

## Sustaining Kenya's Economic Recovery Amidst Uncertainties of COVID-19

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### Key Messages

- Mobility restrictions were largely effective in containing the spread of COVID-19 as the government was vigilant on the positivity rate.
- Urban counties reported the highest number of new COVID-19 cases and were subjected to more restrictions compared to rural counties.
- Economic activities directly related to the mobility restrictions were deeply affected while others remained resilient taking advantage of emerging opportunities, but this was not enough to cushion contraction of overall economic growth.
- To remain on recovery path, it is important to remain vigilant and take timely action drawing lessons from experience so far. Uptake of COVID-19 vaccination serves to supplement the coping mechanisms.

### Introduction

On 12th March 2020, Kenya reported the first confirmed case of COVID-19. By end of December 2020, it had experienced two peaks of positivity rate. In March 2021, the government rolled out a National Vaccine Deployment Plan that aimed to vaccinate 26 million Kenyans by 2022. By end of December 2021, over 10 million people had been vaccinated, supported by an accelerated vaccine rollout plan. On 15th December 2021, the first case of new variant Omicron was reported in the country.

When COVID-19 struck, various measures were instituted to manage the spread and protect the most vulnerable in the society. Among these measures were mobility restrictions, which included requirements to work from home; restrictions on public events including social, business, and political gatherings; controls on public transport, including the capacity carried and ensuring wearing of masks; domestic movement restrictions including dusk-to-dawn curfew and cessation of movement to and from counties with higher positivity rate; school closures; and restrictions on international travel.

In August 2021, Kenya reopened schools and vacated existing controls on carrying capacity for

public passenger transport. In October 2021, the Government vacated the dusk-to-dawn curfew that had hitherto controlled local movement within the country. Since then, all the mobility restrictions have been vacated.

That said, the Omicron variant saw some countries especially in Europe and China reinstate mobility restrictions. This raised fear that should the situation intensify with Omicron, or any other variants emerge, Kenya could reinstate, some if not all, of the vacated mobility restrictions.

This policy brief examines how mobility restrictions imposed in Kenya affected the COVID-19 caseload and positivity rate, and economic performance, in drawing lessons for any possible re-introduction of vacated mobility restrictions should new COVID-19 variants emerge.

### Mobility Restrictions with COVID-19

At the very beginning of the outbreak of COVID-19, there was limited knowledge on how to handle the pandemic. The World Health Organization guided on measures required to control the spread and among the measures instituted immediately in March 2020 were mobility measures. With the situation

**Table 1: Time periods when various mobility restrictions were in place**

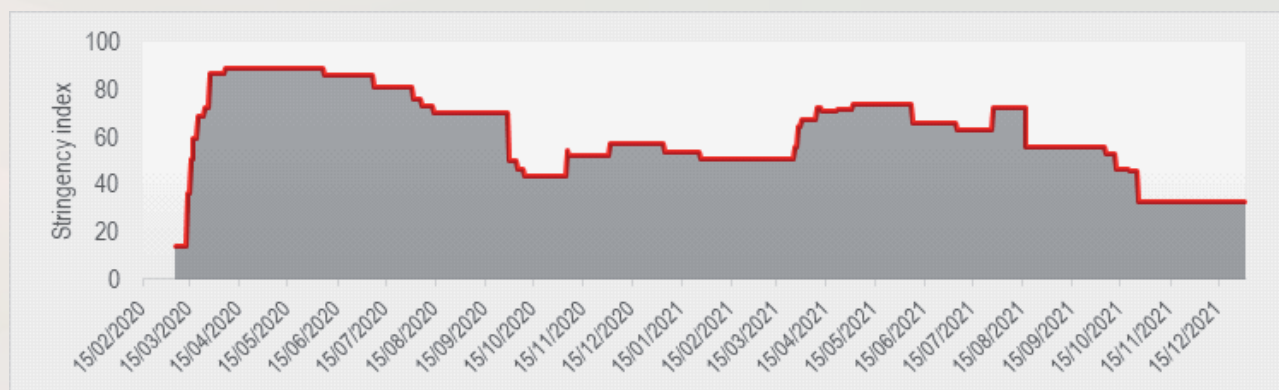
Period		Working from home	Public events	Public transport	Curfews	Lockdowns	School closure	International travel
2020	March	√	√	√	√	√	√	√
	April	√	√	√	√	√	√	√
	May	√	√	√	√	√	√	√
	June	√	√	√	√	√	√	√
	July	√	√	√	√	√	√	√
	August	√	√	√	√	√	√	√
	September	√	√	√	√	√	√	√
	October	√	X	X	√	√	√	√
	November	√	√	X	√	X		√
	December	√	√	√	√	X	√	√
2021	January	√	√	√	√	X	√	√
	February	√	√	√	√	X	√	√
	March	√	√	√	√	X	√	√
	April	√	√	√	√	√	√	√
	May	√	√	√	√	√	√	√
	June	√	√	√	√	√	√	√
	July	√	√	√	√	√	√	√
	August	√	√	√	√	√	X	√
	September	√	√	X	√	X	X	√
	October	√	√	X	√	X	X	√
	November	√	√	X	X	X	X	√
	December	√	√	X	X	X	X	√

Note: √ and X mean presence and absence of restrictions, respectively

improving, most of the restrictions were vacated by end of December. A key indicator on the tightness of the restrictions is the stringency index, which ranges between 0-100, and includes working from home, public events, public transport, curfews, lockdowns, closure of schools and international travels.

The stringency index, which measures the tightness of the restrictions defines various phases between March 2020 and December 2021. The first phase was March to June 2020 when the stringency level tightened from 13.89 to 88.89. During this time, the Government instituted various measures, including encouraging working from home; ban on public events where citizens were encouraged to avoid crowded places such as places of worship, weddings, funerals, entertainment places, and shopping malls;

**Figure 1: Kenya's COVID-19 Stringency Index**



Source: Oxford University

controls on carrying capacity in public transport; national curfews; lockdowns including cessation of movement to and from high risk areas; closure of all education institutions; and restrictions on international travel.

The Government eased some of the containment measures that saw the stringency index drop to 43.52 in early October. This includes resumption of local and air travels, relaxing the dusk to dawn curfew hours, and partial reopening of places of worship. However, with the positivity rate peaking again, all super-spreader events were suspended, including political rallies and gatherings except in town halls. This saw the stringency index stabilize all the way to March 2021.

Mobility restriction measures were further tightened between April and August 2021, especially as the Government tightened nationwide curfews and zoned areas in western part of the country to control the Delta variant. Thereafter, measures relating to school closures, lockdowns, and curfews were relaxed, and the stringent index started to drop.

### 3. Mobility Restrictions, COVID-19 Caseload, and Positivity Rate

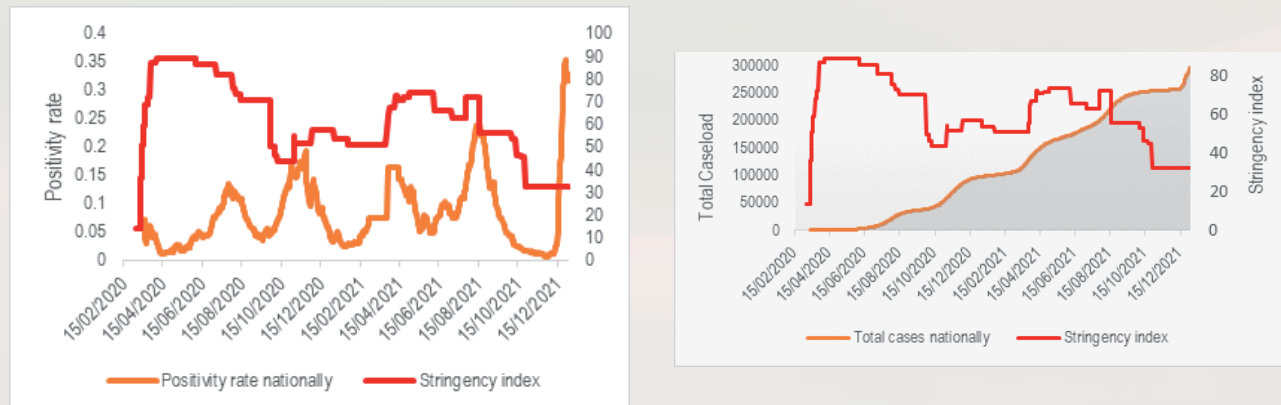
Kenya witnessed five peaks (May-July 2020, October-December 2020, March-May 2021, July-September 2021, and November-December 2021) as shown in Figure 2.

Most of the time restrictions were tightened, the country was able to flatten the curve. For example, in September 2020, the positivity rate fell to 3.60 per cent after the Government tightened containment measures by extending the nationwide dusk-to-dawn curfew, banning sale of alcoholic drinks and beverages in eateries and restaurants, fully closing bars, and revising closing time for eateries and restaurants from 8 p.m. to 7 p.m. Zoning out and locking down COVID-19 hotspots in Nairobi, Kiambu,

Kajiado, Nakuru, and Machakos counties, brought down the positivity rate to 7.8 per cent by end of May 2021. In June 2021, the Government announced lockdowns in the counties of Busia, Kakamega, Nyamira, Kisii, Migori, Siaya, Homa Bay, Kisumu, Trans Nzoia, Bungoma, Bomet, Vihiga, and Kericho to contain the Delta variant. These counties had experienced a combined positivity rate of 21 per cent compared to the national average of 9.1 per cent. The Government adjusted curfew hours to run from 7 p.m-4 a.m. up to end of July 2021 while in the rest of the country curfew hours remained from 10 p.m-4 a.m. The Government maintained in-person and congregational worship at one third of the capacity, while the Government further extended the ban of public gatherings, including political events.

A peak in positivity rate often followed relaxation of restrictions. For instance, as the containment measures eased from 70.37 in late September 2020 to 43.52 in early November 2020, the positivity rate rose from 4.40 per cent to 16.90 per cent. Specifically, lifting of restrictions on cessation of movement to and from Eastleigh in Nairobi, Old Town in Mombasa, and Kilifi and Kwale counties, reopening of places of worship, and adjusting curfew hours to run from 11 p.m-4 a.m. saw the positivity rate peak at 13.60 per cent in July 2020. Other containment measures vacated during this period include sale of alcoholic drinks and beverages in eateries and restaurants and re-opening of bars. In June 2021, the Government lifted restrictions on movement to and out of Nairobi, Kiambu, Nakuru, Kajiado, and Machakos, and adjusted curfew hours to run from 10 p.m-4 a.m., in-person worship resumed at third of capacity, restaurants, eateries, and bars re-opened, and schools were re-opened. This triggered peak of the fourth wave in August 2021. With the outbreak of the Omicron variant in November 2021, however, the positivity rate rose steadily peaking in December 2021. Screening at all points of entry, quarantine, proof of vaccination prior to entering Kenya and possession of negative COVID PCR certificate were instituted to bring the fifth wave under control.

Figure 2: Positivity rate, total caseload, and mobility stringency index



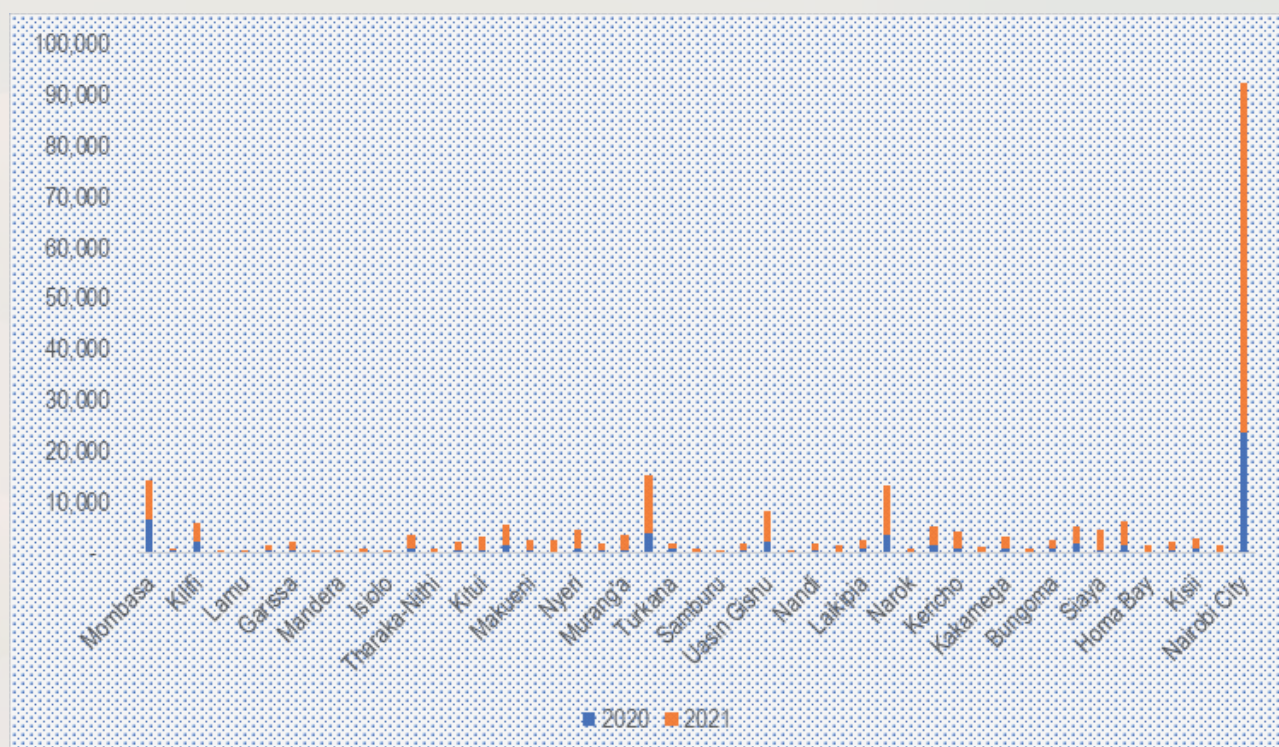
Source: Ministry of Health



Some measures were more effective while others were easy to be circumnavigated. For example, Kenya witnessed peaks in July 2020, April 2021, and July 2021 despite containment measures being stringent partly due to non-observance of measures controlling political gatherings and large social events, curfews and lockdowns, and public transport carrying capacity. Measures restricting air travel into Kenya through requirements for screening and quarantine, closure of all learning institutions in the country, and working from home were largely effective in controlling the spread of the virus. Measures controlling large public events such as political gatherings and capacity for churches, adjustment of curfew hours, and cessation of movements into and out of the Nairobi Metropolitan area and counties of Kilifi, Kwale, and Mombasa during the first wave of the pandemic, and public transport carrying capacity were easily circumnavigated.

Counties were affected differently (Figure 3). The most affected counties by the five waves of the pandemic included cosmopolitan counties of Nairobi, Mombasa, Machakos, Kajiado, Kiambu, Kericho, Trans Nzoia, and Kisumu. The western counties of Busia, Kakamega, Nyamira, Kisii, Migori, Kisumu, Siaya, Homa Bay, Bungoma, and Vihiga experienced a spike of the Delta variant between July-September 2021 while the North-Eastern counties of Mandera, Wajir and Garissa saw a spike of the virus during the first wave. Overall, urban, cosmopolitan, and densely populated counties reported the highest number of new COVID-19 cases compared to more rural and sparsely populated counties.

**Figure 3: New COVID-19 cases in counties in 2020 and 2021**



Source: Ministry of Health, Kenya

#### 4. Mobility Restrictions and Economic Activity

Different sectors of the economy were affected differently. The overall GDP growth contracted in the second and third quarter of 2020. Sectors with negative growth included, manufacturing, electricity and water supply, wholesale and retail trade, accommodation and restaurants, and transport and storage. A key channel through which this effect was felt was through mobility related activities including retail and recreation, grocery and pharmacy, parks, public transport, workspaces, and residential spaces. The magnitude and direction of effect reflecting on the level of stringency index as depicted in Figure 4.

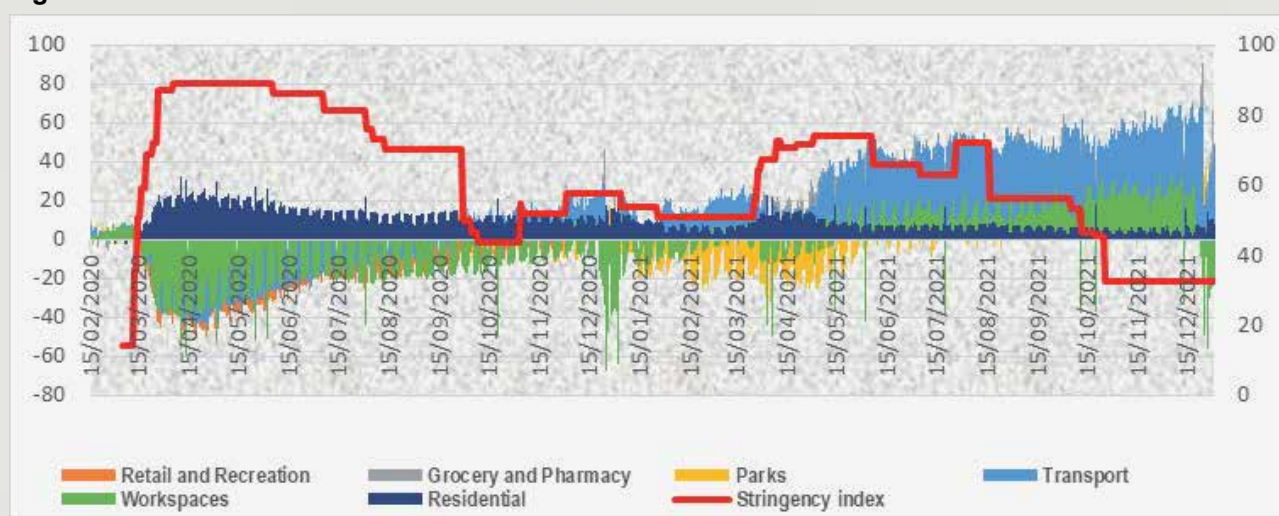
The public transport sector registered negative performance when mobility restrictions were tightest but recovered with vacation of restrictions. At the national level, the sector reported negative performance between April 2020-October 2020 as cessation of movement, curfew, and limits on carrying the capacity of public service vehicles were implemented. From November 2020, however, the sector rebounded as restrictions on cessation of movement were gradually lifted. The largest rebound in the sector was supported by vacation of restrictions on carrying capacity of public service vehicles from August 2021 and increased uptake of vaccines that kept the positivity rate down. At the county level, urban and cosmopolitan counties such as Nairobi, Mombasa, Kisumu, Nakuru, Machakos, Kajiado, and Machakos experienced the largest decline in utilization of public service transport when

**Table 2: Quarterly GDP and sectoral economic performance**

Sector	Q1-2020	Q2-2020	Q3-2020	Q4-2020	Q1-2021	Q2-2021	Q3-2021
GDP	4.9	-4.7	-2.1	0.7	0.7	10.1	9.9
Agriculture	4.3	4.9	4.2	5.8	-0.1	-0.9	-1.8
Mining and quarrying	6.4	4.4	7.0	9.2	16.4	17.7	25.1
Manufacturing	2.2	-4.7	-1.7	3.8	1.6	9.4	9.5
Electricity and water supply	1.5	-4.7	0.2	3.5	2.0	5.2	4.5
Construction	10.4	8.2	12.5	16.2	7.8	6.5	6.4
Wholesale and retail trade	4.9	-4.2	-5.0	2.6	7.4	9.5	6.9
Accommodation and restaurant	-8.1	-56.8	-63.4	-62.2	-48.6	9.4	24.8
Transport and storage	2.2	-16.8	-10.1	-6.1	-9.1	17.4	13.0
Information and Communication	5.6	2.6	3.2	7.6	16.1	25.3	5.8

Source: Kenya National Bureau of Statistics

**Figure 4: Direct economic effects of COVID**



Source: Oxford University, and Google

mobility restrictions were tightest but registered rapid recovery with easing of the restrictions.

Demand for residential space remained positive and resilient. At national level, the activity peaked between March 2020 and June 2020 when mobility restrictions were tightest. The positive demand could be explained by measures taken by landlords to lower rental prices to cushion tenants from slowing economic activity. Income tax relief additionally relaxed the budget constraint and supported continued demand for residential space. Although still positive, demand for residential space waned, with vacation of most of the mobility restrictions. Gradual vacation of lifeline measures by the government and landlords to cushion tenants against the effects of the pandemic as the economy re-opened drove the rental prices up. Demand for residential spaces remained positive in majority of the counties, especially the more urban and cosmopolitan counties, including Kiambu, Nairobi, Machakos, Kisumu, Mombasa, Kajiado, and Nakuru.

Demand for workspaces was weakest when mobility restrictions were tightest and strongest

when the restrictions were loosest. At the national level, workspace activity was negative between April 2020 and May 2021 and in December 2021 as the government and private-sector employers encouraged employees to work from home, and teleconferencing was embraced to conduct official meetings. Between June 2021 and November 2021, demand for office was positive, driven by mass public vaccinations, which created immunity against the virus and drove the positivity rate down. With easing of restrictions from October 2021, the sub-sector has since recovered for majority of the counties. Urban and cosmopolitan counties such as Mombasa, Nairobi, Machakos, Nakuru, Kiambu, Kajiado, and Uasin Gishu suffered the largest decline in demand for workspaces when mobility restrictions were tightest but also registered the largest recovery in activity with easing of the restrictions.

Retail and recreation activity contracted the most during the first wave of the pandemic but remained positive for the remainder of the period. At the national level, retail and recreation registered negative performance in the second quarter of 2020 but recovered between July 2020 and December



2021 after it was classified as an essential service sector and excluded from restrictions. Exclusion from COVID-19 containment restrictions and uptake of digital innovations for deliveries smoothed both supply and demand in the sub-sector in the remainder of the period. At the county level, counties reporting the largest dip in retail and recreation activity included Nyeri, Kirinyaga, Nairobi, Vihiga, Kilifi, Murang'a, Narok, Uasin Gishu, Kisumu, Nandi, Bungoma, Nakuru, and Mombasa. With easing of mobility restrictions, these counties have witnessed upward rebound in retail and recreation activity.

Grocery and pharmacy remained positive throughout the pandemic period. At the national level, the Government declared grocery and pharmacy as an essential service sub-sector and was excluded from restrictions. Coupled with increased uptake of e-commerce platforms as channels for placing orders by consumers, the exclusion of the sub-sector from restrictions smoothed supply and demand. At the county level, counties that saw the largest decline in these activities included Nairobi, Narok, Murangá, Vihiga, Kwale, and Busia. In contrast, grocery and pharmacy was exhibited resilience in Trans Nzoia, Nyeri, Kericho, Kisii, Nakuru, Kisumu, Meru, Nandi, and Tharaka Nithi.

Demand for parks exhibited mixed performance. At the national level, visits to parks declined the most between March 2020 and October 2021 but rebounded in December 2021. Visits to parks is an indicator of performance of the tourism sector and since tourism is non-necessity, loss of incomes and livelihoods by consumers may have led to expenditure reductions on tourism to free up income for expenditure on necessities. At the county level, mobility trends to national parks, public beaches and gardens exhibited mixed activity even with easing of mobility restrictions. Particularly, counties such as Mombasa, Kwale, Kilifi, and Narok registered sustained recovery between November 2020 to December 2021 as mobility restrictions were gradually vacated. In other counties such as Taita

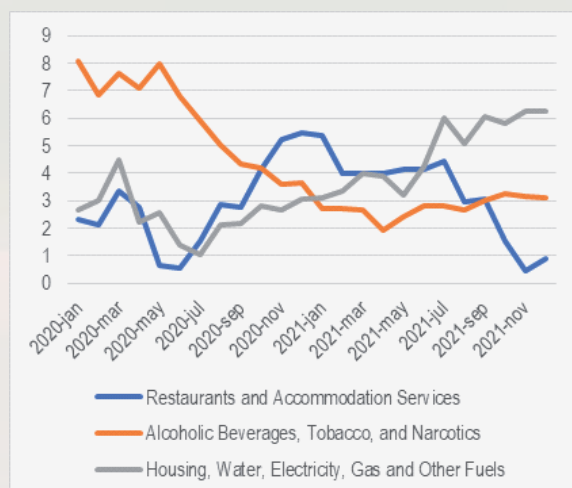
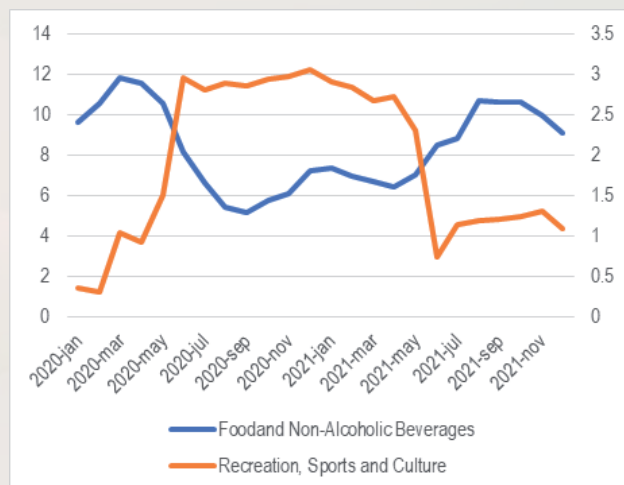
Taveta and Makueni, which share the Tsavo National Park, Nairobi, Kajiado, and Nakuru, demand for parks remained negative throughout the COVID-19 period.

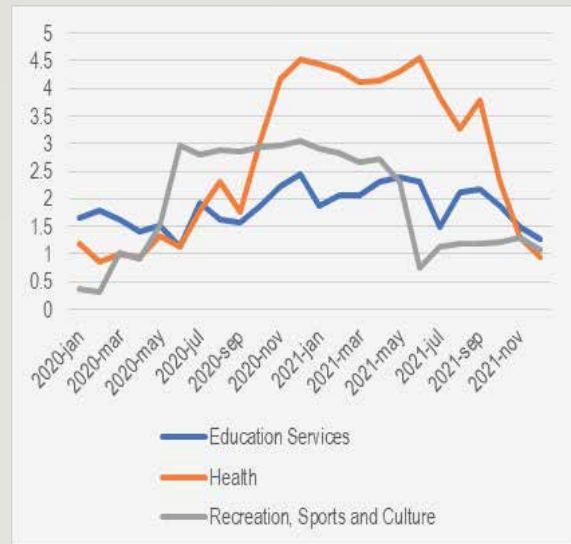
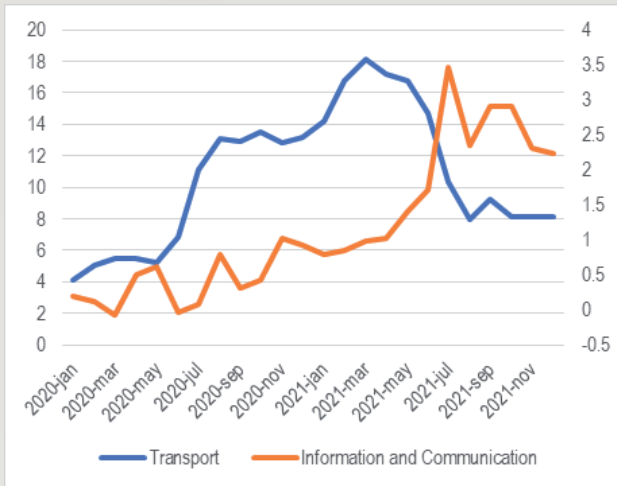
## 5. Mobility Restrictions and Macro Prices

While the core inflation remained stable, different components of inflation were affected differently. The overall inflation averaged 5.4 per cent in 2020 and 6.1 per cent in 2021 compared to 5.2 per cent in 2019. Fuel inflation was higher during the COVID-19 period, partly due to heightened international oil prices with the disruptions on the supply chains. Food inflation fell significantly between March 2020 to November 2020, partly due to weakened purchasing power as many lost their livelihoods. With drought condition declared a national disaster in September 2021 food inflation spiked.

The Kenya Shilling depreciated more against major currencies during the COVID-19 reflecting the developments in the external market. The Shilling depreciated more with the onset of COVID-19 and the ensuing mobility restrictions that disrupted the international exchange system (Figure 6a and 6b). The Kenya Shilling depreciated the most against the Sterling Pound (13.6%) followed by the Euro (13.5%), and the US Dollar (10.3%) between December 2019 and December 2021. The depreciation was more when the stringency index was tighter between April-June 2020, December 2020-January 2021, and April-June 2021 compared to periods of relaxations especially between September-October 2020, March-April 2021, July-August 2021, and October-November 2021. The foreign reserves were sustained at their statutory level, especially with the inflows of funds from the International Monetary Fund (Figure 6c). Further, diaspora remittances remained strong, growing by 10.6 per cent to US\$ 3,094,300 in 2020 and 32.9 per cent to US\$ 3,718,000 in 2021 compared to US\$ 2,796,600 in 2019.

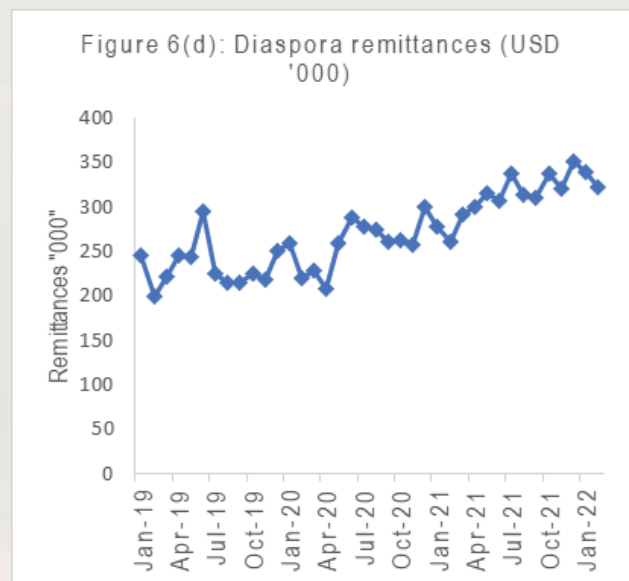
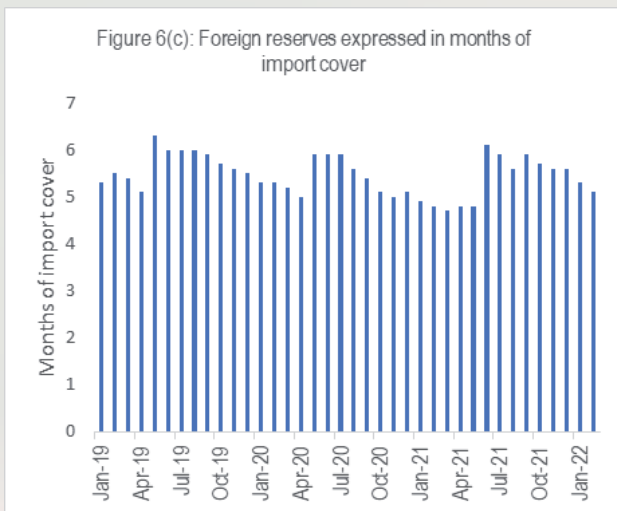
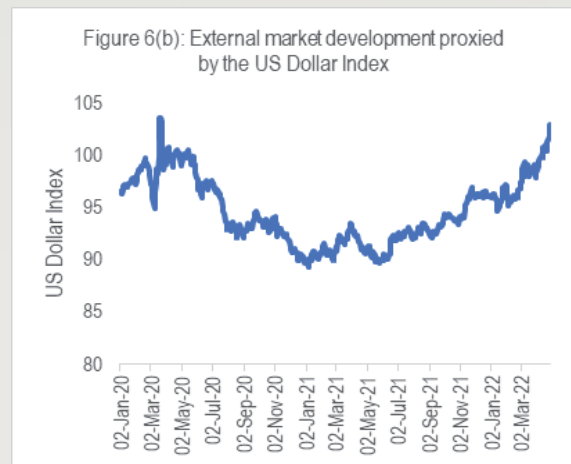
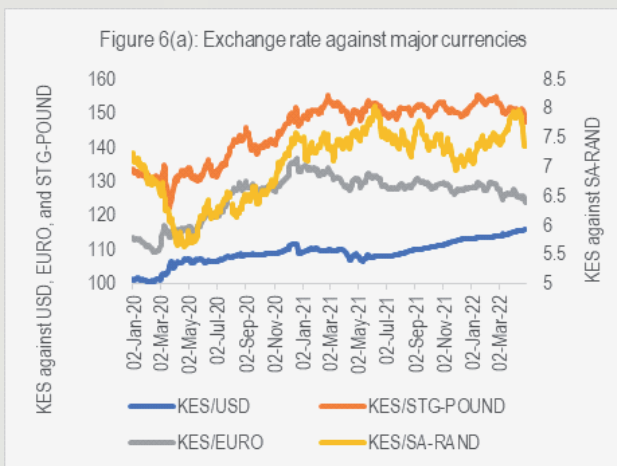
Figure 5: Inflation rates by consumption categories





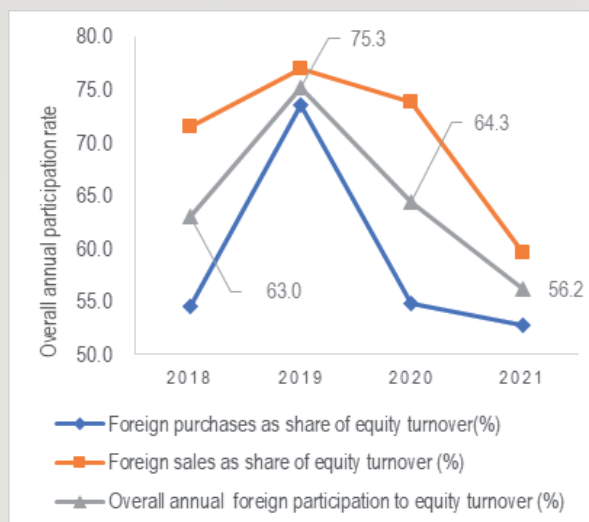
Source: Kenya National Bureau of Statistics

Figure 6: Development in the exchange rate market



Source: Central Bank of Kenya

**Figure 7: Foreign investors participation at the Nairobi Securities Exchange**



**Source: Central Bank of Kenya**

Tighter mobility restrictions were associated with decline in activity at the Nairobi Securities Exchange (Figure 7). Mobility restrictions were characterized by investor sentiments. For example, the foreign investors participation rate in terms of purchases and sales fell in April-May 2020, November-December 2020, February-March 2021, May-June 2021, and October-November 2021, driven by investor sentiment regarding possible tightening of mobility restrictions. The overall participation rate by foreigners at the bourse stood at 75.3 per cent in 2019 before falling to 64.3 per cent in 2020 and 56.2 per cent in 2021. Overall, foreign investors exhibited herdlike behaviour.

## 6. Conclusion and Policy Implications

Mobility restrictions were part of the interventions instituted by the government to contain the spread of the pandemic and cushion the vulnerable groups. The Government kept vigilant of the developments in the positivity rate to ensure appropriate and timely actions were taken.

- (i) Economic activities directly related to the mobility restrictions were highly affected. Others remained resilient taking advantage of opportunities emerging with the pandemic, but this was not enough to avoid overall economic growth contraction.
- (ii) Although overall inflation remained stable, various components of inflation were affected differently. Transport, health, and restaurant saw a heightened inflationary pressures with increasing cases of pandemic but as the restrictions were relaxed inflationary pressures eased.
- (iii) Urban counties were more affected by the pandemic, with high numbers of caseloads and significant levels of restrictions imposed as compared to the rural counties.

As the mobility restrictions are relaxed in opening the economy, it is important to remain vigilant so that appropriate and timely actions are taken to avoid shocking the economy again. In addition, uptake of COVID-19 vaccinations remains a prior

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KIPPRA Policy Briefs are aimed at a wide dissemination of the Institute's policy research findings. The findings are expected to stimulate discussion and also build capacity in the public policy making process in Kenya.

KIPPRA acknowledges generous support from the Government of Kenya, and other partners who have continued to support the Institute's activities over the years.

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