Establishing the African Continental Free Trade Area, the Sustainable Development Goals of the 2030 Agenda and the vision and aspirations of Agenda 2063;

(c) Industrial development in Africa should embrace three core strategies– manufactured exports, industrial agglomeration and innovative industrial financing;

(d) Blended finance instruments such as concessional capital, and the use of risk-mitigation instruments such as guarantees, should be harnessed to increase the comfort of private investors when it comes to participating in infrastructure projects. African countries should increase the deployment of innovative finance by identifying barriers that constrain finance by sector and geography, and matching finance instruments with the barriers identified. They should also enhance engagement and cofinancing with local stakeholders, and establish conducive policy and regulatory frameworks to crowd-in private sector participation in infrastructure and industrial development;

(e) Climate-friendliness was one of the criteria for selecting projects for the second Priority Action Plan of the Programme for Infrastructure Development in Africa. The partnership strategy for the Programme's second Priority Action Plan is premised on the mainstreaming of Programme projects into the continent's strategic infrastructure partnerships. The selected projects are therefore eligible for financing through green funds and provide a basis for engagement with partners at the bilateral and multilateral levels, and with development finance institutions that prioritize sustainable and impact investment.