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Abbreviations and Acronyms

BOT	Bank of Tanzania
CAD	Current Account Deficit
CAGR	Compound Annual Growth Rate
CDN	Content Distribution Networks
CITCC	China International Telecommunication Construction Corporation
COVID-19	Corona Virus Disease 2019
DAI	Digital Adoption Index
DFID	United Kingdom Department for International Development
DP	Development Partner
EAC	East African Community
EMDEs	Emerging Markets and Developing Economies
EU	European Union
FDI	Foreign Direct Investment
FSAL	Financial Sustainability Assessment Program
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GSMA	Global System for Mobile Communication Association
HBS	Household Budget Survey
ICT	Information and Communications Technology
IDI	ICT Development Index
IMF	International Monetary Fund
IP	Internet Protocol
ITU	International Telecommunication Union
KPI	Key Performance Indicators
MoFP	Ministry of Finance and Planning
MSME	Micro, Small, and Medium Enterprises
NBS	National Bureau of Statistics
NICTBB	National ICT Broad Band
NPLs	Nonperforming Loans
NSRC	Network Startup Resource Center



OTT	“Over-the-top” Service Providers
Pp	Percentage points
PPPs	Public-Private Partnerships
PSSN	Productive Social Safety Net
RoW	Rights of Way
SADC	Southern Africa Development Community
SGR	Standard Gauge Railway
SME	Small and Medium-sized Enterprises
SSA	Sub-Saharan Africa
TARURA	Tanzania Rural and Urban Roads Agency
TCCL	Tanzania Telecommunication Company Ltd
TCRA	Tanzania Communication Regulatory Authority
TRA	Tanzania Revenue Authority
TZS	Tanzanian Shilling
UNCTAD	United Nations Conference on Trade and Development
URT	United Republic of Tanzania
US\$	United States Dollar
USA	United States of America
VAT	Value Added Tax
WB	World Bank
WDI	World Development Indicators
WHO	World Health Organization



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Executive Summary

State of the economy: In 2019 growth in Tanzania's economy was again solid, but this year COVID-19 is expected to cut GDP growth at least in half and increase poverty.

With external conditions benign in 2019, Tanzania's economic growth remained solid. According to official data, GDP growth through the first three quarters of 2019 was 6.9 percent, close to the 2018 official rate of 7.0 percent. Leading the way were mining, construction, and transport services. Inflation through the year was low and stable, the balance of payments was healthy, and the current account deficit (CAD) narrowed. Headline inflation was 3.8 percent by year end, well below the authorities' ceiling of 5 percent. Higher exports of gold and manufactured goods helped improve the CAD from 3.8 percent of GDP in 2018 to 3.0 percent. Imports rose more slowly, with intermediate goods recording the highest growth as oil imports went up. The CAD was funded primarily by external borrowing. At year end, official gross reserves reached US\$5.6 billion, enough to cover 6.4 months of imports of goods and services and comfortably above the government's goal of 4 months coverage.

Every economy in Africa is being hit hard in 2020 by the COVID-19 pandemic, though expected country-specific magnitudes remain highly uncertain. As of May 27 2020, more than 80,000 cases and 1,900 deaths were recorded in the region. The rate of transmission in Africa seems to be slower than in Europe and the United States. Nonetheless, implementing containment measures is difficult in Africa due to crowded urban conditions and a large informal economy. The spread of COVID-19 has affected the labor market, production capacity, and productivity. Moreover, the pandemic is affecting low-income countries asymmetrically, hurting disproportionately the countries with the poorest health infrastructure.

Economic costs are already being felt in Tanzania and even with additional policy actions to strengthen the health response and mitigate the economic effects, 2020 GDP growth will likely slow sharply. Tourism has halted, and exports of manufacturing and agricultural goods have slumped. In combination with direct labor market disruptions from the pandemic, this has caused a severe dampening of private domestic demand and deterioration



of domestic business conditions. Falling public revenues confirms the broad dampening across the domestic economy. Point estimates for 2020 growth are highly uncertain and external demand and domestic business conditions over the coming months are very unclear. Current World Bank staff estimates based on assumptions of strengthened government action on containing the pandemic and mitigating the economic impact, as well as improving external conditions, show real GDP growth slowing to 2.5 percent in 2020, with substantial downside risk. Moreover, our simulations using the 2018 Household Budget Survey suggest an additional 500,000 Tanzanians could fall below the poverty line, particularly those in urban settings relying on self-employment and informal/micro enterprises. The fiscal deficit and current account deficit are also both expected to widen. Even though our baseline scenario assumes that the impact of coronavirus will become less severe later in 2020, there is a serious risk of long-lasting negative spillovers on labor productivity.

Growth slowdown in Tanzania's main trade partners has reduced demand and prices for its agricultural commodities and final manufactured goods, and international travel bans and fear of contracting the virus are expected to inhibit the recovery of tourism, which has been one of the fastest-growing sectors in the economy. In 2019 tourism contributed about 1.0 percentage point to total GDP

growth and constituted more than 26 percent of total exports. The main tourism operators in the country are forecasting revenue contractions of 80 percent or more this year, and only a mild recovery next year, conditional on how well global demand rebounds. For Tanzanian exports that are part of global value chains, the decline in the volume of sales will reduce demand for imported raw materials and intermediate goods. The volume of exports will also shrink as disruption in value chains pushes up the costs of inputs and transportation, delaying import delivery times and thus the quantity of imports that exporters use as raw materials. Therefore, exports are expected to decline by 10.0 percent, and imports by 1.5 percent. However, Tanzania will benefit from lower oil prices and higher gold prices, and these price effects, even if the volumes do not change, will alleviate the deterioration of Tanzania's external position arising from lower exports. Overall, we expect a deterioration of the current account deficit of 0.9 percentage points of GDP.

Domestic business conditions are expected to deteriorate. Local investors are expected to have less confidence and delay private investment (70 percent of total investment in 2018), and cautious consumers will likely limit their consumption of durable goods. Moreover, financial institutions that are internationally funded will have less to lend due to a decline in capital flows to emerging markets and a spike in risk aversion. Tanzania already has a large share of nonperforming loans



at about 10 percent, a share that is likely to grow if lines of credit are not renewed and defaults emerge. With less money to lend, banks may limit their regular operations, jeopardizing financial stability. Meanwhile, disruptions in tourism, export-oriented manufacturing, and related services and intermediate inputs have already shrunk the disposable income of employees in these sectors and thus of owners of small- and medium-size businesses, which represent more than 70 percent of total businesses. Considering these transmission channels, private consumption growth is expected to decelerate from 5.2 percent in 2019 to 2.4 percent in 2020, while gross capital formation is expected to decelerate from 8.0 percent to 4.0 percent during the same period.

The current outlook is highly uncertain, and risks are tilted to the downside especially if global demand remains suppressed or government actions are not strong, well-targeted or sustained.

The risks for a more negative growth outlook than the baseline described above are high. Under a severe local outbreak, Tanzania's health care system would become heavily strained, and self-imposed social distancing could dampen much of the economy. This would likely lead to a delayed economic recovery, and Tanzania would face continued pressures to finance additional health spending to save lives and provide support to protect livelihoods. Even if the outbreak is contained in Tanzania, a protracted/resurging global health crisis that continues in 2021 could undermine global demand, and thus, the Tanzanian

economy. Furthermore, even if the global health crisis is contained and Tanzania's COVID-19 reported cases also decrease, additional trade and logistics restrictions could continue disrupting global trade during the recovery. Tanzania's macroeconomic performance has been strong for the last decade, but the current crisis is an unprecedented shock that requires strong, well-targeted and sustained policy response.

Policy responses: Tanzania should act quickly and strongly to avoid a protracted health and economic crisis.

Global experience suggests differing trade-offs of crisis response across countries and the need for context-specific strategies. Low income countries in Sub-Saharan Africa have key differences compared to developed countries; these are relevant when considering policy responses to address the current crisis. Countries in the region have younger populations, larger informal sectors, weaker health systems and generally lower capacity governance systems. They also have more limited fiscal space and cannot afford expensive lockdowns or mobilize significant resources to alleviate the effects of the pandemic (e.g., 10 percent of GDP or more in some developed countries such as USA and Denmark). Further, recent research shows that suppression measures could be less effective in saving lives in lower income countries. This suggests that smart containment policies that protect the vulnerable and identify and isolate the sick, combined with supportive economic measures,



may be more effective and practical in countries like Tanzania to contain the virus and set the stage for eventual economic recovery.

The Government of Tanzania has taken several steps to mitigate the COVID-19 outbreak but can still do more given its favorable macroeconomic conditions. To support a robust health and economic policy response, Tanzania has in its favor a considerable fiscal space relative to other countries in the region, high international reserves, and favorable commodity price movements. Tanzania has enhanced preparedness and containment capacity through measures to strengthen detection and surveillance at airports, border crossings, and other points of entry, and is training health care staff on case management, risk communication, and community engagement. The government has implemented several measures aimed at containing the spread of the COVID-19, including closing schools and colleges, suspending all public meetings, sporting events, and all international passenger flights¹. Additionally, the government has encouraged hand washing and identified several public and private hospitals that will serve as isolation centers for people infected with coronavirus.

The Government is implementing policy actions to boost liquidity in the financial sector while additional policies to protect households and businesses in significantly affected sectors, such as those in tourism,

are being evaluated. The MoFP has accelerated payment of domestic payment arrears and VAT refunds. This fiscal year, about Tanzanian shilling (TZS) 916 billion in verified domestic payment arrears was paid through March 2020 and about TZS 174 billion (equivalent to 148 percent of the allocated budget) in verified VAT refunds paid through April 2020. The Bank of Tanzania (BOT) recently reduced the discount rate from 7 to 5 percent, lowered the minimum reserve requirement ratio from 7 to 6 percent, increased the valuation on commercial banks' holding of government securities that can be used as collateral for borrowing, encouraged financial institutions to consider restructuring of loans for severely affected borrowers, and relaxing the limits on mobile money transactions. The BOT could consider additional measures as needed such as loan guarantees for severely affected firms and relaxation of the current capital and collateral requirements.

These steps already taken are important but more needs to be done to ensure as quick a recovery as possible: authorities are urged to strengthen the health response to the pandemic and implement further economic mitigation measures to protect lives and livelihoods.

- Strengthened health response and transparency to save lives. Additional resources should be directed to reinforce Tanzania's health response and implement a smart containment

¹ Government has recently announced partial relaxation of some of these measures. Some schools and colleges have been reopened. They also announced resumption of sporting events and international passenger flights.



strategy to prevent cases from rising or resurge. Government should mobilize adequate financial resources to ensure equitable access to priority facilities and medical services. The priorities should include: provision of COVID-19 testing kits, Protective Personal Equipments (PPEs) and supplies for infection, prevention and control; procurement of additional medical equipment for critical care including ensuring oxygen supply; refurbishment of facilities to provide critical care; and training as well as hiring additional medical personnel. In doing so, it is important that the delivery of essential health services is prioritized and sustained to avoid excess non-COVID-19 morbidity and mortality and ensuring timely reporting of COVID-19 related information for policy-makers and the population at large.

- Protecting livelihoods and the future. Recovery will require a healthy work environment, especially for the tourism sector. Economic measures can protect the most affected businesses and households and accelerate a robust recovery in 2021. Important steps have been taken by the BOT but more needs to be done. The policy response requires a combination of stronger social safety nets and support mechanisms to mitigate further economic disruption by helping the private sector retain employees and alleviating the financial impact through a variety of wage compensation, loan subsidies,

and deferrals. Short-term support to keep firms viable could include grants, guarantees, concessional lending, and increased bank lending, as well as temporary reductions or delays in tax obligations. Additional short-term measures might consider cash-transfers to low-income households, expanding the coverage of safety net programs to the households most affected by the economic slowdown, ensuring the reliability of food supplies and prices, and making sure children from poor families return to schools as they reopen.

The Potential of the Digital Economy: The digital economy can strengthen the effectiveness of the response to COVID-19 and become a key driver of Tanzania's recovery.

The digital economy can support the delivery of stronger policy responses and help contain the spread of the virus. Tanzania could benefit from its existing mobile accounts to streamline new cash transfer schemes and widen the coverage of existing social programs. Mobile banking could also give companies in the informal economy quicker access to government benefits without formally registering, while commercial banks could partner with mobile banking providers to accelerate the borrowing process to small and medium-sized enterprises (SMEs). Moreover, using digital technologies to ensure the continuity of public services favors social distancing and, thus, can reduce the velocity of transmission of the virus.



Globally, the digital economy is growing quickly, driven by demand for data. UNCTAD estimates that global data traffic will expand from the current 45,000 GB per second to 150,700 GB in 2022. However, the speed of the expansion is uneven. Developed countries, especially the USA and China, are growing faster than developing countries, widening the digital divide. Data traffic in Tanzania has been rising, but not fast enough to reduce the divide. Data usage on the Airtel network, for instance, grew by 52 percent in 2019, but usage of Tanzania's international bandwidth is only a third of Kenya's. One reason is that its retail internet prices for low-usage data baskets are the highest in the subregion.

Expanding the digital economy depends both on the interaction of digital platforms and on legislation. Digital platforms allow interaction online, with elements of payment, identification, and connectivity. A framework that encourages trust is also necessary: if the digital economy is to grow, consumers need to be assured that they are protected online. This requires that the laws keep up with technological developments and that regulators are competent and effective. Firms need certainty and consistency in all the jurisdictions where they operate.

Both governments and firms contribute to driving trust and transparency online. Governments need to use online platforms and to take the lead in making payments, by using mobile money and showing that

the online environment is secure and easy to use. Canada's Digital Charter, for example, states that "the way forward on data collection, management and use must be built on a strong foundation of trust and transparency between citizens, companies and government."

A number of recommendations flow from this Digital Assessment. There has been progress, notably on the connectivity front where Tanzania's high-volume data products (10GB and greater) are among the cheapest in East Africa. Furthermore, Tanzania is now connected to three international undersea cables and a new market entrant, Halotel, has rolled out significant amounts of fiber to rural areas. On the legal front, there had been progress on the admissibility of electronic evidence, eGovernment services are enabled, and online auctions are recognized. These are all very positive developments.

However, if the digital economy is to rapidly expand, and to respond effectively to the COVID-19 pandemic, there are a number of interventions that the Government of Tanzania can consider, as set out at the conclusion of this report. These include moves to make mobile money and low-value data packages affordable for the poor and to remove barriers that currently prevent competitive mobile operators from investing in their own infrastructure. Investment in enhanced coverage of mobile broadband in rural areas is particularly necessary: it appears that the number of "notspots," where cellular signals are not available, may be



higher than official statistics suggest. To stimulate progress toward integration in the global digital economy, the government should seek to attract carrier-neutral data centers and content distribution networks. As physical trade declines as a result of COVID-19 restrictions, the government should also move to facilitate digital trade, primarily by passing a strong data protection act, with supportive regulations, and reviewing how intellectual property is protected online.



1 The State of the Economy





1.1 The Economy Before COVID-19

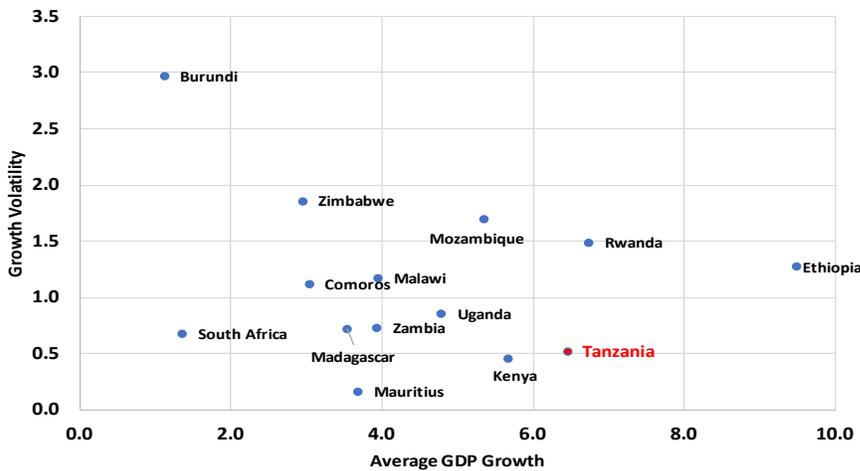
Tanzania’s economic growth was strong amid benign global conditions and domestic credit expansion

Tanzania was one of the top three growth performers in East Africa. Between 2013 and 2018, its average GDP growth (6.5 percent) was behind only Ethiopia (9.5 percent) and Rwanda (6.7 percent). It was also among the least volatile economies in the region, after Mauritius and Kenya (Figure 1). According to official data, GDP growth through the first three quarters of 2019 was 6.9 percent, close to the official rate of 7.0 percent in 2018 (Table 1). Growth was led by nonmanufacturing industry, notably mining and construction, and by transport, communication, and financial services. The growth in mining production (12.6 percent) was driven by a rebound in gold, which went up by 11.6 percent, from 28.3 tons in 2018

to 31.6 tons in 2019, though that is still below the 2015-17 average of 32.3 tons. Growth in construction (14.8 percent) was driven by work on public infrastructure, such as roads, bridges, water supply facilities, and buildings, and on residential projects. This was reflected in the rise in production of construction materials for the domestic market, such as cement, iron, and steel.

Other official high-frequency data suggest that Tanzania’s annual GDP growth in 2019 was closer to 6.0 percent. World Bank staff estimates using leading indicators based on expenditure data suggest GDP growth of 5.8 percent in 2019, up from 5.4 percent in 2018; monthly and quarterly data show that in 2019 public consumption, gross fixed capital formation, and exports rose—as did both recurrent and development spending and tax revenue in 2018/19 and the first half of 2019/20. Also rising were credit to the private sector; imports of capital goods and raw materials; and the performance of the construction sector.

Figure 1: Economic Growth, Tanzania and Comparators, 2013–18



Source: NBS, WB staff estimates.



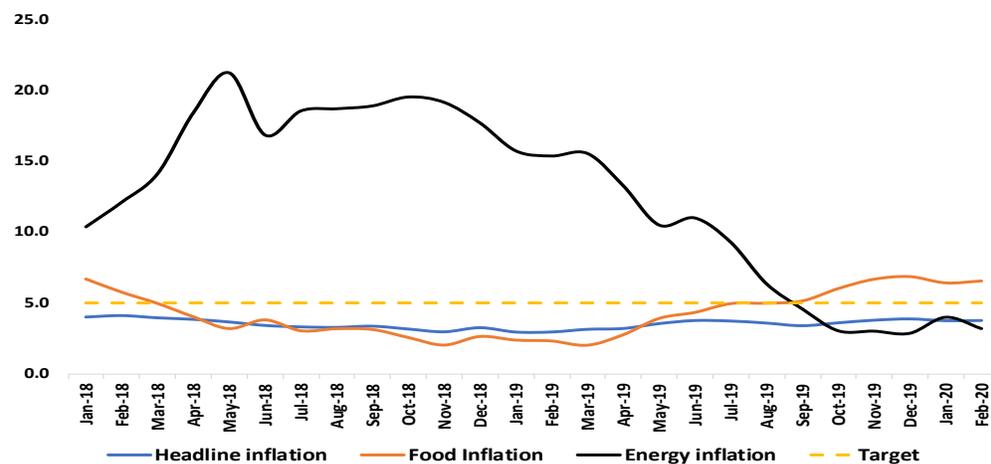
Table 1: Official Quarterly Real GDP, January - September, 2018-19, Percent

	Growth			Contribution to Growth	
	Average 2013-2018	2018	2019	2018	2019
Gross Domestic Product	6.7	6.9	6.9	6.9	6.9
Agriculture	5.9	5.6	5.0	1.4	1.2
Industry	9.1	7.5	11.2	2.0	3.0
Mining and quarrying	6.3	0.9	12.6	0.0	0.5
Manufacturing	8.3	5.4	5.2	0.5	0.4
Electricity	5.4	4.4	6.6	0.0	0.1
Water	5.2	7.0	8.5	0.0	0.0
Construction	10.9	11.3	14.8	1.5	2.0
Trade and services	6.8	6.3	5.9	2.6	2.4
Trade and repair	6.2	5.1	5.4	0.5	0.5
Accommodation and restaurants	3.5	6.3	2.6	0.1	0.0
Transport and storage	7.4	11.5	8.8	0.9	0.7
Information and communication	8.2	10.6	11.0	0.2	0.2
Financial and insurance	3.9	-0.5	4.7	0.0	0.2
Public administration	5.4	3.5	3.1	0.2	0.1
Professional services	15.0	11.0	7.1	0.1	0.0
Administrative and support services	13.3	5.4	8.5	0.1	0.2
Real estate	4.3	4.4	4.5	0.1	0.1
Education	9.9	7.1	4.7	0.2	0.1
Health	7.0	10.1	1.1	0.2	0.0
Other services	9.0	8.3	6.8	0.1	0.1
Taxes on products	2.1	12.2	3.1	0.9	0.3

Source: NBS.

Note: NBS has not released 2019 Q4 and Annual GDP figures.

Figure 2: Inflation, 2018-20, Percent



Source: NBS.

Inflation was kept in check. In 2018–19 annual inflation averaged 3.5 percent, the lowest rate since 2000. The country's inflation rate has been the least volatile and one of the lowest in the East African Community. In February 2020, inflation reached 3.7 percent, up from 3.0 percent a year before but still below the 5.0 percent medium-term target (Figure 2). Rising prices pushed food

inflation up from 2019's 2.3 percent to 6.6 percent in February 2020. However, in the same period the inflation rate excluding food fell from 5.1 to 2.4 percent, partly because in February 2020 energy inflation plunged from 15.4 to just 3.2 percent.

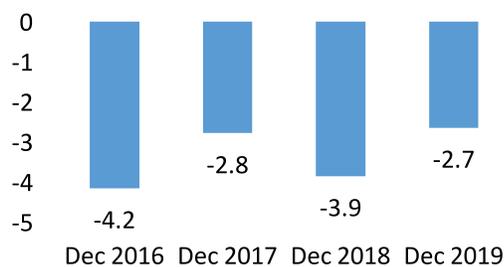
As growth in exports outpaced growth in imports in 2019, the CAD narrowed



to 2.7 percent of GDP (Figure 3), down from 3.9 percent in 2018. The value of exports reached a historical peak of US\$9.7 billion, driven by higher exports of gold and manufactured goods. Exports had been stagnant since 2013. In 2019, total exports grew by 15.7 percent (Figure 4 and Table 2), driven by higher exports of gold, manufactured goods, and travel services (tourism). Imports rose along with domestic demand, but more slowly than exports. In 2019, imports went up 7.7 percent (Figure 4 and Table 2), led by intermediate goods responding to an expanding oil import bill (38.3 percent), followed by capital goods (6.6 percent).

The CAD was primarily funded by external borrowing. Total external debt went up from US\$21.0 billion in December 2018 to US\$22.4 billion in December 2019, driven by disbursements to the central government. Yet inflows are still lower than historical averages and external concessional borrowing is below the average of the past five years, and between 2015 and 2018 FDI dropped by a third, from US\$1.5 billion to US\$1.0 billion (Figure 5, right panel). Official gross reserves reached US\$5.6 billion in December 2019, up from US\$5.0 billion in December 2018; they are adequate to cover 6.4 months of imports of goods and services, above

Figure 3: Current Account Deficit, 2016–19, Percent of GDP



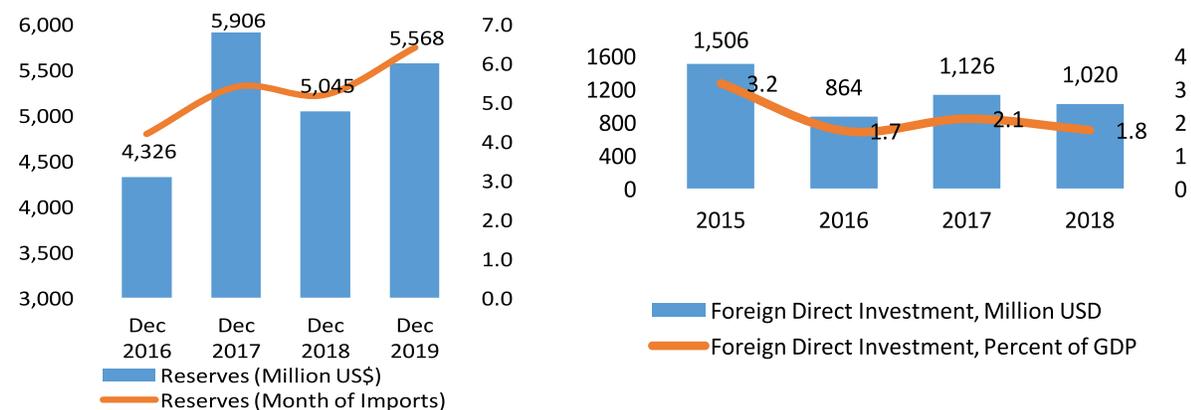
Source: BOT.

Figure 4: Growth in Exports and Imports, 2016–19, Percent



Source: BOT.

Figure 5: Official Gross Reserves and Foreign Inflows, 2016-19, US\$



Source: BOT.

Source: BOT.



Table 2: Trade Balance, 2017-19

	(Millions of USD)			(Annual percent change)		(Shares)	
	2017	2018	2019	2018	2019	2018	2019
Goods	4524	4380	5573	-3.2	27.3	52.2	57.4
Of which							
Gold	1541	1524	2217	-1.1	45.5	18.2	22.8
Manufactured goods	694	795	985	14.5	23.9	9.5	10.1
Traditional exports	1021	772	830	-24.4	7.5	9.2	8.5
Services	3832	4015	4140	4.8	3.1	47.8	42.6
Of which							
Travel	2223	2449	2526	10.2	3.1	29.2	26.0
Transport	1122	1228	1295	9.4	5.5	14.6	13.3
Total Imports	10339	10198	10985	-1.4	7.7	100.0	100.0
Goods	8299	8067	9018		-2.8	11.8	
Services	2040	2131	1967		4.5	-7.7	

Source: BOT.

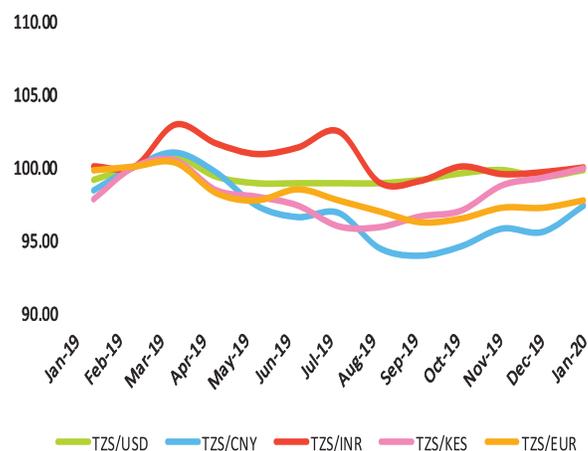
the government threshold of 4 months and the SADC and EAC requirements of 4.5 and 6 months (Figure 5, left panel).

The Tanzanian shilling was steady. From January 2019 to January 2020, the shilling depreciated by 0.7 percent against the U.S. dollar and 2.2 percent against the Kenyan shilling but appreciated 1.1 percent against the Chinese yuan and 2.1 percent against the euro (Figure 6). The low volatility was

in part the result of BOT interventions in the foreign exchange market: to keep the shilling stable, the BOT has moved to smooth out fluctuations and keep the interbank foreign exchange market orderly.

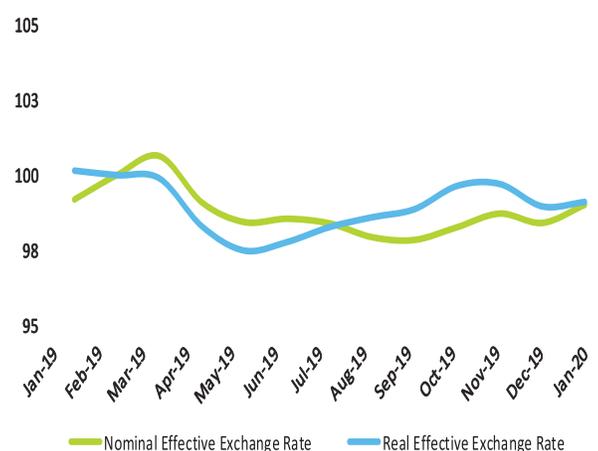
Growing credit to the private sector and the accommodative monetary policy pursued by the BOT caused M3 to expand. It grew by 9.6 percent in December 2019, up from 4.5

Figure 6: Nominal Exchange Rate, 2019–20, Percent



Source: OANDA Exchange Rates and World Bank Staff estimates.

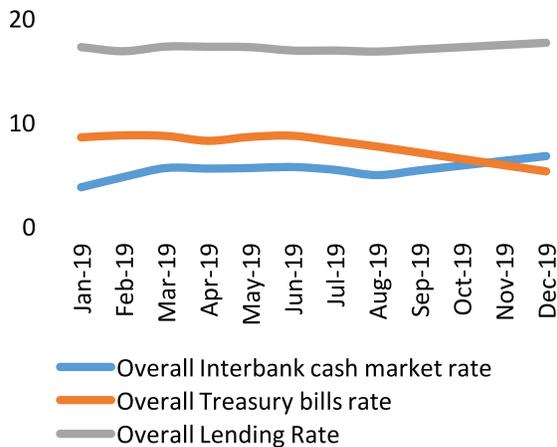
Figure 7: Real Effective Exchange Rate, 2019–20, Percent



Source: OANDA Exchange Rates and World Bank Staff estimates.

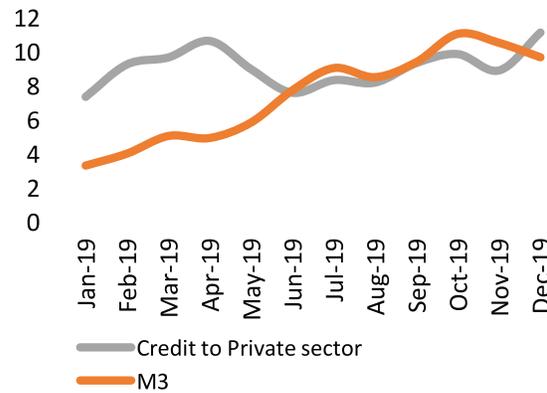


Figure 8: Lending Rates, 2019, Percent



Source: BOT.

Figure 9: Growth in M3 and Private Sector Credit, 2019, Percent



Source: BOT.

percent in December 2018 (Figure 9). Growth in credit to the private sector went up by 11.1 percent in 2019, after expanding just 4.9 percent in 2018, as loans to agriculture, construction, and transport services surged. Yet, lending to micro, small, and medium enterprises (MSMEs) was limited by the high-risk premium, primarily because of nonperforming loans (NPLs). Despite the rise in bank nonfunded (noninterest) income enabled by growth of digital and agency banking and the transfer of foreign exchange business to banks, there are still few loans to MSMEs because of collateral requirements, the risk premium, and the recent problems with high NPLs.

At 16.8 percent in December 2019, commercial lending rates were still high, partly due to high NPLs (Figure 8). Although NPLs have declined over the past two years, in February 2020 they were still about 10 percent; the BOT target is less than 5 percent.

Addressing NPLs requires coordinated efforts to address such business environment challenges as the high domestic payment and VAT arrears. The government has already taken steps to do so: it has adopted the Blueprint for Regulatory Reforms, prepared the Business Facilitation Bill and SME Policy, and cleared nearly TZS 1 trillion in verified payment arrears this fiscal year through April 2020.

Mid-year fiscal accounts showed improved execution of development spending and financing plans.

In the first half (H1) of 2019/20, the fiscal deficit was just 0.4 percent of GDP (Table 3). Though in line with the target of 0.5 percent for the period, it was higher than the 0.1 percent for the same period in 2018/19. With domestic revenue almost at the same level as in H1 2018/19, the rise was mainly driven by spending, especially for development



projects. The lower deficit had been achieved by fiscal challenges, especially shortfalls in domestic revenue and recurrent spending and accumulation of both domestic payment and VAT refund arrears.

Tax revenue nearly met its target in 2019/20 H1 although the total domestic revenue target was missed, largely because nontax revenue fell short of budget projections.

Domestic revenue was 7.0 percent of GDP—less than the 7.5 percent targeted but slightly higher than the 6.9 percent in 2018/19 H1. Tax revenue was short of the target by about 4 percent; however, that is much better than in previous years when targets were missed by more than 10 percent. According to the TRA tax revenue report of December 2019, all departments did collect more revenue; the TRA collected 96.3 percent of total tax revenue target in 2019/20 H1, up from 88.6 percent in 2018/19 H1.

Spending pressure has intensified in advance of the general election scheduled for October 2020.

In 2019/20 H1 spending was much higher than H1 spending the year before, largely because more was spent on capital projects. However, last year's spending was below target because the recurrent budget was significantly underspent: public spending amounted to 7.7 percent of GDP—below the 8.5 percent target but above the 7.1 percent in 2018/19 H1. Those shortfalls raise concerns about the quality of education, health, and other social services and a possible accumulation of domestic payment arrears. Partly driven by pre-election pressures, development spending amounted to 3.3 percent of GDP, which is in line with plans but significantly higher than in 2018/19 H1. The largest share of development spending was directed to big infrastructure projects in the transport and energy sectors,

Table 3: Fiscal Accounts, 2018/19-2019/20, Percent of GDP

	2018/19 Budget	2018/19 Actual	2018/19 H1 Budget	2018/19 H1 Actual	2019/20 H1 Budget	2019/20 H1 Prel. actual
In Percent of GDP						
Domestic revenue	15.5	13.8	7.6	6.9	7.5	7.0
Tax revenue	13.3	11.4	6.5	5.8	6.4	6.2
Nontax revenue	2.3	2.3	1.0	1.1	1.1	0.8
Total expenditure	19.5	16.6	9.5	7.1	8.5	7.7
Recurrent expenditure	10.6	10.3	5.4	4.5	5.1	4.4
Wages and salaries	5.5	4.9	2.7	2.5	2.5	2.4
Interest payments	1.6	1.8	0.9	0.7	0.8	0.8
Goods and services	3.5	3.5	1.7	1.3	1.9	1.2
Development expenditure	8.9	6.3	4.1	2.6	3.4	3.3
Domestically financed	7.3	4.8	3.3	2.0	2.5	2.4
Foreign financed	1.6	1.5	0.8	0.6	0.9	0.9
Grants	0.8	0.3	0.4	0.2	0.5	0.3
Overall fiscal deficit	-3.1	-3.1	-1.6	-0.1	-0.5	-0.4
Financing	3.1	3.1	1.6	0.1	0.5	0.4
Foreign (net)	2.3	0.9	0.4	0.0	1.0	1.2
Domestic (net)	0.9	2.3	1.2	0.1	-0.4	-0.8

Source: MoFP.

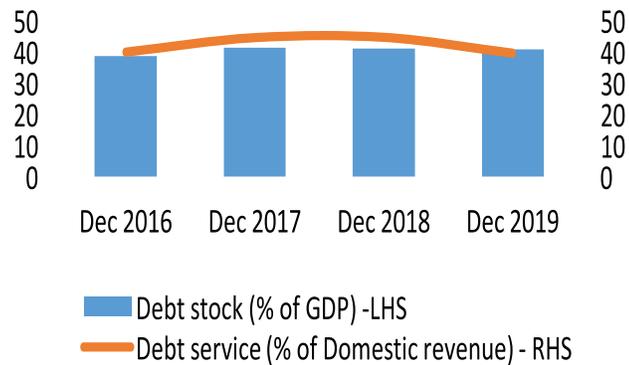


including standard gauge railway, the Julius Nyerere Hydro Power project, and roads.

Government financed the budget deficit in 2019/20 H1 mainly through external borrowing. With capital projects speeding up and the negotiation of agreements for non-concessional loans, disbursement of both commercial and concessional external loans was higher than planned. Disbursement of external loans was 1.2 percent of GDP, against a planned 1.0 percent; none were disbursed in 2018/19 H1. Government also used some of the external borrowing to advance planned repayment of domestic creditors, from 0.4 to 0.8 percent of GDP.

The rising share of commercial debt, much of it domestic, raises concerns about liquidity. The IMF–World Bank Debt Sustainability Analysis, updated in April 2020, found the risk to be low: in December 2019 the nominal public debt-to-GDP ratio was an estimated 40.7 percent, far below the 70 percent threshold and down slightly from about 41.0 percent in December 2018 (Figure 10).¹ However, commercial financing of the budget, which was just 4 percent in 2010/11, reached about 25 percent in December 2019. As a result, in 2019/20 debt service is expected to consume about 40 percent of domestic revenues.

Figure 10: Public Debt, 2016-19, Percent



Source: MoFP.

Business environment reforms need more consultation and a faster pace.

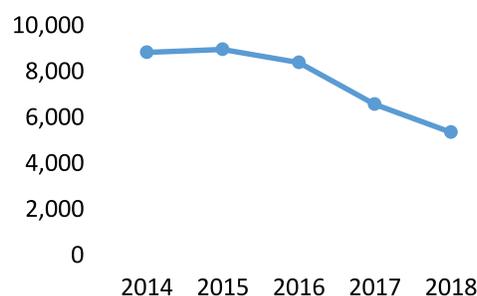
The number of new businesses registering in Tanzania continued to decline. According to WDI (*World Development Indicators 2020*) the number of new businesses registering every year has fallen by 30 percent, which suggests significant disincentives in this part of the economy (Figure 11). The business environment has been affected, for instance, by delayed payment of VAT refunds to exporting firms and arrears to domestic suppliers. Because VAT verification is lengthy, some arrears are more than three years past due. Moreover, the government has not made the legal changes and taken the cross-ministry actions necessary to enhance the functions of the Tanzania Bureau of Standards, Weights and Measures Department, or made it easier for investors to get work and residence permits.

¹ This figure excludes debt for which relief is being negotiated and Treasury bills issued to support monetary policy.



In the first quarter of 2020, the pace of business environment reforms was still slow. The *Blueprint for Regulatory Reforms*, drafted after consultation with the private sector and endorsed by the government in May 2018, specifies actions to abolish or rationalize a range of licensing requirements. While in the last three years, fees and charges have been eliminated, as recommended by the *Blueprint*, little has been done to streamline licensing and make institutional changes. Moreover, the Tanzania National Business Council needs to be revitalized if it is to deliver on its mandate to promote and sustain public-private dialogue.

Figure 11: New Firms Registering for Business, 2014-18



Source: WDI.

The 2020 changes to the Arbitration Act to allow international arbitration could boost the confidence of foreign investors. The act not only allows investors to access international arbitration, it also covers sovereignty over Tanzania's natural resources; public-private-partnerships (PPPs) with foreign parties; domestic and international commercial arbitration, and "enforcement of foreign arbitral awards." These changes are steps

forward for attracting more and more sustainable investments.

High economic growth did not translate into poverty reduction.

Despite substantial economic growth during the period 2011 to 2018, poverty reduction was modest². GDP rose on average by 6.4 percent per year, but annual GDP growth per capita was only 3.2 percent, taking into account population growth. GDP per capita in 2018 was 23 percent higher than in 2011 (Figure 12). The poverty reduction response to economic growth is referred to as 'poverty-to-growth elasticity'. During 2011-2018 it was only -0.26, among the lowest in the world. If we take its average value for Africa of -1.88, the poverty head count in Tanzania in 2018 should have been 40 percent³ lower than what it was in 2011. Instead, it was only 6.4 percent lower, when using the national poverty line. Poverty along that measure dropped from 28.2 percent in 2011 to 26.4 percent in 2018, according to the Household Budget Survey (HBS) 2011/12 and 2018. That is a *relative* reduction of 6.4 percent and an *absolute* reduction of 1.8 percentage points.

The poverty head count ratio barely responded to growth. Poverty reduced by 0.25 percentage points per year while in recent years the average for Sub-Saharan Africa has been 0.72. As the population continued to grow fast, the number of poor in Tanzania rose

² This section is based on [Tanzania Mainland Poverty Assessment 2019](#).

³ The African average poverty-to-growth elasticity is -1.88. Multiplying that figure by 23 percent gives -40 percent. (The global average of poverty-to-growth elasticity excluding Africa is -3.33.)



from 12.3 million in 2011 to about 14 million in 2018. Using the international extreme poverty line of US\$ PPP 1.9 per day, poverty remained at 49 percent between 2011 and 2018 (Figure 12 and 13): according to this measure, poverty did not respond to growth at all.

During 2011-18, the agricultural sector contribution to GDP grew much slower than the rest of the economy, averaging 4.4 percent a year or 1.4 percent per capita. With 75.5 percent of the poor dependent on agriculture for their livelihoods, agricultural sector growth is crucial for poverty reduction. In 2018 agricultural GDP per capita was 10 percent higher than in 2011, while in industry it rose by 55 percent and in services by 26 percent. However, only 7 percent of the poor work in industry and 17.5 percent in services. Growth does more to reduce poverty when it occurs in sectors that employ the poor. Global evidence shows that growth in agriculture, for example, has been on average two to three times more poverty-reducing than the same amount of growth elsewhere in the economy, at least when land has been distributed fairly equally (Beegle and Christiaensen 2019).

Between 2011 and 2018 consumption grew significantly less for Tanzanians at the bottom of the income distribution than among the better-off. Total real consumption growth between 2011 and 2018 was between 0 and 1 percent for the poorest 50 percent, while it was between 1 and 3 percent for the richest 50 percent. On average, consumption growth was somewhat higher in urban than in rural areas.

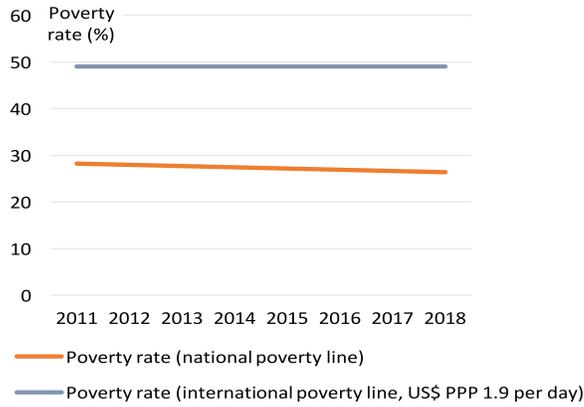
Education indicators improved between 2011 and 2018, but only marginally for secondary education. Gaps between poor and non-poor children are substantial, but they are even larger between rural and urban areas. Between 2011 and 2018 net enrollment in primary school went up by 14 percentage points, but in lower secondary school this was only 3 percentage points. In 2018 lower secondary net enrolment was still only 26 percent in rural areas, half the number in urban areas where this was 50 percent. It was 25 percent among the poor compared to 38 percent among the non-poor. In Tanzania, enrolment rates for upper secondary school have not risen and remain low at 2 percent, much below other African countries such as Malawi where this is 9 percent and Zimbabwe (34 percent).

Poverty reduction was driven by improvements in the endowments⁴ of households in poorer income groups, although their returns have dropped. Tanzanian households have seen a marked increase in access to basic services and infrastructure, which has accelerated since 2012. Ownership of assets has also expanded among the poor, but opportunities for their productive use have not. Mobile phones, for example, continue to positively affect the livelihoods of the poor, but their marginal benefits have narrowed since 2012, especially in urban areas and for moderately poor households. Returns to owning a bicycle have dropped. Gains in income and consumption associated with primary education have dropped, while the correlation between welfare

⁴ Such as education, assets and durable consumption goods.

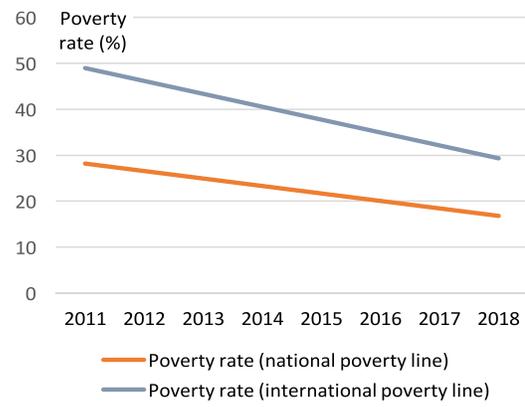


Figure 12: Tanzania Poverty Trend Based on Tanzanian Poverty-Growth Elasticity, 2011-18



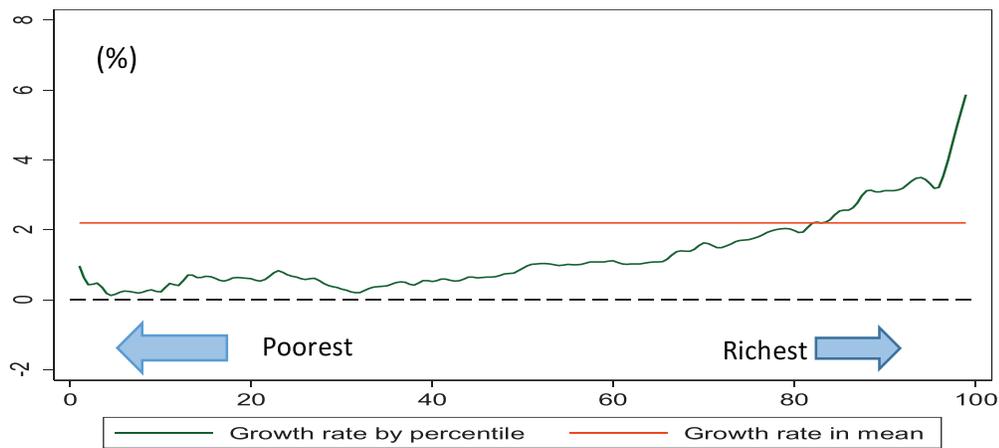
Source: Based on HBS 2011/12 and 2018 survey data and World Bank data.

Figure 13: Tanzania Poverty Trend Simulation Using Average African Poverty-to-Growth Elasticity, 2011-18



Source: Based on HBS 2011/12 and 2018 survey data and World Bank data.

Figure 14: Household Consumption Growth 2011-18 by Welfare Percentile (Growth Incidence Curve)



Source: World Bank (2019). Tanzania Mainland Poverty Assessment, using HBS 2011/12 and HBS 2018 household surveys.

and postsecondary education has increased significantly, benefitting the richest urban households.

The larger the household, the poorer it is, and most poor children live in large households. The number of children under 15 in poor households is almost double the number in nonpoor

households, according to the HBS 2018. Childhood poverty affects nutritional status, school achievement, and thus long-term earnings potential and the hope of moving beyond poverty as adults. Recent research on African poverty shows that reducing the birth rate has the greatest impact on poverty



reduction. If the number of children per African woman - currently 5.0 in Tanzania - would be equal to the global median of 2.5, poverty would fall by 1.8 percent for every 1 percent of growth. While, in recent decades, outside Africa average unwanted births have decreased from 1 to 0, in Africa it is still 2 (Günther and Hartgen 2016, quoted in Beegle and Christiaensen 2019).

1.2 COVID-19 Impact and the Medium-Term Outlook

Short-term outlook: The coronavirus pandemic has dramatically undercut Tanzania's growth outlook and will increase poverty in 2020.

The economic impacts of the COVID-19 are widespread and not specific to Tanzania, with the latest World Bank estimates suggesting the global economy is in recession. The forecast is for an unprecedented global recession, with global GDP projected to decline by about 5 percent.⁵ The crisis is still evolving, and there are major uncertainties depending on the pace and extent of the spread of the coronavirus. The pandemic has brutalized real and financial sectors around the world. Trade flows have sharply contracted, value chains have been disrupted, both investment and domestic demand have plunged, and commodity prices have become even more volatile. Financial volatility has reduced capital flows into emerging markets, and large emerging economies risk sudden stops.

Tanzania is already suffering substantial economic costs. Decreased external demand and travel bans in Tanzania and abroad have already had a severe impact on the tourism sector and dampened other non-traditional exports as well. Externally oriented companies are reporting significant declines in their expected sales. Tour operators expect a decline in 2020 revenue of 80 percent or more, while major exporters of fruits and agricultural products expect a loss of around 40 percent. The production oriented towards the domestic economy is also softening as some Tanzanians adjust behavior to avoid the coronavirus through work absenteeism and avoiding large gatherings. Data provided by Google on urban mobility in Dar es Salaam shows a decline of around 30 percent in workplaces, transit stations and retails and restaurants. Lower activity is expected to erode the tax base, in particular in sectors that have already ceased to operate such as tourism.

Growth is expected to remain positive but dip sharply in 2020 to 2.5 percent assuming Government takes action to strengthen the health response and help mitigate impact on livelihoods (Table 4). Our baseline is based on available data through April 2020 and is subject to considerable uncertainty given impacts are currently unfolding. Government has taken some non-economic measures (closing schools, banning public gatherings except religious, suspending international flights) though Government recently announced gradual reopening starting

⁵ World Bank Global Economic Prospects (June 2020).



in June 2020. The BoT has reduced the discount rate and lowered borrowing costs for banks. Our projection assumes these measures will be strengthened during the year and complemented by additional programs targeted to help vulnerable households and affected businesses, though the timing and scope are uncertain. Key assumptions for aggregate demand in our baseline are:

- **Consumption:** Growth in private consumption, accounting for roughly two-thirds of GDP, will slow as a result of higher consumer risk aversion, higher precautionary savings, and loss of disposable income due to unemployment or less hours worked. Public consumption, accounting for roughly 9 percent of GDP, will see an increase due to higher government expenditures on health and social protection in response to the pandemic.
- **Investment:** Growth in private investment will also fall severely, from 8 percent in 2019 to 4 percent in 2020, due to the surge in global uncertainty, reduced capital inflows to the region and increased investor risk aversion across all sectors of the economy.
- **External:** The current account deficit is expected to increase from 3.0 percent to 3.9 percent, with contractions in global demand outweighing positive price developments for oil and gold. The global slowdown and travel bans will reduce exports of services

related to tourism and to transport services to neighbor countries, reducing employment in that sector and in related activities. Exports of manufactured goods will also decrease due to a contraction in global demand.

Key transmission channels under our baseline scenario include:

- **Export demand will decrease as growth slows for Tanzania's main trade partners and travel restrictions halt tourist arrivals.** Firms exporting agricultural commodities and final manufactured goods will continue to be affected. For Tanzanian exports like textiles that are part of global value chains, this will in turn reduce demand for imported raw materials and intermediate goods. The volume of exports will also shrink as disruption in value chains pushes up the costs of inputs and transportation, delaying import delivery times and thus the quantity of the imports that exporting industries use as raw materials. Preliminary reports from the port of Dar es Salaam show that maritime traffic has slowed down. Second-round effects will also be generated by Tanzania's regional trade partners that also export to Europe and Asia. As these countries experience lower demand from China, India and the EU, they will seek fewer goods and services from Tanzania. Our baseline assumption is for exports to decline by 10.0 percent, and imports by 1.5 percent, driven mainly by lower volumes.

**Box 1: Out of Africa?***How the Pandemic Is Affecting Tourism in Tanzania***Tourism has been a significant export and driver of economic growth for Tanzania.**

Tourism, measured by the GDP of related services such as transport of passengers and accommodation and restaurants, has been one of the fastest-growing sectors in the economy contributing an estimated 1 percentage point to GDP growth in 2019. The sector has attracted new private investment for infrastructure and brought in about 25 percent of 2017 FDI inflows (US\$247 million). Moreover, exports of tourism services are considerably higher than in other EAC countries. Between 2014 and 2018 the number of non-African tourists increased by 31.1 percent and in 2018, Tanzania became the seventh most visited country in Sub-Saharan Africa, attracting more than 1.5 million visitors for the first time.

Tourism has been severely affected by COVID-19, and a very weak peak season is expected in the third quarter.

International travel bans have almost stopped the flow of tourism in Zanzibar and Kilimanjaro, and occupancy rates are close to zero. Consequently, most of the hotels catering to international visitors have suspended their operations to reduce costs and avoid contagions. Although there is no official data on layoffs in the sector, many tour operators report layoffs. The toll is expected to be heavier between June and October when one third of the total annual tourists usually visit Tanzania and Zanzibar. The main tourism operators in the country are forecasting a revenue decline of 80 percent or more this year, and a very weak recovery next year.

The contraction of tourism has multiplier effects in the economy. Suppliers and subcontracted companies working with tourist operators, hotels and restaurants, have seen their demand severely reduced. The loss of income of the people working in these sectors is eventually translating into lower domestic demand, and disproportionately affects informal workers in the sector who do not have enough savings and access to credit.

Recovery of the sector will depend on potential tourists feeling Tanzania has a safe health environment, including relative to regional options.

Even in the absence of travel bans and lockdowns, negative travel advisories in the countries of origin, the fear of contracting the virus and lower global growth are expected to inhibit the expansion of tourism. Transparency in reporting zones of higher contagion and the number of cases, accompanied by smart containment measures, could signal a strong commitment to contain the virus and bring back more tourists. Tanzania could follow the lead of touristic European countries such as Spain and Italy, which are already discussing strategies to support the recovery of the sector in 2021. Moreover, tourism from neighbor countries could partially alleviate the loss of tourists from other regions. Tanzania's visitors from Kenya, Uganda, Rwanda, Burundi, Malawi, Zambia and Mozambique represented 36 percent of 2018's flow of visitors, increasing more than 10 percent annually since 2014. While tourists from neighboring countries are likely to spend less than visitors from other regions, by going to Tanzania, they could also help signal that the country is safe and ready to receive visitors again.



Table 4: Medium-Term Outlook, Annual Percent Change Unless Otherwise Indicated

	2018e	2019e	2020f	2021f
Real GDP growth, at constant market prices	5.4	5.8	2.5	5.5
Private consumption	7.2	5.5	2.0	5.5
Government consumption	4.3	6.8	9.0	0.7
Gross fixed capital investment	7.7	8.0	4.0	8.7
Exports, goods and services	-3.9	4.5	-10.0	6.5
Imports, goods and services	8.5	9.5	-1.5	11.3
Inflation (consumer price index)	3.5	3.8	3.8	3.5
Current account balance (% of GDP)	-3.9	-3.0	-3.9	-3.8
Net foreign direct investment (% of GDP)	1.8	1.8	0.8	1.5
Fiscal balance (% of GDP, in FY)	-1.9	-3.2	-4.2	-3.5
Debt (% of GDP)	36.7	36.2	38.5	39.1

Source: World Bank staff estimates and forecasts.

- **Lower transit trade is also expected to decrease Tanzanian exports of transport services to its neighbors.** Dar es Salaam port is the second largest port in East Africa and has become a gateway for Tanzania's neighbor countries. Preliminary exports-imports data at the transaction level for 2018 show that between 25 and 30 percent of the total imports that arrive through Dar es Salaam are later sent using land transport to Uganda, Rwanda, Burundi (through the Northern and Central corridors) and Zambia and Malawi (through the Southern corridor). Disruptions and closures at the borders could reduce the traffic and thus the exports of freight transport (90 percent of registered trucks carrying cargo from Dar es

Salaam port are Tanzanian), which are estimated to represent around 75 percent of total exports transport services (US\$ 1.3 billion in 2019). The regional transport corridors are also key for Tanzania's trade with its neighbors, given that its exports to countries in East Africa have become more prominent: Tanzanian exports to the region in 2018 represented 16.7 percent of its total exports (up from 8.5 percent in 2001), with Kenya (6.6 percent), Malawi (2.2 percent), Burundi (2.2 percent), and Zambia (0.8 percent) as the main trade partners.

- **Tanzania's external position will benefit from higher gold prices and lower oil prices.** The external position is highly vulnerable to volatility in gold and oil prices. In



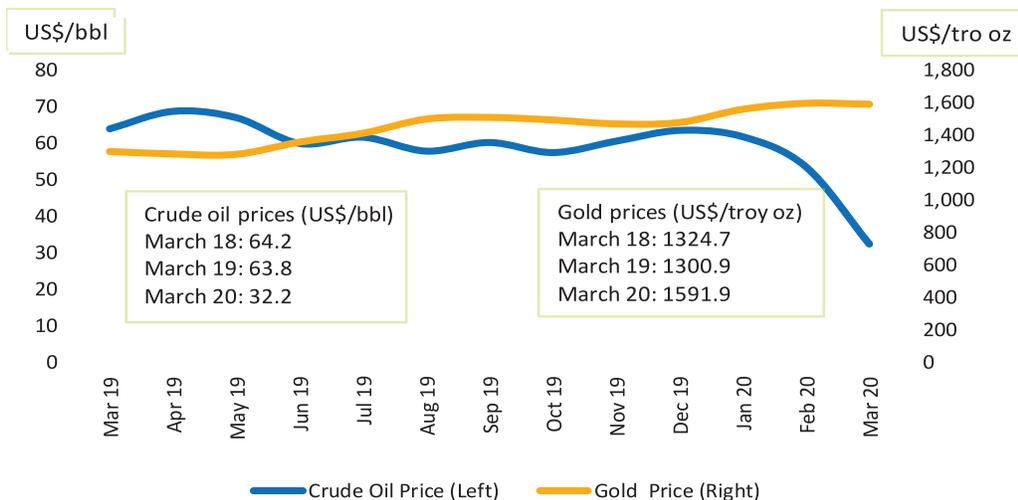
2019, oil accounted for 20 percent of total imports and gold for about 20 percent of total exports. Recent price developments for these commodities have been favorable. In the twelve months ending with March 2020, the value of gold exports rose by 22 percent as prices bounced back from a low of US\$1,301 an ounce in March 2019 to US\$1,592—a level not seen since March 2013. Over the same period, oil prices fell by 50 percent to US\$32.2 per barrel, reflecting lower jet fuel demand and increased production (Figure 15). This will also have a favorable impact on the external position by lowering the oil import bill. Yet, the increased volatility observed in commodities prices in the last two months add considerable uncertainty to our forecast of Tanzania’s external accounts.

- **Foreign investment will become even scarcer and financial markets will continue to be stressed.** The

plunge in global growth and the rise in uncertainty have caused major capital flight from emerging markets because of both the reduced appetite of investors and the higher cost of capital for projects in Tanzania. The result will be a further reduction in FDI, which had already been slipping in the last few years because of the deteriorating business environment. We expect FDI as a share of nominal GDP to be lower than 1.0 percent. In addition, the decline in capital flows to emerging markets has put pressure on exchange rates (as in South Africa) and can dilute the effectiveness of monetary policy. However, because the BOT has a healthy reserve position exchange rate volatility has not yet spiked.

- **Domestic business conditions are expected to deteriorate,** a situation that will worsen if the spread of the virus is widespread. As a result, domestic investors will lose confidence and delay investment projects, and consumers as a

Figure 15: Energy and Metal Prices, 2018-20



Source: World Bank Commodity Price Data (The Pink Sheet).



precaution will save more and limit consumption of durable goods. In addition, disruptions in tourism, export-oriented manufacturing, and related services are shrinking the disposable income of employees in these sectors and owners of small- and medium-size businesses. Thus, we expect private consumption to decelerate from 5.5 percent in 2019 to 2.4 percent in 2020, and gross fixed capital investment from 8.0 percent to 4.0 percent.

- **With the COVID-19 pandemic, more workers will self-isolate, even if there is no mandatory policy for social distancing, and some workers will become ill.** Both effects will reduce GDP through lower labor productivity. The toll would be heaviest on the informal economy where there is no safety net: there, a decline in hours worked will cause a loss of disposable income. Even though our baseline scenario assumes that the impact of coronavirus will start phasing out in 2020, there is a significant downside risk of long-lasting negative spillovers on labor productivity, schools closed for a significant period, and dramatic effects on future productivity, thus reducing permanently potential GDP growth below 6.0 percent.

The current outlook is highly uncertain, and risks are tilted to the downside especially if global demand remains suppressed or government actions are not strong, well-targeted

or sustained. The global spread of COVID-19 continues evolving and in East Africa the pandemic crisis started later than in other regions. The risks for a more negative growth outlook than the baseline described above are high and increasing as local transmission has progressed to community transmission. Tanzania's vulnerability to an uncontained spread is high: under a severe outbreak, Tanzania's health care system would become heavily strained, and self-imposed social distancing could dampen much of the economy. Even if the outbreak is contained in Tanzania, a protracted global health crisis that continues in 2021 could undermine global demand, and thus, the Tanzanian economy. Tanzania's macroeconomic performance has been strong for the last decade, but under a downside scenario Tanzania would face pressures to finance economic measures and additional health spending, as well as mobilize resources to provide liquidity to the private sector and avoid a financial crisis. Moreover, high NPLs and high interest rates could undermine any monetary policy designed to boost credit to the private sector. Even if the global health crisis could be contained, and Tanzania's COVID-19 reported cases decrease, additional trade and logistics restrictions could continue disrupting global trade during the recovery. Moreover, the absence of a sequential program to support the recovery phase could delay the expected rebound of the economy, affecting investors and consumers expectations, and thus hindering new investment projects. We

have estimated a range of projections under varying assumptions to factor in all these possibilities (Figure 16). In the worst case, the Tanzanian economy would not grow in 2020 and have a more limited rebound in 2021.

Beyond the macro numbers, coronavirus is impacting lives and livelihoods.

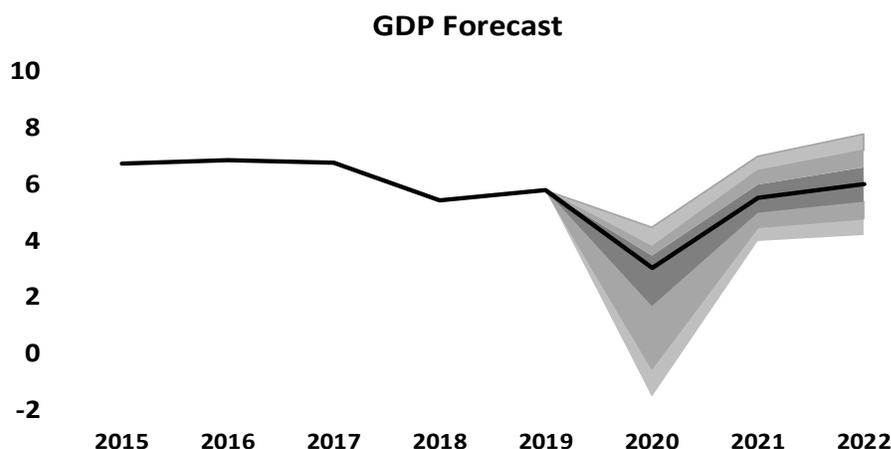
The COVID-19 pandemic is affecting people's welfare and household livelihoods, particularly those relying on self-employment and informal/micro enterprises. Evidence from middle-income and low-income countries impacted before Tanzania suggest that the income shock hits urban populations disproportionately. Within this group, the poor employed in the informal economy are likely to bear the most severe impacts: not only do they tend to live in congested settlements with limited access to basic services but also they lack adequate safety nets and have limited savings. They are usually self-employed (in 2018 about 14 percent of households were operating their own businesses) or work in micro and small firms, and thus, could not be able to benefit from support and relief programs oriented towards formal companies. On the contrary, the poor working in rural areas, mainly in agriculture, may be able to cope initially: their location could minimize their exposure to the disease; yet, as the virus spreads, it is expected to also constrain their access to basic health services.

The hardest hit sectors by the initial shock are those directly affected

by travel bans and the global trade standstill. Companies in tourism and related services, and in exports of agriculture and manufacturing goods are reporting a considerable decline in sales and production, and some operations such as the sales of fruits to Europe or accommodation services in Zanzibar have come completely to a halt. Thus, workers that rely on these sectors for their livelihood will face direct income losses. If they are self-employed or work for a micro enterprise, they are particularly vulnerable. Sales of suppliers to these sectors are expected to follow, and as the income effect propagates into the rest of the economy, through lower salaries, higher unemployment, lower demand for consumption goods and production inputs, the activity in the wholesale and retail trade sector, and in the overall services sector, is expected to decrease. The propagation of the initial shock will be magnified by self-imposed social and physical distancing measures, even in the absence of strong containment measures.

Simulations using the 2018 HBS suggest an additional 500,000 Tanzanians could fall below the poverty line. The impact on poverty depends on the impact of COVID-19 on economic activity and the number of people living close to the poverty line. In Tanzania, a large proportion of the population is clustered around the poverty line. Slow progress in poverty reduction in the last decade has pushed up the number of poor people, leaving a noticeable share of the population still at risk of at least transitory poverty. Thus,

Figure 16: Real GDP Growth Forecast



Note: The fan chart shows the distributions of the likelihood of different GDP growth outcomes in 2020, 2021 and 2022. The estimation is based on a set of growth scenarios and risk profiles under different combinations of the virus spread, containment measures and economic policy responses. The darker bands are the most likely outcomes, and the central black line is the baseline scenario.

Source: WB staff estimates, NBS.

even a mild shock on economic activity could push a significant proportion of Tanzanians into poverty. Using the estimated per capita sectoral growth rates to predict 2020 household income based on the HBS 2018 data, we find that the COVID-19 crisis could increase the poverty rate by at least 2.5 percent. The increase would be higher in urban areas (5.0 percent) compared to rural areas (1.9 percent).

Most workers in impacted sectors are urban informal workers. For instance, about a third of workers in ‘accommodation and food service’, and ‘transport and storage’ are working informally but this proportion is higher among women (50 percent). As a result, urban poverty is likely to increase, including a disproportionate negative impact on women and households with elderly persons. Our simulations show

increases in poverty in all urban areas and assume the impact will be mild in Tanzania’s rural areas; yet, under more severe scenarios where the virus spread is uncontained in urban and rural areas and the economy grows below 2.5 percent in 2020, more than 1 million Tanzanians could fall below the poverty line (Figure 17). Moreover, COVID-19 is expected to reduce the transition out of poverty which has been coupled with shifts to more productive activities, within agriculture or services, i.e., not only is COVID-19 expected to increase the current number of poor people, but also to increase future poverty.

Households with elderly members may be particularly vulnerable to unexpected costs for health care. The elderly (65+ years old) form only 2.6 percent of the total population, a share similar to other countries in East Africa.

**Table 5: Number of People Working in the Sector, 2018**

	Individuals	Household heads
Accommodation and food service activities	854,000	362,000
Transportation and storage	539,000	416,000
Wholesale and retail	743,000	401,000
Construction	462,000	343,000
Agriculture, forestry and fishing	7,560,000	3,426,000
Other service activities	1,067,000	552,000

Source: 2018 HBS, and World Bank staff estimates

Households with at least one elderly person are somewhat more rural than the population as a whole, not poorer than other households, but tend to more commonly be female headed and less connected to electricity and piped water than other households. About a fifth of this group benefits from a social protection program, most likely a pension. A health cost shock equivalent to 20 percent of per capita consumption of these households would increase poverty by two percentage points, leading to an additional 939,476 poor in rural areas and 145,548 in urban areas.

Government support can help protect lives, livelihoods and the future.

African economies face unique challenges to addressing the current crisis. The high degree of informality is a key consideration for thinking about policy actions to mitigate negative impacts. Tanzania is estimated to have the second highest degree of informality among sub-Saharan African countries.⁶ This includes many workers in informal services residing in urban areas and who

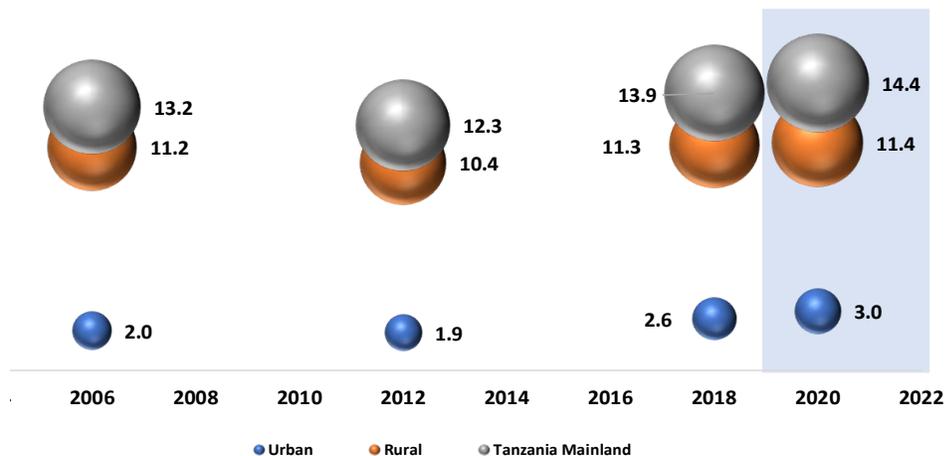
live on daily incomes. These workers are particularly exposed to job loss and generally do not have local support systems. The health systems in many African countries are also ill-prepared to handle a pandemic of this magnitude. In addition, there are often resource and capacity constraints on government to deliver other key services to control the virus including adequate water and sanitation.

Tanzania has several advantages compared to many other African countries to respond to the crisis. Tanzania has several factors in its favor to support a robust health and economic policy response to mitigate the negative effects of the pandemic. First, the country has a considerable fiscal space given its track record of low fiscal deficits and current low risk of debt distress. Second, international reserves are relatively high, at 6 months of import cover. And third, the country is benefitting from commodity price movements as an oil importer and gold exporter, which is working to dampen the overall trade impact.

⁶ Reference: IMF working paper by Medina, Jonelis and Cangul (WP/17/156).



Figure 17: Number of Poor People in Tanzania, 2006-20, Millions



Source: 2018 HBS, and World Bank staff estimates

The World Bank recommends a three-pronged framework for African countries to respond to the COVID-19 pandemic and the economic crisis—protecting lives, livelihoods, and the future.⁷ To protect lives, measures should be focused on prevention, detection and treatment of the coronavirus. Protecting livelihoods as economic activity slows includes measures to protect families, firms, key government functions, and supporting essential economic activities. Beyond the immediate crisis, investments need to be made in recovery and growth. The foundation for the future needs to be put in place by ensuring faster recovery, sustainable growth and resilience to future crises.

The above provides a useful framework for considering priority policy areas. Policy actions can help mitigate the pandemic's negative impact on economic development, especially on the poor and most vulnerable.

⁷ Reference: World Bank Africa Region. A Framework for Operational Response to the COVID-19 Pandemic and Global Crisis. April 2020.

1. Protecting lives

Implementing health measures already underway. Government's initial measures to contain the spread of the COVID-19 virus included closing schools and colleges, suspending all public meetings and sporting events, and all international passenger flights, and training of medical staff on case-management, risk communication and community engagement, and directed each LGA to prepare isolation centers.⁸ Additionally, the government has encouraged hand washing and identified quarantine centers and public and private hospitals with about 500 beds that will serve as isolation centers for people infected with coronavirus. Ministry of Health has prepared sound costed contingency plans for Zanzibar and Tanzania (US\$178 million – Mainland US\$148 million/Zanzibar US\$30 million) in line with the World Health Organization (WHO) Operational

⁸ Government has recently announced partial relaxation of some of these measures. Some schools and colleges have been reopened. They also announced resumption of sporting events and international passenger flights.

**Table 6: Poverty Headcount in Selected Urban Areas, 2018-20, Percent**

	2018	2020 projection (baseline scenario)
Dar Es Salaam	8.0	8.6
Kilimanjaro	11.5	14.8
Pwani	11.7	14.0
Ruvuma	20.7	26.8
Mbeya	26.6	29.8
Singida	20.1	23.1

Source: 2018 HBS, and World Bank staff estimates.

Planning Guidelines to Support Country Preparedness and Response. For immediate health response it has secured US\$26.5 million from DP resources and mobilized US\$4 million from internal resources, including private sector.

Catalyzing a stronger and more transparent health response. In addition to expeditiously implementing the contingency plan, additional domestic resources need to be mobilized to close the financing gap. Greater attention should be given to the following areas: (i) implementation of non-pharmaceutical interventions to promote social/physical distancing with the aim of reducing transmission and avoiding overwhelming capacity of the health services delivery; (ii) strengthening surveillance and diagnostic capacity including testing in order to promptly detect cases and establish drivers of transmission in the country; and (iii) treatment and care of COVID-19 cases; infection, prevention and control measures and protection of frontline health through provision of adequate personnel protective

equipment (PPE); and (iv) ensuring timely reporting with relevant local and international stakeholders. Mobilization of resources should be prioritized and targeted to provide COVID-19 testing kits, provision of PPEs and supplies for infection, prevention and control; procurement of additional medical equipment for critical care including ensuring oxygen supply, refurbishment of facilities to provide critical care, and training as well as hiring additional medical personnel. In doing so, it is important that the delivery of essential health services is prioritized and sustained to avoid excess non COVID-19 morbidity and mortality.

2. Protecting livelihoods

Protecting jobs and MSMEs. The authorities have taken several economic measures to mitigate the negative impacts of COVID-19 and is actively considering further measures. The MoFP has accelerated payment of domestic payment arrears and VAT refunds. This fiscal year, about Tanzanian shilling (TZS) 916 billion in verified domestic payment arrears



Box 2: Building confidence:

The role of information in the response to COVID-19

The South Korean response to the pandemic shows the benefits of having a transparent approach, including public participation, collaboration with international stakeholders, and systematic management of the cases. Regular communication to the public can also help build public trust and confidence in institutions, which is paramount in a smart containment approach, where political capital is key to implement difficult reforms for the most vulnerable groups and for a flexible shielding approach that increases compliance for staying at home if needed. For South Korea, this method has proven successful and alleviated the need for stricter measures.

Greater transparency can increase the effectiveness of Tanzania's public health response, allowing for more targeted measures and actions. A stronger information base would facilitate greater collaboration and partnership with relevant local, regional and international stakeholders.

Transparency should also be the cornerstone of the economic relief and recovery measures. Without adequate and consistent public estimates of the expected impact of COVID-19 on lives and livelihoods of various groups, and of the resources available and the financing gaps, the response can only be partially effective and non-targeted. Moreover, the risk of not reaching those in real need will be higher.

Stronger transparency also works as a signaling strategy. Consistent reporting of cases is needed to convince the public that the pandemic has “passed its peak” and to give them confidence to resume activities. By making all the relevant information public and by communicating in a timely and orderly manner, the government can signal to the private sector and to other governments that public policies are aligned to reduce the number of cases and deaths, and to allow business and households to operate and work again in a safe environment. As mentioned in Box 1, this strategy can help bring new visitors in the country. It also can accelerate the recovery of domestic demand, and in particular, of domestic private investment, and thus, the creation of jobs.

was paid through March 2020 and about TZS 174 billion (equivalent to 148 percent of the allocated budget) in verified VAT refunds paid through April 2020. The government has established a National Task Force chaired by the Prime Minister to lead both the health and economic policy responses to the COVID-19 crisis. Additional measures will be needed to help avoid the destruction

of productive capacity due to potential bankruptcy of firms that would have been financially viable without the pandemic, particularly in sectors most affected by the crisis and affected global supply chains. Potential modalities for these measures could include wage compensation schemes, loan subsidies, and tax deferrals. Currently the committee is considering a range of



additional economic policy measures, including further clearance of domestic payment arrears owed to SMEs and tax deferrals and loan guarantees for the mostly affected sectors such as tourism and the hospitality industry.

Strengthening social safety nets.

Additional policies can include fiscal measures to help protect and provide support to vulnerable households. TASAF's Productive Social Safety Net program (PSSN) role toward protecting lives during the COVID-19 pandemic is limited given that is mainly oriented to rural families, while the most vulnerable households to the virus are in the informal urban economy. Policymakers should consider lumping payments (i.e. carrying out multiple payments during one payment window) to PSSN beneficiaries to minimize large gatherings and movement of people. Mobile technology could also help maintain social distancing. PSSN benefits could be increased temporarily for all or selected beneficiaries to account for shocks in food prices hikes, additional health expenditures and temporary loss of employment. The PSSN households should be exempted from having to comply with the program's conditionalities, especially school attendance and health check-ups, considering that schools are closed, the extraordinary circumstances, and given social distancing measures.

Providing liquidity to bridge firms' cash disruptions and supporting financial institutions. The BOT has taken actions such as reducing the discount rate from 7 to 5 percent on May 12, 2020 lowering

the minimum reserve requirement ratio from 7 to 6 percent, effective June 8 2020, increasing the valuation on commercial banks' holding of government securities that can be used as collateral for borrowing, encouraging financial institutions to consider restructuring of loans for severely affected borrowers, and encouraging more use of mobile money by increasing amount of daily transaction from TZS 3 to 5 million and daily balance from TZS 5 to 10 million. The BOT could consider additional measures such as loan guarantees for severely affected firms and as well as relaxing the current capital and collateral requirements for borrowers. The regulatory and supervisory responses should strike the right balance between preserving financial stability and supporting economic activity.

3. Protecting the future

The timing and strength of an eventual recovery in 2021 will depend on the government policy response in 2020 and the external environment. The medium-term growth outlook is subject to significant uncertainty and risks are to the downside. On the external side, we assume that external demand from advanced economies rebound, including for tourism and other exports, and that the global health crisis is contained, even in the absence of a treatment or a vaccine. On the domestic side, our outlook is conditional on government policies that prevent a protracted and uncontrolled domestic spread of the virus, and a permanent loss of income for vulnerable households and firms, while supporting the recovery of the



economy. Therefore, we expect the economy to rebound to nearly 6 percent real GDP growth over the medium term (Table 4 and Figure 18). This outlook is also conditional on attention by government to improve the business environment and attract private investment as well as improve fiscal management by strengthening revenue collection and budget execution. Inflation should remain low as global energy prices remain subdued, but shortages of basic products could create additional risks. For the medium term the authorities expect a fiscal deficit of 3-4 percent of GDP as both recurrent and capital spending rise because of expenses related to upcoming general elections, additional health spending, and an ambitious public infrastructure investment program. The CAD is expected to widen to 4-5 percent of GDP over the medium term as growth in capital imports for infrastructure investment outpaces export growth.

The digital economy is a key driver of Tanzania's future growth and prosperity, and a key element in the country's response to the COVID-19 pandemic (Part Two). The ICT sector, which has been grown by an average of 13 percent during the past decade can play a key role in deriving the recovery and future growth of the economy. However, the sector needs support to grow faster and increase its contribution to aggregate productivity, job creation, and poverty reduction. UNCTAD estimates that global internet data traffic will grow from 45,000 GB per second to 150,700 in 2022 (UNCTAD

2019). However, the rapid expansion is uneven. For instance, the USA, China, and other developed countries are growing faster than developing countries, widening the digital divide (UNCTAD 2019). In Tanzania, data traffic has been expanding, but not fast enough to catch up. Tanzania's use of international bandwidth, however, is only a third of Kenya's, and retail prices on low-usage data baskets are among the highest in the region. In an effort to enhance social distancing in order to prevent the spread of the COVID-19, more use of ICT to provide social and economic services is key. Services such as education, health, cash transfers, and payment will increasingly rely on the use of ICT during the pandemic.

A full recovery in 2021 and beyond requires government attention to reforms to improve the business environment as a key input to bolster recovery of the private sector. Even if COVID-19 is fully controlled, it is unlikely that private investment will rebound strongly and steadily without major policy reforms. Although some important reforms to support the private sector have been adopted, including the *Blueprint for Regulatory Reforms* and the *Strategy to Control Government Arrears*, those agendas need to move forward more quickly. Additionally, government urgently needs to identify and adopt measures to foster greater private sector participation in the economy. The recent difficulties of the private sector and the barriers preventing it from flourishing are recognized. In the short term the government should



Table 7: Possible Actions to Protect Livelihoods

Provide cash transfers to vulnerable low-income households.	High informality implies policies aimed at formal labor such as unemployment insurance, reducing payroll and income taxes, and extending paid sick leave may have limited effects. Cash transfers can be more straightforward to implement, can benefit from the current system of transfers and mobile banking and reach outside the formal sector, where most of the beneficiaries are likely to be.
Provide wage and tax subsidies to major affected sectors to prevent bankruptcies and layoffs.	Beneficiaries could include companies in the tourism and exports sector, and suppliers of goods and services to these companies, with a priority on SMEs. For small and medium sized companies, a grant or tax credit equivalent to the previous year's tax bill may make sense. For larger companies, a temporary tax holiday could serve the same purpose. To curb layoffs, support could be conditioned on maintaining employment or directly subsidize wages of maintained employees.
Continue to expedite payments of verified domestic payment arrears and VAT refund.	The priority should be SMEs operating in affected sectors. This measure should be accompanied by an accelerated verification of remaining claims.
Ramp up health services and facilities by partnering with the private sector through a tax deduction program.	A "Public Works Tax Deduction" program would allow firms to provide supplies (textiles, food, cement) and build the additional infrastructure (tents or provisional hospitals). Incurred expenses could be claimed as a future tax deduction, to alleviate Government's cash flow constraints and prevent reliance on arrears to finance additional health spending.
Provide partial relief on utilities for low-income households.	Focus of this measure could be on electricity and water tariffs. These benefits should be temporary, perhaps lasting up to two quarters.
Increase efficiency of customs procedures to facilitate the movement of necessary goods.	Reduce costs and time of documentary compliance to facilitate efficient movement of goods across borders, to ensure the continued supply of medical drugs/equipment, fuel, and food, as well as intermediate goods needed by industry.



<p>Provide liquidity to the interbank market.</p>	<p>BoT has already announced reduction of the discount rate and lowering banks' minimum reserve requirements to support adequate funding to commercial banks. It could also broaden access to BoT's emergency liquidity assistance for commercial banks by expanding assets classes that are accepted and consider temporary easing of its terms.</p>
<p>Encourage renegotiations of loans and delays in loan repayment.</p>	<p>BoT has also recently encouraged commercial banks to thoroughly assess loan repayment difficulties faced by borrowers due to COVID-19 and discuss loan restructuring on a case by case basis. Careful monitoring by the BoT is needed given banks are given full discretion. Particular focus is needed to protect small businesses.</p>
<p>Implement a program of Government-guaranteed loans</p>	<p>This measure aims at creating additional working capital for firms in financial distress and consists of direct support to the private sector in the form of loan guarantees backed by BoT or a Government fund. Guarantees should be at most equivalent to a multiple of an average month of sales. Only companies with non-performing loans below a threshold could participate. The guaranteed share of the loan could depend on the size of the firm: the larger the firm, the lower the guarantee.</p>

aim to: (i) give precedence to paying verified arrears to private contractors and suppliers; (ii) continue to speed up the release of verified VAT refunds; (iii) ensure that tax administration is predictable and that tax agents collect taxes from private businesses fairly; (iv) enhance the public-private dialogue on the business environment reforms, including the preparation of the new business facilitation and the investment laws. In the medium term the government should aim to: (i) create a more predictable business environment; avoid sudden changes in policy; (ii) reduce the high cost of compliance

with regulations by fully implementing the *Blueprint for Regulatory Reform*; (iii) improve investment policies for non-extractive sectors to support economic diversification.

Delays in addressing continued unrealistic forecast and shortfalls of budget execution will continue to jeopardize completion of major infrastructure projects and clearance of domestic arrears. The government is undertaking priority projects in human development especially in education and infrastructure to support growth and job creation over the medium

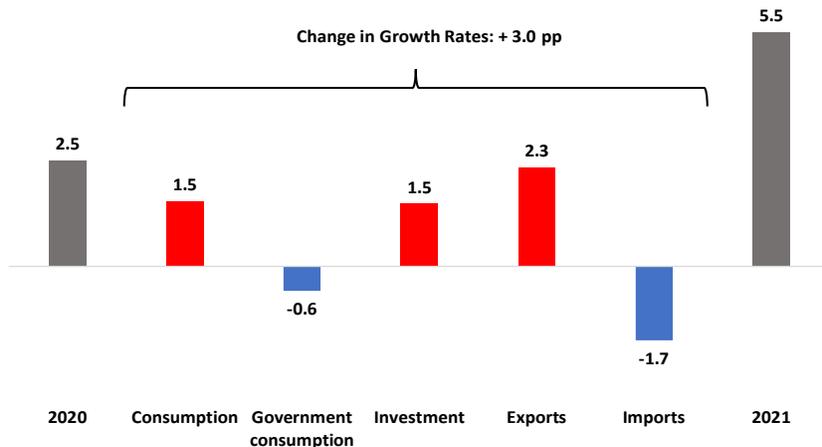


to long term. However, if they are to have maximum impact they must be adequately financed and completed on schedule. Shortfalls in financing could add new domestic arrears to an already unsustainable stock.

Poor management of public investments can also create debt servicing problems, notably currency and maturity mismatches. After COVID-19, the government should strengthen due diligence of large infrastructure projects to assess their feasibility and if they can generate returns that can be used to service the loans that finance them. If projects are not properly vetted or completion is delayed, loan repayments scheduled may begin before adequate cash flows and foreign exchange earnings are generated. That may cause maturity and currency mismatches at a time when Tanzania’s fiscal space may be limited by additional spending related to service delivery and support programs.

To address these fiscal issues, budget credibility should be improved. In the short term the government should aim to: (i) prepare and act on realistic budget, with credible revenue forecast and borrowing plans; (ii) improve revenue collection to meet the target; (ii) improve budget execution across the board, but in particular the capital expenditures; and (iv) clear both the VAT refund and domestic payment arrears and prevent future accumulation. In the medium term the government should invest in a balanced program of human capital and infrastructure services by: (i) intensifying mobilization of domestic revenue to finance investments, a major challenge if the economy does not recover from the COVID-19 crisis; and (ii) prioritizing public investments that deliver high return and growth-enhancing impact and manage them effectively to be delivered on budget and on time.

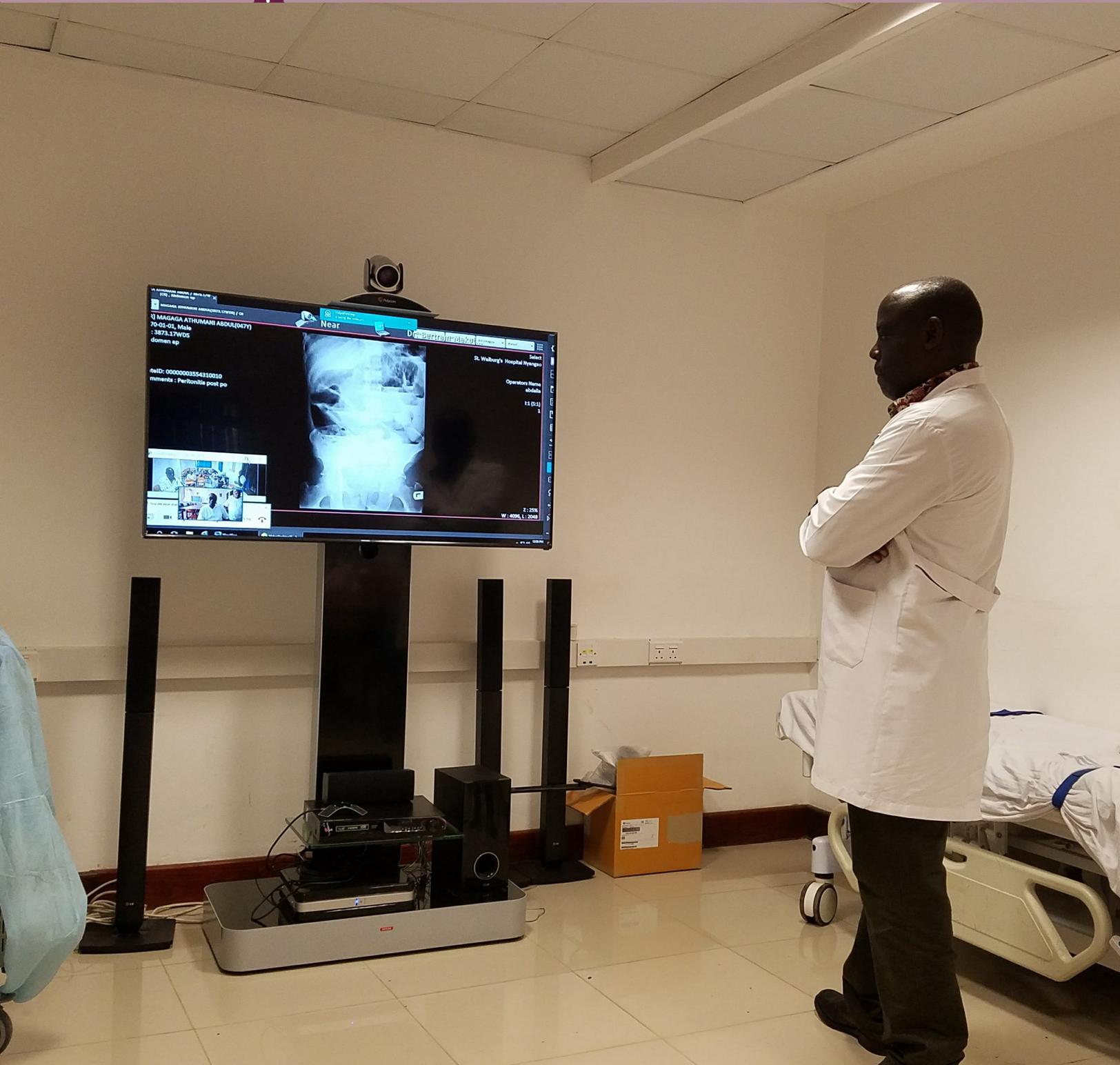
Figure 18: Possible Sources of Recovery in 2021, Contribution to GDP Growth



Source: WB staff estimates.

2

The Potential Of The Digital Economy





2.1 Introduction

The digital economy is a key driver of Tanzania’s future growth and prosperity, and a key element in the country’s response to the COVID-19 pandemic. Globally, driven by data, the digital economy has been growing rapidly. UNCTAD estimates that global internet data traffic will grow from 45,000 GB per second in 2017 to 150,700 in 2022 (UNCTAD 2019). However, the rapid expansion is uneven. The USA, China, and other developed countries are growing faster than developing countries, widening the digital divide (UNCTAD 2019).

Data traffic in Tanzania has been expanding, but not fast enough to catch up. Data usage on Airtel’s network, for example, grew by 52 percent in 2019 alone. Tanzania’s use of international bandwidth, however, is only a third of Kenya’s, and retail prices on low-usage data baskets are among the highest in the region.

Expanding the digital economy is dependent upon the interaction of digital platforms but also on legislation. Digital platforms allow interaction online and include elements of payment, identification and connectivity. Platforms can only succeed, however, if they are able to earn trust—for the digital economy to function efficiently, consumers need to know they are protected online. In other words, the laws must keep up with technological developments and

regulatory bodies must be competent to enforce them. Global tech giants looking to invest in Africa seek certainty and consistency across jurisdictions.

Building online trust depends on what governments and firms do. Governments need to use online platforms, make payments using mobile money, and show that the online environment is secure and easy to use. Canada’s Digital Charter, for example, states that *“the way forward on data collection, management and use must be built on a strong foundation of trust and transparency between citizens, companies and government”* (Canada’s Digital Charter 2019).

The components of a digital economy for Tanzania are shown in Table 8. Red shows what needs to be addressed urgently and orange indicates progress but also a need for strategies.



Table 8: Components in Assessment of the Digital Economy

Components		Assessment	Status		
Enabler	Connectivity Platform	First Mile	High prices have resulted in lower usage.	Red	
		Middle Mile	Regulatory and political obstacles prevent investment and network rollout.		
		Last Mile	Inaccurate data on network coverage undermine planning. High prices on usage baskets of 5GB and below limit usage.		
		Invisible Mile	Regulatory interventions are poorly implemented and can have a negative impact on usage.		
	ID Platform	National IDs	Implementation problems with the National ID Passport mean that a more flexible approach is needed that incorporates other forms of identification.	Red	
		Passport			
		Driver's License			
	Payment Platform	Bank Accounts	Use of mobile money is relatively low.	Orange	
		Credit Cards	Strategies to reduce transaction fees to zero for small amounts should be considered.		
		Mobile Money			
Trust Building	Laws and Regulations	Data Protection	No data protection law has been passed.	Orange	
		Consumer Protection	Need for an independent Consumer Protection Act.		
		Cybercrime	Current implementation reduces rather than supports trust in digital trade.		
		Intellectual Property	Not clear if IP can be protected.		
	Electronic Transactions	Registration requirements should be expanded to include recognition of providers authorized in other jurisdictions.	Red		
	Enforcement Mechanisms	Dispute Resolution		No online dispute resolution system is available.	
		Cybercrime Enforcement		This is the responsibility of the police, but no specific division has been created, leading to the possibility of weak enforcement.	
Digital Economy	Trade	Digitally Delivered Imports	Data show opportunity for expansion of digital trade. Digital trade exports have been declining for the past few years. Reasons for the decline need to be investigated and addressed, especially in light of the reduction in physical trade due to COVID-19.	Orange	
		Digitally Delivered Exports			
	Economic	Contribution to GDP		Tanzania can make better use of the digital economy to drive growth, productivity and job creation as a response to COVID-19.	Orange
		Jobs			

Source: World Bank staff.



A number of useful facts flow from this digital assessment. On the connectivity front, in Tanzania high-volume data products (10GB and greater) are among the cheapest in East Africa. The country is connected to three international undersea cables. Halotel, a new market entrant, has rolled out large amounts of fiber to rural areas. Among positive developments on the legal front, electronic evidence is formally recognized; there are default rules related to sending and receiving messages; e-Government services are enabled; and online auctions are recognized. However, if the digital economy is to expand rapidly, there are a number of interventions the Government of Tanzania can consider, which are detailed in the rest of this chapter. These include:

- Removing regulatory obstacles to private sector investment and middle mile network rollout;
- Requiring operators and the TCRA to publish digital coverage maps for 3G and 4G as well as for fiber;
- Devising a regulatory digital roadmap in order to support digital trade; and
- Developing mechanisms to facilitate the use of mobile money and to make low value transactions cheaper for customers.

2.2 Tanzania's Digital Economy

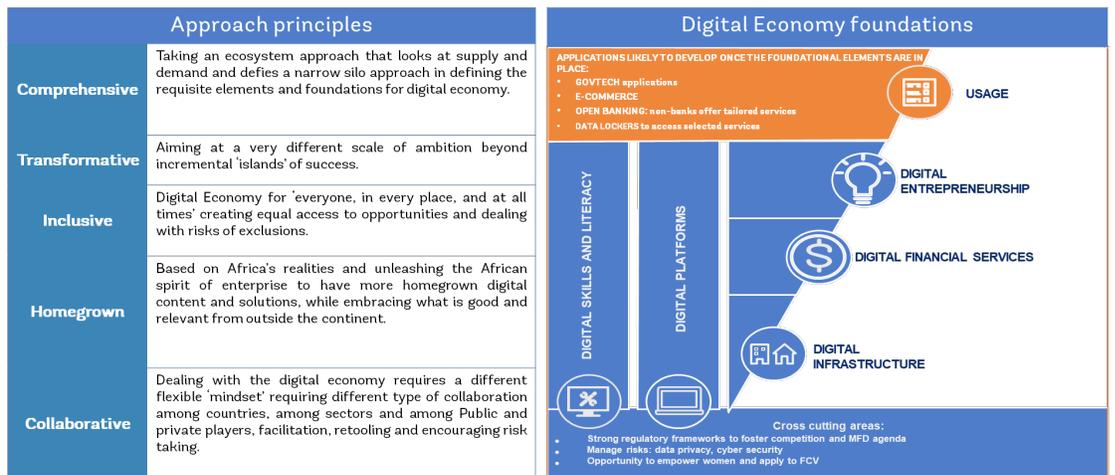
There is no universally accepted definition of what constitutes the digitaleconomy. One (narrow) definition is the share of GDP that information and communications technology (ICT) accounts for (Government of Kenya, 2019). An alternative definition is that the digital economy is “*That part of economic output derived solely or primarily from digital technologies with a business model based on digital goods or services*” (Bukht and Heeks 2017). Generally, the digital economy is understood to comprise a broad range of economic activities; it is not a separate sector but represents the value added by the use of digital technologies in all sectors. To be measured accurately in national accounts, it thus requires a separate account.

After making a relatively early start to market liberalization, Tanzania has recently been slipping behind other countries in the region and has been backtracking on private sector participation. The partial privatization of TTCL in 2001 was reversed in 2017, for instance, and the Government has increased its stake in Airtel. On the ITU's ICT Development Index (IDI), Tanzania's ranking has slipped from 139th in 2011 to 165th in 2017.⁹ On the World Bank's Digital Adoption Index (DAI), Tanzania has a score of 0.34, which is above that of Ethiopia (0.27), the same as that of Uganda (0.34), but below that of Rwanda (0.43) and Kenya (0.45). Among the components of the DAI,

9 ITU. 2017. *Measuring the Information Society*.



Figure 19: Digital Economy Framework



Source: World Bank Group, Digital Economy for Africa initiative (2019).

Tanzania is doing better on Government usage (0.57) than on business (0.28) or citizen usage (0.17).¹⁰

In its work on the Digital Economy for Africa initiative, the World Bank Group has adopted a five-pillar model of the digital economy that covers Digital Infrastructure, Digital Financial Services, Digital Entrepreneurship, Digital Platforms, and Digital Skills and Literacy (Figure 19). This is built on an “enabling” framework (regulatory, legal, fiscal, etc.) that encourages a digital economy to thrive. It requires “trust-building” to develop the demand side, by addressing risks related to cybersecurity, data protection, etc. It also addresses cross-cutting themes, such as gender and disability. These in turn drive “usage” which measures the size and growth of the digital economy and promotes digital trade. This report

looks at how these five pillars and cross-cutting themes currently shape up in Tanzania. The recommendations identify areas where the Government of Tanzania can act to grow its digital economy.

Digital Infrastructure

A country’s digital infrastructure, or connectivity, is the foundation of its digital economy. High quality infrastructure, competitively provided, can ensure that digital services are affordable and accessible. The network effects associated with connectivity require volume and this is only possible if digital services are universally available, affordable and accessible. This, in turn, accelerates usage and the rollout of infrastructure, such as fiber and mobile base stations that support digital services. Each of these factors relies on a market structure that supports fair competition.

10 World Bank. 2018. Information and Communication for Development: Data-driven Development

**Table 9: Weighted Prices for internet bandwidth, 2019 Q2, US\$**

	\$/Mbit/s per month
Johannesburg	3
Lagos	5
Nairobi	5.25
Accra	8.1
Kampala	10
Dar es Salaam	15.5

Note: Weighted Median price for 10 GigE IP Transit. Source: Telegeography 2019b.

Table 10: International internet bandwidth by country (Mbit/s), 2015-19

Country	2015	2016	2017	2018	2019	CAGR
Kenya	177,347	280,114	460,069	670,931	930,576	39%
Rwanda	9,820	16,275	45,782	68,095	117,075	64%
Tanzania	86,122	120,339	166,913	215,816	292,816	28%
Uganda	36,689	40,925	89,495	186,327	224,627	44%

Source: Telegeography 2019a.

First mile: where the internet enters the country

The connectivity for the first mile¹¹ is typically an undersea cable or fiber from another country, with satellite as back-up. For Tanzania, pricing is a particular challenge. Dar es Salaam is one of the most expensive cities to procure international internet bandwidth. The price for international bandwidth in Dar es Salaam, for example, is significantly more expensive than in Johannesburg or Lagos (Table 9; Telegeography 2019b).

One consequence of these high prices is that international bandwidth is underutilized. Tanzania is connected to three international undersea cables, only one fewer than Kenya, yet uses only a third as much international bandwidth. From 2015 to 2019 the compound annual growth rate (CAGR) for Tanzania's international bandwidth was also the lowest of comparator

countries—it may now be falling further behind (Table 10). On the positive side, the surplus capacity on undersea cables means that Tanzania is in a good position to increase its international bandwidth to response to the current COVID-19 pandemic, which is boosting demand for international traffic as government and the private sector moves towards remote working.

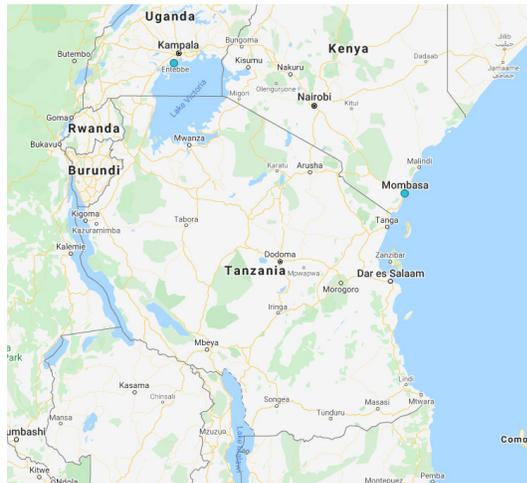
Middle Mile: The backbone network of a country

The middle mile includes national transmission lines (typically fiber but also microwave) and one or more Internet Exchange Points and data caches, such as content distribution networks (CDNs). Content providers like Facebook, Google, and Amazon are the behemoths of this industry, and increasingly they are building or leasing their own networks, data centers, and CDNs. It is estimated that between 2014 and 2018 international capacity

¹¹ See World Bank 2016 (Chapter Four) for more detail on the analytical framework adopted for this section.

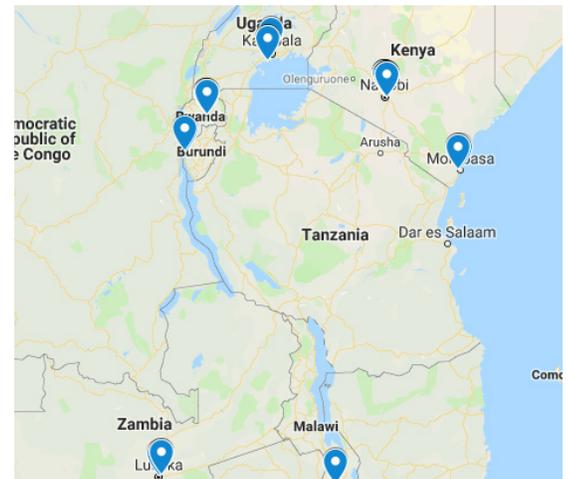


Figure 20: Google Has Edge Points in Kenya and Uganda



Source: <https://peering.google.com/#/infrastructure>

Figure 21: Facebook Has CDNs in Zambia, Rwanda, Burundi, Uganda, and Kenya



Source: <https://anuragbhatia.com/2018/03/networking/isp-column/mapping-facebooks-fna-cdn-nodes-across-the-world/>

deployed by content providers rose over 8-fold, to 530 Tbit/s (Telegeography 2019b). Content providers now use more international capacity than traditional telecom carriers.

Tanzania has several data centers, mostly located in Dar es Salaam; Vodacom and Tigo¹² both operate their own. The government of Tanzania also has a data center, built by the China International Telecommunication Construction Corporation (CITCC) and funded by a loan to Tanzania from the Chinese government (Lima 2016). However, the country currently has no carrier-neutral data centers (i.e., data centers that are independent of a major carrier or content provider), and not does it have any large CDNs from the main content providers like Facebook, Google, Amazon or Netflix. CDN customers can exchange traffic locally and thus the center also

¹² <https://www.tigo.co.tz/data-centre-and-colocation-services>

functions as an Internet exchange point. Carrier-neutral data centers offer more alternatives for routing and generally more flexibility, thereby keeping local data local. A carrier-neutral data center¹³ has numerous economic benefits of which Tanzania cannot currently take advantage.

So-called “over-the-top” (OTT) service providers¹⁴ like Google and Facebook have CDNs in neighboring countries but not in Tanzania (Figures 20 and 21). This means Tanzanian users are missing out on lower latency, faster downloads, and a generally better user experience. This is a further reason why Internet usage is lower in Tanzania than in neighboring countries.

¹³ See Grant Thornton, <https://www.idaireland.com/newsroom/publications/ida-ireland-economic-benefits-of-data-centre-inves> and Oxford Economics, <https://www.oxfordeconomics.com/recent-releases/d8d830e4-6327-460e-95a5-c695a32916d9>

¹⁴ The term “over-the-top” refers to services that run over telecom networks and offer telecom-type services like voice calls or messaging without billing them separately; they in fact often free. Examples are WhatsApp and WeChat that compete with SMS from telcos, and Skype or Viber that compete with fixed and mobile voice calls.



Table 11: Population within Reach of Fiber Transmission Networks Compared, Percent

	Tanzania	Kenya	Uganda
Up to 10km	14	32	33
Up to 25km	15	45	40
Up to 50km	25	16	21

Source: ITU 2019.

Fiber backhaul¹⁵ in the middle mile network is central to expanding 3G and especially 4G coverage in the access network (the last mile): 4G supports higher speeds, greater capacity, lower latency, and—especially important for mobile operators—lower operating expense compared to 2G and 3G networks. Thus, the distance between a cell tower and the nearest fiber is crucial in determining the internet speeds users can enjoy.

Tanzania has seen significant investment in fiber backhaul, but not all operators have been able to provide their own fiber. Halotel has reportedly built about 18,000km of cable and has committed to connecting 850 public institutions to fiber (Kabendera 2015). By contrast, the National ICT Broadband Backbone (NICTBB), which is operated by the state-owned operator, Tanzania Telecommunications Corporation Ltd (TTCL), has only 7,500km of fiber cable, despite having been in the market several years longer than Halotel. The other major operators - Airtel, Tigo, Vodacom and Zantel but excluding Halotel - formed the Fiber Consortium and constructed 400km of metro fiber

in Dar es Salaam, Dodoma, Morogoro, Mwanza and Arusha. However, they were prevented from building inter-city fiber. Eventually an agreement with Government, under which the Consortium is required to hand over 50 percent of capacity as well as ownership of the fiber to Government. This is a deterrent to private sector investment and consequently only 1’500 km of backbone fiber was constructed between major cities.

As a consequence of these restrictions, fiber rollout and pricing are a challenge. Apart from Halotel, which has a “sweetheart” agreement with the government granted when it was licensed in 2015, only the NICTBB is allowed to build inter-city networks. Furthermore, Halotel is not allowed to resell capacity on its fiber network to other operators and Internet service providers, who are obliged to purchase from NICTBB. Intra- and inter-city fiber networks are also subject to excessive rights of way (RoW) charges imposed by the Tanzania Rural and Urban Roads Agency (TARURA). The Fiber Consortium has stopped any further rollout pending negotiations with government over proposed RoW and regulation.

¹⁵ Fibre backhaul refers to the link between the core network and the edge of the network. Backhaul can also be microwave, but fibre has inherent advantages, especially in dense urban settings where capacity could be constrained.



The cost of civil works is exorbitantly high. TARURA has imposed a RoW charge for laying fiber, whether above or below ground, of US\$1,000 per km and also an annual charge of US\$1,000 per km. This is an order of magnitude higher than any other utility charge, such as water or sewage pipes or even copper telephone wires (Annex 14). RoW charges are also much higher than in neighboring countries, and the recurring annual charges are especially punitive (Annex 15).

Tanzania's RoW costs are much higher than other countries in Africa. Typically, about 60 percent of the total cost for fiber rollout is for construction, permits, and design (Deloitte 2017). In Tanzania, even before the RoW charges were imposed, these costs were close to 80 percent.¹⁶ The effect of the high RoW charges is to limit fiber rollout and automatically exclude all but the largest cities, which are already relatively well-served. As demand for data increases (especially as a result of the COVID-19 pandemic), microwave in the backbone will need to be replaced by fiber. High fiber prices mean that upgrades from microwave backhaul to fiber will also be delayed, likely adding to higher congestion and lower speeds on mobile broadband networks. This may further delay deployment of 4G in mobile networks.

The public availability of data on national transmission networks is poor. For instance, there is no way to confirm Halotel's claim to have rolled out 18,000km of fiber cable, or to track

the routes. In particular, the lack of digital maps of fiber laid make it difficult for users sensitive to connectivity requirements to make informed location decisions.

Tanzania's low usage of international bandwidth, and a lack of CDNs, imply low domestic usage. It is unlikely that Tanzania has more widespread national transmission networks than indicated in Table 11 because Tanzania uses a third less international bandwidth than Kenya, even though it has about 10 million more people.

Last mile: The last mile, or access network, refers to how users reach the internet.

Issues like affordability, access for consumers, usage, and retail competition are important for determining user experience. They can be analyzed by using the mAccess Tool (RIS 2019), developed by Research ICT Solutions, as a diagnostic tool (Annex 16). mAccess compares performance across five dimensions: affordability, access, usage, infrastructure, and competition.

Affordability

Tanzania is no longer the cheapest market in East Africa for small data baskets. Prices for 100MB, 500MB, and 1GB are generally more expensive there than in comparator countries. For instance, a 100 Mb basket is three times more expensive than in Uganda and Kenya (Table 12). In contrast, high-usage baskets (more than 10 Gb) in

¹⁶ Interview.

**Table 12: Mobile Data Basket Prices Charged by Dominant Operators, 2019 Q4, US\$**

	100MB	500MB	1GB	2GB	5GB	10GB	20GB
Kenya	1.46	2.58	4.14	4.88	9.76	19.52	28.99
Mozambique	0.48	1.68	2.52	4.20	7.94	15.89	31.77
Rwanda	1.07	2.15	2.15	4.29	9.20	10.73	21.47
Tanzania	4.35	4.35	4.35	5.59	13.05	15.22	21.74
Uganda	1.49	2.30	4.07	5.42	9.22	13.55	23.23

Source: RIS 2019. Red indicates the most expensive.

Tanzania are competitive, though still not the lowest. While this might be good for business customers, prices are generally too high for the average consumer. Relatively high taxes in Tanzania push affordability further out of reach for poorer users.

Since a price war among mobile operators ended in 2018, prices have gone up steadily. Major operators complained that the price war depressed investment in the sector.¹⁷ The price war ended in Q1 2018 and in Q2 2018 Tigo and Airtel's decision to raise prices was soon followed by Vodacom.

Access

Halotel's entry into the market in October 2015 had a major beneficial impact on access in Tanzania. Its entry and the resulting competitive pressure reportedly pushed 3G population coverage from 20 percent in 2015 Q3 to 61 percent in 2018 Q4. In 2017 Halotel invested around US\$100 million in network expansion (Telegeography 2017a). Competitors reacted: Tigo invested US\$76 million in 2016 and US\$70 million in 2017 (Telegeography 2017b), and Vodacom invested US\$63 million in 2017 and US\$67 million in 2018 (Vodacom 2018). As a result, 3G coverage in Tanzania appears to fare

favorably with its neighbors (Table 13).

However, 4G population coverage trails neighboring countries despite all the investment in networks. This may be because the government has been slow in awarding 4G spectrum licenses, or it may reflect an attempt by operators to first redeem their 3G network investment.

Usage

Mobile voice traffic has been rising steadily, in part because the user base expanded from 34m subscribers in 2014 to over 47m in 2019 (Table 13). Operators claim that OTT applications like Skype or WhatsApp have reduced voice revenue and thus operator profits—even though voice traffic has been increasing steadily (Table 15). It is more likely that OTTs have spurred data growth in parallel with the increase in voice traffic.

Data customers and revenues have also been increasing steadily. Although the regulatory authority, the Tanzania Communications Regulatory Authority (TCRA), does not report data usage or subscribers by operator, some data are available from Vodacom, the only operator that reports data usage for Tanzania (Annex 17). Vodacom's slower

¹⁷ Based on field interviews.

**Table 13: Population Coverage in 2019, Percent**

	Tanzania	Uganda	Kenya	Rwanda	Mozambique
3G	85	65	85	93	40
4G	13	17	25	89	Unknown

Source: GSMA, 2019.

Table 14: Internet users and mobile communications subscribers, 2015-19

	2015	2016	2017	2018	2019	CAGR
Internet users	17,263,523	19,862,525	22,995,109	23,142,960	25,794,560	29.9%
Mobile subscribers	39,665,600	40,044,186	39,953,860	43,497,261	47,685,232	24.0%

Note: CAGR = Compound Annual Growth Rate. Source: TCRA, 2019.

Table 15: Voice Traffic, 2014–19

	2014	2015	2016	2017	2018	2019
Traffic (on-net and off-net) million minutes	41,689	43,461	51,024	56,054	62,227	67,383
Year on Year (% change)		4.3%	17.4%	9.9%	11.0%	8.3%

Source: TCRA, 2019.

than expected growth may be due to Airtel's 4G rollout in 2019: Airtel has reported that data revenue accounted for 25.8 percent of total revenue in East Africa (Airtel Africa 2020). Though voice revenue dipped in the first two quarters of 2019, it has since rebounded (Annexes 18 and 19).

Cellular coverage

Though 3G coverage is high, usage is relatively low. Public data based on cell locations¹⁸ (Table 16) shows considerably lower penetration than reported by the International Telecommunication Union (ITU), which is based on TCRA data, or the Global System for Mobile communications Association (GSMA) Intelligence Unit, which is based on operator reports (excluding Halotel, which is not a GSMA member).

¹⁸ Cell location data are from OpenCellID, www.opencellid.org.

Other sources also indicate coverage may be much lower than officially reported. The GSMA's own mobile coverage map for Tanzania (Figure 22)¹⁹ is very similar to the map from OpenCellID and RIS (Figure 23). There are few sources of accurate information about coverage. Of the major operators, only Airtel provides a map (Airtel 2019); its 3G coverage map is very similar to that in Figure 27, suggesting that both 3G and 4G coverage in Tanzania are significantly overstated—so achieving universal service may be much more difficult than was previously estimated.

Invisible mile: soft or hidden issues that affect infrastructure rollout.

The “invisible mile” includes policies, laws, regulations, and how they are all enforced. In general, competition

¹⁹ https://www.mobilecoveragemaps.com/map_tz#7/-6.599/35.673.

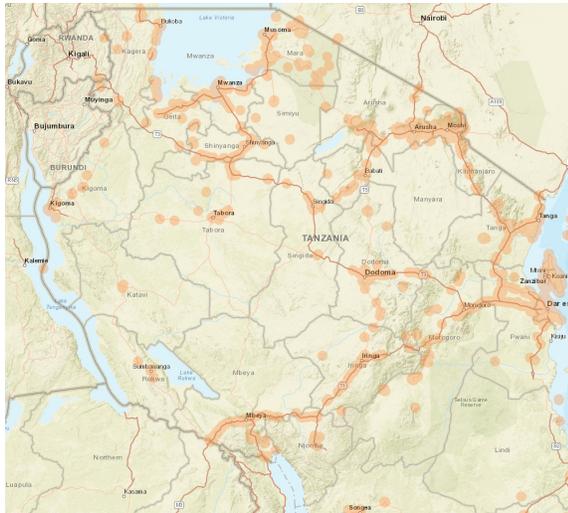


Table 16: Coverage Estimates Based on Cell Locations

	Population Coverage	Population Covered (%)
3G coverage	25,426,283	47.6
4G coverage	14,361,449	26.9
Total pop	53,463,974	

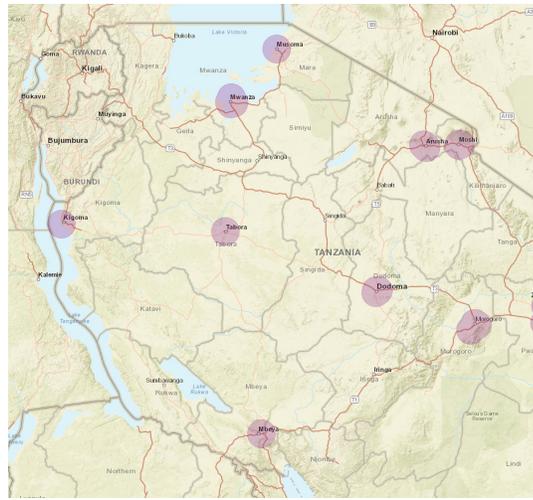
Source: RIS calculations based on OpenCellID.

Figure 22: 3G Coverage



Source: OpenCellID and RIS, 2019

Figure 23: 4G Coverage



Source: OpenCellID and RIS, 2019

in Tanzania is strong. With the entry of Halotel in October 2015 prices were quickly reduced and access improved. Today Vodacom has a 33 percent market share, Airtel and Tigo around 26 percent each, and Halotel, the new entrant, about 10 percent (Figure 24). Three operators, Zantel, Smile, and TTCL, account for the remaining 5 percent.

Regulation and politics affect the market. For instance, Airtel temporarily halted investment pending resolution of a dispute with the government over ownership of its Tanzanian subsidiary. The dispute was resolved only in January 2019, with Airtel’s stake being

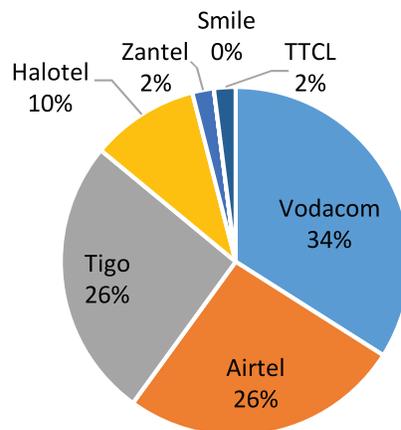
reduced from 60 to 51 percent and the government stake increased from 40 to 49 percent.²⁰ With the dispute resolved, Airtel began rolling out its 4G network, but the agreement arguably reduced competition, as the government also has a stake in TTCL, an Airtel competitor.

An August 2019 report highlighted the risk of tying registration for subscriber identification modules (SIM cards) to national identification cards. While national ID registrations had been increasing, penetration was still only 46-55 percent, so that millions of Tanzanians could be barred from cellphone networks. In fact, Vodacom Tanzania has reported that

20 Telegeography, 2019a.



Figure 24: Mobile communications market shares, 2019



Source: TCRA

“On 20 January, the TCRA directed that customers be barred in phases, which led to the barring of 1.7 million customers from 20 January to 31 January. As at 31 January 2020, some 5.0 million customers remain non-biometrically registered. These customers will be barred on TCRA’s instruction, until such time that the biometric registration is concluded for these customers (Vodacom 2020).”

Poorly applied regulations slow development of Tanzania’s digital economy. The impact falls disproportionately on the poor. This underscores the need for both rigorous impact assessments (including unintended consequences) of regulatory decisions and an integrated regulatory strategy (in this case between SIM card registration and national ID enrollment) if the digital economy is to grow.

Digital Financial Services

Like connectivity, payment platforms depend on network effects. Payment options are income-sensitive. Credit cards require checking accounts and a credit history. Though bank account penetration is higher than credit card penetration, most online transactions do not accept payments from bank accounts. Mobile money has the highest penetration and therefore benefits the most from network effects. The mobile payment platform is a lead driver of digital technology because it supports e-commerce, cross-border payments, and other services, such as welfare payments, conditional cash transfers, and other benefits associated with financial inclusion. A study by McKinsey (Tyson, 2016) estimated that higher financial inclusion may increase GDP by up to 12 percent for countries where financial inclusion and digital payments are underdeveloped.

Mobile money is currently the only viable way to extend financial inclusion in the digital economy. Penetration of traditional banking (credit cards and bank accounts) is far too low to affect financial inclusion (Table 17), but mobile money is generally a success story. In 2013–18, active mobile money subscribers doubled, mobile money agents tripled, and transaction value more than quadrupled (Table 18). In the same period, the number of mobile subscribers rose from 27 to 43.5 million and mobile Internet users from 7.5 to 22.3 million.

**Table 17: Bank Accounts or Credit Cards, Tanzanians 15 Years or Older, 2017, Percent**

	Rural	Urban	Male	Female	Total
Do you have a credit card or debit card?	2.8	14.9	7.2	6.2	6.7
Do you have access to a bank account?	5.1	23.4	12.7	9.7	11.1

Source: Nationally representative surveys from Research ICT Africa.

Table 18: Mobile Money Statistics, 2014–19, Year end

	2014	2015	2016	2017	2018	2019	Change (%)
Active users (million)	13.86	19.01	17.03	19.38	23.3	23.96	11.6%
Mobile Money Agents	238,461	270,974	371,132	427,445	483,283	560,043	18.6%
Monthly Mobile Payments (TZS Billions)	3,570	4,762	5,342	6,639	7,648	8,213	18.1%

Note: CAGR = Compound Annual Growth Rate.

Source: BoT. 2019 statistics for November; all other dates for December.

Nevertheless, few Tanzanians use mobile money. More than half of respondents in a December 2017 survey stated they rarely used it, and fewer than a quarter use it monthly. There is also a large urban-rural gap in usage, as well as a gap by gender and age group. The urban/rural divide is exacerbated also by wealth gaps. For the poorest 20 percent of the population, the gap between smartphone ownership among urban and rural population is only 4 percentage points, but this increases to 24 percentage points amongst the richest quintile. By contrast, for women, smartphone ownership is generally only around 3 per cent lower than for men, and this is not much affected by wealth differences (Figure 25 left panel).

Yet, affordability is the main problem.

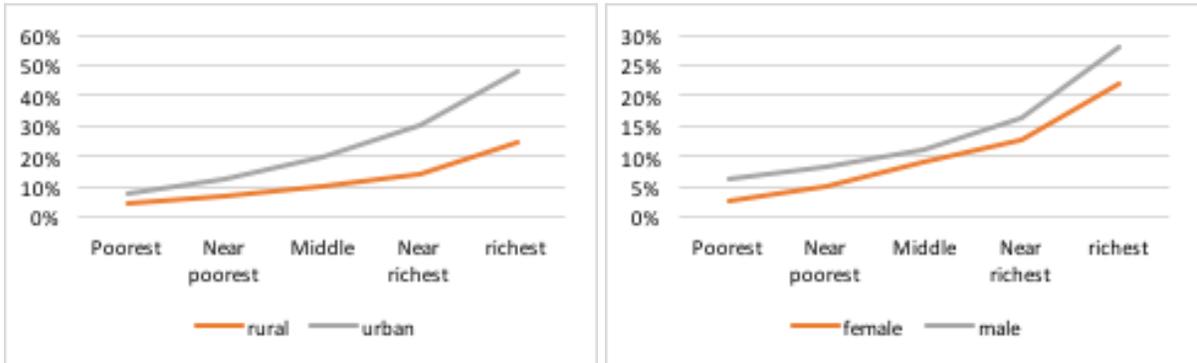
Some 36 per cent of respondents to the survey reported that they could not afford a mobile phone, and a further

5 percent had been unable to replace their phone after it had been stolen. Constraints on cell coverage and lack of electricity prevented a further 4 per cent from acquiring a phone (Figure 25, right panel). Age is also a big differentiator with only 5-6 percent of those aged over 50 owning a smartphone compared with four times as many people in their 20s.

High costs for small transactions deter usage, proving once more that it is expensive to be poor. Thus, mobile money is used less for small payments and transaction histories are incomplete. Low, or even zero, transaction fees, as in Somalia (World Bank 2017), could super-charge mobile money usage. Without fees, mobile money could be used far more, e.g., for financial intermediation, spurring product innovations (Comminos et al. 2009). Another option might be M-Pesa



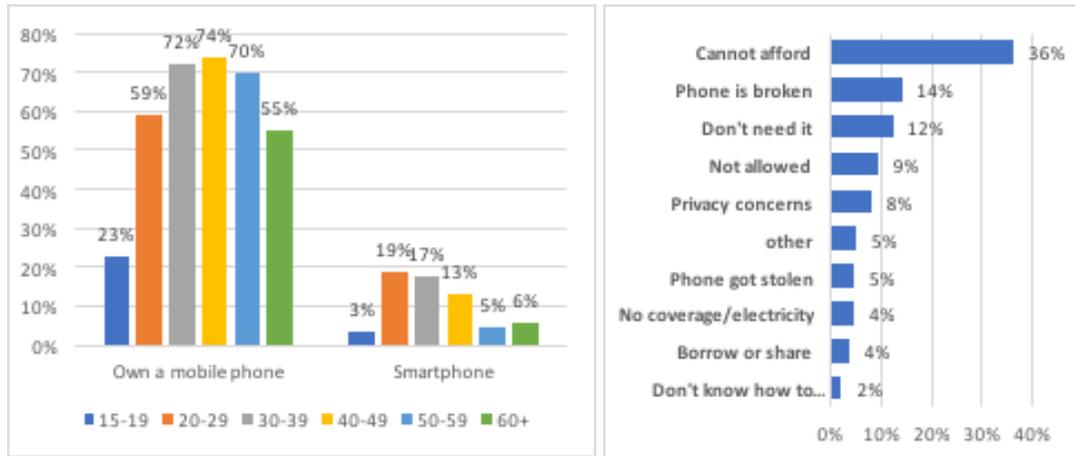
Figure 25: Smart Phone Ownership, Between Urban and Rural Areas, and Between Men and Women, By Income Quintile, 2017



Source: World Bank (2020a) Household survey findings on mobile phone adoption: Has the digital revolution come to Tanzania?

Note: The analysis is based on respondents that reported owning a smart phone and is divided by quintiles, ranging from the poorest 20% to the richest 20% of the population. Sample size: 5,636 individuals

Figure 26: Mobile phone ownership, by age group, and reasons for not owning a phone, 2017, Percent



Source: World Bank (2020a) Household survey findings on mobile phone adoption: Has the digital revolution come to Tanzania?

Note: Left chart based on all respondents aged 15 and above who claim to own a phone. Right chart based on all respondents who do not own a phone. Total sample size: 5,636 individuals.

Kenya’s Kadogo product²¹, where small transactions were free. Safaricom has recently waived fees on transactions below US\$10 (KES 1’000) in response to the Coronavirus pandemic.²² (Box 3).

The case of Somalia is instructive: while transaction charges are zero, mobile money operators profit from interest on the “float,” (i.e., the uncashed out balance held on mobile phones). Users

21 https://www.safaricom.co.ke/sustainabilityreport_2018/ebook/54/

22 <https://www.standardmedia.co.ke/article/2001364470/safaricom-removes-fees-on-m-pesa-transactions-below-sh1000>.



Box 3: How Digital Technologies are part of the armory for Coronavirus response

In this unprecedented fight against COVID-19, digital technologies offer an opportunity for governments, individuals and businesses to cope with social distancing, ensure business continuity, and prevent service interruptions. How should Tanzania respond to this new environment? These objectives could help shape the policy response:

- **Objective 1:** Increasing bandwidth and managing congestion to keep the internet from “breaking”

As more and more people are obliged to stay at home, and as Government itself moves towards home-based working, the volume of traffic on operator networks is rising in an unexpected way. This calls for changes in network configuration, traffic management, and access to spare capacity (dark fiber) in infrastructure to provide connectivity to institutions, households and SMEs. In South Africa, for instance, the regulator has made available High Demand Spectrum (sub 1GHz, 2.6GHz and 3.6GHz) on a temporary basis to all major operators until November 2020 so that they have extra capacity to deal with demand. In the case of Tanzania, the government could consider scrapping the restrictions that currently prevent telecom operators from constructing their own networks, and accessing international bandwidth directly.

- **Objective 2:** Ensuring the continuity of public services to safeguard the welfare of populations

As use of digital technologies becomes the “new normal” for work, schooling, and government services, there is a risk that those communities without unrestricted and affordable internet access could be left behind. Telecom operators in Tanzania are also subject to regulatory restrictions, taxes and fees that deeply affect the cost of service provision. This calls for special packages to reduce costs for the end users and ease the financial pressure on internet providers during the current crisis.

- **Objective 3:** Powering FinTech to support the most impacted businesses and communities

Economies are increasingly relying on online financial services to stay afloat, and demand for services such as mobile payments, food delivery, and e-commerce shopping will grow exponentially. This calls for action to connect the unconnected by providing emergency broadband infrastructure, particularly in hard-to-reach areas. The World Bank’s pipeline Digital Tanzania program (P166760) seeks to address this by extending internet connectivity to government ministries, departments and agencies across the country and mobile broadband to rural areas.



in Somalia rarely cash out their mobile money balance because of a lack of confidence in the local currency. However, operators do charge transaction fees for bulk payments, such as salary or social safety net transactions.

Digital Platforms

There is a symbiotic link between a country's payment and identification platforms. Being able to cheaply and accurately identify individuals makes financial inclusion easier and supports a wider range of services, among them tax collection and welfare payments. It is also more efficient and cost-effective because it reduces practices like ghost employees, a major concern for the government (Ng'wanakilala 2016). While the national ID system has improved, it is still far from inclusive. By year end 2018 penetration had risen from less than 9 percent in 2016 to about 55 percent (Malibiche 2018). However, reaching the remaining 45 percent will be far more difficult.

A more flexible system that recognizes other forms of ID is worth considering.

Ironically, SIM cards are a more pervasive form of ID than national ID, though national ID is now enforced in Tanzania for SIM card registration. While nearly 90 percent of Tanzanians have some form of ID; national ID penetration is far lower (Table 19). An interim measure for SIM card registration, such as using voter registration cards, should be considered while the government addresses enrollment problems with national ID.

The combination of connectivity, payment systems, and ID enrollment facilitates economic growth.

Together, they drive the digital economy, employment, and GDP growth. In 2016 mobile operators alone contributed over US\$2.5 billion in Tanzania, equivalent to 5.2 percent of GDP, and the amount is likely to have risen since with the rise in mobile subscriptions (GSMA 2019). Expanding that to include the whole digital ecosystem confirms that digital technologies are one of the most important sectors in the Tanzanian economy.

Table 19: Tanzanians 15 Years or Older, with a National ID or Passport, 2017

	Rural	Urban	Male	Female	Total
ID (incl. voter registration cards)	87.0	93.0	87.9	90.0	89.0
National Passport	0.0	2.5	0.8	0.9	0.8

Source: Nationally representative surveys, Research ICT Africa



Enabling Trust Online

Government can facilitate digital trade by ensuring trust in online transactions. This can be achieved in part by creating a regulatory environment in which digital trade can flourish. Table 20 illustrates the minimum regulatory and enforcement requirements to enable consumers and suppliers to enter into agreements online with confidence. That depends not only on the relevant laws but also on how effectively they are enforced.

Tanzania is still missing crucial laws. For instance, it does not yet have a data protection law and trails regional neighbors in drafting a law to protect the privacy of individuals. This is a major problem in fostering the trust required to stimulate digital trade. Consumer protection provisions so far enacted in other laws are insufficient. The 2015 Electronic Transactions Act contains some provisions to protect consumers, but not enough to cover a variety of likely scenarios. One alternative would be for Tanzania to transfer those provisions to a more comprehensive new Consumer Protection Act²³ that is more comprehensive. The proposed act could also create a regulatory body to deal with consumer disputes and champion consumer rights.²⁴

There is a danger that current regulations could sometimes be used to stifle dissent rather than enable trust. The *Tanzanian Cybercrime Act No.14* of 2015 shows progress toward filling regulatory gaps, but it seems to have become a tool to reduce freedom of expression and dissent rather than to ensure that suppliers and consumers can be assured that digital trade will be fairly policed.²⁵ In particular, the country's failure to create a data protection law that would protect the privacy and data of individuals means that the Cybercrime Act lacks the checks and balances that a Data Protection Authority could bring: most data protection laws automatically amend previous laws to ensure that data privacy is respected. There should be a natural tension between privacy on the one hand and cybercrime and policing on the other; the lack of one part can produce a lopsided result.

Enforcement is generally weak. The 2015 Cybercrime Act has expanded the penalties for infringement of online intellectual property, which will presumably apply mostly to copyright infringement. Section 24 of the Cybercrime Act No. 14 of 2015 makes it an offense to use a computer system with intent to violate intellectual

23 Like the Consumer Protection Act of South Africa and the United Kingdom.

24 Like the National Consumer Commission of South Africa (<http://www.thencc.gov.za>) and the United Kingdom Office of Fair Trading, (which closed in 2014 but its responsibilities were assumed by other regulatory bodies.

25 March 2017: article19.org, "Cybercrimes Act upheld in further blow to free expression", <https://www.article19.org/resources/tanzania-cybercrimes-act-upheld-in-further-blow-to-free-expression/> accessed on 06 March 2020.



Table 20: Digital Trade Legislation in Tanzania

	Topic	Law / Enforcement Agency	Status
Laws and Regulations	Data protection	None	Red
	Consumer protection	Electronic Transactions Act no. 13 of 2015 ss28-32	Orange
	Cybercrime	Cybercrime Act No.14 of 2015	Orange
	Intellectual property	Cybercrime Act No.14 of 2015 §14	Orange
	Electronic transactions	Electronic Transactions Act No. 13 of 2015	Orange
Enforcement Mechanism	Dispute resolution	None	Red
	Contract enforcement	Tanzania Communications Regulatory Authority	Orange
	Cybercrime enforcement	Police (no particular division created)	Orange

Legend:

	A red traffic light shows a requirement that needs to be addressed urgently.
	An orange traffic light indicates that there is progress, but new strategies are needed.
	A green traffic light would indicate that there is no major obstacle.

Source: RIS 2019.

property rights.²⁶ In practice the success of intellectual property protection tends to be intricately related to the enforcement of the law, rather than its existence. Thus, it is possible to have excellent intellectual property laws, but failure to enforce them means consumers and suppliers will not have the trust they need to transact business online in Tanzania.

Registration requirements are diluting trust. As in some other jurisdictions,²⁷ Tanzania's approach to electronic signatures is to require that cryptographic providers register in order to provide such a service. However, the requirement to register and comply with TCRA standards is problematic from two perspectives:

²⁶ *Committing this offense on a commercial basis will result in a fine of TZ 20 million shillings, 5 years imprisonment, or both; doing so on a noncommercial basis results in a fine of TZ 5 million shillings, three years imprisonment, or both. The Cybercrime Act does not define 'commercial.'*

²⁷ *For example, In South Africa an 'advanced electronic signature' is only acceptable if it has been accredited by the regulatory body, and accreditation is a serious barrier to supplier entry.*

- **Cryptographic providers operate globally and provide services from diverse locations.** Requiring them to register (with making failure to do so a criminal offense) has a chilling effect on providers who might offer Tanzanian consumers a cost-effective service.
- **Setting technical standards that a cryptographic provider must adhere to is a further barrier to entry,** particularly for a provider has already complied with the standards of, e.g., Germany. It would be helpful if the TCRA would simply approve the standards of other countries (on a mutual basis) that would encourage providers in those countries to expand their offerings into Tanzania.

There are positive developments: It is very encouraging that the legal system is allowed to accept electronic evidence, that there are default rules for sending and receiving messages, and that



eGovernment services are enabled and online auctions recognized (amongst many other indicators). However, the real test comes when electronic evidence is actually accepted in dispute resolution and court proceedings. The need to reduce electronic evidence to paper form not only reduces the amount of evidence before the court (by removing meta-data), it also makes the process cumbersome and inefficient. It is not clear that Tanzanian courts have the human and technological capacity to meet the intention of the Cybercrime Act.

2.3 The Digital Economy as an engine of growth

The link between broadband penetration and GDP growth is well-established. The ITU lists a range of studies that measure the macro economic effects of mobile broadband penetration (ITU 2012). The effects, which vary by country and time period, range from 0.8 to 1.5 percent of additional GDP growth for a 10 percent increase in mobile broadband penetration (Table 21).

Higher broadband penetration should raise GDP. When applied to Tanzania, over five years a factor of 1.23 percent in additional GDP growth for 10 percent higher broadband penetration (the average for studies cited in Table 28), would bring in TZS 7.38 trillion (US\$3.19 billion) in additional GDP. Higher GDP would also bring in more tax revenue. The same 10 percent increase in broadband penetration would generate an additional TZS 96.6 billion (US\$41.8million) in tax revenue. The government should plan to grow broadband use if it wants to reap the tax benefits of increased economic growth.

Government policy supports investment in the digital economy. *Tanzania Development Vision 2025* states explicitly that the ICT sector should be “harnessed persistently in all sectors of the economy” and that demands “adequate investments” (United Republic of Tanzania 2016). The *National ICT Policy of 2016* emphasizes the role of the private sector in financing ICT infrastructure (URT 2016) and the design of “collaborative frameworks between ICT investors and Government.” (URT, 2016).

Table 21: Reports on Increased Broadband Penetration and GDP Growth

Authors	Countries	GDP Growth (%)
Czernich et al 2009	OECD, 1996-2007	0.9-1.5
Koutroumpis 2018	OECD, 2002-16	0.82-1.40
OECD 2013	EU countries, 1980-2009	1.1
Qiang et al. 2009	Low income countries 1980-2006	1.28
Scott 2012	Low income countries 1980-2-11	1.35
	Average	1.23

Source: RIS 2019.



Digital skills and literacy

An economy based on research and development, knowledge and innovation, creates employment in hi-tech sectors. The corollary is that a knowledge-based economy creates less employment in low-tech sectors, especially manufacturing and services. For example, AirBnB is now the largest hotel company in the world yet owns few assets and is based on a business model that requires considerably fewer employees than a traditional hotel (Piva and Vivarelli 2017).

One consequence is a widening inequality in hours worked. More educated people tend to work longer hours than less-skilled people (Mokyr et al, 2015). US labor statistics bear this out: in 2015, the U.S. unemployment rate was 6 percent for people with a high school degree but just 3.5 percent for those with a bachelor's degree. Combined with automation, where predictable and rules-based jobs are mechanized, there is a shift from middle-skill jobs to higher- and lower-skill jobs—a “hollowing out” of the labor

market (World Bank 2016): less-skilled people are shifted out of the market in favor of middle-skilled people who are now competing for the lower- skill jobs that are still available.

Low-skilled workers are the most likely to bear the costs of the move to greater automation. Arntz et al (2016) found that automation and digitization may put 9 percent of jobs in Europe at risk, but that is not as dramatic as some other studies (Pajarinen et al. 2014) that estimated that 35-60 percent of jobs may be at risk. Nevertheless, people with mid-level skills will continue to be in demand, especially for jobs that require analytical reasoning. The polarization between high- and low-level skills will continue and there will be heightened demand for employees with skills in literacy, numeracy, problem solving, and common sense (Autor 2015).

It is vital that the obstacles to building digital skills are understood and addressed. This is especially important as the global economy moves to jobs that require expertise in literacy, numeracy, and problem-solving. One

Table 22: Social Media Use, People 15 and Older, by Country, 2017/18, Percent

	Total	Male	Female	Difference in Penetration	Urban	Rural	Difference in Penetration
South Africa	42.4	43.8	41.2	2.6	49.8	28.9	20.9
Senegal	29.4	33.2	25.2	8.0	38.4	21.5	16.8
Ghana	27.2	32.6	22.1	10.5	36.2	16.1	20.1
Nigeria	26.7	35.8	18.8	17.0	40.3	18.7	21.6
Kenya	25.0	30.0	20.8	9.2	49.0	16.3	32.7
Tanzania	12.4	14.8	10.2	4.6	28.4	4.5	23.9
Uganda	11.7	12.1	11.3	0.8	26.8	7.0	19.8
Mozambique	8.8	12.3	6.1	6.2	20.4	3.2	17.2
Rwanda	6.0	7.6	4.5	3.1	19.0	2.4	16.6

Source: RIA 2018.



proxy indicator for digital skills is the use of social media. Social media penetration in Tanzania is currently far below that in Nigeria, Ghana, and South Africa, though on a par with Uganda (Table 22). The difference between urban and rural penetration indicates a significant skills gap: only 4.5 percent of the rural population uses social media. This underscores the need for strong policy incentives and coordination for rural access so as to deliver more affordable and attractive broadband access for rural dwellers.

Digital innovation and entrepreneurship

The digital sector can transform the growth prospects of Tanzania's economy. In developed countries, ICT access tends to mirror inequalities in education. In the developing world, and especially Africa, income is a more important differentiator, and mobile broadband is negatively correlated to the Gini index. In other words, a higher penetration of mobile broadband is associated with a more equal distribution of income (World Bank 2019). Hjort and Poulsen (2019) found that fast Internet narrows employment inequalities and jobs are created for both the skilled and the unskilled. This means that mobile broadband can directly target inclusive economic growth—growth distributed fairly across society, creating opportunities for all.²⁸

Introducing fast Internet increases employment. The arrival of submarine cables in countries that did not previously have access on average produces higher Internet speeds and increases the use of technology. The most interesting finding of Hjort and Paulsen (2019) was that there was a relatively large increase in employment in areas when fast Internet became available. Though more jobs were created in skilled occupations for people with tertiary education, in unskilled occupations employment of people with primary and high school education also went up. Depending on the country, the increase in employment ranged from 3.1 to 13.2 percent. In 2016 official formal employment²⁹ in Tanzania was 2.5 million. A 3.1 percent increase would mean more than 80,000 more jobs, and a 13.2 percent increase, 343,000 more. With faster internet, new firms also entered the market, particularly in sectors that used ICT. The result was more intensive use of ICT and higher firm-level productivity.

Tanzanians find it difficult to start a new business. The World Bank's *Ease of Doing Business* index shows that regulatory factors inhibit new businesses and raise the cost of starting one (Table 23). Tanzania ranks the lowest of four East African countries overall, and on half of the featured indicators. One approach the World Bank is trialing to promote innovation, in partnership with the Government of Tanzania and the Department for International Development (DFID) of

28 OECD, <https://www.oecd.org/inclusive-growth/#introduction>.

29 http://www.nbs.go.tz/nbs/takwimu/labour/EES_2016_REPORT.pdf.

**Table 23: World Bank Ease of Doing Business Rankings, 2019**

Economy	Tanzania	Rwanda	Kenya	Uganda
Global rank	141	38	56	116
Starting a business	162	35	129	169
Dealing with construction permits	149	81	105	113
Getting electricity	85	59	70	168
Registering property	146	3	134	135
Getting credit	67	4	4	80
Protecting minority investors	105	114	1	88
Paying taxes	165	38	94	92
Trading across borders	182	88	117	121
Enforcing contracts	71	32	89	77
Resolving insolvency	116	62	50	99

Note: Red indicates the lowest ranking in each category. Source: World Bank, *Doing Business* 2019.

the UK, is a Resilience Academy to teach young people microwork skills. Over the last three years, some 1,280 students have benefitted from 10-week industrial placements.³⁰

Digital trade

Trade is generally between companies, not countries. To increase trade between African countries, it is necessary to be able to trust the companies—but the environment where they work is shaped by that country’s laws. The regulatory gaps in Tanzania’s digital ecosystem, in particular the lack of data protection, reduces consumer trust. Tanzania has significant opportunities to grow digital trade; Figure 32 shows, for instance, that increasing Tanzania’s digital trade to Kenya’s level would triple the country’s trade.

There are innovative strategies that could encourage trade. For example, Tanzania could create Data Protection Zones in provinces where all companies

comply with the European General Data Protection Regulation (GDPR).³¹ The goal would be to encourage Tanzania–EU trade. In fact, Tanzania could draft GDPR-compliant rules for domestic firms; EU companies are likely to be more willing to trade with companies that follow the same rules. No law would be required to get this done—it would be a voluntary strategy.

In 2017 digital services as a percentage of all exported services declined from 16 percent to under 11 percent. Meanwhile, digital imports have been climbing steadily. The drop in digital exports suggests that there are obstacles that have to be addressed if the balance of digital trade is to improve (Figure 27).

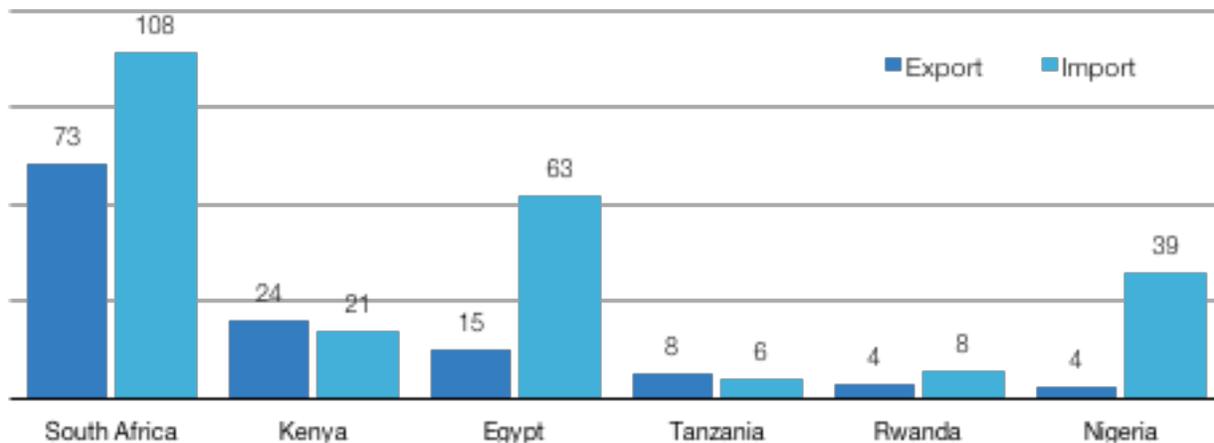
Of the many strategies for increasing digital trade, the most urgent for Tanzania would be passage of a data protection act. This would also encourage intra-Tanzanian trade.

30 <https://resilienceacademy.ac.tz/>.

31 *The GDPR is summarized at https://en.wikipedia.org/wiki/General_Data_Protection_Regulation.*



Figure 27: Trade per Capita Digitally Delivered, US\$, 2017



Source: UNCTAD.

Trust is about perception: consumers would be more willing to send their personal information to suppliers if they knew that the Tanzanian government would punish companies that abuse personal information. A Tanzanian data protection law is also more likely to engender trust in the brand ‘Tanzania’ among EU consumers and others worldwide. In theory, Tanzania could draft a very good data protection law, but without the right staff and funds for a solid Data Protection Authority, it would still not be a safe country for EU personal data. Currently, for instance, South Africa has a law that is reasonably well-drafted, but it appears unlikely that the South African Information Regulator will ever have enough funding for the EU to consider the country safe.

To encourage digital trade, certain factors need to be satisfied. Suppliers considering entry into Tanzania want to know that:

- They will be able to cost-effectively protect their brand so that competitors cannot piggy-back on the money they spend on marketing.
- Fraudsters will be prevented from unfairly competing by, e.g., cloning, or reverse-engineering products that are protected by patent and design laws.
- Local content production—particularly content that is subject to copyright, such as images and music:
 - ✓ can be cost-effectively protected, and
 - ✓ can generate a reasonable revenue stream through collecting societies³² that

³² A collecting society is defined as: “A copyright collective (also known as a copyright society, copyright collecting agency, licensing agency or copyright collecting society or collective management organization) is a body created by copyright law or private agreement which licenses copyrighted works on behalf of the authors and engages in collective rights management” (https://en.wikipedia.org/wiki/Copyright_collective). For this report, the term “collecting society” was chosen because this was the term defined in the South African Copyright Act of 2006 (https://www.gov.za/sites/default/files/gcis_document/201409/28894.pdf).



function smoothly, pay royalties regularly, and cooperate with international collecting societies.

- Enforcement of intellectual property protection is quick, reliable, and cheap.
- Creating owning and transferring web domains must be easy, reliable, and cheap.

As yet, for the most part Tanzania cannot give suppliers much reassurance. The proposed amendments to the *Copyright and Neighbouring Rights Act* of May 2019³³ put in place penalties for copyright infringement, but there is no way to establish a reasonable revenue stream for artists. It is also not clear how the Copyright Administrator will be funded, potentially making the act unenforceable.

2.4 Recommendations

In the short term, and in the context of the COVID-19 pandemic, there are several quick wins that the Government of Tanzania can adopt that will have an immediate impact on the digital economy:

The relatively high cost of internet access in the first and middle mile means consumers face affordability challenges. Strategies to improve affordability need to be considered. The COVID-19 pandemic also means that networks are being stress tested with greater usage than usual. The release of additional spectrum could lower the cost of provision and provide benefits to consumers in the form of lower data prices.

³³ The amendments have not yet been passed.

Recommendation: Release additional spectrum quickly to relieve congestion and to lower the cost of provision. This can be done on a trial basis with an impact assessment conducted after the trial (and the end of the pandemic).

National transmission is expensive in part because regulatory obstacles prevent rollout. Halotel has reported rolling out 18,000 km of fiber (25 percent more than all fiber laid up to that point) but has only 10 percent market share, indicating at the very least that its network is under-utilized. Competitive provisioning of national transmission should be allowed by all operators with a facilities-based license, including on routes already served, and would conform with current policy statements that support fair competition.

Recommendation: Government must explicitly allow competitive provisioning of national data transmission and lift existing restrictions on fiber investment.

Mobile money is growing steadily but few Tanzanians use it. Low-value transactions are expensive. The mobile money sector could be super-charged by considering, e.g., low to zero transaction fees for small amounts.

Recommendation: Government can incentivize operators to charge low or zero transaction fees by tying government payments (such as social welfare payments) to a low-fee transaction regime. This may be trialed as part of the COVID-19 response.



In the medium term, obstacles to greater growth need to be identified and removed:

One factor causing low usage is that prices for low-volume data packages are high. As a result, usage is low compared to neighboring countries. Also low is usage of national transmission and international data. Regulatory factors are helping to push up the cost. Regulatory impact assessments should be urgently considered, take account in particular the poor, women, disabled persons and other disadvantaged groups.

Recommendation: Government may require the TCRA to incorporate Regulatory Impact Assessments prior to issuing new regulations.

Data quality is poor. It appears that both 3G and 4G coverage is significantly lower than reported. Planning is constrained by the poor quality of regulatory information, particularly about fiber rollout and broadband coverage. Coverage data should be made publicly accessible.

Recommendation: Government must require both operators and the TCRA to make digital coverage maps publicly available, for 3G and 4G and fiber, as well as providing access to raw data online.

In the longer term, the Government of Tanzania needs an integrated strategy to grow the digital economy.

One barrier to digital trade is the lack of an enabling legal environment. Tanzania lacks digital-relevant laws, especially for the protection of data, consumer privacy, and intellectual property, that

are essential to consumer trust in online transactions. Tanzania's ranking of 141st in the World Bank's Ease of Doing Business Index demonstrates that unfriendly regulation is holding back entrepreneurship and innovation.

Recommendation: Government should devise a digital roadmap that shows a timeline for implementation of digitally relevant laws like data protection, consumer protection and intellectual property.

The overall regulatory approach to digital trade needs to be addressed.

Poorly designed regulations, such as those related to registration of biometric SIM cards, have real consequences and hurt the poor disproportionately. Disconnecting large numbers of subscribers will severely depress operator revenues and potentially capital spending. There is a desperate need for a strong data protection act and supportive regulations if digital trade is to be expanded. A regulatory strategy to grow digital trade should therefore be considered.

Recommendation: A regulatory strategy should be devised by the Government that addresses major bottlenecks for growing digital trade, such as the time to register a business, import and export regulations, digitally relevant laws, notably a data protection act, and other factors.



3 Annexes





Statistical Annexes

Annex 1, Key Macroeconomic Indicators

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
National Accounts and Prices										
GDP at constant market price (% change)	5.3	6.3	7.7	4.5	6.8	6.7	6.2	6.9	6.8	5.4
Agriculture	4.2	3.2	2.5	3.4	2.8	6.9	5.4	4.8	6.0	4.5
Industry	3.4	9.2	11.8	4.2	10.5	6.0	9.7	11.7	10.7	9.1
Service	5.5	7.8	8.2	6.4	5.1	9.3	6.4	6.3	5.3	3.5
Inflation (e.o.p)	12.1	5.1	12.7	16.0	7.9	6.1	5.6	5.2	5.3	3.5
Per capita (in US\$)	681.4	726	765	870	969	1000	912	934	1005	1056.0
Fiscal (% of GDP, fiscal year)										
Revenue and grants	16.0	15.2	15.3	15.9	15.4	15.6	14.0	14.8	16.3	16.1
Tax and nontax revenue	12.2	11.8	11.9	12.6	12.8	13.5	12.8	14.3	15.3	15.3
Grants	3.8	3.4	3.4	3.2	2.6	2.1	1.2	0.5	1.0	0.8
Expenditure and net lending	19.6	20.4	19.5	18.9	20.5	18.5	17.1	18.3	17.4	20.0
Overall balance (excluding grants)	-7.4	-8.6	-7.7	-6.2	-7.7	-5.0	-4.3	-4.0	-2.1	-4.8
Overall balance (including grants)	-3.6	-5.2	-4.3	-3.0	-5.1	-2.9	-3.1	-3.5	-1.1	-3.9
Financing	3.4	4.8	4.8	3.6	5.0	3.3	3.3	3.5	1.5	3.9
Foreign financing (net)	2.7	3.4	2.2	3.0	3.9	3.0	3.1	1.4	1.6	2.5
Domestic financing (net)	0.6	1.4	2.6	0.6	1.1	0.3	0.2	2.1	-0.1	1.5
Money and Credit										
M3 (% change)	17.7	25.4	18.2	12.5	10.0	15.6	18.8	3.4	8.0	4.5
Credit to private sector (% change)	9.6	20.0	27.2	18.2	15.3	19.4	24.8	7.2	1.7	4.9
External sector (US\$ million unless otherwise)										
Exports (goods and services)	5,086	5,743	7,051	7,987	8,335	8,886	8,877	9,341	8,813	9,447
Imports (goods and services)	7,876	8,365	9,996	12,946	12,871	13,966	13,348	11,597	9,596	11,519
Gross official reserves (months of imports)	2,930	3,482	3,610	3,797	4,357	4,638	4,285	3,870	5,022	4,944
Current Account Balance (% of GDP)	4.5	5.0	4.3	3.5	4.1	4.0	3.9	4.0	6.3	5.2
Exchange rate (Tsh/US\$; e.o.p)	-7.8	-7.1	-7.9	-13.1	-10.5	-10.7	-9.8	-6.5	-3.0	-3.8
	1,314	1,379	1,572	1,569	1,603	1,655	1,974	2,179	2,230	2,274
Debt Stock and Service										
Total public debt (% of GDP)	22.9	22.9	25.7	26.8	29.1	30.0	32.4	38.6	38.1	37.8
External debt (public sector, % of GDP)	16.2	17.6	20.2	21.1	22.6	23.2	24.7	30.8	22.3	23.9
Domestic public debt (% of GDP)	6.7	5.3	5.5	5.7	6.5	6.9	7.7	7.8	15.8	13.9

Source: World Bank, IMF, and Tanzania authorities.



Annex 2. Annual Real GDP Growth Rates (Percent Change)

Economic Activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Agriculture and Fishing	4.2	3.2	2.5	3.4	2.8	6.9	5.4	4.8	5.9	5.3
Crops	4.5	4.8	3.5	4.3	4.4	9.4	7.6	5.4	6.4	5.0
Livestock	5.1	1.3	0.6	1.9	4.8	4.9	4.9	4.9	4.9	4.9
Forestry and Hunting	5.0	3.4	3.1	3.6	4.5	4.8	3.4	3.9	4.8	4.9
Fishing	-0.1	0.9	2.5	3.0	-13.3	1.8	-4.5	1.2	8.3	9.2
Industry and construction	3.4	9.2	11.8	4.2	10.5	6.0	9.7	11.7	10.6	9.3
Mining and quarrying	18.4	7.2	6.0	6.7	4.5	6.4	10.0	7.4	5.3	1.5
Manufacturing	4.5	8.9	6.7	4.2	3.7	10.0	7.1	10.8	8.2	8.3
Electricity supply	4.0	13.4	-4.6	3.4	8.2	12.7	-2.0	8.8	1.0	5.8
Water supply; sewerage, waste management	4.1	2.5	-1.4	2.9	2.7	3.8	2.4	6.9	6.4	7.4
Construction	-3.7	10.3	22.0	3.3	19.1	2.5	12.9	14.5	15.1	12.9
Services	5.5	7.8	8.2	6.4	5.1	9.3	6.4	6.3	5.3	6.3
Wholesale and retail trade; repairs	2.5	10.0	11.0	3.9	4.2	9.9	3.6	5.9	6.1	5.8
Transport and storage	6.7	10.7	4.2	4.2	6.0	8.7	5.4	5.7	6.7	11.8
Accommodation and Food Services	0.8	3.7	3.9	6.8	0.9	3.1	1.7	4.1	3.1	5.2
Information and communication	26.4	24.4	8.3	22.3	11.6	10.3	7.8	2.2	6.2	9.1
Financial and insurance activities	18.1	12.6	14.5	5.2	-1.1	10.5	11.3	1.1	-2.8	-0.5
Real estate and business services	3.2	8.3	3.1	6.5	9.5	10.3	7.6	11.4	4.4	4.4
Public administration and defence	-1.0	-5.0	15.6	9.2	9.7	6.7	7.2	5.4	10.8	5.6
Education	8.9	6.3	5.4	7.5	0.3	13.4	10.4	10.4	7.3	6.6
Human health and social work activities	7.2	3.3	5.1	11.5	-3.1	8.4	5.1	5.6	7.6	8.1
Other Social and Personal services	4.4	5.6	5.6	6.7	8.9	9.8	5.1	11.7	12.0	6.5
All economic activities	4.6	6.6	7.2	4.9	5.7	7.7	6.9	7.3	7.0	6.9
Net taxes	12.8	3.8	12.1	0.4	17.5	-2.2	-1.7	2.0	4.6	8.0
Total GDP	5.3	6.3	7.7	4.5	6.8	6.7	6.2	6.9	6.8	7.0

Source: National Bureau of Statistics.



Annex 3. Share of Economic Activities in GDP (current market prices)

Economic Activity	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Agriculture and Fishing	26.0	25.6	25.0	26.6	26.8	25.8	26.7	27.4	28.8	28.2
Crops	12.7	13.1	12.9	14.1	14.4	14.0	14.1	15.2	16.6	..
Livestock	8.5	8.0	7.6	7.4	7.7	6.8	7.6	7.6	7.5	..
Forestry and Hunting	2.6	2.5	2.4	2.8	2.8	3.0	3.1	2.9	2.8	..
Fishing	2.2	2.0	2.0	2.2	1.9	2.0	2.0	1.8	1.9	..
Industry and construction	21.7	23.6	26.4	25.4	25.4	25.1	24.5	24.9	25.0	26.8
Mining and quarrying	2.9	4.1	5.1	4.9	4.3	3.8	4.3	4.9	4.4	5.1
Manufacturing	8.7	8.7	9.5	9.4	9.1	9.1	7.9	7.8	7.7	8.1
Electricity and water	1.6	1.5	1.0	1.3	1.2	1.4	1.3	0.8	0.8	0.7
Electricity	0.9	0.9	0.6	0.8	0.8	1.0	0.8	0.4	0.3	0.3
Water	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Construction	8.5	9.3	10.7	9.7	10.9	10.8	11.1	11.3	12.2	13.0
Services	44.6	43.3	41.4	43.1	42.8	44.1	43.3	42.5	38.0	37.0
Wholesale and retail trade; repairs	9.9	10.0	10.4	10.3	9.7	9.7	9.3	9.1	9.1	9.1
Transport and storage	8.3	7.8	6.9	6.0	7.2	7.5	7.3	7.0	6.7	6.5
Accommodation and Food Services	2.5	2.3	1.9	2.0	1.8	1.6	1.5	1.4	1.3	1.3
Information and communication	2.1	2.3	2.0	2.1	2.0	1.9	1.8	1.6	1.5	1.5
Financial and insurance activities	3.8	3.9	4.1	4.1	3.5	4.4	4.4	4.9	4.0	3.7
Real estate and business services	7.0	6.6	6.1	6.2	6.1	6.1	6.0	5.9	2.8	2.7
Public administration and defence	4.7	4.3	4.4	4.6	5.0	4.8	4.8	4.5	4.2	4.0
Education	2.9	2.9	2.5	2.4	2.4	2.5	2.6	2.5	2.4	2.4
Human health and social work activities	1.9	1.8	1.7	1.6	1.5	1.5	1.5	1.4	1.4	1.4
Other Social and Personal services	1.5	1.4	1.3	1.3	1.2	1.3	1.2	1.2	1.2	1.3
Activities of households as employers	..	..	..	2.4	2.6	2.8	2.9	3.0	3.2	3.2
All economic activities	92.3	92.5	92.8	95.0	95.1	95.1	94.5	94.8	91.8	92.1
Net taxes	7.7	7.5	7.2	5.0	4.9	4.9	5.5	5.2	8.2	7.9
Total GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Bureau of Statistics.



Annex 4. Quarterly Real GDP Growth Rates (Percent Change)

Year	Quarter	Agriculture	Mining and quarrying	Manufacturing	Electricity	Water	Construction	Trade and Repair	Accommodation & restaurant	Transport and storage	Information and communication	Financial & insurance	Public administration	Professional, Scientific & Technical act.	Administrative & Support services	Real estate	Education	Health	Other services	All industries at basic prices	Taxes on products	GDP at market prices
2015	1	4.3	-1.5	6.9	4.9	10.2	11.7	1.9	0.0	1.8	12.7	9.2	2.6	15.5	10.7	4.2	9.3	2.7	4.4	5.1	-18.1	2.9
	2	8.0	10.7	6.6	9.0	-1.9	7.3	5.8	1.7	3.7	8.6	9.0	4.4	15.5	9.0	4.3	9.2	0.8	4.2	6.9	4.7	6.7
	3	4.6	3.3	8.5	-10.2	2.6	16.7	6.3	2.9	4.6	6.6	12.0	11.0	15.7	9.7	4.3	12.0	9.0	5.1	7.6	7.6	7.6
	4	4.6	27.2	6.4	-9.8	-0.6	16.4	0.7	2.2	2.2	11.3	4.1	14.7	10.2	16.0	12.6	4.3	10.8	7.9	6.8	8.1	0.6	7.4
2016	1	2.8	10.2	13.4	1.4	-1.1	17.3	9.6	3.3	9.9	3.8	11.5	19.6	16.5	17.8	4.3	20.6	15.7	9.2	9.4	13.0	9.7
	2	8.0	14.9	9.7	5.4	8.6	11.4	5.6	0.6	8.6	2.1	4.1	15.5	16.9	20.5	4.3	17.9	11.2	10.8	9.2	-2.5	8.2
	3	6.0	14.4	7.3	11.7	4.0	23.4	6.4	3.6	5.1	2.2	-2.1	-6.2	17.2	20.9	4.3	1.7	-4.2	12.3	7.7	-3.8	6.6
	4	3.1	-6.3	13.2	17.5	16.0	6.6	2.2	8.8	-0.2	1.0	-7.9	-3.9	17.4	19.1	4.3	3.7	1.1	14.3	3.5	2.9	3.4
2017	1	6.5	9.9	5.2	4.4	1.6	12.0	1.9	4.7	5.3	12.6	-5.8	-5.9	17.6	15.5	4.4	1.3	0.1	12.6	5.5	-3.0	4.9
	2	14.7	-4.6	9.6	-1.0	4.2	21.2	5.1	3.5	5.0	6.4	-2.5	0.1	16.4	12.3	4.4	5.6	6.8	11.4	7.1	0.3	6.6
	3	4.1	4.2	13.7	3.9	10.0	-0.3	5.8	2.5	6.9	1.9	-5.3	7.5	14.0	9.3	4.4	11.3	11.1	9.8	5.1	4.0	5.0
	4	6.4	12.1	4.5	-3.1	16.4	28.8	11.3	2.3	9.6	4.5	2.6	8.3	10.5	6.5	4.4	11.0	12.8	7.7	9.8	15.6	10.3
2018	1	6.5	-5.7	5.3	0.8	3.7	15.6	4.3	4.5	8.8	14.9	-2.9	8.8	12.6	5.2	4.4	11.2	17.4	8.7	7.0	7.0	7.5
	2	6.1	6.8	3.6	6.8	6.1	5.2	4.0	6.7	13.5	12.4	-2.3	-0.7	11.2	5.4	4.4	4.1	5.9	8.4	5.5	5.5	6.1
	3	3.8	1.9	7.0	5.6	10.7	13.9	6.9	7.7	7.7	12.1	4.8	3.9	2.8	9.3	5.7	4.4	6.1	7.5	7.8	6.9	7.1
	4	4.4	3.2	16.7	9.8	8.3	17.3	8.0	1.9	12.6	4.4	-0.5	1.8	6.9	6.1	4.5	5.0	2.2	5.6	7.9	7.9	7.1
2019	1	6.3	10.0	4.8	9.7	8.0	13.2	3.8	1.1	11.1	9.6	5.6	2.7	6.6	8.7	4.5	3.6	-2.1	5.7	7.0	7.0	6.6
	2	4.0	17.2	5.2	4.3	10.0	19.6	5.5	2.6	7.0	10.3	5.0	4.7	6.8	8.5	4.5	5.8	2.4	6.7	7.7	1.2	7.2

Source: National Bureau of Statistics.



Annex 5. Inflation Rates (Percent Change)

Month	Headline Overall Index	Food & Non Alcoholic Beverages (Exclude Food consumed at Restaurants)	Transport	Housing, Water, Electricity, Gas & Other Fuel	Furnishing, Housing Equipment & Routine Maintenance of House	Clothing & Footwear	Restaurants and Hotels	Miscel. Goods and Services	Alcoholic and Tobacco	Communi-cation & Entertainment	Education	Recreation & Culture	Health
Weight (%)	100.0	47.8	9.5	9.2	6.7	6.72	6.4	4.5	3.3	2.1	1.7	1.3	0.9
Oct 2017	5.1	8.8	0.2	7.6	2.8	3.4	0.6	3.0	2.6	-0.9	0.8	1.9	2.1
Nov 2017	4.4	7.4	0.1	7.8	1.8	3.1	0.3	2.6	2.5	-1.0	0.8	1.6	2.0
Dec 2017	4.0	6.2	0.0	8.3	1.3	2.9	0.3	2.5	2.6	-1.0	0.8	0.9	2.0
Jan 2018	4.0	6.3	0.3	7.1	1.8	2.7	0.8	2.6	2.6	-1.0	2.5	2.0	1.6
Feb 2018	4.1	5.4	1.6	8.6	1.6	3.3	0.9	2.7	2.3	-0.2	2.5	1.5	1.6
Mar 2018	4.0	4.7	1.4	10.4	1.9	3.2	0.8	1.2	2.0	-0.2	2.4	1.1	1.6
Apr 2018	3.8	3.6	1.8	13.1	2.0	2.6	0.8	0.9	1.6	0.1	2.4	1.2	1.6
May 2018	3.6	2.6	1.9	15.0	2.3	2.4	1.0	1.2	1.3	0.1	2.3	0.7	1.2
Jun 2018	3.4	3.4	1.7	12.0	2.4	2.2	0.7	1.4	0.3	-2.6	2.6	0.5	1.4
Jul 2018	3.3	2.8	2.5	12.3	2.6	2.4	0.8	1.2	0.8	-2.7	2.5	0.4	0.7
Aug 2018	3.3	2.2	3.4	12.3	3.1	2.7	1.1	1.2	1.2	-2.6	2.5	-0.2	1.7
Sep 2018	3.4	2.0	2.8	13.1	3.0	3.2	1.9	1.3	1.9	-2.6	2.5	-0.2	1.3
Oct 2018	3.2	1.2	3.0	14.1	2.8	3.4	1.9	1.6	1.9	-2.7	2.4	-1.0	0.8
Nov 2018	3.0	0.4	5.1	13.4	2.9	3.3	1.9	1.7	1.6	-2.7	2.4	-0.7	0.8
Dec 2018	3.3	1.0	5.1	12.1	4.0	3.6	2.7	2.6	2.2	-2.6	2.4	0.1	1.0
Jan 2019	3.0	0.7	4.0	11.7	3.9	3.7	2.6	2.5	2.2	-2.4	2.0	0.2	1.0
Feb 2019	3.0	0.5	3.3	12.3	4.1	3.3	3.6	2.6	2.5	-2.1	1.8	0.2	1.5
Mar 2019	3.1	0.1	4.1	13.0	4.3	3.4	4.8	3.1	3.2	-1.2	1.9	0.3	1.8
Apr 2019	3.2	0.9	3.4	11.4	4.2	3.6	4.9	2.7	3.2	-1.1	2.1	0.6	2.2
May 2019	3.5	2.2	4.1	8.8	4.3	3.7	4.9	2.5	3.4	-1.1	2.1	3.2	2.0
Jun 2019	3.7	2.3	4.8	8.9	4.1	3.1	4.8	2.4	4.2	1.0	1.8	3.4	1.8
Jul 2019	3.7	2.9	4.1	8.1	3.9	2.7	4.7	2.5	3.6	1.1	1.6	1.6	2.2
Aug 2019	3.6	3.7	2.7	6.3	3.7	2.9	4.6	2.5	2.1	0.7	1.6	1.8	1.4
Sep 2019	3.4	4.0	3.2	4.3	3.7	2.6	4.2	2.4	1.3	0.6	1.6	2.0	1.9

Source: National Bureau of Statistics.



Annex 6. Food Crop Prices (Regional Averages, TZS per 100Kg)

Month Year	Maize			Rice			Wheat			Beans			Sorghum		
	Arusha	Dar es Salaam	Mbeya	Arusha	Dar es Salaam	Mbeya	Arusha	Dar es Salaam	Mbeya	Arusha	Dar es Salaam	Mbeya	Arusha	Dar es Salaam	Mbeya
Oct 2017	53,714	54,207	54,207	200,313	191,389	191,389	66,214	121,404	121,404	166,875	194,681	194,681	62,357	95,148	95,148
Nov 2017	51,417	52,288	50,333	177,000	188,054	181,667	69,000	118,167	134,167	197,500	201,736	210,833	59,500	89,885	89,885
Dec 2017	52,625	52,083	53,000	201,563	189,306	188,750	67,071	113,722	192,000	175,000	200,000	200,000	66,222	83,000	83,000
Jan 2018	51,750	47,828	49,000	210,000	189,643	185,833	73,900	110,889	125,000	160,000	207,917	207,500	62,833	86,917	86,917
Feb 2018	48,417	49,427		203,000	196,563		72,778	114,115		160,313	197,135		58,429	79,690	79,690
Mar 2018	48,091	54,958		179,708	194,750		69,850	126,538		145,000	193,281		55,278	79,091	79,091
Apr 2018	46,333	46,375		216,667	210,000		70,625	128,750			199,375		56,500	101,250	101,250
May 2018	46,500	49,333	35,000	190,000	170,000	195,000	72,500	130,000	141,000	155,000	206,667	147,000	61,000	85,000	85,000
Jun 2018	44,300	49,286	35,000	185,000	171,071	186,667	65,600	126,429	136,833	149,500	185,000	151,583	48,100	92,857	92,857
Jul 2018	43,833	42,167	35,000	185,000	145,000	190,000	63,167	125,833	136,000	137,500	186,667	152,500	46,333	85,000	85,000
Aug 2018	37,250	45,483		181,875	164,188		63,188	127,500		118,750	191,875		44,688	88,083	88,083
Sep 2018	35,182	40,855		360,000	328,788		63,591	119,377		118,409	190,269		47,727	80,758	80,758
Oct 2018	34,071	36,524	31,000	180,000	167,024	180,000	63,857	127,381	100,000	120,000	186,429	170,000	44,000	76,190	90,000
Dec 2018	42,667	52,528	36,000	168,750	158,889	140,417	66,958	117,917	118,750	121,667	185,333	180,833	59,375	75,375	101,208
Jan 2019	43,275	58,200	36,000	177,000	171,333	140,000	66,500	126,667	120,000	123,500	192,567	180,000	39,100	77,667	101,500
Feb 2019	43,111	65,241	39,000	180,000	184,630	180,000	78,000	133,889	120,000	127,778	197,963	170,000	36,556	76,019	101,500
Mar 2019	43,818	55,894	39,455	181,818	184,318	151,818	80,909	133,788	130,000	131,591	190,758	190,000	35,045	77,273	102,500
Apr 2019	65,333	61,361	42,000	181,667	180,278	172,500	88,833	135,000	130,000	132,500	187,500	190,000	43,333	82,222	102,500
May 2019	62,500	68,056	43,875	195,000	173,889	172,500	85,889	132,407	130,000	148,889	187,963	190,000	44,500	87,778	102,500
Jun 2019	64,889	71,185	45,000	181,667	166,481	172,500	92,333	126,296	130,000	148,056	183,333	190,000	42,056	88,148	102,500
Jul 2019	69,667	75,583	52,500	175,417	166,389	148,750	76,875	126,250	130,000	155,417	181,944	..	49,208	85,694	102,500
Aug 2019	72,136	77,432	60,000	191,818	178,864	125,500	89,000	129,318	160,000	147,773	190,000	162,000	55,818	92,955	145,000
Sep 2019	77,432	74,545	64,200	194,091	185,455	127,833	77,500	121,591	160,000	155,000	191,648	160,800	53,591	91,023	102,778

Source: Ministry of Industry, Trade, and Marketing.



Annex 7, Food Crops Prices (National Average, TZS per 100Kg.)

Month-Year	Beans	Maize	Rice	Round Potatoes	Sorghum
Oct-17	164,917	54,389	187,154	67,159	88,898
Nov-17	178,769	50,819	184,648	67,466	74,251
Dec-17	175,313	61,403	192,401	70,613	74,916
Jan-18	177,044	49,880	194,294	76,226	76,809
Feb-18	178,078	48,530	199,295	70,096	72,135
Mar-18	166,248	45,876	180,224	69,901	78,402
Apr-18	170,814	42,662	195,546	69,903	76,637
May-18	174,587	41,850	170,953	70,984	91,327
Jun-18	165,421	42,722	160,081	74,153	87,824
Jul-18	161,234	41,283	153,053	77,358	68,168
Aug-18	153,881	40,520	146,181	79,721	80,448
Sep-18	154,304	39,908	247,492	81,736	76,052
Oct-18	158,810	33,865	175,675	81,558	70,063
Dec-18	162,611	43,731	156,019	86,598	78,653
Jan-19	165,356	45,825	162,778	82,434	72,756
Feb-19	165,247	49,117	181,543	75,069	71,358
Mar-19	160,394	49,663	165,725	-	78,159
Apr-19	159,606	54,027	166,172	-	76,864
May-19	163,601	59,160	167,412	-	76,486
Jun-19	162,802	59,851	164,936	-	81,557
Jul-19	161,636	62,560	162,267	-	77,945
Aug-19	159,109	66,110	158,675	-	86,729
Sep-19	167,866	71,046	169,732	-	91,400

Source: Ministry of Industry, Trade, and Marketing.



Annex 8. Balance of Payments (Percent of GDP, except where noted otherwise)

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
1. CA balance (including transfers)	-7.8	-7.1	-7.9	-13.1	-10.5	-10.7	-9.8	-6.5	-3.0	-3.8	-3.9
Exports of Goods	11.7	12.4	15.0	15.5	12.9	12.0	11.1	12.4	9.9	9.0	8.5
o/w Gold											
Import of Goods	-21.6	-20.2	-20.1	-22.4	-25.3	-22.5	-23.5	-23.7	-20.6	-20.9	-21.7
Services (net)	0.6	0.5	0.5	0.2	1.3	1.4	1.7	2.0	3.6	3.2	3.1
Trade balance	-10.6	-9.1	-9.5	-14.1	-12.1	-12.3	-10.9	-7.4	-5.6	-5.9	-5.9
Income (net)	-1.1	-1.5	-1.9	-1.8	-1.5	-1.4	-1.8	-1.9	-1.9	-1.9	-1.9
Current transfers (net)	3.4	2.9	3.0	2.6	1.9	1.6	1.2	0.7	0.9	0.8	0.8
2. Capital and financial account	8.3	8.9	10.3	11.5	12.2	10.1	7.9	6.1	5.3	4.5	4.3
Capital account	1.4	1.7	1.7	2.2	1.8	1.6	0.9	0.7	0.9	0.9	0.8
Financial account	6.9	7.2	8.5	9.4	10.4	8.5	7.0	5.3	4.5	3.6	3.5
o/w Direct investment	3.9	3.2	4.6	4.2	4.6	4.4	3.4	3.3	1.8	1.9	1.8
3. Net errors and omission	-0.4	-0.2	-2.1	2.4	-0.6	1.1	1.4	-0.3	0.1	0.6	0.0
4. Overall balance	0.1	1.6	0.3	0.8	1.1	0.5	-0.6	-0.8	2.4	1.2	0.4
5. Reserves and related items	-0.1	-1.6	-0.3	-0.8	-1.1	-0.5	0.6	0.8	-2.4	-1.2	-0.4
Reserves assets	-0.9	-1.9	-0.4	-0.8	-1.4	-0.5	0.7	0.9	-2.3	-1.0	-0.2
Use of Fund credit and loans	0.9	0.3	0.1	-0.1	0.3	0.0	-0.1	-0.1	-0.2	-0.2	-0.2

Source: BOT., IMF, and World Bank.



Annex 9. Fiscal Framework (Percent of)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Prel. Actual	Estimates
Revenue and grants	15.3	15.9	15.4	15.6	14.0	14.8	16.3	15.7	14.3	18.0
Domestic revenue	11.9	12.6	12.8	13.5	12.8	14.3	15.3	14.9	14.0	17.1
Tax Revenues	11.0	11.3	11.7	12.3	11.6	12.8	12.9	12.6	11.6	14.2
Non-Tax Revenues	0.9	1.3	1.1	1.2	1.3	1.5	2.4	2.4	2.4	2.9
Grants	3.4	3.2	2.6	2.1	1.2	0.5	1.0	0.8	0.3	0.9
Program grants	2.2	1.8	1.2	0.9	0.6	0.1	0.3	0.3	0.1	0.2
o/w Basket funds	0.7	0.5	0.4	0.3	0.1	0.1	0.2	0.1	0.0	0.1
Project grants	0.8	1.1	1.0	0.9	0.6	0.4	0.7	0.5	0.2	0.7
Expenditure and net lending	19.5	18.9	20.5	18.5	17.1	18.3	17.4	17.0	16.9	20.4
Recurrent Expenditure	13.9	12.2	14.3	13.7	12.8	13.8	10.7	10.7	10.4	11.5
Wages and compensation	4.9	4.8	5.1	5.3	5.4	5.8	5.2	4.6	5.0	5.6
Interest Payments	0.7	0.8	1.2	1.3	1.5	1.5	1.6	1.7	1.8	1.8
Domestic	0.6	0.6	0.9	1.0	1.1	1.0	1.1	1.1	0.0	1.1
Foreign	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.6	1.8	0.7
Goods, services, and transfers	8.3	6.7	8.0	7.1	5.9	6.5	4.0	4.4	3.6	4.0
Development Expenditure	5.7	6.6	6.2	4.9	4.4	4.5	6.7	6.3	6.5	9.1
Domestically financed	2.0	3.3	2.9	2.5	2.7	3.0	4.7	4.5	5.0	7.2
Foreign financed	3.7	3.3	3.3	2.4	1.7	1.5	2.0	1.8	1.5	1.9
Overall balance (including grants)	-4.3	-3.0	-5.1	-2.9	-3.1	-3.5	-1.1	-1.9	-3.2	-2.3
Financing	4.8	3.6	5.0	3.3	3.3	3.5	1.5	1.9	3.2	2.3
Foreign financing (net)	2.2	3.0	3.9	3.0	3.1	1.4	1.6	1.4	0.9	1.3
Gross foreign borrowing	2.3	3.2	4.1	3.3	3.4	2.0	2.6	2.5	0.0	2.9
Program loans	0.8	0.7	0.8	1.0	0.6	0.5	0.2	0.1	0.0	0.1
Project loans	1.3	1.0	1.1	0.7	0.8	0.8	1.2	1.2	0.0	1.1
Nonconcessional loans	0.2	1.4	2.2	1.6	2.0	0.7	1.2	1.2	0.0	1.7
Amortization	-0.1	-0.1	-0.2	-0.2	-0.3	-0.6	-0.8	-1.1	0.0	-1.5
Domestic borrowing (net)	2.6	0.6	1.1	0.3	0.2	2.1	-0.1	0.5	2.3	1.1

Source: Tanzania authorities, IMF, and World Bank.



Annex 10. Monetary Aggregates (Percent of GDP, except where noted otherwise)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Monetary aggregates										
M3 as % of GDP	22.9	24.6	24.1	23.5	22.1	22.5	23.4	21.1	20.8	20.3
M2 as % of GDP	17.2	18.0	17.1	17.2	16.3	16.8	16.7	15.3	15.4	15.0
M3 growth rate (%)	17.7	25.4	18.2	12.5	10.0	15.6	18.8	3.4	8.0	4.5
M2 growth rate (%)	20.8	21.8	15.0	16.0	10.9	17.0	13.4	5.3	10.4	3.8
Domestic credit										
Total Domestic credit (% of GDP)	13.3	15.2	16.8	17.7	17.7	19.4	21.6	19.3	17.0	17.5
Total domestic credit growth (%)	21.3	32.8	33.8	21.3	17.4	24.1	26.8	2.5	-3.4	10.1
Private Sector credit (% of GDP)	13.0	13.4	14.1	14.5	14.2	15.0	16.4	15.3	14.2	14.0
Private Sector credit growth (%)	9.6	20.0	27.2	18.2	15.3	19.4	24.8	7.2	1.7	4.9
Interest rates structure										
Overall Tbilis rate (period average, %)	8.3	4.8	8.3	13.6	13.6	13.6	12.9	16.2	11.1	6.4
Average lending rate (%)	15.0	14.6	15.0	15.6	15.6	16.2	16.1	16.0	17.6	17.3
Average deposit rate (%)	6.8	5.9	6.3	8.4	8.3	8.4	8.9	9.2	10.0	8.2

Source: BOT.



Annex 11. Interest Rates Structure (Percent)

Item (Percent)	2018					2019							
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
A: Domestic Currency													
1. Interbank Cash Market Rates													
Overnight	1.9	1.9	2.1	2.4	3.0	3.5	4.5	5.3	5.2	5.3	5.5	5.0	4.6
2 to 7 days	2.4	2.7	2.6	3.1	3.4	3.9	5.3	5.8	5.8	5.8	5.8	5.4	4.9
8 to 14 days	2.7	3.3	2.9	3.9	4.1	4.8	5.7	6.3	6.4	6.2	6.2	5.6	5.4
15 to 30 days	4.0	4.0	4.3	4.3	4.7	4.5	5.0	7.0	7.2	7.2	6.9	5.5	5.8
31 to 60 days	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.7	7.0	7.3	7.8	6.1	6.3
61 to 90 days	2.5	2.5	2.5	2.5	2.5	2.5	2.5	8.0	10.0	10.0	10.0	10.0	10.0
91 to 180 days	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	..	..	..
181 and above	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	..	..	..
Overall Interbank cash market rate	2.2	2.3	2.3	2.7	3.3	3.7	4.7	5.6	5.5	5.6	5.7	5.4	4.9
2. Lombard Rate	4.0	4.1	4.1	4.1	4.5	6.8	6.8	7.9	7.8	8.0	8.2	7.6	7.0
3. REPO Rate	2.4	2.4	2.4	2.4	2.4	4.5							
4. Reverse REPO Rate	3.8	4.3	5.4	6.6	4.8	4.1	4.2	5.7	5.1	5.1	5.3	5.8	5.4
5. Treasury Bills Rates													
35 days	2.7	2.7	2.7	2.7	3.0	3.0	3.1	3.3	3.4	3.5	3.6	3.8	3.7
91 days	3.0	3.0	3.0	3.0	3.5	3.5	3.7	3.8	4.1	4.1	4.3	4.4	4.4
182 days	5.3	5.1	5.0	5.2	5.3	5.3	5.3	5.2	5.3	5.1	5.2	5.2	5.2
364 days	8.1	8.0	8.1	8.6	9.2	9.3	9.2	9.2	9.1	9.1	9.0	8.3	7.7
Overall Treasury bills rate	7.6	7.2	7.4	8.2	8.7	8.5	8.7	8.7	8.2	8.6	8.7	8.2	7.7
6. Treasury Bonds Rates													
2-years	9.0	9.0	10.5	10.5	10.5	11.4	11.4	11.4	12.0	12.0	12.0	12.0	11.1
5-years	11.9	11.9	11.9	12.0	12.0	12.0	12.7	12.7	12.7	13.0	13.0	13.0	13.0
7-years	12.3	12.3	12.3	12.6	12.6	12.6	13.2	13.2	13.2	13.2	13.2	13.2	13.2
10-years	14.4	14.4	14.4	14.4	14.9	14.9	14.9	15.1	15.1	15.1	15.7	15.1	15.2
15-years	14.8	14.8	15.0	15.0	15.0	15.5	15.5	15.6	15.6	15.6	15.7	15.7	15.7
20-years		17.7	17.7	17.7	17.7	17.7	17.4	17.4	17.4	17.4	17.4	17.4	17.4
7. Discount Rate or Bank Rate	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
8. Savings Deposit Rate	2.7	2.7	2.6	2.6	2.6	2.6	2.5	2.6	2.5	2.4	2.4	2.5	2.4
9. Overall Time Deposits Rate	7.6	8.2	7.8	7.7	7.5	7.3	7.2	7.6	7.4	7.6	7.4	7.3	7.0
1 month	8.2	8.8	9.7	9.8	8.9	9.2	9.7	9.2	8.5	8.9	8.6	8.2	8.3
2 months	8.3	9.4	8.3	7.6	8.2	7.3	7.2	8.3	8.3	7.9	7.4	7.7	4.9
3 months	7.9	8.0	7.3	7.6	7.3	6.6	6.8	8.0	7.4	7.6	7.6	6.8	7.6
6 months	8.4	8.8	8.1	7.4	7.4	7.4	7.5	8.0	8.1	8.3	8.3	8.5	8.0
12 months	7.8	7.4	8.0	7.9	8.4	8.7	8.5	9.0	8.1	8.9	9.1	9.1	8.9
24 months	11.9	13.7	11.4	11.3	10.3	10.1	9.8	9.5	9.7	9.9	9.8	9.8	9.8
10. Negotiated Deposit Rate	9.4	9.0	8.4	8.9	9.2	8.8	9.1	8.8	9.1	8.7	8.8	8.7	9.0
11. Overall Lending rate	17.1	17.5	17.1	17.0	16.7	17.2	16.8	17.2	17.2	17.2	16.9	16.9	16.8
Short-term (up to 1year)	18.2	18.7	17.8	18.2	17.8	17.0	16.4	17.5	16.9	17.0	16.4	16.3	16.3
Medium-term (1-2 years)	17.9	18.3	17.8	17.7	17.6	18.2	18.0	17.8	18.3	18.2	18.2	18.3	18.2
Medium-term (2-3 years)	17.4	17.8	17.4	17.3	17.1	17.8	17.3	19.0	17.9	17.8	17.6	17.4	17.5
Long-term (3-5 years)	16.8	17.1	16.7	16.6	16.2	17.1	16.9	16.8	16.7	17.1	16.6	16.7	16.6
Term Loans (over 5 years)	15.2	15.8	15.9	15.1	14.9	16.1	15.5	15.1	16.2	15.7	15.6	15.7	15.2
12. Negotiated Lending Rate	15.9	15.7	14.9	15.9	15.3	14.9	14.8	14.6	14.6	15.3	14.4	14.4	14.3
B: Foreign Currency													
Savings Deposits Rate	0.7	1.1	0.7	1.6	1.9	2.0	2.1	1.7	1.8	1.7	2.1	2.2	2.3
Overall Time Deposits Rate	3.5	3.5	3.5	3.6	3.6	3.4	3.2	3.1	3.1	2.6	2.8	2.3	2.3
1-months	3.4	3.4	3.5	3.2	3.4	3.3	3.3	2.7	2.8	1.6	1.9	1.8	2.2
2-months	3.2	3.9	4.0	4.5	4.6	4.5	3.2	2.9	3.3	2.8	3.4	3.0	3.2
3-months	3.8	3.5	3.1	3.3	3.3	3.2	2.7	3.5	3.7	2.3	2.9	2.3	1.9
6-months	4.1	3.5	3.9	3.6	3.3	3.2	3.4	3.1	2.9	2.8	2.4	1.7	1.9
12-months	3.0	3.3	3.1	3.3	3.4	3.1	3.3	3.1	3.1	3.4	3.5	2.5	2.4
Overall Lending Rate	8.0	5.9	6.9	7.7	8.3	8.0	7.7	7.6	7.5	8.2	8.1	8.0	7.5
Short-term (up to 1year)	8.7	7.1	7.3	7.5	8.9	6.8	6.8	8.2	8.2	8.5	7.9	7.6	7.5
Medium-term (1-2 years)	8.0	5.7	6.9	8.1	9.2	8.4	8.2	5.9	5.4	8.4	8.4	8.6	8.6
Medium-term (2-3 years)	7.6	4.6	7.2	7.5	7.8	8.0	7.6	7.8	7.9	7.7	7.6	8.3	8.3
Long-term (3-5 years)	8.1	5.6	6.2	8.1	8.2	8.9	8.0	8.0	8.0	8.4	8.3	7.7	7.7
Term Loans (over 5 years)	7.4	6.7	7.0	7.4	7.5	8.0	8.0	7.9	7.9	8.0	8.0	8.0	5.4

Source: BOT.



Annex 12. National Debt Developments (Million US\$)

USD mn	2018/19										2019/20	
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1. Overall External Debt Committed/2	27,972	28,292	28,436	28,761	28,909	29,293	28,989	28,882	29,111	29,574	29,516	29,057
Disbursed outstanding debt	18,775	18,891	19,122	19,254	19,370	17,724	19,641	19,715	19,755	20,029	20,287	19,877
Undisbursed debt	9,196	9,401	9,314	9,507	9,538	9,569	9,348	9,167	9,355	9,545	9,228	9,180
2. Disbursed Debt by Creditor Category/2	18,775	18,891	19,122	19,254	19,370	19,724	19,641	19,715	19,755	20,029	20,287	19,877
Bilateral debt	1,003	989	995	1,025	1,034	1,033	1,033	1,035	1,042	1,057	1,052	1,057
Multilateral debt	9,531	9,635	9,596	9,719	9,816	9,862	9,853	9,849	9,885	9,966	9,737	9,664
Commercial debt	6,372	6,276	6,494	6,472	6,484	6,779	6,706	6,818	6,801	6,923	7,422	7,149
Export credits	1,869	1,992	2,036	2,038	2,036	2,049	2,050	2,013	2,027	2,083	2,077	2,007
3. Disbursed Debt by Borrower Category/2	18,775	18,891	19,122	19,254	19,370	19,724	19,641	19,715	19,755	20,029	20,287	19,877
Central Government	14,850	14,957	14,943	15,107	15,216	15,436	15,369	15,441	15,477	15,727	15,804	15,713
Parastatal Companies	168	167	167	137	138	126	125	127	125	95	94	83
Private Sector	3,758	3,767	4,012	4,010	4,017	4,163	4,147	4,147	4,154	4,207	4,389	4,081
4. Disbursed Debt by Use of Funds/2	18,775	18,891	19,122	19,254	19,370	19,724	19,641	19,715	19,755	20,029	20,287	19,877
BOP & Budget Support	2,766	2,727	2,755	2,753	2,765	2,955	2,948	2,931	2,927	2,836	2,822	2,824
Transport & Telecommunication	4,058	4,220	4,280	4,302	4,325	4,312	4,296	4,382	4,425	4,634	4,957	4,794
Agriculture	1,216	1,211	1,224	1,243	1,252	1,251	1,252	1,248	1,246	1,256	1,253	1,258
Energy & Mining	2,990	2,960	2,994	3,016	3,020	3,069	3,093	3,067	3,070	3,105	3,097	3,082
Industries	640	650	664	656	657	657	662	660	658	666	663	640
Social Welfare & Education	2,959	2,967	3,004	3,009	3,049	3,151	3,150	3,201	3,209	3,254	3,237	3,272
Finance and Insurance	1,045	1,042	1,052	1,185	1,193	1,222	1,218	1,193	1,191	1,186	1,182	1,018
Tourism	109	116	118	152	152	152	152	171	171	171	171	169
Real Estate and Construction	1,076	1,078	1,087	1,079	1,091	1,091	1,072	1,071	1,069	1,109	1,117	1,113
Others	1,916	1,920	1,944	1,859	1,866	1,864	1,798	1,791	1,789	1,812	1,788	1,707
5. Total Amount of Loan Contracted/1	7	0	0	19	14	32	12	15	4	1	1	0
Government	0	0	0	0	0	0	0	0	0	0	0	0
Parastatal Companies	0	0	0	0	0	0	0	0	0	0	0	0
Private	7	0	0	19	14	33	12	15	4	1	1	0
6. Disbursements/1	95	98	46	183	57	299	64	174	61	292	335	25
Government	86	98	45	183	43	261	62	174	61	262	335	24
Parastatal Companies	0	0	0	0	0	0	0	0	0	0	0	0
Private	9	0	2	0	14	38	2	0	1	30	1	1
7. Actual Debt Service/1	139	29	74	150	44	83	131	55	60	161	4	388
Principal	102	16	46	108	18	70	98	38	27	114	1	365
Interest	37	12	29	42	26	13	34	17	33	46	3	23
Others	0	0	0	0	0	0	0	0	0	0	0	0
8. Net Flows on debt/1	-7	81	1	75	39	229	-34	136	34	177	334	-340
9. Net transfers on debt¹	-44	69	-28	33	13	216	-67	119	1	131	331	-363
10. Arrears by Creditors Category/2	4,428	4,386	4,448	4,436	4,506	4,603	4,729	4,733	4,726	4,789	4,863	4,604
Principal	2,647	2,587	2,643	2,630	2,684	2,752	2,850	2,860	2,845	2,898	2,918	2,726
Bilateral	321	311	309	316	321	321	318	321	319	621	320	316
Multilateral	104	114	115	119	123	133	142	117	118	117	118	111
Commercial	1,183	1,176	1,174	1,097	1,131	1,156	1,224	1,264	1,260	1,282	1,286	1,242
Export Credits	1,039	986	1,045	1,098	1,109	1,141	1,166	1,158	1,148	1,178	1,194	1,058
Interest	1,780	1,799	1,805	1,807	1,823	1,851	1,879	1,873	1,881	1,892	1,945	1,878
Bilateral	847	850	847	883	889	891	893	893	895	901	900	902
Multilateral	33	38	38	40	40	42	43	29	29	25	25	29
Commercial	537	569	572	508	516	534	550	554	553	536	590	587
Export Credits	363	342	349	376	378	384	393	397	404	429	430	361
11. External Debt Stock	20,556	20,690	20,927	21,061	21,193	21,575	21,520	21,588	21,636	21,921	22,232	21,755
12. Domestic Debt Stock	6,181	6,162	6,300	6,382	6,223	6,146	6,162	6,484	6,779	6,492	5,957	61,448
13. Total Debt Stock	26,737	26,852	27,226	27,443	27,416	27,721	27,682	28,071	28,415	28,413	28,190	27,903
End Period Exchange Rate	2,289	2,291	2,290	2,293	2,295	2,290	2,290	2,290	2,289	2,290	2,289	2,289

Source: Ministry of Finance and BOT.

Note: ¹During the period. ²Position at the end of the period.



Annex 13. Poverty by Geographical Region

	Poverty Headcount	Distribution of the Poor	Poverty Headcount	Distribution of the Poor
	HBS 2011/12	HBS 2011/12	HBS 2017/18	HBS 2017/18
Basic Needs Poverty Line¹ = TSh 36,482				
Urban	15.5	15.9	15.8	19.0
Rural	33.3	84.1	31.3	81.0
Regions				
Urban	21.7	14.4	15.8	16.0
Rural	33.3	84.1	31.3	81.0
Dar es Salaam	4.1	1.5	8.0	3.0
Total	28.2	100.0	26.4	100.0
Food Poverty Line¹ = TSh 26,085				
Urban	6.0	17.7	..	..
Rural	11.3	82.3	..	..
Regions				
Urban	8.7	16.7	..	..
Rural	11.3	82.3	..	..
Dar es Salaam	1.0	1.0	..	..
Total	9.7	100.0	8.0	100.0

Source: National Bureau of Statistics.

Note: ¹ Monthly expenditure per adult.

Annex 14: TARURA Charges

Type	Type of structure	Unit	Initial Charge (US\$)	Annual Charge (US\$)
Fiber optic cable	Line	Km	1,000	1,000
Telephone underground cable	Line	Km	50	30
Duct >0.28m ²	Line	Km	100	100
Gas/oil	Pipe	Km	50	30
Water	Pipe	Km	50	0
Sewage	Pipe	Km	50	0

Source: Tanzania Internet Service Providers Association 2019.

Annex 15: Rights of Way Charges, in Tanzania, Rwanda and Zambia

	Tanzania	Rwanda	Zambia
Initial charge	\$1,000 per km	0	\$503 per km
Annual charge	\$1,000 per km	0	0

Source: Tanzania Internet Service Providers Association 2019.



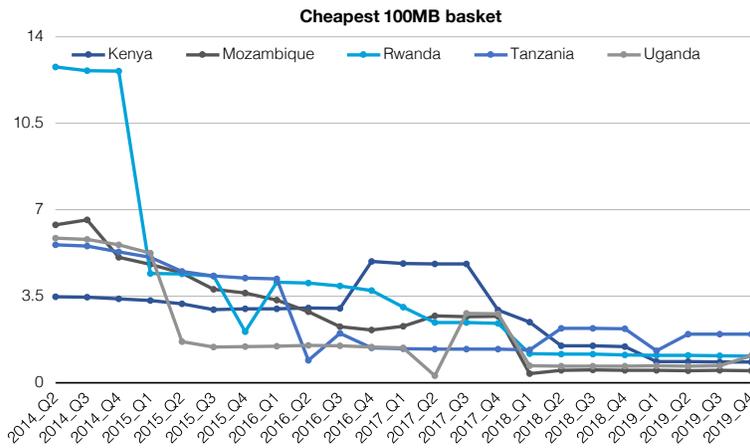
Annex 16: Tanzania's mAccess Scores

TANZANIA				
BENCHMARK Kenya / Mozambique / Rwanda / Uganda				
AFFORDABILITY ⓘ				
Mobile prepaid voice basket (USD)	Country-level Indicator	Traffic Light	Comparison Average	Source
1.23	1.23		2.72	RIS Q4_2019
Mobile prepaid voice basket (USD) largest operator	4.35		3.97	RIS Q4_2019
Mobile prepaid 1GB basket (USD)	2.17		2.07	RIS Q4_2019
Mobile prepaid 1GB basket (USD) largest operator	4.35		3.44	RIS Q4_2019
Effective price (USD)	0.02		0.02	GSMA Q4_2019
ACCESS ⓘ				
Active SIM cards per 100 inhabitants	Country-level Indicator	Traffic Light	Comparison Average	Source
69.72	69.72		65.27	ITU June 2019 (2018 data)
Mobile internet users per 100 inhabitants	18.63		23.84	GSMA Q4_2019
Mobile broadband connections per 100 inhabitants	40.58		37.11	GSMA Q4_2019
Land-lines per 100 inhabitants	0.22		0.27	ITU June 2019 (2018 data)
USAGE ⓘ				
Average revenue per user in USD (Blended ARPU)	Country-level Indicator	Traffic Light	Comparison Average	Source
2.24	2.24		2.8	GSMA Q4_2019
Minutes of Use (MOU) per active SIM	-		0	GSMA Q4_2019
Mobile Data traffic per active SIM	-		163.67	GSMA Q4_2019
Facebook users per 100 inhabitants	7.7%		8.1%	Facebook May 2019
M2M connections per 100 inhabitants	0.77		1.33	GSMA Q4_2019
INFRASTRUCTURE ⓘ				
International bandwidth per user (kbps)	Country-level Indicator	Traffic Light	Comparison Average	Source
1.74	1.74		17	ITU June 2019 (2018 data)
% Population covered by 3G signal	85%		73.7%	ITU June 2019 (2018 data)
% Population covered by 4G signal	13%		28.8%	ITU June 2019 (2018 data)
Connections per Base stations	62		96	GSMA Q4_2019
Country level investment per subscriber in USD	1.21		1.41	GSMA Q4_2019
COMPETITION ⓘ				
Market concentration (HHI)	Country-level Indicator	Traffic Light	Comparison Average	Source
2,572	2,572		4,045	GSMA Q4_2019
Number of Mobile Operators (excluding MVNO)	8		5.8	GSMA Q4_2019
Market share of largest mobile operators	32.6%		48.2%	GSMA Q4_2019
Highest MNO EBITDA Margin in country	29.5%		42.6%	GSMA Q4_2019
Interconnection: Mobile Termination Rates (US ¢)	1.88		2.56	TMG 2015
Mobile-specific taxes / TCMO	15.2%		7.8%	GSMA 2016 (2014 data)

Source: RIS.



Annex 17: 100MB Basket Prices, 2014–19



Source: RIS, 2019.

Annex 18: Vodacom Tanzania, Quarterly Key Performance Indicators, 2018 – 19

	31 Dec 2018	31 Mar 2019	30 Jun 2019	30 Sep 2019	31 Dec 2019
Voice customers	14,070	14,133	14,322	14,755	15,598
Quarter on quarter		0.45%	1.34%	3.02%	5.71%
Data customers	8,132	7,892	8,106	8,166	8,369
Quarter on quarter		-2.95%	2.71%	0.74%	2.49%

Source: Vodacom Tanzania Q3 Trading Update 2019.

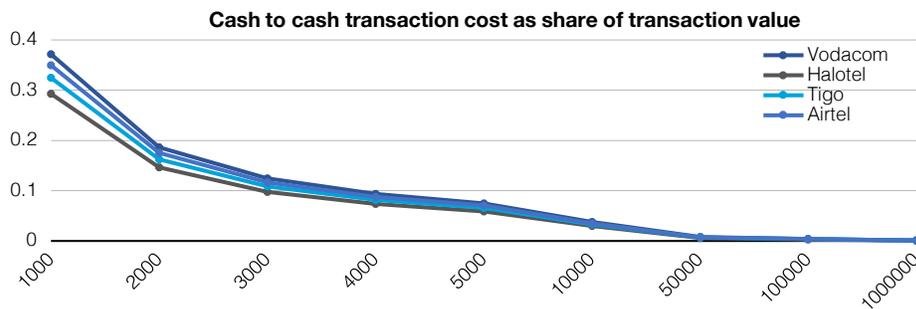
Annex 19: Airtel Quarterly KPIs for East Africa

	Dec 2018	Mar 2019	Jun 2019	Sep 2019	Dec 2019
Voice revenue (\$ Million)	154	143	144	158	161
Quarter on quarter		-7.14%	0.70%	9.72%	1.90%
Data revenue (\$ Thousands)	67	67	71	75	83
Quarter on quarter		0.00%	5.97%	5.63%	10.67%
Data usage per customer (MB)	1,310	1,459	1,671	1,905	1,991
Quarter on quarter		11.37%	14.53%	14.00%	4.51%

Source: Airtel 2020.



Annex 20: Mobile Money Transaction Costs, 2019, TZS



Source: Operator websites, Nov 2019.

Annex 21: Trade in Digital Services, 2005-17

	Imports		Exports	
	Current Prices, US\$ millions	Share of Total Trade in Services (%)	Current Prices, US\$ millions	Share of Total Trade in Services (%)
2005	114.851	9.5	168.142	13.2
2006	127.592	10.2	173.014	11.3
2007	219.696	15.5	304.613	16.2
2008	182.939	11.0	301.943	15.1
2009	276.957	16.1	297.86	16.1
2010	257.177	13.6	292.394	14.3
2011	258.54	11.7	345.68	15.0
2012	282.673	12.0	394.972	14.2
2013	246.946	9.9	468.679	14.6
2014	319.519	11.9	459.796	13.5
2015	304.702	11.4	439.854	12.9
2016	277.875	12.5	391.299	10.8
2017	324.337	16.1	419.592	10.9

Source: UNCTAD.



References

- Airtel Africa. 2020. Report on the results for the third quarter and nine months ended December 31, 2019. https://airtel.africa/assets/pdf/IR_Pack_Q3_20.pdf.
- Airtel, 2019. Network coverage map. <https://www.airtel.co.tz/openNetworks>.
- Arntz, Melanie Gregory, Terry Zierahn, Ulrich. 2016. "The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis." OECD Social, Employment and Migration Working Papers Vol. 189. <https://doi.org/10.1787/5jlz9h56dvq7-en>.
- article19.org, "Cybercrimes Act upheld in further blow to free expression", <https://www.article19.org/resources/tanzania-cybercrimes-act-upheld-in-further-blow-to-free-expression/>.
- Autor, David. "Why Are There Still So Many Jobs? The History and Future of Workplace Automation," *Journal of Economic Perspectives* 29, no. 3 (2015): 3–30.
- BOT. 2019 statistics for November. <https://www.bot.go.tz/PaymentSystem/statistics.asp>
- Beegle, Kathleen, and Luc Christiaensen, eds. 2019. *Accelerating Poverty Reduction in Africa*. Washington, DC: World Bank. doi:10.1596/978-1-4648-1232-3. License: Creative Commons Attribution CC BY 3.0 IGO
- Bukht, Rumana, and Richard Heeks; 2017. *Defining, Conceptualising and Measuring the Digital Economy*. https://www.researchgate.net/publication/327356904_Defining_Conceptualising_and_Measuring_the_Digital_Economy.
- Canada's Digital Charter in Action: A Plan by Canadians for Canadians. 2019. [https://www.ic.gc.ca/eic/site/062.nsf/vwapj/Digitalcharter_Report_EN.pdf/\\$file/Digitalcharter_Report_EN.pdf](https://www.ic.gc.ca/eic/site/062.nsf/vwapj/Digitalcharter_Report_EN.pdf/$file/Digitalcharter_Report_EN.pdf).
- Comninos, A., S. Esselaar, A. Ndiwalana, and C. Stork. 2009. *Towards Evidence-based ICT Policy and Regulation: M-banking the Unbanked, Volume 1, Policy Paper 4*, ISSN 2073-0845. Research ICT Africa.
- Czernich, N., Falck, O. Kretschmer, T., & Woessmann, L. 2009. *Broadband Infrastructure and Economic Growth*, CESifo Working Paper Series 2861, CESifo Group Munich. https://ideas.repec.org/p/ces/ceswps/_2861.html
- Deloitte. 2017. *Communications Infrastructure Upgrade: The Need for Deep Fibre*. <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-tmt-5GReady-the-need-for-deep-fibre-pov.pdf>
- Grant Thornton. 2018. *A Study of the Economic Benefits of Data Centre Investment in Ireland* <https://www.idaireland.com/newsroom/publications/ida-ireland-economic-benefits-of-data-centre-inves>; and Oxford Economics, <https://www.oxfordeconomics.com/recent-releases/d8d830e4-6327-460e-95a5-c695a32916d9>
- GSMA. 2019. *Digital Transformation in Tanzania: The Role of Mobile Technology and Impact on Development Goals*. <https://www.gsmaintelligence.com/research/?file=783bb9b0ab8e6e53361607a838d25dcb&download>.
- GSMA Mobile Coverage Maps. N.D. https://www.mobilecoveragemaps.com/map_tz#7/-6.599/35.673.
- Günther, Isabel, and Kenneth Harttgen. 2016. "Desired Fertility and Number of Children Born across Time and Space." *Demography* 53 [[pages?]]



- Hjort, J., and L. Poulsen. 2018. "The Arrival of Fast Internet and Employment in Africa." *American Economic Review*. VOL. 109, NO. 3, March 2019: 1032-1079. <https://www.nber.org/papers/w23582>.
- ITU. 2013. "Taxing Telecommunication/ ICT Services: An Overview." <https://www.itu.int/en/ITU-D/Regulatory-Market/Documents/Publications/Taxation2%20E-BAT3.pdf>.
- . 2017. *Measuring the Information Society*. <https://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2017.aspx>.
- . . 2019. *Interactive Transmission Maps*. Online at <https://www.itu.int/en/ITU-D/Technology/Pages/InteractiveTransmissionMaps-old.aspx>
- Kabendera, E. 2015. "Tanzania allows Viettel to lay its own fibre optic cable." <https://www.theeastafrican.co.ke/business/Tanzania-allows-Viettel-to-lay-its-own-fibre-optic-cable-/-/2560/2928818/-/b8kfut/-/index.html> .
- Kenya. 2019. *Digital Economy Blueprint*. <https://www.ict.go.ke/wp-content/uploads/2019/05/Kenya-Digital-Economy-2019.pdf>.
- Koutroumpis, P. 2018. "The economic impact of broadband: evidence from OECD countries". https://www.ofcom.org.uk/__data/assets/pdf_file/0025/113299/economic-broadband-oecd-countries.pdf
- Lima, J. M. 2016. "Chinese-built Tanzania data centre attracts East African countries." <https://data-economy.com/chinese-build-tanzania-data-centre-attracts-east-african-countries/>.
- Malibiche, A. 2018. "Tanzania's Digital ID Ecosystem Roadmap: A Vision for Integration and Enhanced Service Delivery." http://www.id4africa.com/2018_event/Presentations/PS2/1-2-2_Tanzania_Alphonse_Malibiche.pdf.
- Mokyr, Joel, Chris Vickers, and Nicolas L. Ziebarth. 2015. "The History of Technological Anxiety and the Future of Economic Growth: Is This Time Different?" *Journal of Economic Perspectives* 29 (3): 31–50. <https://doi.org/10.1257/jep.29.3.31>.
- Ng'wanakilala, F. 2016, May 16. "Tanzania says over 10,000 ghost workers purged from government payroll." <https://www.reuters.com/article/us-tanzania-corruption/tanzania-says-over-10000-ghost-workers-purged-from-government-payroll-idUSKCN0Y70RW>.
- OECD (2013), "Broadband Networks and Open Access", OECD Digital Economy Papers, No. 218, OECD Publishing. <http://dx.doi.org/10.1787/5k49qg7crmr-en>
- OpenCellID, N.D. The world's largest Open Database of Cell Towers. www.opencellid.org.
- Pajarinen, M., Rouvinen, P. 2014. "Computerization threatens one third of Finnish employment" ETLA Brief No 22. <http://pub.etla.fi/ETLA-Muistio-Brief-22.pdf>
- Piva, Mariacristina, and Marco Vivarelli. 2017. "Technological Change and Employment: Were Ricardo and Marx Right? IZA DP No. 10471, IZA Institute of Labor Economics.
- Qiang, C. Z., Rossotto, C., Kimura, K. 2009 *Economic Impacts of Broadband*. In *Information and Communications for Development 2009: Extending Reach and Increasing Impact*, 35–50. Washington, DC: World Bank.
- Research ICT Africa, 2018. *Nationally Representative surveys*. <https://researchictafrica.net/data/after-access-suSveys/>.
- RIS 2019. *mAccess Tool*. https://researchichtsolutions.com/usaid_dashboard/login.php.
- Scott, Colin. 2012. "Does Broadband Internet Access Actually Spur Economic Growth?" <http://www>.



eecs.berkeley.edu/~rscs/classes/ictd.pdf.

Smolaks, M. 2017. "Tanzania's largest data centre is struggling to find customers." <https://www.datacenterdynamics.com/news/tanzanias-largest-data-center-is-struggling-to-find-customers/>.

TCRA (Tanzania Communications Regulatory Authority). 2019. Quarterly Communications Statistics. <https://www.tcra.go.tz/index.php/quarterly-telecommunications-statistics> .

Telegeography. 2019a. "Bharti Airtel gives 9% stake in Tanzania unit to govt." <https://www.telegeography.com/products/commsupdate/articles/2019/01/14/bharti-airtel-gives-9-stake-in-tanzania-unit-to-govt/>

———. 2019b. Global Bandwidth Forecast Service. www.telegeography.com

———. 2019c. Global Internet Geography. www.telegeography.com

———. 2017a, 20 Feb. "Halotel to invest USD100m in network expansion this year." <https://www.telegeography.com/products/commsupdate/articles/2017/02/20/halotel-to-invest-usd100m-in-network-expansion-this-year/>.

———. 2017b, 23 Jun. "Tigo to invest USD70m in mobile network, increases 4G coverage to 23 cities." <https://www.telegeography.com/products/commsupdate/articles/2017/06/23/tigo-to-invest-usd70m-in-mobile-network-increases-4g-coverage-to-23-cities/> .

UNCTAD, 2019. Digital Economy Report. <https://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=2466> .

United Republic of Tanzania (URT). 2016. National Information and Communication Technology Policy. https://www.tcra.go.tz/images/documents/policies/NATIONAL_ICT_POLICY_2016_2.pdf.

Vodacom. 2018, Vodacom in Tanzania Annual Report, 2018. https://vodacom.co.tz/en/investors_relations/?SID=rli66fvkhldemmcaad41fjh0v2 .

Vodacom Tanzania. 2020. Preliminary Results for December 2019. https://vodacom.co.tz/en/preliminary_results/

World Bank. 2020a. Household survey findings on mobile phone adoption: Has the digital revolution come to Tanzania? Washington DC

———. 2020b. Tanzania Mainland Poverty Assessment. [[Dar WB office or DC?]]

———. 2019a. Africa's Pulse, Vol 19. Special sections on fragility and digital transformation. <https://openknowledge.worldbank.org/handle/10986/31499>. Washington DC.

———. 2019b. Doing Business. https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf. Washington DC.

———. 2018. Information and Communication for Development: Data-driven Development. <https://openknowledge.worldbank.org/handle/10986/30437>. Washington DC.

———. 2017. ICT Household survey of mobile money usage in Somalia. <https://www.alticonsulting.com/insights/mobile-money-ecosystem-somalia/> Nairobi, Kenya.

———. 2016. World Development Report: Digital Dividends. Washington DC.



