AFRICA'S DEVELOPMENT ISSUES AFTER COVID-19

By Hinh T. Dinh

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Abstract

This paper provides a preliminary assessment of COVID-19's impact on Africa, focusing on the sub-Saharan Africa (SSA) countries, based on information available as of October 2020. We first identify the two key long-term issues of the SSA countries before the crisis: resource dependency and slow productivity growth. COVID-19 has hit SSA countries hard, causing human and economic destruction and wiping out economic progress from the last decade. Instead of growing at 2.9% in 2020, as expected before COVID-19, the real GDP of SSA countries is now projected to decline by over 3%. At that pace, SSA's real GDP per capita would be back to its 2008 level at the end of 2021. The impact of COVID-19 is also uneven: output decline in East and Southern Africa is expected to be greater than West and Central Africa, and resource-based economies are expected to be worse off than others. However, beyond the devastating effects caused by COVID-19 in health, fiscal, monetary, informal market, and debt servicing areas, SSA needs to address the long-term structural issues of slow productivity and resource dependency if it is to fully recover and achieve sustained economic growth. This paper discusses policy options available to the SSA countries during the transition until the world economy is returned to full normalcy, expected after 2022.

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This paper provides a preliminary assessment of the impact of COVID-19 on Africa, focusing on the sub-Saharan Africa (SSA) countries, based on information available as of October 2020. The full extent of this pandemic is still unknown as the second and third waves of infections are at time of writing unfolding throughout the world. We first identify the main features of the SSA countries prior to COVID-19 (Section I) before assessing the structural issues facing these economies. In Section II, we examine the impact of COVID-19, and in Section III, we evaluate short- and medium-term policy issues now facing SSA countries. We present key structural policy issues facing SSA countries in Section IV and policy choices in Section V.

I.   THE SUB-SAHARAN AFRICAN ECONOMIES

Africa consists of a diverse group of countries that vary by size, population, income level, culture, and language. The SSA countries themselves make up a very diverse group (Annex Table 1). Some countries are developed and have high per-capita income, while many are still struggling for peace and subsistence. There are 23 low-income and 25 middle-income countries[1]. Twenty of the 48 SSA countries are fragile or are affected by conflicts (Table 1). About 30 SSA countries have populations of less than 20 million. Africa has enormous potential. It is blessed with approximately 30% of the world's known mineral reserves. The largest global reserves of cobalt, diamonds, platinum, and uranium are in Africa. The continent has 40% of the world's gold and up to 90% of its chromium and platinum, as well as 12% of the oil reserves. Africa holds 65% of the world's arable land and 10% of renewable freshwater. Seventeen SSA countries are resource rich, with rents from natural resources (excluding forests) exceeding 10% of GDP[2].

But natural resources are not Africa's only comparative advantage. Sub-Saharan Africa is also potentially competitive in light manufacturing, based on a number of advantages (Dinh et al, 2012). First, SSA has a labor cost advantage. In Ethiopia, for example, labor productivity in well-managed firms can approach levels in China and Vietnam. At the same time, Ethiopia's wages are only a quarter of China's and a half of Vietnam's, and its overall labor costs are lower still. Second, SSA has abundant natural resources that supply raw materials, such as skins for the footwear industry, hard and soft timber for the furniture industry, and land for the agribusiness industry. Third, SSA enjoys duty-free and quota-free access to US and EU markets for light manufactures under the Africa Growth and Opportunity Act and the Cotonou Agreement.
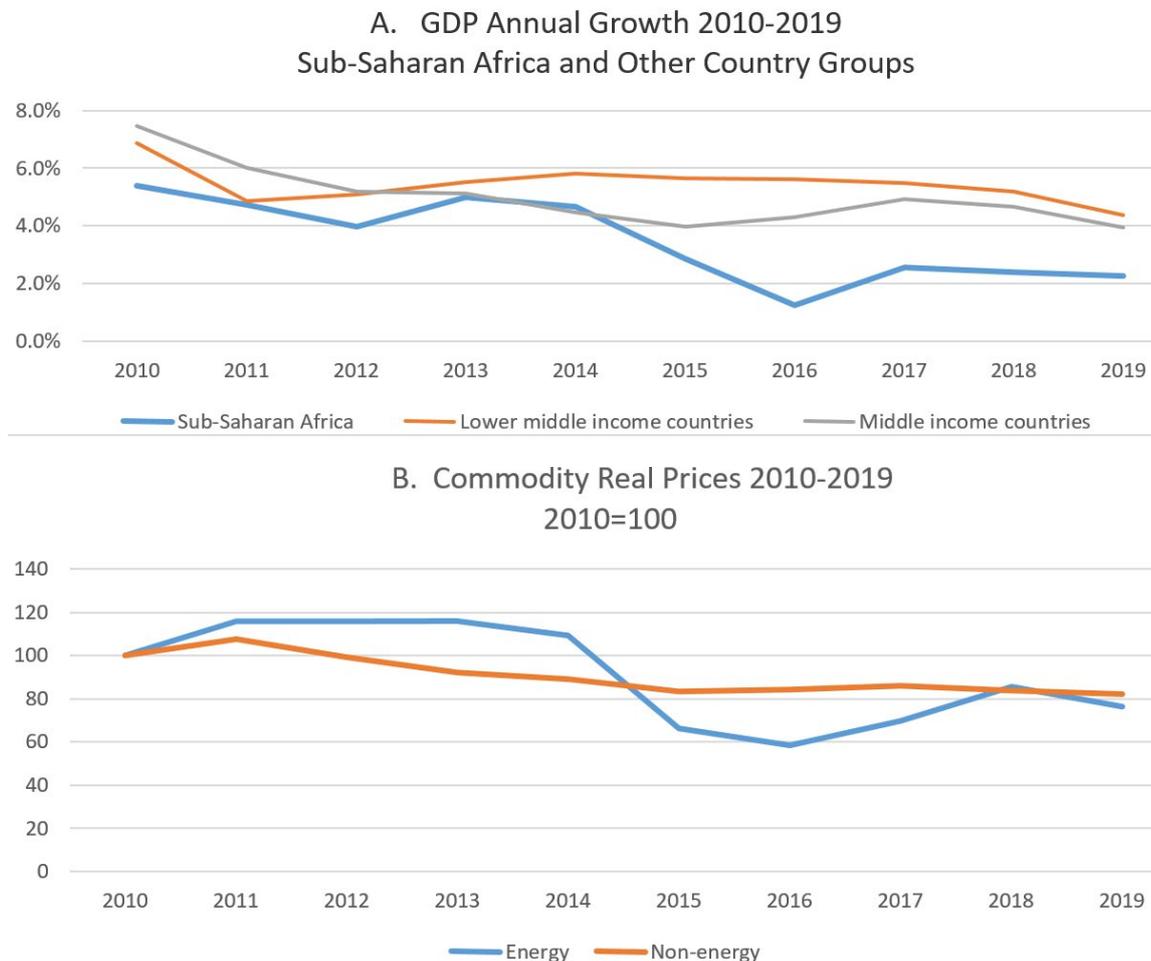
However, institutional obstacles and unsuitable policies have prevented local producers from taking advantage of some resources. For example, timber costs are far higher in some African countries than in China or Vietnam, leading SSA to import Asian furniture, despite the continent's enormous unexploited potential to supply domestic timber. Thus, despite being so richly endowed, and the mining boom of the past decade, Africa has derived little benefit from this mineral wealth and remains one of the world's poorest continents, with about 40% of the population living on less than $1.25 per day. Figure 1 shows the growth performance of SSA countries over the last ten years compared

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1. Defined by the World Bank as those with per-capita GNI (gross national income) above $1026 (Atlas method) in 2019.
2. Natural resource rents are defined as revenues above the cost of extracting natural resources. These resources give rise to economic rents because they are not produced. Rents from nonrenewable resources indicate the liquidation of a country's capital stock. When countries use these rents to support current consumption rather than to invest in new capital to replace what is being used, they are, in effect, borrowing against their future.

Figure 1. Growth Performance (A) and Movements of Commodity Prices (B)

A. GDP Annual Growth 2010-2019
Sub-Saharan Africa and Other Country Groups

B. Commodity Real Prices 2010-2019
2010=100

Source: WDI World Bank and the Pink Sheet, accessed October 8, 2020.

to other income groups. It also shows that this performance closely follows the movement of global commodity prices, both oil and non-oil.

Overdependence on natural resources. SSA's predominant role in world trade has been to provide raw materials to global value chains (GVCs). A large number of SSA countries are officially classified by the World Bank as resource rich and an even higher number as resource dependent. The region's export structure is still concentrated in raw materials, despite recent progress in diversification. Although there has been progress in product diversification for oil-abundant countries and non–resource-abundant countries, the export basket has become more concentrated for others. The level of product diversification in the region as a whole is significantly lower than in emerging and developing Asia, including in Bangladesh, Cambodia, Indonesia, and Vietnam. This dependence has led to a number of issues.

First, natural resources make countries susceptible to Dutch Disease, a reference to a crisis in the Netherlands when vast natural gas deposits were discovered in the 1960s. Dutch Disease refers to a situation where a resource boom causes distortions in an

economy, leading to rising input costs and a contraction in tradable sectors such as manufacturing[3]. During the resource boom, revenues from mineral exports rise, and the demand for domestically produced goods and services expands. Because the government is likely to take a large share of the mineral revenues, public spending will also rise. The real exchange rate will appreciate as a result of higher relative prices for nontraded goods and because resources including skilled labor, capital, and public spending, are drawn from both the tradable and non-tradable sectors to the mineral sector. When the boom is over, the manufacturing sector will not come back.

Second, natural resource industries generate very few jobs because they are capital intensive by nature, and the few jobs needed generally require highly specialized skills not suited for the vast majority of unemployed or underemployed people in SSA countries. These industries create enclaves within poor countries and generate elite groups that protect the resource owners' vested interests. Third, resource wealth can undermine governance and create a vicious cycle. Natural resources generate rents that lead to greedy rent seeking. Corruption and a lack of transparency, accompanied by ongoing conflicts, are also typical in resource-rich countries. Mineral wealth gives rise to governments that are less accountable to the people, have little interest in improving institutional capacity, and fail to implement policies conducive to sustainable growth. Corruption remains endemic in most resource-rich countries. For instance, the 2019 corruption perceptions index of the Transparency International Report[4] shows that nine out of the top 20 most corrupt countries in the world are resource-rich SSA countries.

Finally, many resource-rich countries do not have strong institutional capacity to manage natural wealth effectively and to provide efficient investment incentives. Without reliable policy or strong administrative structures, government institutions are incapable of transforming resource wealth into economic development. This worsens the public sector's inefficiency in managing resource wealth, which, in turn, can lead to reckless and excessive spending.

Low productivity growth. The source of long-lasting growth in all economies is productivity growth. Most cross-country differences in per-capita incomes are due to differences in labor productivity. Productivity can be measured either by labor productivity, which is usually defined as output per worker, or by total factor productivity (TFP), which measures the efficiency with which capital and labor are used in the production process.

The derivation of TFP is simple. In a neoclassical production function linking output to factors of production:

$$Y = AK^{\alpha} L^{(1-\alpha)}$$

where Y is output (value added), A is the productivity term, or the efficiency with which inputs are used in the production process, K is the capital stock and L is the labor force. Taking log and differentiating the above equation yields:

$$\hat{Y} = \alpha\hat{K} + (1-\alpha)\hat{L} + \hat{A}$$

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3. The Dutch Disease can also result from any large increase in foreign currency, including foreign aid, FDI, or a substantial increase in natural resource prices.

4. https://www.transparency.org/en/cpi/2019/index/nzl

where $\hat{Y}$ denotes output growth; $\hat{K}$ and $\hat{L}$ denote growth rates of capital and labor, **α** and **1-α** denote the share of capital and labor, and $\hat{A}$ is the growth rate of productivity. This equation says output growth is a weighted average of capital and labor growth plus the growth rate of productivity. This last term is commonly referred to as total factor productivity (TFP):
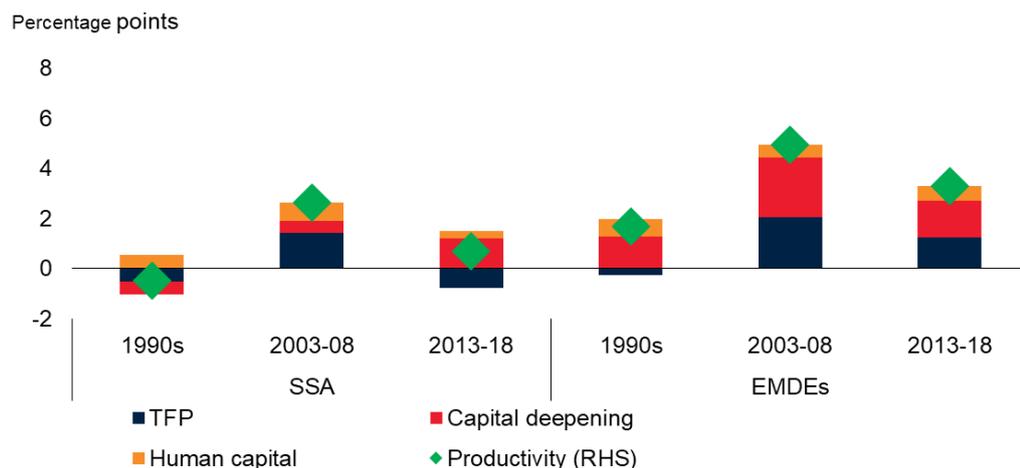
$$TFP = \hat{Y} - \alpha\hat{K} - (1-\alpha)\,\hat{L}$$

TFP is sometimes called our ignorance term because it summarizes everything we do not know, including technology progress, machinery per worker, institutional arrangement, structural transformation, and so on. The seminal work of Denison (1982), Jorgenson (2005), Solow (1970), and others show that TFP amounts to almost half of total growth of output.

Figure 2 shows the evolution of TFP for SSA countries over the three periods: th e1990s, 2003-2008 (before the global financial crisis in 2008), and post 2008. Compared to emerging markets and developing countries (EMDEs) shown on the right panel of Figure 2, TFP in SSA countries is much lower.

The TFP for SSA countries rose from -0.5% in the 1990s to 1.4% in the period 2003-2008 and since then has declined to about -0.8. The increase in 2003-2008 was attributed to, among others, stronger investment, infrastructure development, and better macroeconomic framework (Dieppe 2020). But another factor is the commodity price boom during that period that lifted productivity in SSA countries. This is because the calculation of TFP includes the increase in natural resource extraction. The slowdown in TFP in SSA countries in the post-2008 period followed the collapse in commodity prices and the subsequent collapse in investment and FDI inflows.

Figure 2: Factor contributions to productivity growth

Source: Figure 5.31 in World Bank (2020d) based on Barro and Lee (2015); International Monetary Fund; Penn World Table; United Nations (Human Development Reports); Wittgenstein Centre for Demography and Global Human Capital; World Bank.

Note: EMDR: Emerging market and developing economies

Productivity is defined as real GDP per worker (at 2010 market prices and exchange rates). Country group aggregates for a given year are calculated using constant 2010 U.S. dollar GDP weights. Data for multiyear spans shows simple averages of the annual data. Productivity growth is computed as log changes. Sample includes 30 SSA economies and 93 EMDEs.

This type of aggregate production function does not show a very important component of output growth, namely structural transformation, defined as the gain in productivity arising from movement of resources from low to higher productivity sectors. For that we need to have a multi-sector production function and productivity is measured as labor productivity, i.e. value-dded per worker.

In addition to data convenience, it turns out that labor productivity, rather than TFP, is the right measure for the prospective standard of living. Baumol et al (1989) pointed out that, unlike total factor productivity, which measures the efficiency with which inputs are used in production, labor productivity can be taken as a measure of prospective consumption or standard of living. In their view, "what is special about the labor productivity concept is that it indicates how hard humanity must work to achieve the current economic yield" (Baumol et al, 1989, 227).

For an economy with n sectors, one can decompose overall output growth (McMillan et al, 2014; Timmer et al, 2014) into two components as follows:

$$(1) \qquad \Delta Y_t = \sum_{i=1,n} \theta_{i,t-k} \Delta y_{i,t} + \sum_{i=1,n} y_{i,t} \Delta \theta_{i,t}$$

where ΔY_t denotes the change in economy-wide labor productivity in period t, $\theta_{i,t-k}$ is the employment share of sector i in period t-k, and Δy_i,t is the change in labor productivity of sector i in period t.

The left-hand side is the change in economy-wide labor productivity, defined as GDP divided by the number of workers over the period concerned. The first right-hand term in the decomposition equation is the weighted sum of productivity growth within individual sectors, where the weights are the employment share of each sector at the beginning of the period. This is the 'within sector' component of productivity growth, which occurs if capital deepening or new technology (high variety yield, better inputs, and so on) is adopted in sectors and assuming no change in the sectoral distribution of employment. The second term, called the 'between-sector' effect, captures the productivity effect of labor reallocation across sectors. It is sectoral productivity (at the end of the period), multiplied by the change in employment shares across sectors. This second term is the structural change term. If changes in employment shares are positively correlated with productivity, this term will be positive, and structural change will increase economy-wide productivity growth.
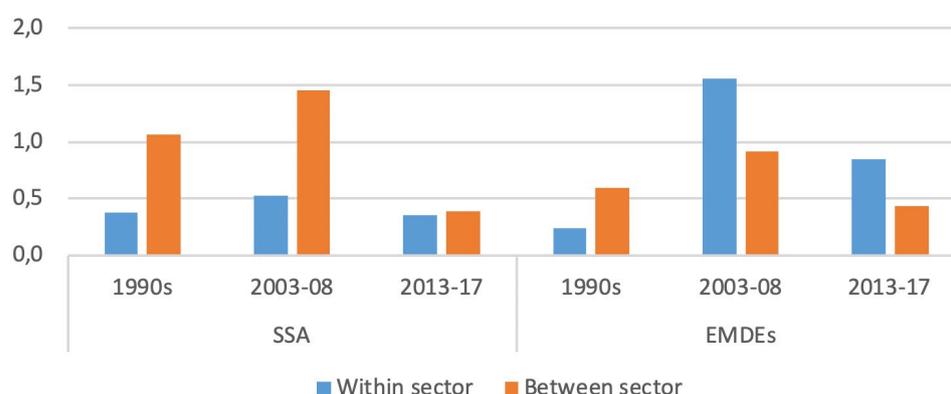
The decomposition technique above clarifies how partial analyses of productivity performance within individual sectors (such as agriculture) can be misleading when there are large differences in labor productivities (yi,t) across economic activities. In particular, a high rate of productivity growth within an industry can have quite ambiguous

implications for overall economic performance if the industry's share of employment shrinks rather than expands. If the displaced labor ends up in activities with lower productivity, economy-wide growth will suffer and may even turn negative.

Between the global financial crisis (GFC) of 2008 and the arrival of COVID-19 in January 2020, SSA countries experienced the steepest and longest productivity slowdown in recent decades (World Bank 2020a, Dieppe 2020). Labor productivity growth in SSA dropped from 2.9% during the pre-GFC period of 2003–2008 to 0.8% during 2013–2018. As mentioned above, TFP growth, which accounted for more than half of productivity growth pre-GFC, contracted in the post-GFC period, and the contribution of TFP to productivity growth shrank by more than in any other region during the post-GFC period. Oil- and metal-exporting countries experienced the steepest slowdowns after the commodity price slump of 2014–2016.

Figure 3 shows the breakdown of SSA productivity growth into the two components of equation (1) for each of the periods concerned. The slowdown in productivity growth in SSA countries during the post-2008 period reflects slowing structural transformation gains from a reallocation of labor from low-productivity sectors (e.g. agriculture) to higher-productivity sectors. Recall from equation (1) that productivity growth for an economy could come either from 'within-sector' sources or from movements of labor from low to higher productivity sectors. 'Within-sector' productivity growth has continued at a slower pace (Figure 3).

Figure 3. Within and Between Sector Contributions to Productivity Growth in SSA and EMDE Countries (%)

EMDE: Emerging market and developing economies

Source: Dieppe (2020).

SSA countries continue to have large productivity differences across sectors. Productivity in agriculture—the least productive sector that employs more than half of the workforce and accounts for less than 20% of GDP—is between 3%–5% of the productivity of mining and finance, the two most productive sectors.

II.   IMPACT OF COVID-19

Prior to the arrival of COVID-19 from Wuhan, China, in January 2020, the world economy was expected to see moderate economic growth in 2020–2022. There were some headwinds, such as declining productivity, rising external debt, and limited scope for short-term stabilization policies, but global GDP was expected to overcome those and to grow at 2.5% in 2020, rising slightly to 2.6% in 2021, and 2.7% in 2022 (World Bank 2020a). GDP growth in SSA countries was expected to be 2.9% in 2020, rising to 3.1% in 2021, and 3.3% in 2022, assuming improving investor confidence in some large economies and continuing robust growth among exporters of agricultural commodities. Even this growth was insufficient to yield significant progress in poverty alleviation. Lasting improvements in labor productivity would be needed to bolster growth over the medium term.

The COVID-19 pandemic has changed all these expectations. It has destroyed lives and economies and has wiped out economic progress from the last decade. The economic and social impacts are immense, costing SSA between $37 and $79 billion in estimated output losses in 2020, reducing agricultural productivity, weakening supply chains, increasing trade tensions, limiting job prospects, and exacerbating political and regulatory uncertainty (Zeufack et al, 2020). According to the World Bank, GDP growth in SSA is expected to contract from 2.4% in 2019 to about -4% in 2020, causing the region's first recession in 25 years. Similarly, the IMF (2020) expects SSA GDP to decline by 3% in 2020.

Impact on deaths. As of mid-October 2020, Johns Hopkins University reported 38.8 million infections worldwide and over one million deaths. Africa had 1.6 million infections and 37,700 deaths. Three SSA countries are in the top six coronavirus-infected countries in Africa: South Africa, Ethiopia, and Nigeria. Overall, the reported death rate per capita has been low, despite the poor health infrastructure in many SSA countries. This may be due to the relatively young population (over 60%) in Africa, according to the World Health Organization (WHO). Other factors may include fewer cases of pre-existing conditions (ironically due to the poor states of health facilities), cross-immunity from other viruses, and outdoor living. Another factor could be low testing. As of October 9, 2020, it was reported that ten African countries accounted for 80% of the tests conducted[5]. At time of writing, the pandemic is still unfolding, so any estimate of total deaths and infections in Africa remains speculative.

Economic impact. COVID-19 impacts SSA economies through a range of channels. The first is the disruption in trade and value chains. Growth deceleration in major economies, including the US, the EU, China, and India, has reduced demand for SSA exports (both goods and services) and sharply reduced the international price of commodities exported by the region—especially oil, mineral ores, and metals. The impact will also be severe for countries that have participated in global value chains, such as Ethiopia and Kenya (agribusiness and apparel), Tanzania (manufacturing), South Africa (auto industry), and DRC and Zambia (mineral exporters within the electronics value chain).

Over the past two decades, the patterns of market diversification in sub-Saharan Africa have been changing, with South-South trading opportunities (particularly with China and

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5. See https://www.bbc.com/news/world-africa-53181555.

other Asian economies) expanding rapidly in the aftermath of the 2008–09 global financial crisis. Since 2013, emerging and developing Asia is trading more with sub-Saharan Africa (in value) than with the European Union. For instance, the region's top five export destinations in 1998 were the United States, the United Kingdom, France, Germany, and Belgium, for total exports of $26 billion. By 2017, the top five export destinations had changed to China, India, the United States, South Africa, and Switzerland, and total exports to these countries had risen to $126 billion. Similarly, SSA's top five import partners in 2017 were China, South Africa, India, the United States, and Germany. This change in the pattern of export markets unfortunately means that the effect on SSA economies will be more severe than otherwise because the Southern economies tend to have less of a buffer to withstand a pandemic than their Northern counterparts.

The second broad channel of transmission is foreign financing flows into SSA countries. Disruptions in FDI inflows may affect not just the extractive sectors but also other sectors, including manufacturing and/or infrastructure investment. Resources of bilateral and multilateral donors will be restricted because they have to channel them to other needs, such as healthcare in their own countries and other global needs. The possibility of capital flight out of SSA as a result of COVID-19 and plunging oil prices is real, and the sudden stop in travel is likely to hurt tourism earnings in countries including Botswana, Kenya, Mauritius, and South Africa, among others.

Prior to COVID-19, FDI net flows to SSA remained negative in 2019 (–$4.7 billion) but less so than in 2018 (–$7.1 billion). This aggregate amount masks the FDI flows to Nigeria, which jumped 81% to $3.3 billion, accompanied by some diversification from the oil sector, and FDI flows, which rose 71% in Côte d'Ivoire to $1 billion in response to the country's sustained economic growth. Remittances have also become an important source of foreign financing for sub-Saharan African countries. On average, remittances amounted to 4% of GDP and reached $46 billion in 2018. Some countries are more vulnerable to sharp declines in remittances as the level of economic activity in source countries contracts and migrant workers are furloughed or laid off. For instance, workers' remittances to Nigeria, one of the top five recipients in the world, amounted to 5.7% of GDP, mostly coming from the United States, Europe, Cameroon, the United Arab Emirates, and China. Other West African countries with large remittance receipts in terms of GDP are Senegal (9.9%) and Togo (9.1%).
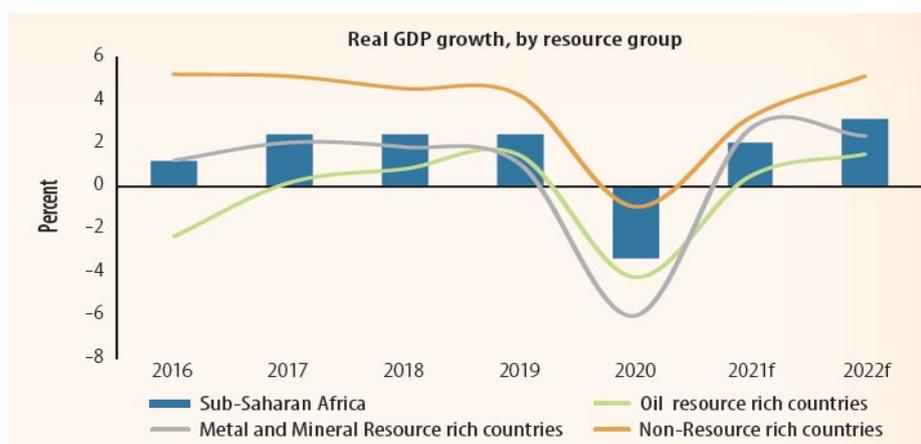
The third broad channel of transmission is job and income losses. The pandemic has caused widespread pay cuts, furloughs, and layoffs, with businesses and workers in the service industry (hospitality, tourism, and transportation sectors) adversely affected. Moreover, to cope with this crisis, countries have implemented lockdown measures, including travel bans, restrictions on public gatherings, and closures of workplaces, schools, and bars. These containment restrictions have disrupted labor markets, raised unemployment, cut supply and food chains, contracted business and consumer demand, and threatened many peoples' livelihoods. World Bank (2020b) found that informal-sector workers in SSA are critically exposed to the COVID-19 pandemic, not only because they are most vulnerable to socioeconomic shocks, but also because they live and work in close proximity, increasing the likelihood of infection.

Human capital impact. COVID-19 has had a serious impact on human capital, a critical factor affecting Africa's long-term economic prospects. While schools are closed, distance learning protocols will be difficult to implement in sub-Saharan Africa because of modest

internet penetration in the region. On average, less than 20% of the SSA population has access to the internet—compared with 90% of the population in advanced countries and 60% in other developing countries. But the regional average does not account for the wide variation in internet usage across countries in the region: Gabon (62%), South Africa (56%), and Mauritius (55%) are among the countries with the highest shares of internet users; the Central African Republic and Guinea-Bissau (4%) are among the countries with the lowest percentage of users.

Growth forecast for 2020–2022. Figures 4, 5, and 6 show the 2020–2022 World Bank baseline growth forecast for SSA countries and three country groups: oil resource-rich, metals and mineral resource-rich, and non-resource-rich countries. Real GDP growth for SSA countries is expected to decline by 3.3% in 2020 before recovering in late 2021 (Figure 4). The non-resource-rich countries are expected to fare better than the other two groups, while metal and mineral resource-rich countries are expected to suffer the most.
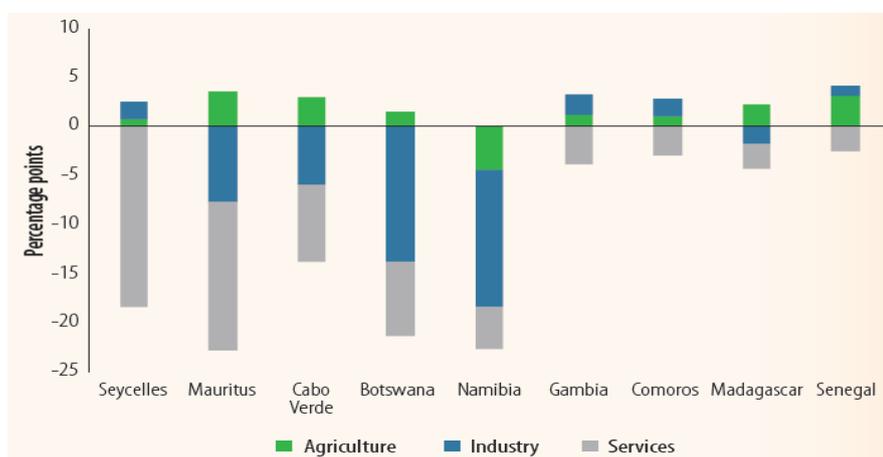
Figure 4: Real GDP Growth by Resource Group

Source: World Bank Africa Pulse, October 2020.

Tourism-dependent countries, including Seychelles, Mauritius, Botswana, and Namibia, are expected to contract sharply in 2020 (Figure 5), and the drop in output of countries in East and Southern Africa is expected to be larger than West and Central Africa (Figure 5).
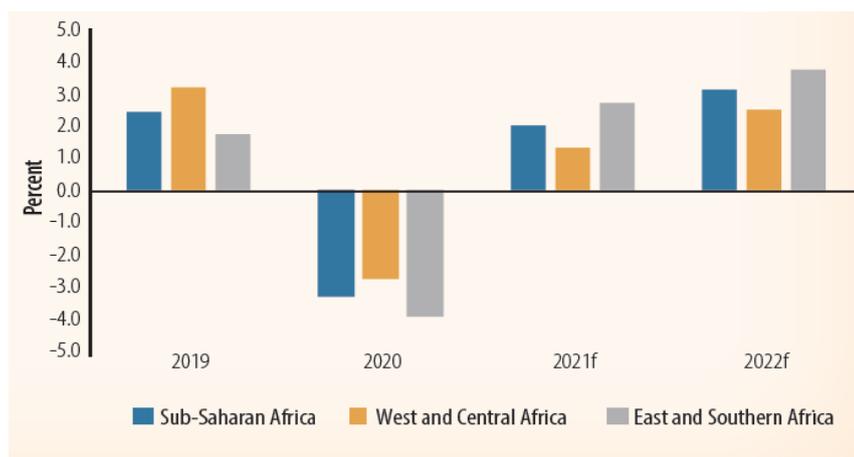
Figure 5: GDP Contractions in Tourism-Dependent Economies

Source: World Bank Africa Pulse, October 2020.

The slow recovery projected in 2021 implies that by the end of 2021, the region's real GDP per capita would be back to its 2008 level. The ongoing cyclical recovery among oil and metals exporters will be more sluggish, reflecting weaker external demand and softer commodity prices. In some countries, growth is projected to moderate somewhat over the forecast, in part because of slowing resource production (Democratic Republic of Congo, Ghana).

Figure 6: Baseline Growth Forecast by Sub-Regions

Source: World Bank Africa Pulse, October 2020.

III.   SHORT AND MEDIUM POLICY ISSUES

Normally, SSA countries facing such a deep crisis could seek help from external resources, especially from the international community. But the global nature of this crisis means that these external resources will be insufficient and need to be supplemented by domestic funding. Policy packages for individual countries must be comprehensive to match the immense size of the problem.

Fiscal policy could work to mitigate the adverse impact caused by rapid deceleration of economic activities. Methods like direct payments to taxpayers could go a long way toward helping individuals, especially unemployed workers. Canceled or delayed tax payments could help businesses cope with their losses. However, in general, fiscal space in SSA countries appears to be narrowing, especially for oil exporters. In many of these countries, the 2020 national budget was based on an oil price assumption of $60 per barrel. The oil price fell to below $20 per barrel in March and had recovered to about $42 as of mid-October 2020. As a result, lower-than-budgeted revenues are exerting pressure on fiscal balances. In Angola, the fiscal balance is projected to switch from a modest surplus in 2019 to a large deficit in 2020. Nigeria's fiscal deficit is expected to widen to about 5.8% of GDP, and, as a group, oil producers in the Central African Economic and Monetary Community will see their fiscal balance deteriorate sharply.

Monetary policy serves to provide an adequate flow of liquidity to businesses and households and to ensure the government has adequate financing instruments to mobilize resources. All major central banks have now lowered their interest rates to zero

(or below), and some have stepped up the pace of their asset purchases. Because inflation rates are generally not high, there is some room for SSA authorities to conduct countercyclical monetary policies, except for some metals exporters in the region (Liberia, Sierra Leone, and Zambia), which are coping with high double-digit inflation rates resulting from currency depreciation, monetization of fiscal deficits, and food-price inflation. Many countries can also run into exchange rate problems if their exchange rate regimes are rigid and do not allow the exchange rate to depreciate in the face of a sharp drop in exports and appreciation of the dollar.

The prospects for a commodity price recovery are still uncertain at this time. The decline in oil prices resulting from lower global demand has been exacerbated by the breakdown in oil producers' alliance and expectations of a protracted recession outside China, especially in the United States and Europe. The sharp decline in oil and metals prices may result in a fiscal crisis in the region, especially in the three largest and commodity-dependent economies (Nigeria, South Africa, and Angola). This shock will be hardest in Angola and Nigeria, where energy commodities account for 88% and 76% of export earnings, respectively, while the budgets were based on pre-crisis oil prices. Copper and zinc have also had a year-to-date drop of nearly 20%, which would seriously affect economies including Zambia and DRC.

Health. COVID-19 began as a health issue, and adequate resources have to be devoted to this sector. Yet, SSA countries face a dilemma. SSA healthcare systems are already very fragile, and they have to face other big public health issues—in particular, malaria, tuberculosis, and HIV/AIDS. Without a quick resolution of the health crisis, the economic crisis may persist and require additional fiscal and monetary policies. South Africa, Ethiopia, and Nigeria show the greatest risk of importation of COVID-19.

Helping informal workers. In SSA, the informal market absorbs more than 80% of workers. Informal businesses are mainly unregistered small or family units, including carpenters, shop owners, restaurant owners, and grocers. They usually employ ten or fewer undeclared and low-skilled workers, including unpaid family workers who work in difficult environments without social protection or workplace health and safety measures. These workers are typically poor and cannot stockpile food or cash for a long lockdown. They are most vulnerable to COVID-19 because they work in crowded bazaars and busy streets. Therefore, policymakers should design and implement aid programs that target these workers, including conditional cash transfers, food assistance, and healthcare support.

Debt servicing. The narrow fiscal space, rising need for social protection, and extreme poverty of SSA countries imply that innovative ways are urgently needed to help these countries cope with COVID-19. External debt service payment remains a channel to transfer resources. Prior to COVID-19, there was rising concern about public debt sustainability in the SSA due to a rapid increase in public debt since 2013 and a change in the public debt composition, where a greater share of the public and publicly guaranteed (PPG) external debt is owed to private creditors and non–Paris Club governments. The new creditors brought increasing complexity of debt instruments with nonstandard terms and clauses, including nondisclosure clauses.

Figure 7: SSA Public Debt as a Percentage of GDP

Source: World Bank Africa Pulse, October 2020.

Although the stock of debt does not seem excessive, the debt-stock composition and the inflexibility of some new bilateral official and private creditors will pose a problem for SSA countries. For example, Ethiopia's public external debt appears to be moderate (around 30% of GNI in 2019); however, its composition is risky because the share of external debt owed to bilateral official and private creditors represents nearly 60%. Ethiopia's PPG external debt service also represents 29% of exports—the highest ratio of debt service to exports in the region. More than half of that debt service is paid to private creditors and about a third is paid to bilateral official creditors.

IV.   STRUCTURAL ISSUES AFTER COVID-19

Even before COVID-19, commodity demand growth was expected to moderate in the long term as growth in China—the largest source of commodity demand—slows and shifts toward less resource-intensive sectors. COVID-19 has accelerated this demand, weakening and making SSA countries' recovery prospects uncertain. The general forecast consensus for SSA recovery from COVID-19 is a long and steep road to recovery. It is unclear whether second or third waves of infections will come and when the pandemic will be over. Yet, policymakers have to make clear choices about policy priorities. While the region's long-term prospects no doubt depend on two exogenous factors, namely commodity prices and the recovery of SSA's main trading partners, SSA policymakers should seize this opportunity to lay the foundation for a sustained growth recovery. The key to this strategy is moving away from the dependence on commodity production and exports, through policies to improve productivity and create jobs.

Reduction in Resource Dependency. In an earlier paper (Dinh and Dinh 2016), we argue that resource-abundant countries should use natural resources to fund job creation, in line with what Hartwick (1977) suggested. That is, the proceeds from these resources should be invested in reproducible capital (for example, machines or factories) so that per-capita consumption remains constant across generations, hence achieving intergenerational equity[6].

6. As defined by Solow (1974). Natural resources, especially the exhaustible ones, pose a fundamental intergenerational issue: how to ensure equitable distribution of resources across generations.

For structural transformation to take place, and especially to take place in the right way, jobs have to be created in the 'right' sectors, i.e. sectors in which productivity is higher than those where labor was drawn from. In addition, these newly created jobs have to absorb large numbers of (relatively unskilled) workers without affecting the productivity level. McMillan et al (2014) noted a disturbing issue in many African countries: the reallocation of factors was observed in the opposite direction, meaning that the labor factor shifted to lower than average productivity, indicating negative structural transformation. Latin America and Africa are the only two regions in the world where this occurs (McMillan and Rodrik, 2011).

Labor-intensive manufacturing is a good candidate for job creation. In a series of books and articles, we have argued that light manufacturing—with its low capital requirements, limited scale economies, readily available technology, and sales possibilities in domestic and international markets—retains potential as a springboard and the best hope to expand output, employment, productivity, and exports in SSA countries. Many SSA countries have all the inputs needed for a competitive light-manufacturing sector: a comparative advantage in low-wage labor, abundant natural resources sufficient to offset lower labor productivity relative to major competitors, privileged access to high-income markets for exports, and, in most cases, a sufficiently large local or regional market to allow emerging producers to develop capabilities in quick-response, high-volume production and quality control in preparation for breaking into highly competitive export markets. SSA countries can accomplish this by accelerating the realization of latent comparative advantage in areas of light manufacturing in which specific, feasible, sharply focused, low-cost policy interventions can deliver quick boosts to output, productivity, and, perhaps, exports, opening the door to expanded entry and growth.

Middle-income SSA countries face a different set of issues. They need to create jobs not only for unskilled or semi-skilled workers but also jobs that would create more added value in global value chains. In parallel, they need to actively promote innovation to move to the next stage of economic development. Policies in this group include those that integrate SMEs and the informal sector into value chains, measures to adopt, adapt, and disseminate technology at firm level, and measures that address education and training. The nature and extent of relevant public policy in areas such as institutional support, skills upgrading, and coordination between lead firms and firms vary by country.

Improving productivity growth. As we have discussed, there are two ways to enhance productivity growth, which is the foundation of wealth creation in an economy. One is to improve the 'within-sector component'. The second is through the process of structural transformation, i.e. moving resources from less productive to more productive activities. Among the first set of policies are those that improve productivity in agriculture. Some researchers attribute low agricultural productivity in SSA to the failure to adopt technology to improve yields, small farm size, subsistence farming, suboptimal crop selection, and poor land quality amid unfavorable climates. Price controls also distort resource allocation and adversely affect incentives to invest in human capital or adopt new technologies. The agricultural sector's contribution to total GDP combined with the disproportionate share of employment devoted to the sector helps explain SSA's low aggregate productivity relative to other emerging markets and developing economies.

But even more important than the first set of policies are policies to support structural transformation. The contribution of this second set of policies to overall SSA productivity

growth could be twice that of the first set, for two reasons. First, the level of sector productivity varies a great deal more across sectors in developing countries than in developed countries. In a previous study (Dinh 2017), we showed that in Ethiopia, the ratio of productivity of the finance sector to that of agriculture (the sector with the lowest productivity) exceeded a factor of 24. In Senegal, this ratio was 46. Thus, even if sector productivity remains the same year after year, Ethiopia and Senegal can achieve much higher and more sustainable growth by shifting activities from low-productivity sectors to higher-productivity sectors. Second, developing countries that do not implement this structural transformation will increasingly face growth problems because 'between productivity' growth may be rapidly exhausted.

V.   POLICY CHOICES FOR SSA COUNTRIES

November 2020 brought some good news regarding COVID-19 vaccines: two US pharmaceutical companies (Pfizer and Moderna) announced their COVID-19 vaccines were 95% effective. These vaccines, and others to come, offer a way out of the pandemic. However, the complexities and risks associated with relaxing social distancing imply that at best, economic activities can only be resumed gradually and it will take at least another year before the developed countries (North America and Europe) return to full normalcy. This implies that for developing countries, the full resumption of international trade in goods, services (especially tourism and worker remittances), and capital flows will begin only in 2022. Moreover, it is likely that both trade and capital flows will become much more differentiated, meaning that for some countries, they will reach the pre-pandemic level or even beyond, while for other nations, they may not reach that level at all. This is because the pace of globalization and of forming global value chains had begun to slow down even before COVID-19 (World Bank, 2020a) and this pace could accelerate further given the bitter experience that some developed countries have experienced during the pandemic concerning imports of personal protection equipment.

Facing these prospects, between now and 2022, it seems inevitable that the SSA countries must supplement international trade with policies to stimulate the domestic economy. These policies need to deal with short-term problems including widening budget and current account deficits, while addressing the two structural trends discussed above: overdependence on natural resources and the slowdown in productivity growth. These policies cover both macro and microeconomic areas.

Macroeconomic areas. Fiscal policy must work to mitigate the adverse impact caused by a rapid deceleration of economic activities, while monetary policy should aim to provide an adequate flow of liquidity to businesses and households, and to ensure adequate government financing. Governments should revise their investment programs to shift resources to the health and education sectors. In this pandemic, the return to investment would be greatest in the health sector, not only because it helps address the most urgent issue of the day, but also as an investment in human capital and the long-term prospects of a country. Another area of high return is education and this in conjunction with labor market reforms to prepare for when normalcy is resumed. These expenditures should be financed from external debt relief provided by the international community, but this debt relief has to be done deeply, widely, and on a permanent basis to eliminate any uncertainty for investment.

The pandemic adversely affects workers in the formal and informal sectors. The most vulnerable groups include those in the informal sector and/or part-time workers, unskilled youth, and school dropouts. It is important for countries to extend the safety net to include those recently laid-off due to the coronavirus. In many countries, charities and volunteer organizations should be encouraged to continue helping affected workers. For the formal sector, the demand shock affects firms differentially in different sectors, and governments thus need to target the worst-affected firms first. There are three types of firms: (i) firms with continuous demand (such as groceries and medical products); (ii) firms facing lost demand (including restaurants, travel, entertainment, transport, and tourism); and (iii) firms facing delayed demand (including consumer and producer products, and related business services). Firms in the first category do not need assistance, while those in the second and third categories are priorities for assistance. Those in the second category could be given one-off cash grants, while those in the third category could be given loans, as demand for their output is likely to bounce back. The current safety net program in each country should expand to cover at least the basic needs of workers in these firms.

Microeconomic areas. Here, governments need to encourage job creation in the private sector by creating a level playing field in which small and medium-sized domestic enterprises (as well as micro enterprises) enjoy all the same advantages as foreign-owned companies. This will help these local companies to mobilize capital and new knowledge and technology in manufacturing and exporting. Governments also need to help these enterprises link up with foreign-owned enterprises in the country in order to learn more about technology and world market demand. For large companies, state-owned enterprises (SOEs) are where the biggest losses take place, so the privatization of these SOEs needs to speed up with a view to supplementing budgetary resources during the pandemic. In addition, corporate governance practices should be introduced and monitored in SOEs and large enterprises to move towards OECD standards.

The pandemic has brought to the fore how important domestic manufacturing is for national security, and has led some countries to insist that products critical to the health sector must be made domestically. Simple medical gear including facemasks, gloves, gowns, and simple medical equipment is being made domestically. In order to survive the economic downturn, many SMEs have taken advantage of the severe shortage of these products by adjusting their factory production lines and retraining their workforces to produce simple medical products for local hospitals. More complex medical equipment, including hospital beds, medical instruments including ventilators, and medical transport vehicles including wheelchairs, vans, and ambulances, could be produced by firms in the metal products, machinery, electronics, automobile, and aircraft-parts sectors. This would be consistent with the desire of some countries to be self-sufficient in the production of these products as a matter of national security, in the wake of COVID-19 crisis. These efforts can serve as a reminder for developing countries to implement structural changes to ensure more self-reliance. Many of the medical products needed to address COVID-19 are produced with well-known, off-the-shelf technologies that firms anywhere can purchase, if they have the skills and know-how to use them. Retooling could be encouraged through: (i) credit promised by the government so firms can continue to pay workers while they retool; (ii) easy access to information and availability of technologies; and (iii) efficient connectivity between critical parties (suppliers, medical facilities, and other buyers).

A Sustainable Budget Framework. The pandemic thus would raise significantly recurrent expenditures in any national budget due to the need for: i) treatment of, and vaccination against, COVID-19; ii) further spending on education; and iii) social safety nets. While most of the microeconomic measures we have discussed do not require high government spending, there are areas that need more spending, e.g. short-term training for new healthcare businesses such as facemasks or respirators. The key policy here is to have a temporary budget imbalance to accommodate the turbulence brought about by the pandemic. But instead of going about spending freely according to contemporaneous needs and facing unintended consequences later on, policymakers should plan ahead to have a budget consistent with a long-term sustainable policy framework (Dinh, 1999). Briefly, because of the strong linkages between fiscal, monetary, and other macro-economic policies, the appropriateness of a particular fiscal deficit target depends on other targets for growth, inflation, and external and internal debt. Unless these linkages are brought out explicitly, conventional fiscal measures (such as deficit to GDP or government debt service to revenues) shed little light on the appropriate level of fiscal deficit and consequently on the appropriate speed of fiscal adjustment.

In the context of an integrated budget framework, a specific level of budget deficit may be adequate for one country but not for another. For instance, a 4% budget deficit may be adequate for an economy with single digit-inflation but may be woefully inadequate for a country with 70% inflation. Similarly, a target reduction in the budget deficit, (say, 2 percentage points of GDP), may not be nearly enough for an economy where the exchange rate is being used as a nominal anchor, but may be sufficient for one in which money supply serves as the anchor.

In a forthcoming paper, we will use this approach to illustrate the need to formulate a country's budget consistent with long-run solvency and sustainability criteria, to bring out the critical role of fiscal policy as an anchor for macro stability, and also to highlight the increasingly indistinct line between traditional internal and external balances.

The role of the international community. It is estimated that COVID-19 could push 40 million to 60 million people into extreme poverty—27 million of them in SSA. Given this problem's extent and depth, SSA needs all the help it can get. The multilateral institutions have provided both financial resources and advice to assist SSA countries in the recovery. The role of bilateral donors is no less important, from making all debt agreements transparent to participating actively in the upcoming Debt Service Suspension Initiative (DSSI)[7]. Equally important is the dissemination of knowledge and experience in policy adjustments from around the world.

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7. The G20 Debt Service Suspension Initiative (DSSI), which was approved in April 2020 and extended in October 2020, deferred $5 billion in official bilateral debt payments from 43 (out of 73 eligible countries) until 2021. That amount is less than half the potential relief.

Annex 1

Annex Table 1. SSA Country Classification by Income Groups and Fragile Countries

Middle-income countries	Low-income countries
Angola	Burkina Faso**
Benin	Burundi**
Botswana	Central African Republic**
Cabo Verde	Chad**
Cameroon**	Democratic Rep. of Congo**
Comoros**	Eritrea**
Republic of Congo**	Ethiopia
Côte d'Ivoire	Gambia**
Equatorial Guinea	Guinea
Eswatini (Swaziland)	Guinea-Bissau**
Gabon	Liberia**
Ghana	Madagascar
Kenya	Malawi
Lesotho	Mali**
Mauritania	Mozambique**
Mauritius	Niger**
Namibia	Rwanda
Nigeria**	Sierra Leone
São Tomé and Príncipe	Somalia**
Senegal	South Sudan**
the Seychelles	Sudan**
South Africa	Togo
Tanzania	Uganda
Zambia	
Zimbabwe**	

Note: Countries with ** are fragile countries as denoted by the World Bank.
Source: World Bank WDI, accessed October 10, 2020.

Annex Table 2. Sub-Saharan African (SSA) Country Classification by Resource

Resource-rich countries		Non-resource-rich countries		
Oil	Metals & minerals			
Angola Chad Republic of Congo Equatorial Guinea Gabon Nigeria South Sudan	Botswana the Dem. Rep. of Congo Guinea Liberia Mauritania Namibia Niger South Africa Sierra Leone Zambia	Benin Burkina Faso Burundi Cabo Verde Cameroon Central African Republic the Comoros Côte d'Ivoire Eritrea Eswatini (Swaziland) Ethiopia	Gambia, The Ghana Guinea-Bissau Kenya Lesotho Madagascar Malawi Mali Mauritius Mozambique Rwanda	São Tomé & Príncipe Senegal the Seychelles Somalia Sudan Tanzania Togo Uganda Zimbabwe

Note: Resource-rich countries are those with rents from natural resources (excluding forests) that exceed 10% of gross domestic product.

Source: World Bank WDI, accessed October 10, 2020.

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