United Nations
Economic Commission for Africa

Assessing the impact of COVID-19 containment and lockdown measures on economic activity in Africa

"The recovery from the COVID-19 crisis must lead to a different economy"
António Guterres, Secretary-General, 31 March 2020.

Africa's quarterly **economic performance** and **outlook**

July–September 2020

Summary

The present edition of the quarterly report provides an analysis of recent economic performance and the envisaged outlook of African economies based primarily on the sectoral impact of the COVID-19 pandemic on the continent's economic activities. The report assesses the extent to which the different economic sectors have been affected by the pandemic since January 2020 and proposes policy recommendations to assist African countries in achieving macroeconomic stability and economic growth as they recover from the crisis.

Key messages

- African economies are now easing out of their very strict lockdowns, which have caused a severe deterioration of economic activities on the continent, the extent of which reflects the differences between the economic structures of individual countries.

- Using the output approach, the aggregate output of Africa is expected to contract by 8.0 per cent in 2020, slightly above the 5.4 per cent contraction from the macroeconomic modelling approach, and may not fully recover before 2024, unless strong effective recovery and adaptive policies are put in place. The drop in gross domestic product (GDP) is mainly underpinned by the underutilization of factors of production, the decline in productivity and external demand, and the drop in final consumption due to social distancing and the prevailing lockdown measures.

- All the major economic sectors (agriculture, industry, services), the associated growth drivers and employment have been severely affected. Subsectors such as tourism-related industries (in particular accommodation, food service activities and travel) are the most severely affected, followed by construction, manufacturing, wholesale and retail trade, other services (arts, entertainment, community services), real estate and professional services, education and mining. Finance intermediation, transport and communications, agriculture and utilities have experienced mild effects, while public administration and health sector activities have increased over the period.

- Effective short-term monetary and fiscal strategies to mitigate the adverse effects of the pandemic, and long-term structural transformation policies are needed to enhance the productive, sustainable and inclusive recovery process on the continent.

I. Introduction

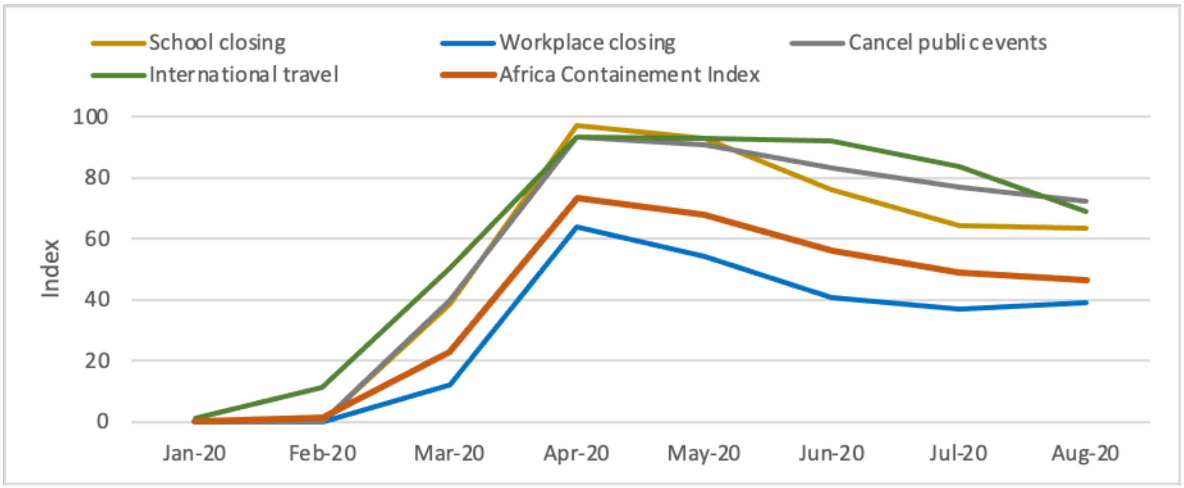
The COVID-19 pandemic and the associated containment measures have been having adverse negative impacts on economic activity in Africa, as in the rest of the world. Necessary lockdowns and social distancing measures introduced by many governments to curb the pandemic spread have led to temporary business closures, restrictions on travel and mobility, and a decline in employment and investments, leading to a sharp contraction in the level of the countries' output.

The effects of the pandemic on output differ significantly from one country to another. The pandemic, which causes a combination of supply and demand shocks, reduces the quantity of goods and services supplied, factory productivity and final consumer demand (Baqaee and Farhi, 2020). The effects depend, however, on the structure of the economy and exacerbate the negative supply shocks if these shocks are heterogeneous and if the sectors are mutually complementary within their input-output networks. These effects could also be exacerbated if the shocks are combined with shocks affecting the composition of final demand, which could increase or reduce spending in sectors negatively affected by their supply chains.

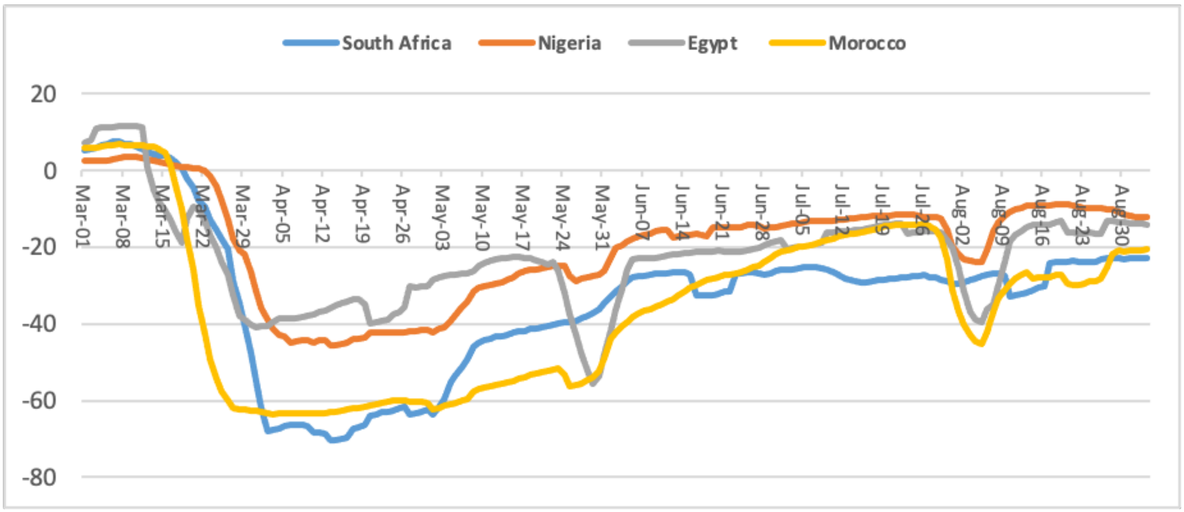
Recent data show that, as COVID-19 cases increased in Africa, government responses to curb the pandemic have been very severe and persistent since February 2020, as shown in figure 1 (a), with adverse effects on the production of goods and services, the mobility of people and employment (figure 1 (b)). The decline in worker mobility wrought by social distancing and lockdown measures has reduced the labour force, leading to a decline in output as businesses shut down or change their production plans, and also in the final demand for goods and services as households balance their spending.

Figure 1: Africa containment measures and mobility to workplace during the COVID-19 crisis

(a) Africa containment index (on a scale from 0=less to 100=strict)



(b) Mobility to workplace during COVID-19 pandemic for selected major African economies (percentage change relative to baseline)



Source: (a) Africa containment index: ECA calculations, computed using data and methodology from the Oxford COVID-19 Government Response Tracker, available at https://github.com/OxCGRT/covid-policy-tracker/raw/master/data/timeseries/OxCGRT_timeseries_all.xlsx (accessed in September 2020); (b) ECA calculations using country mobility data from Google LLC, Google COVID-19 community mobility reports, available at https://www.google.com/covid19/mobility/ (accessed in October 2020).

Given the persistent nature of the pandemic, along with the increased risk of a second wave in the third quarter of 2020 in Europe and elsewhere, the containment and lockdown measures are likely to accentuate the devastating effects on the continent's economy and, in turn, undermine the economic recovery expected in 2021.

The main objective of the present report is to estimate the potential near-term sectoral impacts of COVID-19 containment measures in Africa and propose policy measures to mitigate the expected negative effects to accelerate the continent's economic recovery process. This has been done by adapting and extending the analytical modelling framework – the pandemic impact framework – developed by the International Monetary Fund (IMF) to the African economy (see the text box in section II C below). The model uses industry-level value-added data from the Statistics Division1 and containment measures data from the Oxford COVID-19 Government Response Tracker, and the Africa containment index computed by the Economic Commission for Africa (ECA) using primary data from the Oxford COVID-19 Government Response Tracker database.2

II. Potential impacts on economic activity

The containment and lockdown measures imposed to curb the COVID-19 pandemic have significantly affected economic activities in Africa. Using the output approach presented in the box on p. 9, analytical results show that GDP in Africa is expected to decline by 8.0 per cent in 2020 (2.6 percentage points higher than the 5.4 per cent estimated in the second quarter of 2020 using the ECA macroeconomic modelling approach), which may not recover before 2024 considering the slow pace by which countries are relaxing their containment measures. The drop in economic growth will mainly depend on the duration and magnitude of the gradual process of lifting the containment measures, and also the likelihood of a second wave of the outbreak. The contraction has resulted in the underutilization of factors of production (labour and capital), a decline in productivity and external demand, and a drop in final consumption due to social distancing and the prevailing lockdown measures. The impact of these measures varies across African economies and across sectors, however, these variations may be explained by differences in output.

In general, the results of the analysis show that most subsectors, representing more than 50 per cent of the continent's GDP, have been severely affected, with huge losses in economic output in 2020. Table 2 shows that the worst affected sectors account for almost 60 per cent of African GDP and are for the most part activities that require physical interactions, activities that could not be carried out remotely, or activities whose supply chains have been significantly disrupted. These negative effects were severe (about 50–75 per cent) in tourism-related industries (in particular accommodation, food service activities and travel); and large (about 25–50 per cent) in construction, manufacturing, wholesale and retail trade, other services (arts, entertainment, community services), real estate and professional services, education, and mining and quarrying. Financial intermediation, transport and communications, agriculture and utilities experienced a mild contraction (of less than 20 per cent), while activities in the public administration and health sectors increased.

Economic activities are expected to decline in all the three aggregate economic sectors in 2020 compared to their 2019 levels. ECA estimates point to the widespread loss in economic activity across sectors, with the largest decline in industry (-34.3 per cent), followed by services (-26.2 per cent) and then the agriculture sector (-14.5 per cent) (table 1). These large negative impacts are mainly accounted for by the African industrial sector, which is heavily outward-oriented (in particular mining and manufacturing), and by service-led industries

1 United Nations Statistics Division, National Accounts Main Aggregates Database. Available at https://unstats.un.org/unsd/snaama/Basic.

2 Oxford COVID-19 Government Response Tracker, Blavatnik School of Government, University of Oxford.

Table 1: Africa: estimated loss in activity and aggregate output in 2020 linked to lockdowns measures

Economic sector	Share in GDP (%)	Loss of activity	Contribution to loss in GDP
Agriculture	16.6	-14.9%	9.5%
Industry	22.4	-34.3%	29.3%
Services	61.0	-26.2%	61.2%

Source: ECA staff calculations and estimates.

(such as tourism and accommodation, transport, wholesale and retail trade, finance and insurance, and business services), which are exposed to the disruptions in the global value chains, the decline in external demand and volatility of commodity prices due to the pandemic. It was, however, the service sector which experienced the largest decline in real output across all sectors (with more than two thirds of the loss in aggregate output), largely driven by the drop in travel, tourism and accommodation and food service activities, and in wholesale and retail trade (table 2).

Social distancing and lockdown measures have significantly affected the driving forces behind jobs and growth in Africa, which account for gains in poverty reduction and the achievement of the 2030 Agenda for Sustainable Development. Losses in economic activity tend to be larger for those sectors with relatively higher levels of employment and lower labour productivity (table 2). In fact, sectors such as wholesale and retail trade, manufacturing, construction, real estate and administrative businesses, accommodation, other services and agriculture, which tend to have higher levels of employment, are found to have experienced a significant decline in output. This could give rise to a large rise in unemployment and sharp drop in income and consumption demand, which may translate into spikes in inequality and poverty rates.

A. Industry sector

The largest losses over the period were suffered by the manufacturing sector, with a 45 per cent decline in its economic activity (table 2). African manufacturing production declined sharply in all countries, despite the mild recovery observed in July in some countries such as Egypt, Ghana, Kenya, Nigeria, South Africa and Uganda (NKC African Economics, 2020). The United Nations Industrial Development Organization (UNIDO, 2020) estimated that, as a consequence of national containment and lockdown measures, African manufacturing production recorded a 10.1 per cent quarterly decline in the second quarter of 2020, although that drop was smaller than the 20.3 per cent decline observed in the developing and emerging industrial economies, excluding China. Among manufacturing industries in Africa, food products and beverages experienced some positive growth due to local transformation, whereas other subsectors, such as chemicals, electronics, textiles, mechanics and refined oils, suffered the most, owing to disruptions in the global supply chains.

The mining and quarrying subsector followed the manufacturing subsector, with an estimated loss in economic activity of 30 per cent in Africa in 2020 (table 2). Lockdown restrictions have been particularly detrimental to production, exploration and development activities, and also to the investment, consultancy and engineering services needed for the on-the-ground assessment of these projects (Investing in African Mining, Indaba 2020).[3] Exposure to China, disruptions in the global supply chains, global collapse in commodity demand and prices (except for precious metals), travel restrictions and tightened safety measures are key factors that explain the devastating impacts of the COVID-19 pandemic on the African mining sector. With the easing of lockdown restrictions in June

3 Investing in African Mining Indaba (2020). "The impact of COVID-19 on African Mining" and "The impact of COVID-19 on African Mining, issue 2". Available at https://miningindaba.com/Page/impact-of-covid-19-on-african-mining.

Table 2: Employment, labour productivity and changes in economic activity, by subsector in 2020 in Africa

Economic sectors	Change in activity	Employment (thousands)	Labour productivity (output per worker)
Agriculture, hunting, forestry, fishing	-15%	223 497	1.8
Industry			
Utilities (electricity, gas and water supply)	-10%	1 970	43.4
Mining and quarrying	-30%	6 077	31.4
Manufacturing	-45%	31 791	8.6
Services			
Human health and social work activities	25%	7 506	4.5
Public administration, defence and other compulsory services	10%	13 139	15.2
Transport, storage and communications	-16%	10 627	23.1
Financial intermediation	-19%	2 609	35.9
Real estate and business administrative activities	-27%	10 139	17.5
Other services	-33%	27 457	4.2
Education	-38%	16 755	4.7
Wholesale and retail trade	-42%	67 134	5.0
Construction	-45%	20 480	7.5
Accommodation and food service activities	-63%	17 090	3.6
Note: Africa (average)			5.4

Source: ECA Staff calculations and estimates. Employment data from ILOSTAT.

2020, however, there have been positive trends brought by surging commodity prices and a range of cost-cutting measures.

The mining and quarrying subsector is followed by a slight decline in the basic utilities subsector (electricity, gas, water, waste management), which experienced a 10 per cent loss in economic activity (table 2), making it the subsector of the industry sector least affected by the COVID-19 pandemic. This minimal impact may be largely attributable to the increase in the size of the residential class, which accounts for a larger share of consumption in Africa, compared to the declining size of the commercial and industrial classes, which is a feature of less energy-dependent economies (Res4Africa and UNECA, 2020). In addition, most African governments, such as those of Burkina Faso, the Democratic Republic of the Congo, Ghana, Mali, Nigeria and other countries, have provided relief measures to support and maintain the production of utilities in State-owned companies and have reduced or covered the bills of residents of low-income households in order to cushion the reduction in disposable income induced by lockdown measures.

B. Services sector

The services sector has been the second most affected sector on the continent, with an estimated activity loss of 20.6 per cent, and responsible for 61.2 per cent of the continent's loss in GDP (table 1). This loss was primarily caused by the negative impact of the pandemic on tourism-related subsectors, - such as accommodation and food services -, construction, wholesale and retail trade, and also on other services such as the arts, entertainment and community services (table 2) (WTO, 2020).

Mobility restrictions and border closures halted the movement of tourists, thus reducing tourism activities and the associated revenues, occasioning an estimated activity loss of 63 per cent in the accommodation and food services subsector over the period. The World Tourism Organization estimated that international tourist arrivals in Africa declined by 57 per cent in the first half of 2020, with an estimated 99 per cent drop in the second quarter. Of the subregions, North Africa suffered the biggest impact, with a 62 per cent decline, while that of the rest of Africa was estimated at 54 per cent. The ripple consequences of the decline in tourism are particularly wide for the tourism-dependent economies on the continent, such as Cabo Verde, Ethiopia, Kenya, Mauritius, Seychelles and Tunisia. These countries are expected to experience sharp contractions in aggregate output as recovery of the tourism sector is predicted to take longer.

Of the subsectors of the services sector, construction was the second worst affected by the pandemic. It underwent an estimated activity loss of 45 per cent, as projects (oil and mining, public infrastructure, commercial, residential infrastructure and others) were put on hold during the lockdown, as a protracted consequence of knock-on effects from the construction shutdown in China, disruptions in the global supply chains, travel restrictions and labour shortages. In the short to medium term, construction activities are expected to decline on the continent as a consequence of weak private investments, reduced inflows of foreign direct investment and increased fiscal constraints, amid a backdrop of declining government revenues and higher debt-servicing costs.

The pandemic has also heavily affected the distribution and services subsector in Africa, and led to an estimated loss in activity of 42 per cent in wholesale and retail trade, despite the surge in online shopping, which continues to be hampered by limited internet access and high data prices on the continent (table 2). Disruptions in the global and regional supply chains, lockdowns and quarantine measures, closure of shops, additional cross-border inspections, safety-related constraints, highly reduced operating hours and road and border closures contributed to the loss of activity in the wholesale and retail trade subsector. Subsequently, the increase in transport and production costs of firms led to high prices that generally reduced household spending on non-essential goods.

COVID-19 pandemic, among others, has also severely affected the education sector in Africa resulting from the closures of schools and higher education institutions which significantly affected the provision of education services in almost all African countries. The United Nations Educational, Scientific and Cultural Organization estimates that over 250 million primary and secondary children were out of school in the month of March 2020, and as of October 2020, almost 60 million children were still out of school in East and Southern Africa (UNESCO, 2020). Despite the increasing demand of online education, limited capacity and access to ICT services due to technical and financial constraints have significantly affected the provision of education services in the continent and have widened disparities between education systems.

The restrictions on movements imposed in response to the pandemic have also had a severe impact on people's livelihoods, primarily through their impact on household production activities, and also on recreational activities (other services), leading to a 33 per cent loss in economic activities (table 2). Informal workers, who account for a significant portion of the African workforce, have been heavily affected, as those exercising such occupations as hairdressers, cleaners, beauty workers and others have been forced out of work, with significant losses in income. Theatres, cinemas and sports events which constitute important components of the entertainment industry for communities have been cancelled or postponed during the severe period of the pandemic, also affecting advertisers and media outlets. Currently, entertainment businesses are slowly resuming their activities, indicating that the continent is gradually getting back to normal and gaining ground in terms of fighting the virus. The pandemic has also affected the activities of extraterritorial organizations and bodies, placing increasing demands on them to support humanitarian activities across the world.

The least affected subsectors in the services sector include those of real estate and business administration; finance and insurance services;

and transport, storage and communications, which underwent estimated losses in economic activity of 27, 19 and 16 per cent, respectively, over the period (table 2). The adverse effects of the COVID-19 pandemic on the real estate and business administrative activities subsector has been relatively moderate, manifested in the rise in both unemployment and company default rates, which in turn have had a negative impact on the rent of residential and commercial premises (housing, retail, logistics, hospitality and offices). In addition, the persistence of the outbreak has also led to the closure of corporate business operations in affected areas, the transfer of businesses to new geographical locations, or the adoption of structural changes, including teleworking and e-commerce options.

The COVID-19 pandemic has also had a negative impact on the African financial market with adverse effects on the insurance industry and, in particular, its role of supporting all other economic activities and ensuring the smooth flow of credit and payments. As a result of the increase in short-term uncertainties, lockdowns have hampered financial services by increasing financial market volatility and stress, impairing credit intermediation, weighing on the inflows of foreign direct investment, increasing risk aversion from investors in the local market and dampening activity in insurance as a result of the economic downturn and decline in consumer demand. Even though the development during the pandemic of financial technology, such as mobile payments and money transfers, has had a positive effect on retail banking and increased business services related to finance, it is unlikely to offset the losses incurred in the financial market, the investment opportunities forgone, and the slowdown in insurance sales.

The transport, storage and communications subsector has also been moderately affected by the pandemic. While the telecommunications industry has been fairly resilient to the crisis, its impact on transport and logistics flows has been more severe, owing to disruptions in global and regional value chains. International and domestic passenger traffic dropped sharply, shipping volumes were reduced and cross-border passenger transport services were suspended or heavily reduced, except for air cargo services, which recorded only mild effects, offset by the increased demand for air freight transport of pharmaceutical and food products. The pandemic has, however, boosted information and communications technology services in Africa, mainly driven by consumer services, which account for the majority of revenues in this subsector, compared to business telecommunications services (IFC, 2020). The closure of workplaces and restrictions on movement in many African countries, along with the emphasis on telecommuting and the opening of digital economy opportunities, such as telemedicine, food delivery and logistics, online and contactless payments, remote learning and entertainment, has increased the demand for broadband services. The International Telecommunication Union estimates that internet traffic increased by approximately 30 per cent worldwide during COVID-19 outbreak, leading to an increase in telecommunication infrastructure capacity (ITU, 2020). Specifically, the Delta Partners survey indicates that the majority of ICT managers in Africa (67 per cent) believe that COVID-19 has positively affected their operations and 58 per cent expect to accelerate development and innovation in the short to mid-term (Delta Partners, 2020).

By contrast, the pandemic has had a positive effect on public services. Subsectors such as, first, public administration, defence and other compulsory services, and, second, human health and social work activities (table 2) have experienced a positive impact from the outbreak, leading to 10 and 25 per cent increases, respectively, over the period. As is the case with the rest of the world, governments in Africa increased spending, maintained the operation of public services, which worked above capacity and in some cases remotely, and continued to deliver public services amid the pandemic. As the public administration and services subsector is critical in the fight against the pandemic, human and financial resources are constantly being mobilized for the subsector to combat the crisis. Besides health and education workers, all public servants, regardless of their occupation (defence, police, economic, fiscal, social, security, and others) play a key role in halting the spread of the disease and strengthening the recovery process from the pandemic. Furthermore, the defence and police also play a critical role as the containment measures affect household livelihoods and, in some cases, are likely to fuel civil unrest, leading to violence and conflicts with communities.

In several African countries, health activities and services have grown significantly in terms of prevention and treatment of the pandemic, as resources are being diverted to COVID-19 activities in response to the rising number of positive cases and the resulting increased demand for medical activities, such as testing, and for medical supplies, innovative start-ups and investments, additional labour, and also research and development. In addition, the surge in spending on health care and in allocations of international resources by many governments and partners, such as the World Health Organization, the Gavi Alliance and others, in response to the pandemic have increased activities in the health sector, taking into consideration the continent's weak health systems.

C. Agriculture sector

The African agricultural sector, as in many low-income countries, has recorded a relatively low contraction in both supply of and demand for agricultural products, following the disruptions in trade and logistics. Our estimates indicate an activity loss of 15 per cent, with a contribution to loss in GDP of 9.5 per cent in 2020 due to the

Analytical framework and data

The output approach is employed to estimate the potential near-term impacts of COVID-19 containment measures on African economies. The approach took into consideration the detailed categories of output to assess the extent to which each of the economic sectors was affected by the pandemic. This was done by developing an analytical modelling framework, based on the pandemic impact framework developed by IMF, which was extended so that it could use disaggregated data, scenarios and assumptions to analyse African economies.

The model used industry-level value added data from the Statistics Division [a] and containment measures data from the Oxford COVID-19 Government Response Tracker. Sectoral output data were disaggregated into 14 economic sectors, based on the fourth revision of the International Standard Industrial Classification of All Economic Activities (ISIC), by applying the weighted average shares obtained from African countries with similar economic structures, and calibrated by the shares observed from the rest of the world economies. [b] Containment measures data from the Oxford COVID-19 Government Response Tracker were used to compute a specific aggregated Africa containment index, which captured the stringency of containment measures by African governments on the continent. The Africa containment index is computed by ECA using primary data from the Oxford COVID-19 Government Response Tracker database.

Economic severity and sectoral losses in production were determined based on the analysis of performance by the different economic sectors presented in section II above. The severity of the pandemic in the economic sectors was calculated in terms of losses in sectoral value added, with a view to assessing the level of economic activity during the pandemic. Three levels of severity of the pandemic's effect on the African economy were defined in accordance with the policy actions taken by African governments to contain and halt the spread of the pandemic, covering the moderate shutdown, severe lockdown and post-lockdown phases. A multifactor analysis criterion was then used to quantify, first, the level of the sectoral losses in production related to business closure for each economic sector and then the economy-wide effects that captured the inter-industry linkages (supply chains), using data from the input-output tables. The multifactor assessment approach took into consideration five factors for each sector: its capacity utilization, its economic relevance, its risk of contagion, its level of digitalization and the percentage of its jobs at risk. Taken together, these helped to identify the relative importance of the sector in accordance with the relevant literature on Africa and the associated sectoral shock analysis described in sections II A, B and C.

Lastly, the impact of the lockdown measures on GDP was estimated using a mixture of scenarios based on the timing of the pandemic. It was assumed that the pandemic, based on the moderate shutdown, severe shutdown, post-shutdown episodes, would last up to the end of 2020, before a gradual recovery of African economies in 2021. Construction of the scenarios was based on the spread of the pandemic episodes as observed in the epidemiological data, while assuming that the second wave of the pandemic would only severely affect Europe and other countries, with limited ripple effects on the continent, as most of the countries were loosening their containment measures. The stringency of the lockdown measures was evident from the Africa containment index, in which data were available only until August 2020 but projected for the rest of the period, in the light of the current loosening of containment measures.

a United Nations Statistics Division, National Accounts Main Aggregates Database. Available at https://unstats.un.org/unsd/snaama/Basic.
b World Input Output Database. Available at www.wiod.org/database/wiots16.

pandemic, which is somewhat lower than the effects of the pandemic on the other sectors (table 1). Farmers are believed to have maintained production levels, despite a shift in demand and disruptions in supply chains (labour, inputs, transport, and so forth) due to containment and lockdown measures that were put in place (Kurtz, 2020). Furthermore, some subregions such as East, West and Southern Africa went into the pandemic with much better harvests than in the past few years (Mitchell, 2020), and with government incentives to enhance agribusinesses, such as the African Development Bank's Feed Africa Response to COVID-19. In addition, price spikes significantly contributed to agricultural food production and distribution, thus mitigating the effect of the pandemic in the sector.

III. Policy recommendations for recovery

Despite the major economic disruptions caused by the lockdowns, the COVID-19 pandemic has amplified some technological changes to the production and supply of goods and services which were already under way before the crisis. Short-term policies (monetary and fiscal strategies) aimed at stabilizing the economy need to be accompanied by comprehensive structural reforms to boost long-term growth and enhance productivity of investments in key economic sectors.

The economic vulnerabilities of African countries, combined with the pandemic's longer-term effects, could severely lower the continent's potential output if left unchecked. The longer-term effects of the pandemic may lower investments and labour productivity and disrupt global trade and supply linkages, thereby leading economies into deeper recession. In order to mitigate these longer-term adverse effects of the pandemic, there is need to speed up the recovery process and make the post-pandemic economy more resilient, by promoting productive and sustainable recovery policies aimed at increasing the efficiency of investments, strengthening governance systems and reducing poverty.

There is need to step up green recovery investments and technologies to enhance growth, create jobs, increase people's income, promote regional trade integration and accelerate effective operationalization of the African Continental Free Trade Area. The Area will significantly boost African trade, particularly intra-African trade in manufacturing. ECA research indicates that, based on the African Continental Free Trade Area modalities for tariff liberalization, the reduction of tariffs under the Area could increase the value of intra-African trade by 2040 by between 15 and 25 per cent, compared to a scenario without the Area in place, with significant gains to be expected in the agrifood and industrial sectors.[4] There is also need to strengthen governance systems, in particular public resources management, public debt transparency and business climate, to attract resources and investments for recovery.

Effective structural transformation policy measures could be aimed at accelerating digitalization and innovation activities, increasing and stimulating green investments in productive sectors, such as infrastructure (information and communications technology, energy, roads and others), labour-intensive sectors (agriculture, tourism and others) and human capital (education and health).

4 See Economic Commission for Africa. (2018). "An empirical assessment of African Continental Free Trade Area modalities on goods", Addis Ababa, November 2018.

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