

Horizon Kenya: Exploring trends set to shape the future in Kenya



Horizon East Africa is a research project dedicated to exploring the trends that are likely to shape the future in East Africa. It aims to contribute to the conversation about what may lie on the horizon so that governments, donors, firms and citizens can take the action needed now to better mitigate looming risks and most effectively grasp the opportunities to come.

We synthesise global, regional and country-level data and research, and complement this with our own targeted intelligence-gathering from strong networks in East Africa.

This first Horizon East Africa report (compiled in 2019) looked at regional trends, while this second series provides more in-depth analysis into the key trends likely to shape the future of Kenya, considering the impact of COVID-19 on the country's prospects for economic transformation moving forward.

Horizon reports aim to trigger debate and discussion. We welcome conversations with others about this report's content — including about the implications of its findings and areas that need further research.

We also welcome collaboration on future projects. Please connect with us @horizon_ea or contact us at info@horizon-ea.com to register your interest and to sign-up for future updates.

Horizon East Africa is supported by Msingi, Kenya Markets Trust and Gatsby Africa.

HORIZON
EAST AFRICA

MSINGI
BUILDING EAST AFRICA'S INDUSTRIES
OF THE FUTURE

**KENYA
MARKETS
TRUST**
Better Markets, Better Lives

 **GATSBY
AFRICA**

Contents

Foreword	04
Introduction	05
Chapter Summaries	06
The Trends	
1. Politics	09
2. Society and the Future of Work	25
3. Technology	49
4. Finance	65
5. Trade	81
6. Environment	101
Bibliography	120
Photo Credits	136
Contributors	137
About the Project Sponsors	140

Foreword

Understanding the drivers of change in Kenya's economic transformation journey



Kenya is at a pivotal moment in our economic development journey and the decisions we make now as a country will determine our future trajectory for generations to come. This is why we undertook this research project – the second in our Horizon series with partners Kenya Markets Trust and Msingi – to better help us understand and grapple with the key political, economic, finance, social, environmental and technological trends emerging on the horizon.

This report tries to unpack the trendlines and analyse their implications for Kenya's economic story moving forward. It is well known that mobile penetration is increasing rapidly, we have a burgeoning tech sector, as well as educated and urban-based young population, but we have looked at these issues from the lens of their implications on long term prospects for productivity growth, jobs and incomes. For example, we know that devolution represents a major opportunity to spur localised economic development in previously underserved areas, but ongoing challenges over budget dispersals to the counties will need to be resolved in the near term for this to occur. We also know that there has been a massive growth in the ag-tech sector, but we explore the extent to which this represents a potential fad versus a key enabler of the agricultural sector in the future.

A major theme of this research series is change and it is something we have had to adapt to ourselves throughout this work. While the bulk of early research for this project began in 2019 and early 2020, COVID-19 was quickly emerging as the 'elephant in the room' of all the other trends we were analysing. This highlights the limitations of any sort of horizon scanning work, namely that the world is increasingly complex and that making sense of that complexity will become more and more challenging going forward.

We believe the broader trends we identified early on – around demographic shifts, the work environment, climate issues, etc – have all largely held constant, due in large part because we took a longer-term view and tried to bring solid evidence to bear in our analysis. Our goal is that this report will prove helpful to governments, firms, investors, development actors and citizens as they seek to better mitigate looming risks and ensure the region effectively grasps the many opportunities to come.

We hope you enjoy the report as much as we enjoyed working on it. We look forward to continuing a discussion on Kenya's future trajectory in the weeks, months, and years to come.

Samuel Kareithi
Kenya Country Director, Gatsby Africa

Introduction

The three organisations that sponsored this report – Gatsby Africa, Kenya Markets Trust and Msingi – all have a mission to promote the economic transformation of East African economies. More specifically, they all take a sector lens to this work, seeking to support productivity growth and job increases in sectors such as cotton, tea, and forestry.

This report on Kenya – the second in our Horizon series – is meant as an input into our work. Without being able to understand the key trends that might impact on our portfolios, it is difficult to mitigate against risks and identify the opportunities that these trends pose for our portfolios and Kenya as a whole. The chapters cover the trends that we think are most crucial to our portfolio and to Kenya’s prospects for economic transformation as a whole. They cover:

- 1. Politics – *How issues-based politics and devolution could shape development***
- 2. Society and the Future of Work – *Harnessing urbanisation as well as the demographic dividend***
- 3. Technology – *Taking advantage of the tech revolution***
- 4. Finance – *A pandemic amidst an imminent debt crunch***
- 5. Trade – *In an uncertain time, Kenya looks closer to home for partners***
- 6. Environment – *A changing climate moves environment up the national agenda***

Each chapter is broken into three sections. Firstly, we look at the trend itself, bringing evidence from key informant interviews and the relevant secondary literature to bear on analysing the key drivers behind the trendlines in question. Next, we explore the impact of COVID-19 on the trend in question. Lastly, we bring it all back to our core goal of promoting economic transformation: what does the trend in question mean for Kenya’s prospects of economic transformation moving forward?

This report is the culmination of many hours of work, and we hope it is an accurate reflection of what the literature and the key experts who kindly lent us their time, are saying. Nevertheless, we know it is not and could never represent a complete picture. We hope this instead represents a conversation starter, and we are keen to talk about the implications of our findings and the areas that require further research. We welcome your thoughts and feedback.

Chapter Summaries

1. Politics — *How issues-based politics and devolution could shape development*

In this chapter, we explore what a shift in demographics as well as the continuing roll-out of devolution in the country might mean for the future of politics in Kenya. We find that, while political affiliations are changing, the election in 2022 is expected to be fought along traditional lines. In the future, however, it is likely that young people, enabled by digital media, may encourage a greater shift to issues-based politics. We also look at devolution and the ways in which conflicts between the national and county governments are playing out, especially on matters such as health during the COVID-19 pandemic. We conclude with analysis of opportunities devolution might bring for economic governance in Kenya.

2. Society and the Future of Work — *Harnessing urbanisation as well as the demographic dividend*

Kenya's demographic landscape is shifting rapidly, with the country becoming both younger and more urban over time. This offers opportunities to harness the power of a 'demographic dividend' as well as the clustering effects of economic growth in major cities such as Mombasa and Nairobi. This dividend is not guaranteed, however, and we explore the negative impacts of rural-urban migration in the context of mass unemployment, which has only accelerated due to COVID-19. The chapter concludes by exploring what the changing nature of work might mean for the Kenyan economy moving forward.

3. Technology — *Taking advantage of the tech revolution*

Kenya's technological revolution over the past decade and a half has been truly impressive, with many commentators referring to Nairobi as the 'Silicon Savannah'. We explore Kenya's emerging tech landscape and unpick some of the emerging risks this brings, especially when it comes to a disturbing trend of increased household debt. We also look at the role that agricultural technology could play as a key enabler for agricultural transformation, which will require an enabling policy environment to really thrive.

4. Finance — *A pandemic amidst an imminent debt crunch*

Of all the trends we explore in this report, finance was the most clearly impacted by the outset of COVID-19. Prior to the pandemic, the country was already facing a major debt crunch, due in part to largescale infrastructure spending, e.g. on the Standard Gauge Railway, which has yet to bring benefits in terms of GDP growth and increased public revenues. Thus, the health crisis in Kenya quickly became an economic one, with the government needing to secure large-scale loans to finance much needed economic stimulus measures. In this chapter, we explore the changing nature of Kenya's public debt and the impact this might have on the country's growth in the future.

5. Trade — *In an uncertain time, Kenya looks closer to home for partners*

Kenya's relationships with traditional trading partners the US and UK have recently undergone a period of intense uncertainty, with the latter nations both becoming much more insular in their focus. The US under President Trump outlined a strategy of 'America First' and Brexit in the UK called into question both the future of key trade agreements such as the African Growth and Opportunity Act (AGOA) as well as opportunities to access both UK and EU markets for key exports. To respond, Kenya has looked closer to home for trade partners in the EAC and the African continent as a whole. This chapter assesses these developments, and the impact of COVID-19 on global trade in the context of Kenya's future trade prospects.

6. Environment — *A changing climate moves environment up the national agenda*

Kenya's climate has been changing in recent years, with major weather events such as droughts and floods occurring with more regular frequency and intensity. This chapter explores this trend with a lens of focusing on its impact on the productive use of land and water resources in the country. We explore what climate change could signal for Kenya's prospects for growth in the future, while also highlighting where the government has been making concerted effort to both mitigate against climate change but also to promoting a greener industrialisation path forward.



A Kenyan casts his vote in the 2017 presidential election

Politics

Managing risks and opportunities in a fast-changing landscape

PART A: UNDERLYING TRENDS

Over the long-term, young people may inspire a shift to issue-based politics in Kenya

While political affiliations are changing, the election in 2022 is expected to be fought along traditional lines

Over the long-term, millennial activists - enabled by digital media - may encourage a shift to issue-based politics

Devolution must overcome numerous challenges to deliver development over the medium- and long-term

Devolution has the potential to positively impact Kenya's politics and developmental trajectory

Realising the potential of devolution will require addressing issues of corruption and capacity at the county-level while ensuring promised resources are transferred to local government

PART B: IMPACT OF COVID-19 ON POLITICS IN KENYA

COVID-19 has highlighted the need for an effective working relationship between national governments and counties and cast a spotlight on corruption

PART C: CONCLUSION

What might a growing youth population and a greater focus on devolution mean for economic transformation?

Shifting demographics may alter Kenya's political landscape and open up opportunities for dialogue on broad-based economic growth, but this will not be straightforward

Devolution has opened up some 'green shoots' of effective economic governance. However, the prospects for county governments to become engines for Kenya's economic transformation are mixed.

PART A: UNDERLYING TRENDS

Over the long-term, young people may inspire a shift to issue-based politics in Kenya

While political affiliations are changing, the election in 2022 is expected to be fought along traditional lines

In Kenya, political contests have historically divided voters along tribal lines, with British colonialists' strategy of divide and rule a core contributing factor. In the post-colonial era, the lack of a regulated political party system and relatively weak public services mean many politicians rely on their ethnic community for support. This has inspired the creation of vast patronage networks across the country.¹ Since none of Kenya's 40+ tribes are large enough to win a presidential election outright, successful candidates have traditionally built coalitions welded together by a politics of identity. Andrea Bohnstedt, a political risk analyst based in East Africa, observes that in Kenya "political parties are not rooted in ideology."² Parties typically lack consistent policy positions; they are instead effectively election vehicles for the proposed leaders of the country's main ethnic communities.

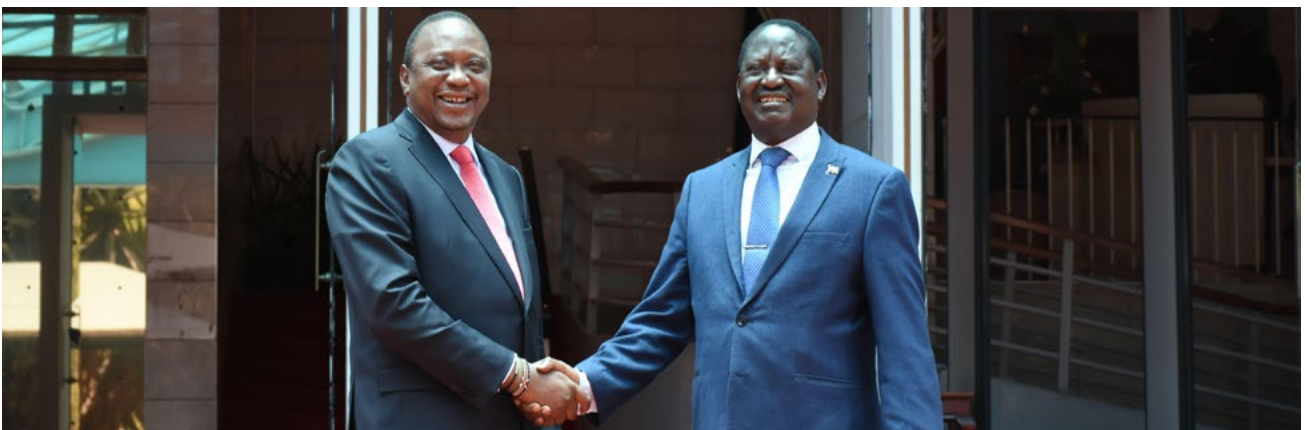
In 2022, President Kenyatta is due to step down after two terms in office. Voting is expected to follow a familiar pattern, with tribal politics forming the basis of high-level alliances. "For the majority of Kenyans, particularly for the 70%+ in rural areas, anti-elite and change-focused agendas will not be stronger rallying calls than ethnic affiliation," Bohnstedt says. She states that while issue-

based politics may manifest in some support for "breakout candidates" in cities, this is unlikely to swing the balance of a national-level election in the short-term.³

However, political affiliations in Kenya are changing and people are increasingly voting independently of their tribal ties, especially in urban areas. As an illustration, Deputy President William Ruto is expected to receive a degree of support from the Kikuyu community in 2022, having gained the backing of some Kikuyu and Kalenjin MPs (including governors and leaders of the upper and lower houses).⁴

Both the famous 2018 'handshake' between long-time political rivals Raila Odinga and President Kenyatta and the Building Bridges Initiative (BBI) may be seen as responses to this changing landscape. Core proposals of BBI are ostensibly about institutionalising the aims of Kenya's 2010 constitution – for example, expanding Kenya's executive branch to weaken the winner-takes-all nature of the country's politics. However, some political commentators see BBI in terms of an elite pact meant to curtail Deputy President Ruto's ambitions for power.⁵

While it is uncertain how BBI will play out and its implications for politics in Kenya in the medium-term, there are signs that as the country's population grows and political dynamics evolve, future elections will be driven more by issues than ethnicity.



The famous 'handshake' between President Uhuru Kenyatta (L) and opposition figure Raila Odinga (R) in Nairobi, March 9, 2018



Environmental activists have their picture taken before the climate strike protest calling for action on climate change, in Nairobi, Kenya, September 20, 2019.

Over the long-term, millennial activists - enabled by digital media - may encourage a shift to issue-based politics

Led by Kenya's urban and educated youth, issue-based activism and an anti-tribal sentiment is on the rise and reaching a growing audience via social media.

Millennials are increasingly shaping the country's political conversation. In April 2018, The Elephant, an independent blogsite, published a millennial edition, enabling a number of young political commentators to explore the emergence of an urban counter-cultural movement.⁶ The articles are focused on issues and - in the words of editor Joe Kobuthi - give voice to a generation "having to contend with a dilapidated social services system, a debt-driven economy and a collapsing global order."⁷

Engaged young people have identified tribal politics as an impediment to the country's development, and set up movements in a bid to challenge prevailing political norms. Tribeless Youth is one such initiative. Founded by Wanjiku Kihika, it is attempting to "change Kenya's long history of going back to ethnic groups during

election years."⁸ Adopting a socioeconomic perspective, Kihika believes the country's only tribes are "the rich and poor" and is focused on sensitising young people to the dangers of political rhetoric rooted in ethnicity.⁹ Kihika feels certain "the new generation will ultimately break the chains of tribalism."¹⁰

While politicians in the short-term may continue to seek endorsement from community leaders, the super structure of politics in Kenya may change over the medium- and long-term, as young people exert pressure and issues such as education, employment and the environment rise to the top of the political agenda.

Recently, Deputy President Ruto has channelled this energy into a political narrative of 'hustlers' versus 'elites', and has attracted a large youth following as a result. Political commentators Dauti Kahura and Akoko Akech have noted: "More than assuming their identity, what the Deputy President has ably done is to locate the youths' anxiety: their discontentment and deep frustration with the government."¹¹ In the short-term, this may represent a populist political strategy. However, a focus on issues important to Kenya's growing youth population may start driving greater focus from the central government on enabling broad-based growth.

Devolution must overcome numerous challenges to deliver development over the medium and long-term

Devolution has the potential to positively impact Kenya's politics and developmental trajectory

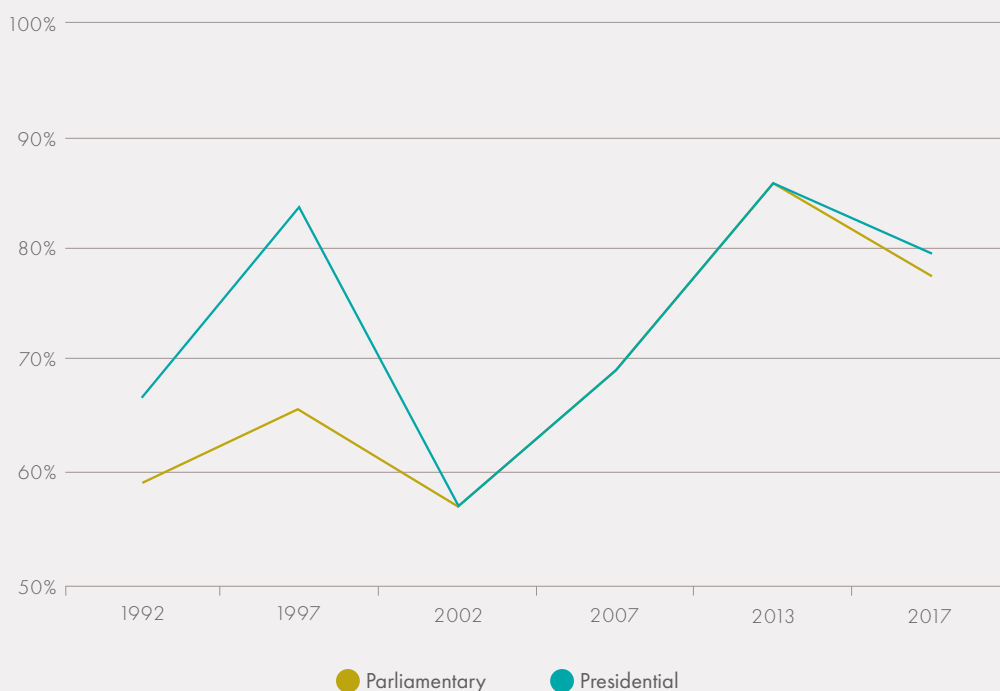
Historically, the concentration of power in the President's office has led to instability around elections. Replacing the 1963 independence constitution, Kenya's 2010 constitution attempted to address this issue, instituting the devolution of political power and resources to 47 elected county governments. In addition, the constitution mandates that successful presidential candidates must secure 50+1% of the national vote and at least 25% of the vote in half of Kenya's counties. The reforms are intended to stabilise the political system by curbing zero-sum competition over national government posts and ensuring leaders build countrywide support.

Since the new constitution enjoys popular backing (c. 80% in 2019), the risk of power being recentralised is relatively low, even in the event that the political guard changes in 2022.¹² As Mathias Muindi, an independent political risk analyst, says: "Any attempts to scrap devolution could spark serious political instability."¹³ Indeed, devolution appears to have inspired greater engagement with politics among the electorate, with voter turnout for the first election under the new constitution increasing by 16.7%.¹⁴ Although turnout fell slightly in 2017 (from 85% to 80%), it was still significantly higher than the level observed in 2007 (69%) and the historical average (see Figure 1).¹⁵

To some extent, the structural aim of devolution has been realised, as contests over power and resources have been decentralised and tempered over the last decade. Indeed, a report by the Swedish International Centre for Local

Figure 1

Voter Turnout in Kenya, 1992-2017



Source: International Institute for Democracy and Electoral Assistance (2020)



Road construction in rural Kenya

Democracy concludes that “while the balance of power between centre and county has see-sawed (...) and the outcome of these dynamics remain somewhat unresolved, [devolution] does in many meaningful ways constitute a rebalancing of power away from the centre and down to the county level and thus a break-up of the centralisation of the state.”¹⁶

As well as rebalancing political life, devolution is having an impact on Kenya’s development trajectory, with previously underserved communities receiving support from their new local authorities. Dennis Itumbi, Secretary of Innovation, Digital and Diaspora Communication, says that devolution has enabled rural Kenyans to enjoy “increased access to services and opportunities.”¹⁷ The impact varies from county to county – David Okwemba, former Managing Editor for East Africa at the BBC, says in those counties with “focused leadership”, devolution is “transforming the socioeconomic life of residents.”¹⁸

Moreover, a USAID report highlights a correlation between the launch of the devolution exercise and increases in development spending, with historically underfunded parts of the country experiencing investment in road networks, street lighting and health centres.¹⁹ In Okwemba’s view, devolution has inspired the strongest development outcomes in northern Kenya: “Some counties which had never seen a kilometre of tarmac or electricity are now experiencing these things for the first time.”²⁰

Across Kenya, devolution has served as a major boost to local economies, with greater distribution of state resources and new investment opportunities - especially in construction and retail - combining to drive growth and generate jobs. Anne Eriksson, a former Senior Partner at PwC in the region, says that “whereas investments were [previously] concentrated in Nairobi, Mombasa, Kisumu and Nakuru, we are now seeing more economic activity in other areas – including significant investments in good-sized and high-quality hotels and office-blocks.”²¹

Realising the potential of devolution will require addressing issues of corruption and capacity at the county-level while ensuring promised resources are transferred to local government

Although devolution has had a positive impact in certain areas, its full potential has yet to be realised. This is because county governments have adapted to - rather than upended - the prevailing political culture, which remains rooted in ethnicity and patronage. In a review of the 2017 election result, the *Journal of Eastern African Studies* found that while "devolution has created important new positions that have changed political dynamics in Kenya", it has not "fundamentally changed the norms, values and expectations that animate electoral competition."²² In effect, devolution has drawn local politicians into central patronage networks, with county governors emerging as important financiers for presidential candidates. In 2017, this dynamic may have served to reinforce the pre-existing pattern of ethnic politics and stoke political tension.²³

Many of the experts interviewed for this report cited "devolved corruption" as the reason why devolution is not driving transformational change and inclusive growth in Kenya. According to interviewees, county-level patronage politics will undermine policymaking and fuel unproductive spending if left unaddressed. When discussing the 2010 constitution, Dr Kennedy Odede, Co-Founder of Shining Hope for Communities, says the fundamental issue is one of delivery rather than principle: "If devolution is implemented with accountability it can change lives."²⁴ While the regulations exist on paper, political risk analyst Mathias Muindi says that the "checks and balances" require greater enforcement if devolution is to yield good governance in Kenya.²⁵

While Humphrey Wattanga, Vice-Chair of the Kenya Commission on Revenue Allocation, ties a "lack of capacity, competence and systems" at the county-level to the issue of corruption, Anzette Were, a development economist at FSD Kenya, observes that in key sectors such as agriculture and health, the positive development impact of devolution has been negatively affected by sub-par coordination between national and county governments, as well as inadequate capacity.²⁶ In addition to noting the inadequacy of "capacity and systems" within local government, Mohammed Nyaoga, Board Chairman at the Central Bank of Kenya, hones in on the issue of "good leadership", suggesting its absence is a critical constraint on the delivery of county mandates.²⁷ David Okwemba, former Managing Editor for East Africa at the BBC, is

hopeful that, over the long-term, issues of capacity and leadership will be addressed, as county governments establish their position in the country's political landscape and draw in talent: "Members of the county assembly (...) have become one of the most contested elected positions in the counties (...) This competition will attract some of the best brains and will have a ripple effect on our national politics."²⁸

For county governments to evolve as institutions capable of governing well and delivering development, they will require adequate funding. Since the national government retains control of most budgets, counties are largely dependent on transfers from the Treasury, which must be signed off by the National Assembly and Senate. In the last decade, disputes have become common between the country's legislative bodies over the sum owed to counties, with disbursements often delayed. These conditions make it challenging for local governments to set targets and plan their activities.

Indeed, the distribution of resources has been a major source of tension. According to reports published by the Controller of Budget (the organisation responsible for releasing revenue to counties), only 53% of the funds allocated to local government were transferred in 2018/19.²⁹ This represents a significant decline compared to previous years, when transfers reached 96% of the agreed total in 2017/18, 99% in 2016/2017 and 94% in 2015/2016.³⁰ While fraught with political tension, this situation may ease as the pressure on the national government grows over time - for example, in October 2019 the Supreme Court ruled it can hear aspects of a petition brought by the Council of Governors, which claims the Treasury has continuously ignored the Commission of Revenue Allocation's recommendations regarding revenue sharing.³¹ Okwemba hopes the situation will be resolved soon, suggesting "the development impact of devolution will be felt further with more resources devolved to the counties."³²

ACCORDING TO
REPORTS, ONLY
53% OF THE FUNDS
ALLOCATED TO LOCAL
GOVERNMENT WERE
TRANSFERRED IN
2018/19.

Snapshot: Tensions with Somalia may intensify and the terror threat remains, but the regional security situation is likely to improve in the long-term

Governments in Kenya have historically sought to play the role of regional peace broker, viewing the country as an island of stability in an insecure neighbourhood. However, in recent years the Kenyatta administration has become more of an outright political stakeholder within the Horn of Africa, as economic interest in the oil-rich north of the country grows and the military engagement in Somalia continues.³³

In the short-term, Kenyan-Somali tensions may rise as the African Union Mission in Somalia (AMISOM) is disbanded via a process set to conclude in 2021. Indeed, there appears to be no exit strategy for the Kenya Defence Forces (KDF) based in southern Somalia, despite growing demands for withdrawal from stakeholders on both sides of the border.^{34,35} Over the next five years, Kenya's relationship with Somalia will be shaped by economic and political competition, as both states attempt to secure access to offshore oil and gas deposits and maintain spheres of influence in Jubaland.³⁶



Kenyan soldiers serving with the African Union Mission in Somalia (AMISOM) patrol the streets of the southern Somali port city of Kismayo.

The inter-governmental tension between Kenya and Somalia and the threat posed by al-Shabaab militants are largely separate issues. While the KDF's presence in Somalia allows the terrorist group to claim Kenya is a legitimate target, the withdrawal of the KDF is not expected to reduce the threat level, since Kenya offers al-Shabaab an opportunity to commit attacks that generate international publicity.³⁷ Although inter-agency coordination was relatively strong following the attack at 14 Riverside Drive in Nairobi in January 2019, rising tensions with Somalia may limit intelligence sharing and undermine security forces in the future.³⁸ The terror threat is expected to remain elevated in the medium-term.³⁹

Despite this, the long-term outlook appears more positive. Key regional players in the Gulf and the Horn are now making a concerted effort to engage with Somalia after decades of neglect, with Ethiopia leading the way under Prime Minister Abiy Ahmed.⁴⁰ Ahmed currently faces civil unrest in both the Oromia and Tigray regions of his country, with the former threatening to spill-over into Kenya due to geographic proximity and cultural ties.⁴¹ However, he has continued to act as a stabilising voice in the broader region.

As Somalia fills its diplomatic vacuum and the country's elites settle domestic disputes, the regional security situation may improve over the next 10+ years, easing pressure on Kenya's border.⁴²



A health worker in Nairobi sprays disinfectant in an effort to stop the spread of Coronavirus

PART B:

IMPACT OF COVID-19 ON POLITICS IN KENYA

COVID-19 has highlighted the need for an effective working relationship between national governments and counties and cast a spotlight on corruption

COVID-19 has exposed underlying tensions between the national government and counties, with issues of accountability and resource sharing coming to the fore. While the public health function was officially devolved as per the 2010 constitution and counties have enhanced outcomes and outreach in recent years, control of the country's health system and funds remains heavily centralised in the Ministry of Health.⁴³ As the pandemic accelerated, local institutions were simply not in a position to either procure or manage the hardware required to track and treat COVID-19, with tests sent to national institutions and many counties lacking any ventilators or intensive care units.⁴⁴ Indeed, some governors threatened to unilaterally impose county lockdowns owing to a lack of equipment and local intelligence on the virus.⁴⁵ In July 2020, the Council of Governors admitted counties had just 6,898 isolation beds and were well short of the 30,500 target. As case numbers grew, President Kenyatta then stated that the reopening of the economy would be determined by the counties' capacity to respond to outbreaks.⁴⁶

Moreover, against the backdrop of a novel pandemic and high demand for devolved services, a more familiar dispute arose regarding revenue allocation. This threatened to constrain the county-level health response. In June 2020, the Treasury failed to disburse funding to counties, owing to a senatorial stand-off regarding a new revenue sharing formula.⁴⁷ Setting out how resources will be shared until 2023/4, the controversial proposal would result in 18 counties - mainly the less populous and already marginalised - losing out on KSH 17 billion, owing to an emphasis on headcount rather than land area.⁴⁸ This illustrates the intense debates and high degree of uncertainty surrounding the devolution of revenue in Kenya, which may hinder responses to emergencies and frustrate long-term planning processes.

As billions of shillings have poured into Kenya over the course of the crisis from multilateral organisations, corruption has emerged as a major point of concern. Significant contributions following the outbreak of COVID-19 include a KSH 106.8 billion loan from the World Bank; a KSH 78 billion loan from the IMF; and a KSH 22 billion loan from the African Development Bank.⁴⁹ Following Kenya's receipt of these large sums, the dealings of the Kenya Medical Supplies Authority (KEMSA) have been heavily scrutinised. According to The Nation, firms without track records in producing personal protective equipment (PPE) have won bids while charging twice the market price.⁵⁰ In response to the mounting allegations, two critical donors for the Ministry of Health - USAID and The Global Fund - have threatened to withdraw KSH 400 billion in funding from the agency, as KEMSA struggles to account for at least KSH 42 billion and many tenders have yielded no supplies.⁵¹ KEMSA's CEO, Commercial Director and Procurement Director have been suspended and President Kenyatta has launched an anti-corruption probe into the organisation.^{52,53} The Secretary General of the Kenya National Union of Nurses has called for the dismissal of the Health Cabinet Secretary and demanded a UN enquiry.⁵⁴

At a time of widespread hardship and sacrifice, the alleged graft at KEMSA may undermine preparations for future outbreaks; weaken public trust and compliance; and damage the country's international standing.

PART C: CONCLUSION

What might a burgeoning youth population and a greater focus on devolution mean for economic transformation?

Shifting demographics may alter Kenya's political landscape and open up opportunities for dialogue on broad-based economic growth, but this will not be straightforward

Most young Kenyans still live in rural areas, which are much more likely to engage with politics on a patronage basis. In urban areas, however, there are many more voters per constituency demanding services that cannot be satisfied by individual favours. As Kenya becomes increasingly urbanised, more people are shifting from a politics of tribal identity to one based on issues that matter to them.

Despite this, channelling shifting demographics towards building a constituency focused on inclusive growth will

not be straightforward. Kenya currently lacks a coherent political opposition, or indeed a strong ideological movement focused on issues such as inequality, joblessness or tax justice. Instead, as more young people move to cities, they may organise protests around service issues such as the cost of transportation or housing - as has been witnessed in South Africa, Chile and Lebanon in recent years - with no guarantee these will be channelled into more coherent social movements in the future.

The 2022 election could be a turning point, however. Even if Ruto is unable to mobilise young people behind a coherent platform of policies for change, the impact of this group may well lead to a stronger focus on their needs in the future, regardless of who comes to power.



Teenagers take a selfie atop the KICC building looking out over the city in Nairobi

Devolution has opened up some 'green shoots' of effective economic governance. However, the prospects for county governments to become engines for Kenya's economic transformation are mixed

The original intention behind Kenya's 2010 constitution was to have 17 counties, but this proved challenging to reach consensus on. In the end, 47 counties were agreed on, matching Kenya's 47 tribes. The problem with this model, however, is that it greatly expanded the public sector, creating a burden which is growing at a time of mounting national debt. As Patrick Obath, Associate Director at Adam Smith International, notes: "This system works politically but doesn't economically."⁵⁵

Recently established county governments also have numerous capability and coordination challenges. "This is why we only see a few green shoots out of 47 county governments," says James Mwai, Deputy Director for Policy at the Kenya Commercial Forestry Programme.⁵⁶ Some of these green shoots are represented by a handful of the county investment authorities, some of whom now have experienced investors sitting on their boards shaping how the county is thinking about investment opportunities. What is less clear is whether the focus will be on inclusive investments as opposed to those that work for a narrow sub-set of the private sector.

Counties now represent important stakeholders in debates around economic transformation in the country, particularly in the agricultural sector. Alison Otieno, CEO of Kenya Markets Trust, says: "With the Council of Governors' buy-in, you have a much greater chance of success at the county, and subsequently, the national level."⁵⁷ They have also proven willing to challenge the national government when they have not been adequately consulted, as has recently been demonstrated with a number of national reform initiatives in the agricultural sector.⁵⁸ In the future there is going to be a lot more pressure from the Council of Governors to have a say in national decision-making. This could prove to be positive in terms of generating local ownership and delivery.

Over the next 10+ years, the implementation challenges associated with devolution - including issues of accountability, capacity and resourcing - are likely to be addressed, according to Jared Kangwana, a former Member of East Africa's Legislative Assembly. In a spirit of optimism, he feels "devolution can deliver but we need to give it time."⁵⁹ In an ideal future state, effective governance at the county level, combined with greater pressure from a politically active youth population, will trigger a greater focus from governors on investing scarce resources towards high potential sectors to kickstart growth and transformation at the sub-national level.

"DEVOLUTION CAN DELIVER, WE JUST NEED TO GIVE IT TIME"

Jared Kangwana, Former member of East Africa's Legislative Assembly



The governor of Uasin Gishu County at the opening ceremony of Confucius Institute at Moi University in Eldoret town

Chapter Notes

¹ Shilaho, Westen. (2018) Introduction: Ethnicity and Politics in Kenya. In: Political Power and Tribalism in Kenya. Palgrave Available at: https://doi.org/10.1007/978-3-319-65295-5_1 (Accessed 13 November 2020)

² Interview with the authors

³ Interview with the authors

⁴ Ominde, Titus. (2019) Ruto's Presidency Bid Causes Rift Among Kikuyu Elders. The Daily Nation. Available at <https://www.nation.co.ke/news/politics/Kikuyu-elders-divided-over-Ruto-support/1064-5401194-10jh7osz/index.html> (Accessed 9 February 2020)

⁵ Kanyinga, Karuti. (2020) Building Bridges to Nowhere: Why Kenyatta and Odinga's Pact Won't Last. The Elephant. Available at: <https://www.theelephant.info/op-eds/2020/06/26/building-bridges-to-nowhere-why-kenyatta-and-odingas-pact-wont-last/> (Accessed 13 November 2020)

⁶ Goldsmith, Paul. (2018) The Generational Revolution: The Case for a Millennial-Led Makeover. The Elephant. Available at <https://www.theelephant.info/features/2018/08/02/the-generational-revolution-the-case-for-a-millennial-led-makeover/> (Accessed 24 January 2020)

⁷ Kobuthi, Joe. (2018) Starin' At the World Through My Rearview, The Elephant. Available at <https://www.theelephant.info/reflections/2018/04/24/starin-at-the-world-through-my-rearview/> (Accessed 24 January 2020)

⁸ Tribeless Youth seeks to amplify the national values that unite Kenyans by engaging with youth through art and cultural activities, social media campaigns and conversations and grassroots drives to sensitise young people to tribalism in political rhetoric.

⁹ Nyambura, Zipporah. (2017) In Kenya, Politics Split on Ethnic Divide. Deutsche Welle. Available at <https://www.dw.com/en/in-kenya-politics-split-on-ethnic-divide/a-37442394> (Accessed on 24 January 2020)

¹⁰ Ibid

¹¹ Kahura, Dauti & Akech, Akoko. (2020) Hustler Mentality. Africa is a Country. Available at: <https://africasacountry.com/2020/11/hustler-mentality> (Accessed 13 November 2020)

¹² Cheeseman, Nic., Lynch, Gabrielle,, & Justin, Willis. (2016) Decentralisation in Kenya: The Governance of Governors, The Journal of Modern African Studies, 54:1, 1-35. Available at: <https://core.ac.uk/download/pdf/185499915.pdf> (Access 13 November 2020)

¹³ Interview with the authors

¹⁴ International Institute for Democracy and Electoral Assistance. (2020) Kenya – Voter turnout (data set). Available at <https://www.idea.int/data-tools/country-view/156/40> (Accessed 24 January 2020)

¹⁵ Ibid

¹⁶ Cornell, Agnes., D'Arcy, Michelle (2016) Devolution, Democracy and Development in Kenya Research Report No 5, Swedish International Development Centre for Local Democracy. Available at: <https://icld.se/app/uploads/files/forskningspublikationer/devolution-democracy-and-development-in-kenya-report-5-low.pdf> (Accessed 13 November 2020)

¹⁷ Interview with the authors

¹⁸ Interview with the authors

¹⁹ USAID (2019) Devolution in Kenya Fact-Sheet. Available at: https://www.usaid.gov/sites/default/files/documents/1860/Devolution_fact_sheet_2019.pdf (Accessed 25 November 2020)

²⁰ Interview with the authors

²¹ Interview with the authors

²² Cheeseman, Nic., Kanyinga, Karuti., Lynch, Gabrielle,, Ruteere, Mutuma., & Justin, Willis. (2019) Kenya's 2017 Elections: Winner-Takes-All Politics as Usual?, Journal of Eastern African Studies, 13:2, 215-234. Available at: <http://wrap.warwick.ac.uk/114876/1/WRAP-Kenyas-elections-winner-takes-all-politics-Lynch-2019.pdf> (Accessed 13 November 2020)

²³ Ibid

²⁴ Interview with the authors

²⁵ Interview with the authors

²⁶ Interview with the authors

²⁷ Interview with the authors

²⁸ Interview with the authors

²⁹ Africa Check. (2019) Claims on Kenya's Counties: Fact-Checking the 2019 State of Devolution Address. Africa Check. Available at <https://africacheck.org/reports/>

claims-on-kenyas-counties-fact-checking-the-2019-state-of-devolution-address/ (Accessed 24 January 2020)

³⁰ Ibid

³¹ Cheruiyot, Kevin., & Kubwa, Carolyne (2019) Supreme Court Dismisses National Assembly Objections Against COG. *The Star*. Available at <https://www.the-star.co.ke/news/2019-10-08-supreme-court-dismisses-national-assembly-objections-against-cog/> (Accessed 24 January 2020)

³² Interview with the authors

³³ Smith, Matt .(2019) Kenya Enters the Oil Business. *The Petroleum Economist*. Available at <https://www.petroleum-economist.com/articles/politics-economics/africa/2019/kenya-enters-the-oil-business> (Accessed on 10 February 2020)

³⁴ Benjamin, Imende. (2019) The Proxy Wars Behind Kenya, Somalia Rows. *The Star*. Available at <https://www.the-star.co.ke/news/big-read/2019-05-23-the-proxy-wars-behind-kenya-somalia-rows/> (Accessed 10 February 2020)

³⁵ Njagi, Kagondu. (2020) Military Demand for Land Puts Northern Kenya's Farmers on Edge. *Thomas Reuters Foundation*. Available at: <https://news.trust.org/item/20200916093914-3ut2l/> (Accessed 13 November 2020)

³⁶ Mutambo, Aggrey. (2019) Kenya Congratulates Madobe for Winning Jubbaland Poll. *The East African*. Available at <https://www.theeastafrican.co.ke/news/ea/Kenya-congratulates-Madobe-for-winning-Jubbaland-poll/4552908-5246652-74xk3dz/index.html> (Accessed on 24 January 2020)

³⁷ Cannon, Brendon., & Pkalya, Dominic. (2019) Why Al-Shabaab Attacks Kenya: Questioning the Narrative Paradigm, Terrorism and Political Violence, 31:4, 836-852. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3061635 (Accessed 13 November 2020)

³⁸ Maluki, Patrick Muthengi. (2019) Kenya's Security Forces Did Better this Time. But There are Still Gaps. *The Conversation*. Available at <https://theconversation.com/kenyas-security-forces-did-better-this-time-but-there-are-still-gaps-110039> (Accessed on 10 February 2020)

³⁹ Ibid

⁴⁰ International Crisis Group. (2019) Intra-Gulf Competition in Africa's Horn: Lessening the Impact. *Middle East Report N° 206*, Belgium: International Crisis Group. Available at:

<https://www.crisisgroup.org/middle-east-north-africa/gulf-and-arabian-peninsula/206-intra-gulf-competition-africas-horn-lessening-impact> (Accessed 13 November 2020)

⁴¹ Abraham, Dalle. (2020) In the Shadow of a Liberation War. *Africa is a Country*. Available at: <https://africasacountry.com/2020/10/in-the-shadow-of-a-liberation-war> (Accessed 13 November 2020)

⁴² Desai, Raj M. (2019) Somalia's path to stability. *Brookings Institute*. Available at <https://www.brookings.edu/blog/future-development/2019/10/02/somalias-path-to-stability/> (Accessed 10 February 2020)

⁴³ Lukalo-Owino, Rose. (2020) The Spirit of Saba Saba Lives on in Devolution. *The Elephant*. Available at: <https://www.theelephant.info/features/2020/07/06/the-spirit-of-saba-saba-lives-on-in-devolution/> (Accessed 13 November 2020)

⁴⁴ Africa Uncensored. (2020) COVID-19 in Kenya: Resources Available – Kenya Counties. Available at: <https://www.theelephant.info/data-stories/2020/04/11/covid-19-in-kenya-resources-available-kenya-counties/> (Accessed 13 November 2020)

⁴⁵ Wako, Amina. (2020) Kenya: Governors Threaten to Impose Lock Down If COVID-19 Infections Keep Rising. *Nairobi News*. Available at: <https://allafrica.com/stories/202007160769.html> (Accessed 13 November 2020)

⁴⁶ Omondi, Jerry. (2020) Kenya's reopening dependent of counties' readiness: President Kenyatta. *CGTN Africa*. Available at: <https://africa.cgtn.com/2020/06/26/kenyas-reopening-dependent-of-counties-readiness-president-kenyatta/> (Accessed 13 November 2020)

⁴⁷ Otieno, Julius. (2020) Treasury Closes Year with Sh68bn for Counties. *The Star*. Available at: <https://www.the-star.co.ke/news/2020-06-30-treasury-closes-year-with-sh68bn-for-counties/> (Accessed 13 November 2020)

⁴⁸ Luvega, Derrick. (2020) Kenya: Oparanya Now Wants Sh20 Billion Fund Used to Cushion Poor Counties. *Daily Nation*. Available at: <https://allafrica.com/stories/202007160177.html> (Accessed 13 November 2020)

⁴⁹ Mabongo, Masolo. (2020) Loans, Grants Kenya has Received Since Outbreak of Coronavirus. *Tuko*. Available at: <https://www.tuko.co.ke/372021-loans-grants-received-by-kenya-outbreak-coronavirus.html> (Accessed 13 November 2020)

⁵⁰ Wafula, Paul. (2020) Trades Who Made Millions from COVID Supplies. Nation. Available at: <https://nation.africa/kenya/news/traders-who-made-millions-from-covid-supplies-1911288> (Accessed 20 November 2020)

⁵¹ Ogina, Sam. (2020) KEMSA scandal: USAID, Global Fund Threaten to Withdraw Ksh 400B. The Citizen. Available at: <https://citizentv.co.ke/news/kemsa-scandal-usaid-global-fund-threaten-to-withdraw-ksh-400b-342697/> (Accessed 13 November 2020)

⁵² Achuka, Vincent. (2020) Graft-Ridden Kemsa Seeks Sh 5bn to Stay Afloat, Donors Start Probe. Nation. Available at: <https://nation.africa/kenya/news/graft-ridden-kemsa-seeks-sh5bn-to-stay-afloat-donors-start-probe-1922816> (accessed 13 November 2020)

⁵³ Agutu, Nancy. (2020) Uhuru gives EACC 21 Days to Complete Kemsa Probe. The Star. Available at: <https://www.the-star.co.ke/news/2020-08-26-uhuru-gives-eacc-21-days-to-complete-kemsa-probe/> (Accessed 13 November 2020)

⁵⁴ Kariuki, Zipporah. (2020) KNUN Secretary General Seth Panyako asks CS Kagwe to resign. The Citizen. Available at: <https://citizentv.co.ke/news/knun-secretary-general-seth-panyako-asks-cs-kagwe-to-resign-343661/> (Accessed 13 November 2020)

⁵⁵ Correspondence with the authors

⁵⁶ Correspondence with the authors

⁵⁷ Correspondence with the authors

⁵⁸ Wanambisi, Laban. (2020) Kenya: Governors, Senate Agriculture Committee Reject Munya's Sector Reforms. Capital FM. Available at: <https://allafrica.com/stories/202010260120.html> (Accessed 13 November 2020)

⁵⁹ Correspondence with the authors



INDEPENDENT ELECTORAL AND BOUNDARIES COMMISSION
YOUR VOTE, YOUR FUTURE
POLLING STATION
003
→

Kitale residents' queue to vote in the 2017 Presidential election



Society & The Future Of Work

Harnessing urbanisation as well as the demographic dividend

PART A: UNDERLYING TRENDS

Kenya's 'youth bulge' could drive economic transformation – provided young people have the right skills and can find productive jobs.

Kenya's population will grow from 52.2 million today to 115 million by 2065 and will retain a substantial 'youth bulge'.

A 'demographic dividend' will require an emphasis on education and the creation of formal employment opportunities.

As urbanisation accelerates, infrastructure gaps and inequality are emerging as critical issues.

Kenya's urban population will double by 2050, as people are "pushed" from rural areas and "pulled" into cities

In order to fully reap the economic benefits of urbanisation and redress rising inequality, the pace of change will need to be managed and Kenya's cities will require major investment in infrastructure

Owing to a lack of formal jobs, most Kenyans are turning to the informal sector as their source of livelihood. However, there are important counter-trends that will become more significant in the medium-term.

The informal sector dominates the Kenyan economy and is growing.

With the population growing quickly, Kenya is under pressure to create more stable and well-paying jobs. In the medium-term, a few tech start-ups highlight the potential of digital innovations to accelerate job creation and raise agricultural incomes.

PART B: IMPACT OF COVID-19 ON SOCIETY AND FUTURE OF WORK IN KENYA

COVID-19 has resulted in mass unemployment and hardship at a time of rapid demographic growth and urbanisation in Kenya.

PART C: CONCLUSION

What might shifting demographics and the changing nature of work mean for economic transformation?

The pace of urbanisation needs to slow to enable infrastructure and housing investments to catch up. Agricultural transformation is key to managing the pace of change.

There is a need to focus on sectors that will kickstart widespread growth and create millions of jobs in the future.

PART A: UNDERLYING TRENDS

Kenya's 'youth bulge' could drive economic transformation – provided young people have the right skills and can find productive jobs.

Kenya's population will grow from 52.2 million today to 115 million by 2065, and will retain a substantial 'youth bulge'.

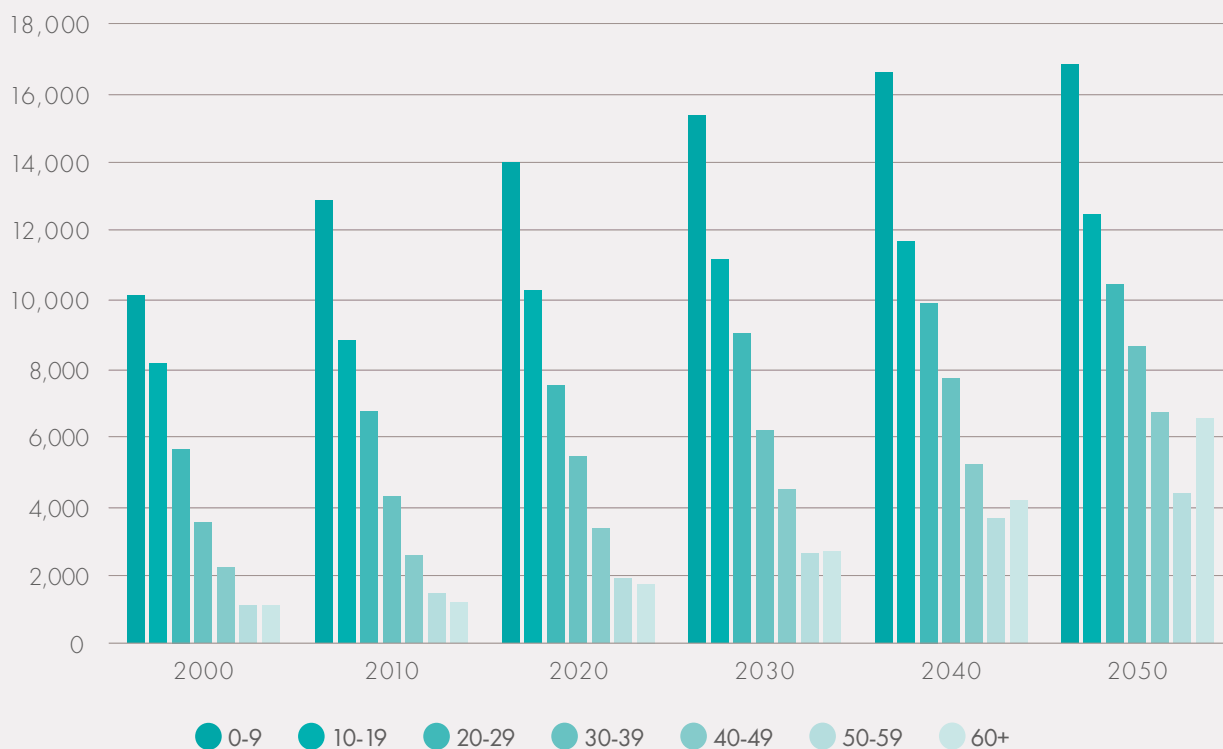
Currently, Kenya has a population of 52.2 million people, of which 10.7 million (or 21%) are aged 15 to 24.¹ In recent years, high birth rates have created a situation whereby for every 100 working age people there are 75 dependents (i.e. people aged below 14 and over 65). In

the short- and medium-term, the World Bank believes this high dependency ratio may inhibit the country's economic development, owing to the pressure this places on public and household finances.²

According to the UN, Kenya's population will expand significantly over the course of this century, reaching 115 million by 2065.³ While the average age of the population is expected to gradually increase over this period, the country will retain a substantial 'youth bulge' over the coming decades (see Figure 1).⁴

Figure 1

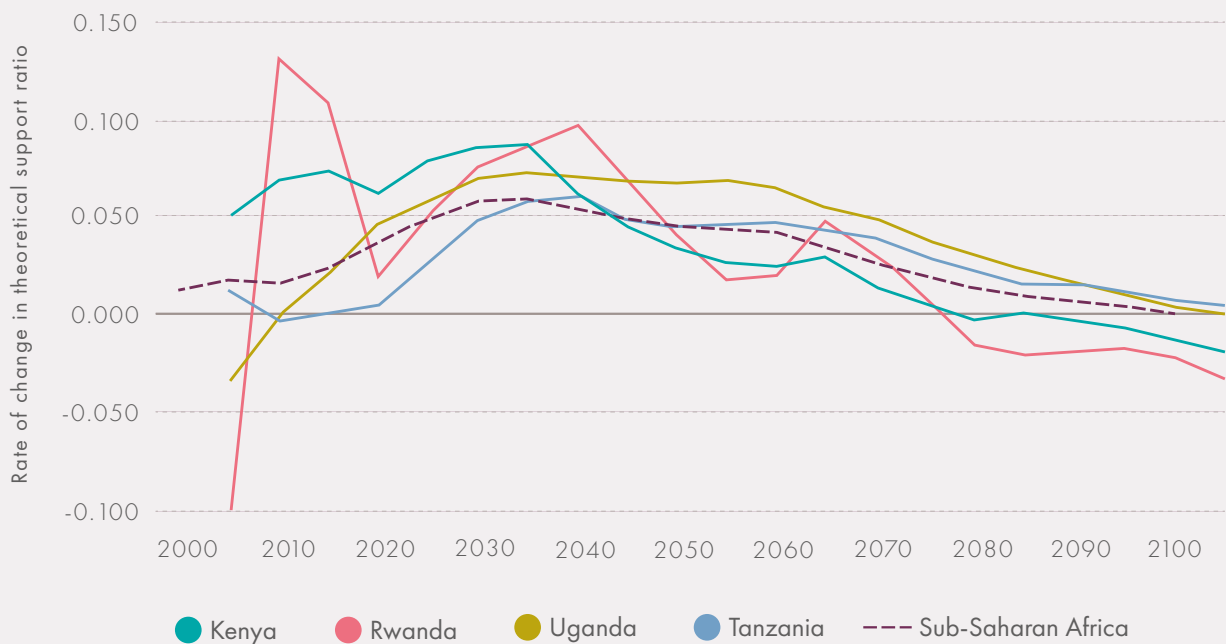
Kenya's population in thousands by age group, 2000-2050



Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, custom data acquired via website

Figure 2

The Projected Rate of Change in The Support Ratio in East Africa, 2000-2100



Source: The African Institute for Development Policy and the University of Southampton (2018)

“KENYA HAS A POPULATION OF 52.2 MILLION PEOPLE OF WHICH 10.7 MILLION ARE AGED 15-24.”

United Nations, 2020

A ‘demographic dividend’ will require an emphasis on education and the creation of formal employment opportunities.

Kenya’s demographic trajectory raises an open question: is the country set to reap a ‘demographic dividend’ and ensure the increasing youth population generates growth rather than instability? According to demographic analysis conducted by the African Institute for Development Policy and the University of Southampton, Kenya’s window of opportunity is open until 2080, at which point the ratio of producers to consumers in the country is set to become less economically favourable (see Figure 2).⁵

Drawing on World Data Lab projections, observers at Brookings believe Kenya is set to economically harness its youth population and thereby eradicate poverty in the country: “if current trends stay as they are, Ethiopia and Kenya are projected to achieve Sustainable Development Goal 1 by 2032. (...) By 2030, Kenya will reduce the percentage of Kenyans living in extreme poverty from 20.9% today to 4.3%. The country will be achieving this milestone even though its population is projected to add around 23 million people”.^{6,7}

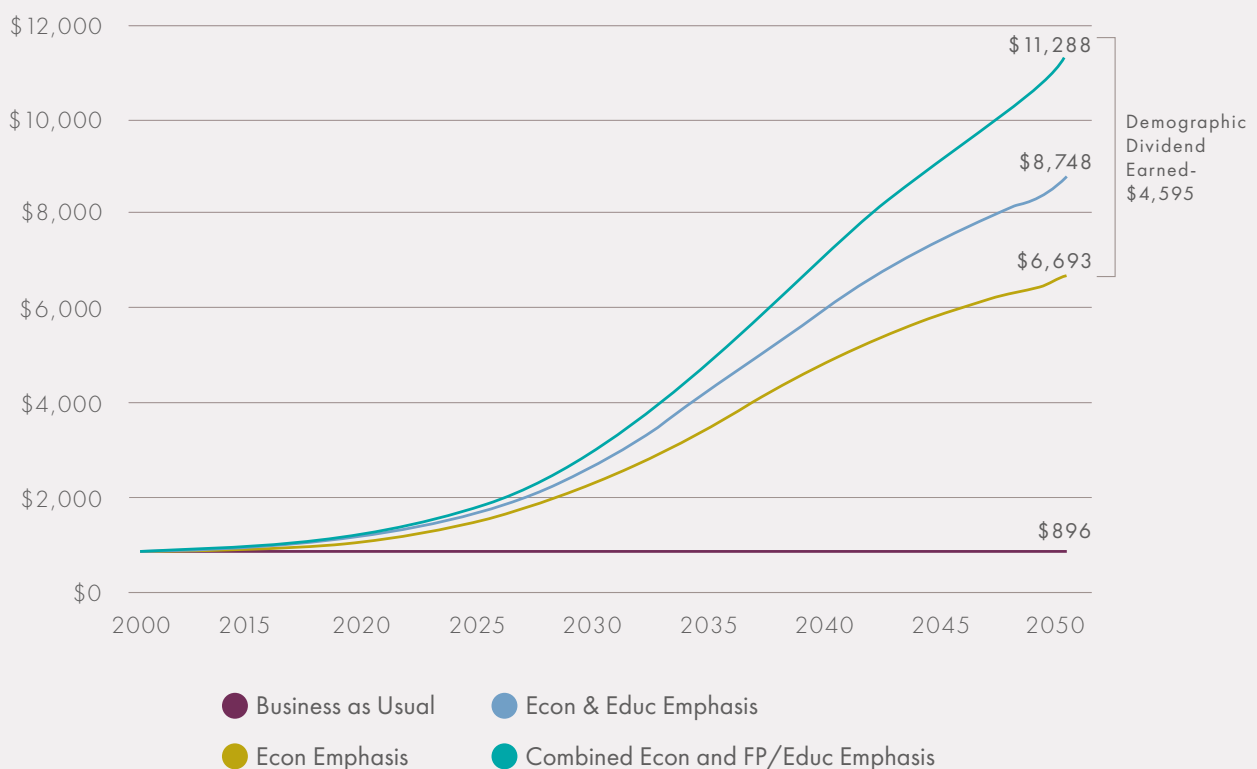
By way of contrast, the African Institute for Development Policy and the University of Southampton (2018) adopt a more sceptical view, arguing that the youth bulge in Kenya represents an opportunity rather than an automatic benefit. According to the study, a 'demographic dividend' is conditional on "countries investing in human capital, providing an enabling economic environment and creating an adequate number of decent jobs".⁸

While the lack of reliable youth employment data in Kenya makes it difficult to reach firm conclusions, evidence suggests the growth of the working age population is challenging the formal economy's absorptive capacity.⁹ Indeed, the Kenya Institute for Public Policy Research and Analysis estimated in 2016 that only 15% of the 750,000 young people entering the labour market that year had attained formal jobs.¹⁰ As a result, the majority of young people are turning to the informal economy to sustain their livelihoods. According to a survey conducted by the Kenya National Bureau of Statistics, 83.6% of the 840,600 jobs created in 2018 were in the informal sector.¹¹

To resolve this situation and inspire the country's development, the African Institute for Development Policy and the University of Southampton (2018) believe Kenya must abandon 'business as usual' and instead, invest in a combination of wide-ranging economic and social reforms. By pursuing economic goals (e.g. reforms to enhance productive efficiency and accelerate economic growth, job creation, and poverty reduction) alongside social goals (e.g. access to family planning and secondary education), the authors believe Kenya has the potential to realise upper-middle-income status by 2034 and multiply its GDP per capita by a factor of 10+ (see Figure 3 for GDP growth scenarios based on different government approaches).¹² This, of course, assumes that Kenya is able to resolve challenges related to devolved governance and political commitment to an economic transformation agenda, these themes are explored in our chapter on politics.

Figure 3

Projected GDP Per Capita in Kenya Based on Different Government Approaches



Source: The African Institute for Development Policy and the University of Southampton (2018)



Kenyan school boys in assembly

As urbanisation accelerates, infrastructure gaps and inequality are emerging as critical issues.

Kenya's urban population will double by 2050, as people are 'pushed' from rural areas and 'pulled' into cities.

In line with a continent-wide trend, Kenya is set to urbanise rapidly over the coming decades.¹³ As the least urbanised sub-region in Africa, East Africa is expected to experience the fastest rate of change between now and the middle of this century, although the majority of the population will remain in rural areas (see Figure 4).¹⁴

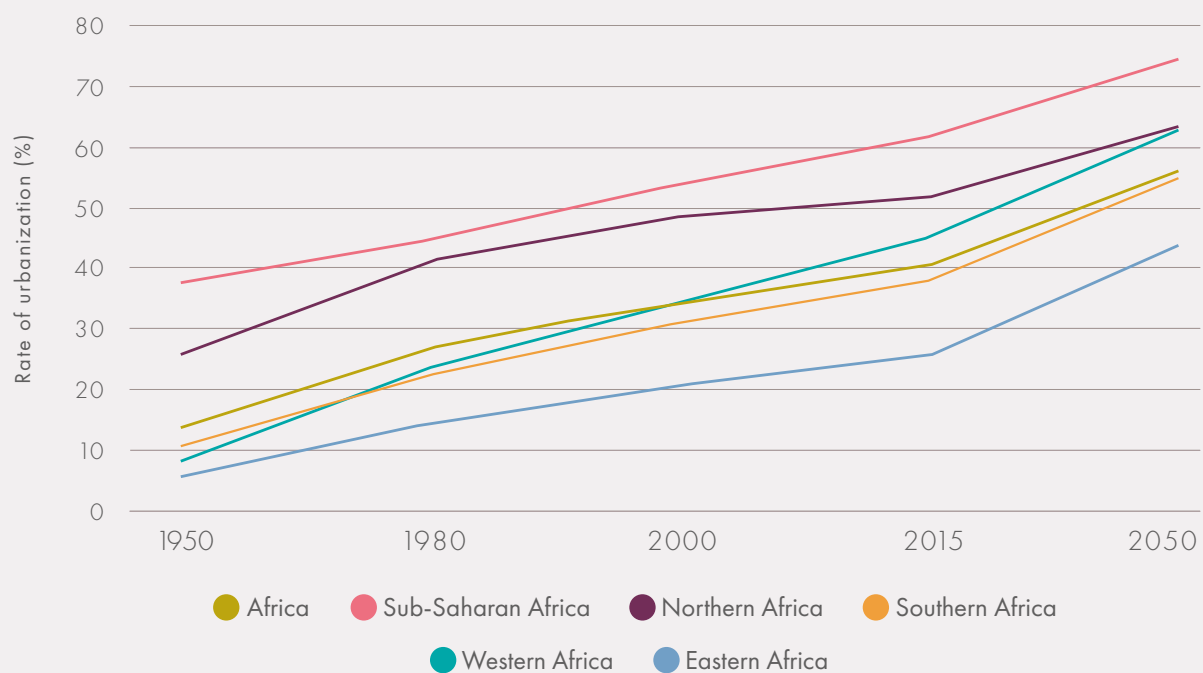
The trend of urbanisation is not new in Kenya: Nairobi's population has doubled since 1986 (now 3.5 million) and the capital is already starting to engulf satellite towns (as are Mombasa and Kisumu).¹⁵ However, while around 28% of Kenyans live in cities today, the share is expected to reach 40% by 2050, meaning an additional 29 million people are set to inhabit urban areas.¹⁶ Hopes are high

regarding the transformative potential of this trajectory: The African Institute for Development Policy and the University of Southampton believe urbanisation will serve as the "engine for economic development". Similarly, Humphrey Wattanga, Vice-Chair of the Kenya Commission on Revenue Allocation, reflected that "urban centres form the heart and core of our economic growth and activity".¹⁷

According to a presentation delivered to the UN by The Centre for Migration Studies, the pace of expected urbanisation in East Africa will be driven partly by the reclassification of growing settlements and – more significantly – by mass rural-urban migration.¹⁸ Indeed, in the case of Kenya, The African Migration and Development Policy Centre believes urbanisation is the result of a growing perception that cities offer greater economic opportunities, a view compounded by recent declines in agricultural productivity that are tied to climate change and land degradation.¹⁹

Figure 4

Rate of Urbanisation by Sub-Region in Africa, 1950-2050



Source: Teye, Joseph (2018-2019)



Peak hour traffic on Tom Mboya Avenue, Nairobi

In order to fully reap the economic benefits of urbanisation and redress rising inequality, the pace of change will need to be managed and Kenya's cities will require major investment in infrastructure.

While urbanisation can drive development as firms and governments harness economies of scale and concentrated pools of resources, the pace of the process must be carefully managed, in order to ensure urban areas remain productive and able to adequately accommodate residents.

The story of Nairobi reflects the economic potential of urbanisation and its attendant challenges. Indeed, the city has become a continental and regional hub for international firms and organisations, and its poverty rate now stands at less than 20%, which is 16% lower than the country's overall rate.²⁰ However, the pace of change and weak planning has resulted in inadequate infrastructure and severe overcrowding, which threaten to undermine

the city's prospects and entrench inequality. As the World Bank observes, fast-growing cities across the continent are becoming increasingly "disconnected, with infrastructure development not able to keep pace with the concentration of people, which happens in small and fragmented neighbourhoods that lack proper transportation and offer limited job and investment opportunities".²¹

Reflecting on the situation in Kenya, Benson Ndeta, Chairman of Savannah Cement, emphasised how "[urbanisation has generated a] myriad of challenges, including [the need for] proper urban planning, housing, sanitation, infrastructure, meaningful jobs, industrialisation of the economy and provision of education, water and health services".²²

To a degree, Nairobi's formal economy appears to depend on a certain level of inequality, with firms and their employees relying on relatively inexpensive labour for services like cleaning, security and childcare. The African Union Commission and the OECD (2018) concluded that Kenya – along with Rwanda and Comoros – now has the highest level of income inequality in the region (based on a comparison of the richest and poorest 20% of citizens).²³

Figure 5

Urban indicators in East Africa

Country	Proportion of population Urban(%)		Urban population Growth Rate	Proportion of urban population living in slum conditions (%)		
	2015	2050		2005	2010	2014
Kenya	25.6	43.9	4.3	54.8	54.7	56.0
Rwanda	28.8	52.6	6.4	71.6	65.1	53.4
Tanzania	31.6	53.0	5.4	66.4	63.5	50.7
Uganda	16.1	32.1	5.4	66.7	60.1	53.6

Source: *The African Institute for Development Policy and the University of Southampton (2018)*

The growth of Nairobi’s informal settlements is also a cause for concern: while reliable data on the issue is limited, it is thought that the share of the city’s population living in slums rose from 33% to 56% between 1970 and 2014, which is 26% higher than the regional average in Latin America and South Asia.²⁴ As a country, Kenya appears to be falling behind its regional neighbours in this area. While other members of the East African Community (EAC) have made progress in reducing the size of their slum populations in recent years, the number of Kenyans living in informal settlements has increased (see Figure 5).²⁵ Indeed, as informal settlements expand, low-income earners are being forced to live further away from their place of work, increasing transport costs and congestion.²⁶

Alongside affordable housing, other critical gaps in urban infrastructure include formal sanitation and waste disposal.²⁷ In Kenya, the rate of urban sprawl has overwhelmed the capacity of local authorities: only 30% of city inhabitants have access to a private water connection.

While the challenges facing Kenya’s cities appear daunting, President Kenyatta’s Big Four agenda indicates increased government focus in recent years. In a bid to address the urban housing crisis, the government launched the Kenya Mortgage Refinance Company in 2019, an ambitious financial institution which aims to provide long-term loans to primary mortgage lenders. In addition, Macquarie’s Green Investment Group and the UK government announced a partnership in early 2020, which plans to invest up to £30 million in an affordable housing fund in Kenya.²⁸ The commitment will facilitate the construction of up to 10,000 energy- and water-

efficient homes in the country. In an exciting development, domestic start-ups are showing promise as they innovate in response to widening infrastructure gaps. For example, Sanergy franchises high quality sanitation units across Nairobi’s informal settlements, delivering an affordable, clean, and safe alternative to sewers. Dr. Kennedy Odede, Co-Founder of Shining Hope for Communities, an NGO focused on addressing poverty in Kenya’s informal settlements, praised such initiatives but advocated for more engagement with local communities, since “encouraging involvement in planning and driving the development of initiatives” will help to sustain and enhance the implementation of national-level policies. However, addressing massive gaps in infrastructure and affordable housing at a rate that keeps pace with accelerating urbanisation will require much more concerted and coordinated effort from the centre of government. Similarly, the process of devolution and the gradual improvement of transport links are relieving pressure on Kenya’s three primary cities (Nairobi, Mombasa and Kisumu) and enabling the expansion of secondary towns (e.g. Nakuru, Eldoret and Machakos) and tertiary towns (e.g. Lodwar and Marsabit Town).²⁹ With the potential to draw in investment and regionally rebalance growth in Kenya, these ‘anchor’ cities could strengthen the ranks of the country’s middle-class, provided their development is adequately promoted. As Mohammed Nyaoga, Board Chairman of the Central Bank of Kenya, made clear, “it is important for the government to support the creation of peripheral poles of growth through devolution”.³⁰

Looking to the future, Nyaoga advocated for a holistic approach to urban development, recognising the need to actively manage the speed of the process and support the majority of Kenyans who will continue to live outside cities: “policies on important matters like population, infrastructure, job creation and economic improvement in rural areas – to stem levels of urban migration – are going to become fundamentally important”.³¹

Raising agricultural productivity in particular will need to be part of the solution, as the majority of Kenyans living in rural areas work in low productivity subsistence agriculture. Many, especially younger people, choose to leave as they prefer uncertain economic prospects in the city over a high likelihood of remaining in poverty. Without progress in tackling soil degradation and worsening productivity, the rate of urbanisation will continue to increase and for many indicators it appears to already be at an unsustainable level. As a result, the African Institute for Development Policy and the University of Southampton believe that investing in rural agriculture provides “perhaps the best opportunity to harness the demographic dividend”.³²

THE GROWTH OF NAIROBI'S INFORMAL SETTLEMENTS IS A CAUSE FOR CONCERN.



Aerial view of Nairobi, showing modern housing developments alongside an informal settlement

Owing to a lack of formal jobs, most Kenyans are turning to the informal sector as their source of livelihood. However, there are important counter-trends that will become significant in the medium-term.

The informal sector dominates the Kenyan economy and is growing.

In Kenya, the informal sector overshadows the formal sector.³³ According to the Kenya National Bureau of Statistics (KNBS), the informal sector accounted for 83% of the country's overall employment in 2019. Indeed, the dominance of the informal sector vis-à-vis the formal sector appears to be growing: in 2018, some 762,000 informal jobs were created, while just 78,400 formal posts were opened. According to analysis conducted by the Institute of Economic Affairs in Kenya, this is a long-standing trend, with the share of informal employment remaining

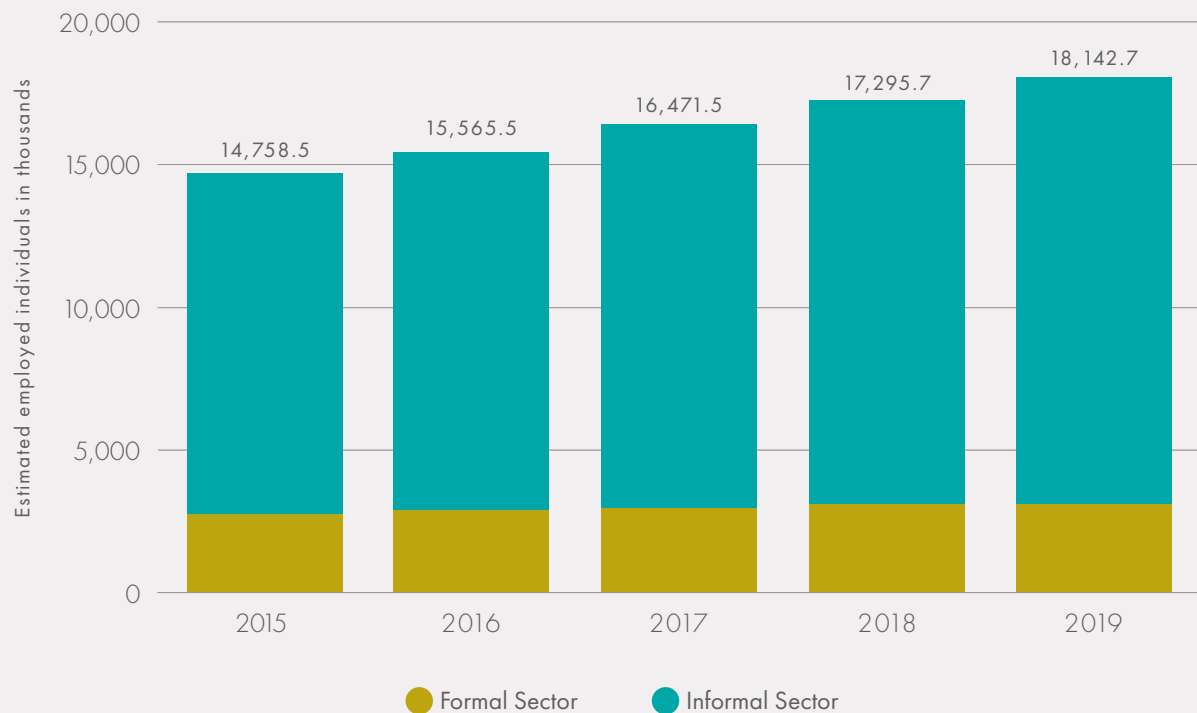
stubbornly high in recent years (see Figure 6).³⁴ According to a study of youth employment in Kenya, undertaken by the British Council, the size of the informal sector has swelled as a consequence of a stagnating formal economy.³⁵ In an interview for this report, Brian Kiai, Senior Investment Professional at Cranemere Africa, highlighted this phenomenon, observing that "private sector investment and credit growth have shrunk and companies are laying off staff to manage their wage bill against lacklustre or declining top lines".³⁶ In support of this view, the World Bank found that "the three-year average contribution to GDP growth from private investment decreased from 2.7% in 2017 to 0.7% in 2018".³⁷



A motorcycle salesman transporting goods

Figure 6

Formal and Informal Employment in Kenya (in 1,000s), 2015-2019



Source: Faria, Julia (2020) Statista Data-Set

The informal sector – or the ‘gig economy’ – has two facets: online and offline.³⁸ Enabled by digital technology, online gig workers now supply driver and rider services; personal and household services; delivery services; professional services; and hospitality and medical care. This makes only a small part of the informal economy though, employing 36,573 workers and generating \$109 million annually to the Kenyan economy in 2019, as compared to 5+ million Kenyans contributing \$19.6 billion from the offline informal sector.³⁹ More typically, offline gig workers support sectors like agriculture, manufacturing and construction on a seasonal, part-time or casual basis, with engagements typically lasting 90 days. While the informal sector is providing young people in particular with flexible economic opportunities, incomes are relatively insecure and the oversupply of workers is inspiring a ‘race to the bottom’ on prices and wages.⁴⁰

The dominance of the informal sector in Kenya is limiting the country’s potential for productivity gains and sustainable growth. Indeed, statistics show labour productivity is only increasing in formal sectors, which continue to

employ relatively few workers. While mining, utilities, financial services and education account for only 7% of employment, they are the country’s four most productive sectors.⁴¹ As currently structured, the informal economy is unlikely to serve as a platform for economic transformation, since insecure gig workers are typically not in a position to save capital or make the necessary long-term investments.⁴² Most activities in Kenya’s informal sector remain small-scale and – according to David Ndi, Managing Director of Africa Economics – effectively “keep people in a permanent mode of struggle”.⁴³

Moreover, since the informal sector often operates outside the purview of tax authorities, the government is fiscally constrained as it seeks to invest in infrastructure and public services and thereby support the development of the formal sector.⁴⁴ The situation is delicate: some semi-formal firms have retreated to the informal sector in recent years in response to government attempts to tax their activities (such as the introduction of a single business permit for semi-formal activities and a proposed tax on small online transactions).⁴⁵

With the population growing quickly, Kenya is under pressure to create more stable and well-paying jobs. In the medium-term, a few tech start-ups highlight the potential of digital innovations to accelerate job creation.

While there is a lack of reliable data regarding youth employment in Kenya, it is widely acknowledged that – of the 500,000 to 800,000 people entering the job market each year – a significant proportion are unable to find work.⁴⁷ The youth unemployment rate varies by geography: it is estimated at around 35%-60% in urban areas and around 20%-25% in rural areas (where young people tend to be ‘underemployed’, relying on low-paid and low-skilled, part-time and/or seasonal jobs in agriculture).⁴⁸ Despite strong growth rates in Kenya, youth unemployment appears to be on the rise: by 2016, the rate was 42% higher than in 2000, which puts the country at odds with the rest of the continent, where the rate declined 9% on average.⁴⁹ As the UNDP put it, “The unemployment problem in Kenya is to a large degree a youth problem”.⁵⁰

Since the working-age population is set to grow by an additional 5+ million people between 2015 and 2025, David Okwemba, former Managing Editor East Africa at the BBC, believes the country requires an average growth rate of “10% per annum” to keep pace.⁵¹ Based on interviews conducted for this report and available literature, there are certain technological, political and economic forces which may help the country in its pursuit of productivity and employment gains.

“EAST AFRICA HAS EFFECTIVELY MADE A DIGITAL LEAP”

George Gachara, Managing Partner,
HEVA Fund

A technological revolution

Increasingly, technology firms are responding to the dysfunctional employment dynamics in Kenya by professionalising and scaling activities in the informal economy. The likes of Lynk – a digital platform for tradespeople – were established in a bid to correct structural issues facing informal workers, such as a lack of collective bargaining power and a ‘race to the bottom’ on wages, induced by an oversupply of labour. According to a report by Mercy Corps, technology platforms are already helping to secure the employment prospects of workers in the informal sector, who report that their livelihoods and incomes have improved “as a result of access to frequent and decent jobs”.⁵²

Showing signs of sustainability, technology firms are proving capable of adapting to the market reality in Kenya. While Lynk originally adopted a hands-off approach, facilitating connections between approved informal craftspeople and clients, the firm soon realised how challenging it was to ensure the quality of workmanship. In response, Lynk graduated to what the CEO Adam Grunewald described as a “micro-franchising” model, whereby informal workers are now offered a far more extensive suite of business support services, such as technical training, production standards, advice on customer management and market research.

Moreover, technology start-ups with a focus on young people are starting to generate considerable interest. Seeking to harness East Africa’s ‘youth bulge’ and the growing availability of digital technology, firms such as Heva Fund (a finance and support facility for creative industries in the region) are looking to diversify and deepen their portfolio. According to Managing Partner George Gachara, “East Africa has effectively made a digital leap, with the surge in the availability of smartphones. This creates an upswing in the consumption of creative industries content. We are looking to build a pipeline of dynamic start-ups that are focused on the urban middle class and can scale up through the region”.⁵³

While the potential of technology to stimulate growth and employment is generating excitement, there remains a long way to go for its realisation. Thus far, the positive impact of digital platforms has been confined to transport and domestic services, as corporations and SMEs in the wider economy – especially within professional services – remain wary of engaging gig workers, owing primarily to perceptions around quality.⁵⁴ In addition, the benefits of online gig work have accrued predominantly to urban males, indicating that greater attention must be paid to issues of gender inclusion. This includes addressing connectivity gaps in rural areas and social barriers that limit female acquisition of digital skills and participation in the gig economy.⁵⁵ Lastly, digital platforms are only going to have a widespread impact on inclusive growth and job creation if they improve productivity in sectors with the potential to employ large numbers of people.



IT specialists sit at computers in an innovation centre for technology companies

The full realisation of devolution

While it is too early to assess the impact of the 2010 constitution and devolution on the jobs market, the greater distribution of political and economic power in Kenya is expected to result in more employment opportunities over the next 10+ years. Indeed, Abraham Muthogo, CEO of Miradi Capital, was particularly hopeful regarding the potential of devolution, stating that “Kenya will experience a migration back to counties once the system settles [and] resources are deployed to the counties by the central government. The opportunities created will make counties attractive to Kenyans in urban and rural centres”.⁵⁶

The rise of the independent professionals

A survey conducted by the British Council revealed that an increasing number of Kenya’s educated and middle-class young people prefer self-employment.⁵⁷ Anne Eriksson, a former senior partner at PwC, supported this finding, offering her view that “young people with the right mindset don’t wait to be employed, they get going and either remain self-employed or wait for organisations to come and buy proven skills. I see more of that and hopefully Kenya will rival the likes of India where innovation is the order of the day”.⁵⁸ In Nairobi, the supporting infrastructure is taking shape: in recent years, many serviced offices and co-working spaces have been established to aid young professionals as they set up ventures outside the traditional corporate sector. Carol Githinji, Founder of Lattice Community (a shared office facility targeting young and low-income workers), suggested that the firm’s flexible model was a response “to the demands of micro and small enterprises”.⁵⁹

Snapshot: Is Kenya’s education system fit for the future of work?

Although Kenya’s education system is of a higher standard than those of its regional neighbours, youth remain relatively ill-equipped when entering the workforce.⁶⁰ Indeed, according to The African Institute for Development Policy and the University of Southampton (2018), the economy’s growing demand for well-trained workers is not being met, as “secondary school and university curricula are not aligned to the needs of the labour market and do not emphasise transferrable skills”.⁶¹ While the country has made significant progress in primary school enrolment (now 82%), enrolment for secondary school and tertiary education remains at just 58% and 12% respectively.⁶² Owing to the rapid pace of enrolment growth in recent years, there are concerns this has led to a decline in education quality, with formal employers continuing to complain of a lack of relevant competencies (in areas such as creativity, organisation, interpersonal relationships, planning, coordination and decision-making).⁶³

Given the country’s projected demographic growth, issues in the education system are becoming increasingly urgent, with schooling demand set to rise dramatically. Indeed, according to UN estimates, demand for secondary school tuition may jump from 4.3 million to 7.3 million over the same period. To accommodate this influx of pupils, the state will need to invest heavily in school infrastructure as well as maintaining and improving on the quality of teaching.⁶⁴

In order to ensure that the cohorts of tomorrow are in a position to productively contribute to the economy, the education system will need to align with emerging market needs. In support of this claim, the World Bank (2019) highlighted how digital transformation in Kenya is conditional on the strengthening and funding of public-private “initiatives aimed at building a digitally-savvy workforce”. These initiatives include “basic digital literacy for all citizens, reform of the formal education system and [the introduction of] alternative learning methods to bridge the skills gap”.⁶⁵



School girls in class in Western Kenya

In part, this may require a change in emphasis – away from increasing access to formal education towards improving the country’s vocational training offer. In an interview for this report, Adam Grunewald, CEO of Lynk, highlighted the need for greater public-private collaboration in this area, outlining how the digital platform he set up had to effectively assume responsibility regarding “vocational training, standard and price setting, and act as an agency to which disappointing service delivery can be reported”.



Children in Mombassa partake in a computing lesson

PART B:

IMPACT OF COVID-19 ON SOCIETY AND FUTURE OF WORK IN KENYA

COVID-19 has resulted in mass unemployment and hardship at a time of rapid demographic growth and urbanisation in Kenya.

COVID-19 and its fallout poses a major threat to livelihoods across Africa.

According to early analysis conducted by McKinsey, the jobs and incomes of 150 million people (i.e. a third of the continent's workforce) are at risk of being lost, with formal and informal workers in retail, wholesale, manufacturing, construction and hospitality set to be the worst affected.⁶⁶ As a consequence of the pandemic, the Institute of Security Studies estimated that an additional 14 million Africans would become extremely poor in 2020 and that 38-70 million more people than previously forecast will live in extreme poverty by 2030.⁶⁷

In Kenya, the external economic shock combined with a strict domestic lockdown led to mass job losses. According to a survey of 127 businesses across 17 sectors conducted by the Kenya Private Sector Alliance in April 2020, 81% of firms claimed COVID-19 impacted their operations and 54% reported redundancies (with smaller firms and those working in agriculture, tourism, construction, security and the arts more likely to have let staff go).⁶⁸ By June 2020, media outlets were reporting that the pandemic had rendered at least 1 million people in Kenya unemployed, plunging the country into a jobs crisis.⁶⁹ As a knock-on effect of this development, the Central Bank of Kenya believes 65% of borrowers are likely to default on their loans in 2020.⁷⁰ In addition, a survey by the Kenya National Bureau of Statistics found 70% of households are struggling to pay rent.⁷¹ As a result, large numbers of people are opting to move in together or shift from city centres to satellite towns in search of affordable housing.

According to a survey of 2,500 people in Kenya, Nigeria, Côte D'Ivoire, Mozambique and South Africa conducted by GeoPoll, COVID-19 may entrench pre-existing socioeconomic inequalities, as the informal sector and those earning low incomes have been disproportionately affected.⁷² Indeed, individuals relying on informal activities – such as street sellers and agricultural labourers – are

facing higher degrees of uncertainty and have reported more significant losses of income, with 42% of informal workers forced to pay their expenses via loans or credit. In a survey of Nairobi's low-income neighbourhoods during lockdown, the vast majority of respondents reported a reduction in income (95%) and almost a third stated they had experienced hunger, highlighting the fragility of many urban livelihoods.⁷³

“IN APRIL 2020, 81% OF FIRMS CLAIMED COVID-19 IMPACTED THEIR OPERATIONS AND 54% REPORTED REDUNDANCIES.”

Kenya Private Sector Alliance, 2020

According to African Arguments, some 8,000 people were evicted from informal settlements in the capital amid the pandemic, bringing to the fore longstanding concerns regarding land ownership and affordable housing in the city.⁷⁴ Moreover, in addition to suffering greater economic hardship in the short-term, the poorer members of society in Kenya are likely to be particularly disadvantaged by the closure of schools and cancellation of the school year, which will have long-term implications for inequality in the country.⁷⁵ Poorer and more rural students have struggled to maintain their education via remote learning, while the World Food Programme estimates 1.8 million children have been missing out on meals they would have been served at school.⁷⁶

In response to COVID-19 and its immediate impact on the economy, the government instituted an array of fiscal policies in March 2020, such as offering 100% income tax relief for persons earning below KSH 24K per month; reducing the top band tax rate for individuals and corporations (from 30% to 25%); easing the turnover tax rate for SMEs (from 3% to 1%); and slashing VAT across the board (16% to 14%). While this initial stimulus was sizeable, the World Bank (2020b) was quick to point out the regressive nature of the measures, which mainly targeted the formal economy and benefited salaried workers.⁷⁷ Indeed, one newspaper editorial outlined how the tax breaks were likely to exacerbate inequality in Kenya, as the majority of workers – operating hand-to-mouth in the informal sector – were effectively

excluded from support.⁷⁸ To a degree, GeoPoll’s survey – which includes respondents from Kenya – confirms that governments across Africa have struggled to reach large swathes of the population with aid: out of 2,500 people, only 17% claimed to have received any sort of assistance during the crisis, with government support lagging behind support from friends and family.⁷⁹

In June 2020, the government in Kenya turned its attention to the plight of the country’s youth. Even before the crisis, youth unemployment was a major issue, with some 39% of young people (i.e. 5.3 million / 13.8 million) out of work in 2019.⁸⁰ Following the outbreak of COVID-19, the Kenya National Bureau of Statistics believes some 771,439 young people were laid off (as of June 2020), indicative of the particularly precarious position the youth occupies in the country’s economy.⁸¹ The government’s KSH 10 billion Kazi Mtaani programme aims to remedy this state of affairs, providing a daily stipend (KSH 455) to 270,000 young people and encouraging engagement with community development projects. While the intervention has had a broadly positive impact, administrative aspects have undermined the programme in certain instances, with protests erupting in Kiambu and across the Rift Valley over delayed and reduced payments. A short-term fix, the programme has also been criticised for lacking a well-defined roadmap. Over the long-term, it remains unclear how the government intends to economically (re)integrate Kenya’s fastest-growing demographic group.⁸²



A health worker disinfects a market in Nairobi

PART C: CONCLUSION

What might shifting demographics and the changing nature of work mean for economic transformation?

The pace of urbanisation needs to slow to enable infrastructure and housing investments to catch up. Agricultural transformation is key to managing the pace of change, with digital technologies as a key enabler.

Abraham Muthogo, CEO of Miradi Capital, believes agriculture – the “backbone” of the country’s economy – could be a significant source of quality employment if the sector is effectively modernised: “[At the moment] there are not enough employment opportunities to go around [in rural areas], resulting in underemployment and unemployment. The only way out of this is to grow value chains around agriculture”. Agriculture, which accounts for 56% of employment, continues to suffer from an ‘image’ problem and is typically associated with poor pay and hard livelihoods.⁸³

A few technology-driven agribusinesses appear set to disrupt the status quo, reducing the number of intermediaries in value chains and empowering producers and consumers alike. Domestic start-ups like iProcure, Twiga Foods, InspiraFarms, Digifarms and Apollo Agriculture are supporting the country’s emergence as a

regional hub of innovation in agricultural and input markets and could help raise the productivity and incomes of rural farmers; enhance the country’s food security; and slow the pace of urbanisation.

Technological innovation is primarily an enabler, however, and will not solve the challenge of raising agricultural productivity in Kenya on its own. To do this, it requires concerted effort on the part of government, the private sector and development partners with emphasis placed on improving diminishing soil fertility, making strategic investments in agro-processing, as well as developing more effective systems to provide advice and relevant inputs to farmers. The sector also requires more finance to flow into relatively small-scale agriculture to upgrade production systems, tackle issues of poor soil health and enable irrigation. The government’s current roadmap, the Agricultural Sector Growth and Transformation Strategy outlines a coherent blueprint for action, but will require significant financial investment and political mobilisation in order for its vision to come to fruition.



Workers harvest roses for export to the European market



Workers at a tiles manufacturing company in Kajiado County

There is a need to focus on sectors that will kickstart widespread growth and create millions of jobs in the future.

There is a clear need to focus on driving rapid growth in sectors that could generate widespread jobs at scale. The million-dollar question is: where are these jobs going to come from? In Kenya, formal employment in manufacturing – the traditional engine of industrialisation and economic transformation – has been limited by various barriers, such as the high cost of power and labour, as well as a credit-constrained private sector. Global trends such as digitalised production and automation may also represent headwinds to Kenya’s further integration into global value chains. Given the size of the sector and the dominance of the local beverages industry within it, Kenya has been somewhat insulated from the impact of greater automation in advanced economies to date, but this could change in the coming decades as the window of opportunity to build internationally competitive industries begins to close.⁸⁴ In the medium-term, the region may benefit from being considered a responsible investment destination, due to relatively strong labour protections, an area of increased importance as large textile buyers are under increased pressure for transparency in their supply chains.

There is a growing chorus of voices that have suggested that taking a more continental and regional approach to expanding Kenya’s manufacturing base might be an alternative to further international integration, leveraging the country’s existing industrial base to take advantage of the impending African Continental Free Trade Agreement (AfCFTA). Commentators at Brookings, for example, have argued that a greater focus on building Regional Value Chains (RVCs) for exported commodities would offer opportunities to accelerate diversification, adapt to economic shocks, as well as mitigate the climate impacts of industry.⁸⁵ However, for the majority of manufacturing sectors, rapid growth will likely still require substantial inward investments focused on large-scale international export markets.

Lastly, transformative growth in any sector requires concerted government action and, as with other developing countries, the pandemic may have opened a window of opportunity for Kenya to pursue a more targeted approach to sector development. According to commentators at the Tony Blair Institute for Global Change, this should involve the use of what they term ‘smart’ industrial policy that, as opposed to import substitution, focused on export-oriented, market-based strategies that channel resources to employment intensive, growth-enhancing industries such as agro-processing, light manufacturing, technology services, and tourism.⁸⁶

Chapter Notes

¹ United Nations-Department of Economic and Social Affairs Population Dynamics (2020) Kenya Population (Data-Set). Available at <https://population.un.org/wpp/DataQuery/> (Accessed 24 November 2020)

² World Bank (2020a) Age Dependency Ratio (% of working-age population) – Kenya (Data-Set). Available at <https://data.worldbank.org/indicator/SP.POP.DPND> (Accessed 24 November 2020)

³ United Nations-Department of Economic and Social Affairs Population Dynamics (2020) Kenya Population (Data-Set). Available at <https://population.un.org/wpp/DataQuery/> (Accessed 24 November 2020)

⁴ The youth bulge usually occurs where there has been a fall in infant mortality but birth rates are still high.

⁵ This analysis is based on the support ratio (the inverse of the dependency ratio, i.e. the ratio of effective producers to consumers). While rate of change of the support ratio is positive, the window of opportunity to reap the demographic dividend is open.

⁶ Hamel, Kristofer., Tong, Baldwin., & Hofe, Martin (2019) Poverty in Africa is Now Falling—but not Fast Enough. Brookings Institute. Available at <https://www.brookings.edu/blog/future-development/2019/03/28/poverty-in-africa-is-now-falling-but-not-fast-enough/> (Accessed 24 November 2020).

⁷ In 2017 the World Data Lab developed a standardised and comparable model of global poverty, the methodology for which it published in the peer-reviewed scientific journal Palgrave Macmillan as a public good. The model estimates and forecasts extreme poverty for every country in the world by combining survey microdata and mid-term macroeconomic forecasts from the IMF and IIASA. Please see The World Data Lab website, here, for further information.

⁸ The African Institute for Development Policy and the University of Southampton (2018). Regional Analysis of Youth Demographics. Available at: https://assets.publishing.service.gov.uk/media/5af581a9ed915d0de537b9f6/East_African_Regional_Analysis_of_Youth_Demographics.pdf (Accessed 27 November 2020)

⁹ Cramer, Christopher (2015) Jobs, Unemployment and Violence. Professional Development Reading Pack, Governance and Social Development Resource Centre

¹⁰ Kenya Institute for Public Policy Research and Analysis, quoted in 'The African Institute for Development Policy and University of Southampton (2018). Regional Analysis of Youth Demographics. Available at: https://assets.publishing.service.gov.uk/media/5af581a9ed915d0de537b9f6/East_African_Regional_Analysis_of_Youth_Demographics.pdf (Accessed 27 November 2020)'

¹¹ Kenya National Bureau of Statistics (2019) Kenya's Annual Economic Survey – 2019: Highlights. Nairobi: National Bureau of Statistics

¹² The African Institute for Development Policy and the University of Southampton (2018). Regional Analysis of Youth Demographics. Available at: https://assets.publishing.service.gov.uk/media/5af581a9ed915d0de537b9f6/East_African_Regional_Analysis_of_Youth_Demographics.pdf (Accessed 27 November 2020)

¹³ United Nations-Habitat (2016) World Cities Report 2016: Urbanization and Development - Emerging Futures. Nairobi: United Nations Human Settlements Programme

¹⁴ Teye, Joseph (2018) Urbanisation and Migration in Africa, [PowerPoint presentation at Expert Group Meeting, United Nations Headquarters in New York]. Available at https://www.un.org/en/development/desa/population/events/pdf/expert/28/EGM_Joseph_Teye_ppt.pdf (Accessed 24 November 2020)

¹⁵ A census was conducted in 2019. Prior to that the last official census took place in 2009

¹⁶ United Nations-Department of Economic and Social Affairs Population Dynamics (2020) Kenya Population (Data-Set). Available at <https://population.un.org/wpp/DataQuery/> (Accessed 24 November 2020)

¹⁷ Interview with the authors

¹⁸ Teye, Joseph (2018) Urbanisation and Migration in Africa, [PowerPoint presentation at Expert Group Meeting, United Nations Headquarters in New York]. Available at https://www.un.org/en/development/desa/population/events/pdf/expert/28/EGM_Joseph_Teye_ppt.pdf (Accessed 24 November 2020)

¹⁹ Oucho, John O., Oucho, Linda A., & Ochieng', Vollen (2014) Is Migration the Solution to Poverty Alleviation in Kenya? Rural-Urban Migration Experiences of Migrants from Western Kenya to Kisumu and Nairobi. Working Paper 21 - African Migration and Development Policy Centre

²⁰ Mwangi, Zachary (2018) Highlights of the 2015/16 Kenya Integrated Household Budget Survey (KIHBS) Reports [PowerPoint presentation for Kenya National Bureau of Statistics]. Nairobi.: Kenya National Bureau of Statistics.

²¹ Lall, Somik Vinay., Henderson, J. Vernon., Venables, Anthony J, (2017) Africa's Cities: Opening Doors to the World. Washington, DC: World Bank.

²² Interview with the authors

²³ African Union Commission and OECD (2018), Africa's Development Dynamics 2018: Growth, Jobs and Inequalities, OECD Publishing, Paris/AUC, Addis Ababa

²⁴ Bird, Julia (2017) Life in a Slum: Understanding Living Conditions in Nairobi's Slums Across Time and Space, Oxford Review of Economic Policy, 33:3, 496–520

²⁵ United Nations-Habitat (2016) World Cities Report 2016: Urbanization and Development - Emerging Futures. Nairobi: United Nations Human Settlements Programme

²⁶ Ndungu, Pascaline Wanjiku (2018) Why Kenya's Sanitation Challenge Requires Urgent Attention. World Bank Blog. Available at <http://blogs.worldbank.org/africacan/why-kenyas-sanitation-challenge-requires-urgent-attention>. (Accessed on 10 February 2020)

²⁷ Ibid

²⁸ Please see here for further details of this investment joint venture.

²⁹ Samuel Hall (2017) Youth Employment in Kenya: Literature Review. Available at: <https://static1.squarespace.com/static/5cfe2c8927234e0001688343/t/5d42d9d22Oada4000196692f/1564662260539/Samuel-Hall-Youth-Employment-in-Kenya-2017-for-the-British-Council.pdf> (accessed 27 November 2020)

³⁰ Interview with the authors

³¹ Ibid

³² The African Institute for Development Policy and the University of Southampton (2018). Regional Analysis of Youth Demographics. Available at: https://assets.publishing.service.gov.uk/media/5af581a9ed915d0de537b9f6/East_African_Regional_Analysis_of_Youth_Demographics.pdf (Accessed 27 November 2020)

³³ Samuel Hall (2017) Youth Employment in Kenya: Literature Review. Available at: <https://static1.squarespace.com/static/5cfe2c8927234e0001688343/t/5d42d9d22>

[Oada4000196692f/1564662260539/Samuel-Hall-Youth-Employment-in-Kenya-2017-for-the-British-Council.pdf](https://static1.squarespace.com/static/5cfe2c8927234e0001688343/t/5d42d9d22Oada4000196692f/1564662260539/Samuel-Hall-Youth-Employment-in-Kenya-2017-for-the-British-Council.pdf) (accessed 27 November 2020)

³⁴ Kenya National Bureau of Statistics (2019) Kenya's Annual Economic Survey – 2019: Highlights. Nairobi.: National Bureau of Statistics

³⁵ Faria, Julia (2020) Total employment in Kenya 2015-2019. Statista Data-Set. Available at: <https://www.statista.com/statistics/1134332/total-employment-in-kenya/> (Accessed 30 November 2020)

³⁶ Samuel Hall (2017) Youth Employment in Kenya: Literature Review. Available at: <https://static1.squarespace.com/static/5cfe2c8927234e0001688343/t/5d42d9d22Oada4000196692f/1564662260539/Samuel-Hall-Youth-Employment-in-Kenya-2017-for-the-British-Council.pdf> (accessed 27 November 2020)

³⁷ Interview with the authors

³⁸ World Bank (2019) Kenya Economic Update: Unbundling the Slack in Private Sector Investment – Transforming Agriculture Sector Productivity and Linkages to Poverty Reduction (English). Kenya economic update; no. 19. Washington, D.C.: World Bank Group

³⁹ Mercy Corp (2019) Towards a Digital Workforce: Understanding the Building Blocks of Kenya's Gig Economy, Nairobi: Mercy Corp Youth Impact Labs

⁴⁰ Ibid

⁴¹ Ibid

⁴² Samuel Hall (2017) Youth Employment in Kenya: Literature Review. Available at: <https://static1.squarespace.com/static/5cfe2c8927234e0001688343/t/5d42d9d22Oada4000196692f/1564662260539/Samuel-Hall-Youth-Employment-in-Kenya-2017-for-the-British-Council.pdf> (accessed 27 November 2020)

⁴³ Changole, Adelaide (2018) Kenya's Public Household Debt Doubled in Past 5 Years. Bloomberg. Available at <https://www.bloomberg.com/news/articles/2018-10-09/kenya-s-public-household-debt-doubled-in-past-5-years-icea-says> (Accessed 24 November 2020)

⁴⁴ Interview with the authors

⁴⁵ Revenue potential is limited by both the size of the informal sector, and by the proportion of revenue from

indirect taxes – around half of current tax revenue comes from indirect taxes, including VAT and excise duties, which are already paid by the semi-formal and informal sectors.

⁴⁶ Kandie, Karen (2019) Ensuring Inclusivity of the Informal Sector in Kenya's Tax Regime. The Star. Available at <https://www.the-star.co.ke/business/commentary/2019-10-17-ensuring-inclusivity-of-the-informal-sector-in-kenyas-tax-regime/> (Accessed 9 November 2020)

⁴⁷ Samuel Hall (2017) Youth Employment in Kenya: Literature Review. Available at: <https://static1.squarespace.com/static/5cfe2c8927234e0001688343/t/5d42d9d220ada4000196692f/1564662260539/Samuel-Hall-Youth-Employment-in-Kenya-2017-for-the-British-Council.pdf> (accessed 27 November 2020)

⁴⁸ Ibid

⁴⁹ Ibid

⁵⁰ Quoted in Ibid

⁵¹ Interview with authors

⁵² Mercy Corp (2019) Towards a Digital Workforce: Understanding the Building Blocks of Kenya's Gig Economy, Nairobi: Mercy Corp Youth Impact Labs

⁵³ Interview with the authors

⁵⁴ Ibid

⁵⁵ Ibid

⁵⁶ Interview with the authors

⁵⁷ British Council (2018) Next Generation Kenya: Listening to the voices of young people. Report 2018/H198. London: British Council

⁵⁸ Interview with the authors

⁵⁹ Interview with the authors

⁶⁰ The African Institute for Development Policy and the University of Southampton (2018). Regional Analysis of Youth Demographics. Available at: https://assets.publishing.service.gov.uk/media/5af581a9ed915d0de537b9f6/East_African_Regional_Analysis_of_Youth_Demographics.pdf (Accessed 27 November 2020)

⁶¹ Ibid

⁶² UNESCO Institute for Statistics (2020) Kenya Country Profile (Data-Set). UNESCO Institute for Statistics. Available at <http://uis.unesco.org/en/country/ke> (Accessed 24 January 2020)

⁶³ TIFA Research Limited (2018) Skills Mismatch Survey. Research Report, Nairobi: Federation of Kenya Employers

⁶⁴ The African Institute for Development Policy and the University of Southampton (2018). Regional Analysis of Youth Demographics. Available at: https://assets.publishing.service.gov.uk/media/5af581a9ed915d0de537b9f6/East_African_Regional_Analysis_of_Youth_Demographics.pdf (Accessed 27 November 2020)

⁶⁵ Ibid

⁶⁶ McKinsey (2020) Finding Africa's Path: Shaping Bold Solutions to Save Lives and Livelihoods in the COVID-19 Crisis. Available at: <https://www.mckinsey.com/featured-insights/middle-east-and-africa/finding-africas-path-shaping-bold-solutions-to-save-lives-and-livelihoods-in-the-covid-19-crisis#> (Accessed 24 November 2020)

⁶⁷ Cilliers, Jakkie et al. (2020) Impact of COVID-19 in Africa: A Scenario Analysis to 2030. Institute for Security Studies Africa Report 24. Available at: <https://issafrica.s3.amazonaws.com/site/uploads/ar24v2.pdf> (Access 24 November 2020)

⁶⁸ Kenya Private Sector Alliance (2020) Kenya Business Survey on Impacts of COVID-19. Available at: <https://kepsa.or.ke/download/kepsa-business-survey-report-on-effects-of-covid-19-may-7-2020/> (Accessed 25 November 2020)

⁶⁹ Wafula, Paul (2020) Over One Million Rendered Jobless in Kenya as COVID-19 Takes Toll on Businesses. The East African. Available at: <https://www.theeastafrican.co.ke/business/Covid19-Over-a-million-rendered-jobless-in-Kenya/2560-5571598-ui6l8d/index.html> (Accessed 25 November 2020)

⁷⁰ Onyanga, Carlos (2020) 65% Of Kenyan Borrowers To Default Loans This Year, KBA. Soko Directory. Available at: <https://sokodirectory.com/2020/05/65-of-kenyan-borrowers-to-default-loans-this-year-kba/> (Accessed 26 November 2020)

⁷¹ Mwita, Martin (2020) Rent Pains Push Kenyans to Share Houses, Split Bills. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-08-09->

rent-pains-push-kenyans-to-share-houses-split-bills/
(Accessed 25 November 2020)

⁷² GeoPoll (2020) The Financial Impact of Coronavirus in Sub-Saharan Africa. Available at: https://f.hubspotusercontent30.net/hubfs/325431/Financial%20Impact%20of%20COVID%20Report_Final.pdf (Accessed 27 November 2020)

⁷³ Juma, Victor (2020) How Covid has hit the incomes of Nairobi's Poor. Business Daily. Available at: <https://www.businessdailyafrica.com/news/How-Covid-has-hit-incomes-of-Nairobi-poor/539546-5551884-va0tuaz/index.html> (Accessed November 24 2020)

⁷⁴ Nnoko-Mewanu, Juliana & Abdi, Najma (2020) Nairobi Evicts 8000 People Amidst a Pandemic and Curfew. African Arguments. Available at: <https://africanarguments.org/2020/06/10/nairobi-evicts-8000-people-amidst-a-pandemic-and-curfew/> (Accessed 27 November 2020)

⁷⁵ Dahir, Abdi Latif (2020) Kenya's Unusual Solution to the School Problem: Cancel the Year and Start Over. The New York Times. Available at: <https://www.nytimes.com/2020/08/05/world/africa/kenya-cancels-school-year-coronavirus.html?smid=tw-share> (Accessed 27 November 2020)

⁷⁶ World Food Programme (2020) Global Monitoring of School Meals During COVID-19 School Closures (Data-Set). Available at: https://cdn.wfp.org/2020/school-feeding-map/?_ga=2.91051482.1916546995.1589979438-387441917.1585139850 (Accessed 27 November 2020)

⁷⁷ World Bank (2020b) Kenya Economic Update: Turbulent Times for Growth in Kenya - Policy Options during the COVID-19 Pandemic. Available at: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/683141588084127834/kenya-economic-update-turbulent-times-for-growth-in-kenya-policy-options-during-the-covid-19-pandemic> (Accessed 27 November 2020)

⁷⁸ Omondi, Dominic (2020) Why the Uhuru Rescue Plan Might Not Help Wanjiku. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001365829/why-the-uhuru-rescue-plan-may-not-help-wanjiku> (Accessed at 27 November 2020)

⁷⁹ GeoPoll (2020) The Financial Impact of Coronavirus in Sub-Saharan Africa. Available at: https://f.hubspotusercontent30.net/hubfs/325431/Financial%20Impact%20of%20COVID%20Report_Final.pdf (Accessed

27 November 2020)

⁸⁰ Kapchanga, Mark (2020) C-19 in Kenya: Youth Job Scheme: A Real Deal or an Empty Promise? Good Governance Africa Wicket Conversation Blog Series. Available at: <https://gga.org/c-19-in-kenya-youth-job-scheme-a-real-deal-or-an-empty-promise/> (Accessed 27 November 2020).

⁸¹ Bizna (2020) Nearly 1 Million Kenyan Youths Lose Their Jobs in First 3 Months. Available at: <https://biznakenya.com/youth-unemployment-in-kenya/> (Accessed 27 November 2020)

⁸² Kapchanga, Mark (2020) C-19 in Kenya: Youth Job Scheme: A Real Deal or an Empty Promise? Good Governance Africa Wicket Conversation Blog Series. Available at: <https://gga.org/c-19-in-kenya-youth-job-scheme-a-real-deal-or-an-empty-promise/> (Accessed 27 November 2020).

⁸³ World Bank (2019) Kenya Economic Update: Unbundling the Slack in Private Sector Investment – Transforming Agriculture Sector Productivity and Linkages to Poverty Reduction (English). Kenya economic update; no. 19. Washington, D.C.: World Bank Group.

⁸⁴ Banga, Karishma & Willem te Velde, Dirk. (2018) Digitalisation and the Future of African Manufacturing. Available at: https://set.odi.org/wp-content/uploads/2018/03/SET_Future-of-manufacturing_Brief_Final.pdf (Accessed December 5th 2020)

⁸⁵ Mold, Andrew & Mveyange, Anthony (2020) Trade in Uncertain Times: Prioritising Regional over Global Value Chains to Accelerate Economic Development in East Africa. Brookings. Available at: <https://www.brookings.edu/blog/africa-in-focus/2020/04/15/trade-in-uncertain-times-prioritizing-regional-over-global-value-chains-to-accelerate-economic-development-in-east-africa/> (Accessed 5 January 2021)

⁸⁶ Said, Jonathan & Caballero, Marianne (2020) Preventing a Lost Decade in Africa. Tony Blair Institute for Global Change. Available at: <https://institute.global/sites/default/files/articles/Preventing-a-Lost-Decade-in-Africa.pdf> (access January 5th 2021)



Technology

Taking advantage of the tech revolution

PART A: UNDERLYING TRENDS

Set to scale at a rapid pace, technology firms in Kenya are helping serve previously unmet needs.

Commercial investment is now pouring into Nairobi, as the so-called “Silicon Savannah”. In particular, the capital’s fintech firms are flourishing.

Agtech is an exciting sector which may approach commercial sustainability soon – owing to increasing product maturity and the digital literacy of younger farmers.

Enabling greater financial inclusion and new business models, mobile money will continue to play a transformative role in the Kenyan economy.

Mobile money is now a significant force in the Kenyan economy, with the potential to drive financial inclusion and development.

However, while mobile money is formalising loan practices in Kenya, there is an emerging trend of individuals facing digital debt stress, illustrating the need for greater regulation of the market.

In a bid to increase efficiency and transparency, more and more government services are being delivered online.

PART B: IMPACT OF COVID-19 ON TECHNOLOGY IN KENYA

COVID-19 has inspired the expansion of e-commerce; highlighted the importance of mobile money; and prompted technology-enabled health and social welfare interventions.

PART C: CONCLUSION

What might a greater emphasis on technology mean for economic transformation?

AgTech will be a challenging nut to crack, but there are promising signs of rapid innovation, with export-oriented sectors leading the way.

Policy currently lags behind technological innovation, hindering the acceleration of progress.

PART A: UNDERLYING TRENDS

Set to scale at a rapid pace, technology firms in Kenya are helping serve previously unmet needs.

Commercial investment is now pouring into Nairobi as the so-called “Silicon Savannah”. In particular, the capital’s fintech firms are flourishing.

Over the last decade, Kenya’s information and communications technology (ICT) sector has flourished. Indeed, the sector has recorded annual growth of 10.8% since 2016 and has – according to the World Bank (2019c) – become “an important source of economic dynamism and job creation”, delivering “significant spill-over benefits across nearly every sector.”¹

Today, Kenya is home to one of sub-Saharan Africa’s most advanced technology ecosystems and boasts the region’s “most prominent fintech success stories”, according to Ernst and Young.² A number of factors have inspired Nairobi’s establishment as a technology hub, including:

- Kenya’s early and comprehensive adoption of mobile technology which, according to Patrick Ndeda, Director of JamboPay, “paved the way for the country’s fintech revolution.”³
- The widespread use of mobile money, enabled primarily by *Safaricom’s* M-PESA platform, which catalysed innovation in pay-as-you-go services.
- The country’s relatively good internet coverage in urban areas, well-educated population and diverse economy.

In recent years, investment in Kenya’s fintech firms has increased dramatically, with impact and angel investors gradually giving way to venture capital and foreign direct investment (FDI) as the sector matures. From 2010 to 2017 firms in the country raised \$204 million, some 98.5% of all fintech investment in East Africa.⁴ According to the GSMA, fintech investment across Africa nearly quadrupled in 2018, with Kenya, South Africa and Nigeria enjoying the lion’s share.⁵

Nairobi-based early-stage fintech firms are being internationally recognised for their cutting-edge technology and innovation. In June 2018, *BitPesa* (a digital foreign exchange and payments platform) and *CarePay* (a digital payments platform specifically for healthcare) were the only African firms included in the World Economic Forum’s “Technology Pioneers Cohort” in 2018.⁶

Looking to the future, Ernst and Young reach an optimistic conclusion regarding fintech in Kenya, suggesting the sector is attracting “a steady rise of international investors” as well as generating “interest amongst international technology players [who are] keen to invest in accelerator programs led by VISA, Microsoft and Barclays.”⁷

While the rapid development of the fintech sector has been impressive, the World Bank sounds a note of caution with regard to Kenya’s “digital revolution”, arguing that “much more remains to be done” in order for the country to stay ahead and reap transformational rewards. With an eye on Kenya’s fast-growing working-age population, they conclude that the “impressive performance in churning out innovative (...) start-up (...) digital ventures needs to be matched with a higher (...) rate of graduation to growth stage. [This will] generate the enterprises that will have a big impact on overall economic growth and job creation.”

Agtech is an exciting sector which may approach commercial sustainability soon – owing to increasing product maturity and the digital literacy of younger farmers.

There are signs that Kenya's agtech sector is graduating from its start-up phase to a growth phase. Since agriculture accounts for c. 25% of Kenya's GDP and employs two-thirds of the population, agtech has the potential to deliver transformational growth and impact. While the sector originally focused on increasing farm productivity by sharing price data and best practices via digital platforms, agtech firms now offer a suite of services to smallholders which include linking them with local markets.

Eline Blaauboer, a Managing Partner at Safaricom Spark Venture Fund, is particularly confident about the commercial viability of business-to-business agtech start-ups (i.e. those addressing supply chain issues and lending and insurance for farmers). In an interview for this report, Blaauboer highlighted how "viable businesses with attractive financial models" are now harnessing the support of large corporates.¹⁰ For example, in October 2019 Twiga Foods raised \$30 million in a funding round led by US investment bank Goldman Sachs.¹¹

At present, agtech firms are facing challenges as they attempt to scale: a recent review of agtech in Kenya suggests just 42% of registered farmers and pastoralists use digital solutions "with any frequency."¹² However, Russell Southwood, CEO of Balancing Act (a research and consultancy firm focused on technology in Africa), indicated in an interview for this report that demand is set to rise over the short- and medium-term as products mature and behaviours change.

Increasing product maturity

When discussing the maturation of agtech in Kenya, Southwood referred to M-PESA's journey, highlighting the length of time it took for the leading mobile payments firm to become financially viable and develop a comprehensive set of services. He believes the agtech sector is only now starting to deliver products capable of meeting market demands. Kikonde Mwatela, COO of Twiga Foods (a platform that links farmers to formal markets), effectively supported Southwood's argument as he outlined how the firm is evolving to suit customer preferences: "smallholder farmers prefer an in-person service and farmers are willing to pay for that – but not [for something] intangible. Therefore, there is more traction if [our] service is linked to product acquisition – for example offering farmers a service that provides traceability for fertiliser sales."¹³

A sector assessment in 2018/19 found agtech services are becoming more diverse and firms are reaching commercial sustainability, as they meet market demands regarding linkages, access to finance, supply chain management and farming insights.¹⁴ Exciting firms in this space in Kenya include:

- *iProcure* – the largest agricultural supply chain platform in Africa. The firm provides procurement and last mile distribution services, as well as information management systems and data-driven stock management tools.
- *DigiFarm* – an off-shoot of Safaricom, this is an agribusiness solution tailored for smallholder farmers. The firm provides farmers with access to finance, quality inputs at a discount and information on different crops and livestock.
- *Apollo Agriculture* – a firm using agronomic machine learning, remote sensing and mobile phones to efficiently deliver finance, farm products and tailored advice to smallholders
- *Farmers Pride* – an app that connects farmers with reputable agricultural suppliers in rural Kenya. The app allows farmers to submit product feedback to manufacturers.

Behaviour change

According to Southwood, demand for the first generation of agtech solutions was low owing to agriculture's demographic and financial makeup: "many smallholder farmers are elderly and have limited basic as well as digital literacy. [In addition], there are competing demands on the limited funds of smallholders." Although these structural factors are unlikely to change in the short-term, Southwood emphasised how "behaviours and attitudes" are shifting. Indeed, the use of agtech platforms is much higher among younger farmers, suggesting product demand will rise over time.¹⁵

In the medium- and long-term, as agtech platforms affect the lives of millions of Kenyans, analysts expect three trends to emerge. Firstly, as income opportunities in agriculture rise as a result of technological innovations, the outflow of young people from agriculture and rural areas may slow or even reverse.¹⁶ Secondly, as agri-SMEs benefit from a more competitive supply chain and sector structure, a growing number of domestic firms may make inroads in regional or global export markets.¹⁷ Finally, as digitalisation drives business formalisation, revenue generation from agriculture is expected to rise and have a significant positive impact on Kenya's finances.¹⁸

Snapshot: How might Kenya transition from regional to global tech-hub?

According to the World Bank, the development dividend of a successful tech sector is significant: in sub-Saharan Africa, digital transformation at a country-level is expected to increase growth by nearly 2% p.a. and reduce poverty by 1% p.a. If digital transformation efforts are paired with human capital investment, the dividend could be doubled.¹⁹

The realisation of Kenya's potential as a global tech-hub will rely on "very deliberate policy positions", according to Humphrey Wattanga, the Vice-Chair of Kenya's Commission on Revenue Allocation. Wattanga believes "there are many innovations happening [in Kenya] but they never cross the next step in scale – the market has evolved as far as it can organically."²⁰ Looking to the future, policymakers will have to prioritise the pursuit of a regional market and the attraction of commercial investment.

The pursuit of a regional market

The expanding footprint of Kenya's tech firms and the country's emergence as a tech gateway to East Africa represent a major opportunity for the region. The World Bank estimates the implementation of a "single digital market" in East Africa would "create an additional \$1–2.6 billion (...) in GDP and (...) 1.6–4.5 million new jobs." The report suggests "the long-term prospects for Kenya's digital economy require a view outside its borders", owing to the potential "economies of scale and network effects."²¹ Launched in 2019, the Kenyan Digital Blueprint represents a step in the right direction in this regard, outlining the government's commitment to fostering digital links across Africa.



The attraction of commercial investment

According to the East Africa Venture Capital Association, about 70% of the investment in the region's tech firms between 2010 and 2017 was undertaken by impact investors interested partly in developmental outcomes. However, as firms build their commercial track records and the government establishes appropriate financial vehicles, Kenya's domestic investors are expected to start providing risk capital (alongside international capital markets and multinational firms).²²

In order to ensure tech firms are able to access finance and scale up, the public and private sector will have to collaborate in the establishment of innovative financing methods. In this vein, Humphrey Wattanga stated that in his role as a nominated advisor of the Nairobi Securities Exchange he is exploring an initiative with the Cabinet Secretary for ICT regarding "special purpose acquisition vehicles. [These vehicles] would provide an avenue for external investors to invest in promising local innovations. Around 10 companies would be selected and we would go through an initial public offering (IPO) within a controlled ecosystem. We would provide capital but more importantly bring them to market in a regulated environment and support them through our networks."

Safaricom

Safaricom

M-PESA

Back

OK

TECNO

Enabling greater financial inclusion and new business models, mobile money will continue to play a transformative role in the Kenyan economy.

“Within sub-Saharan Africa, Kenya is the clear leader in mobile money adoption and usage. Fintech is emerging as an engine of growth and a technological enabler that fosters financial inclusion and economic development.”

Patrick Ndeda, Director of JamboPay

Mobile money is now a significant force in the Kenyan economy, with the potential to drive financial inclusion and development.

Mobile money is driving financial inclusion in Kenya. The FinAccess survey in 2019 – undertaken by FSD Kenya, the Central Bank of Kenya and the Kenya National Bureau of Statistics – found that 41% of the population had a bank account (vs. 14% in 2006, the year before M-PESA launched).²³ Taking into account SACCOs, microfinance institutions and other lenders, some 83% of Kenyans are now considered to be financially included (vs. just 26.7% in 2006). In particular, mobile money has led to the formalisation of loan practices. Since 2012, the digital credit market has expanded from one firm (M-Shwari) to more than sixty. In November 2019, a study revealed over six million people had received at least one digital loan to meet day-to-day needs or finance economic activities.²⁴

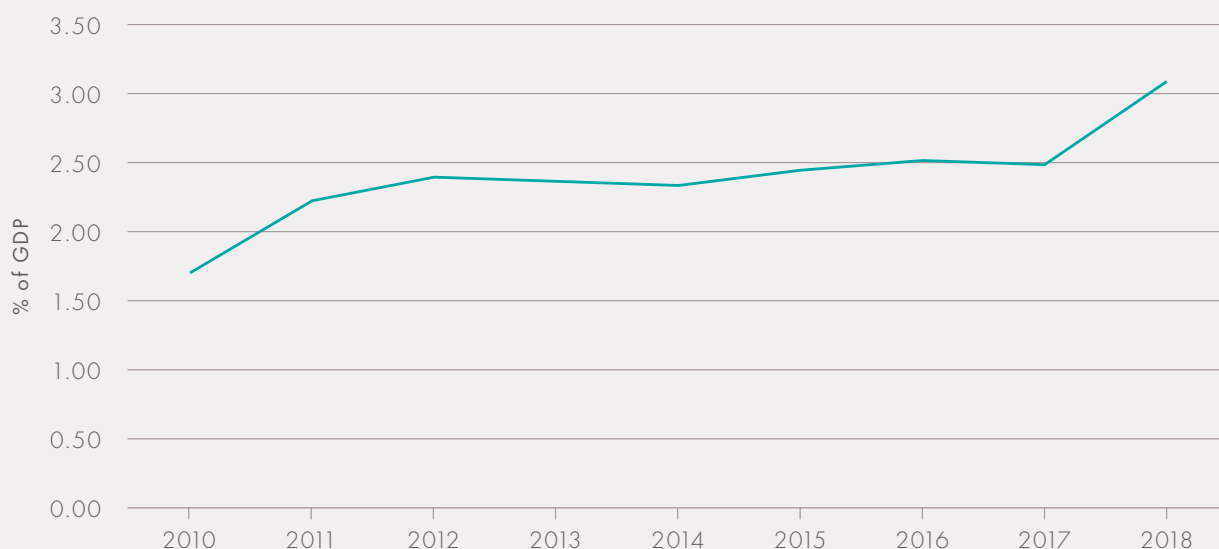
Accelerating the trajectory of financial inclusion in Kenya, mobile money has disrupted the country's financial sector and wider economy in fundamental ways. Indeed, Safaricom introduced M-PESA at a time when commercial banks were rolling back their offer to low-income customers, owing to concerns over profitability. Over the last decade, technological innovation and intense competition with digital platforms has resulted in traditional

banks re-engaging with the low-income population, delivering a wider range of services.²⁵ In addition, firms from a variety of sectors are now leveraging mobile money to enhance the access to – and affordability of – their goods and services. For example, M-KOPA has effectively evolved from an off-grid solar company into a diversified non-bank financial institution, selling equipment via micro instalments.

Greater financial inclusion in Kenya is having a developmental impact: while the IMF finds increased access to credit facilities has “helped to smooth consumption, reduce poverty and boost growth” in the country, another piece of research specifies that mobile money services have increased daily consumption for 194,000 households, thereby lifting them out of extreme poverty.²⁶ According to the authors of this latter study, “the impacts, which are more pronounced for female-headed households, appear to be driven by changes in financial behaviour – in particular, increased financial resilience and saving – and labour market outcomes, such as occupational choice, especially for women, who moved out of agriculture and into business.” Moreover, it is worth noting the extent to which mobile money is helping to facilitate remittances from the country's growing diaspora. In part, the rise in remittances between 2014 and 2019 has been fuelled by growing competition among mobile money providers, which has driven down fees (e.g. BitPesa charges just 3% on transactions) (see Figure 1).²⁷

Figure 1

Personal Remittances Received in Kenya as % of GDP, 2010–2018



Source: World Bank Data Portal (Accessed 2020)

While mobile money is formalising loan practices in Kenya, there is an emerging trend of individuals facing digital debt stress, illustrating the need for greater regulation of the market.

The growth of the mobile loan industry – which remains largely self-regulated – has led to many individuals borrowing at unsustainable levels. As Brian Kiai, Senior Investment Professional at Cranemere Africa, observed “there is a recent and increasing trend in the mass populace for payments to be made in cash to avoid the funds being automatically deducted from mobile money accounts to which debt is linked.”²⁸ A report published by FSD Kenya warned that “the absence of an overarching credit legislation means that part of the credit market is not regulated. To an extent, this has contributed to the proliferation of non-bank digital lenders that leverage the relative ease of publishing mobile applications to provide instant digital loans. And when there are people who find it easy to borrow, it means that they are likely to easily fall into debt stress when checks and balances are not in place.”²⁹

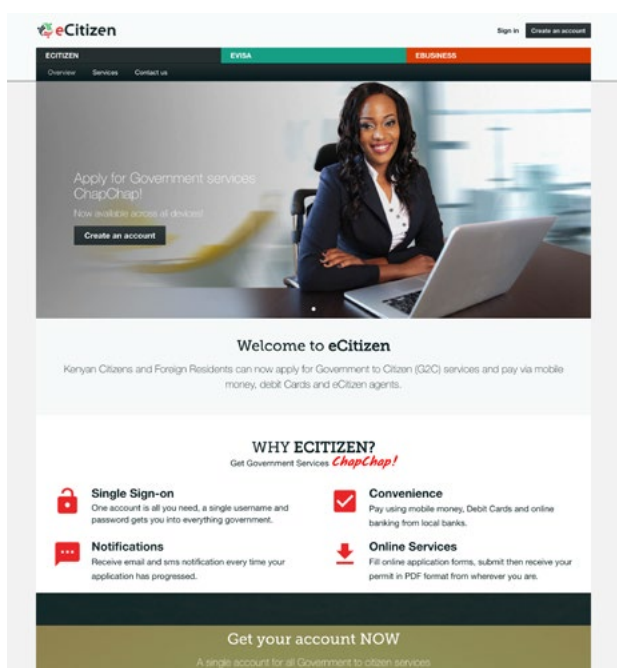
To reap the economic benefits of a functioning loan system and insure against unsustainable levels of personal debt, Anzette Were called for smart and responsive regulation: “even as we drive innovation, it is important that we ensure

consumers are not harmed.” Moves are now being made in this direction, with a new bill being shepherded through the legislature that seeks to allow the Central Bank of Kenya to regulate digital lenders. According to Kevin Mutiso, the chairman of the Digital Lenders Association of Kenya, “it will bring sanity to the industry.”³⁰

“EVEN AS WE DRIVE INNOVATION, IT IS IMPORTANT THAT WE ENSURE CONSUMERS ARE NOT HARMED.

Anzette Were, Senior Economist,
Financial Sector Deepening (FSD) Kenya

WHILE THE UPTAKE OF E-GOVERNMENT SERVICES IN KENYA IS STILL “RELATIVELY LOW” ACCORDING TO THE WORLD BANK, IT HAS INCREASED IN RECENT YEARS.



The eCitizen online hub.

In a bid to increase efficiency and transparency, more and more government services are being delivered online.

The digitalisation of public services has advanced considerably since 2014, when a taskforce on digital payments was formed. In May 2019, the government committed to developing an effective online portal, launching the Kenyan Digital Blueprint at the Transform Africa summit. The first pillar of this plan is digital government.

The current administration has delivered a number of e-government initiatives, including: a new website; an online hub of some 42 services (known as “eCitizen”); an open data platform that contains census data and government reports; and one-stop shops (“Huduma” centres) for those who need tailored support to access online services.³¹ In 2016, the Kenya National Bureau of Statistics conducted a survey of public institutions, finding 43% had implemented e-government initiatives and 21% could handle mobile phone payments.³²

While the uptake of e-digital services in Kenya is still “relatively low” according to the World Bank, it has increased in recent years. The Kenya Revenue Authority’s M-Service offers a case in point: launched in 2014, the mobile app went from handling 1411 payments (KSH 5.23 million) in its first year to 40,000 payments (KSH 71.4 million) in 2016.³³ Since 2015, the proportion of tax revenue submitted through the app has steadily increased, which suggests trust in the service is slowly growing.³⁴

While Kenya boasts many success stories, the digitalisation of some government services has been subject to examples of corruption. Although the Integrated Financial Management Information System was intended to enhance the traceability of government expenditure, the system was open to manipulation, as illustrated by the scandal involving fake payments at the National Youth Service.³⁵

Despite setbacks, the building blocks for e-government are in place and promise to increase accountability and efficiency over time. To accelerate progress, a recent report by the Centre for Global Development Policy recommends that the government refocuses its policy implementation; improves coordination between departments; and addresses connectivity challenges.³⁶



PART B:

IMPACT OF COVID-19 ON TECHNOLOGY IN KENYA

COVID-19 has inspired the expansion of e-commerce; highlighted the importance of mobile money; and prompted technology-enabled health and social welfare interventions

While early estimates suggest funding for start-ups in Africa would fall by 40% in 2020 as a result of COVID-19 and the global economic downturn, the pandemic appears to have accelerated the uptake of technology on the continent and changed perceptions regarding its long-term potential.³⁷ As a result of social distancing requirements, e-commerce, mobile payments and big data analysis have played critical roles in enabling economies to function and governments to respond.

The crisis has accelerated the market penetration of e-commerce in Africa. As established retailers closed and city traffic disappeared following the initial outbreak, online marketplaces were effectively handed an opportunity to prove their worth to house-bound consumers. Jumia, Africa's largest operator, reported unprecedented interest from new potential sellers and Sokowatch, a firm in East Africa digitally linking informal kiosks with products, has boosted its sign-up rate and claimed a larger share of stock in its partner stores.³⁸ According to a report Africa Tech, "These changes are here to stay, online shoppers plan to continue shopping online. So traditional retailers have to change their business models or risk becoming obsolete."³⁹

In addition to e-commerce, the personal and business use of mobile money has been actively promoted over the course of the crisis, given the safety concerns regarding cash. In a move replicated across East Africa, the Central Bank of Kenya waived fees on mobile money transfers under KSH 1,000 in March 2020 to cushion vulnerable households. As a result, the Central Bank estimates that 1.6 million additional customers have used the channel (as of June 2020).⁴⁰ Furthermore, in a bid to aid business continuity, mobile money providers have flexed in significant ways, increasing transaction and balance limits for SMEs and establishing COVID-19-specific loan

facilities.⁴¹ Indeed, as social distancing becomes part of the fabric of life for the foreseeable future, e-commerce and mobile money are likely to cement their increasingly prominent position in economies across Africa.

As well as enabling economic exchange amid a supply and demand shock, mobile technology has served to strengthen health responses and – to some extent – social safety nets. For example, in collaboration with the continent's major mobile networks, the UN Economic Commission for Africa launched The Africa Communications Information Platform in July 2020, which aims to facilitate a two-way information exchange between 600 million phone users and their governments.⁴² Deploying big data analysis, the platform will yield insights regarding the economic and health situation on the continent to enable policymakers to make more informed decisions. For its part, Kenya's Ministry of Health also introduced a web-based application to help trace COVID-19 cases at a county-level, training dedicated officials in the process.⁴³

In an effort to support livelihoods in low-income, rural areas, the government has also committed to rolling out an electronic voucher scheme. Drawing on the World Bank's \$1 billion pandemic-related loan package, the scheme will leverage technology to enhance the targeting of agricultural input subsidies.⁴⁴ Other social welfare interventions of note include organisations like Give Directly transferring mobile money to support households and Grassroots Economics launching a cryptocurrency to supplement depleted incomes in Mukuru Kayaba, a low-income neighbourhood in Nairobi.⁴⁵ Although such schemes have been relatively small-scale during the COVID-19 crisis, they serve to highlight the potential of technology to transform the delivery of socioeconomic support in Kenya over the long-term.



Online shopping in Kenya is on the increase.

While there are several positive stories to tell about the role of technology in Kenya's response to COVID-19, the online economy's fragility was laid bare by the initial shock of the virus, as the country's workforce of on-demand drivers were left unemployed for a period of months and 65,000 listings on Airbnb were unused.⁴⁶ Moreover, as Reuters Institute's Digital News Report (2020) makes clear, messaging platforms like WhatsApp – while vital in terms of connecting communities – may have undermined the public's understanding of COVID-19 by amplifying misinformation.⁴⁷ Indeed, 76% of survey respondents in Kenya were concerned that they were unable to determine what is "fake news".

E-COMMERCE,
MOBILE PAYMENTS
AND BIG DATA
ANALYSIS
HAVE PLAYED
CRITICAL ROLES
IN ENABLING
ECONOMIES
TO FUNCTION.

PART C: CONCLUSION

What might a greater emphasis on technology mean for economic transformation?

Policy currently lags behind technological innovation, hindering the acceleration of progress.

While the agtech ecosystem has been largely commercially led, it requires government oversight. To date, this has not yet been happening. Ewart Salins, General Manager at Dry Associates Investment Bank, observed: “the technology scene in Kenya could be vibrant with multi-billion indigenous companies (...) but (...) there are [policy] gaps regarding access to capital, intellectual property, business literacy and the path to global markets.”. In interviews with Dennis Itumbi (former Secretary of Innovation, Digital and Diaspora Communication), Anzette Were (development economist at FSD Kenya), Patrick Ndeda and Humphrey Wattanga, a variety of these gaps were identified, such as the legal framework governing digital rights, taxation and the registration of innovations; tax incentives; and the limited number of incubator programmes and accelerators.

Lucy Kioko, Deputy Director of Production Services for Gatsby Africa’s Kenya Commercial Forestry Programme (KCFP) and former staff at Agrifin Accelerate, agreed that there has been a lag in policy making, which she argues has been driven in part due to the rapid nature of change in the digital space. She notes that this was also true during the early days of M-PESA, when there was no policy and regulation on digital money transfer in place, including data and consumer protection, but the Central Bank of Kenya was supportive. Regulation and policy had to play catch up. As Jonas Tesfu, CEO and Co-founder of Pangea Accelerator, put it, “If we want a more innovative ecosystem and transformative change, we need to support policy-makers in enabling it to occur.”⁴⁸ This will require closer linkages between technology operators and regulators and the generation of a solid evidence base to guide informed decision-making.

“THE TECH
SCENE IN
KENYA COULD
BE VIBRANT WITH
MULTI-BILLION
INDIGENOUS
COMPANIES...”

Ewart Salins, General Manager, Dry Associates



A farmer using a tablet to help manage crops.

Agtech will be a challenging nut to crack, but there are promising signs of rapid innovation, with export-oriented sectors leading the way.

As this chapter has highlighted, there are some promising signs of innovation, with iProcure, DigiFarm and others driving a host of digitally enabled solutions across Kenya's agricultural landscape. As GSMA notes, Kenya has more agtech enterprises and users than any other Sub-Saharan African country with ... (o)ver 100 solutions are in the market – 31% of operators on the continent.⁴⁹ Nonetheless, the field is fairly nascent. As Lucy Kioko put it, "Agtech is where fintech was ten years ago."⁵⁰ She argues that farmers will need a host of enabling factors - such as good roads, access to quality seed, extension services, and effective logistics and transportation services – for e-commerce platforms to really drive value for farmers moving forward. This is happening in the tea sector, where digital payments and loans are being put into effect with great success, where the sector can leverage its investments in essential primary factors first before utilising tech as an efficiency enabler. With a massive number of new firms entering the market and only a few showing signs of promise in terms of commercial sustainability, impact and scale, there is likely need to greater market consolidation in the near future.

Monetising these platforms in agriculture will not be easy, but there is evidence of a positive trend. For example, in the inputs market, iProcure has been able to utilise a retail management system, offered to 700 agro-dealers for free, as a means of gathering data on their stock flows in order to reduce stock-outs and keep its own supply more efficient, and thus profitable. This type of upstream technological innovation has benefits for farmers in that it ultimately provides them with better access to the products they are demanding. They have been able to benefit from an active field force, highlighting that, inevitably, 'boots on the ground' are needed in some form or other to reach farmers with the full range of services that they need.

Ultimately, technology has a role to play and the ongoing innovations in this space in Kenya will support more rapid progress, but it will need concerted focus on the specific challenges facing each value chain or sub-sector to see full transformation of agriculture, given differences in output markets, issues of price transparency, standards, advice, as well as policy and regulatory barriers to growth.

Chapter Notes

¹ World Bank (2019) Kenya Economic Update: Securing Future Growth – Policies to Support Kenya’s Digital Transformation (English). Washington, D.C.: World Bank Group.

² Ernst and Young (2019) FinTechs in Sub-Saharan Africa: An overview of market developments and investment opportunities. Nairobi: EYGM Limited

³ Interview with the authors

⁴ East Africa Venture Capital Association (2018) Exploring New Frontiers In Fintech Investments in East Africa. Report. Nairobi: EAVCA; Financial Sector Deepening (FSD) Africa; Netherlands Development Finance Company (FMO)

⁵ Shapshak, Toby, (2019) Africa’s Fintech Investment Quadrupled To \$357m In 2018. Forbes. Available at: <https://www.forbes.com/sites/tobyshapshak/2019/07/30/africas-fintech-investment-quadrupled-to-357m-in-2018/?sh=390c8ba562db> (Accessed 12 February 2021)

⁶ Please see the World Economic Forum website for further information on the Technology Pioneers Cohort, accessible here

⁷ Ernst and Young (2019) FinTechs in Sub-Saharan Africa: An overview of market developments and investment opportunities. Nairobi: EYGM Limited

⁸ World Bank (2019a) Kenya Economic Update: Securing Future Growth – Policies to Support Kenya’s Digital Transformation (English). Washington, D.C.: World Bank Group.

⁹ Please see FAO data available here (We note accurate estimates are difficult to make due to the large size of the semi and informal sector).

¹⁰ Interview with the authors

¹¹ Twiga Food raised US\$23.7 million in a Series B round which saw participation from existing investors TLcom Capital, International Finance Corporation and Creadev, and raised an additional US\$6m in debt.

¹² Tsan, Michael, Totapally, Swetha., Hailu, Michael, & Addom, Benjamin (2019) The Digitalisation of African Agriculture Report, 2018-2019. Netherlands: The Technical Centre for Agricultural and Rural Cooperation ACP-EU

¹³ Interview with the authors

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Ibid

¹⁸ GSMA (2019) Improving financial inclusion through data for smallholder farmers in Kenya. Nairobi: GSMA Intelligence

¹⁹ World Bank (2019b) An Analysis of Issues Shaping Africa’s Economic Future. Africa’s Pulse, No. 19, April 2019: Washington, D.C.: World Bank Group.

²⁰ Interview with the authors

²¹ World Bank (2018) A Single Digital Market for East Africa: Presenting a vision, strategic framework, implementation roadmap and impact assessment. Available at: <http://documents1.worldbank.org/curated/en/809911557382027900/pdf/A-Single-Digital-Market-for-East-Africa-Presenting-Vision-Strategic-Framework-Implementation-Roadmap-and-Impact-Assessment.pdf> (Accessed 20 February 2021)

²² East Africa Venture Capital Association (2018) Exploring New Frontiers In Fintech Investments in East Africa. Report. Nairobi: EAVCA; Financial Sector Deepening (FSD) Africa; Netherlands Development Finance Company (FMO)

²³ Kenya National Bureau of Statistics (2019) FinAccess Household Survey – 2019. Nairobi.: National Bureau of Statistics., Central Bank of Kenya, Financial Sector Deepening Trust – Kenya

²⁴ Gwer, Francis., Odero, Jack., & Totolo, Edoardo (2019) Digital credit audit report: Evaluating the conduct and practice of digital lending in Kenya. Nairobi.: Financial Sector Deepening Trust – Kenya

²⁵ Cook, William., & McKay, Claudia (2017) Banking in the M-PESA Age Lessons from Kenya. Working Paper, Washington DC: Consultative Group to Assist the Poor (CGAP)

²⁶ Suri, Tavneet., & Jack, William (2016) The long-run poverty and gender impacts of mobile money. Science. 354:6317, 1288-1292

²⁷ International Finance Corporation (2019) Creating Markets In Kenya: Unleashing Private Sector Dynamism To Achieve Full Potential. IFC Country Private Sector Diagnostic Reports, Washington, DC.: International Finance Corporation

²⁸ Interview with the authors

²⁹ Gwer, Francis., Odero, Jack., & Totolo, Edoardo (2019) Digital credit audit report: Evaluating the conduct and practice of digital lending in Kenya. Nairobi.: Financial Sector Deepening Trust – Kenya

³⁰ Mureithi, Carlos (2021) Kenya is preparing to crack down on a flood of high-interest loan apps. Quartz Africa. Available at: <https://qz.com/africa/1975202/kenya-prepares-to-crack-down-on-high-interest-loan-apps/> (Accessed 24 February 2021)

³¹ Ndung'u, Njuguna (2019) Digital Technology and State Capacity in Kenya. CGD Policy Paper 154. Washington, DC: Center for Global Development.

³² Ibid

³³ Gupta, Sanjeev., Keen, Michael., Shah, Alpa., & Verdier, Geneviève (eds.) (2018) Digital Revolutions in Public Finance. Washington, DC: International Monetary Fund, Publication Services

³⁴ Ibid

³⁵ BBC Africa (2018) Head of Kenya youth agency arrested in \$78m corruption scandal. Available at: <https://www.bbc.co.uk/news/world-africa-44280453> (Accessed 18 February 2021)

³⁶ Ndung'u, Njuguna (2019) Digital Technology and State Capacity in Kenya. CGD Policy Paper 154. Washington, DC: Center for Global Development.

³⁷ Kazeem, Yomi (2020a) African startups funding is set to drop by nearly half in 2020. Quartz Africa. Available at: <https://qz.com/africa/1849312/coronavirus-african-startup-investment-to-slow-down-report/> (Accessed 18 February 2021)

³⁸ Kazeem, Yomi (2020b) African e-commerce is getting a much needed boost from coronavirus lockdowns. Quartz Africa. Available at: <https://qz.com/africa/1855227/africas-e-commerce-boosted-by-coronavirus-lockdowns/> (Accessed 18 February 2021)

³⁹ Bruni, Antonio (2021) On-demand delivery on the rise. Africa Tech. Available at: <https://africabusinesscommunities.com/tech/tech-features/column-antonio-bruni-on-demand-delivery-on-the-rise/> (Accessed 10 March 2021)

⁴⁰ Indeje, David (2020) CBK Extends Mobile Payments Relief Until December 31, 2020. Khusoko. Available at: <https://khusoko.com/2020/06/24/cbk-extends-mobile-payments-relief-until-december-31-2020/> (Accessed 18 February 2021)

⁴¹ Mugema, Berna & Njoro, Lilian (2020) Mobile Money and COVID-19: What can we learn from East Africa? Medium. Available at: <https://medium.com/@acclabs/mobile-money-and-covid-19-what-can-we-learn-from-east-africa-5df456ca907b> (Accessed 18 February 2021)

⁴² Kairu, Pauline (2020) Africa sets up joint tech front in pandemic war. Available at: <https://www.businessdailyafrica.com/corporate/tech/Africa-sets-up-joint-tech-front-in-pandemic-war/4258474-5590040-14lu0on/index.html> (Accessed 18 February 2021)

⁴³ XinhuaNet (2020) Kenya launches web-based app to trace COVID-19 cases. Available at: http://www.xinhuanet.com/english/2020-07/13/c_139209867.htm (Accessed 18 February 2021)

⁴⁴ Amadala, Victor (2020) World Bank approves Sh106 billion loan for Kenya. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-05-21-world-bank-approves-sh106-billion-loan-for-kenya/> (Accessed 18 February 2021)

⁴⁵ BitRSS (2020) How Local Cryptocurrencies Help Kenyans Survive the Coronavirus Crisis. Available at: <https://bitrss.com/news/175725/how-local-cryptocurrencies-help-kenyans-survive-the-coronavirus-crisis> (Accessed 18 February 2021)

⁴⁶ The Standard (2020) Did coronavirus put an end to the sharing economy? Available at: <https://www.standardmedia.co.ke/business/article/2001377917/did-coronavirus-come-to-end-the-sharing-economy> (Accessed 18 February 2021)

⁴⁷ Newman, Nic et al. (2020) Reuters Institute Digital News Report 2020. Available at: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2020-06/DNR_2020_FINAL.pdf (Accessed 18 February 2021)

⁴⁸ Interview with the authors

⁴⁹ GSMA (2020) Digital Agriculture Maps 2020 State of the Sector in Low and Middle-Income Countries. Available at: https://www.gsma.com/r/digital-agriculture-maps/?utm_source=IDH&utm_medium=blog&utm_campaign=DAMs_IDH_site_traffic (Accessed 24 February 2021)

⁵⁰ Interview with the authors



LEGAL TENDER FOR ONE THOUSAND SHILLINGS

SHILLING

THE FIRST PRESIDENT OF KENYA
Mzee JOMO KENYATTA

FOR THE BOARD OF DIRECTORS

[Signature]

GOVERNOR

1000

Finance

A pandemic amidst an imminent debt crunch

PART A: UNDERLYING TRENDS

Owing to unproductive spending and a growing dependence on commercial loans, Kenya is facing a potential debt crisis.

Kenya's debt has been rising since 2013 and growing interest costs are placing downward pressure on government spending.

Kenya's rising debt level has been caused by – among other things – unproductive spending.

Over the long-term, certain factors may help avert a debt crisis, such as the attraction of private sector investment, the discovery of oil and demands from youth for fiscal accountability.

PART B: IMPACT OF COVID-19 ON FINANCE IN KENYA

COVID-19 has placed further strain on Kenya's challenging financial situation.

PART C: CONCLUSION

What might a deeper deficit mean for economic transformation?

Narrowing fiscal space may put political pressure on reform efforts already underway.

Kenya will need investment to boost private sector growth, alleviate fiscal pressure, and put the country on a path to transformative growth.

Channeling appropriate finance requires a clear vision and prioritising strategic projects in the right sectors.

PART A: UNDERLYING TRENDS

Owing to unproductive spending and a growing dependence on commercial loans, Kenya is facing a potential debt crisis.

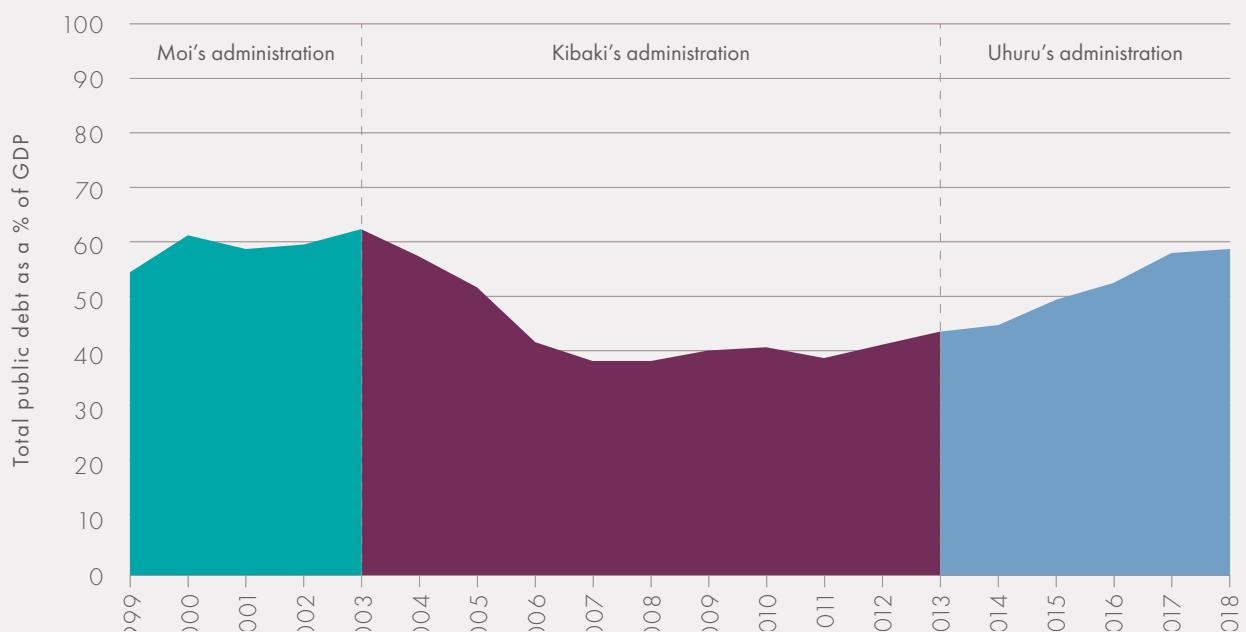
Kenya's debt has been rising since 2013 and growing interest costs are placing downward pressure on government spending

Kenya's debt has been a growing cause of international and local concern, rising from roughly 48% of GDP in 2013/14 to 65% in March 2021 (see Figure 1).¹ In October 2018, the IMF adjusted Kenya's debt risk from "low" to "moderate" and claimed the "higher level of debt, together with rising reliance on non-concessional borrowing, have raised fiscal vulnerabilities."² They have since adjusted this risk level from "moderate" to "high."

The composition of Kenya's external debt has changed significantly in recent years, with a growing share held by commercial banks (see Figure 2). In part, this trend has been triggered by Kenya's "lower middle-income" classification in 2014, which curtailed the country's access to concessionary finance. It has also involved a trend towards preference for syndicated loans, where the current administration accessing nine such loans, as compared to one under previous president Mwai Kibaki. These have been borrowed from Standard Bank, Standard Chartered Bank, Citi Bank, Trade Development Bank (former PTA Bank), Hong Kong & Shanghai Banking Corporation (HSBC), and Qatar National Bank.³

Figure 1

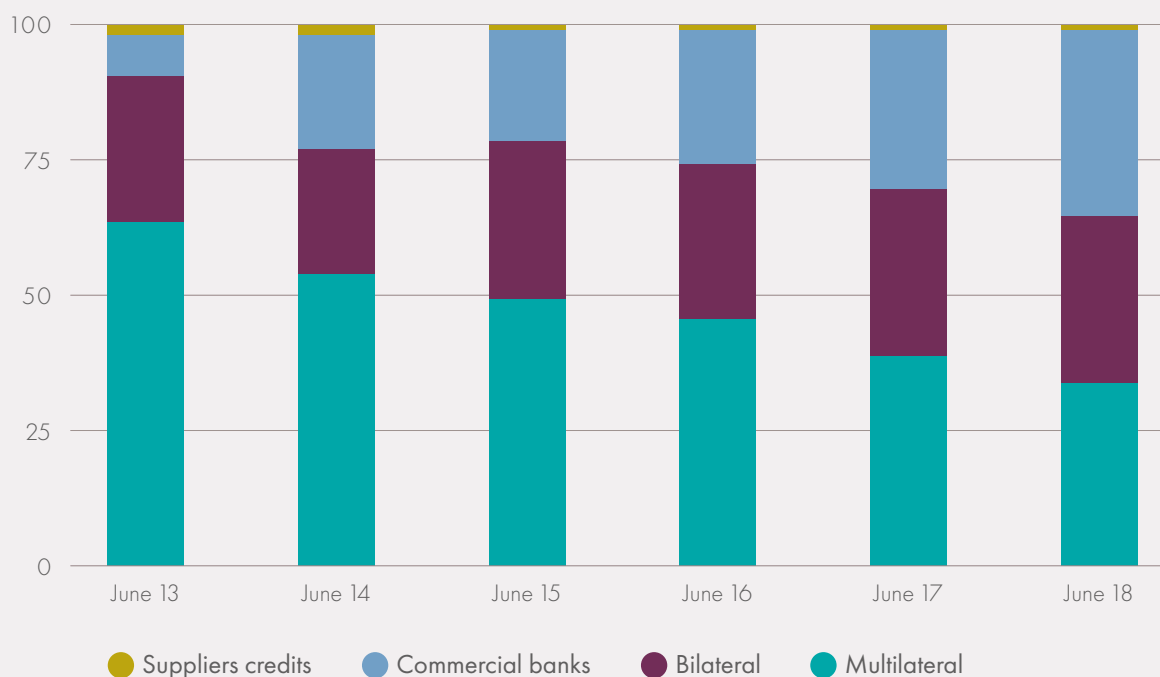
Long-Term Trend in The Share of Kenya's Total Public Debt to GDP (1999–2018)



Source: Institute of Economic Affairs (2019a)

Figure 2

Composition of Kenya's External Debt (2013–2018)



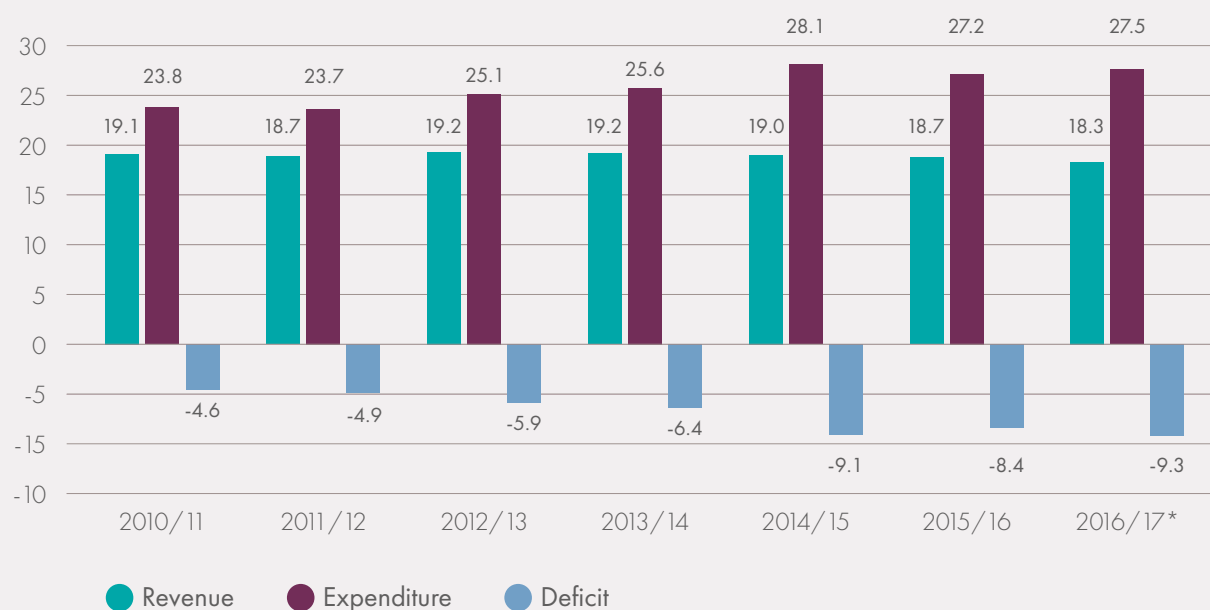
Source: World Bank (2019: 19)

According to the World Bank (2019), 46.4% of Kenya's deficit has been financed by external borrowing, with the current government turning to international capital markets and issuing three significant Eurobonds (\$2 billion in 2014, \$2 billion in 2018 and \$2.1 billion in 2019). This has left Kenya vulnerable to shifts in international markets and exchange rates: as of December 2018, 71.3% of external public debt was denominated in US dollars.⁴

In addition, around 68% of Kenya's bilateral debt now originates from China, most of which has been extended on commercial – or near-commercial – terms.⁵ The risks posed by these commercial loans became apparent in January 2020, following the end of a five-year grace period on the credit provided by China's Exim Bank for the Standard Gauge Railway (SGR). Debt service payments rose 130% in 2019/20, totalling KSH 71.5 billion (up from KSH 31 billion in 2018/2019).⁶ Loan repayments for the project are expected to increase to KSH 84.3 billion in 2020/2021 and to KSH 111.4 billion in 2021/22.⁷ Business Daily has reported that the original loan was offered at an interest rate of 5.6%, which is around 3.6% higher than the six-month average of the London Interbank Offered Rate (LIBOR).⁸

Prior to the COVID-19 crisis, Kenya was approaching a debt to GDP ratio of 60% and – according to economist David Ndii – the country's capacity to service this debt was "approaching distress thresholds."⁹ Ndii outlines how the interest cost of Kenya's debt "has nearly doubled in five years." In addition, foreign debt service costs measured against export earnings have increased five-fold over the same period (rising from 4% to 20% of export earnings).¹⁰

The country's obligation to service its debts is affecting the government's ability to spend on development, which in turn is fuelling public concern. In February 2019, Joshua Musimi, a Director at the Office of the Controller of Budget, regarded the situation as "unsustainable" as the 2019/20 budget allocated KSH 1.1 trillion to servicing debt, an equivalent of 61% of total projected tax collection of Sh 1.87 trillion, leaving just KSH 770 billion to recurrent and development expenditure.¹¹

Figure 3**Expenditure, Revenue & Fiscal Deficit as % of GDP (2010–2017)**

Source: Institute of Economic Affairs (2019b: 9)

Kenya's rising debt level has been caused by – among other things – unproductive spending

According to budgetary analysis conducted by the Institute of Economic Affairs (2019a), government expenditure has expanded from 22.3% of GDP in 2008/09 to 27% in 2017/18. In recent years, spending has significantly outstripped revenue collection (see Figure 3).

In Kenya, government expenditure is mostly dedicated to recurrent costs – such as the public sector wage bill – rather than development projects.¹² In an interview for this report, Ewart Salins, General Manager at Dry Associates Investment Bank, suggested a “bloated civil service (...) at central and country level” plus “fiscal leakages” are driving unproductive spending.

Analysis conducted by the World Bank (2019) supports this view and the report arrives at the following recommendation: “improving public wage bill management is imperative [in order] to create the needed fiscal space to fund public programmes.” As a percentage of GDP, the country’s public wage bill is higher than regional neighbours and every expenditure category – including basic salary, employment allowances and pension benefits – which have all risen between 2013/14 and 2017/18.¹⁴ According to the report, this growth has been driven by a rise in the average wage per worker

and an increase in overall headcount (especially at county level following devolution, an issue we explore in our chapter on politics). In a bid to control the wage bill, reforms were introduced in 2019, including the introduction of three-year renewable contracts for new civil servants.¹⁵

In large part, the government has justified the country’s borrowing and spending on the basis that public investment in large-scale infrastructure will facilitate long-term economic growth, which will in turn finance debts.¹⁶ While Kenya’s GDP growth has maintained a strong trajectory in recent years, many large-scale public projects have been “politically-driven and of questionable economic viability”, according to Mathias Muindi, a political risk analyst.¹⁷ For example, as previously illustrated, the Standard Gauge Railway is often cited as an example of a large-scale public project with inflated costs and debatable economic returns. Financed by China, the first phase of the railway line from Mombasa to Nairobi was estimated to cost \$3.6 billion. However, in April 2019 China refused to provide a further \$3.7 billion to extend the line from Naivasha to the border with Uganda. According to John Mutua, an economist at the Institute of Economic Affairs in Kenya, “China shied away from the extension because they had questions about its commercial viability.”¹⁸ This indicates a shift in the nature of Chinese financing on large-scale infrastructure projects, from a flexible model to one that takes a closer look at the long-term financial viability of the projects it is funding.

*The viaduct of the Nairobi railroad to Mombasa
in the savannah of Nairobi Park in central Kenya*



Over the long-term, certain factors may help avert a debt crisis, such as the attraction of private sector investment, the discovery of oil and the demand for fiscal accountability.

While Kenya's economy has been growing at a rate of 5%+ in recent years, the contribution of private sector investment remains small and in decline, falling from 1.3% of GDP in 2009-2013 to 0.3% in 2013-2017. There is evidence to suggest such investment has been crowded out by increases in public sector borrowing. In a recent opinion piece for *The Elephant*, David Ndii highlighted this clearly with analysis into Kenya's commercial banking sector. He noted that between 2013-2018, the contribution of government securities to bank profits increased from 37% to 108%, while in 2017 the sector saw a 40% drop in profits overall due to the imposition of an interest rate cap in late 2016 (see chart below).¹⁹ Ndii summed up the situation nicely: "With so much money to spend liberally, trading with the government becomes the most profitable business, diverting other economic services away from, and inflating the costs for the private sector."

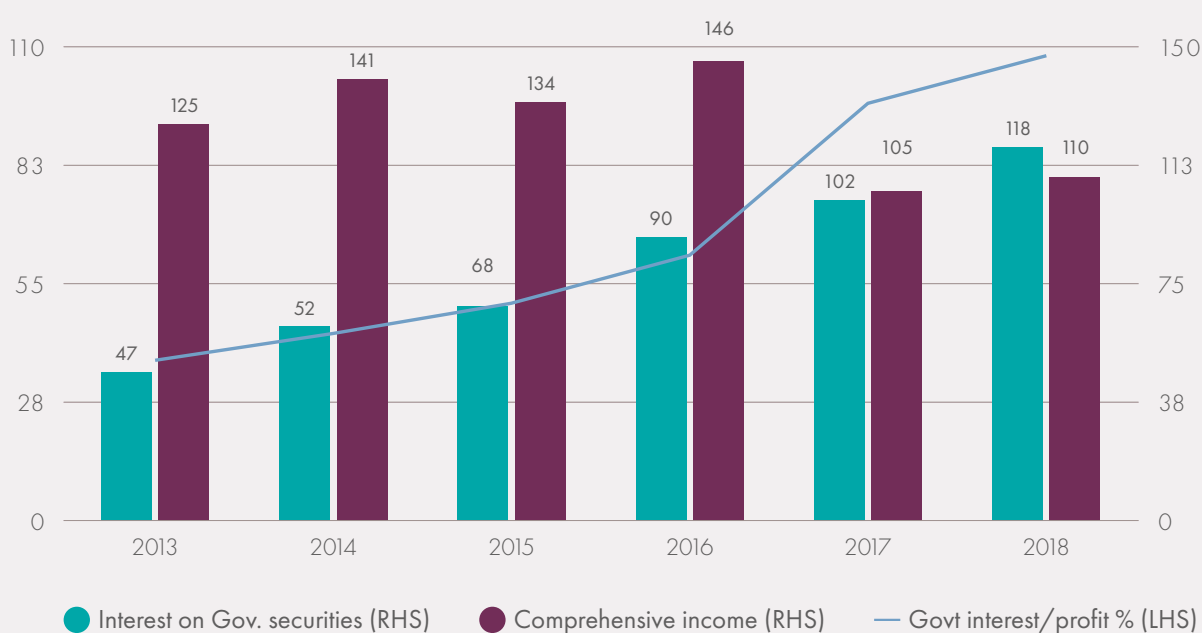
In an interview for this report, Kwame Owino, CEO of the Institute of Economic Affairs in Kenya, highlighted the vital role private sector investment must play in sustaining

growth and ensuring fiscal stability: "Kenya cannot develop without foreign direct investment (FDI). [At the moment] firms in Kenya are too focused on being brokers to government to really enhance productivity. Ideally, Kenya [requires] \$5 to \$10 billion a year but this is not currently a realistic target." According to the World Bank (2020), FDI in Kenya amounted to \$1.6 billion in 2018. However, recent developments suggest the government is making a concerted effort to support foreign investment in the private sector. For example, in early 2020 the Kenya Investment Agency proposed to fast track citizenship for credible foreign investors.²⁰

Moreover, the repeal of the interest rate cap in November 2019 represents a positive signal for the country's domestic investors. Introduced in 2016, the cap set a ceiling on loan rates (4% above the Central Bank of Kenya's rate). As noted, the cap exacerbated a long-term trend of weak lending to the country's private sector. Smaller banks were hit hardest by the rule change and lending to SMEs effectively collapsed due to the cap. Indeed, the IMF indicated in 2018 that Kenya must substantially modify or remove the interest rate cap in order for a standby facility to be extended.²¹ The recent repeal of the cap is expected to inject confidence into commercial banks, widen credit access for SMEs and boost private sector growth.²² However, it is worth watching if interest rates rise rapidly as a result, putting a further squeeze on struggling SMEs.²³

Figure 4

Kenya banking industry profits and government securities interest income trend, Ksh.b



Source: Ndii, David (2020) *Of Tigers, Debt Merchants and 2020 Vision*. *The Elephant*.



Workers walk past storage tanks at Tullow Oil's Ngamia 8 drilling site in Lokichar, Turkana County, Kenya

In support of a positive outlook, some commentators argue Kenya's recent discovery of 600 million barrels of oil in Turkana has the potential – over the long-term – to strengthen growth and ease the debt situation. Fuelling excitement over the sector's potential, Kenya completed its first export of oil in August 2019, a cargo of 240,000 barrels dispatched from the port of Mombasa under the Early Oil Pilot Scheme. While the delivery of meaningful export volumes will take time, oil exports are expected to improve Kenya's foreign currency and fiscal position in 10+ years – provided the government does not extensively borrow against future revenues.²⁴ However, the economic benefit will only serve a generation: while Kenya will earn roughly KSH 6.4 trillion from the oil in Turkana (c. KSH 280 billion p.a.), the reserves will be depleted in 23 years.²⁵ Benefits also need to be considered in conjunction with the government's efforts to mitigate against climate change and a growing emphasis on divestment from the sector, emerging trends we touch on in further detail in the environment chapter of this report.

In Kenya, the consistent mismatch between public spending and revenue collection indicates there is a structural issue with the budget process. According to Caesar Mwangi, a Director at ICEA Lion Group, a change in trajectory will require public pressure and the implementation of a longer-term political agenda: "we need a government with a long-term outlook. At present, policies and investments are made for five-year cycles."

Highlighting the positive political role the country's growing youth population may play, experts interviewed for this report expressed optimism regarding the fiscal situation. Indeed, greater public awareness and pressure is expected to result in fiscal policy decision-makers addressing the various drivers of debt over the long-term. Jared Kangwana, a former member of the East African Legislative Assembly, observed that "people will stand firm until the leaders come to their senses." In addition, Kennedy Odede, Co-Founder of Shining Hope for Communities, stated: "the debt position will be resolved in the next 10–15 years. The solution is the youth who demand accountability."

PART B:

IMPACT OF COVID-19 ON FINANCE IN KENYA

COVID-19 has placed further strain on Kenya's challenging financial situation.

The COVID-19 pandemic has significantly impacted economies in Africa: at the start of the crisis the IMF projected a 1.5% drop in the continent's GDP for 2020, as lockdowns, border closures and logistical bottlenecks stifled the exchange of goods and services.²⁶ The reduction in economic activity across Africa is set to have major implications for government budgets: over the course of 2020, the UN Conference on Trade and Development estimated public revenue on the continent would shrink by 5%.²⁷ Adopting a long-term perspective, the Institute for Security Studies (2020) believes the size of Africa's economy in a decade might be between \$349–\$643 billion smaller than what was forecast prior to the pandemic, with GDP per capita only recovering to pre-COVID-19 levels in 2024. While some economies have recovered faster than this initial projection, the long-term impacts of the pandemic on the continent going forward remains to be seen.

In Kenya, the crisis emerged at a time when – according to Oxfam, Christian Aid and Global Justice Now (2020) – the government was set to spend considerably more on servicing its debts in 2020 (\$2.7 billion) than on public healthcare (c. \$1.86 billion p.a. in recent years). Unsurprisingly, COVID-19 has placed further strain on the country's challenging financial situation: as of July 2020, Kenya's debt surpassed KSH 6.6 trillion (up from KSH 6 trillion in December 2019) and the Treasury believes annual debt repayments will exceed KSH 1 trillion in 2021/2022 (up from KSH 227.58 billion in 2013/14).²⁸ These developments and the likelihood of dampened growth over a prolonged period have prompted credit agencies like S&P Global Ratings and Moody's to downgrade Kenya's outlook from stable to negative.²⁹

In the wake of the COVID-19 outbreak, the government is in this position owing to a combination of...

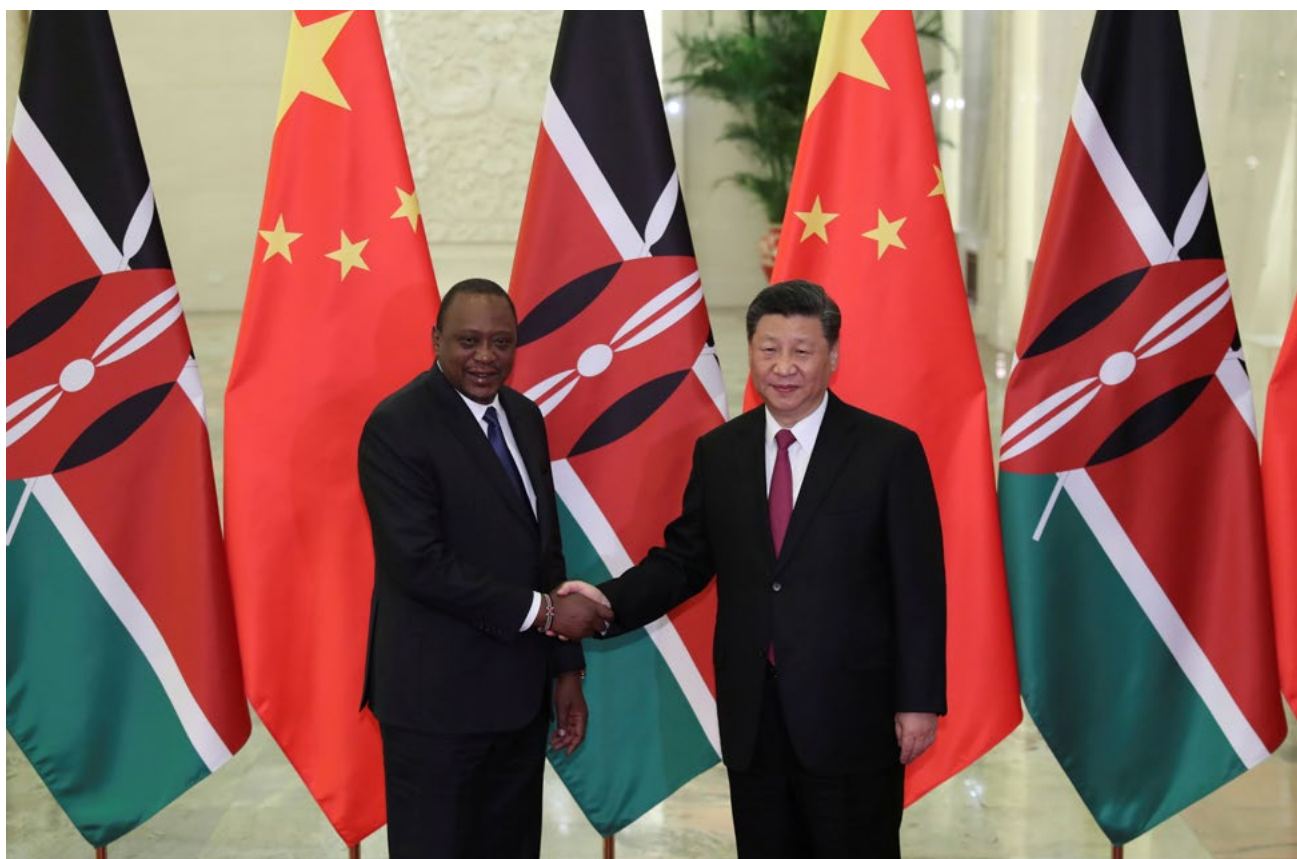
- ...increased public spending (e.g. as part of the 2020/21 budget, the government has instituted a wide-ranging stimulus package worth KSH 53.7 billion, which will support – inter alia – digital skills programmes, the health system, the tourism sector, manufacturers, climate initiatives, agribusiness and smallholders).³⁰
- ...lost tax receipts (e.g. the Parliamentary Budget Office estimates that the government's COVID-19-related tax measures – such as the 2% reduction of VAT and the 5% cut of the top band rate - cost the public purse KSH 122.2 billion over the course of April – June 2020) while have a regressive impact on taxation overall.³¹
- ...and extensive borrowing (e.g. the IMF and World Bank have transferred loans of KSH 79.6 billion and KSH 107.7 billion respectively to bolster the budget and augment the health response).³²

In a bid to alleviate the immediate financial pressure, Kenya has largely focused on securing debt relief from its largest creditor, China, rather than seeking multilateral support.³³ For example, Kenya has refused to sign up to the G20 initiative regarding the temporary suspension of payment obligations, citing concerns that the deal would negatively impact the country's credit rating and curtail its access to international capital markets.³⁴ China initially resisted the country's bilateral advances, claiming an agreement would dishonour G20 conditionalities on debt relief. However, in January 2021, Kenya received a \$245 million debt referral from China, easing financial pressure on the country slightly.³⁵

While COVID-19 has severely weakened Kenya's already strained public finances for the foreseeable future, aspects of the financial situation have been more positive. For example, the Central Bank of Kenya estimates that the current account deficit will remain stable this year at 5.8% of GDP.³⁶ According to the institution, the low cost of oil will "more than offset" the negative impact on exports and remittances (remittances – Kenya's leading foreign exchange earner – may fall by 12% this year as the diaspora struggle amid a global economic downturn).³⁷

Moreover, while the profits of commercial banks dropped 7.7% in the first quarter of 2020/21 compared to the first quarter of 2019/20, the sector was able to rapidly restructure KSH 679.6 billion in personal and corporate loans as the pandemic took hold. According to Khusoko (2020), domestic banks have exhibited resilience in the face of COVID-19, owing to relatively strong liquidity buffers and effective monetary easing.

IN A BID TO ALLEVIATE THE IMMEDIATE FINANCIAL PRESSURE, KENYA HAS LARGELY FOCUSED ON SECURING DEBT RELIEF FROM ITS LARGEST CREDITOR, CHINA



Kenyan President Uhuru Kenyatta with Chinese President Xi Jinping

PART C: CONCLUSION

What might a deeper deficit mean for economic transformation?



A farmer tends to his crops near Mount Elgon National Park, Kenya

Narrowing fiscal space may put political pressure on reform efforts already underway.

As this chapter will have made clear, the Government of Kenya's financial position is precarious and deteriorating, with an increasing proportion of government spending going to debt repayment and payroll over development spending on healthcare, infrastructure, and education. Indeed, Nation has recently reported that the country will need to lift its current KSH 9 trillion debt ceiling to KSH 12 trillion for FY 2021–2022.³⁹ As recently as September 2020, Business Daily had reported that it would take two years to hit this ceiling, indicating how quickly the situation is evolving.⁴⁰

While the trend is undoubtedly a troubling one, narrowing fiscal space may also be seen as a force for increased political pressure on reform efforts in the short to medium

term. For example, the World Bank was able to push through the use of an electronic voucher system to better target the country's agricultural inputs subsidy programme as a requirement for a \$1 billion COVID-19 loan facility, greatly reducing the scope for rent capture in the system.⁴¹ Related, the National Cereals and Production Board had its price-setting function for key commodities such as maize, revoked in a bid to reduce instances of corruption and cartel behaviour.⁴² More recently, there has been a concerted reform drive in the coffee and tea sectors, with a new Tea Board being established, and the digitalisation of tea and coffee auctions.⁴³ These efforts all have clear and explicit presidential backing. Going forward, this trend is likely to continue as political pressure to block reform is overridden by the financial imperative to cut unproductive spending. However, an important countertrend to watch is the unfolding of the Building Bridges Initiative, which if successful, is likely to increase the size and cost of government.⁴⁴

Kenya will need investment to boost private sector growth, alleviate fiscal pressure, and put the country on a path to transformative growth.

Dirk Willem te Velde, Head of the International Economic Development Group at the Overseas Development Institute (ODI), noted that, “If a government has the right vision and good projects, then finance will come.”⁴⁵ To date, this has not always been the case, with the SGR as a prime example mentioned earlier in this paper. Antoinette Tesha, Textiles & Apparel Director at Msingi East Africa, noted: “We definitely need these large-scale infrastructure projects. However, the important thing is that we need to get the price right and ensure we are focusing on the right projects.”

On the positive side, we can see some examples of investments going into previously underserved areas. For example, the World Bank recently announced \$750 million to support the upgrade of 365 km of the Isiolo-Mandera Regional Road Corridor, a major transport route linking to the country’s northeast to the rest of the country.⁴⁶ The government is also turning to alternative financing models to pay for large-scale projects, such as the Nairobi Expressway, which will connect Jomo Kenyatta International Airport to the Nairobi-Nakuru highway. This project is being financed by a private-public partnership involving the offer of a 27-year lease to the China Road and Bridge Corporation (CRBC), who will cover their investment by operating a toll service until the road is transferred into state ownership.⁴⁷

Channeling appropriate finance requires a clear vision and prioritising strategic projects in the right sectors.

Dirk Willem te Velde emphasised the importance of sector targeting in Kenya’s public financing agenda: “If you’re thinking through current crisis, and better recovery, you need to think about diversification and getting into more complex value chains. More targeting is needed, and public financing has a role to play here.” This means channelling scarce public financing to projects targeting key sectors with the potential to crowd in foreign investors and create spill-over benefits for the wider economy.

Unfortunately, foreign direct investment in particular is still being driven towards a smaller number of capital, rather than employment intensive sectors. According to the IFC this has been focused in ICT, real estate, banking, retailing, power generation, oil exploration, and mining in recent years.⁴⁸ The type of financing required to drive inclusive growth in Kenya, i.e. that which is channelled to businesses with high-growth potential in sectors that can generate mass employment like manufacturing and agricultural, is often unavailable due to a risk profile that is unappealing to commercial sources of finance.⁴⁹ Going forward, Kenya will need to unlock patient capital in these sectors to ignite employment-intensive growth.



A train at its platform on Nairobi Terminus just before departure to Mombasa.

Chapter Notes

¹ World Bank (2019) Kenya Public Expenditure Analysis 2019: Creating Fiscal Space to Deliver the Big Four While Undertaking a Needed Fiscal Consolidation. World Bank. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/32252/Kenya-Public-Expenditure-Analysis-2019-Creating-Fiscal-Space-to-Deliver-the-Big-Four-while-Undertaking-a-Needed-Fiscal-Consolidation.pdf?sequence=1&isAllowed=y> (Accessed 14 January 2021); Business Daily (2021 a) Kenya's Debt Bigger than Reported. Available at: <https://www.businessdailyafrica.com/bd/opinion-analysis/columnists/kenya-s-debt-bigger-than-reported-3300678> (Accessed 8 March 2021)

² Fick, Maggie (2018) IMF Bumps Kenya's Debt Distress Risk to Moderate from Low. Reuters. Available at: <https://af.reuters.com/article/investingNews/idAFKCN1MY178-OZABS> (Accessed 24 January 2020)

³ Business Daily (2021) IMF: Kenya risks Eurobond access over debt pile up. Business Daily. Available at: <https://www.businessdailyafrica.com/bd/economy/imf-kenya-risks-eurobond-debt-pile-up-3248298> (Accessed 14 January 2021)

⁴ World Bank (2019) Kenya Public Expenditure Analysis 2019: Creating Fiscal Space to Deliver the Big Four While Undertaking a Needed Fiscal Consolidation. World Bank. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/32252/Kenya-Public-Expenditure-Analysis-2019-Creating-Fiscal-Space-to-Deliver-the-Big-Four-while-Undertaking-a-Needed-Fiscal-Consolidation.pdf?sequence=1&isAllowed=y> (Accessed 14 January 2021)

⁵ Ibid.

⁶ Okoth, Edwin (2020) Burden on Taxpayers as Treasury Starts Repayment of SGR Loan. Business Daily. Available at: <https://www.businessdailyafrica.com/economy/Burden-on-taxpayers-as-Treasury-starts-repayment-of-SGR-loan/3946234-5404862-gncuxy/index.html> (Accessed 24 January 2020)

⁷ Ibid.

⁸ Ibid.

⁹ Interview for this publication

¹⁰ Ibid

¹¹ Igadwah, Lynet (2019) Controller of Budget Says Kenya in Debt Crisis as Loans Gobble Up Sh 1.1trn Tax. Business Daily. Available at: <https://www.businessdailyafrica.com/economy/Kenya-debt-crisis-budget-controller/3946234-4993976-d0ht9wz/index.html> (Accessed 24 January 2020)

¹² World Bank (2019) Kenya Public Expenditure Analysis 2019: Creating Fiscal Space to Deliver the Big Four While Undertaking a Needed Fiscal Consolidation. World Bank. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/32252/Kenya-Public-Expenditure-Analysis-2019-Creating-Fiscal-Space-to-Deliver-the-Big-Four-while-Undertaking-a-Needed-Fiscal-Consolidation.pdf?sequence=1&isAllowed=y> (Accessed 14 January 2021)

¹³ Ibid.

¹⁴ <https://horizon-ea.com/wp-content/uploads/2020/12/Horizon-Kenya-Politics.pdf>

¹⁵ Muchira, Njiraini (2019) Kenya Moves to Tame Rising Wage Bill with Three-year Contracts. The East African. Available at: <https://www.theeastafrican.co.ke/business/Kenya-moves-to-tame-rising-wage-bill/2560-5171036-fa601rz/index.html> (Accessed on 24 January 2020)

¹⁶ Iruobe, Emmanuel (2015) Standard Gauge Railway to Raise Kenya's GDP by 1.5 Percent. African Ventures. Available at: <http://venturesafrica.com/kenya-commences-the-distribution-of-hiv-prevention-drug-to-vulnerable-citizens/> (Accessed 10 February 2020); Gicobi, Marianne (2018) Big Four Agenda at Core of Kenya Spending, to Spur Economic Growth. The East African. Available at: <https://www.theeastafrican.co.ke/business/Big-Four-Agenda-at-core-of-Kenya-spending/2560-4616020-jxd2fa/index.html> (Accessed 10 February 2020)

¹⁷ Interview for this publication

¹⁸ Hairsine, Kate, & Wasike, Andrew (2019) Kenya Struggles to Manage Debt for Railway to "Nowhere". Deutsche Welle. Available at: <https://www.dw.com/en/kenya-struggles-to-manage-debt-for-railway-to-nowhere/a-50887431> (Accessed 24 January 2020)

¹⁹ Ndii, David (2020) Of Tigers, Debt Merchants and 2020 Vision. The Elephant. Available at: <https://www.theelephant.info/op-eds/2020/01/10/of-tigers-debt-merchants-and-2020-vision/> (Accessed 14 January 2021)

²⁰ Under the proposed framework, qualifying investors would be issued with a green card (i.e. permanent residency) following an assessment and would then be automatically eligible for citizenship and a passport in Kenya.

²¹ Smith, Elliot (2019) Kenya Scraps its Bank Lending Cap and Grants The IMF its Wish. CNBC. Available at: <https://www.cnbc.com/2019/11/12/kenya-scraps-its-bank-lending-cap-and-grants-the-imf-its-wish.html> (Accessed 24 January 2020)

²² Guguyu, Otiato (2020) Bankers Cagey on Loans Pricing Plan After End of Rate Cap. Business Daily. Available at: <https://www.businessdailyafrica.com/economy/Bankers-cagey-on-loans-pricing-plan-after-rate-cap-repeal/3946234-5404630-nofrjm/index.html> (Accessed 24 January 2020)

²³ African Business (2020) Available at: <https://african.business/2020/03/economy/how-is-repeal-of-interest-rate-cap-affecting-kenyas-economy/> (Accessed 8 March 2021)

²⁴ Kenya Institute for Public Policy Research and Analysis (KIPPRA) (2019) Kenya's Oil Exports. Nairobi: KIPPRA

²⁵ Wafula, Paul (2016) Turkana Oil to earn Kenya Sh6.4trn in 23 Years. Standard Media. Available at: <https://www.standardmedia.co.ke/article/2000197510/turkana-oil-to-earn-kenya-sh6-4-trillion-in-23-years> (Accessed 24 January 2020)

²⁶ Akiwumi, Paul (2020) COVID-19: A Threat to Food Security in Africa. OECD Development Matters. Available at: <https://oecd-development-matters.org/2020/08/11/covid-19-a-threat-to-food-security-in-africa/> (Accessed 16 September 2020)

²⁷ Ibid.

²⁸ Gitonga, Samuel (2020) Kenya's Debt Hits Sh6.6trn. Business Today. Available at: <https://businesstoday.co.ke/central-bank-of-kenya-cbk-central-bank-of-kenya/> (Accessed 16 September 2020)

²⁹ Indeje, David (2020a) S&P Downgrades Kenya's Outlook to Negative External Debt. Khusoko. Available at: <https://khusoko.com/2020/07/15/sp-downgrades-kenyas-outlook-to-negative-external-debt/> (Accessed 16 September 2020)

³⁰ Herbling, David (2020) Kenya Plans \$503 Million Economic Stimulus to Battle Virus. Bloomberg. Available at: <https://www.bloomberg.com/news/articles/2020-05-19/kenya-plans-503-million-economic-stimulus-to-battle-virus> (Accessed 16 September 2020)

³¹ Mutua, John (2020) MPs Ask Yatani to Seek Foreign Debts Reprieve on Interest Pay. Business Daily. Available at: <https://www.businessdailyafrica.com/economy/>

[MPs-ask-Yatani-to-seek-foreign-debts-reprieve-on-interest-pay/3946234-5547942-13jvbuq/index.html](https://www.businessdailyafrica.com/economy/MPs-ask-Yatani-to-seek-foreign-debts-reprieve-on-interest-pay/3946234-5547942-13jvbuq/index.html) (Accessed 16 September 2020)

³² For information regarding the IMF's loan, see Wafula, Paul (2020) Kenya to Get Sh77b IMF Loan for COVID-19. Nation. Available at: <https://nation.africa/kenya/news/kenya-to-get-sh79b-imf-loan-for-covid-19-289344> (Accessed 16 September 2020); For information regarding the World Bank's loan, see Amadala, Victor (2020a) World Bank Approves Sh106b Loan for Kenya. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-05-21-world-bank-approves-sh106-billion-loan-for-kenya/> (Accessed 16 September 2020)

³³ Wambu, Wainaina (2020) Kenyan Government Still Negotiating with China on Debt Holiday. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001374574/government-in-talks-with-china-over-debt-relief> (Accessed 16 September 2020)

³⁴ Miriri, Duncan (2020) Kenya Eschews G20 Debt Relief Initiative Over Restrictive Terms. Reuters. Available at: <https://www.reuters.com/article/us-health-coronavirus-kenya-exclusive/exclusive-kenya-eschews-g20-debt-relief-initiative-over-restrictive-terms-idUSKBN22R25A?il=0> (Accessed 16 September 2020)

³⁵ Herbling, David (2021) China Delays \$245 Million of Kenyan Government Debt Payments. Bloomberg. Available at: <https://www.bloomberg.com/news/articles/2021-01-20/china-allows-kenya-to-delay-245-million-jan-june-debt-payments> (Accessed 8 March 2021)

³⁶ Indeje, David (2020b) Kenya's Current Account Deficit Remains Stable at 5.8%. Khusoko. Available at: <https://khusoko.com/2020/05/27/kenyas-current-account-deficit-remains-stable-at-5-8pct/> (Accessed 16 September 2020)

³⁷ Amadala, Victor (2020b) 75% of Small, Medium Businesses at Risk of Collapsing by June – CBK. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-05-28-75-of-small-medium-businesses-at-risk-of-collapsing-by-june-cbk/> (Accessed 16 September 2020)

³⁸ For a comparison of Q1 2019/20 and Q1 2020/21, see Sunday, Frankline (2020) Bank Profits Fell by 8% in 3 Months. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001376950/bank-profits-fell-by-8pc-in-3-months> (Accessed 16 September 2020); For information regarding the restructuring of loans in Kenya post-COVID-19, see Mwitwa, Martin (2020) CBK Retains Base Lending Rate at

7%. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-06-25-cbk-retains-base-lending-rate-at-7-percent/> (Accessed 16 September 2020).

³⁹ Njau, Salaton (2020) Treasury Mulls Debt Ceiling Boost as the Coffers Run Dry. Available at: <https://nation.africa/kenya/business/treasury-mulls-debt-ceiling-boost-as-the-coffers-run-dry-3247286> (Accessed 18 January 2021)

⁴⁰ Business Daily (2020a) Treasury to hit Sh9 trillion debt ceiling in two years. Business Daily. Available at: <https://www.businessdailyafrica.com/bd/markets/market-news/treasury-to-hit-sh9-trillion-debt-ceiling-in-two-years-2301344> (Accessed 18 January 2021)

⁴¹ World Bank (2020b) World Bank Approves \$1 Billion Financing for Kenya, to Address COVID-19 Financing Gap and Support Kenya's Economy. Press release. Available at: <https://www.worldbank.org/en/news/press-release/2020/05/20/world-bank-approves-1-billion-financing-for-kenya-to-address-covid-19-financing-gap-and-support-kenyas-economy> (Accessed 12 November 2020)

⁴² National Cereal Production Board (2020) National Cereal and Production Board Ungoes Reform. NCPB website. Available at: <https://www.ncpb.co.ke/2020/08/13/national-cereals-and-produce-board-undergoes-reforms/> (Accessed 18 January 2021)

⁴³ Business Daily (2021) Agriculture reforms kick into high gear as State confronts cartels. Business Daily. Available at: <https://www.businessdailyafrica.com/bd/data-hub/agriculture-reforms-state-confronts-cartels-3246220> (Accessed 18 January 2021)

⁴⁴ This issue is discussed further in our chapter on politics: <https://horizon-ea.com/kenya-political/>

⁴⁵ Interview for this publication

⁴⁶ World Bank (2020c) Kenya Secures the First Horn of Africa Initiative Project to Boost Regional Integration and National Development. Press Release: 2020/034/AFR. Available at: <https://www.worldbank.org/en/news/press-release/2020/09/08/kenya-secures-the-first-horn-of-africa-initiative-project-to-boost-regional-integration-and-national-development> (Accessed 18 January 2021)

⁴⁷ Business Daily (2020b) Private Firm to Pick Toll Fees on Nairobi Expressway for 27 years. Available at: <https://www.businessdailyafrica.com/bd/economy/private-firm-to-pick-toll-fees-on-nairobi-expressway-for-27-years-2298884> (Accessed 19 January 2021)

⁴⁸ International Finance Corporation (2019) Country Private Sector Diagnostic: Creating

Markets in Kenya. Available at: <https://www.ifc.org/wps/wcm/connect/9cdd17da-fccb-4ca8-a71c-ea631593463a/201907-CPSD-Kenya.pdf?MOD=AJPERES&CVID=mMGBDRv> (Accessed 8 March 2021)

⁴⁹ We explore this theme in-depth in a recent Gatsby Africa-funded paper on the role finance can play in the growth and transformation of sectors: <https://www.gatsby.org.uk/uploads/africa/reports/pdf/2019-development-finance-for-agriculture-gatsby-africa-wellspring-cepa.pdf>

Concrete pillars are erected as part of the construction of the Nairobi Expressway





Trade

In an uncertain time, Kenya looks closer to home for partners

PART A: UNDERLYING TRENDS

Kenya has the potential to benefit from a growing commitment to intra-African trade.

While Kenya remains a key trading partner in the East African Community (EAC) and wider continent, neighbours (e.g. Rwanda & Ethiopia) are catching up fast. In part, this increased competition explains Kenya's recent decline in export earnings from African trade.

Within the EAC, integration is being driven by the private sector and inhibited to some extent by a lack of government support.

While the African Continental Free Trade Area (AfCFTA) could drive transformative growth in Kenya, significant logistical and political challenges will need to be overcome.

Fueled in part by Brexit and an administration change in the US, Kenya's trade relations with traditional partners are undergoing transition.

Until recently, Kenya was struggling to agree trading relations with EU & UK owing to intra-EAC tension. This has been revitalised somewhat following new free trade agreements.

While the value of Kenya's exports to new partners like China is growing, the potential for scaling such trading relationship may be limited by fierce global competition.

PART B: IMPACT OF COVID-19 ON TRADE IN KENYA

Following an initial shock, Kenya's global exports have performed surprisingly well amidst disruptions from COVID-19. However, imports and regional trade have been significantly affected.

PART C: CONCLUSION

What might a post-COVID-19 trading order mean for economic transformation?

Kenya needs to harness its agricultural sector in order to drive export performance.

Harnessing opportunities in global value chains such as textiles & apparel may require further regional integration moving forward.

PART A: UNDERLYING TRENDS

Kenya has the potential to benefit from a growing commitment to intra-African trade.

While Kenya remains a key trading partner in the East African Community (EAC) and wider continent, neighbours (e.g. Rwanda & Ethiopia) are catching up. In part, this increased competition explains Kenya’s recent decline in export earnings from African trade.

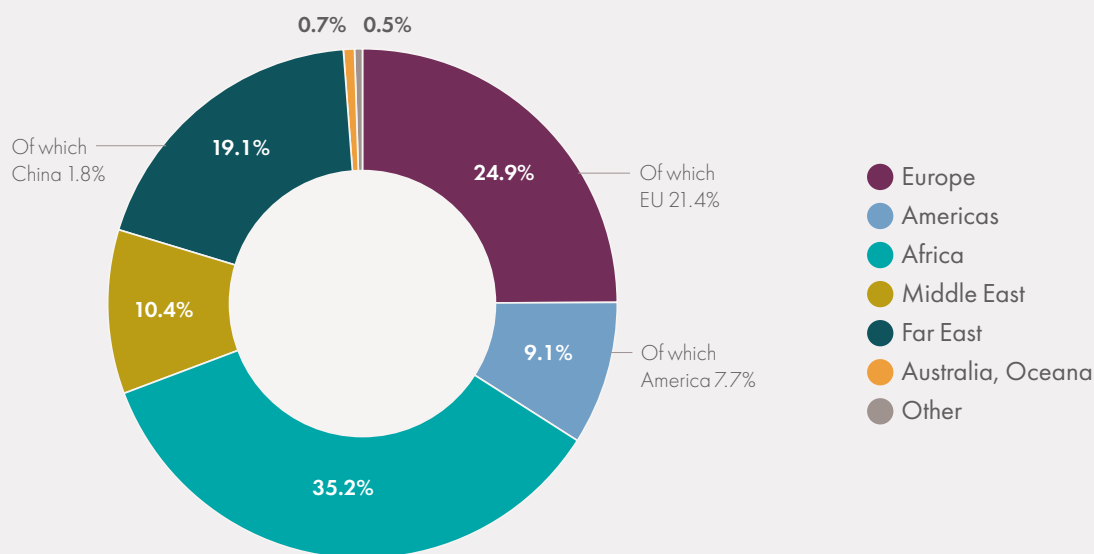
Kenya is a key trading partner in Africa, particularly for the landlocked countries of the East African Community. Historically, Kenya has played a dominant role in the bloc, accounting for c. 64% of the EAC’s exports of apparel, pharmaceuticals, leather and construction goods (e.g. cement and glass) from 2007 to 2016.¹ Trade within Africa is critical for Kenya. According to the Kenya National

Bureau of Statistics (2019b), in 2018 intra-continental trade accounted for the largest share of the county’s export earnings (35.2% or KSH 216 billion), with intra-EAC trade making up 59.7% of these earnings (or KSH 129 billion) (see Figure 1).

Although Kenya remains responsible for a large share of trade in East Africa and is the “regional [manufacturing] leader” according to the International Finance Corporation (IFC) (2019a), Kenya is starting to face a challenge from regional competitors. In 2018, Kenya’s “fast growth” in regional exports was being outstripped by the “exponential growth” of other increasingly competitive economies in East Africa.² For example, in leather goods, Kenya recorded 8% growth over a decade (2007–2016), while Rwanda and Ethiopia achieved rates of 133% and 46% respectively (see Figure 2 for further comparisons).

Figure 1

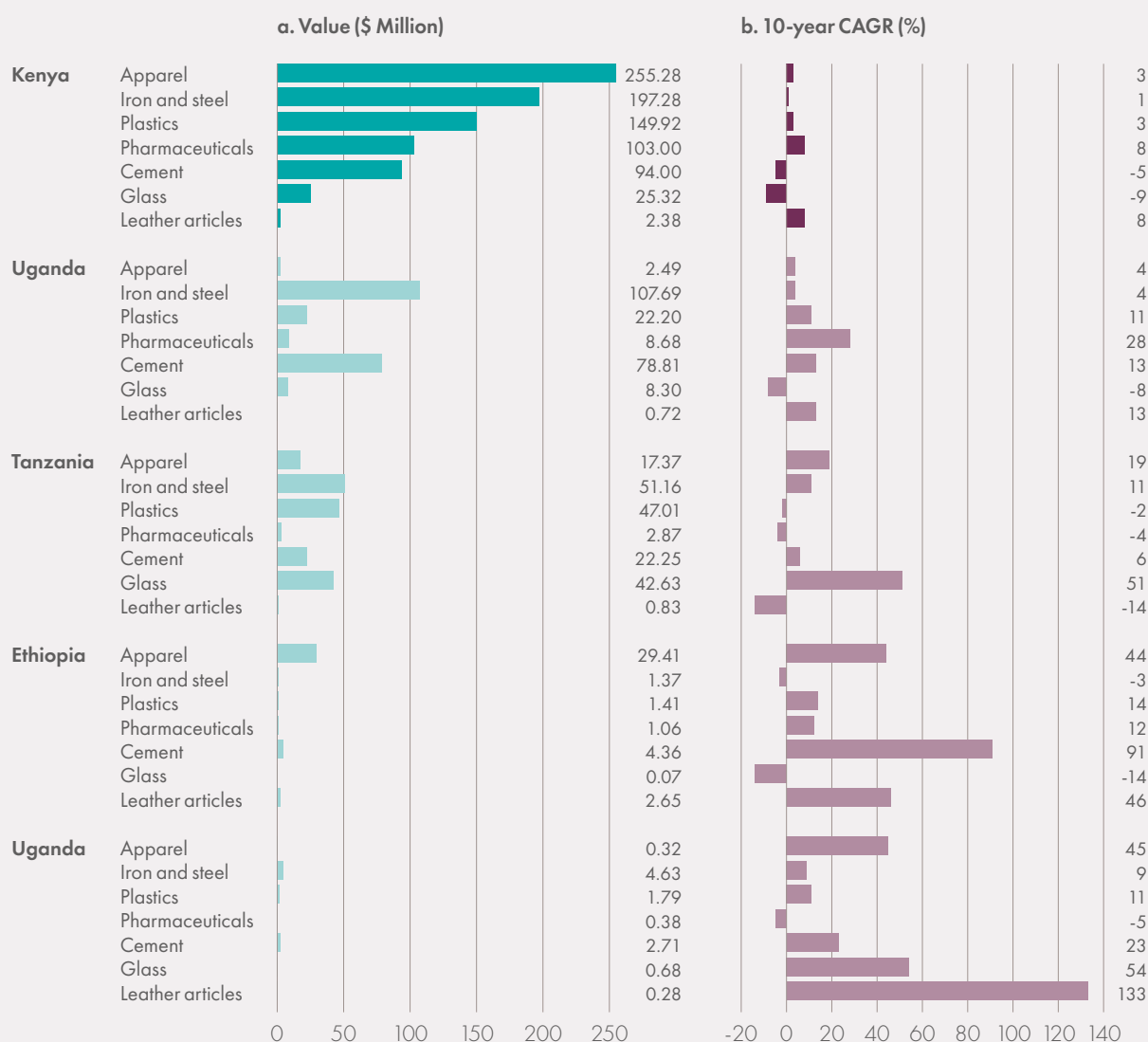
Total Exports by Destination in 2018



Source: Kenya National Bureau of Statistics (2019: 103 & 105)

Figure 2

Regional export comparison, 2007–2016



Source: IFC (2019: 85)

Within the EAC, integration is being driven by the private sector and inhibited to some extent by a lack of government support.

In the EAC, integration has been driven by the private sector, as Kenyan firms in particular have sought to establish regional footprints. The EAC’s founding treaty recognises the private sector as “the engine of economic growth” and the Secretary General in 2015 – when announcing the institution of a KSH 1.86 billion Private Sector Fund – emphasised how “the private sector will (...) play an even more important role in (...) integration (...) [and] economic growth.”³

While firms appear eager to expand and invest regionally, government support for greater integration within the EAC has been rhetorically strong and yet lacking at the level of implementation. In recent years, trade disputes have been commonplace. For example, Kenya imposed a 25% duty on flour from Tanzania in 2018, claiming it was produced from imported wheat and therefore did not qualify for duty free trade.⁴ Kenya has also blocked the import of Ugandan dairy and sugar imports, with the former restrictions estimated to have cost the Ugandan economy \$480 million over the course of 2020 and impacted the livelihoods of 100,000 dairy farmers.⁵ Most recently, in early 2021, Kenya blocked the import of maize from Tanzania and Uganda, citing the presence of aflatoxins.⁶



A local market in Nairobi

The absence of government support for greater integration has left the EAC institutionally weak, partly reliant on donor funding and unable to effectively mediate disputes between members (e.g. a Rwanda-Uganda diplomatic tension in March 2019 led to the closure of the mutual border for the rest of the year).⁷

In the short-term, greater government collaboration within the EAC appears unlikely. Relations with South Sudan – the bloc’s newest member – are strained. During a debate at the East African Legislative Assembly in October 2019, the country was heavily criticised over its outstanding membership fees (over \$27 million).⁸ In addition, tensions between Rwanda and Uganda may increase as the formal process for screening the Democratic Republic of Congo’s (DRC) application for EAC membership gathers pace. For a long time, the eastern DRC has been a proxy theatre for regional political rivalries.

Politics aside, the DRC’s application presents the EAC with a significant opportunity, given the country’s market size (80+ million people), geography and infrastructural potential. As Jeremiah Owiti, a policy analyst based in Nairobi, notes: “the DRC’s membership [could open] a vast trading and communication corridor right across the middle of Africa, from the Indian Ocean to the Atlantic Ocean.”⁹ Since his inauguration in January 2019, the DRC’s President Tshisekedi has visited several member states, submitting his

county’s application in December 2019 following talks with President Kagame of Rwanda, the EAC’s until early 2021.¹⁰ If regional tensions are managed, approval appears likely within the next few years.

In the long-term, there is great potential for deeper trade relationships within the EAC, which Kenya is well-positioned to benefit from. As Cyprian Nyamwamu, Director of the Future of Kenya Foundation, stated in an interview for this report: “African countries shall be our main trade partners [in the future]: we have a comparative advantage over other eastern and central African countries and (...) integration is underway in these regions.” The expansion of regional trade may serve to boost the production of processed and technology-driven goods in Kenya. Kwame Owino, CEO of the Institute of Economic Affairs, articulated the opportunity: “Kenya [currently] has low export sophistication and [the country’s] products are easily replicable. [While this means] most Kenyan manufactured goods are not competitive internationally, [they are] very competitive in East and Central Africa.”

As businesses across the region – large and small – expand cross-border trade and strengthen supply chains, the private sector may rapidly establish a ground-level economic reality that puts pressure on governments to collaborate and fully deliver on the promise of the EAC common market.¹¹

While the African Continental Free Trade Area (AfCFTA) could drive transformative growth in Kenya, significant logistical and political challenges will need to be overcome.

While intra-African trade is weaker than trade within other world regions, the continent has become more integrated over the past 20 years.¹² Africa is now Kenya's biggest trade region, comprising 37% of Kenya's total exports. Exports to Asia come second at 26%, while those to Western Europe come third at 23%.¹³ This positive trend has been driven by commodity prices and macroeconomic reforms and is delivering clear economic benefits: goods traded regionally are more likely to be locally manufactured and countries in Africa trade a more diverse set of value-added products within the continent than with the rest of the world.¹⁴

Receiving support from 54 of the continent's 55 countries, the African Continental Free Trade Area (AfCFTA) remains a key initiative for the promotion of intra-African trade, despite COVID-19 delaying its implementation in 2020.¹⁵

IN THE LONG-TERM, THERE IS GREAT POTENTIAL FOR DEEPER TRADE RELATIONSHIPS WITHIN THE EAC.

The scope of the AfCFTA is ambitious, extending beyond traditional trade agreements to encompass trade in goods and services, investment, intellectual property rights and competition. According to the UN Economic Commission for Africa (2020), a fully realised AfCFTA would bring together a market of 1.2 billion people and a combined GDP of \$2.5 trillion.

Greater continental trade may enable regional value chains to scale and could result in higher levels of local competition in processed goods. With reference to the AfCFTA, the IFC (2019) concluded Kenya was "one of few" economies that is in a position to advance its industrialisation goals, "tak[ing] advantage of [its] existing industrial base and duty-free access to an enlarged regional market."¹⁶ The IFC expects free trade on the continent will enhance Kenya's GDP growth (by 2%) and export growth (by 5.7%), while only resulting in a relatively small loss of revenue (-0.3%).¹⁷ Kenya's SME-led agribusiness sector, chemicals and petroleum industry and light manufacturing sector are expected to benefit the most. As Abraham Muthogo, CEO of Miradi Capital, noted in an interview for this report, the AfCFTA has the potential to reshape Kenya's trading relations with the rest of the world: "as Kenya (...) expands its pan-African trade, this will reduce [its] reliance on markets that are net exporters to Kenya (i.e. China, India, EU and UK)."

Intended to boost intra-African trade via the elimination of tariffs on c. 90% of existing trade, the AfCFTA's implementation will be littered with practical and political challenges. Kip Kittony, former Chairman of the Kenya National Chamber of Commerce and Industry, pointed out that "successfully implementing the AfCFTA will not be a walk in the park. The heads of state have committed to this but we need the bureaucrats to catch up with them. Large and influential corporates keen to protect their domestic markets have also tripped up trade integration across the continent before."

According to the IFC (2019), the AfCFTA will only effectively facilitate greater intra-continental trade if the harmonisation of tariffs is accompanied with "complimentary policies". Indeed, both the IFC and the International Monetary Fund (IMF) (2019) have highlighted how non-tariff barriers are significant barriers to intra-African trade (these include limited regulatory transparency; disparate sanitary and phytosanitary regulations; a lack of accreditation and mutual recognition procedures in areas such as quotas, subsidies, licenses and rule of origin; poor trade logistics and infrastructure; limited access to credit; and low human capital). Indeed, the AfCFTA will not realise its full potential if these issues are not addressed in step with its implementation.

Snapshot: Manufacturing in Kenya – a long-term growth prospect?

Manufacturing constitutes a core pillar of President Kenyatta’s “Big Four” development agenda, launched in December 2017. Within East Africa, Kenya has a comparative advantage in manufacturing, owing to its coastline, relatively good infrastructure, and well-educated population.

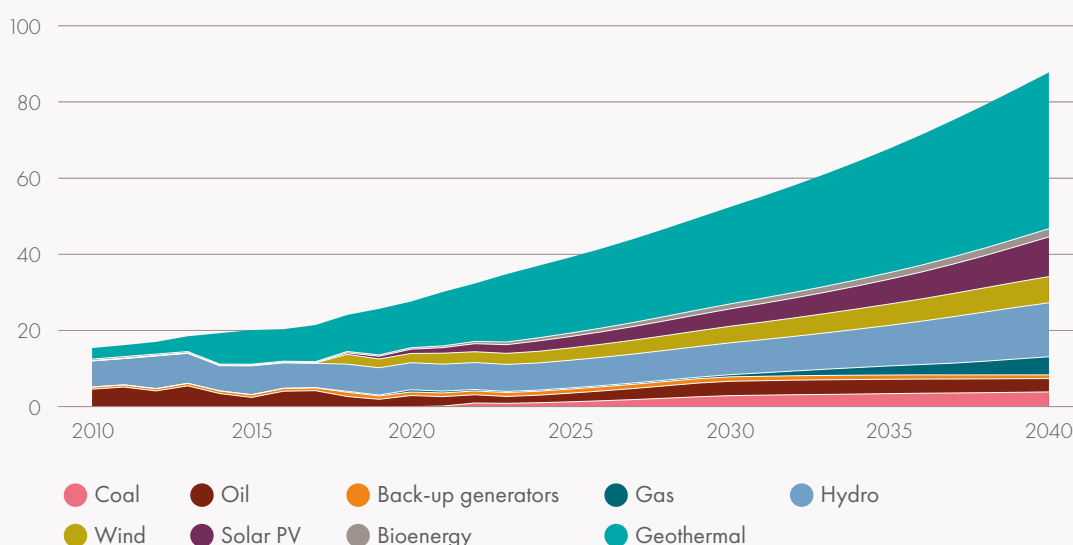
However, challenges in the operating environment are inhibiting Kenya’s manufacturing potential. In particular, Abraham Muthogo highlighted the country’s power costs and complicated tax, compliance and licensing regime, which he believes threaten to “negate” Kenya’s comparative advantage. Mohammed Nyaoga, Board Chairman of the Central Bank of Kenya, agreed that the cost of power must be reduced if the “Big Four” aspirations for are to be realised: “there are a lot of inefficiencies in our power companies. These inefficiencies are costly and are transferred to end users.”

The cost of energy in Kenya is high in comparison to equivalent markets. According to a World Bank Enterprise Survey, energy constitutes a “disproportionate amount of total operating expenses – in some cases over 50%.”¹⁸ Power outages are common and affect up to 90% of firms, resulting in productivity losses and additional cost implications.¹⁹

In the short- to medium-term, there are signs the energy problem may be resolved. While Kenya’s generation capacity was c. 2.5GW in 2019, this may rise to 4GW by 2022/23 upon the completion of new power projects.²⁰ Lower cost geothermal, solar and wind power are set to increase their share within Kenya’s energy mix, as heavy fuel oil-fired power plants are gradually phased out (see Figure 3).²¹ This impending surge of low-cost energy supply is being driven by an influx of private capital and global expertise, as independent developers increasingly view Kenya as an attractive investment destination.²² This expansion of renewable power generation is expected to eventually translate into lower prices for industrial consumers (e.g. solar developers have proposed tariffs of \$8–9 c/kWh which may fall over time – this is considerably lower than Kenya’s current Feed in Tariff of \$12 c/kWh).²³

Figure 3

Kenya’s Electricity Generation by Technology in Terawatt-hours (TWh), 2010–2040



Source: International Energy Agency (2020)



An engineer working on site at a chemical manufacturing plant

Alongside power costs, Kenya's poor road network constitutes another infrastructural challenge that has impeded the competitiveness of its manufacturing sector.²⁴ Within Kenya's 160,886 km road network, just 14,000 km is paved which leaves many routes vulnerable to destruction or impassability during the rainy seasons. The current network is stretched, especially in urban areas. In Nairobi, the cost of traffic is estimated at \$580,000 per day. The government appears committed to fixing bottlenecks, successfully expanding arterial roads in Nairobi as of early 2021. However, according to the Kenya Roads Board (2019), much more investment is required: the organisation believes Kenya should spend KSH 1 trillion over the next five years to clear a backlog of required roads and maintenance work.

In the short-term, these issues in Kenya's operating environment risk the country losing trade opportunities, as emerging markets with lower business costs exhibit stronger investment prospects.²⁵

In the medium- to long-term, however, manufacturing in Kenya represents a growth opportunity, provided infrastructural issues are addressed. While an automation-driven trend of "re-shoring" may impede industrial expansion in Kenya, Anzette Were, a development economist at FSD Kenya, thinks Kenya is well placed to establish green manufacturing as a unique selling point. Additionally, manufacturing interest from countries such as China can be tapped into: "[this] present(s) a significant manufacturing opportunity for Kenya to explore, [since] 30% of Chinese private sector investment in Africa is in manufacturing" The IFC (2019) also highlighted this future trading opportunity for Kenya, emphasising how "Indian and Chinese manufacturers are looking to diversify, given their rising domestic production costs. Factory wages are around \$500 a month along China's coastal rim (and \$250 in the interior), whereas monthly salaries in the same sub-sector in Kenya are only \$120-\$150 a month."²⁶

Fueled in part by Brexit and an administration change in the US, Kenya's trade relations with traditional partners are undergoing transition.

Until recently, Kenya was struggling to agree trading relations with the EU & UK owing to intra-EAC tension. This has been revitalised somewhat following new free trade agreements.

Kenya is a key trading partner in Africa, particularly for Kenya's trade relationship with the EU is going through a transition, fuelled by Brexit as well as re-adjustments following the conclusion of a Kenya-EU free trade agreement, which Kenya ratified in 2016.²⁷ This relationship is slightly complicated by the reluctance of other EAC member states (Uganda, Tanzania and Burundi) to ratify the agreement. The other aspect of transition regards Brexit and the likely contraction of Kenya's exports to the UK, as the Netherlands becomes the central hub for entry and re-export of Kenyan exports to the rest of the European Union. As demand for Kenyan fresh produce such as avocados grows in the Netherlands, there have been calls for the introduction of marks of origin to identify Kenya as the original source country as a means to increase export value add.²⁸

Kenya's trade ties with the US are similarly entering into a period of tense negotiation and uncertainty. The African Growth and Opportunity Act (AGOA), which removed US import tariffs on 6,400 products, is set to expire in 2025. Kenya is one of only a handful of countries that has benefited from duty free apparel exports: over the course of six years, Kenya nearly doubled its exports to the US, rising from \$225 million in 2010 to \$389 million in 2016.²⁹ However, former President Trump's preference for bilateral trade agreements have complicated Kenya's renegotiation of AGOA rights.³⁰ If Kenya lost its AGOA status, one might expect a sharp drop in Kenya's exports aimed at US consumers and a decline in manufacturing investment from Asia, which aims to take advantage of Kenya's tariff-free access to the US. Trade with the United States has, however, been on an upward trend, with Kenyan exports having grown from USD 40 billion in 2015 to USD 67 billion in 2020.³¹

Kenya's various trade challenges with the EU and US may result in reduced trade with these traditional partners over the medium-term, as the country pivots in favour of deepening relations with emerging markets. In an interview for this report, Benson Ndeti, Chairman of Savanna Cement, broadly supported this assessment: "[Kenya's] trade with Europe will decline with its share eaten by the BRICs." In addition, greater intra-African trade may serve to weaken Kenya's trade ties with the West. However, there may be a limit on how quickly Kenya can develop its trading relationships with emerging markets, given how the country's exports to advanced markets like the EU – for example – meet strict standards and command premium prices.

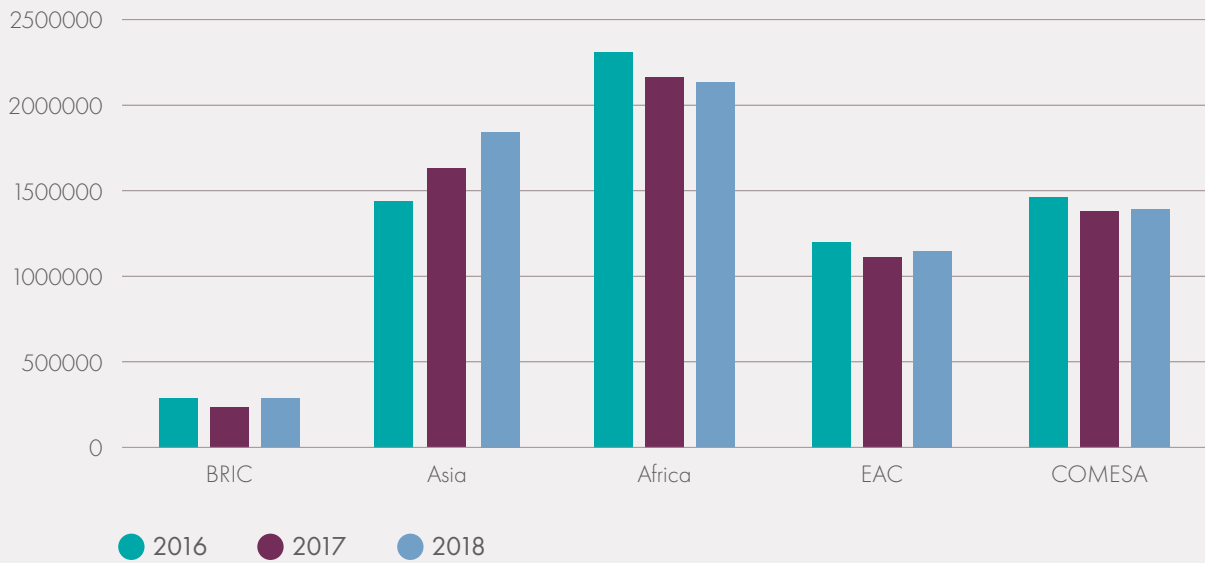
While the value of Kenya's exports to new partners like China is growing, the potential for scaling such trading relationship may be limited by fierce global competition.

In recent years, trade between Kenya and Asia has been on the rise (see Figures 4 & 5). As Figure 4 reveals, Kenya's export trade with Asia is close to rivalling the value of trade the country conducts on the continent, which has stagnated in recent years. In terms of Kenya's imports, Asia has become a pivotal partner, accounting for 46.2% of the total in 2018 (with China responsible for almost half of this).³²

Several observers interviewed for this report expect trade relations with emerging markets in Asia to continue growing over the medium- and long-term. However, while Kenya may have an opportunity to grow its exports to Asia, the potential – in terms of scale and value – is expected to be smaller than the potential associated with an expansion of intra-African trade.³³ This is particularly true for industrial exports to China, which are predominantly in low-value mineral exports such as titanium ore.³⁴ Further trade with China may be limited as competitive, low-income and low-wage economies in Asia like Cambodia, Myanmar and Vietnam continue to rapidly industrialise and capitalise on their proximity to Chinese markets.³⁵

Figure 4

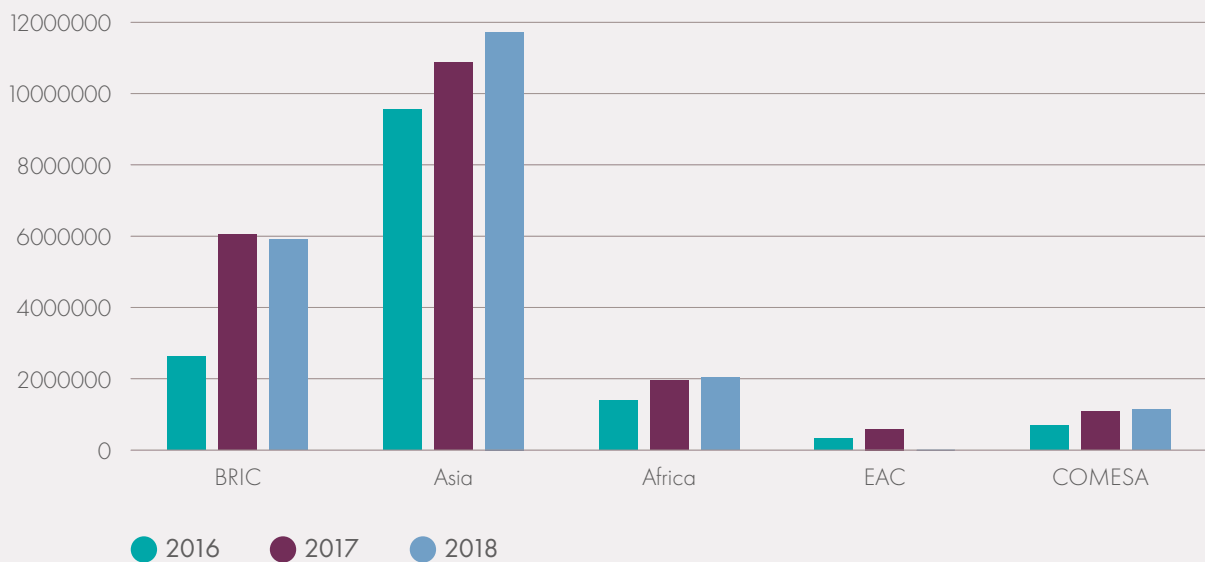
Value of Exports from Kenya By Region in USD, 2016–2018



Source: Trade Map (2020)

Figure 5

Value of Imports to Kenya By Region in USD, 2016–2018



Source: Trade Map (2020)



PART B:

IMPACT OF COVID-19 ON TRADE IN KENYA

Following an initial shock, Kenya's global exports have performed surprisingly well amidst disruptions from COVID-19. However, imports and regional trade have been significantly affected.

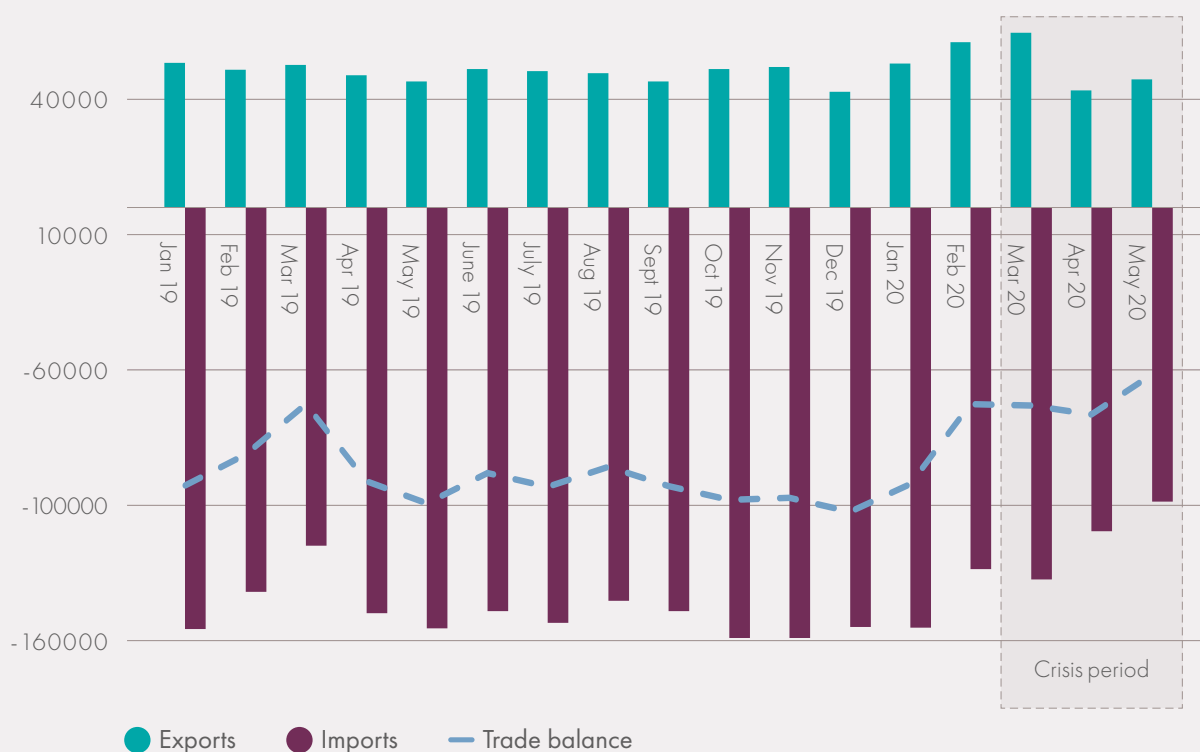
Across Africa, COVID-19 has severely disrupted international and regional trade. According to early estimates made by the African Union, exports and imports were expected to drop 35% year-on-year in 2020, which represents a potential loss of \$270 billion.³⁶ In particular, the impact has been devastating for sectors like tourism, with arrivals falling by around 75% and 8 million jobs lost by July 2020.³⁷ In addition to paralysing supply chains and repressing demand, the pandemic and the associated containment measures have temporarily derailed the continent's integration plans, with the launch of the AfCFTA postponed from July 2020 to January 2021.³⁸

Following the World Health Organisation's pandemic declaration in March 2020, Kenya experienced a major trade shock, recording a KSH 21.3 billion loss of exports in April 2020.³⁹ During this initial period, the suspension of international flights and the collapse of market demand severely affected Kenya's ability to export apparel to the US and horticultural products to the EU (which typically takes 80% of such exports).⁴⁰ Indeed, in the run up to Mother's Day in the UK (22 March 2020), direct orders for flowers from Kenya were down some 50% and sales on the auction in Holland were 70% below their typical level.⁴¹ However, as analysis by Brookings reveals, certain supply chains appear to have been relatively unaffected by COVID-19, with the volume of fruit exported surpassing the previous season and Kenya's tea industry posting record exports in April 2020 (just under 58,000 tons).⁴²

THE IMPACT
HAS BEEN
DEVASTATING
FOR SECTORS LIKE
TOURISM, WITH
ARRIVALS FALLING
BY AROUND 75%
AND 8 MILLION
JOBS LOST BY
JULY 2020.

Figure 6

Total exports, imports and trade balance in Kenya, January 2019 – May 2020 (million KSH)



Source: Mold, Andrew & Mveyange, Anthony (2020) *The impact of the COVID-19 crisis on trade: Recent evidence from East Africa* (p. 4)

Given the pessimism surrounding global trade in the wake of COVID-19, it is surprising to note Kenya's strong export performance over the course of FY 2020/21, with exports rising 9% in May 2020 (thereby surpassing exports in May 2019). Brookings concludes that these results were mainly driven by the robust tea, and recovering horticulture, industries.⁴³ Indeed, Kenya's trade balance has actually improved over the course of the crisis, bolstered by the steep fall in oil prices and a dramatic slowdown of domestic imports (down 25% year-on-year March – May 2020) (see Figure 6).

On the one hand, the drop of imports could represent an opportunity for Kenya's domestic manufacturers, who have faced stiff competition from China's low-cost consumer goods in recent years. Suffering first from the pandemic, China's global exports declined by 13.3% during the first three months of 2020, with a 13.5% fall in industrial production over January and February.⁴⁴ While McKinsey has estimated Africa's manufacturing output would contract by at least 10% in 2020 owing to supply chain disruption

and depressed demand, countries intent on industrialising could take advantage of reduced trade pressure from China.⁴⁵ In Kenya, there have been a series of positive developments in this regard, as factories quickly pivoted to making facemasks⁴⁶; the government prioritised the textiles and garment sector in its stimulus packages⁴⁷; and – according to the Kenya Association of Manufacturers – the public and private sector started to buy more locally produced goods.⁴⁸ This resilience has been attributed, in part, to the effectiveness of actions taken by the national government to keep the transport corridors functioning throughout the crisis.⁴⁹

Despite this positive trends, the sharp decline in certain imports – such as machinery and other capital goods, which fell by 50% between November 2019 and May 2020 – is a cause for concern.⁵⁰ Without such investment and access to technology, the country may be constrained over the medium- and long-term as it tries to upgrade and diversify its export basket.

KENYA'S EARNINGS FROM GOODS SOLD TO RWANDA, TANZANIA AND UGANDA DROPPED 38.5% YEAR-ON-YEAR IN APRIL 2020.

Moreover, while Kenya may have weathered COVID-19 fairly well from the perspective of global trade, the regional trade situation has been unambiguously negative, with the country experiencing a sustained fall in exports to the EAC. Reeling from the combined impact of curfews, lockdowns and logistical bottlenecks (cross-border queues of lorries stretched 35KM in some places)⁵¹, Kenya's earnings from goods sold to Rwanda, Tanzania and Uganda dropped 38.5% year-on-year in April 2020.⁵² In line with Regional Development Cabinet Secretary Adan Mohamed's projection for the year⁵³, the EAC's Director General of Customs & Trade Kenneth Bagamuhunda confirmed intra-regional trade dropped by 30–40% over Q1 2020/21.⁵⁴ This worrying trend will disproportionately affect Kenya, given the country's leadership role within the EAC and relatively limited lockdown measures put in place in neighbouring Tanzania.

While post-pandemic trade in East Africa was initially plagued by familiar border disputes and a lack of coordination at the level of Heads of State, intra-EAC trade was eventually eased as Kenya and Tanzania compromised on the testing of lorry drivers and the bloc committed to develop a Regional Electronic Cargo and Driver Tracking System. Rolled out in September 2020, the digital platform should reduce transit times as member states are able to view the test results of lorry drivers in real-time, thereby removing the need for multiple tests during international trips.⁵⁵



A woman handpicks beautiful flowers from a flower farm greenhouse for export – Naivasha, Kenya

PART C: CONCLUSION

What might a post-COVID-19 trading order mean for economic transformation?

Kenya needs to harness its agricultural sector in order to drive export performance.

Agribusiness is a sector which has significant regional and global export potential for Kenya, given how closely the country's manufacturing sector is linked to its agricultural economy (c. 40% of manufacturing output relates to food and beverages). According to research from the African Growth and Policy Modelling Consortium, Kenya was the continent's 4th biggest contributor to intra-African agricultural trade throughout 2016–2018 (6.2%), up from its 5th place spot throughout 2005–2007 (5.3%).⁵⁶ The recent surge of investment in agri-tech start-ups in Kenya reflects a growing excitement regarding the commercial opportunity in this sector.⁵⁷ Indeed, since Kenya's exports are majorly supported by small firms (relative to other emerging markets), technology could overcome barriers to trade and enable the country's SMEs to reach regional and global markets with greater volumes. Examples of tech start-ups innovating in agribusiness include:

- Agrikore, a digital payment, contracting and marketplace platform launched in June 2019 which connects smallholders in Kenya with large commercial customers⁵⁸
- InspiraFarms, a firm developing a modular cold chain storage solution which will enable Kenya's SMEs to store perishables more effectively

However, taking advantage of these opportunities will require addressing major inefficiencies in primary agricultural production of key commodities, where inputs usage remain low compared to the continental average, while yields have stagnated and cost of production continues to rise. This has meant a growing trade deficit in maize, wheat and rice – with imports coming from regional neighbours such as Uganda and Tanzania, as well as major rice exporters such as India and Pakistan. Gatsby Africa's Kenya Country Director, Sam Kareithi, noted "Kenya doesn't currently have a comparative advantage in production but we do in agro-processing. This is why it is a key component of Kenya's Agricultural Sector Growth

and Transformation Strategy." Mandeep Shah, Business Development & Innovation Manager for Msingi East Africa, went further, "We have seen a huge and growing export market for cut and processed fruit and veg. These are incredibly efficient and can get from farm to an M&S in the UK in 48 hours. This highlights the potential for other commodities."

Livestock, for example, could become a major export earner for Kenya. The country is endowed with the second largest stock of livestock in Africa and, according to Abdi Wario – Head of Programmes at Kenya Markets Trust, could add 10% to the country's GDP if it reached its latent potential. He continued, "Exporting meat could be huge for Kenya. Namibia is a smaller country and has been able to recently access US markets after making substantial investment in the livestock sector over the last twenty years. If Kenya invests in livestock traceability, revamps its finishing and fattening enterprises and creates a conducive enabling environment, it can regain its lost glory in the meat export market."

THE QUESTION
IS: WHICH VALUE
CHAINS WILL
REMAIN LONG
VS WHICH HAVE
SHORTENED DUE
TO COVID-19?

Dirk Willem te Velde



A Kenyan cattle herd. Livestock has the potential to be a major export industry for the country.

Harnessing opportunities in global value chains such as textiles & apparel may require further regional integration moving forward.

COVID-19 has exposed major challenges in global value chains, particularly textiles and apparel. According to Dirk Willem te Velde, Head of the International Economic Development Group at the Overseas Development Institute (ODI), “COVID-19 exposed which value chains were resilient and which were not. Bangladesh and Ethiopia, for example, had big problems in their textiles and garments sectors, with huge challenges for workers in factories.” Likewise, a protectionist presidency in the US has called into question the future of trade agreements like AGOA. This has put pressure on countries like Kenya to reflect on how they can leverage regional ties.

“From a sector perspective,” noted Antoinette Tesha – Textiles & Apparel Director at Msingi, “Kenya is heavily dependent on other sources of raw materials. Even when Kenya is thinking about its own direction, it can’t do it alone. This is the time to think more regionally in order to accelerate growth and increase the competitiveness of the sector.” Msingi colleague Mandeep Shah, continued:

“A lot of brands are trying to diversify from Asian countries and are looking to the next frontier, which is Africa. Thus, there’s a push from brands on regional integration.” Dirk Willem te Velde cautioned that there’s a need to think strategically about when regional value chains make sense and where it is better to think about accessing higher value export markets in places like Europe and the US. As he noted, “The question is: which value chains will remain long vs which have shortened due to COVID-19?” What is clear is that resilience building within value chains is important and rising on the agenda, which may imply shorter and more diversified value chains, as well as a rising emphasis on issues such as worker and environmental protections. Antoinette Tesha argued, “There’s a powerful message about not just thinking about the value chain as is at present rather more focus should be on where the industry will be 10 years down the line.”

In summary, Kenya is well-positioned to take advantage of regional trade opportunities, particularly due to its more developed industrial and agro-processing base, but regional markets continue to face challenges related to politics, governance, security and infrastructure. Kenya will need to establish competitive, export-oriented sectors that can supply a diversified range of markets over the long-run to ensure resilient growth and employment at scale.

Chapter Notes

¹ International Finance Corporation (2019) Creating Markets In Kenya: Unleashing Private Sector Dynamism To Achieve Full Potential. IFC Country Private Sector Diagnostic Reports, Washington, DC.: International Finance Corporation

² Kenya National Bureau of Statistics (2019) – Table 6.13: Values of Total Exports by Destination, p.103. International Finance Corporation (2019a)

³ Owaka, Simon Peter (2015) EAC to set up Sh 1.86 billion Private Sector Fund. Press release by State Department of East African Affairs. Available at <https://meac.go.ke/eac-to-set-up-sh-1-86-billion-private-sector-fund/> (Accessed 24 January 2020)

⁴ Food Business Africa (2018) Kenya imposes new tariffs on Tanzanian flour as trade war escalates. Food Business Africa. Available at <https://www.foodbusinessafrica.com/2018/09/27/kenya-imposes-new-tariffs-on-tanzanian-flour-as-trade-war-escalates/> (Accessed 24 January 2020)

⁵ Daily Monitor (2020) What is the end game of Uganda-Kenya trade war? Available at: <https://www.monitor.co.ug/uganda/business/prosper/what-is-the-end-game-of-uganda-kenya-trade-war--3222118>

⁶ Omondi, Dominic (2021) Fears of trade wars as Kenya bans maize from Tanzania, UG. The Standard. <https://www.standardmedia.co.ke/business/business/article/2001405551/fears-of-trade-wars-as-kenya-bans-maize-from-tanzania-ug> (Accessed 24 January 2020)

⁷ Buchanan, Elsa (2016) Burundi: International donors forced to chip in as lack of funds impede peace talks. The International Business Times. Available at <https://www.ibtimes.co.uk/burundi-international-donors-forced-chip-lack-funds-impede-peace-talks-1582341> (Accessed 10 February 2020)

⁸ Jok, Jok Madut (2020) Why South Sudan needs an honest conversation about its future in the EAC. The Citizen. Available at <https://www.thecitizen.co.tz/news/Why-South-Sudan-needs-an-honest-conversation/1840386-5409360-7xaej0z/index.html> (Accessed 24 January 2020)

⁹ Mugisha, Ivan R. (2019) DR Congo entry into EAC will be a game changer. The East African. Available at <https://www.theeastafrican.co.ke/news/ea/DR-Congo-entry-into-EAC-will-be-a-game-changer/4552908-5158402-barl6d/index.html> (Accessed on 24 January 2020)

¹⁰ Ibid

¹¹ Mutethya, Edith (2019) Integration is critical for the development of EAC. China Daily. Available at <http://www.chinadaily.com.cn/a/201903/28/WS5c9c7ef4a3104842260b31a0.html> (Accessed on 10 February 2020)

¹² Ariz Arizala, Francisco., Bellon, Matthieu., MacDonald, Margaux., Mlachila, Montfort., & Yenice, Mustafa (2018) Regional Spillovers In Sub-Saharan Africa – Exploring Different Channels. Report 18/01 – Spillover Task Force, IMF ala, Francisco., Bellon, Matthieu., MacDonald, Margaux., Mlachila, Montfort., & Yenice, Mustafa (2018)

¹³ Kenya National Bureau of Statistics (2020) Economic Survey 2020. Available at <https://www.knbs.or.ke/?wpdmpo=economic-survey-2020>. (Accessed on 24 January 2020)

¹⁴ Arizala, Francisco., Bellon, Matthieu., MacDonald, Margaux., Mlachila, Montfort., & Yenice, Mustafa (2018) Regional Spillovers In Sub-Saharan Africa – Exploring Different Channels. Report 18/01 – Spillover Task Force, IMF

¹⁵ The Economist (2019) Africa's economies draw closer, slowly. The Economist – The World in 2020. Available at <https://www.economist.com/the-world-in/2019/11/26/africas-economies-draw-closer-slowly> (Accessed 24 January 2020)

¹⁶ International Finance Corporation (2019) Creating Markets In Kenya: Unleashing Private Sector Dynamism To Achieve Full Potential. IFC Country Private Sector Diagnostic Reports, Washington, DC.: International Finance Corporation

¹⁷ Ibid

¹⁸ Ibid

¹⁹ Ibid

²⁰ Herbling, David (2019) Kenya Plans to Double Power Generation by 2022 as Economy Grows. Bloomberg. Available at <https://www.bloomberg.com/news/articles/2019-09-12/kenya-plans-to-double-power-generation-by-2022-as-economy-grows> (Accessed 10 February 2020)

²¹ Hill, Joshua S (2019) Kenya moves closer to 100% renewables with completion of Africa's biggest wind farm. Renew Economy. Available at <https://reneweconomy.com.au/kenya-moves-closer-to-100-renewables-with-completion-of-africas-biggest-wind-farm-26502/> (Accessed 24 January 2020)

²² Zarembka, David (2019) Kenya Slowly Warms to Solar As Two New Solar Projects Launch. Clean Technica. Available at <https://cleantechnica.com/2019/06/17/kenya-slowly-warms-to-solar-as-two-new-solar-projects-launch/> (Accessed 24 January 2020)

²³ Mwanza, Kevin (2017) Cheap solar power in the horizon for Kenyan consumers. Business Daily. Available at <https://www.businessdailyafrica.com/news/Kenya-Power-cheap-solar-energy-consumers/539546-4153812-2hvb7rz/index.html> (Accessed on 24 January 2020)

²⁴ Igadwah, Lynet (2019c) Sh 1trn needed in five years to maintain roads. Business Daily. Available at <https://www.nation.co.ke/business/Sh1trn-needed-maintain-roads/996-5391250-11ru5f0/index.html> (Accessed 10 February 2020)

²⁵ International Finance Corporation (2019) Creating Markets In Kenya: Unleashing Private Sector Dynamism To Achieve Full Potential. IFC Country Private Sector Diagnostic Reports, Washington, DC.: International Finance Corporation

²⁶ Ibid

²⁷ Kenya Ministry of Foreign Affairs (2016) Kenya Deposits Instruments for EPAs Expansion. Press statement. Available at: <https://www.mfa.go.ke/?p=976> (Accessed 20 January 2021)

²⁸ Kenya News (2021) Calls for Mark of Origin To Be included in The Horticultural Exports. Available at: <https://www.kenyanews.go.ke/calls-for-mark-of-origin-to-be-included-in-the-horticultural-exports/> (Accessed 20 March 2021)

²⁹ Manders, Shannon (2017) Kenya's AGOA eligibility no longer under US review. Global Trade Review. Available at <https://www.gtreview.com/news/africa/kenyas-agoa-eligibility-no-longer-under-us-review/> (Accessed on 24 January 2020)

³⁰ The Economist (2020). America and Kenya eye up a trade deal. The Economist. Available at <https://www.economist.com/graphic-detail/2020/02/06/america-and-kenya-eye-up-a-trade-deal> (Accessed 10 February 2020)

³¹ Kenya National Bureau of Statistics (2020) Economic Survey 2020. Available at <https://www.knbs.or.ke/?wpdmpo=economic-survey-2020>. (Accessed on 24 January 2020)

³² Kenya National Bureau of Statistics (2019) – Table 6.14: Values of Total Imports by Destination, 2014-2018, p.105

³³ Makhubela, Kingsley (2019) Africa's greatest

economic opportunity: trading with itself. World Economic Forum. Available at <https://www.weforum.org/agenda/2018/01/why-africas-best-trading-partner-is-itself/> (Accessed 10 February 2020)

³⁴ See the Oxford Atlas of Economic Complexity: <https://oec.world/en/profile/country/ken?tradeScaleSelector1=tradeScale0>

³⁵ Rapoza, Kenneth (2019) China Trade War Update: Global Supply Chains Shifting, But Asia Not Easy Winner. Forbes. Available at <https://www.forbes.com/sites/kenrapoza/2019/06/27/china-trade-war-update-global-supply-chains-shifting-but-asia-not-easy-winner/#77a3c389df56> (Accessed on 10 February 2020)

³⁶ TRALAC (2020) Impact of Coronavirus (COVID-19) on the African Economy. Available at: <https://www.tralac.org/documents/resources/covid-19/3218-impact-of-the-coronavirus-covid-19-on-the-african-economy-african-union-report-april-2020/file.html>.

³⁷ Sallant, Mikael. (2020) Tourism in Africa: Virtual safaris kick in as countries slowly open to tourists. UN Africa Renewal. Available at: <https://www.un.org/africarenewal/web-features/coronavirus/tourism-africa-virtual-safaris-kick-countries-prepare-reopen-tourists> (Accessed 20 January 2021)

³⁸ Obura, Frederick (2020) Africa's free trade negotiations shift online as AU moves to address concerns. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001382863/africas-free-trade-negotiations-shifts-online-as-au-moves-to-address-concerns> (Accessed 20 January 2021)

³⁹ Muiruri, Kepha (2020) Kenyan exports worst hit by declining trade as COVID-19 pandemic. Citizen Digital. Available at: <https://citizentv.co.ke/business/kenyan-exports-worst-hit-by-declining-trade-as-covid-19-pandemic-persists-334599/> (Accessed 20 January 2021)

⁴⁰ Mold, Andrew & Mveyange, Anthony (2020) The impact of the COVID-19 crisis on trade: Recent evidence from East Africa. Available at: https://www.brookings.edu/wp-content/uploads/2020/07/EAC_COVID_Mold_Mveyange.pdf (Accessed 20 January 2021)

⁴¹ Floral Daily (2020) Mitigating the impact of COVID-19 on Kenya's Floriculture Industry. Available at: <https://www.floraldaily.com/article/9201565/mitigating-the-impact-of-covid-19-on-kenya-s-floriculture-industry/> (Accessed 20 January 2021)

⁴² Mold, Andrew & Mveyange, Anthony (2020) The

impact of the COVID-19 crisis on trade: Recent evidence from East Africa. Available at: https://www.brookings.edu/wp-content/uploads/2020/07/EAC_COVID_Mold_Mveyange.pdf (Accessed 20 January 2021)

⁴³ Ibid

⁴⁴ Ibid

⁴⁵ Mckinsey (2020) Reopening and reimagining Africa. Available at: <https://www.mckinsey.com/featured-insights/middle-east-and-africa/reopening-and-reimagining-africa> (Accessed 20 January 2021)

⁴⁶ Best Naira News (2020) Delicate balance of employee vs business interests. Available at: <http://news.bestnaira.com/posts/view/delicate-balance-of-employee-vs-business-interests> (Accessed 20 January 2021)

⁴⁷ Daily Nation (2020) Kenya: Apparel firms ride on Corona battle. Available at: <https://goa.info/news/article/15764-kenya-apparel-firms-ride-on-corona-battle.html> (Accessed 20 January 2021)

⁴⁸ Big News Network (2020) Manufacturing in Africa recovering, industry leaders say. Available at: <https://www.bignewsnetwork.com/news/265571174/manufacturing-in-africa-recovering-industry-leaders-say> (Accessed 20 January 2021)

⁴⁹ Mold, Andrew & Mveyange, Anthony (2020) The impact of the COVID-19 crisis on trade: Recent evidence from East Africa. Available at: https://www.brookings.edu/wp-content/uploads/2020/07/EAC_COVID_Mold_Mveyange.pdf (Accessed 20 January 2021)

⁵⁰ Ibid

⁵¹ African Business Magazine (2020) Opinion: Informal traders: a balancing act of survival. Available at: <https://africanbusinessmagazine.com/opinion/informal-traders-a-balancing-act-of-survival/> (Accessed 20 January 2021)

⁵² Business Daily (2020) Corona controls cut Kenya's April EAC sales by Sh3.5bn. Available at: <https://www.businessdailyafrica.com/economy/Corona-controls-April-EAC-sales-by-Sh3-5bn/3946234-5574404-feuv90/index.html> (Accessed 20 January 2021)

⁵³ Ibid

⁵⁴ The East African (2020) Intra-EAC trade thins as Covid-19 lockdowns restrict movement. Available at: <https://www.theeastafrican.co.ke/business/EAC-trade-thins-as-Covid-lockdowns-restrict-movement/2560-5584996-12n8ag3z/index.html> (Accessed 20 January 2021)

⁵⁵ East Africa Business Council (2020) EAC Rolls Out Regional Electronic Cargo and Driver Tracking System. Available at: <https://eabc-online.com/eac-rolls-out-regional-electronic-cargo-and-driver-tracking-system/> (Accessed 20 January 2021)

⁵⁶ African Growth and Development Policy Modelling Consortium (2020) Africa Agriculture Trade Monitor. IFPRI. Available at: <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/134009/filename/134213.pdf> (Accessed 20 January 2021)

⁵⁷ Tsan, Michael., Totapally, Swetha., Hailu, Michael., & Addom, Benjamin (2019) The Digitalisation of African Agriculture Report, 2018-2019. Netherlands: The Technical Centre for Agricultural and Rural Cooperation ACP-EU

⁵⁸ Wilson, Tom (2019) Pioneering Kenya eyes next stage of mobile money. The Financial Times. Available at <https://www.ft.com/content/130fe0cc-4b36-11e9-bde6-79eaea5acb64> (Accessed on 10 February 2020)



An employee checks rolls of fabric at the United Aryan Export Processing Zone textile factory in Nairobi



Environment

A changing climate moves environment up the national agenda

PART A: UNDERLYING TRENDS

Compounding human-induced land degradation, climate change is set to harm agricultural production and exacerbate conflicts over natural resources.

Kenya's climate has become more volatile in recent years and this trend appears set to continue, as temperatures rise and extreme weather events become more frequent.

The country's land is becoming less productive – at a time of rapid population growth and urbanisation. By 2040, food consumption is expected to outrun production by 20 million metric tonnes.

There are growing tensions over land and water.

Owing to increasing public pressure, efforts to mitigate climate change and conserve land will intensify.

Signalling a commitment to change, the government has enacted important environmental legislation in recent years, such as the plastic bag ban in 2017 and the National Climate Change Action Plan 2018–2022.

Stronger and more concerted action is necessary, but there are reasons to be optimistic that change is possible in the short-term (due to grassroots activism), medium-term (due to the use of climate-smart tech) and long-term (due to greater regional & global collaboration).

PART B: IMPACT OF COVID-19 ON ENVIRONMENT IN KENYA

Emerging amid extreme climate events, COVID-19 has stressed Kenya's food system.

PART C: CONCLUSION

What might climate change mean for economic transformation?

Export-oriented sectors are leading the way in driving higher environmental standards, but could benefit from further government commitment to a green agenda.

Concerted focus on the water sector is needed, and in particular a shift towards widespread irrigation schemes to protect the agriculture from climate volatility.

The transformation of Kenya's agricultural sector will nonetheless need more than irrigation.

PART A:

UNDERLYING TRENDS

Compounding human-induced land degradation, climate change is set to harm agricultural production and exacerbate conflicts over natural resources.

Kenya's climate has become more volatile in recent years and this trend appears set to continue, as temperatures rise and extreme weather events become more frequent.

Since Kenya's economy is largely agrarian, climate change and land degradation are issues set to have a significant and negative impact on inclusive growth.¹ Changing temperatures and poor land management practices are resulting in widespread soil erosion and nutrient loss, desertification, biodiversity loss, and water scarcity.

Kenya is highly prone to drought: only 20% of the country's territory experiences high and regular rainfall while the remaining 80% is arid or semi-arid (i.e. receives rainfall of 200 to 500 mm per year).² However, while periodic droughts and flooding have long been a part of Kenya's climate system, the frequency of extreme weather events is on the rise.³ Recent events include the widespread flooding in October 2019, which affected more than 100 000 people, and a drought emergency in February 2017, which affected 23 out of Kenya's 47 counties and doubled the number of food insecure people (from 1.3 million to 2.7 million).⁴

The increasingly unpredictable climate in Kenya is impacting food production. According to a study by the UN's Food and Agriculture Organisation (2020), the overall cereal output in East Africa in 2019 dropped by 8.2% from the previous year as a result of weak precipitation, with Kenya recording the largest loss of yield at -19%.⁵ Indeed, droughts in Kenya have inspired a 99% reduction in maize production in coastal areas compared to the long-term average.⁶ Since a significant share of Kenya's GDP and workforce rely on agriculture, reductions in farm output have a substantial impact at a macroeconomic and household level.⁷

The climate in Kenya is expected to become more extreme: The World Bank projects the mean annual temperature will rise 1.8°C–2.8°C by 2050.⁸ Meanwhile, over the same period, mean annual precipitation is set to rise by 67.4 mm, with increases in rainfall most pronounced in October, November and December (when rainfall will rise from -3 mm to +49 mm per month). In the long-term, the weather will be more variable from year to year, with fluctuations in monthly temperature jumping from around 1°C (2020–2030) to over 3°C (2080–2090) (see Figure 1). This is likely to lead to a higher prevalence of both flash flooding and drought.

The country's land is becoming less productive – at a time of rapid population growth and urbanisation. By 2040, food consumption is expected to outrun production by 20 million metric tonnes.

While climate change is hastening land degradation in Kenya, the situation has been exacerbated by unsustainable agricultural practices (e.g. overgrazing, repeated acidic fertiliser use, bush burning and charcoal manufacture) and urbanisation taking place without adequate investment in infrastructure (e.g. drainage).⁹ Over decades, the net result has been a reduction in fertile land and a loss of agricultural productivity across Kenya, with the situation set to worsen in the years to come (see Figure 2). Indeed, in a 2019 study looking at soil acidity across the country, Kenya Markets Trust found land degradation in the 80s and 90s resulted in agricultural productivity losses of some 40% in recent years.¹⁰ Using more recent data, the World Bank (2019a) found that "Kenya's agriculture total factor productivity growth over 2006–2015 lagged Rwanda, Ethiopia and Tanzania and was well below levels attained by countries in South Asia and East Asia."¹¹

Figure 1

Projected Change in Monthly Temperature in Kenya, 2020–2030 (Top) and 2080–2090 (Bottom)



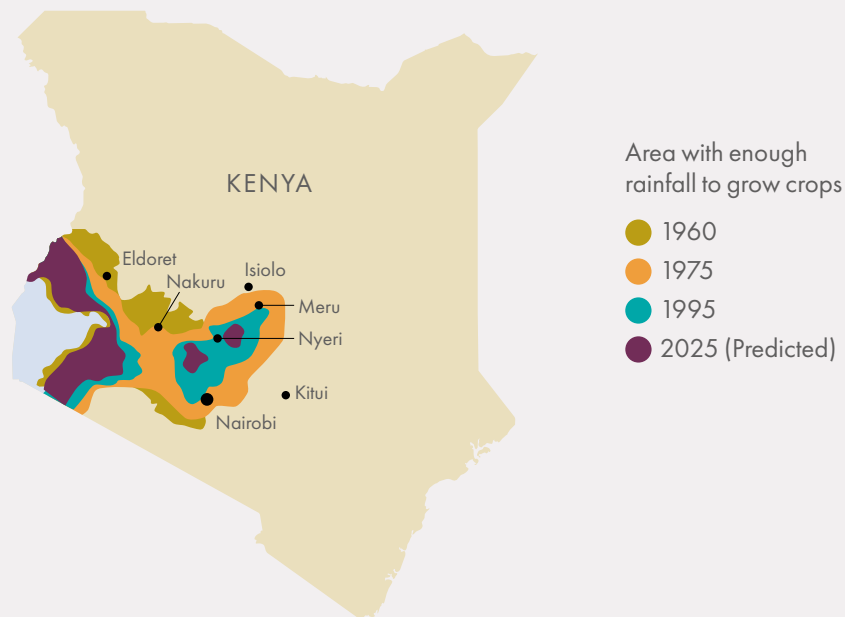
Source: World Bank (2020b)

In Kenya, soil conservation is a major issue with clear implications for food security. An assessment of soil acidity undertaken by Kenya Markets Trust found that “as a result of acidity, farmers experience low crop response to fertilisers and hence low crop yields (...) Maize yields grown in these acidic areas has been documented to be as low as one ton per hectare, way below the potential of six tons per hectare.” Indeed, the Ministry of Agriculture estimates that around half of the smallholders in western Kenya may be farming soils with a pH below 5.5 (for many crops the optimum soil pH is 5.5 to 6.5).¹² The causes are a lack of crop rotation and the repeated application of DAP or urea fertilisers.

A study by the International Food Policy Research Institute (IFPRI) calculated the macroeconomic cost of environmental degradation in Kenya.¹³ The report finds that the annual cost of land degradation was \$1.3 billion between 2001 and 2009. The IFPRI breaks down the economic loss, revealing how rangeland degradation costs \$80 million a year (in lost milk and meat production) and how nutrient deficient soils cost \$270 million a year (in lost wheat, maize and rice yields). These sums are much greater than previous estimates: in 2010, the IMF believed the annual cost of land degradation was just 3% of the country’s GDP (\$390 million).¹⁴ This indicates that the trend is worsening.

Figure 2

Observed & Projected Shrinking of Productive Crop Areas in Kenya, 1960–2039



Source: Nyaoro, Dulo (2016: 63)

The environment is presenting challenges at a time when food demand is set to dramatically increase, in line with Kenya's rapid demographic growth and urbanisation (the population is expected to double by 2050, with 29 million additional people living in cities).¹⁵ According to the UN's Food and Agriculture Organisation (FAO) (2019a), demand for livestock like cattle and chicken is set to rise by 94% and 375% respectively over the next three decades.

Since the 1990s, food consumption has outpaced production in Kenya and the supply gap remains a pressing issue (see Figure 3 for a view of the food deficit in 2018/19). While 11% of Kenya's current food needs are covered by imports, this could rise to 25% by 2040, when annual consumption is projected to outrun production by nearly 20 million metric tonnes.¹⁶ The supply deficit is resulting in a volatile market for food staples: in 2017, maize prices fluctuated by more than 45%.¹⁷ This volatility is set to continue, leaving Kenyans vulnerable to price hikes and placing pressure on the country's reserves of foreign exchange.

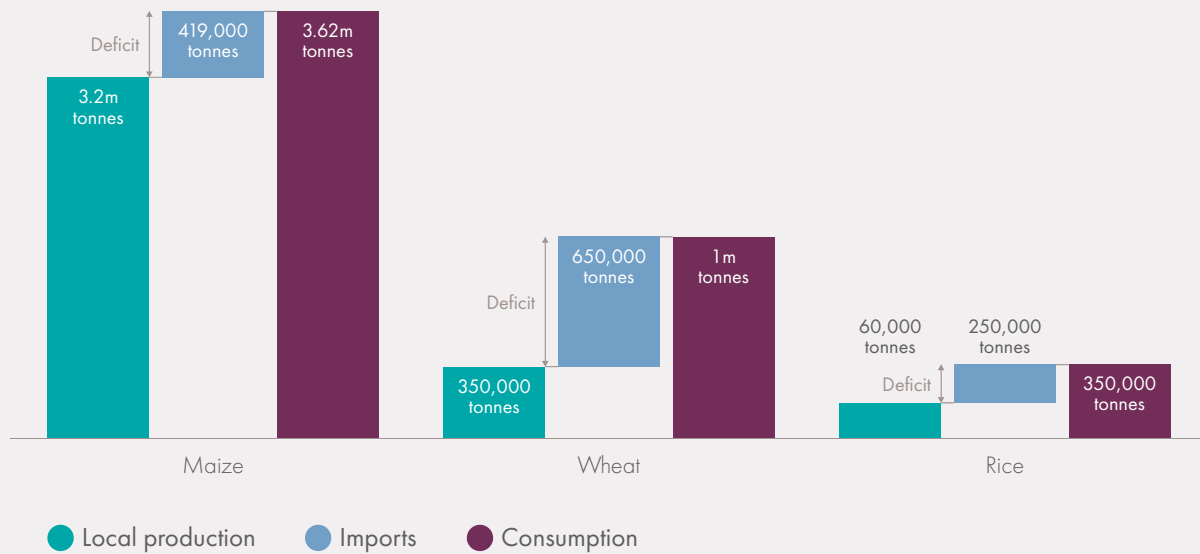
Given the likely continuation of rapid population growth and if rapid urbanisation is left unmanaged, these structural forces risk increasing pressure on land that is already stressed, which may lead to greater food insecurity and conflict.¹⁸

SINCE THE
1990S, FOOD
CONSUMPTION
HAS OUTPACED
PRODUCTION
IN KENYA AND
THE SUPPLY GAP
REMAINS A
PRESSING ISSUE.

Figure 3

The Food Supply Deficit for Key Staples in Kenya, 2019

Note: Figures do not include informal trade



Source: USDA Foreign Agricultural Service & Sofala Partners

There are growing tensions over land and water.

According to an article published by Reuters, population growth and land degradation in Kenya have fuelled intense competition over resources in recent years. In addition, climate change is set to worsen communal tensions, as erratic weather patterns undermine agricultural livelihoods. Indeed, as rural communities seek to sustain themselves and meet the country's food needs, croplands are being expanded, taking in previously marginal areas, pastureland, forests and steep slopes. As grazing areas and water holes disappear, pastoralists are adapting their routes, venturing into semi-arid areas and forests. Driven by the growing scarcity of resources, these new patterns of behaviour are generating friction between communities in rural areas.

Ngai Mutuoboro, Chairman of Atiriri Bururi ma Chuka (a conservation group), provides the example of the Chuka and Tharaka, groups who peacefully shared the Naka River until a decade ago. Owing to increasingly unpredictable rainfall in the area, Chuka farmers have been unable to use the river for small-scale irrigation and have come into conflict with Tharaka pastoralists, who in times of drought have ventured further upstream in search of water for their livestock.

As a further example, a report by the UN Environment Programme (2019) found tensions in the Tana Delta were rising, as villages "bear the brunt of the delta's advancing degradation" and are "caught between deforestation, increasing drought and pastoralists desperate to feed their cattle." In 2012, 286 people died in resource-related clashes between farmers and pastoralists. A local villager summarises the deteriorating situation as follows: "when I was younger, we had a full month of rain and the pastoralists moved away. Now [the rain] lasts a week and everyone leaves their cattle here (...). The villagers collect dry wood, but the loggers take living trees. And where there are no trees, the sudden rain sweeps everything away." While violent conflict over land in Kenya has not reached the same scale or intensity as elsewhere in the Horn of Africa, this trend is of growing concern.

Snapshot: Might reforestation address the issue of water scarcity in Kenya?

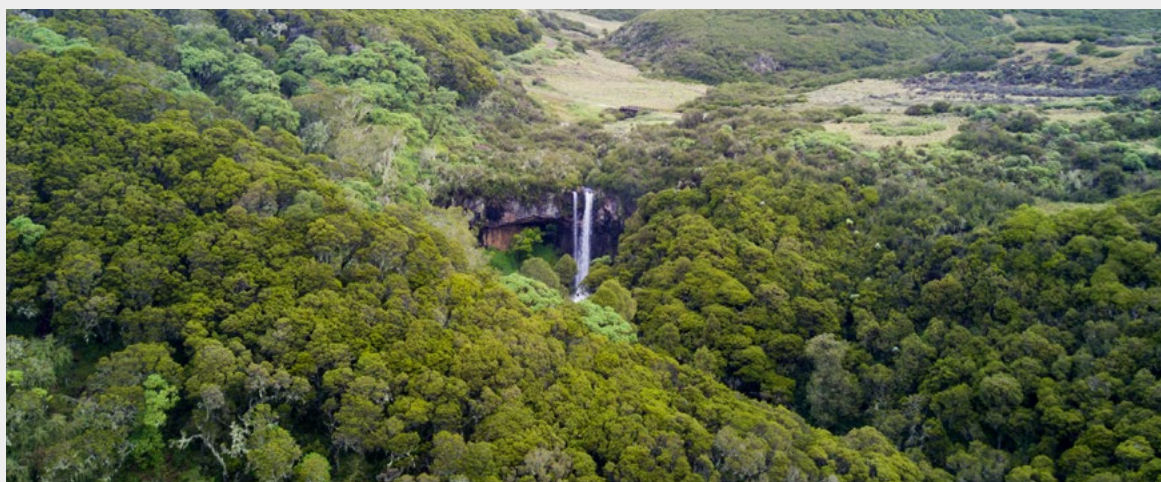
Most of Kenya's water supply originates from five water towers: the Mau forest complex, the Aberdare range, Mount Kenya, Mount Elgon and the Cherengani Hills. These are the largest montane forests and form the upper catchments of the country's main rivers.

Over the past 25 years, the destruction of forests has been extensive, owing to the establishment of settlements without due process, illegal logging and unsustainable grazing. According to a government taskforce set up to investigate forest management and logging, the country's forest cover has been shrinking at a rate of 5,000 hectares per year.²⁴ While the constitution stipulates Kenya must maintain a minimum forest cover of 10%, coverage fell to 7.4% in 2019.²⁵ Importantly, closed canopy forest cover – which is essential for water resources – was just 2% in 2018, a proportion far below the continental average (9.3%) and world average (21.4%).²⁶ With implications for key agricultural sectors (including tea and maize), deforestation is diminishing water availability in the country and affecting the rural economy, with 62 million cubic meters of water and \$19 million lost each year.²⁷ According to an impact report from Kenya's water regulator WASREB, "If the business-as-usual approach is maintained in the way water resources are managed, Kenyans will face a 30% gap between available freshwater supply and demand by the year 2030."²⁸

Recently, the government has made a concerted effort to reclaim water catchment areas and reverse deforestation, recognising how the loss of forest cover has the potential to derail the country's development. In response to the taskforce's findings and recommendations, the government set out a "National Strategy" in 2019, clarifying how the country will achieve and sustain 10%+ tree cover by 2022.²⁹ In addition, the government has committed to restoring 5.1 million hectares of degraded and deforested land by 2030 as part of Kenya's contribution to the African Forest and Landscape Restoration Initiative (a continental project designed to inspire the restoration of 100 million hectares of land).³⁰

In the short-term, the government's ambitions in forestry may be limited by a lack of finance and planting material. Indeed, the government has estimated that realising 10% tree coverage will cost around \$430 million and rely on a mixture of public and private resources, much of which is yet to materialise.³¹ In addition, the government is yet to establish a sustainable supply of high-quality tree seedlings (c. 1.8 billion are required to meet the re-forestation target).³²

However, in the long-term, growing public pressure is expected to drive regeneration initiatives forward. According to Kaluki Paul Mutuku, a regional coordinator for Youth4Nature, "2019 [saw] the rise of a global youth movement for climate action on a scale never seen before and this movement has spread to Africa. The scale, energy and momentum of this movement creates new opportunities that simply didn't exist before."³³



A mountain waterfall in Aberdares National Park, Kenya

Owing to increasing public pressure, efforts to mitigate climate change and conserve land will intensify.

Signalling a commitment to change, the government has enacted important environmental legislation in recent years, such as the plastic bag ban in 2017 and the National Climate Change Action Plan 2018–2022.

The current administration has instituted a number of climate change and sustainable agriculture policies, including the National Climate Change Action Plan 2018–2022 and, in 2020, an updated Individually Determined National Contribution (INDC) that proposes even more ambitious cuts on the greenhouse gases.³⁴ Broadly speaking, this set of regulations aims to prevent land degradation and address food insecurity by mitigating the effects of climate change and incentivising sustainable growth. While the implementation of these policies has been plagued by challenges (e.g. weak inter-ministerial coordination and competition between central government and counties), there have been a few notable success stories.

IN 2019, THE GOVERNMENT REPORTED THAT 80% OF THE POPULATION HAVE STOPPED USING PLASTIC BAGS.

For example, 2017's plastic bag ban made the manufacture, sale and use of plastic carrier bags illegal. The use of a bag can result in a \$500 fine or jail time, anyone found producing, importing or selling plastic bags can be fined up to \$40,000 or face a four-year prison sentence.³⁵ Following the launch of the policy, the government acted nimbly, temporarily outlawing the manufacture of environmentally damaging polypropylene bags, which increased as a result of the ban. In 2019, the government reported that 80% of the population have stopped using plastic bags.³⁶

Other initiatives are expected to deliver benefits over time. As Abraham Muthogo, CEO of Miradi Capital, highlighted, "Kenya has recently put in measures to address climate change that will bear fruits in the medium to long-term, including the reclamation of water towers, a logging ban and aggressive reforestation." Mohammed Nyaoga, Board Chairman at the Central Bank of Kenya, took heart from the incremental progress being realised by social activists across the country: "I think we will get the country green again. I say this because the grassroots are mobilising. For example, communities living along the new road in Nairobi from ABC Place towards Kitisuru sought permission from the Kenya National Highways Authority to plant trees along the road. This was not driven by government, just individuals deciding to act."

Despite these optimistic assessments, the implementation of necessary environmental reforms in politically sensitive areas will prove challenging. The matter of increasing land tenure security in Kenya, which is "pivotal" for the adoption of soil and water conservation measures, according to the UN Convention to Combat Desertification (2019), offers a case in point. While the government has attempted "to establish a firm legal framework for regularising tenure security in informal settlements" and has embarked on large multi donor-funded programmes, the issue is unlikely to be fully resolved even in the medium- and long-term, owing to its complexity and political dimension.³⁷



Windmills at the Ngong Hills wind farm in Ngong, Kenya

Stronger and more concerted action is necessary, but there are reasons to be optimistic that change is possible in the short-term (due to grassroots activism), medium-term (due to the use of climate-smart tech) and long-term (due to greater regional & global collaboration)

“THE CORRECT POLICIES FOR CLIMATE CHANGE HAVE TO BE DRIVEN BY THE POPULATION MAKING THE RIGHT DEMANDS OF GOVERNMENT.”

Kennedy Odede, Co-founder of Shining Hope for Communities

Short-term (1–2 years)

The growth of grassroots activism: Gauri Vidyarth, a Financial Advisor at VFS International, felt hopeful about the successful delivery of an environmentally friendly agenda owing to the support of young people: “the plastic bag ban shows when we get serious about an agenda, we can deliver on it.”³⁸

The expansion of renewable energy: Kennedy Odede reflected that “in the village they use charcoal because it’s affordable – we need to offer alternative affordable green solutions.”³⁹ Increasingly, start-ups are trying to tackle the use of environmentally damaging fuel (e.g. KOKO Networks – launched in early 2019 – is now widely distributing ethanol as a comparatively clean and safe alternative for home cooking)⁴⁰ Kenya’s energy sector is emerging as a global leader in terms of transitioning from non-renewable to renewable energy sources.⁴¹ With the launch of Africa’s largest wind power farm in 2019 (the 310 MW Lake Turkana Wind Power Project) and new geothermal, hydropower and solar plants coming online soon, Kenya is expected to reach its ambitious goal of generating 100% of its power from renewable sources in the medium-term.

Medium-term (5 years)

The implementation of a long-term masterplan: Abraham Muthogo, CEO of Miradi Capital, reflected on the need for “an environmental masterplan that runs for the next 10 years minimum with an annual review.”⁴² Owing to public pressure and the pace of climate change, the country may adopt an all-encompassing and long-term approach over the medium-term.

The widespread adoption of climate-smart technology: Benson Ndeta, Chairman of Savannah Cement, was uncompromising as he asserted “the country must invest heavily in technology and innovation that will address water and food availability.”⁴³ While climate-smart technologies are starting to attract investment, George Nyabuga, a Professor at the University of Nairobi, claimed the process needs to be accelerated. Development finance institutions are likely to turbo-charge the process in the medium-term, by taking actions like the discontinuation of investment in all non-clean and non-renewable business models.⁴⁴ As an early signal of this emerging trend, the African Development Bank announced it will no longer finance coal projects in Africa at the end of 2019.⁴⁵

Long-term (10+ years)

A greater emphasis on regional and global collaboration: Adopting the long view and appreciating the scale of the challenge, Jared Kangwana, a former member of the East Africa Legislative Assembly, outlined how “containing the ramifications and advance of climate change will require coordinated global effort – we cannot succeed on our own as a single nation or even as a region.”⁴⁶

Snapshot: off-grid renewable energy is set to scale in Kenya and represents a strong growth opportunity

Kenya's off-grid energy sector boasts an increasingly diverse set of products, ranging from solar lamps to energy systems capable of powering a small clinic and mini-grids that connect several hundred households. The sector is growing quickly: over the past decade, the use of products such as solar lanterns has risen from 2% of households to around 18%, enabling millions of people traditionally left off the grid to light their homes without the use of expensive and hazardous kerosene.⁴⁷ According to a World Economic Forum report, this strong growth is set to continue.⁴⁸

In a recent development, large corporations have started to invest in off-grid energy, illustrating how the sector is increasingly viewed as having high development impact and commercial viability. In September 2019, the French utility firm ENGIE announced the acquisition of Mobisol, an off-grid provider with a footprint in Kenya, Tanzania and Rwanda.⁴⁹ Indeed, ENGIE already owns a solar home systems unit – Fenix International – which has a presence in six other markets in Africa, including Uganda. As large corporations continue to enter the sector, this will facilitate economies of scale, network effects and the attraction of financial, technical and human resources, which the World Bank (2019b) believes will be critical if Kenya is to undergo a digital transformation.⁵⁰

However, while recent investments indicate the commercial potential of off-grid energy, it remains unclear whether or not the target demographic is able to pay for electricity. Anjali Saini, renewable energy consultant and former adviser to the renewable energy window of the African Enterprise Challenge Fund, emphasised how a strict focus on “the bottom of the pyramid” will not be a viable business strategy for some time (unless it is subsidised in some form), especially if cost of capital remains relatively high.⁵¹

It is worth noting how firms are innovating and evolving their business models in response to this market reality. For example, the pay-as-you-go off-grid energy platform M-KOPA has started to diversify its offer, selling solar-powered appliances like fridges alongside its core solar home solutions. For Saini, this strategic pivot towards SMEs would be more effective in conjunction with economic development packages: “linking electricity access to local business is a potential driver [of demand] as it [establishes] a tangible link between electricity access and income potential. However, the scale of that demand may in some cases still not be commercially viable without economic development packages.” The potential market is significant: a survey conducted by M-KOPA in collaboration with the UK's CDC found 73% of respondents would use a fridge in their business, recognising how the appliance would free up time for income-generating activities.⁵²

Over the next five years, this young and dynamic sector will adopt a ‘test and learn’ approach, as firms determine the most sustainable product mix, last mile distribution model and way of managing non-payment risk. This will involve collaboration with the public sector, especially on regulatory issues surrounding consumer protection. In addition, as part of this evolution process, firms are set to start exploring how to link off-grid energy solutions with the local economy (e.g. cold storage facilities for the fishing industry).⁵³

Over the next five to ten years, successful market players – buoyed by the right enabling environment and boasting a mature set of products – will drive the demand necessary to realise scale. Firms like M-KOPA are expected to become diversified non-bank financial institutions with multi-channel customer relationships and a broad portfolio of products, generating demand among those groups traditionally excluded from the formal banking system.⁵⁴



Simple solar panels to harvest sunlight for electricity on the shores of Lake Victoria, Kenya



Dusty Kenyan plains during a severe drought

PART B:

IMPACT OF COVID-19 ON ENVIRONMENT IN KENYA

Emerging amid extreme climate events, COVID-19 has stressed Kenya's food system.

There is an emerging consensus that zoonoses such as COVID-19 will become more common as human activity continues to destroy the natural environment, forcing societies and animals to compete over increasingly scarce resources. While the Global Carbon Project estimated that global emissions would fall by 4–7% year-on-year in 2020, owing to movement restrictions, there appears to be little reason to believe the pandemic will serve as a watershed moment for climate action.⁵⁵ Indeed, in a report published mid-pandemic, the International Monetary Fund emphasised the critical need for Africa to “adapt” to climate change, which may cost some \$30–\$50 billion over the next decade (i.e. 2–3% of the continent's GDP).⁵⁶

Across East Africa, the COVID-19 crisis coincided with extreme climate events and threatened to cause widespread food insecurity. As pandemic-related measures upended livelihoods and disrupted supply chains, the World Food Programme calculated the number of food insecure people in the region could increase by 34–43 million.⁵⁷ In Kenya, efforts to contain the outbreak of COVID-19 and aid communities were frustrated by extreme rainfall in March and April, which affected 233,000 people across 75% of the country's counties.⁵⁸ A product of a changing climate, the severe weather caused the Nzoia river to burst its banks (rendering 40,000 people homeless); resulted in fatal mudslides in West Pokot and Elgeyo Marakwet; and increased Lake Victoria's water level by two metres, impacting families in Kisumu (a situation last witnessed in the early 60s).

In addition to COVID-19 and extensive flooding, the region was affected by a dramatic upsurge of desert locusts in early 2020 – the worst experienced in Ethiopia and Somalia for 25 years and in Kenya for 70 years.⁵⁹ A significant threat to food security, even a modest swarm of desert locusts – c. 40 million – can consume as much vegetation as 35,000 people in a single day. Owing to the heavy rainfall and breakdown of pesticide supply chains amidst the pandemic, desert locusts enjoyed perfect breeding conditions and – according to Oxfam – placed millions of people in the region at risk of increased hunger and poverty.⁶⁰ Indeed, it is thought up to 70 000 hectares

of pastureland in Kenya was lost to the pest (as of June 2020).⁶¹

Since two-thirds of the countries in Africa are net importers of food, observers were quick to conclude that restrictions on global production and trade would lead to acute shortages on the continent.⁶² In Kenya, a country with a long-standing food supply deficit, the outlook initially looked bleak: in May 2020, maize stocks dropped by 25%⁶³ and there were significant year-on-year price hikes for items such as onions, tomatoes and beans.⁶⁴ However, according to an editorial in *Business Daily*, the government effectively averted a serious food crisis by establishing a technology-enabled “War Room” for food security, which included decision-makers from across the public and private sectors and facilitated the real-time monitoring of stocks and prices.⁶⁵ In addition, Kenya received vital support from multilateral institutions: while the country's farming communities benefitted from the African Development Bank's \$7 billion continental package for agriculture, the World Bank advanced KSH 4.59 billion to support Kenya's fight against the desert locust invasion.⁶⁶ Drawing a line under the initial phase of the pandemic, the UN's Food and Agriculture Organisation (FAO) classed the food security situation in Kenya as “stable” in August 2020, recognising how the government had maintained access to international supply chains and successfully enabled domestic farming to continue.⁶⁷ However, the FAO remains concerned that Kenya's ability to feed itself in future will be challenged by population growth and the increasing frequency of extreme climate events.

In a promising move, the government has committed to using some of the World Bank's \$1 billion pandemic-related loan to set up an electronic voucher system for agricultural inputs, with the aim of enhancing the targeting of subsidies and thereby supporting low-income rural communities.⁶⁸ To ensure farmers adequately conserve the land and raise yields in the near future, such stimulus appears critical: a survey of 334 agro-dealers by Mercy Corps suggests 93% of such firms have been affected by the pandemic, as cash-strapped consumers spend 31–50% less per store visit.⁶⁹

PART C: CONCLUSION

What might climate change mean for economic transformation?

Export-oriented sectors are leading the way in driving higher environmental standards, but could benefit from further government commitment to a green agenda.

While the local market does not pay a premium for or require much in the way of environmental standards, sectors with a large share of produce going to export markets, especially in Europe and the US are being driven increasingly to meet high environmental standards. These include cut flowers, horticulture, textiles, tea and coffee, which face industry pressures on land stewardship and deforestation concerns. Given Kenya's legislation, government capability, and the existing scale of these sectors compared to its regional competitors, developing mechanisms to raise, adopt and monitor environmental standards could be a major factor in helping Kenya to maintain or grow its exports in these sectors, paving the way for wider change.

Kenya has enacted a strong guiding policy in the Climate Change Act, with plans for a climate fund and a coordinating mechanism chaired by the President. As noted, Kenya has also signalled a commitment to enhancing its commitments to reduce its carbon output by submitting a revised INDC to the UNFCCC. The new INDC significantly raises Kenya's financial needs to fulfil its targets and thus we are likely to see more concerted efforts in the government fundraising efforts for climate action. To date, however, data is currently extremely limited, hindering the monitoring of progress. Understanding the efficacy of adaptation practices across Kenya's agricultural sectors could be a first start at understanding the scale of the challenge and any progress being made. As Edward Mungai, Executive Director of the Kenya Climate Innovation Centre (KCIC), noted, "We have strong plans in place, but these need to be guided towards the evidence of what's working when being implemented."



A farmer practices agroforestry to be climate change resilient



A drip irrigation system in an agricultural training centre, Kenya

Concerted focus on the water sector is needed, and in particular a shift towards widespread irrigation schemes to protect agriculture from climate volatility.

Water is going to be a massive issue for Kenya within the next 10 years, with dependence on rainfall a particular problem. This will have major economic consequences. According to one estimate from the World Health Organisation, if Kenya could decouple its economy from rainfall variability it would increase annual GDP growth by 2.4%.⁷⁰ Irrigation seems to be an area that could benefit from greater focus, as we have seen the recent failure of large-scale schemes, such as Galana, as well as limited access to small-scale irrigation. Progress is being made on urban and rural water services, with concerted efforts by government and various stakeholders to improve household water access. For example, access to water increased from 39% to 60% between 2006 and 2020 as a result of institutional reforms and sector improvements. However, further efforts need to be put into irrigation schemes in particular, especially those with the potential to scale amongst rurally dispersed smallholder farmers. As Edward Mungai put it, "We are seeing positive developments, but we need to find a few copy-paste models of irrigation schemes that can be scaled up." Without substantial progress in this area, any efforts to tackle soil degradation and try to raise productivity may well be rendered ineffective by climate change.

The transformation of Kenya's agricultural sector will nonetheless need more than irrigation.

While irrigation will be crucial to Kenya's ability to mitigate the increasing climate risks of droughts, which will enable growth of the agriculture sector, much greater efforts are also needed to secure effective knowledge and access to quality inputs, services and technologies. The use of agricultural lime, crop and soil specific fertilisers, conservation farming techniques, as well as improved seeds and other inputs will be critical factors in intensifying land use and raising productivity in a sustainable manner. Similarly for livestock and aquaculture, effective environmental management of rangelands and water resources is going to be critical to preserve conditions for fish farming and pastoralism. This is a challenging agenda, with substantial systemic and cultural constraints. Stronger, more coordinated efforts are needed to secure sustainable and transformative change.

Chapter Notes

¹ Ministry of Environment and Natural Resources (2016) Land Degradation Assessment In Kenya. Nairobi: Government of Kenya

² Mbogo, E., Inganga, F. and Maina, J.M. (2014) Drought conditions and management strategies in Kenya, unpublished report. Nairobi: Ministry of Agriculture, Livestock and Fisheries

³ Ibid

⁴ United Nations Office for the Coordination of Humanitarian Affairs (2019) Kenya: Heavy rains impact more than 100,000 people. UNOCHA. Available at <https://www.unocha.org/story/kenya-heavy-rains-impact-more-100000-people>. (Accessed 24 January 2020)

⁵ Food and Agricultural Organisation (2020a) Crop Prospects and Food Situation – Quarterly Global Report No. 1, March 2020. Rome. Available at: <https://doi.org/10.4060/ca8032en> (Accessed 24 January 2021)

⁶ United Nations Office for the Coordination of Humanitarian Affairs (2017) Horn of Africa: A Call for Action, February 2017. UNOCHA. Available at <https://reliefweb.int/report/ethiopia/horn-africa-call-action-february-2017-enar> (Accessed 24 January 2020)

⁷ World Bank (2020a) Employment in agriculture (% of total employment) (modelled ILO estimate) – Kenya (data set). Available at <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=KE> (Accessed 24 January 2020)

⁸ World Bank (2020b) Kenya Country Profile – Climate Change Knowledge Portal (data set). Available at <https://climateknowledgeportal.worldbank.org/country/kenya/climate-data-projections> (Accessed 24 January 2020)

⁹ Mulinge W. et al. (2016) Economics of Land Degradation and Improvement in Kenya. In: Nkonya E., Mirzabaev A., von Braun J. (eds) Economics of Land Degradation and Improvement – A Global Assessment for Sustainable Development. Springer, Cham

¹⁰ Kenya Markets Trust (2019a) Enhancing Market Access and use of Agricultural Lime amongst Smallholder Farmers in Western Kenya Region – Early Impact Assessment Report (Abridged Version). Nairobi: Kenya Markets Trust

¹¹ World Bank (2019a) Kenya Economic Update: Unbundling the Slack in Private Sector Investment. April 2019. Edition 19. Available at: <http://documents1.worldbank.org/curated/en/820861554470832579/pdf/Kenya-Economic-Update-Unbundling-the-Slack-in-Private-Sector-Investment-Transforming-Agriculture-Sector-Productivity-and-Linkages-to-Poverty-Reduction.pdf> (Accessed 10 February 2021)

¹² Ibid

¹³ Mulinge W. et al. (2016) Economics of Land Degradation and Improvement in Kenya. In: Nkonya E., Mirzabaev A., von Braun J. (eds) Economics of Land Degradation and Improvement – A Global Assessment for Sustainable Development. Springer, Cham

¹⁴ International Monetary Fund (2010) Kenya: Poverty Reduction Strategy Paper. IMF Country Report No. 10/224, Washington, DC.: International Monetary Fund

¹⁵ Food and Agriculture Organization of the United Nations (2017) Africa Sustainable Livestock: Country Report, Kenya. FAO Country Reports, Rome: FAO

¹⁶ Welborn, Lily (2018) Food security under threat in Kenya. Institute for Security Studies. Available at <https://issafrica.org/iss-today/food-security-under-threat-in-kenya> (Accessed 24 January 2020)

¹⁷ Food and Agriculture Organization of the United Nations (2020b) GIEWS FPMA Tool monitoring and analysis of food prices (data set). Available at <http://www.fao.org/giews/food-prices/tool/public/#/home> (Accessed 24 January 2020)

¹⁸ Mulinge W. et al. (2016) Economics of Land Degradation and Improvement in Kenya. In: Nkonya E., Mirzabaev A., von Braun J. (eds) Economics of Land Degradation and Improvement – A Global Assessment for Sustainable Development. Springer, Cham

¹⁹ Njagi, Kagonda (2018) Land shortages drive conflict over Kenya's wetlands. Reuters. Available at <https://www.reuters.com/article/us-kenya-landrights-wetlands/land-shortages-drive-conflict-over-kenyas-wetlands-idUSKBN113174I> (Accessed on 24 January 2020)

²⁰ Mulinge W. et al. (2016) Economics of Land Degradation and Improvement in Kenya. In: Nkonya E., Mirzabaev A., von Braun J. (eds) Economics of Land Degradation and Improvement – A Global Assessment for Sustainable Development. Springer, Cham

²¹ United Nations-Environment Programme (2019) Voices From The Land: Restoring Soils And Enriching Lives. New York: The United Nations Environment Programme

²² Njagi, Kagundu (2018) Land shortages drive conflict over Kenya's wetlands. Reuters. Available at <https://www.reuters.com/article/us-kenya-landrights-wetlands/land-shortages-drive-conflict-over-kenyas-wetlands-idUSKBN113174I> (Accessed on 24 January 2020)

²³ Interview with the authors

²⁴ Ministry of Environment and Forestry (2018a) Taskforce Report on Forest Resources Management and Logging Activities in Kenya. Nairobi: Government of Kenya

²⁵ Ibid

²⁶ Ibid

²⁷ Ibid

²⁸ Cited in Kenya Markets Trust (August 2019s). The Journey of Changing Water Services Delivery in Kenya. KMT Water Case Study 01. Available at: <https://www.kenyamarkets.org/wp-content/uploads/2020/04/water-industry-research-in-kenya-service-delivery.pdf> (Accessed 20 January 2021)

²⁹ Ministry of Environment and Forestry (2019) National Strategy For Achieving And Maintaining Over 10% Tree Cover By 2022. Nairobi: Government of Kenya

³⁰ Please see here for further details of NEPAD's African Forest Landscape Restoration Initiative (AFR100)

³¹ Mutuku, Kaluki Paul (2019) Kenya has lost nearly half its forests – time for the young to act. The Africa Report. Available at <https://www.theafricareport.com/16150/kenya-has-lost-nearly-half-its-forests-time-for-the-young-to-act/> (Accessed on 24 January 2020)

³² Ibid

³³ Ibid

³⁴ Ministry of Environment and Forestry (2018b) National Climate Change Action Plan (NCCAP) 2018-2022. Nairobi: Government of Kenya

³⁵ BBC, (2019) Has Kenya's plastic bag ban worked? BBC News. Available at <https://www.bbc.co.uk/news/world-africa-49421885>. (Accessed 24 January 2020)

³⁶ Ibid

³⁷ Byamugisha, Frank F. K. (2013) Securing Africa's Land for Shared Prosperity: A Program to Scale Up Reforms and Investments. Africa Development Forum Series; Washington, DC: Agence Française de Développement and the World Bank.

³⁸ Interview with the authors

³⁹ Interview with the authors

⁴⁰ Further details of Koko Networks operations please see here

⁴¹ Dahir, Abdi Latif (2019) Africa's largest wind power project is now open in Kenya. Available at <https://qz.com/africa/1671484/kenya-opens-africas-largest-wind-power-project-in-turkana/> (Accessed 11 February 2020)

⁴² Interview with the authors

⁴³ Interview with the authors

⁴⁴ Lopes, Carlos (2020) Africa Must Choose Renewables Over Coal. Project Syndicate. Available at <https://www.project-syndicate.org/commentary/africa-economic-development-needs-renewables-not-coal-by-carlos-lopes-4-2020-02> (Accessed 10 February 2020)

⁴⁵ Winning, Alexander (2019) African Development Bank decides not to fund Kenya coal project. Reuters. Available at <https://www.reuters.com/article/us-africa-investment-coal/african-development-bank-decides-not-to-fund-kenya-coal-project-idUSKBN1XN1A8> (Accessed on 10 February 2020)

⁴⁶ Interview with the authors

⁴⁷ World Bank (2018) Off-Grid Energy Has Key Role in Kenya's New Electrification Strategy. Lighting Africa – World Bank Group. Available at <https://www.lightingafrica.org/off-grid-energy-has-key-role-in-kenyas-new-electrification-strategy/> (Accessed 24 January 2020)

⁴⁸ Wood, Johnny (2018) Kenya is aiming to be powered entirely by green energy by 2020. World Economic Forum. Available at: <https://www.weforum.org/agenda/2018/12/kenya-wants-to-run-entirely-on-green-energy-by-2020/> (Accessed 10 January 2021)

⁴⁹ Please see Engie website here for further details of the acquisition

⁵⁰ World Bank (2019b) Kenya Economic Update: Securing Future Growth – Policies to Support Kenya's Digital Transformation (English). Washington, D.C.: World Bank Group

⁵¹ Interview with the authors

⁵² Sanni, Michael (et al.) (2019) How innovation in off-grid refrigeration impacts lives in Kenya. Impact Study: 007, Nairobi: CDC Group.

⁵³ Ibid

⁵⁴ Alderman, Jessica, (2019) The Next Big Thing for Pay-as-You-Go. Stanford Social Innovation Review. Available

at https://ssir.org/articles/entry/the_next_big_thing_for_pay_as_you_go. (Accessed 11 February 2020)

⁵⁵ Le Quere, Corinne et al. (2020) Temporary reduction in daily global CO₂ emissions during the COVID-19 forced confinement. *Mature Climate Change*. Available at: <https://www.globalcarbonproject.org/news/TemporaryReductionInCO2EmissionsDuringCOVID-19.html> (Accessed 10 January 2021)

⁵⁶ International Monetary Fund (2020) Regional Economic Outlook: sub-Saharan Africa. COVID-19: An Unprecedented Threat to Development. Available at: <https://www.imf.org/en/Publications/REO/SSA/Issues/2020/04/01/sreo0420> (Accessed 10 January 2021)

⁵⁷ The East African (2020) FAO appeals for more funds to fight locusts. Available at: <https://www.theeastafrican.co.ke/scienceandhealth/FAO-appeals-for-more-funds-to-fight-locusts/3073694-5570200-3q4au4/index.html> (Accessed 10 January 2021)

⁵⁸ United Nations Office for the Coordination of Humanitarian Affairs (2020) Kenya: Floods Flash Update No. 1. Available at: <https://reliefweb.int/report/kenya/kenya-floods-flash-update-no-1-7-may-2020> (Accessed 10 January 2021)

⁵⁹ Gilliland, Haley (2020) Gigantic new locust swarms hit East Africa. *National Geographic*. Available at: <https://www.nationalgeographic.co.uk/environment-and-conservation/2020/05/gigantic-new-locust-swarms-hit-east-africa>

⁶⁰ Capital FM (2020) Kenya: New Swarms of Locusts Due to Hatch in June, As Flooding and COVID-19 Restrictions Create Perfect Conditions for Multiplication – Oxfam. Available at: <https://allafrica.com/stories/202005280558.html> (Accessed 10 January 2021)

⁶¹ Food and Agriculture Organisation (2020c) Appeal for rapid response and anticipatory action in the Greater Horn of Africa. Available at: http://www.fao.org/fileadmin/templates/cfs/Docs1920/BurAG/2020_01_28/Attachment_1_Desert_Locust.pdf (Accessed 10 January 2021)

⁶² Mayaki, Ibrahim (2020) How Africa's economies can hedge against COVID-19. Available at: <https://www.tralac.org/news/article/14509-how-africa-s-economies-can-hedge-against-covid-19.html> (Accessed 10 January 2021)

⁶³ Ngotho, Agatha (2020) Kenya likely to face food shortage this year – report. *The Star*. Available at:

<https://www.the-star.co.ke/news/2020-06-09-kenya-likely-to-face-food-shortage-this-year--report/> (Accessed 10 January 2021)

⁶⁴ Food Business Africa (2020) COVID-19 Update: Food price in Kenya still on the high despite improved supply. Available at: <https://www.foodbusinessafrica.com/covid-19-update-food-price-in-kenya-still-on-the-high-despite-improved-supply/> (Accessed 10 January 2021)

⁶⁵ Obi, Leopold (2020) How Kenya averted a food unrest in the wake of Covid-19. *Business Daily*. Available at: <https://www.businessdailyafrica.com/datahub/How-Kenya-averted-food-unrest-Covid19/3815418-5605802-44prvxz/index.html> (Accessed 10 January 2021)

⁶⁶ Mabonga, Masolo (2020) Loans, grants Kenya has received since outbreak of coronavirus. Available at: <https://www.tuko.co.ke/372021-loans-grants-received-by-kenya-outbreak-coronavirus.html> (Accessed 10 January 2021)

⁶⁷ People's Daily (2020) UN official says Kenya's food security remains stable despite COVID-19 pandemic. Available at: <http://en.people.cn/n3/2020/0828/c90000-9739334.html> (Accessed 10 January 2021)

⁶⁸ Amadala, Victor (2020) World Bank approves Sh106 billion loan for Kenya. *The Star*. Available at: <https://www.the-star.co.ke/business/kenya/2020-05-21-world-bank-approves-sh106-billion-loan-for-kenya/> (Accessed 10 January 2021)

⁶⁹ Mercy Corps AgriFin (2020) What impacts are we seeing on agrodealer businesses in Kenya under COVID-19? Available at: <https://www.mercycorpsagrifin.org/wp-content/uploads/2020/07/COVID19-Impacts-on-Kenyan-Agro-dealer-Businesses.pdf> (Accessed 10 January 2021)

⁷⁰ World Health Organisation (2005) Making Water Part of Economic Development: The Economic Benefits of Improved Water Management Services. Available at: https://www.who.int/water_sanitation_health/waterandmacroecon.pdf (Accessed 10 January 2021)



Eucalyptus saplings in a Nairobi nursery

Bibliography

A

Abraham, Dalle. (2020) In the Shadow of a Liberation War. Africa is a Country. Available at: <https://africasacountry.com/2020/10/in-the-shadow-of-a-liberation-war> (Accessed 13 November 2020)

Achuka, Vincent. (2020) Graft-Ridden Kemsu Seeks Sh 5bn to Stay Afloat, Donors Start Probe. Nation. Available at: <https://nation.africa/kenya/news/graft-ridden-kemsa-seeks-sh5bn-to-stay-afloat-donors-start-probe-1922816> (accessed 13 November 2020)

Africa Centre for Open Governance (2019) State Capture: Inside Kenya's Inability to Fight Corruption. Nairobi: Africa Centre for Open Governance

Africa Check. (2019) Claims on Kenya's Counties: Fact-Checking the 2019 State of Devolution Address. Africa Check. Available at <https://africacheck.org/reports/claims-on-kenyas-counties-fact-checking-the-2019-state-of-devolution-address/> (Accessed 24 January 2020)

Africa Uncensored. (2020) COVID-19 in Kenya: Resources Available – Kenya Counties. Available at: <https://www.theelephant.info/data-stories/2020/04/11/covid-19-in-kenya-resources-available-kenya-counties/> (Accessed 13 November 2020)

African Business (2020) Available at: <https://african.business/2020/03/economy/how-is-repeal-of-interest-rate-cap-affecting-kenyas-economy/> (Accessed 8 March 2021)

African Business Magazine (2020) Opinion: Informal traders: a balancing act of survival. Available at: <https://africanbusinessmagazine.com/opinion/informal-traders-a-balancing-act-of-survival/> (Accessed 20 January 2021)

African Growth and Development Policy Modelling Consortium (2020) Africa Agriculture Trade Monitor. IFPRI. Available at: <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/134009/filename/134213.pdf> (Accessed 20 January 2021)

African Union Commission and OECD (2018), Africa's Development Dynamics 2018: Growth, Jobs and Inequalities, OECD Publishing, Paris/AUC, Addis Ababa

Agutu, Nancy. (2020) Uhuru gives EACC 21 Days to Complete Kemsu Probe. The Star. Available at: <https://www.the-star.co.ke/news/2020-08-26-uhuru-gives-eacc-21-days-to-complete-kemsa-probe/> (Accessed 13 November 2020)

Akiwumi, Paul (2020) COVID-19: A Threat to Food Security in Africa. OECD Development Matters. Available at: <https://oecd-development-matters.org/2020/08/11/covid-19-a-threat-to-food-security-in-africa/> (Accessed 16 September 2020)

Alderman, Jessica, (2019) The Next Big Thing for Pay-as-You-Go. Stanford Social Innovation Review. Available at: https://ssir.org/articles/entry/the_next_big_thing_for_pay_as_you_go.
Alleviation in Kenya? Rural-Urban Migration Experiences of Migrants from Western Kenya to Kisumu and Nairobi. Working Paper 21- African Migration and Development Policy Centre (Accessed 11 February 2020)

Amadala, Victor (2020) World Bank approves Sh 106 billion loan for Kenya. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-05-21-world-bank-approves-sh106-billion-loan-for-kenya/> (Accessed 18 February 2021)

Amadala, Victor (2020) World Bank approves Sh106 billion loan for Kenya. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-05-21-world-bank-approves-sh106-billion-loan-for-kenya/> (Accessed 10 January 2021)

Amadala, Victor (2020a) World Bank Approves Sh106b Loan for Kenya. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-05-21-world-bank-approves-sh106-billion-loan-for-kenya/> (Accessed 16 September 2020)

Amadala, Victor (2020b) 75% of Small, Medium Businesses at Risk of Collapsing by June – CBK. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-05-28-75-of-small-medium-businesses-at-risk-of-collapsing-by-june-cbk/> (Accessed 16 September 2020)

Arizala, Francisco., Bellon, Matthieu., MacDonald, Margaux., Mlachila, Montfort., & Yenice, Mustafa (2018) Regional Spillovers In Sub-Saharan Africa - Exploring Different Channels. Report 18/01 – Spillover Task Force, IMF

B

Bango, Karishma & Willem te Velde, Dirk. (2018) Digitalisation and the Future of African Manufacturing. Available at: https://set.odi.org/wp-content/uploads/2018/03/SET_Future-of-manufacturing_Brief_Final.pdf (Accessed December 5th 2020)

BBC Africa (2018) Head of Kenya youth agency arrested in \$78m corruption scandal. Available at: <https://www.bbc.co.uk/news/world-africa-44280453> (Accessed 18 February 2021)

BBC, (2019) Has Kenya's plastic bag ban worked? BBC News. Available at <https://www.bbc.co.uk/news/world-africa-49421885>. (Accessed 24 January 2020)

Benjamin, Imende. (2019) The Proxy Wars Behind Kenya, Somalia Rows. The Star. Available at <https://www.the-star.co.ke/news/big-read/2019-05-23-the-proxy-wars-behind-kenya-somalia-rows/> (Accessed 10 February 2020)

Best Naira News (2020) Delicate balance of employee vs business interests. Available at: <http://news.bestnaira.com/posts/view/delicate-balance-of-employee-vs-business-interests> (Accessed 20 January 2021)

Big News Network (2020) Manufacturing in Africa recovering, industry leaders say. Available at: <https://www.bignewsnetwork.com/news/265571174/manufacturing-in-africa-recovering-industry-leaders-say> (Accessed 20 January 2021)

Bird, Julia (2017) Life in a Slum: Understanding Living Conditions in Nairobi's Slums Across Time and Space, Oxford Review of Economic Policy, 33:3, 496–520

BitRSS (2020) How Local Cryptocurrencies Help Kenyans Survive the Coronavirus Crisis. Available at: <https://bitrss.com/news/175725/how-local-cryptocurrencies-help-kenyans-survive-the-coronavirus-crisis> (Accessed 18 February 2021)

Bizna (2020) Nearly 1 Million Kenyan Youths Lose Their Jobs in First 3 Months. Available at: <https://biznakenya.com/youth-unemployment-in-kenya/> (Accessed 27 November 2020)

British Council (2018) Next Generation Kenya: Listening to the voices of young people. Report 2018/H198. London: British Council

Bruni, Antonio (2021) On-demand delivery on the rise. Africa Tech. Available at: <https://africabusinesscommunities.com/tech/tech-features/column-antonio-bruni-on-demand-delivery-on-the-rise/> (Accessed 10 March 2021)

Buchanan, Elsa (2016) Burundi: International donors forced to chip in as lack of funds impede peace talks. The International

Business Times (2020). Available at <https://www.ibtimes.co.uk/burundi-international-donors-forced-chip-lack-funds-impede-peace-talks-1582341> (Accessed 10 February 2020)

Business Daily (2020) Corona controls cut Kenya's April EAC sales by Sh3.5bn. Available at: <https://www.businessdailyafrica.com/economy/Corona-controls-April-EAC-sales-by-Sh3-5bn/3946234-5574404-feuv90/index.html> (Accessed 20 January 2021)

Business Daily (2020) Treasury to Hit Sh9 Trillion Debt Ceiling in Two Years. Business Daily. Available at: <https://www.businessdailyafrica.com/bd/markets/market-news/treasury-to-hit-sh9-trillion-debt-ceiling-in-two-years-2301344> (Accessed 18 January 2021)

Business Daily (2020) Private Firm to Pick Toll Fees on Nairobi Expressway for 27 years. Available at: <https://www.businessdailyafrica.com/bd/economy/private-firm-to-pick-toll-fees-on-nairobi-expressway-for-27-years-2298884> (Accessed 19 January 2021)

Business Daily (2021) Kenya's Debt Bigger than Reported. Available at: <https://www.businessdailyafrica.com/bd/opinion-analysis/columnists/kenya-s-debt-bigger-than-reported-3300678> (Accessed 8 March 2021)

Business Daily (2021) IMF: Kenya Risks Eurobond Access over Debt Pile Up. Business Daily. Available at: <https://www.businessdailyafrica.com/bd/economy/imf-kenya-risks-eurobond-debt-pile-up-3248298> (Accessed 14 January 2021)

Byamugisha, Frank F. K. (2013) Securing Africa's Land for Shared Prosperity: A Program to Scale Up Reforms and Investments. Africa Development Forum Series; Washington, DC: Agence Française de Développement and the World Bank.

C

Cannon, Brendon., & Pkalya, Dominic. (2019) Why Al-Shabaab Attacks Kenya: Questioning the Narrative Paradigm, *Terrorism and Political Violence*, 31:4, 836-852. Available at: <https://poseidon01.ssrn.com/delivery.php?id=33209211708800211103110122093109121026011068081017086005005105078093115078093103108063055059052058025062074029072020081003093041036013081092090071004127106125121065058087060028092124116116122067096090003094029112107114067014010001118126024123103000099&EXT=pdf>

Capital FM (2020) Kenya: New Swarms of Locusts Due to Hatch in June, As Flooding and COVID-19 Restrictions Create Perfect Conditions for Multiplication – Oxfam. Available at: <https://allafrica.com/stories/202005280558.html> (Accessed 10 January 2021)

Changole, Adelaide (2018) Kenya's Public Household Debt Doubled in Past 5 Years. Bloomberg. Available at <https://www.bloomberg.com/news/articles/2018-10-09/kenya-s-public-household-debt-doubled-in-past-5-years-icea-says> (Accessed 24 November 2020)

Cheeseman, Nic., Lynch, Gabrielle., & Justin, Willis. (2016) Decentralisation in Kenya: The Governance of Governors, *The Journal of Modern African Studies*, 54:1, 1-35. Available at: <https://core.ac.uk/download/pdf/185499915.pdf> (Access 13 November 2020)

Cheeseman, Nic., Kanyinga, Karuti., Lynch, Gabrielle., Ruteere, Mutuma., & Justin, Willis. (2019) Kenya's 2017 Elections: Winner-Takes-All Politics as Usual?, *Journal of Eastern African Studies*, 13:2, 215-234. Available at: <http://wrap.warwick.ac.uk/114876/1/WRAP-Kenyas-elections-winner-takes-all-politics-Lynch-2019.pdf> (Accessed 13 November 2020)

Cheruiyot, Kevin., & Kubwa, Carolyne (2019) Supreme Court Dismisses National Assembly Objections Against COG. *The Star*. Available at <https://www.the-star.co.ke/news/2019-10-08-supreme-court-dismisses-national-assembly-objections-against-cog/> (Accessed 24 January 2020)

Cilliers, Jakkie et al. (2020) Impact of COVID-19 in Africa: A Scenario Analysis to 2030. Institute for Security Studies Africa Report 24. Available at: <https://issafrica.s3.amazonaws.com/site/uploads/ar24v2.pdf> (Access 24 November 2020)

Cook, William., & McKay, Claudia (2017) Banking in the M-PESA Age Lessons from Kenya. Working Paper, Washington DC: Consultative Group to Assist the Poor (CGAP)

Cornell, Agnes., D'Arcy, Michelle (2016) Devolution, Democracy and Development in Kenya Research Report No 5, Swedish International Development Centre for Local Democracy. Available at: <https://icld.se/app/uploads/files/forskningspublikationer/devolution-democracy-and-development-in-kenya-report-5-low.pdf> (Accessed 13 November 2020)

Cramer, Christopher (2015) Jobs, Unemployment and Violence. Professional Development Reading Pack, Governance and Social Development Resource Centre

Croplife Africa Middle East (2020) Desert Locust Control Hindered by Pesticide Procurement. AgriBusiness Global. Available at: https://www.agribusinessglobal.com/markets/desert-locust-control-hindered-by-pesticide-procurement/?e=fanny.megret@hec.ca&utm_source=realmagnet&utm_medium=newsletter&utm_campaign=agribusinessglobal06032020 (Accessed 10 January 2021)

D

Dahir, Abdi Latif (2019) Africa's largest wind power project is now open in Kenya. Available at <https://qz.com/africa/1671484/kenya-opens-africas-largest-wind-power-project-in-turkana/> (Accessed 11 February 2020)

Dahir, Abdi Latif (2020) Kenya's Unusual Solution to the School Problem: Cancel the Year and Start Over. The New York Times. Available at: <https://www.nytimes.com/2020/08/05/world/africa/Kenya-cancels-school-year-coronavirus.html?smid=tw-share> (Accessed 27 November 2020)

Daily Monitor (2020) What is the end game of Uganda-Kenya trade war? Available at: <https://www.monitor.co.ug/uganda/business/prosper/what-is-the-end-game-of-uganda-kenya-trade-war--3222118> (Accessed 20 January 2021)

Daily Nation (2020) Kenya: Apparel firms ride on Corona battle. Available at: <https://agoa.info/news/article/15764-kenya-apparel-firms-ride-on-corona-battle.html> (Accessed 20 January 2021)

Desai, Raj M. (2019) Somalia's path to stability. Brookings Institute. Available at <https://www.brookings.edu/blog/future-development/2019/10/02/somalias-path-to-stability/> (Accessed 10 February 2021)

E

East Africa Business Council (2020) EAC Rolls Out Regional Electronic Cargo and Driver Tracking System. Available at: <https://eabc-online.com/eac-rolls-out-regional-electronic-cargo-and-driver-tracking-system/> (Accessed 20 January 2021)

East Africa Venture Capital Association (2018) Exploring New Frontiers In Fintech Investments in East Africa. Report. Nairobi: EAVCA; Financial Sector Deepening (FSD) Africa; Netherlands Development Finance Company (FMO)
Ernst and Young (2019) FinTechs in Sub-Saharan Africa: An overview of market developments and investment opportunities. Nairobi: EYGM Limited

F

Faria, Julia (2020) Total employment in Kenya 2015-2019. Statista Data-Set. Available at: <https://www.statista.com/statistics/1134332/total-employment-in-kenya/> (Accessed 30 November 2020)

Fick, Maggie (2018) IMF Bumps Kenya's Debt Distress Risk to Moderate from Low. Reuters. Available at: <https://af.reuters.com/article/investingNews/idAFKCN1MY178-OZABS> (Accessed 24 January 2020)

Floral Daily (2020) Mitigating the impact of COVID-19 on Kenya's Floriculture Industry. Available at: <https://www.floraldaily.com/article/9201565/mitigating-the-impact-of-covid-19-on-kenya-s-floriculture-industry/> (Accessed 20 January 2021)

Food and Agricultural Organisation (2020) Crop Prospects and Food Situation - Quarterly Global Report No. 1, March 2020. Rome. Available at: <https://doi.org/10.4060/ca8032en> (Accessed 24 January 2021)

Food and Agriculture Organisation (2020) Appeal for rapid response and anticipatory action in the Greater Horn of Africa. Available at: http://www.fao.org/fileadmin/templates/cfs/Docs1920/BurAG/2020_01_28/Attachment_1_Desert_Locust.pdf (Accessed 10 January 2021)

Food and Agriculture Organization of the United Nations (2017) Africa Sustainable Livestock: Country Report, Kenya. FAO Country Reports, Rome: FAO

Food and Agriculture Organization of the United Nations (2020) GIEWS FPMA Tool

Food Business Africa (2018) Kenya imposes new tariffs on Tanzanian flour as trade war escalates. Food Business Africa. Available at <https://www.foodbusinessafrica.com/2018/09/27/kenya-imposes-new-tariffs-on-tanzanian-flour-as-trade-war-escalates/> (Accessed 24 January 2020)

Food Business Africa (2020) COVID-19 Update: Food price in Kenya still on the high despite improved supply. Available at: <https://www.foodbusinessafrica.com/covid-19-update-food-price-in-kenya-still-on-the-high-despite-improved-supply/> (Accessed 10 January 2021)

G

GeoPoll (2020) The Financial Impact of Coronavirus in Sub-Saharan Africa. Available at: https://f.hubspotusercontent30.net/hubfs/325431/Financial%20Impact%20of%20COVID%20Report_Final.pdf (Accessed 27 November 2020)

Gicobi, Maryanne (2018) Big Four Agenda at Core of Kenya Spending, to Spur Economic Growth. The East African. Available at: <https://www.theeastafrican.co.ke/business/Big-Four-Agenda-at-core-of-Kenya-spending/2560-4616020-jxd2fa/index.html> (Accessed 10 February 2020)

Gilliland, Haley (2020) Gigantic new locust swarms hit East Africa. National Geographic. Available at: <https://www.national-geographic.co.uk/environment-and-conservation/2020/05/gigantic-new-locust-swarms-hit-east-africa>

Gitonga, Samuel (2020) Kenya's Debt Hits Sh 6.6trn. Business Today. Available at: <https://businesstoday.co.ke/central-bank-of-kenya-cbk-central-bank-of-kenya/> (Accessed 16 September 2020)

Goldsmith, Paul. (2018) The Generational Revolution: The Case for a Millennial-Led Makeover. The Elephant. Available at: <https://www.theelephant.info/features/2018/08/02/the-generational-revolution-the-case-for-a-millennial-led-makeover/> (Accessed 24 January 2020)

GSMA (2019) Improving financial inclusion through data for smallholder farmers in Kenya. Nairobi: GSMA Intelligence

GSMA (2020) Digital Agriculture Maps 2020 State of the Sector in Low and Middle-Income Countries. Available at: https://www.gsma.com/r/digital-agriculture-maps/?utm_source=IDH&utm_medium=blog&utm_campaign=DAMs_IDH_site_traffic (Accessed 24 February 2021)

Guguyu, Otiato (2020) Bankers Cagey on Loans Pricing Plan After End of Rate Cap. Business Daily. Available at: <https://www.businessdailyafrica.com/economy/Bankers-cagey-on-loans-pricing-plan-after-rate-cap-repeal/3946234-5404630-nofrjm/index.html> (Accessed 24 January 2020)

Gupta, Sanjeev., Keen, Michael., Shah, Alpa., & Verdier, Geneviève (eds.) (2018) Digital Revolutions in Public Finance. Washington, DC: International Monetary Fund, Publication Services

Gwer, Francis., Odero, Jack., & Totolo, Edoardo (2019) Digital credit audit report: Evaluating the conduct and practice of digital lending in Kenya. Nairobi.: Financial Sector Deepening Trust – Kenya

H

Hairsine, Kate, & Wasike, Andrew (2019) Kenya Struggles to Manage Debt for Railway to "Nowhere". Deutsche Welle. Available at: <https://www.dw.com/en/kenya-struggles-to-manage-debt-for-railway-to-nowhere/a-50887431> (Accessed 24 January 2020)

Hall, Samuel (2017) Youth Employment in Kenya: Literature Review. Available at: <https://static1.squarespace.com/static/5cfe2c8927234e0001688343/t/5d42d9d220ada4000196692f/1564662260539/Samuel-Hall-Youth-Employment-in-Kenya-2017-for-the-British-Council.pdf> (accessed 27 November 2020)

Hamel, Kristofer., Tong, Baldwin., & Hofe, Martin (2019) Poverty in Africa is Now Falling—but not Fast Enough. Brookings Institute. Available at <https://www.brookings.edu/blog/future-development/2019/03/28/poverty-in-africa-is-now-falling-but-not-fast-enough/> (Accessed 24 November 2020)

Herbling, David (2019) Kenya Plans to Double Power Generation by 2022 as Economy Grows. Bloomberg. Available at <https://www.bloomberg.com/news/articles/2019-09-12/kenya-plans-to-double-power-generation-by-2022-as-economy-grows> (Accessed 10 February 2020)

Herbling, David (2020) Kenya Plans \$503 Million Economic Stimulus to Battle Virus. Bloomberg. Available at: <https://www.bloomberg.com/news/articles/2020-05-19/kenya-plans-503-million-economic-stimulus-to-battle-virus> (Accessed 16 September 2020)

Herbling, David (2021) China Delays \$245 Million of Kenyan Government Debt Payments. Bloomberg. Available at: <https://www.bloomberg.com/news/articles/2021-01-20/china-allows-kenya-to-delay-245-million-jan-june-debt-payments> (Accessed 8 March 2021)

Hill, Joshua S (2019) Kenya moves closer to 100% renewables with completion of Africa's biggest wind farm. Renew Economy. Available at <https://reneweconomy.com.au/kenya-moves-closer-to-100-renewables-with-completion-of-africas-biggest-wind-farm-26502/> (Accessed 24 January 2020)

I

Igadwah, Lynet (2019) Controller of Budget Says Kenya in Debt Crisis as Loans Gobble Up Sh1.1trn Tax. Business Daily. Available at: <https://www.businessdailyafrica.com/economy/Kenya-debt-crisis-budget-controller/3946234-4993976-d0ht-9wz/index.html> (Accessed 24 January 2020)

Igadwah, Lynet (2019) Sh1trn needed in five years to maintain roads. Business Daily. Available at <https://www.nation.co.ke/business/Sh1trn-needed-maintain-roads/996-5391250-11ru5f0/index.html> (Accessed 10 February 2020)

Indeje, David (2020) CBK Extends Mobile Payments Relief Until December 31, 2020. Khusoko. Available at: <https://khusoko.com/2020/06/24/cbk-extends-mobile-payments-relief-until-december-31-2020/> (Accessed 18 February 2021)

Indeje, David (2020) S&P Downgrades Kenya's Outlook to Negative External Debt. Khusoko. Available at: <https://khusoko.com/2020/07/15/sp-downgrades-kenyas-outlook-to-negative-external-debt/> (Accessed 16 September 2020)

Indeje, David (2020) Kenya's Current Account Deficit Remains Stable at 5.8%. Khusoko. Available at: <https://khusoko.com/2020/05/27/kenyas-current-account-deficit-remains-stable-at-5-8pct/> (Accessed 16 September 2020)

Institute for Security Studies (ISS) (2020) Impact of COVID-19 in Africa: A Scenario Analysis to 2030. Pretoria: ISS

Institute of Economic Affairs (2019) Highlights of Budget 2018/19 Analysis. Nairobi: Institute of Economic Affairs

Institute of Economic Affairs (2019) Analysis of Trends in Kenya's Public Debt. Nairobi: Institute of Economic Affairs

Institute of Economic Affairs-Kenya (2016) Economic Burden of The Informal Sector. Institute of Economic Affairs-Kenya. Available at https://www.ieakenya.or.ke/number_of_the_week/economic-burden-of-the-informal-sector (Accessed 24 November 2020)

International Crisis Group. (2019) Intra-Gulf Competition in Africa's Horn: Lessening the Impact. Middle East Report N°206, Belgium: International Crisis Group. Available at: <https://www.crisisgroup.org/middle-east-north-africa/gulf-and-arabian-peninsula/206-intra-gulf-competition-africas-horn-lessening-impact> (Accessed 13 November 2020)

International Energy Agency (2020) Kenya Energy Outlook - Analysis from Africa Energy Outlook 2019 turnout (data set). Available at: <https://www.iea.org/articles/kenya-energy-outlook> (Accessed 10 February 2020)

International Finance Corporation (2019) Creating Markets in Kenya: Unleashing Private Sector Dynamism to Achieve Full Potential. IFC Country Private Sector Diagnostic Report. Washington D.C.: International Finance Corporation.

International Finance Corporation (2019) Country Private Sector Diagnostic: Creating Markets in Kenya. Available at: <https://www.ifc.org/wps/wcm/connect/9cdd17da-fccb-4ca8-a71c-ea631593463a/201907-CPSD-Kenya.pdf?MOD=AJPERES&CVID=mMGBDRv> (Accessed 8 March 2021)

International Institute for Democracy and Electoral Assistance. (2020) Kenya – Voter turnout (data set). Available at: <https://www.idea.int/data-tools/country-view/156/40> (Accessed 24 January 2020)

International Monetary Fund (2010) Kenya: Poverty Reduction Strategy Paper. IMF Country Report No. 10/224, Washington, DC.: International Monetary Fund

International Monetary Fund (2020) Regional Economic Outlook: sub-Saharan Africa. COVID-19: An Unprecedented Threat to Development. Available at: <https://www.imf.org/en/Publications/REO/SSA/Issues/2020/04/01/sreo0420> (Accessed 10 January 2021)

International Monetary Fund (IMF) (2018) Kenya Selected Issues. IMF Country Report (No. 18/296). Washington D.C.: IMF

International Monetary Fund (IMF) (2019) Do Interest Rate Controls Work? Evidence from Kenya. Working Paper (WP/19/119). Washington D.C.: IMF

Iruobe, Emmanuel (2015) Standard Gauge Railway to Raise Kenya's GDP by 1.5 Percent. African Ventures. Available at: <http://venturesafrica.com/kenya-commences-the-distribution-of-hiv-prevention-drug-to-vulnerable-citizens/> (Accessed 10 February 2020)

J

Jok, Jok Madut (2020) Why South Sudan needs an honest conversation about its future in the EAC. The Citizen. Available at: <https://www.thecitizen.co.tz/news/Why-South-Sudan-needs-an-honest-conversation/1840386-5409360-7xaej0z/index.html> (Accessed 24 January 2020)

Juma, Victor (2020) How Covid has hit the incomes of Nairobi's Poor. Business Daily. Available at: <https://www.businessdailyafrica.com/news/How-Covid-has-hit-incomes-of-Nairobi-poor/539546-5551884-va0tuaz/index.html> (Accessed November 24 2020)

K

Kahura, Dauti & Akech, Akoko .(2020) Hustler Mentality. Africa is a Country. Available at: <https://africasacountry.com/2020/11/hustler-mentality> (Accessed 13 November 2020)

Kairu, Pauline (2020) Africa sets up joint tech front in pandemic war. Available at: <https://www.businessdailyafrica.com/corporate/tech/Africa-sets-up-joint-tech-front-in-pandemic-war/4258474-5590040-14lu0on/index.html> (Accessed 18 February 2021)

Kandie, Karen (2019) Ensuring Inclusivity of the Informal Sector in Kenya's Tax Regime. The Star. Available at: <https://www.the-star.co.ke/business/commentary/2019-10-17-ensuring-inclusivity-of-the-informal-sector-in-kenyas-tax-regime/> (Accessed 9 November 2020)

Kanyinga, Karuti. (2020) Building Bridges to Nowhere: Why Kenyatta and Odinga's Pact Won't Last. The Elephant. Available at: <https://www.theelephant.info/op-eds/2020/06/26/building-bridges-to-nowhere-why-kenyatta-and-odingas-pact-wont-last/> (Accessed 13 November 2020)

Kapchanga, Mark (2020) C-19 in Kenya: Youth Job Scheme: A Real Deal or an Empty Promise? Good Governance Africa Wicket Conversation Blog Series. Available at: <https://gga.org/c-19-in-kenya-youth-job-scheme-a-real-deal-or-an-empty-promise/> (Accessed 27 November 2020).

Kariuki, Zipparah. (2020) KNUN Secretary General Seth Panyako asks CS Kagwe to resign. The Citizen. Available at: <https://citizentv.co.ke/news/knun-secretary-general-seth-panyako-asks-cs-kagwe-to-resign-343661/> (Accessed 13 November 2020)

Kazeem, Yomi (2020) African startups funding is set to drop by nearly half in 2020. Quartz Africa. Available at: <https://qz.com/africa/1849312/coronavirus-african-startup-investment-to-slow-down-report/> (Accessed 18 February 2021)

Kazeem, Yomi (2020) African e-commerce is getting a much needed boost from coronavirus lockdowns. Quartz Africa. Available at: <https://qz.com/africa/1855227/africas-e-commerce-boosted-by-coronavirus-lockdowns/> (Accessed 18 February 2021)

Kenya Institute for Public Policy Research and Analysis (KIPPRA) (2019) Kenya's Oil Exports. Nairobi: KIPPRA

Kenya Markets Trust (2019) Enhancing Market Access and use of Agricultural Lime amongst Smallholder Farmers in Western Kenya Region – Early Impact Assessment Report (Abridged Version). Nairobi: Kenya Markets Trust

Kenya Markets Trust (August 2019). The Journey of Changing Water Services Delivery in Kenya. KMT Water Case Study 01. Available at: <https://www.kenyamarkets.org/wp-content/uploads/2020/04/water-industry-research-in-kenya-service-delivery.pdf> (Accessed 20 January 2021)

Kenya Ministry of Foreign Affairs (2016) Kenya Deposits Instruments for EPAs Expansion. Press statement. Available at: <https://www.mfa.go.ke/?p=976> (Accessed 20 January 2021)

Kenya National Bureau of Statistics (2019) Kenya's Annual Economic Survey – 2019: Highlights. Nairobi.: National Bureau of Statistics

Kenya National Bureau of Statistics (2019) FinAccess Household Survey – 2019. Nairobi.: National Bureau of Statistics., Central Bank of Kenya, Financial Sector Deepening Trust – Kenya

Kenya National Bureau of Statistics (2020) Economic Survey 2020. Available at <https://www.knbs.or.ke/?wpdmpo=economic-survey-2020>. Accessed (January 20th 2021)

Kenya News (2021) Calls for Mark of Origin To Be included in The Horticultural Exports. Available at: <https://www.kenyanews.go.ke/calls-for-mark-of-origin-to-be-included-in-the-horticultural-exports/> (Accessed 20 March 2021)

Kenya Private Sector Alliance (2020) Kenya Business Survey on Impacts of COVID-19. Available at: <https://kepsa.or.ke/download/kepsa-business-survey-report-on-effects-of-covid-19-may-7-2020/> (Accessed 25 November 2020)

Khusoko (2020) Why Kenyan Banks Will Maintain High Liquidity as a Cushion Against COVID-Induced Shocks. Available at: <https://khusoko.com/2020/07/14/why-kenyan-banks-will-maintain-high-liquidity-as-a-cushion-against-covid-induced-shocks/> (Accessed 16 September 2020)

Kobuthi, Joe. (2018) Starin' At the World Through My Rearview, The Elephant. Available at <https://www.theelephant.info/reflections/2018/04/24/starin-at-the-world-through-my-rearview/> (Accessed 24 January 2020)

L

Lall, Somik Vinay., Henderson, J. Vernon., Venables, Anthony J, (2017) Africa's Cities: Opening Doors to the World. Washington, DC: World Bank.

Le Quere, Corinne et al. (2020) Temporary reduction in daily global CO2 emissions during the COVID-19 forced confinement. *Mature Climate Change*. Available at: <https://www.globalcarbonproject.org/news/TemporaryReductionInCO2EmissionsDuringCOVID-19.html> (Accessed 10 January 2021)

Lopes, Carlos (2020) Africa Must Choose Renewables Over Coal. Project Syndicate. Available at <https://www.project-syndicate.org/commentary/africa-economic-development-needs-renewables-not-coal-by-carlos-lobes-4-2020-02> (Accessed 10 February 2020)

Lukalo-Owino, Rose. (2020) The Spirit of Saba Saba Lives on in Devolution. The Elephant. Available at: <https://www.theelephant.info/features/2020/07/06/the-spirit-of-saba-saba-lives-on-in-devolution/> (Accessed 13 November 2020)

Luvega, Derrick. (2020) Kenya: Oparanya Now Wants Sh20 Billion Fund Used to Cushion Poor Counties. Daily Nation. Available at: <https://allafrica.com/stories/202007160177.html> (Accessed 13 November 2020)

M

Mabonga, Masolo (2020) Loans, grants Kenya has received since outbreak of coronavirus. Available at: <https://www.tuko.co.ke/372021-loans-grants-received-by-kenya-outbreak-coronavirus.html> (Accessed 10 January 2021)

Makhubela, Kingsley (2019) Africa's greatest economic opportunity: trading with itself. World Economic Forum. Available at: <https://www.weforum.org/agenda/2018/01/why-africas-best-trading-partner-is-itself/> (Accessed 10 February 2020)

Maluki, Patrick Muthengi. (2019) Kenya's Security Forces Did Better this Time. But There are Still Gaps. The Conversation. Available at: <https://theconversation.com/kenyas-security-forces-did-better-this-time-but-there-are-still-gaps-110039> (Accessed on 10 February 2020)

Manders, Shannon (2017) Kenya's AGOA eligibility no longer under US review. Global Trade Review. Available at: <https://www.gtreview.com/news/africa/kenyas-agoa-eligibility-no-longer-under-us-review/> (Accessed on 24 January 2020)

Mayaki, Ibrahim (2020) How Africa's economies can hedge against COVID-19. Available at: <https://www.tralac.org/news/article/14509-how-africa-s-economies-can-hedge-against-covid-19.html> (Accessed 10 January 2021)

Mbogo, E., Inganga, F. and Maina, J.M. (2014) Drought conditions and management strategies in Kenya, unpublished report. Nairobi: Ministry of Agriculture, Livestock and Fisheries

McKinsey (2020) Finding Africa's Path: Shaping Bold Solutions to Save Lives and Livelihoods in the COVID-19 Crisis. Available at: <https://www.mckinsey.com/featured-insights/middle-east-and-africa/finding-africas-path-shaping-bold-solutions-to-save-lives-and-livelihoods-in-the-covid-19-crisis#> (Accessed 24 November 2020)

Mckinsey (2020) Reopening and reimagining Africa. Available at: <https://www.mckinsey.com/featured-insights/middle-east-and-africa/reopening-and-reimagining-africa> (Accessed 20 January 2021)

Mercy Corp (2019) Towards a Digital Workforce: Understanding the Building Blocks of Kenya's Gig Economy, Nairobi: Mercy Corp Youth Impact Labs

Mercy Corps AgriFin (2020) What impacts are we seeing on agrodealer businesses in Kenya under COVID-19? Available at: <https://www.mercycorpsagrifin.org/wp-content/uploads/2020/07/COVID19-Impacts-on-Kenyan-Agro-dealer-Businesses.pdf> (Accessed 10 January 2021)

Ministry of Environment and Forestry (2018) Taskforce Report on Forest Resources Management and Logging Activities in Kenya. Nairobi: Government of Kenya

Ministry of Environment and Forestry (2018) National Climate Change Action Plan (NCCAP) 2018-2022. Nairobi: Government of Kenya

Ministry of Environment and Forestry (2019) National Strategy For Achieving And Maintaining Over 10% Tree Cover By 2022. Nairobi: Government of Kenya

Ministry of Environment and Natural Resources (2016) Land Degradation Assessment In Kenya. Nairobi: Government of Kenya

Ministry of Information Communications and Technology (2019) This Digital Economy Blueprint. Nairobi: Government of Kenya

Miriri, Duncan (2019) FACTBOX-Debt-Laden Kenya Draws Up New Policy to Curb its Borrowing. Reuters. Available at: <https://www.reuters.com/article/kenya-debt/factbox-debt-laden-kenya-draws-up-new-policy-to-curb-its-borrowing-idUKL8N27V1UL> (Accessed on 24 January 2020)

Miriri, Duncan (2020) Kenya Eschews G20 Debt Relief Initiative Over Restrictive Terms. Reuters. Available at: <https://www.reuters.com/article/us-health-coronavirus-kenya-exclusive/exclusive-kenya-eschews-g20-debt-relief-initiative-over-restrictive-terms-idUSKBN22R25A?il=0> (Accessed 16 September 2020)

Mold, Andrew & Mveyange, Anthony (2020) The impact of the COVID-19 crisis on trade: Recent evidence from East Africa. Available at: https://www.brookings.edu/wp-content/uploads/2020/07/EAC_COVID_Mold_Mveyange.pdf (Accessed 20 January 2021)

Mold, Andrew & Mveyange, Anthony (2020) Trade in Uncertain Times: Prioritising Regional over Global Value Chains to Accelerate Economic Development in East Africa. Brookings. Available at: <https://www.brookings.edu/blog/africa-in-focus/2020/04/15/trade-in-uncertain-times-prioritizing-regional-over-global-value-chains-to-accelerate-economic-development-in-east-africa/> (Accessed 5 January 2021)

Muchira, Njiraini (2019) Kenya Moves to Tame Rising Wage Bill with Three-year Contracts. The East African. Available at: <https://www.theeastafrican.co.ke/business/Kenya-moves-to-tame-rising-wage-bill/2560-5171036-fa601rz/index.html> (Accessed on 24 January 2020)

Mugema, Berna & Njoro, Lilian (2020) Mobile Money and COVID-19: What can we learn from East Africa? Medium. Available at: <https://medium.com/@acclabs/mobile-money-and-covid-19-what-can-we-learn-from-east-africa-5df456ca907b> (Accessed 18 February 2021)

Mugisha, Ivan R. (2019) DR Congo entry into EAC will be a game changer. The East African. Available at <https://www.theeastafrican.co.ke/news/ea/DR-Congo-entry-into-EAC-will-be-a-game-changer/4552908-5158402-barl6d/index.html> (Accessed on 24 January 2020)

Muiruri, Kepha (2020) Kenyan exports worst hit by declining trade as COVID-19 pandemic. Citizen Digital. Available at: <https://citizentv.co.ke/business/kenyan-exports-worst-hit-by-declining-trade-as-covid-19-pandemic-persists-334599/> (Accessed 20 January 2021)

Mulinge W. et al. (2016) Economics of Land Degradation and Improvement in Kenya. In: Nkonya E., Mirzabaev A., von Braun J. (eds) Economics of Land Degradation and Improvement – A Global Assessment for Sustainable Development. Springer, Cham

Munda, Constant (2020) Debt Headache Worsens as Payments Forecast to Cross Sh 1trn Mark. Business Daily. Available at: <https://www.businessdailyafrica.com/datahub/Debt-payments-forecast-to-cross-Sh1-trillion-mark/3815418-5563594-6hm73l/index.html> (Accessed 16 September 2020)

Mureithi, Carlos (2021) Kenya is preparing to crack down on a flood of high-interest loan apps. Quartz Africa. Available at: <https://qz.com/africa/1975202/kenya-prepares-to-crack-down-on-high-interest-loan-apps/> (Accessed 24 February 2021)

Mutambo, Aggrey. (2019) Kenya Congratulates Madobe for Winning Jubbaland Poll. The East African. Available at <https://www.theeastafrican.co.ke/news/ea/Kenya-congratulates-Madobe-for-winning-Jubbaland-poll/4552908-5246652-74xk-3dz/index.html> (Accessed on 24 January 2020)

Mutethya, Edith (2019) Integration is critical for the development of EAC. China Daily. Available at <http://www.chinadaily.com.cn/a/201903/28/WS5c9c7ef4a3104842260b31a0.html> (Accessed on 10 February 2020)

Mutua, John (2020) MPs Ask Yatani to Seek Foreign Debts Reprieve on Interest Pay. Business Daily. Available at: <https://www.businessdailyafrica.com/economy/MPs-ask-Yatani-to-seek-foreign-debts-reprieve-on-interest-pay/3946234-5547942-13jvbuq/index.html> (Accessed 16 September 2020)

Mutuku, Kaluki Paul (2019) Kenya has lost nearly half its forests – time for the young to act. The Africa Report. Available at: <https://www.theafricareport.com/16150/kenya-has-lost-nearly-half-its-forests-time-for-the-young-to-act/> (Accessed on 24 January 2020)

Mwangi, Zachary (2018) Highlights of the 2015/16 Kenya Integrated Household Budget Survey (KIHBS) Reports [PowerPoint presentation for Kenya National Bureau of Statistics]. Nairobi.: Kenya National Bureau of Statistics.

Mwanza, Kevin (2017) Cheap solar power in the horizon for Kenyan consumers. Business Daily. Available at: <https://www.businessdailyafrica.com/news/Kenya-Power-cheap-solar-energy-consumers/539546-4153812-2hvb7rz/index.html> (Accessed on 24 January 2020)

Mwita, Martin (2020) CBK Retains Base Lending Rate at 7%. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-06-25-cbk-retains-base-lending-rate-at-7-percent/> (Accessed 16 September 2020)

Mwita, Martin (2020) Rent Pains Push Kenyans to Share Houses, Split Bills. The Star. Available at: <https://www.the-star.co.ke/business/kenya/2020-08-09-rent-pains-push-kenyans-to-share-houses-split-bills/> (Accessed 25 November 2020)

N

National Cereal Production Board (2020) National Cereal and Production Board Undergoes Reform. NCPB website. Available at: <https://www.ncpb.co.ke/2020/08/13/national-cereals-and-produce-board-undergoes-reforms/> (Accessed 18 January 2021)

Ndii, David (2020) Of Tigers, Debt Merchants and 2020 Vision. The Elephant. Available at: <https://www.theelephant.info/oped/2020/01/10/of-tigers-debt-merchants-and-2020-vision/> (Accessed 14 January 2021)

Ndung'u, Njuguna (2019) Digital Technology and State Capacity in Kenya. CGD Policy Paper 154. Washington, DC: Center for Global Development.

Ndungu, Pascaline Wanjiku (2018) Why Kenya's Sanitation Challenge Requires Urgent Attention. World Bank Blog. Available at: <http://blogs.worldbank.org/african/why-kenyas-sanitation-challenge-requires-urgent-attention>. (Accessed on 10 February 2020)

Newman, Nic et al. (2020) Reuters Institute Digital News Report 2020. Available at: https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2020-06/DNR_2020_FINAL.pdf (Accessed 18 February 2021)

Ngotho, Agatha (2020) Kenya likely to face food shortage this year – report. The Star. Available at: <https://www.the-star.co.ke/news/2020-06-09-kenya-likely-to-face-food-shortage-this-year--report/> (Accessed 10 January 2021)

Njagi, Kagondū. (2020) Military Demand for Land Puts Northern Kenya's Farmers on Edge. Thomas Reuters Foundation. Available at: <https://news.trust.org/item/20200916093914-3ut2l/> (Accessed 13 November 2020)

Njau, Salaton (2020) Treasury Mulls Debt Ceiling Boost as the Coiffers Run Dry. Available at: <https://nation.africa/kenya/business/treasury-mulls-debt-ceiling-boost-as-the-coiffers-run-dry-3247286> (Accessed 18 January 2021)

Nnoko-Mewanu, Juliana & Abdi, Najma (2020) Nairobi Evicts 8000 People Amidst a Pandemic and Curfew. African Arguments. Available at: <https://africanarguments.org/2020/06/10/nairobi-evicts-8000-people-amidst-a-pandemic-and-curfew/> (Accessed 27 November 2020)

Nyambura, Zipporah. (2017) In Kenya, Politics Split on Ethnic Divide. Deutsche Welle. Available at <https://www.dw.com/en/in-kenya-politics-split-on-ethnic-divide/a-37442394> (Accessed on 24 January 2020)

O

Obi, Leopold (2020) How Kenya averted a food unrest in the wake of Covid-19. Business Daily. Available at: <https://www.businessdailyafrica.com/datahub/How-Kenya-averted-food-unrest-Covid-19/3815418-5605802-44prvxz/index.html> (Accessed 10 January 2021)

Obura, Frederick (2020) Africa's free trade negotiations shift online as AU moves to address concerns. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001382863/africas-free-trade-negotiations-shifts-online-as-au-moves-to-address-concerns> (Accessed 20 January 2021)

Ogina, Sam. (2020) KEMSA scandal: USAID, Global Fund Threaten to Withdraw Ksh 400B. The Citizen. Available at: <https://citizentv.co.ke/news/kemsa-scandal-usaid-global-fund-threaten-to-withdraw-ksh-400b-342697/> (Accessed 13 November 2020)

Okoth, Edwin (2020) Burden on Taxpayers as Treasury Starts Repayment of SGR Loan. Business Daily. Available at: <https://www.businessdailyafrica.com/economy/Burden-on-taxpayers-as-Treasury-starts-repayment-of-SGR-loan/3946234-5404862-gncuxy/index.html> (Accessed 24 January 2020)

Ominde, Titus. (2019) Ruto's Presidency Bid Causes Rift Among Kikuyu Elders. The Daily Nation. Available at: <https://www.nation.co.ke/news/politics/Kikuyu-elders-divided-over-Ruto-support/1064-5401194-10jh7osz/index.html>

Omondi, Dominic (2020) Bad Borrowing Habits Come to Haunt Kenya. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001370642/bad-borrowing-habits-come-to-haunt-kenya> (Accessed 16 September 2020)

Omondi, Dominic (2020) Why the Uhuru Rescue Plan Might Not Help Wanjiku. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001365829/why-the-uhuru-rescue-plan-may-not-help-wanjiku>

Omondi, Dominic (2021) Fears of trade wars as Kenya bans maize from Tanzania, UG. The Standard. <https://www.standardmedia.co.ke/business/business/article/2001405551/fears-of-trade-wars-as-kenya-bans-maize-from-tanzania-ug> (Accessed 24 January 2020)

Omondi, Jerry. (2020) Kenya's reopening dependent of counties' readiness: President Kenyatta. CGTN Africa. Available at:

Onyanga, Carlos (2020) 65% Of Kenyan Borrowers To Default Loans This Year, KBA. Soko Directory. Available at: <https://sokodirectory.com/2020/05/65-of-kenyan-borrowers-to-default-loans-this-year-kba/> (Accessed 26 November 2020)

Otieno, Julius. (2020) Treasury Closes Year with Sh68bn for Counties. The Star. Available at: <https://www.the-star.co.ke/news/2020-06-30-treasury-closes-year-with-sh68bn-for-counties/> (Accessed 13 November 2020)

Oucho, John O., Oucho, Linda A., & Ochieng', Vollan (2014) Is Migration the Solution to Poverty

Owaka, Simon Peter (2015) EAC to set up Sh1.86 billion Private Sector Fund. Press release by State Department of East African Affairs. Available at <https://meac.go.ke/eac-to-set-up-sh1-86-billion-private-sector-fund/> (Accessed 24 January 2020)

Oxfam, Christian Aid & Global Justice Now (2020) Passing the Buck on Debt Relief: How the Failure of the Private Sector to Cancel Debts is Fueling a Crisis across the Developing World. Media Briefing. Available at: <https://oxfamilibrary.openrepository.com/handle/10546/621026> (Accessed 16 September 2020)

Oxford Economic Complexity Atlas: Kenya Country profile. Available at: <https://oec.world/en/profile/country/ken> (Accessed 24 January 2020)

P

People's Daily (2020) UN official says Kenya's food security remains stable despite COVID-19 pandemic. Available at: <http://en.people.cn/n3/2020/0828/c90000-9739334.html> (Accessed 10 January 2021)

Rapoza, Kenneth (2019) China Trade War Update: Global Supply Chains Shifting, But Asia Not Easy Winner. Forbes. Available at: <https://www.forbes.com/sites/kenrapoza/2019/06/27/china-trade-war-update-global-supply-chains-shifting-but-asia-not-easy-winner/#77a3c389df56> (Accessed on 10 February 2020)

S

Said, Jonathan & Caballero Marianne (2020) Preventing a Lost Decade in Africa. Tony Blair Institute for Global Change. Available at: <https://institute.global/sites/default/files/articles/Preventing-a-Lost-Decade-in-Africa.pdf> (access January 5th 2021)

Sallant, Mikael. (2020) Tourism in Africa: Virtual safaris kick in as countries slowly open to tourists. UN Africa Renewal. Available at: <https://www.un.org/africarenewal/web-features/coronavirus/tourism-africa-virtual-safaris-kick-countries-prepare-reopen-tourists> (Accessed 20 January 2021)

Sanni, Michael (et al.) (2019) How innovation in off-grid refrigeration impacts lives in Kenya. Impact Study: 007, Nairobi: CDC Group.

Shapshak, Toby, (2019) Africa's Fintech Investment Quadrupled To \$357m In 2018. Forbes. Available at: <https://www.forbes.com/sites/tobyshapshak/2019/07/30/africas-fintech-investment-quadrupled-to-357m-in-2018/?sh=390c8ba562db> (Accessed 12 February 2021)

Shilaho, Westen. (2018) Introduction: Ethnicity and Politics in Kenya. In: Political Power and Tribalism in Kenya. Palgrave Available at: https://doi.org/10.1007/978-3-319-65295-5_1 (accessed 13 November 2020)

Smith, Elliot (2019) Kenya Scraps its Bank Lending Cap and Grants the IMF its Wish. CNBC. Available at: <https://www.cnbc.com/2019/11/12/kenya-scraps-its-bank-lending-cap-and-grants-the-imf-its-wish.html> (Accessed 24 January 2020)

Smith, Matt .(2019) Kenya Enters the Oil Business. The Petroleum Economist. Available at <https://www.petroleum-economist.com/articles/politics-economics/africa/2019/kenya-enters-the-oil-business> (Accessed on 10 February 2020)

Sunday, Frankline (2020) Bank Profits Fell by 8% in 3 Months. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001376950/bank-profits-fell-by-8pc-in-3-months> (Accessed 16 September 2020)

Suri, Tavneet., & Jack, William (2016) The long-run poverty and gender impacts of mobile money. Science. 354:6317, 1288- 1292

T

Teye, Joseph (2018) Urbanisation and Migration in Africa, [PowerPoint presentation at Expert Group Meeting, United Nations Headquarters in New York]. Available at https://www.un.org/en/development/desa/population/events/pdf/expert/28/EGM_Joseph_Teye_ppt.pdf (Accessed 24 November 2020)

The African Institute for Development Policy and the University of Southampton (2018). Regional Analysis of Youth Demographics. Available at: https://assets.publishing.service.gov.uk/media/5af581a9ed915d0de537b9f6/East_African_Regional_Analysis_of_Youth_Demographics.pdf (Accessed 27 November 2020)

The East African (2020) FAO appeals for more funds to fight locusts. Available at: <https://www.theeastafrican.co.ke/scienceand-health/FAO-appeals-for-more-funds-to-fight-locusts/3073694-5570200-3q4au4/index.html> (Accessed 10 January 2021)

The East African (2020) Intra-EAC trade thins as Covid-19 lockdowns restrict movement. Available at:

The Economist (2019) Africa's economies draw closer, slowly. The Economist – The World in 2020. Available at: <https://www.economist.com/the-world-in/2019/11/26/africas-economies-draw-closer-slowly> (Accessed 24 January 2020)

The Economist (2020). America and Kenya eye up a trade deal. The Economist. Available at: <https://www.economist.com/graphic-detail/2020/02/06/america-and-kenya-eye-up-a-trade-deal> (Accessed 10 February 2020)

The Standard (2020) Did coronavirus put an end to the sharing economy? Available at: <https://www.standardmedia.co.ke/business/article/2001377917/did-coronavirus-come-to-end-the-sharing-economy> (Accessed 18 February 2021)

TIFA Research Limited (2018) Skills Mismatch Survey. Research Report, Nairobi: Federation of Kenya Employers
Trade Map (2020) Kenyan Imports and Exports (data set). Available at: <https://www.trademap.org/Index.aspx> (Accessed 24 January 2020)

TRALAC (2020) Impact of Coronavirus (COVID-19) on the African Economy. Available at: <https://www.tralac.org/documents/resources/covid-19/3218-impact-of-the-coronavirus-covid-19-on-the-african-economy-african-union-report-april-2020/file.html>.

Tsan, Michael., Totapally, Swetha., Hailu, Michael., & Addom, Benjamin (2019) The Digitalisation of African Agriculture Report, 2018-2019. Netherlands: The Technical Centre for Agricultural and Rural Cooperation ACP-EU

U

UNESCO Institute for Statistics (2020) Kenya Country Profile (Data-Set). UNESCO Institute for Statistics. Available at: <http://uis.unesco.org/en/country/ke> (Accessed 24 January 2020)

United Nations Office for the Coordination of Humanitarian Affairs (2017) Horn of Africa: A Call for Action, February 2017. UNOCHA. Available at: <https://reliefweb.int/report/ethiopia/horn-africa-call-action-february-2017-enar> (Accessed 24 January 2020)

United Nations Office for the Coordination of Humanitarian Affairs (2019) Kenya: Heavy rains impact more than 100,000 people. UNOCHA. Available at: <https://www.unocha.org/story/kenya-heavy-rains-impact-more-100000-people>. (Accessed 24 January 2020)

United Nations Office for the Coordination of Humanitarian Affairs (2020) Kenya: Floods Flash Update No. 1. Available at: <https://reliefweb.int/report/kenya/kenya-floods-flash-update-no-1-7-may-2020> (Accessed 10 January 2021)

United Nations-Department of Economic and Social Affairs Population Dynamics (2020) Kenya Population (Data-Set). Available at: <https://population.un.org/wpp/DataQuery/> (Accessed 24 November 2020)

United Nations-Environment Programme (2019) Voices From The Land: Restoring Soils And Enriching Lives. New York: The United Nations Environment Programme

United Nations-Habitat (2016) World Cities Report 2016: Urbanization and Development - Emerging Futures. Nairobi: United Nations Human Settlements Programme unpublished report. Nairobi: Ministry of Agriculture, Livestock and Fisheries

USAID (2019) Devolution in Kenya Fact-Sheet. Available at: https://www.usaid.gov/sites/default/files/documents/1860/Devolution_fact_sheet_2019.pdf (Accessed 25 November 2020)

V

Verjee, Aly. (2017) Kenya's 2017 Presidential Elections: A Preliminary Results Analysis, by County. Africa Research Institute. Available at <https://www.africaresearchinstitute.org/newsite/blog/kenyas-2017-elections-preliminary-results-analysis-county/> (Accessed 24 January 2020)

W

Waddilove, Hannah. (2019) Support or subvert? Assessing devolution's effect on central power during Kenya's 2017 presidential rerun, *Journal of Eastern African Studies*, 13:2, 334-352. Available at: <http://wrap.warwick.ac.uk/115627/1/WRAP-assessing-devolution%E2%80%99s-effect-central-power-during-Kenya%E2%80%99s-2017-presidential-rerun-Waddilove-2019.pdf> (Accessed 13 November 2020)

Wafula, Paul (2016) Turkana Oil to earn Kenya Sh6.4 trn in 23 Years. Standard Media. Available at: <https://www.standardmedia.co.ke/article/2000197510/turkana-oil-to-earn-kenya-sh6-4-trillion-in-23-years> (Accessed 24 January 2020)

Wafula, Paul (2020) Kenya to Get Sh77b IMF Loan for COVID-19. Nation. Available at: <https://nation.africa/kenya/news/kenya-to-get-sh79b-imf-loan-for-covid-19-289344> (Accessed 16 September 2020)

Wafula, Paul (2020) Over One Million Rendered Jobless in Kenya as COVID-19 Takes Toll on Businesses. The East African. Available at: <https://www.theeastafrican.co.ke/business/Covid19-Over-a-million-rendered-jobless-in-Kenya/2560-5571598-ui6l8d/index.html> (Accessed 25 November 2020)

Wafula, Paul. (2020) Trades Who Made Millions from COVID Supplies. Nation. Available at: <https://nation.africa/kenya/news/traders-who-made-millions-from-covid-supplies-1911288> (Accessed 20 November 2020)

Wako, Amina. (2020) Kenya: Governors Threaten to Impose Lock Down If COVID-19 Infections Keep Rising. Nairobi News. Available at: <https://allafrica.com/stories/202007160769.html> (Accessed 13 November 2020)

Wambu, Wainaina (2020) Kenyan Government Still Negotiating with China on Debt Holiday. The Standard. Available at: <https://www.standardmedia.co.ke/business/article/2001374574/government-in-talks-with-china-over-debt-relief> (Accessed 16 September 2020)

Wamuyu, Patrick., (et al.) (2018) Social Media Consumption in Kenya: Trends and Practices. SIMELab Africa (Social Media Lab Africa) – United States International University-Africa, Nairobi.

Wanambisi, Laban. (2020) Kenya: Governors, Senate Agriculture Committee Reject Munya's Sector Reforms. Capital FM. Available at: <https://allafrica.com/stories/202010260120.html> (Accessed 13 November 2020)

Were, Anzette (2016) Manufacturing In Kenya: Features, Challenges And Opportunities. London: Overseas Development Institute

Wilson, Tom (2019) Pioneering Kenya eyes next stage of mobile money. The Financial Times. Available at: <https://www.ft.com/content/130fe0cc-4b36-11e9-bde6-79eaea5acb64> (Accessed on 10 February 2020)

Winning, Alexander (2019) African Development Bank decides not to fund Kenya coal project. Reuters. Available at: <https://www.reuters.com/article/us-africa-investment-coal/african-development-bank-decides-not-to-fund-kenya-coal-project-idUSKBN1XN1A8> (Accessed on 10 February 2020)

Wood, Johnny (2018) Kenya is aiming to be powered entirely by green energy by 2020. World Economic Forum. Available at: <https://www.weforum.org/agenda/2018/12/kenya-wants-to-run-entirely-on-green-energy-by-2020/> (Accessed 10 January 2021)

World Bank (2016) Kenya: Jobs for Youth. Report No. 101685-KE, Social Protection and Labor Global Practice Africa Region: World Bank

World Bank (2018) A Single Digital Market for East Africa: Presenting a vision, strategic framework, implementation roadmap and impact assessment. Available at: <http://documents1.worldbank.org/curated/en/809911557382027900/pdf/A-Single-Digital-Market-for-East-Africa-Presenting-Vision-Strategic-Framework-Implementation-Roadmap-and-Impact-Assessment.pdf> (Accessed 20 February 2021)

World Bank (2018) Off-Grid Energy Has Key Role in Kenya's New Electrification Strategy. Lighting Africa – World Bank Group. Available at <https://www.lightingafrica.org/off-grid-energy-has-key-role-in-kenyas-new-electrification-strategy/> (Accessed 24 January 2020)

World Bank (2019) Kenya Economic Update: Unbundling the Slack in Private Sector Investment – Transforming Agriculture Sector Productivity and Linkages to Poverty Reduction (English). Kenya economic update; no. 19. Washington, D.C.: World Bank Group.

World Bank (2019) Kenya Public Expenditure Analysis 2019: Creating Fiscal Space to Deliver the Big Four While Undertaking a Needed Fiscal Consolidation. World Bank. Available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/32252/Kenya-Public-Expenditure-Analysis-2019-Creating-Fiscal-Space-to-Deliver-the-Big-Four-while-Undertaking-a-Needed-Fiscal-Consolidation.pdf?sequence=1&isAllowed=y> (Accessed 14 January 2021)

World Bank (2019) Kenya Economic Update: Securing Future Growth – Policies to Support Kenya's Digital Transformation (English). Washington, D.C.: World Bank Group.

World Bank (2019) Kenya Economic Update: Unbundling the Slack in Private Sector Investment. April 2019. Edition 19. Available at: <http://documents1.worldbank.org/curated/en/820861554470832579/pdf/Kenya-Economic-Update-Unbundling-the-Slack-in-Private-Sector-Investment-Transforming-Agriculture-Sector-Productivity-and-Linkages-to-Poverty-Reduction.pdf> (Accessed 10 February 2021)

World Bank (2019) An Analysis of Issues Shaping Africa's Economic Future. Africa's Pulse, No. 19, April 2019: Washington, D.C.: World Bank Group.

World Bank (2019) Kenya Economic Update: Securing Future Growth – Policies to Support Kenya's Digital Transformation (English). October 2019. Edition 20. Available at: <https://openknowledge.worldbank.org/handle/10986/32792> (Accessed 10 February 2021)

World Bank (2020) Age Dependency Ratio (% of working-age population) – Kenya (Data-Set). Available at: <https://data.worldbank.org/indicator/SP.POP.DPND> (Accessed 24 January 2020)

World Bank (2020) Employment in agriculture (% of total employment) (modelled ILO estimate) - Kenya (data set). Available at: <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=KE> (Accessed 24 January 2020)

World Bank (2020) Foreign Direct Investment, Net Inflows (BoP, Current US\$) – Kenya (Data Set). Available at: <https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?end=2018&locations=KE&start=2003> (Accessed 24 January 2020)

World Bank (2020) Kenya Country Profile – Climate Change Knowledge Portal (data set). Available at: <https://climateknowledgeportal.worldbank.org/country/kenya/climate-data-projections> (Accessed 24 January 2020)

World Bank (2020) World Bank Approves \$1 Billion Financing for Kenya, to Address COVID-19 Financing Gap and Support Kenya's Economy. Press release. Available at: <https://www.worldbank.org/en/news/press-release/2020/05/20/world-bank-approves-1-billion-financing-for-kenya-to-address-covid-19-financing-gap-and-support-kenyas-economy> (Accessed 12 November 2020)

World Bank (2020) Kenya Economic Update: Turbulent Times for Growth in Kenya - Policy Options during the COVID-19 Pandemic. Available at: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/683141588084127834/kenya-economic-update-turbulent-times-for-growth-in-kenya-policy-options-during-the-covid-19-pandemic> (Accessed 27 November 2020)

World Bank (2020) Kenya Secures the First Horn of Africa Initiative Project to Boost Regional Integration and National Development. Press Release: 2020/034/AFR. Available at: <https://www.worldbank.org/en/news/press-release/2020/09/08/kenya-secures-the-first-horn-of-africa-initiative-project-to-boost-regional-integration-and-national-development> (Accessed 18 January 2021)

World Food Programme (2020) Global Monitoring of School Meals During COVID-19 School Closures (Data-Set). Available at: https://cdn.wfp.org/2020/school-feeding-map/?_ga=2.91051482.1916546995.1589979438-387441917.1585139850 (Accessed 27 November 2020)

World Health Organisation (2005). Making Water Part of Economic Development: The Economic Benefits of Improved Water Management Services. Available at: https://www.who.int/water_sanitation_health/waterandmacroecon.pdf (Accessed 10 January 2021)

X

XinhuaNet (2020) Kenya launches web-based app to trace COVID-19 cases. Available at: http://www.xinhuanet.com/english/2020-07/13/c_139209867.htm (Accessed 18 February 2021)

Z

Zarembka, David (2019) Kenya Slowly Warms to Solar As Two New Solar Projects Launch. Clean Technica. Available at <https://cleantechnica.com/2019/06/17/kenya-slowly-warms-to-solar-as-two-new-solar-projects-launch/> (Accessed 24 January 2020)
ID=33209211708800211103110122093109121026011068081017086005005105078093115078093103108063055059052058025062074029072020081003093041036013081092090071004127106125121065058087060028092124116116122067096090003094029112107114067014010001118126024123103000099&EXT=pdf

Photo Credits

Politics

Page 8 - ZUMA Press, Inc.
Page 10 - Xinhua
Page 11 - Sylvia Buchholz for REUTERS
Page 13 - dbtravel
Page 15 - AU/UN / Ramadan Mohamed Hassan.
Page 16 - Sylvia Buchholz for REUTERS
Page 18 - Hugh Mitton
Page 19 - Xinhua
Page 23 - John Cancalosi

Society & The Future of Work

Page 24 - Xinhua
Page 29 - Jake Lyell
Page 31 - Thomas Cockrem
Page 33 - Wolfgang Kaehler
Page 34 - Gina Rodgers
Page 37 - dpa picture alliance
Page 38 - Jake Lyell
Page 39 - Andrew Aitchison
Page 41 - Xinhua
Page 42 - Reuters
Page 43 - Xinhua

Technology

Page 48 - Alamy Stock Photo/Jake Lyell
Page 52 - Shutterstock/S.Gvozd
Page 53 - Shutterstock/Mary MM
Page 57 - Shutterstock/vic josh
Page 59 - Shutterstock/WAYHOME studio
Page 61 - Shutterstock/arrowsmith2

Finance

Page 64 - Shutterstock
Page 67 - Shutterstock/Philou 1000
Page 71 - REUTERS/Baz Ratner
Page 73 - Kenzaburo Fukuhara/Pool via REUTERS
Page 74 - Shutterstock/Belikova Oksana
Page 75 - Wikipedia/Macabe5387
Page 79 - REUTERS

Trade

Page 80 - Shutterstock/Ungureanu Catalina Oana
Page 84 - Shutterstock/Aleksandar Todorovic
Page 87 - Shutterstock/Jen Watson
Page 90 - Shutterstock/Jen Watson
Page 93 - Shutterstock/Billy Miaron
Page 95 - Shutterstock/Marion Smith
Page 99 - REUTERS

Environment

Page 101 - Gatsby Africa
Page 106 - Shutterstock/Rich Carey
Page 108 - Shutterstock/izmungai
Page 111 - Shutterstock/Jen Watson
Page 112 - Shutterstock/EcoPrint
Page 114 - Shutterstock/James Karuga
Page 115 - Shutterstock/Adriana Mahdalova
Page 119 - Gatsby Africa

Contributors

Interviewees & contributors:

David Ndii, Managing Director, Africa Economics

Humphrey Wattanga, Vice-Chair, Kenya Commission on Revenue Allocation Advisor, Nairobi Securities Exchange

Alnashir Poppat, Former Chairman, Imperial Bank Ltd

Mohammed Nyaoga, Board Chairman, Central Bank of Kenya

Anne Eriksson, Former Senior Partner, PwC

Abraham Muthogo, CEO, Miradi Capital

Ewart Salins, General Manager, Dry Associates Investment Bank

Gauri Vidyarthi, Financial Advisor, VFS International Ltd

Kwame Owino, CEO, Institute of Economic Affairs – Kenya

Brian Kiai, Senior Manager, Cranemere Group

David Okwemba, Former Managing Editor East Africa, BBC

Mathias Muindi, Political Risk Analyst, Independent

Jared Kangwana, Board member and senior executive Various (inc. Anglo-African Property Holdings Ltd; Maisha Microfinance Bank; The Monarch Insurance; Kenya Television Network Former Member, East Africa Legislative Assembly)

Kip Kitony, Former National Chairman, Kenya National Chamber of Commerce & Industry

Dennis Itumbi, Former Secretary of Innovation, Digital and Diaspora Communication, Office of the President

Professor George Nyabuga, Dep. Journalism Nairobi University Professor

Patrick Ndeda, Director, JamboPay, Kenyan online payment platform

Deepak Dave, Founder, Riverside Capital Advisory

Imtiaz Khan, Director, Cassia Capital Partners

Russell Southwood, CEO, Balancing Act

Eline Blaauboer, Managing Partner, Safaricom Spark Venture Fund and Principal, TBL Mirror Fund

Peter Gross, Senior Advisor, AXA

Adam Grunewald, CEO and Co-Founder, Lynk

Omar Ibrahim, Lawyer and businessman, Various (focused on land and real estate)

Contributors (cont.)

Benson Ndeta, Chairman, Savanna Cement

Anjali Saini, Advisor, Renewable Energy and Adaptation to Climate Technologies,
The Africa Enterprise Challenge Fund

Kennedy Odede, Co-founder, Shinning Hope for Communities

Yvonne Ndege, Senior Communications Officer, UNHCR Kenya

Cyprian Nyamwamu, Foundation Director, Future of Kenya Foundation

Roland Omoresemi, Co-Founder and CEO, Tezza Solution

Carol Kagendo Githinji, Founder, Lattice Community a shared office facility

Milton Lore, Team Leader, Mastercard Foundation Fund for Rural Prosperity

Anzese Were, Development Economist, FSD Kenya

Caesar Mwangi, Visiting Fellow, Strathmore Business School

George Gachara, Managing Partner, HEVA Funds

Nthenya Mule, Founder, Antara Health

Kikonde Mwatela, COO, Twiga Foods

Edward Mungai, Executive Director, Kenya Climate Innovation Centre (KCIC)

Antoinette Tesha, Textiles & Apparel Director, Msingi East Africa

Dirk Willem te Velde, Head of the International Economic Development Group,
Overseas Development Institute (ODI)

Alison Otieno, CEO, Kenya Markets Trust

James Mwai, Deputy Director for Policy, Kenya Commercial Forestry Programme

Jonas Tesfu, CEO & Co-Founder, Pangea Accelerator

Lucy Kioko, Deputy Director (Production Services), Gatsby Africa – Kenya Commercial Forestry Programme

Mandeep Shah, Business Development & Innovation Manager, Msingi East Africa

Sam Kareithi, Kenya Country Director, Gatsby Africa

Wario Bonayo, Head of Programmes, Kenya Markets Trust

Acknowledgements

With thanks to Andrea Bohnstedt, Dr. Allan Pamba, Andrew Teyie, and Henrietta Southby for their contributions to the research and writing of this report on behalf of Sofala Partners.



Thanks to Georgia Cockerill for design, Edwin Price for revision and text on COVID-19, and Ryan Bourque for editing final text.

About the Project Sponsors



Msingi is a forward-thinking East African organisation focused on catalysing competitive industries of the future. Taking a regional approach to sectoral development, Msingi works across Kenya, Rwanda, Tanzania and Uganda. Msingi is currently working in the aquaculture and textiles & apparel sectors. Msingi aims to generate new jobs and boost incomes while fostering inclusive opportunities for future generations to improve their livelihoods. Msingi's systems model blends market facilitation tools with the ability to directly finance pioneering, strategically-important entrepreneurs. The aim is to enable industries to remain competitive in the long-term, protected against risk, and capable of developing new products and services.

www.msingi.com | info@msingi.com



Kenya Markets Trust (KMT) is a Kenyan not-for-profit organisation that specialises in market transformation. KMT works to stimulate inclusive and resilient growth that will lead to a step-change in the livelihoods of millions of Kenyans. KMT takes a long-term approach, staying true to its mission while adapting to the forces – such as climate change and emerging technologies – that are shaping the markets it operates within. Since 2012, KMT has created 230,000 new jobs and £165m additional income for Kenyans. The current portfolio comprises work in agricultural inputs, water and livestock.

www.kenyamarkets.org | info@kenyamarkets.org



Gatsby has worked to create jobs, raise incomes and build opportunities for people in Africa since 1985. Gatsby's mission is to accelerate inclusive and resilient economic growth in East Africa. Gatsby aims to achieve this by demonstrating how key sectors – such as commercial forestry in Tanzania – can be transformed. Gatsby funds and implements programmes that look to catalyse and influence large-scale and lasting change in priority sectors. Gatsby also builds and supports local organisations dedicated to sector transformation, while aiming to share learning with others – such as governments and donors – who are trying to catalyse economic growth.

www.gatsby.org.uk/africa | learning@gatsbyafrica.org.uk

CONNECT WITH US TO
CONTINUE THE CONVERSATION

We are eager to hear from others to discuss the findings of this report, deepen our understanding, and help target our future research.

Our next report will focus on Kenya.

To get in touch and to keep up-to-date with Horizon's activities, please connect with us online:

@horizon_ea

info@horizon-ea.com

www.horizon-ea.com

HORIZON
EAST AFRICA

MSINGI
BUILDING EAST AFRICA'S INDUSTRIES
OF THE FUTURE

**KENYA
MARKETS
TRUST**
Better Markets, Better Lives

 GATSBY
AFRICA



HORIZON
EAST AFRICA