



# **Africa COVID-19 Update: Revisiting Policy Responses and the Long Road to Recovery**

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1 This brief is prepared by Njuguna Ndung'u, Executive Director & Abebe Shimeles, Director of Research to stimulate discussion on the short to long-term implications of the ongoing COVID-19 pandemic.

## Key messages

This brief looks at the experiences of the past four months in dealing and coping with COVID-19 pandemic in Africa and reflects on the responses governments have made in their fight against the pandemic and assesses how the dramatic steps such as restrictions on mobility of people, 'lockdowns', were effective in slowing down infections. Our assessment of the lockdowns shows patterns of strong compliance by citizens with significant variation by the number of confirmed cases and level of development. Countries that experienced higher number of cases and are relatively richer (they have the capability to mount a social protection program) witnessed large reductions in movement of people from their normal routine than those with lower confirmed cases or poorer economies. Reductions in mobility seem to have reduced infection rates, but the magnitude was not that large. A one standard deviation reduction in mobility (about 25%) was associated with 2.8 % reduction in infection rates. Generally, lockdowns (proxies for social distancing) accounted for 25% of the variation in infection rates in Africa. Other preventive measures such as the use of masks, frequent handwashing, and use of sanitizers remain very important, though quantifying the magnitude of their impact is difficult. We argue that lockdown is increasingly less popular and imposing it for extended period is an untenable strategy for many countries. We have also documented that even at the early stage its effectiveness is highly correlated with the institutional strength of a country, particularly in the area of political stability and adherence to the rule of law. Hence, the road ahead points towards developing public trust in following government guidelines and overhauling the health care financing system, including reforming its reach to the masses and increase its readiness to deal effectively with the pandemic. It is also time to rethink about the necessity of building an effective social protection program on the foundations of existing social and religious networks that have proved vital during this pandemic. More importantly, the developments of digital payments platform have been effective and efficient with social protection programs for countries that used them.

## Introduction: The double whammy

Prior to the COVID-19 pandemic Africa had been struggling to recover from the impacts of slump in the prices of major export commodities, slowdown in foreign direct investment flows, and weather shocks in some parts. Real GDP growth started to decline from a peak of 7.1% in 2010 reaching the bottom at 1.4% in 2013 and begun the long road to recovery achieving a modest growth of 3.3% in 2019<sup>2</sup>. As a result, other macroeconomic indicators, such as inflation, current account balance and budget deficit also worsened during this period. The debt burden worsened with external debt-service crossing conventional limits of 20% of export earnings in most countries. The reversal of fortunes in an otherwise hopeful economic performance of the past two decades exposed the structural fragility of growth in Africa and its vulnerabilities to transient shocks.

The advent of the COVID-19 sent shockwaves into the emerging new sectors, such as tourism, manufacturing and financial intermediation compromising the recovery. Several indicators from diverse studies seem to indicate that African economies may suffer significant economic contractions due to the COVID-19 pandemic<sup>3</sup>. In addition, the initial conditions by the time the pandemic struck were not quite favorable. However, the full impact on livelihoods is yet to be ascertained as the uncertainty surrounding the behavior and the intensity of the pandemic is still unfolding. So far, the pandemic has forced many businesses to temporarily shut down, supply chains have been disrupted, unemployment soared and cost of living has risen tremendously. Particularly prices of basic necessities have increased against the backdrop of low economic activity, lock-down and loss of employment. Most of these economic disruptions were caused by policy and administrative responses necessitated to slowdown the spread of the virus causing the COVID-19 disease. These include restrictions on mobility of people, closing border crossing points and air travel, both within and between countries, and many other measures of lockdowns that limited travel.

In this brief, we provide an update on the degree of compliance, particularly on guidelines to restrict mobility across countries and examine if these measures tended to mitigate the infection rates. Most importantly, we reflect on the hard choices

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2 African Economic Outlook, 2020, African Development Bank Group.

3 See the following links to the various regional reports: World Bank (2020), "<https://www.worldbank.org/en/news/video/2020/04/13/africas-pulse-the-economic-impact-of-covid-19-coronavirus-in-africa>", IMF (2020) "<https://www.imf.org/en/Publications/REO/SSA/Issues/2020/04/01/sreo0420>", AU (2020), "<https://www.imf.org/en/Publications/REO/SSA/Issues/2020/04/01/sreo0420>", UNECA (2020), "<https://www.uneca.org/publications/covid-19-africa-protecting-lives-and-economies>

confronting governments as soon as the dynamics of the pandemic unfolds and most of the restrictions imposed on mobility and disruptions in some sectors of the economy have eased. Some of the lessons that emerge from the experiences of the past three months of fighting the spread of the virus may be summarized as follows. First, mobility compliance following government decisions to restrict movements seem to be highly correlated with number of confirmed cases. Countries that experienced spikes in the number of people affected by the virus, witnessed significant reduction in mobility of people from their normal daily routine. Second, lockdowns accounted for 25% of the variation in infection rates (number of confirmed cases as a ratio of total people tested). However, their effectiveness in containing the spread of the virus was limited. A one standard deviation reduction in mobility (about 25%) led to a 2.7% decrease in infection rate, which is not enough to contain the spread of the virus. Other protective measures are deemed to be critical. Finally, as the uncertainty on the epidemiological and virologic properties of the virus unfolds, the scientific community is still learning, and no clear path is in sight to end the pandemic. Hence, the task confronting policy makers is to ensure economic recovery while at the same time fighting the pandemic, where some difficult choices will have to be made. The indications are that focus should shift towards scaling up testing, close follow up of confirmed cases and strengthen capacity of the health system to care for the sick to effectively manage the pandemic.

## Policy responses to contain the pandemic have been diverse

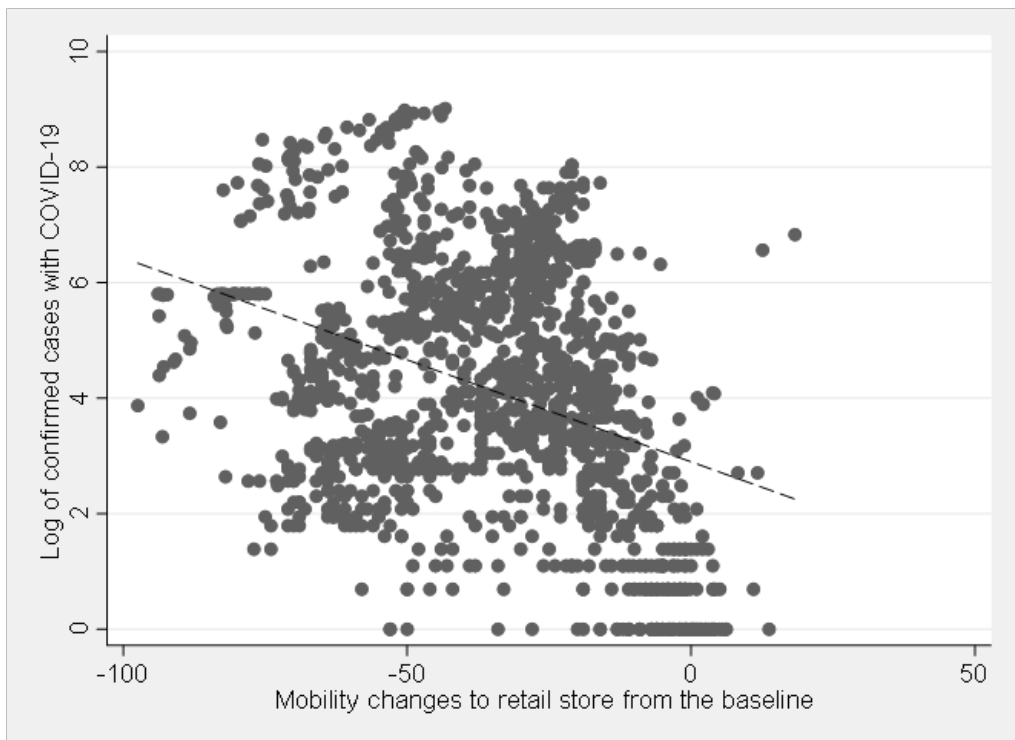
Most African countries have taken heed to the advisory notices released by WHO in the early stages of the COVID-19 pandemic, certainly concerned by the poor health system and health infrastructure to cope with massive infections. Early in the month of March most countries began taking serious measures to contain the movement of people. But not all countries enforced restrictions to the same degree of intensity and comprehensiveness, and certainly the compliance has not been uniformly applied. In some cases, even the efficiency of testing was challenged. The degree of compliance to mobility restrictions seem to be correlated significantly with the spread of the virus as shown in Figure (1). In countries where the number of infected cases was high, reductions in people's movements, say to retail stores declined significantly<sup>4</sup>. This variation in mobility across counties could be attributed partly to differences in the degree of lockdown introduced by governments and compliance rates by the public to the restrictions. Both seem to be relevant. This pattern is very useful in understanding the effectiveness of policy and administrative responses to contain the spread of the virus and bring normalcy.

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4 The data on mobility changes is obtained from Google <https://www.google.com/covid19/mobility/>. Confirmed infection rates and related data on COVID-19 were taken from <https://www.worldometers.info/coronavirus/>

We notice from Figure 2 that larger reductions in mobility to retail store were reported in countries where total number of individuals with confirmed cases of COVID-19 was very large, hence prompting the public to take the policy guidelines issued by governments seriously. We also notice that generally across all countries in Africa there has been an overall decline in mobility of people during the COVID-19 period suggesting there was common tendency of limiting movement in reaction to the news of the spread. This would perhaps be attributed to the first line of defense; self-preservation and this is a good objective towards the policy direction to limit infections and to save lives in general.

**Figure 1: Total confirmed cases and changes in people mobility to retail stores from baseline**

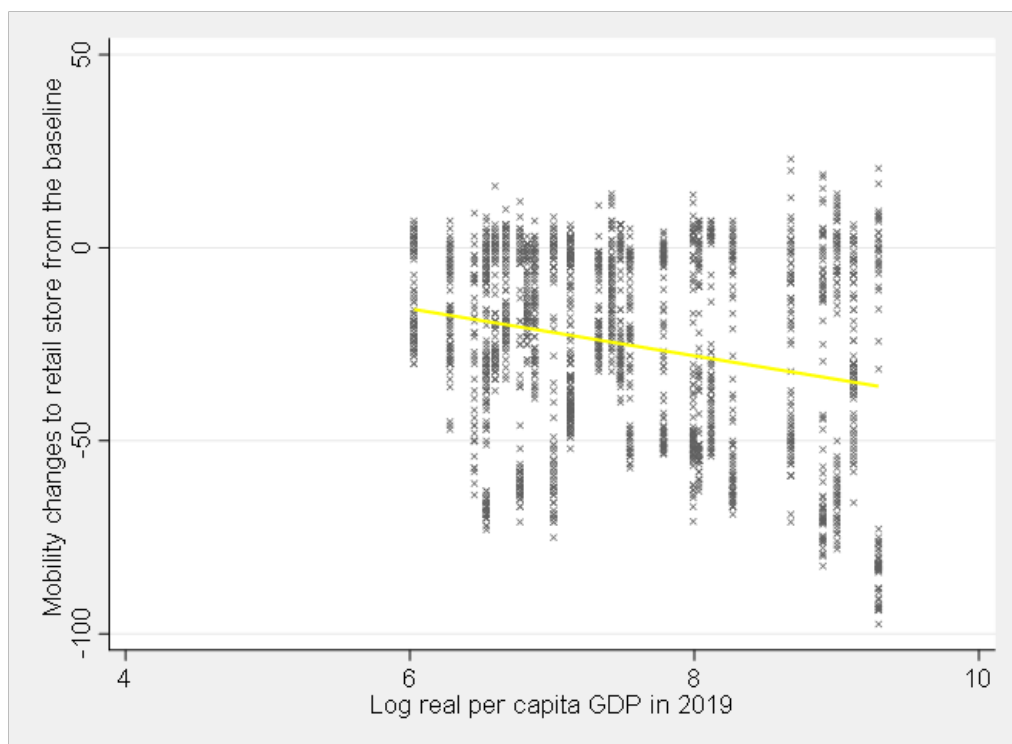


Source: Authors' computations based on data provided by Google (<https://www.google.com/covid19/mobility/>) and Worldometer (<https://www.worldometers.info/coronavirus/>)

One other source of variation in the mobility trends across countries in Africa is differences in per capita incomes. As shown in Figure 2, relatively middle-income countries tended to introduce and enforce stringent rules limiting mobility, as well high degree of compliance by the public. This pattern we believe is very important to note. First, it is possible that middle income countries tended to experience higher cases of confirmed infections due to their high degree of connectivity to the origins of the virus in Asia and later Europe, hence the desire of the governments to take prompt precautionary measures. Second, stricter restrictions could also be applied

with relative ease given the capacity of governments to provide basic provisions to the needy and vulnerable social groups, as well as relatively higher incomes across society to weather the restrictions. Here there may be lessons to be learnt on the institutions of social protection programs, the degree of inequality in the sufferings experienced and the potential impact on some social groups could be permanent. Third, it could also be possible that poverty and inequality get relatively worse in middle income countries, than in low income countries if mobility restrictions and economic disruptions had strong relationships. So far, the studies conducted on poverty suggest that already poor and fragile countries could be hurt most due to the COVID-19 pandemic<sup>5</sup>. This is possible and the global response to alleviate the economic hardships may have to consider these variations in impacts without also neglecting the sufferings of the poor in relatively richer African countries.

**Figure 2: Mobility reductions during COVID-19 and per capita income in Africa**



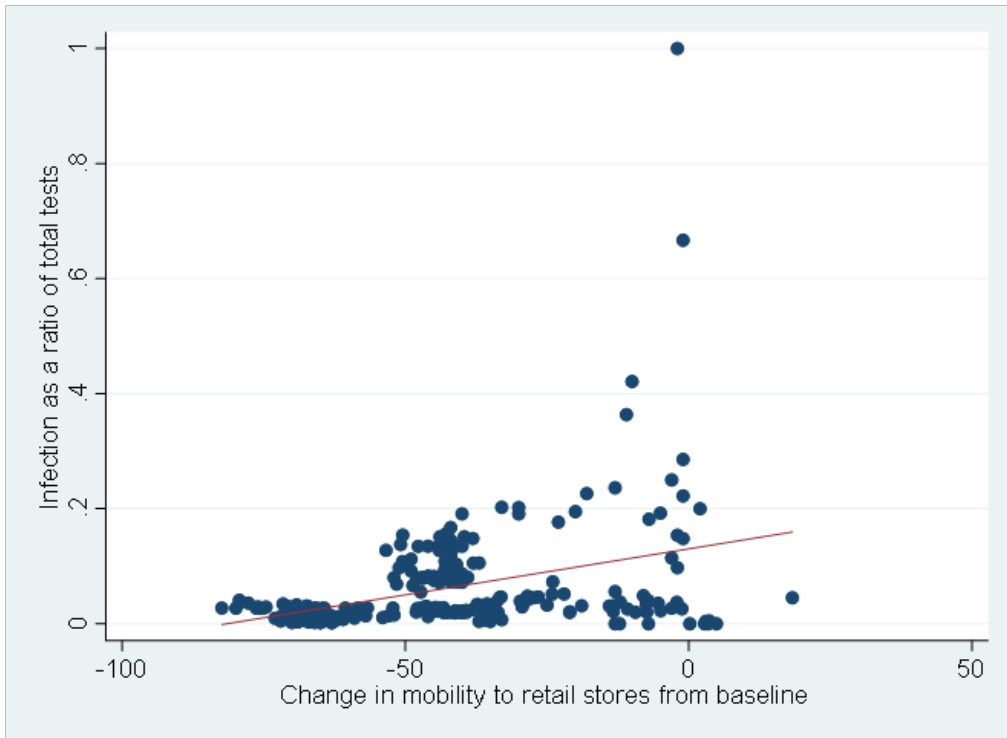
Source: Authors' computations based on data provided by Google (<https://www.google.com/covid19/mobility/>.) and African Development Bank Information Highway.

5 See for example <https://www.theigc.org/wp-content/uploads/2020/05/Teachout-and-Zipfel-2020-policy-brief-.pdf>

## How effective has been the policy responses in containing the spread of the virus?

It is not easy to capture accurately the impact of lockdown measures on the spread of the virus for several reasons. First, epidemiological models that simulate the impacts of containment measures such as frequent hand-washing, social distancing, and the use of other protective measures such as face-masks have varied impacts on reducing the risk of infection and such data flows are hard to find in Africa. Added to these lists are important dimensions of the preparedness of the healthcare system in testing, isolating and contacting exposed people as well as treating infected people is another matter. In situations where effectiveness of policy responses is hard to measure and quantify, governments are hard pressed to evaluate the trade-off between economic disruptions and containment of the spread of the virus. The received wisdom is that lockdowns help a lot in slowing down the virus, but there is no clarity how stringent it should be and for how long. As a result, African governments have taken different approaches to the lockdown from moderate to stringent approaches depending on their perception of severity of the spread and the practicability and costliness of the lockdown, while others facing political elections have been conscious of the cost of lockdowns.

The preliminary indication is that lockdowns truly could help in reducing infection rates. Figure 2 illustrates this point for selected African countries. The correlation between infection rates (ratio of total confirmed cases to number of individuals tested) and changes in mobility of people to retail stores show significant and positive relationships. In countries where movements declined significantly, infection rates also tended to be low. This correlation is confounded by many factors. For instance, number of individuals tested every day vary across countries based on the availability of the number of test kits, facilities to undertake the test safely, the guidelines for undertaking the tests and the turnaround in sharing the results. Hence the correlation may not reflect precise relations between lockdown and infection rates. But this was the objective and so as data is available and purified, the support for lockdown, testing and isolation should reduce the infection rate. Table 1 attempts to show even when we control differences in per capita GDP, an important factor potentially explaining variations in health systems and preparedness of countries, still infection rates decline significantly with lockdown. On the average, a one standard-deviation decrease in mobility to retail store (about 25%) could lead to a decline in infection rate of about 5%, which is significant.

**Figure 3: Infection rate of COVID-19 and lockdown in selected African countries**

Source: Authors' computations based on data provided by Google (<https://www.google.com/covid19/mobility/>) and Worldometer (<https://www.worldometers.info/coronavirus/>)

**Table 1: Association between infection rate and lockdown in selected African countries**

Dependent variable: confirmed COVID-19 cases as a ratio of total tests (%)			
Reductions in mobility to Retail stores	0.159***	0.168***	.111***
t-ratio	3.92	4.01	4.52
Log per capita GDP		-1.379**	-1.943**
t-ratio		-2.43	-2.73
Constant	13.022***	23.820***	25.63**
t-ratio	5.64	4.01	2.73
Trend controlled	No	No	Yes
N	260	260	260

Note: OLS regression with robust statistics. The regression is based on daily infection rates as a ratio of total tests done for the period 19 February-May, 13 2020 for 12 countries. Per capita GDP is for 2019. \*\*\*p-values <0.01, \*\* p-values <0.05

Source: authors computations based on data provided by Google and Worldometer websites.



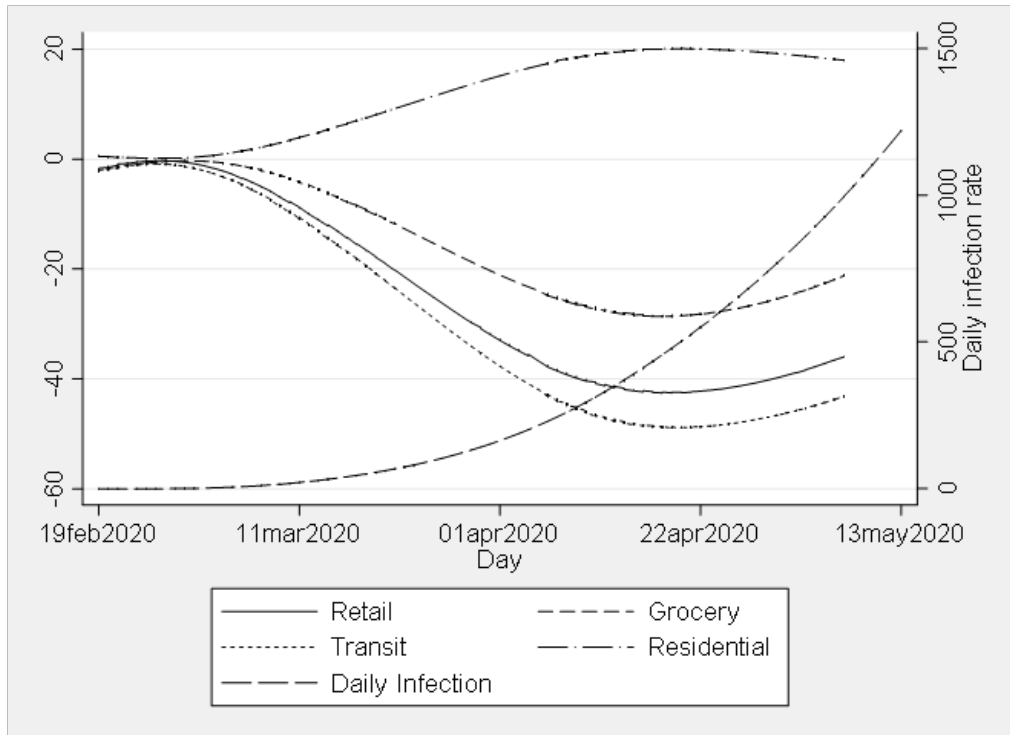
## The road ahead: Uncertainties and hard choices

As Africa braces for the worst, many African countries are grappling on the best approach to navigate through the COVID-19 pandemic. So far, the indicators on infection rates are growing rapidly and they do not show the S-curve often reported for the rest of the world. As shown in Figure 4, the trend in daily cases of new infections is growing rapidly. On the other hand, there seems to be fatigue in complying with the movement restrictions across the continent, showing signs of reversing which is very worrying. As the economic activity decline continues, the common approaches of containment may become difficult to enforce for extended period. Hence stepping up community level testing like in Senegal, Uganda, Kenya, Ethiopia and other countries offers hope in identifying and quickly isolating confirmed cases. But the spread could be faster than the actions of authorities hence there may be some tragedy awaiting down the road which could force governments to take even stringent measures than had been anticipated. One critical area is the urban slums. The lockdown in such cases and social distancing are not efficiently or even effectively applicable. Hence it will be necessary to generate applicable restrictions consistent with location, economic activity and living conditions. But we do know that in countries like Kenya where targeted social protection has been designed and implemented, this has effectively worked for limited lockdown and slowed the infection rates in slums. This is where one size does not fit all. In addition, for such locations, it is the food supply chain protection, preventive measures like masks, designed movements and sanitization that may matter most.

The COVID-19, unfortunate as it may be, also offers opportunities for undertaking the long overdue reforms in health systems, social protection schemes, resilient food security strategies, health infrastructure upgrade and devolved to the rural set up and community participation in public affairs. In addition, the pandemic also offers an opportunity for the fragmented continent to forge ahead genuine regional integration which could be an important source of risk sharing and protection of investment, jobs and movement of goods and services as well as development of markets that will be critical for economic recovery. There is currently a lot of discussions on taking advantage of this pandemic to reshape African economies, reform institutions and even economic management. Usually pandemics like this generate more dynamic changes and we should use the opportunity to move towards a sustainable economic environment on agreed policy reforms (protect and develop markets that provide an inclusive economic participation, protect private investments, etc) and a strict code of accountability for these results, fix the institutional failure problems and with it eradicate the political class the aims at self-preservation thriving on weak institutions. In this connection, Figure 5 presents an interesting relation between reductions in

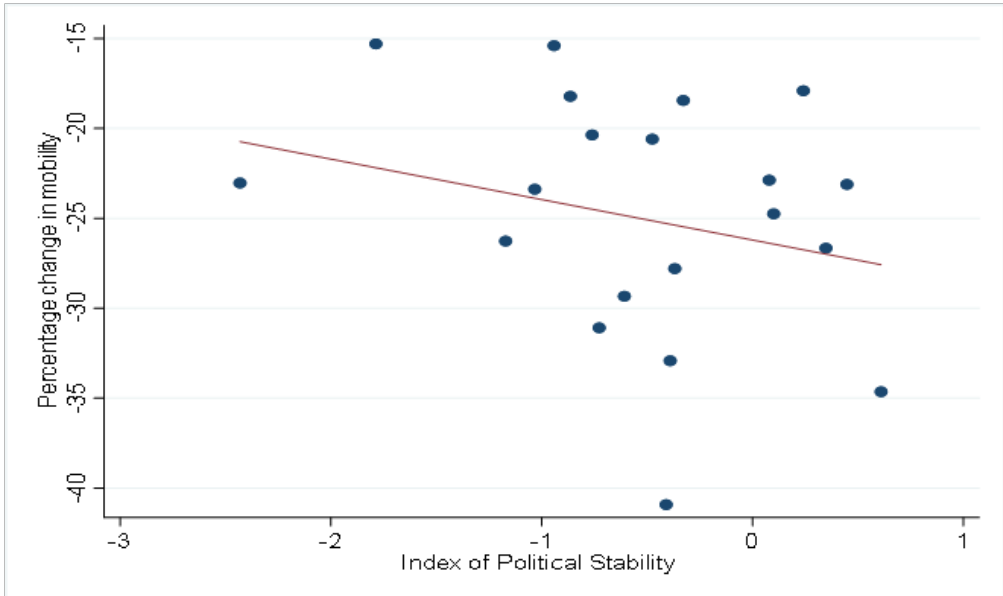
movement of people and political stability. Countries with relatively better political stability and rule of law tended to enforce lockdown policies better to contain the spread of the virus. The strength of the correlation was evident even after controlling for differences in per capita GDP levels that indicates institutional strength is necessary on its own right to fight the pandemic.

**Figure 4: Monthly lockdown and infection rates in selected African countries**



Source: authors computations based on data provided by Google and Worldometer websites.

**Figure 5: Residualised Binscatter of change in people's mobility and political stability**



Note: the graph plots residuals of percentage in mobility and index of political stability in a regression on log per capita GDP.

Source: Authors' computations based on data from Google and World Bank Development Indicators



## Mission

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