

# Mobile Tax Policy and Digital Development

A study of markets in Sub-Saharan Africa

October 2023



## GSMA

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The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

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This research was conducted by GSMA's Regulatory Modernisation Programme team as a contribution to the debate on digital infrastructure development and fiscal policy, and we accept no responsibility for any other use that might be made of it. We thank our members, external partners and colleagues for their contributions to this report.

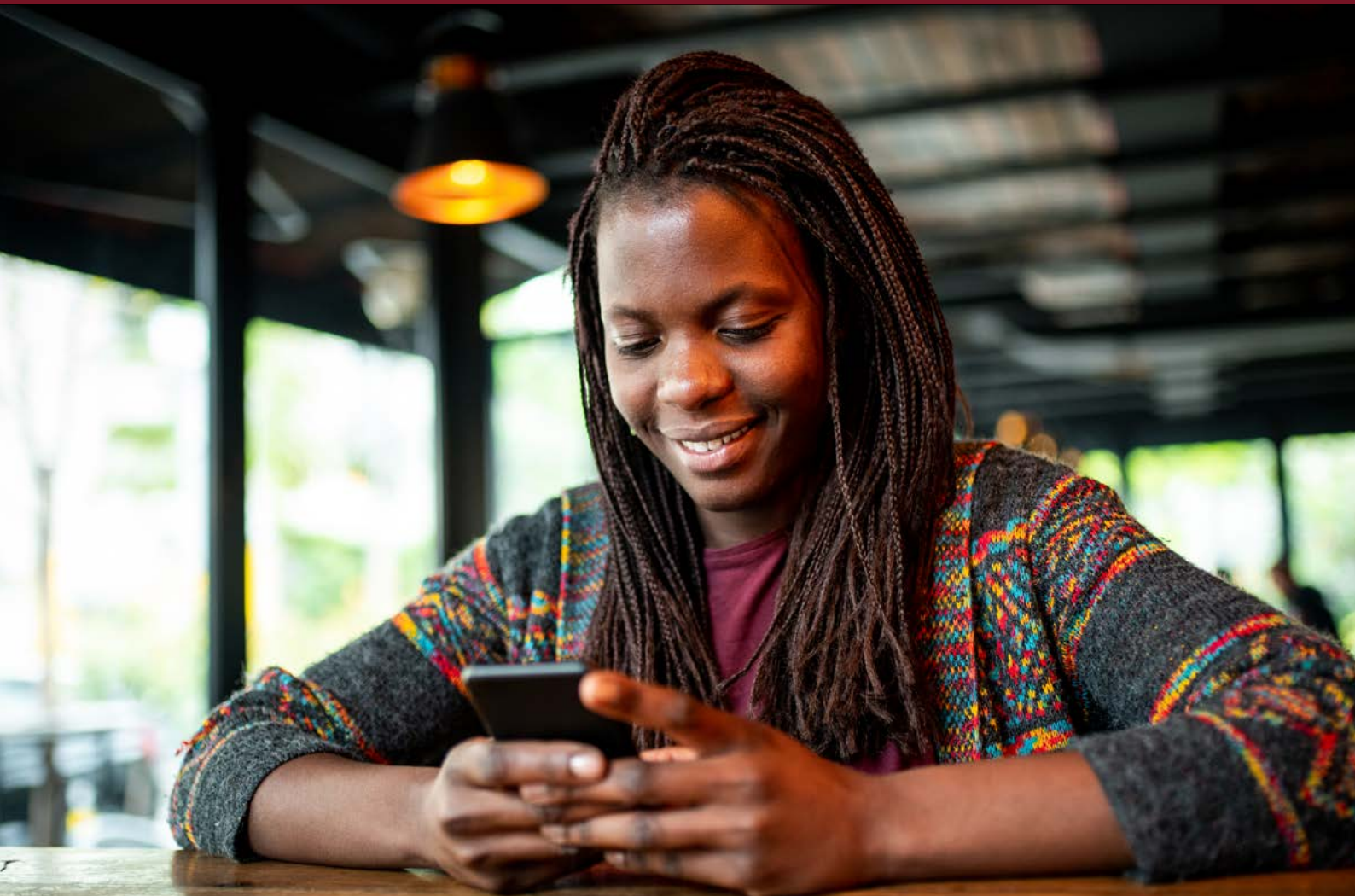
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# Executive Summary



The mobile economy in Sub-Saharan Africa (SSA) has grown enormously during the past two decades. By the end of 2021, 515 million people in the region subscribed to mobile services, and this is expected to reach 613 million unique subscribers by 2025.<sup>1</sup> In 2021, the mobile sector generated 8% of GDP, equivalent to more than USD 140 billion of economic value added. Despite this progress, in 2022, both the usage gap (61%) and the coverage gap (17%, nearly one-fifth of the region's population) remain significantly high. A crucial factor affecting the usage and coverage gaps is the substantial tax burden imposed on the mobile sector, including taxes on consumers and operators, especially in the form of sector-specific levies. High taxes on consumers directly affect the affordability of mobile devices and services, while taxes on operators curtail their ability to invest in expanding mobile network coverage.

**Mobile consumers and operators in SSA are subject to a substantial tax burden, increasingly driven by sector-specific taxes and fees, which exacerbates affordability and coverage barriers.**

In 2021, in 18 SSA countries for which data is available, the mobile sector paid an estimated USD 9 billion in taxes and fees representing 30% of mobile sector revenues, on average. Mobile sector-specific taxes are a key contributor to total tax payments. On average, sector-specific taxes represent approximately 9% of total market revenue. In all but four countries in the sample, sector-specific taxation causes mobile sector tax payments as a proportion of total government revenues to be higher than the sector's size in the economy (measured by market revenues as a proportion of GDP). For example, in Sudan, the mobile

sector accounts for 9% of government revenues, while only constituting 1% of the economy — a seven-fold difference.

This report compares the tax burden of the mobile sector with that of the mining sector by analysing its tax contributions in relation to economic size in a number of SSA countries where data is available. Findings show that, in 6 out of 7 countries compared, the mining sector makes an equal or lower tax contribution relative to its economic size. This illustrates the outsized taxation borne by mobile operators.

<sup>1</sup> GSMA, The Mobile Economy Sub-Saharan Africa, 2022.

**Affordability remains a substantial barrier to internet access for lower-income and underserved populations.**

Sector-specific excise taxes on mobile services and high import duties on mobile devices make mobile internet highly unaffordable in SSA, impeding the adoption of broadband services. In 2022, data analysis across 41 SSA countries indicates that a basic internet-enabled mobile phone costs an average of 44% of the monthly GDP per capita. However, for individuals in the lowest 40% income bracket, this cost amounts to 113% of their GDP per capita, soaring as high as seven times the monthly GDP per capita in Burundi. Similarly, 1 GB of data costs, on average, 4% of monthly GDP per capita in 42 SSA countries, but for those in the bottom

40% income group, it represents 12%, reaching as high as 115% in Central African Republic.

Consumer taxes, primarily driven by high custom duties on imported handsets, have a significant impact on handset prices in SSA. Taxes make up 21% of the cost of a basic internet-enabled handset, on average, across 36 SSA countries. Likewise, taxes on the use of mobile services driven by excise duties contribute substantially to the total cost of internet usage in the region. In 40 SSA countries analysed, taxes average out to 17% of the cost of a 1GB data bundle.

**The multitude of taxes and frequent tax changes negatively impacts the business environment and hinders operators' capacity to invest in network expansion and coverage.**

The mobile industry make substantial up-front investment in spectrum licences, equipment and network expansion. From 2017 to 2021, mobile operators invested about USD 43 billion, reducing the coverage gap from 50% in 2014 to 17% in 2021. Nonetheless, SSA still has 48% of the world's uncovered population, approximately 200 million people in 2021. The multitude of taxes and fees including service fund (USF) levies, annual license fees, recurring spectrum fees imposed on revenues directly impairs operators' financial capacity to undertake substantial investments in network expansion. Additionally, in certain markets, mobile operators

face additional profit taxes or higher-than-standard corporate tax rates, creating disparities between the mobile sector and other industries and potentially distorting investment dynamics within the sector.

Apart from the prevalence of sector-specific taxation, numerous SSA countries have experienced frequent tax reforms over the past five years, resulting in numerous increases (49) and decreases (23) in taxes affecting the mobile sector. This contributes to an unstable tax environment that has the potential to adversely affect effective investment planning within the sector.

**Case studies in the SSA region indicate that mobile taxation can adversely affect investment levels in the mobile sector and the adoption of mobile services, potentially leading to a negative impact on government revenues.**

In Zimbabwe, mobile investment and usage have been impacted by the challenging macro-economic environment, but also by an increasing burden in mobile sector taxation. This is because the additional taxation burden is transmitted both to end-users as additional costs, and to operators as reduced incentives to invest. As a result, base station deployments have stalled. Few new sites have been deployed since 2017, with the exception of some 4G expansion at the end of 2021.

In Kenya, the excise duty on mobile services is one of the highest in SSA, having increased from 10% to 15% in 2018 and then from 15% to 20% in 2021. These increases contributed to higher prices, decreased usage and eventually lower-than-expected revenues for the government. The reduction in usage for certain segments led to a 20% reduction in revenues collected from the airtime tax in 2021.

**Governments in SSA are turning to levies imposed on Mobile Money (MM) services to generate revenue, but evidence indicates that these taxes have counterproductive effects.**

Governments in SSA are turning to levies on mobile money (MM) services for revenue generation. However, evidence shows these taxes are counterproductive, as MM users rapidly reduced their usage of MM in favour of alternative payment methods such as cash, producing a reversal of progress

in financial inclusion and reducing government revenues. For example, in Tanzania, transactions dropped drastically from 30 to 18 million (-38%) per month when the levy on electronic transactions was introduced in July 2021.

**Rebalancing mobile sector taxation can foster connectivity, spur economic growth, encourage investment and enhance fiscal stability.**

Governments across the world have recognised the importance of policies that support the ICT sector, resulting in digital agendas that set ambitious connectivity objectives, often relying on mobile networks to fulfil them. In line with best-practice principles of taxation recommended by international

organisations such as the World Bank and the IMF, we have identified the following recommendations that could help countries in SSA balance the competing objectives of raising government revenues while minimising the distortive impacts of taxation on digital development.

**Recommendation 1:****Remove the tax-induced barriers to the affordability of mobile and mobile services by:**

- Eliminating or decreasing sector-specific excise taxes applied to mobile services
- Reducing or eliminating import duties on mobile handsets and refraining from imposing higher VAT rates than the standard rate
- Removing fixed-rate taxes imposed on consumers, such as activation and numbering taxes, which disproportionately affect individuals with lower incomes and contribute to making mobile services less affordable for them

**Recommendation 2:****Create a conducive tax environment to enhance operators' ability to invest in upgrading and expanding mobile networks by:**

- Removing sector-specific taxes and fees on mobile operators, particularly those imposed on operators' revenues irrespective of profitability, to ensure fair treatment of the sector and encourage investment in mobile infrastructure
- Removing import duties on the import of network equipment to reduce the cost of operators' investment in network expansion and innovation
- Streamlining and stabilising taxes within the mobile sector to reduce operators' compliance expenses and offer them predictability, enabling more effective investment planning
- Considering tax incentives to compensate for operators' commitments to low-return investments, such as deploying connectivity in underserved, remote and rural regions

**Recommendation 3:****Expand and strengthen access and use of mobile money and digital government services by:**

- Avoiding imposition of taxes on MM services, thereby improving their accessibility and use
- Integrating MM into government payment systems, which could potentially lead to increased transparency, improved service delivery efficiency, and enhanced revenue mobilisation.





# 1. Domestic Revenue Mobilisation in SSA



Governments in SSA have long been faced with the need to increase domestic revenues while balancing objectives of appropriately allocating resources to reduce poverty and inequality, improve private sector development, and achieve their digital agendas for greater digital and financial inclusion – among other policy priorities.

Furthermore, countries in SSA are currently exposed to increased economic and political risks as the global economy experiences economic pressures and political instability. Global growth is projected to fall from an estimated 3.5 % in 2022 to 3 % in 2023 and 2024 and the rise in central bank rates to fight inflation and Russia’s war in Ukraine continue to weigh on economic activity. In particular, tighter global financing costs could worsen debt distress risks for SSA countries with dollar denominated debts, as seen already in a number of countries in the region. As a result of this macro-economic environment the International Monetary Fund (IMF) estimates that about 56% of low-income

developing countries are either already in debt distress or at high risk of it, and about 25 percent of emerging market economies are also estimated to be at high risk.<sup>2</sup>

Furthermore, rising commodity prices, especially for food and energy, have caused particular distress in recent years in energy and food-importing countries – the UN FAO food price index reported a 13.1% increase year-on-year in July 2022.<sup>3</sup> Some oil-exporting countries in Africa have been able to reap benefits from rising commodity prices but there remains a widespread need to reign in fiscal spending and raise more tax revenues throughout the region.

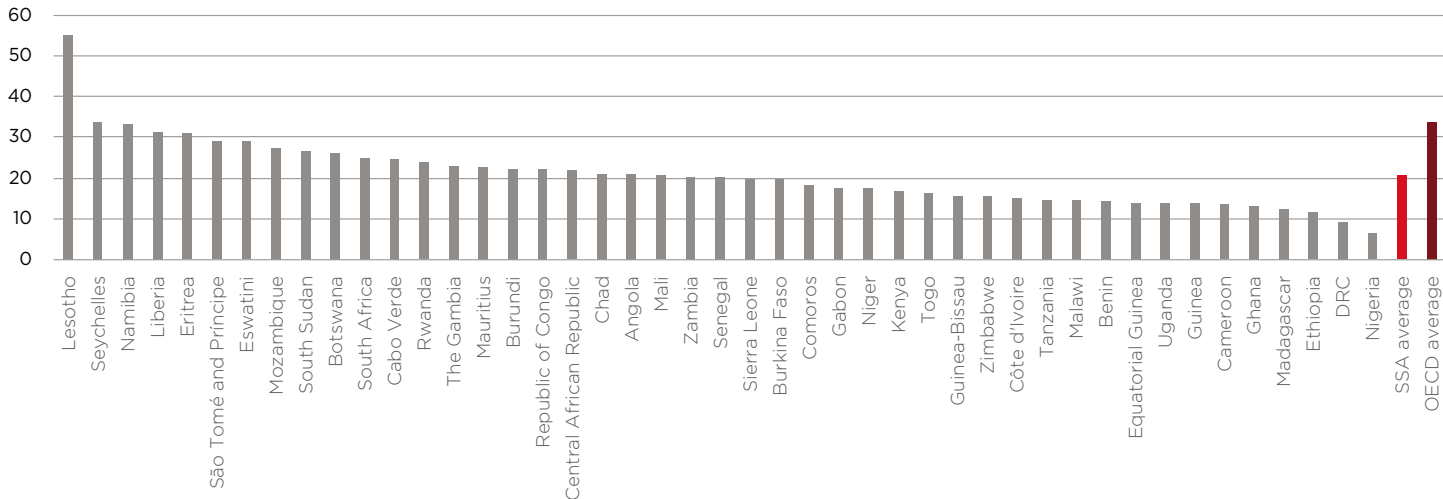
## 1.1 Government revenue in SSA

Historically, governments of SSA countries have struggled to raise domestic revenues at levels comparable to the rest of the world due to their large informal sectors, low tax administration capacity,

and low direct tax revenues. The IMF estimates that in many of these countries there is an additional tax capacity of 2% - 4% of GDP.<sup>4</sup>

FIGURE 1.1

TAX-TO-GDP RATIOS IN SSA



Source: IMF World Economic Outlook 2023 and OECD Global revenue statistics. See also <https://www.ictd.ac/dataset/grd/>

The average tax-to-GDP ratio for the SSA region is around 20%, well below the OECD average of 33% and with several countries below 15%, including large

economies such as Nigeria, Ethiopia, Ghana, Tanzania and Uganda.

2 IMF World Economic Outlook April 2023 and update July 2023.  
 3 <https://www.fao.org/worldfoodsituation/foodpricesindex/en/> .  
 4 <https://www.imf.org/en/Publications/WP/Issues/2022/01/28/Progress-of-the-Personal-Income-Tax-in-Emerging-and-Developing-Countries-512234>



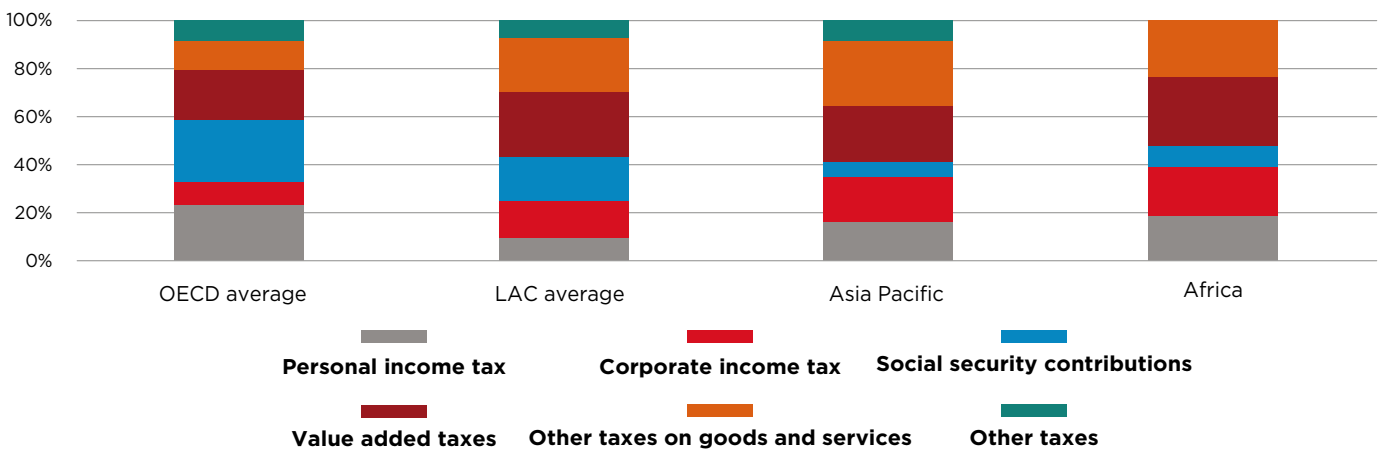
## 1.2 Tax structures and the informal economy

Indirect taxes account for the majority of tax revenues in SSA countries, which are easier to levy on highly informal economies, as opposed to direct taxes like personal income tax and social security contributions.<sup>5</sup> The main indirect taxes are on goods and services (including VAT and special excises on mobile), which are relatively easier to administer, and they have

grown in popularity as revenue from trade tariffs have declined. However, there are equity concerns around over-dependence on indirect taxes because consumption taxes can be regressive (such as taxes on basic food items), i.e. they take a disproportionately larger share of income from low-income groups.

FIGURE 1.2

REVENUE COMPOSITION, AS A % OF TOTAL TAX REVENUE



Source: OECD Africa Revenue Statistics 2022. Figures are for 2020 and for Africa include a panel of 31 countries.

5 African Tax Administration Forum, Africa Tax Outlook 2021, and OECD Revenue statistics 2021. Informality represents over 85% of employment in Africa, see ILO (2018). Women and men in the informal economy: A statistical picture.  
 6 OECD, Africa Revenue Statistics 2021.

In 2020, revenues from VAT contributed 27.8% of total tax revenues on average in 31 African countries, the largest share of tax revenues and higher than the OECD average (20.3%). However, VAT revenues for the Africa average are lower than the OECD average when measured as a share of GDP (4.5% of GDP in Africa,

compared to 6.7%). Corporate income tax provided 19.3% of tax revenues, compared to 9.6% in the OECD and 15.8% in LAC. The share of Personal Income Tax revenues was 18.5%, lower than the OECD average of 23.5%.<sup>6</sup>

## 1.3 Taxing the digital economy

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In recent years, the digitalisation of the global economy has presented fiscal policymakers in SSA with further challenges. Increasing revenues from direct taxation have proven more difficult due to large digital companies having no physical presence in SSA countries and thus paying corporation tax elsewhere.

The OECD/G20 Base Erosion and Profit Shifting Project has been working on addressing the tax challenges arising from digitalisation, with the objective to update the current international tax system based on physical presence and “profit allocation” rules based on the arm’s length principle, to reflect changes brought about by the digitalisation of the economy, namely the phenomena of digital companies having scale without mass (no physical presence), reliance on intangible assets, and the centrality of data.<sup>7</sup>

New rules have been developed for a minimum corporation tax and a re-allocation of taxing rights towards market jurisdictions where physical presence is not already established, but progress has been slow, and the agreements are currently undergoing consultation and legislative processes in each of the 139 signatory countries.

However, even if and when the rules are in place, the increase in revenue for SSA countries might be modest. For example, Research ICT Africa has calculated that Tanzania could expect about USD 6.6 million in taxes from the new OECD tax regime, Kenya around USD 10 million and Uganda around USD 3.8 million.<sup>8</sup> Moreover, many countries have decided to go ahead with unilateral Digital Service Taxes, some with a commitment to remove them when the OECD framework is in place.<sup>9</sup>

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7 <https://www.oecd.org/tax/beps/beps-actions/action1/>

8 <https://researchictsolutions.com/home/webinar-on-digital-taxation-in-east-africa/>

9 <https://www.bdo.global/en-gb/microsites/digital-services-taxation/taxation-of-the-digital-economy>

## 1.4 Non-tax revenue and debt

Government spending is financed through taxes and also by non-tax revenue, including grants from other national governments or international organisations (development assistance or aid), revenues and royalties from natural resources, and by borrowing.<sup>10</sup> However, these sources are more volatile, and therefore countries with low tax-to-budget ratios are more subject to external shocks.<sup>11</sup>

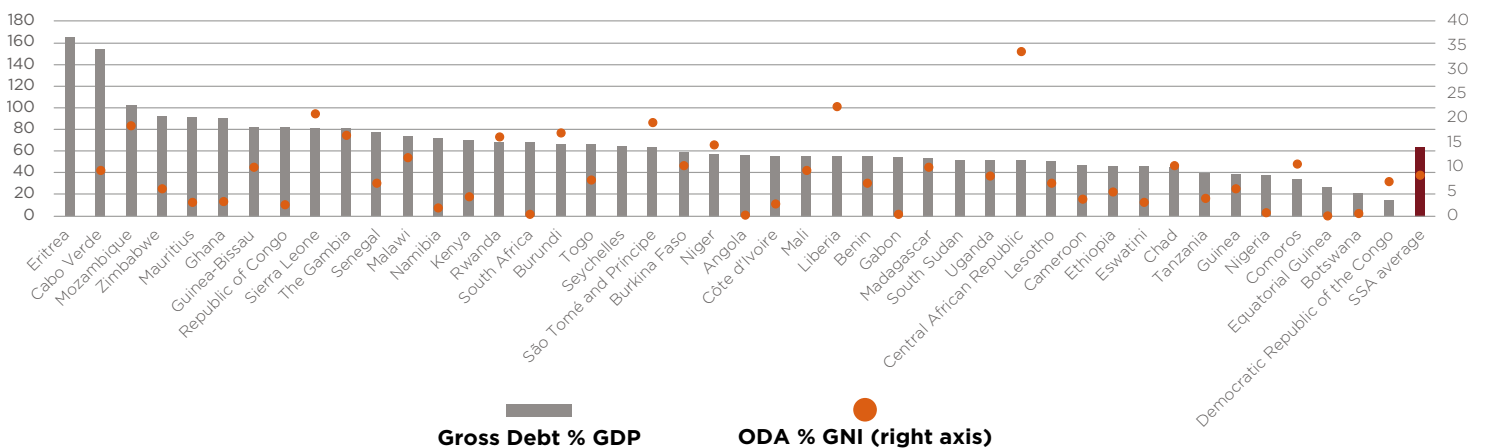
In particular, a high ratio of national debt to GDP is associated with a low tax collection effort and leaves countries exposed to rising debt repayments, especially in the case where debt is in foreign

currency. This leaves limited resources to invest in sectors critical for socio-economic transformation and may increase pressure to find alternative tax revenue, such as taxes on mobile.<sup>12</sup>

Official Development Assistance (ODA) is another important source of external finance for SSA countries that is often more stable than external debt or Foreign Direct Investment (FDI) and is countercyclical as opposed to tax revenues. The effectiveness of aid has been long debated in the literature - For example, it has been found that aid has no effect or a negative effect if equal to or above 8% of GDP.<sup>13</sup>

FIGURE 1.3

GROSS DEBT-TO-GDP RATIOS AND OFFICIAL DEVELOPMENT ASSISTANCE AS A PERCENTAGE OF GNI IN SSA



Source: IMF World Economic Outlook 2023 and World Bank Development Indicators. ODA figures refer to 2020.

International aid is also increasingly being directed at digital industries to support countries in their digital transformation. In particular, Aid for Trade<sup>14</sup> commitments for information and communication

technologies have experienced significant growth since 2018 (+32%), although the overall financing flows remain modest, at approximately 2% of total Aid for Trade commitments and 1% of total disbursements.<sup>15</sup>

10 2014 IMF Government Finance Statistics Manual (GFSM).

11 See ATAF's ATO 2021 for benchmarks of tax-to-budget ratios in Africa.

12 ATAF's ATO 2021.

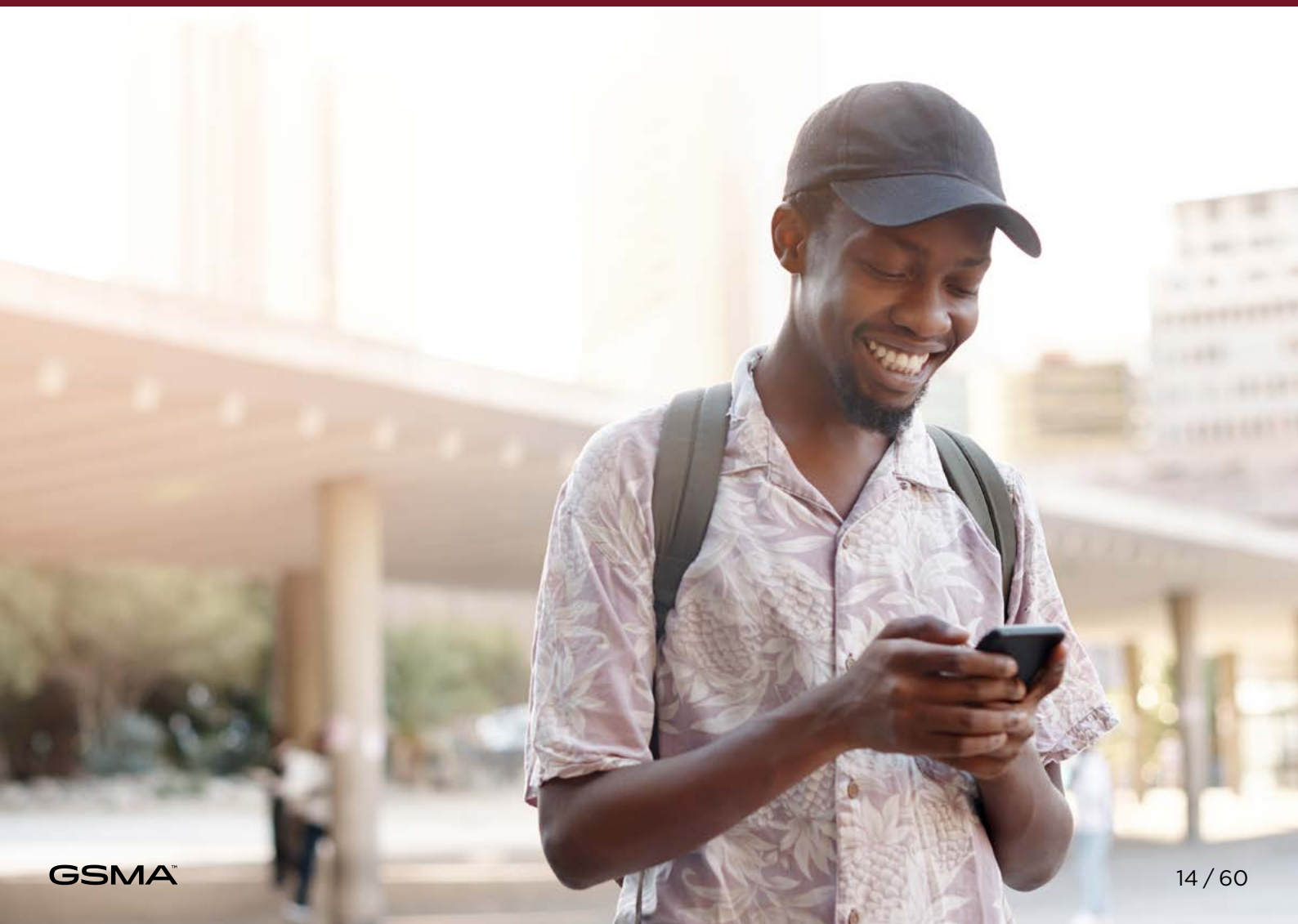
13 Burnside, Craig, and David Dollar, 2000, "Aid, Policies, and Growth," American Economic Review, Vol. 90. (September), pp. 847-68. For various literature on aid effectiveness see also: Clemens, Michael, Steven Radelet, and Rikhil Bhavnani, 2004, "Counting Chickens When They Hatch: the Short-Term Effect of Aid on Growth," Center for Global Development; <https://www.imf.org/external/pubs/ft/fandd/2005/09/radelet.htm>; and Duflo and Kremer, 2004, Use of Randomisation in the Evaluation of Development Effectiveness.

14 Aid for Trade includes financial support for activities such as technical assistance for trade policy and regulation, trade-related infrastructure, trade development and capacity building. See OECD Query Wizard for International Development Statistics.

15 OECD Aid-for-trade report: <https://www.oecd.org/dac/aft/>. Example of international aid for digital transformation: <https://www.worldbank.org/en/news/press-release/2021/12/01/world-bank-provides-100-million-to-accelerate-rwanda-s-digital-transformation?deliveryName=DM137767>



## 2. Review of mobile sector taxation in SSA





The pressures on domestic revenue mobilisation outlined in the previous chapter are coupled with the fact that the mobile industry is often one of the largest formal industries in Sub-Saharan countries. In addition, raising indirect taxes on mobile services is convenient and easy to administer due to the capillary nature of the services. This results in mobile consumers and operators in SSA are subject to a substantial tax burden, increasingly driven by sector-specific taxes and fees.

Both consumer and operator taxes affect the affordability of mobile services. While consumer taxes directly raise consumer retail prices, taxes on operators might be partly observed by operators in the form of lower profits (negatively affecting investment); the rest might be passed through higher consumer prices. Consequently, increased taxation of the mobile industry in the region poses a significant risk to the growth of the services among citizens, limiting the widely acknowledged social and economic benefits of mobile technology.

GSMA reviewed the tax regimes in 35 countries in SSA, analysing the general and sector-specific taxes and fees that apply to mobile operators and

to consumers when using mobile services and purchasing mobile devices in 2021. For a subset of 17 countries, data on tax payments was also collected – this includes: payments made by mobile operators for general taxes such as VAT and corporation tax; payments for sector-specific taxes such as excises; and recurring regulatory fees such as annual licence fees (excluding one-off fees such as spectrum auction payments).

The rest of this chapter presents the results of this review. Tables 1 and 2 summarise the taxes and fees mobile consumers and operators are subject to in SSA. Sector-specific taxes are denoted with an asterisk.

TABLE 2.1

CATEGORIES OF CONSUMER AND OPERATOR TAXES

Taxes on consumers			Operator taxes and fees			
Tax base		Tax type	Tax base		Tax type	
Handsets and devices		Sales tax / VAT	General taxes	Profits	Corporation tax	
		* Sector-specific taxes		Revenues	Turnover tax	
		Customs duty			Other revenue taxes	
Services	Activation	Sales tax / VAT	Network equipment		Other revenue taxes	
		* Sector-specific taxes	Regulatory and spectrum fees	Fixed amounts	* One-off licence fee	
	Usage	Sales tax / VAT		* One-off spectrum fee		
		* Sector-specific taxes		Revenues	* Universal service fees	
		* Annual licence fees				
		* Annual spectrum fees				

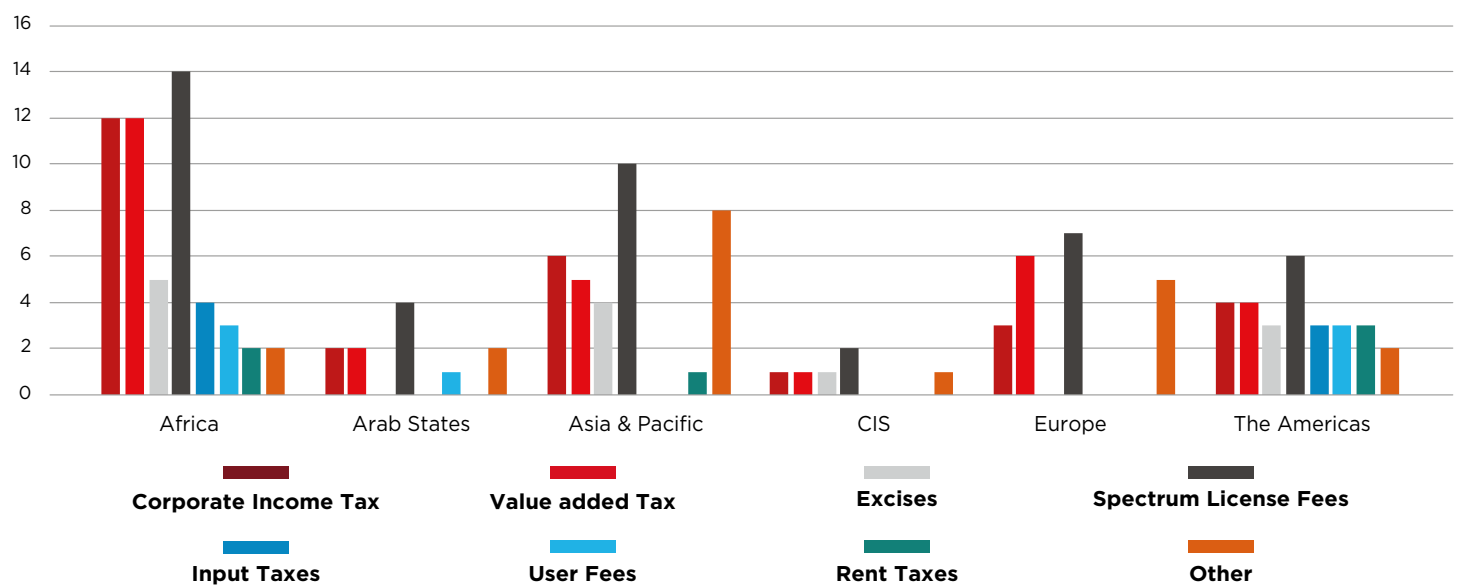
Source: ITU DataHub, World Telecommunication Tariff Policies Survey (<https://datahub.itu.int/>), data for 2022.

Sector-specific taxes are much more prevalent in SSA than in other regions. A survey by the International Telecommunications Union (ITU) of ICT National Regulatory Authorities around the world found that

the number of countries that apply taxes that are specific to the ICT sector is much higher in the region than the rest of the world.

FIGURE 2.1

NUMBER OF COUNTRIES THAT APPLY TAXES SPECIFIC TO THE ICT SECTOR, BY TYPE OF TAX

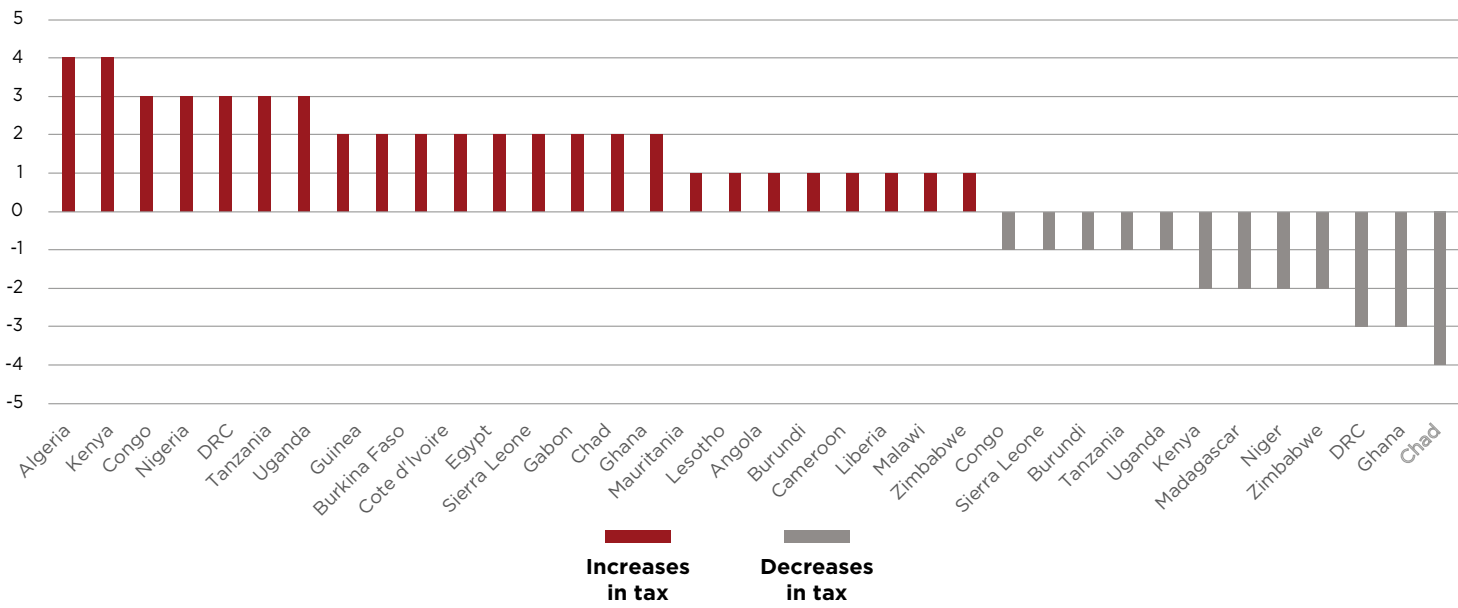


Source: IMF World Economic Outlook 2023 and World Bank Development Indicators. ODA figures refer to 2020.

In addition to the prevalence of sector-specific taxation, in many SSA countries there are frequent tax reforms, with several increases (49) and decreases (23) in the taxes applied to the mobile sector observed in the past 5 years.

FIGURE 2.2

NUMBER OF CHANGES IN TAXES APPLIED TO THE MOBILE SECTOR BY COUNTRY (2017-2022)



Source: GSMA Tax Database.

## 2.1 Consumer taxes

Mobile subscribers in SSA are subject to general taxes such as VAT and also incur sector-specific taxes and charges. Collectively, these taxes directly impact the prices paid by consumers and can be particularly regressive in that the tax burden disproportionately falls on those with lower incomes.

The sector-specific taxes applied in the region are grouped under activation, usage and handset taxes (see Table 3). In addition, VAT and customs duties on handsets and other devices were also reviewed though not considered as a sector-specific tax.

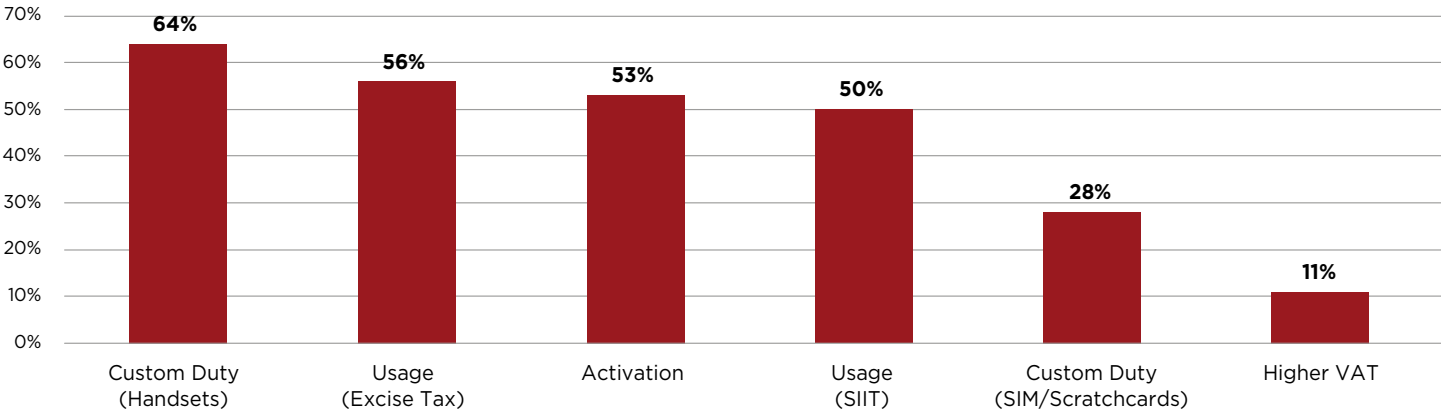
Our review of tax regimes in 35 countries in the region shows that:

- In 32 countries, mobile consumers are subject to at least one sector-specific levy. Angola, Botswana, and the Gambia are the only countries in the panel with no sector-specific levy on mobile consumers.

- Excise tax on mobile usage (applied in addition to standard VAT) is the most frequently used sector-specific consumer tax – present in 56% of the countries reviewed. This is followed by activation and Surtax on International Incoming Traffic (SIIT) taxes (in 53% and 50% of the markets, respectively).
- In 11% of countries there is no excise tax on usage but consumers are subject to VAT higher than the standard rates. These include Mauritania, Liberia, and Sudan.
- Additionally, 64% of the countries reviewed levy customs duties on handsets ranging from 5% to 30%. Moreover, several countries (28% of the markets) impose customs duties on SIM/scratch cards ranging from 10% to 38%.

FIGURE 2.3

PERCENTAGE OF COUNTRIES BY TYPE OF CONSUMER TAX LEVIED



Source: GSMA Tax Database.

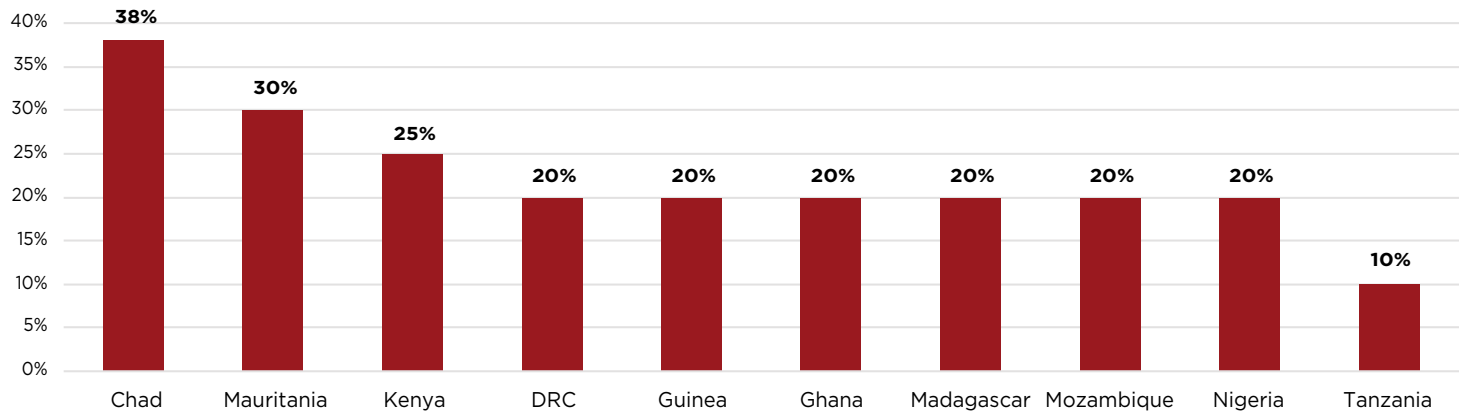
Taxation on the activation of mobile services consists of levies that consumers bear when purchasing a SIM or registering or maintaining their number or connection. Aside from general taxes (such as VAT or sales tax), some countries in SSA have introduced additional sector-specific activation/numbering fees.

In addition, some countries also impose high customs duties on SIM/scratch cards.



FIGURE 2.4

CUSTOMS DUTY ON SIM/SCRATCH CARDS IN SELECTED COUNTRIES



Source: GSMA Tax Database. Data for 2021.

**Taxes on usage of mobile services**

The usage cost includes spending on calls, SMS and data, which are affected by both general and sector-specific taxes. The most common sector-specific tax on usage in the region is the excise tax which is applied in addition to VAT on mobile use.

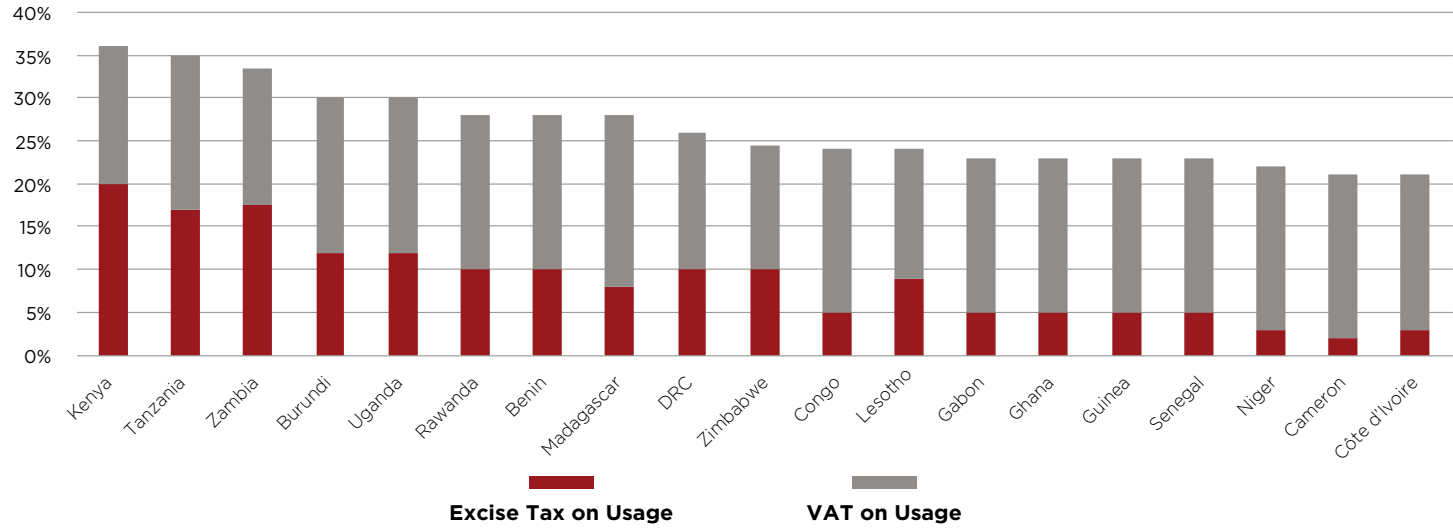
In our review, 21 countries levy excise tax on mobile usage. Kenya, Chad and Zambia impose the highest excise tax on all usage at 20%,18% and 17.5%, respectively.

After accounting for VAT, consumers in countries with excise levies on usage bear a combined usage tax averaging (27%) across the region for countries where data is available. Kenya imposes the highest combined usage tax on mobile usage at 36%, followed by Tanzania at 35%.



FIGURE 2.5

COMBINED USAGE TAX RATES IN SELECTED COUNTRIES



Source: GSMA Tax Database. Data for 2021.

Moreover, SIIT applies at a flat rate in 16 countries. This tax fixes termination charges on incoming international calls, with the government collecting

a certain portion. This tax particularly impacts businesses by creating regional and international trade barriers.

TABLE 2.2

LIST OF COUNTRIES THAT APPLY SURTAX ON INCOMING INTERNATIONAL CALLS

Number	Country	Surtax on Incoming International Calls
1	Uganda	USD 0.09 per minute
2	Chad	USD 0.118 per minute
3	Congo	USD 0.18 per minute
4	Burundi	USD 0.16 per minute
5	DRC	USD 0.08 per minute
6	Gabon	USD 0.084 per minute
7	Ghana	USD 0.011 per minute
8	Guinea	USD 0.12 per minute
9	Tanzania	USD 0.12 per minute
10	Mauritania	USD 0.08 per minute
11	Niger	USD 0.14 per minute
12	Sierra Leone	USD 0.14 per minute
13	Rwanda	USD 0.10 per minute
14	Zambia	USD 0.09 per minute
15	Benin	USD 0.14 per minute
16	Malawi	USD 0.08 per minute

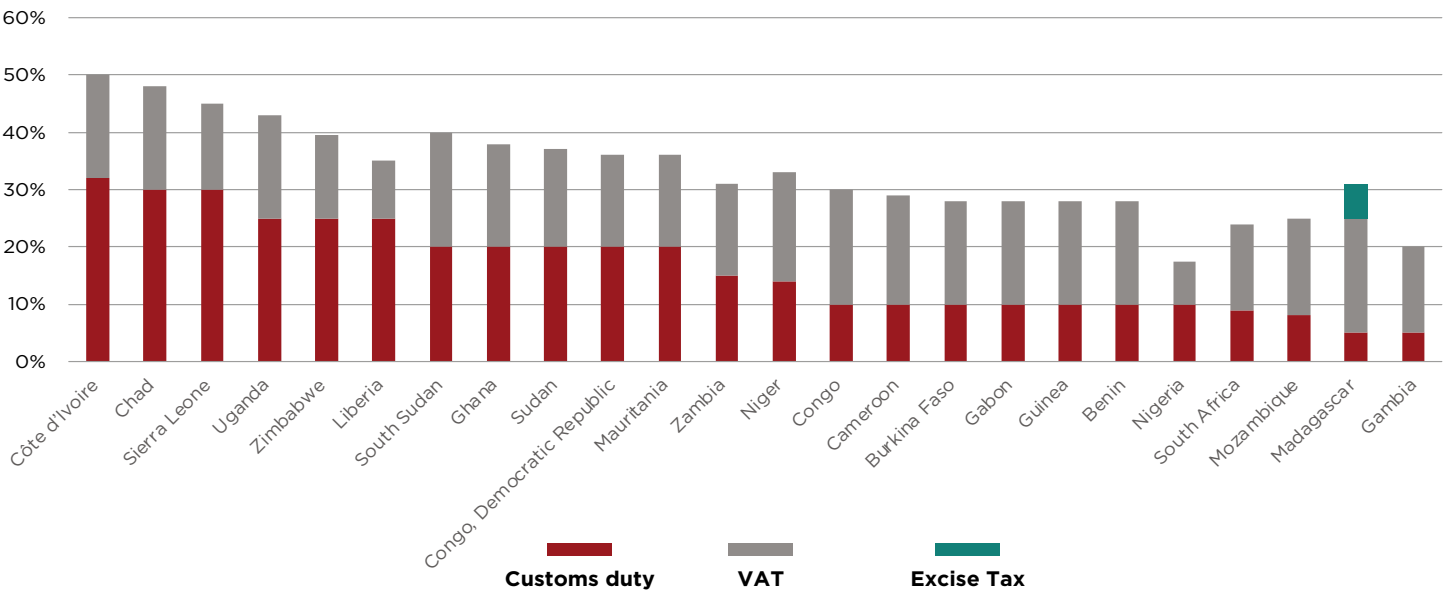
**Taxes on handsets**

Sector-specific taxes on handsets are relatively rare in the region. Madagascar stands out as one of the only markets that impose sector-specific levies on handsets at 6%. However, handsets are subject to VAT and high customs duty in 24 countries within our sample.

After combining VAT and the customs duty on the handset for countries where data is available, consumers in these markets bear a combined tax on handsets averaging (33%). Côte d'Ivoire, with 32% import duty and 18% VAT on the handset, has the region's highest combined handset tax rate. Chad and Sierra Leone follow this with a combined handset tax rate of 48% and 45%, respectively.

FIGURE 2.6

COMBINED HANDSET TAX RATES IN SELECTED COUNTRIES



Source: GSMA Tax Database. Data for 2021.

## 2.2 Recent changes in consumer taxes

GSMA's review of the changes in consumer taxes in the region over the last five years (2017-2021) shows a net increase in sector-specific consumer taxes with 10 increases versus 7 decreases. Most of these changes

concern sector-specific excise duties imposed in addition to VAT on mobile use.

The table below details the recent tax reforms over the period in different countries.

TABLE 2.3

RECENT TAX REFORMS IN SECTOR-SPECIFIC CONSUMER TAXES

Country	Year	Description
Cameroon	2022	introduction of a 0.2% tax on the transfer and withdrawal of money via mobile wallets
Congo	2020	Introduction of e-stamp duty of 50 XAF per (data) postpaid invoice
DRC	2020	Introduction of a new tax was imposed on mobile consumers, comprising an annual payment of US\$1 for 2G handsets and US\$7 for 3G/4G handsets
Ghana	2021	Introduction of 1% on value of goods (COVID-19 Health Recovery Levy), similar to a VAT/GST increase.
Ghana	2022	Introduction of a new 1.5% tax on all electronic transactions above 100 Ghanaian cedi (\$13; £11) effective May 1st 2022
Guinea	2021	Increase of mobile marketing tax from 400 GNF to 640 GNF per connection per year; Increase of excise duty on voice calls (TCT) from 1 to 2GNF per second (from 60 to 120 GNF per min)
Kenya	2021	Increase of excise duty on mobile services from 15% to 20%
Lesotho	2020	Increase of VAT rate from 12% (reduced rate) to 15% (general rate)
Mauritania	2020	Increase of custom duty on scratch cards from 15% to 30%
Mauritania	2020	New tax of 100 MRU (\$2.7) per imported handsets
Nigeria	2020	Increase of VAT rate from 5% to 7.5%
Nigeria	2022	National Health Insurance Authority Act 2022 imposed a telecommunications tax of not less than 1 kobo per second on GSM calls.
Nigeria	2022	5% Excise Duties on Telecommunications Services (Postpaid & Prepaid)
Sierra Leone	2020	Increase of excise duty on incoming international calls from \$0.09 to \$0.14 per min
Tanzania	2021	Introduction of a levy on airtime recharge at a rate ranging from TZS 5 to 223, depending of recharge value;
Tanzania	2021	Introduction of a levy on mobile money transfer and withdrawal transactions at a rate ranging from TZS 10 to 10,000.
Uganda	2021	Introduction of 12% excise duty on data from 1 July 2021
Chad	2020	Elimination of 18% excise duty on data; Reduction of Sucharge on International Incoming Calls (SIIT) from XAF 50 to 20 per call; Reduction of Sucharge on International Incoming Calls (SIIT) from XAF 50 to 20 per call.
Chad	2021	Removal of 20 CFA Franc excise duty fee on international incoming calls from G5 Sahel and CEMAC Calls
Congo	2021	Elimination of all customs duties on mobile handsets (HS: 85.17.12.00) for 2 years from 2021
DRC	2022	Removal of \$1 tax on 2G handsets and \$7 on Smartphones
Madagascar	2021	Reduction of excise duty on mobile services from 10% to 8%
Sierra Leone	2020	Elimination of \$0.02 per minute of local and outgoing international interconnect calls
Tanzania	2021	Removal of VAT (18%) on smartphones
Uganda	2021	Elimination of the OTT tax of shs 200 (\$0.056) per day on 1 July 2021
Zimbabwe	2020	Reduction of VAT rate from 15% to 14.5%

Source: GSMA Tax Database.

## 2.3 Taxes and fees on mobile operators

Mobile operators in SSA are subject to a wide range of general and sector-specific taxes and fees. These include taxes on profits and on revenue, regulatory, license and spectrum fees (both one-off and recurring) and import duties on network equipment.

Our review found that in 2021 mobile operators in several countries in SSA paid additional profit taxes or faced higher corporate tax rates besides general taxes on profits that apply to other sectors:

- For instance, in Côte d'Ivoire and Guinea, operators pay 30% and 35% for corporation tax against standard rates of 25% respectively.
- Five countries for which there are data impose some type of additional sector-specific profit tax on mobile operators. The countries include Ghana, Tanzania, Niger, Nigeria and Zimbabwe.

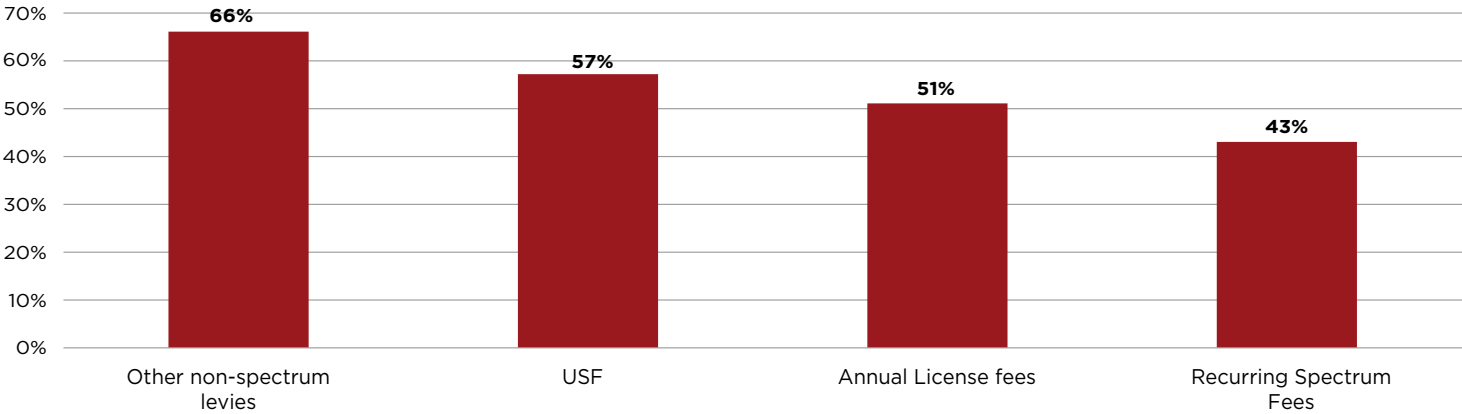
In addition, mobile operators are subject to various regulatory and license fees imposed on operators' revenues annually. The region's most common type

of turnover tax is the contribution to the USF, which is paid as a percentage of gross revenues. Our review focuses only on these recurring fees, leaving out the one-off fees paid for licences or spectrum. In our sample:

- Mobile operators contribute to USF in 20 countries. The rates analysed range between 0.2% and 5% of operators' revenue, with Mauritius imposing the highest USF rate at 5% of the operator's revenues.
- In 18 countries, mobile operators pay annual license fees as a percentage of gross revenues or operating income. The rates range between 0.4% and 5%, with Ethiopia charging the highest license fee at 5% of operating income.
- 23 countries apply other types of regulatory fees, such as tower taxes charged as a fixed amount or as a percentage of operators' revenues.
- Mobile operators in 15 countries also pay recurring spectrum fees as a percentage of revenue or a fixed amount payable annually.

FIGURE 2.7

PERCENTAGE OF COUNTRIES BY TYPE OF OPERATOR TAX LEVIED



Source: GSMA Tax Database.

Some countries impose duties on network equipment (such as antennae and base stations) which underpin mobile coverage extension. Operators are often required to pay import duties at higher rates than

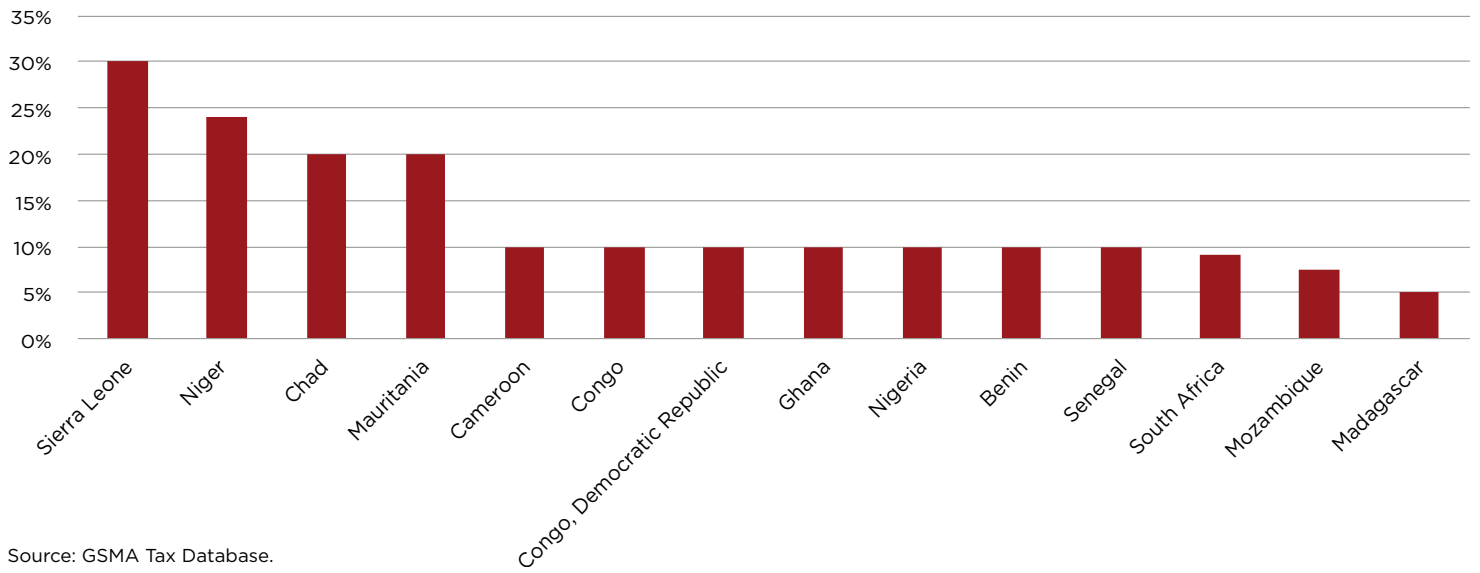
those charged for importing other goods. Import duty rates vary across the countries, with Serra Leone imposing the highest duty on network equipment at 30%.





FIGURE 2.8

IMPORT DUTY ON NETWORK EQUIPMENT IN SELECTED COUNTRIES



Source: GSMA Tax Database.

## 2.4 Recent changes in operator taxes

Overall, we find there have been 19 increases in taxes or introductions of new sector-specific operator taxes over the period 2017-2022. On the other hand, there have been 9 reforms that have reduced sector-specific taxes on operators in some countries.

The table below details the recent tax reforms over the period in different countries.

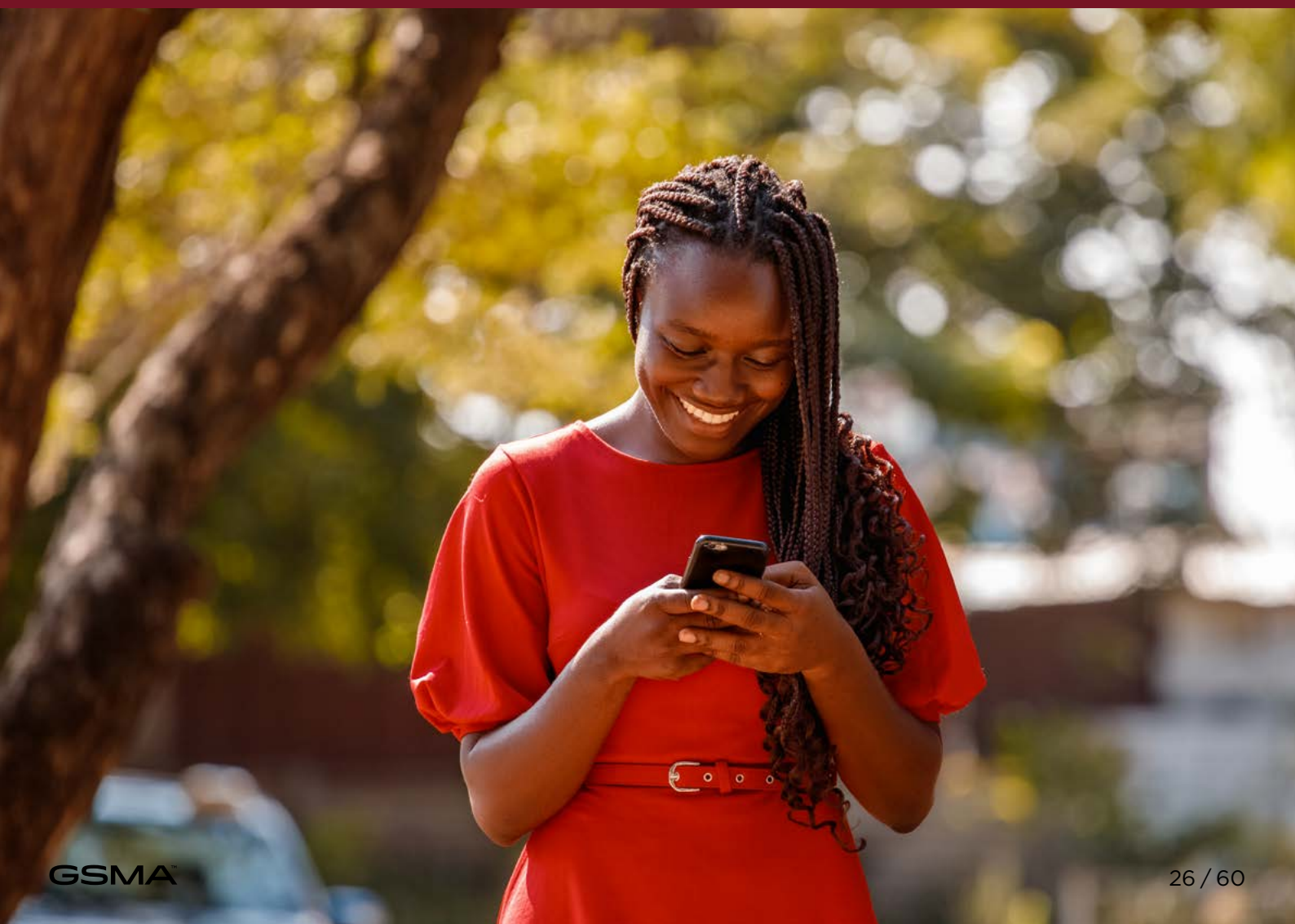
TABLE 2.5

RECENT TAX REFORMS IN OPERATOR TAXES

Country	Year	Description
Burkina Faso	2020	Increase of regulatory fee from 5% to 7% of revenue
DRC	2022	Introduction of a new fees to finance the Regulator as follows: calls: \$0.0075/minute; SMS: \$0.003/SMS; Megabytes: 0.00005/Mb.
Gabon	2020	Increase of regulatory fee from 2% to 3% of net annual revenue
Guinea	2021	Application of local interconnect fees to ON NET calls, in addition to the existing fee on OFF NET calls
Kenya	2021	Increase in CIT from 25% to 30%
Liberia	2021	"Introduction of a new regulatory fee that represents a revenue surcharge fee of 9%."
Malawi	2020	Introduction of USF fee - 1.5% of 3% regulatory levy on gross annual revenue
Nigeria	2020	Increase of minimum tax from 0.25% to 0.5% of gross turnover
Nigeria	2022	Increase in Tertiary Education Tax from 2% to 2.5% of Assessable Profit
Nigeria	2022	Introduction of National Agency for Science and Engineering Infrastructure Levy of 0.25% of profit before tax
Sierra Leone	2021	Increase of numbering fee from 1200 Le to 1400 Le per number
Tanzania	2020	Adaptation of tax base of Municipal Service Levy (0.3%).
Chad	2020	Reduction of VAT rate from 15% to 14.5%
Ghana	2020	"Reduction of numbering fees from 1.6 to 0.32 GHC. The new fees are: Mobile - GHC 0.32 (active), GHC 0.032 (inactive) Fixed - GHC 0.01 (active), GHC 0.001 *all figures are per number"
Kenya	2020	Reduction of CIT rate from 30% to 25%
Zimbabwe	2020	Reduction of CIT rate from 25.75% to 24.72%



### 3. Socio-economic and fiscal contribution of the mobile sector



### 3.1 Socio-economic impact

The mobile economy has grown enormously in the past two decades in SSA and by the end of 2021 515 million people subscribed to mobile services in the region, representing 46% of the population – an increase of almost 20 million on 2020.<sup>16</sup> At the end of 2021, over 240 million people across SSA were connected to the mobile internet, equivalent to 22% of the population<sup>17</sup>.

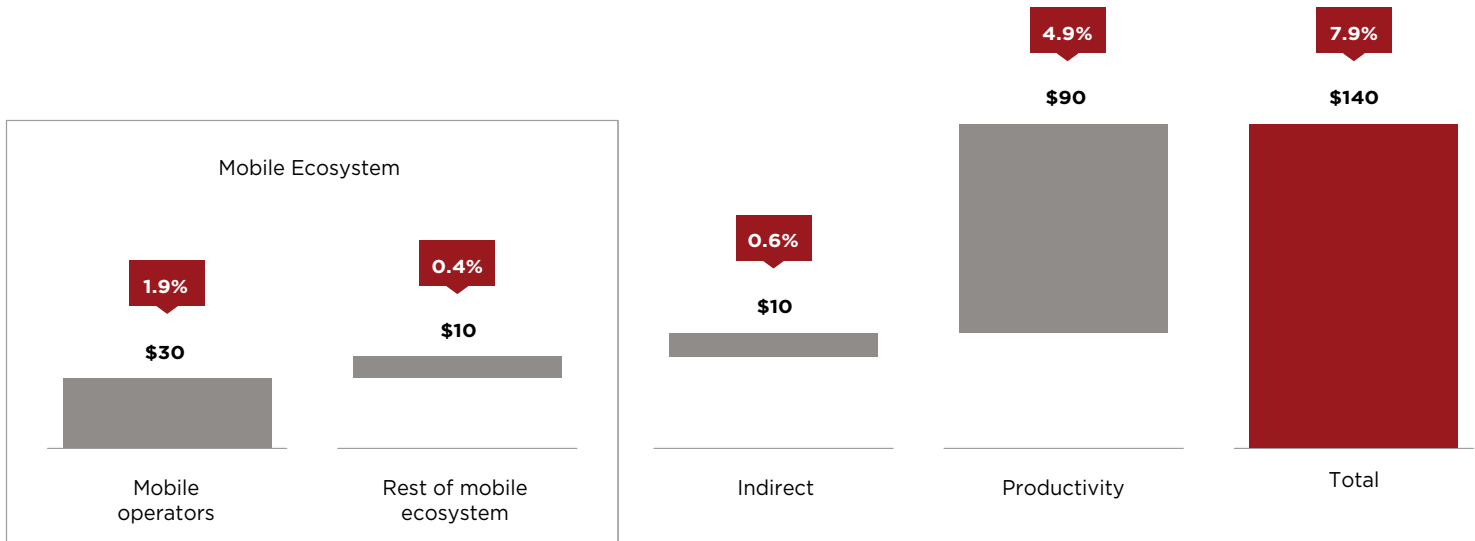
Greater access to mobile services has transformed economies, accelerating economic growth and development in countries worldwide, and continues to play a key role in supporting economic growth and social inclusion across SSA. The mobile sector generates direct economic value in the economy through profits and wages. This impact amounted to USD 40 billion in 2021 in the SSA region. In addition,

the mobile sector supports a much wider mobile ecosystem, including mobile distribution providers and retail companies. These companies create further economic activity by buying products and services from firms in their supply chain (indirect effects) and by generating employee income which leads to increased consumer spending, generating demand in consumer goods markets (induced effects).

In 2021, the sector generated 8% of GDP in SSA in total, considering its direct, indirect and productivity impacts, a contribution that amounted to more than USD 140 billion of economic value added. The mobile ecosystem also supported more than 3.2 million jobs (directly and indirectly) and made a substantial contribution to the funding of the public sector, with almost USD 16 billion raised through taxes.<sup>18</sup>

FIGURE 3.1

DIRECT, INDIRECT AND PRODUCTIVITY CONTRIBUTION OF MOBILE IN SSA (2021) - BILLION USD, PERCENTAGE OF GDP



Source: GSMA, The Mobile Economy SSA 2022.

The induced positive effects of mobile connectivity on the economy are largely delivered through its impact on productivity. Mobile technology lowers information and transaction costs – improving the efficiency of markets for goods, services, labour and capital, which in turn facilitates the reduction of barriers to trade,

commerce, communication, service delivery, and human development. It also complements or replaces existing production inputs, improving production processes and overall productivity through innovative applications such as mobile payment platforms, digital health, education and government applications.

16 GSMA, Mobile Economy Sub-Saharan Africa 2022.

17 GSMA, State of Mobile Internet Connectivity 2022.

18 GSMA, Mobile Economy Sub-Saharan Africa 2022.

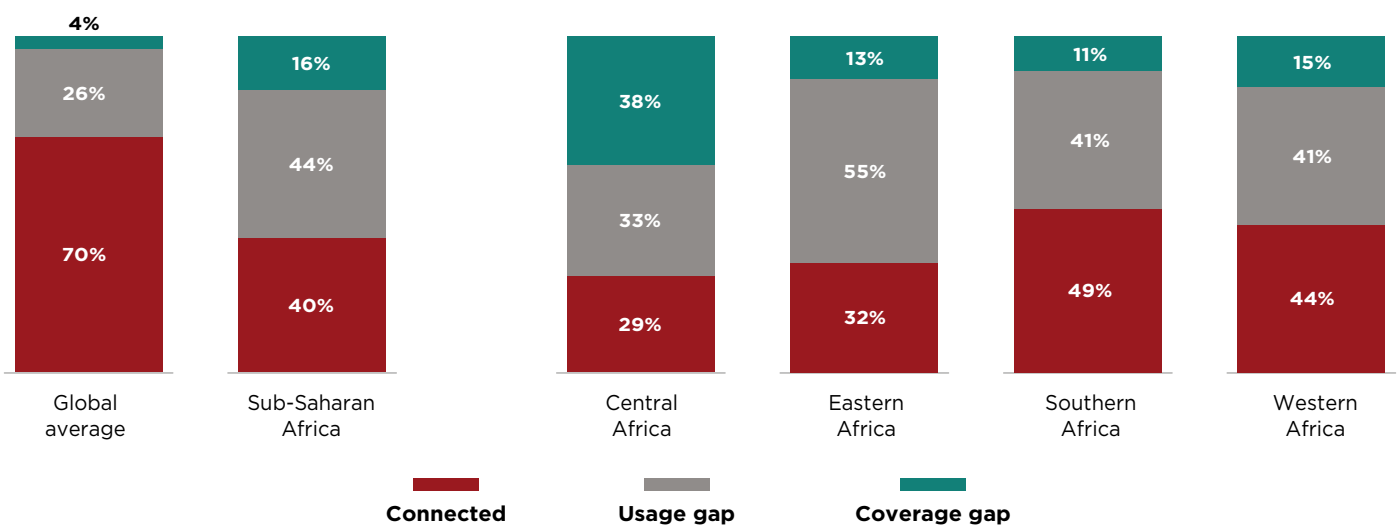
The economic impact of mobile services is well documented in the empirical literature, finding positive and significant GDP effects. For example, recent studies have found GDP increases by 0.8% to 2% for a 10% increase in mobile broadband specifically.<sup>19</sup> For the Africa region, the ITU calculated that a 10% increase in mobile broadband penetration results in 2.46% increase in GDP.<sup>20</sup> Moreover, technology upgrades drive increasing impacts, with the subsequent rollout of 2G, 3G, 4G and 5G networks. Mobile's baseline economic impact increases by about 15% when connections are upgraded to 3G. For connections upgrading from 2G to 4G, the economic impact of mobile increases by approximately 25%.<sup>21</sup>

Importantly, mobile networks promote digital inclusion and can bridge the digital divide, especially for rural and marginalised populations, facilitating access to the knowledge and digital economy, and to services such as health and education. Access to information through mobile and to mobile payments have been shown to have several uses and benefits in agricultural

applications, such as agricultural information services, monitoring and evaluation of agricultural outputs, education and mobile banking.<sup>22</sup> For example, Tumaini, an app used in Uganda, relies on artificial intelligence to determine product diseases from photographs taken by farmers (McKinsey, 2021) and has enabled increased agricultural output and farmers' income. Moreover, being covered by 3G networks has a large positive effect on household consumption and poverty reduction, driven by increases in labour force participation, wage employment, and non-farm self-employment.<sup>23</sup> Finally, the continued rollout of 4G and the initial stages of the 5G era open up opportunities in areas such as healthcare, digital commerce, industrial automation and smart city infrastructure.

Despite this progress, more than 870 million people in SSA remain offline and at risk of exclusion from the emerging digital economy. Although the coverage gap remains significant at nearly a fifth of the population, the large usage gap points to a huge potential to increase take-up.<sup>24</sup>

**FIGURE 3.2**  
THE MOBILE INTERNET COVERAGE AND USAGE GAP IN SSA (PERCENTAGE OF POPULATION 2021)



Source: GSMA, The Mobile Economy SSA 2022.

19 ITU (2018), Edquist et al. (2018).  
 20 ITU. How broadband, digitization and ICT regulation impact the global economy: Global econometric modelling. November 2020.  
 21 GSMA Intelligence, Mobile technologies: two decades of driving economic growth, 2020.  
 22 There are many examples of this. Kenya-based start-up Solar Freeze provides mobile solar-powered cold rooms to small-scale farmers to store their temperature-sensitive produce. It works with 3 000 small-scale farmers and has helped to increase agricultural yields by more than 150% since 2016 (Kibiti and Strubenhoff, 2019). UN Food and Agriculture Organisation, Study on potentials of mobile phones in investment and development projects, 2011.  
 23 Mobile Broadband Internet, Poverty and Labor Outcomes in Tanzania , World Bank 2021.  
 24 GSMA, State of Mobile Internet Connectivity 2022.

Fiscal policy has an important role to play in reducing the coverage and usage gaps, leveraging the positive economic and social impacts of mobile technology outlined above. In particular, promoting greater investment in the mobile industry and improving the affordability of mobile services through tax reform would unlock investment in mobile networks and improve affordability, promoting greater adoption of mobile services. Through the positive impact on productivity, this would not only promote the growth of the digital economy but also support revenue mobilisation objectives in the medium term, as growth in the sector would generate higher GDP and, as a result of a larger tax base, greater taxation revenue for the Government.<sup>25</sup>

A recent study found that taxation has significant impact on the performance of the telecommunication sector, with strong evidence of a negative impact on investment from an increase in regulatory fees, profit taxes, and excise taxes.<sup>26</sup> In particular, the study found that a 1 percentage point reduction in the profit tax rate is linked to an increase in investment of 1.5% and a similar reduction in regulatory fee is associated to a 3.6% increase in investment. Moreover, it predicted increases of up to 50% in Capex and 43% in mobile broadband penetration following a reduction of regulatory fees from 2.19% to 0.1%.

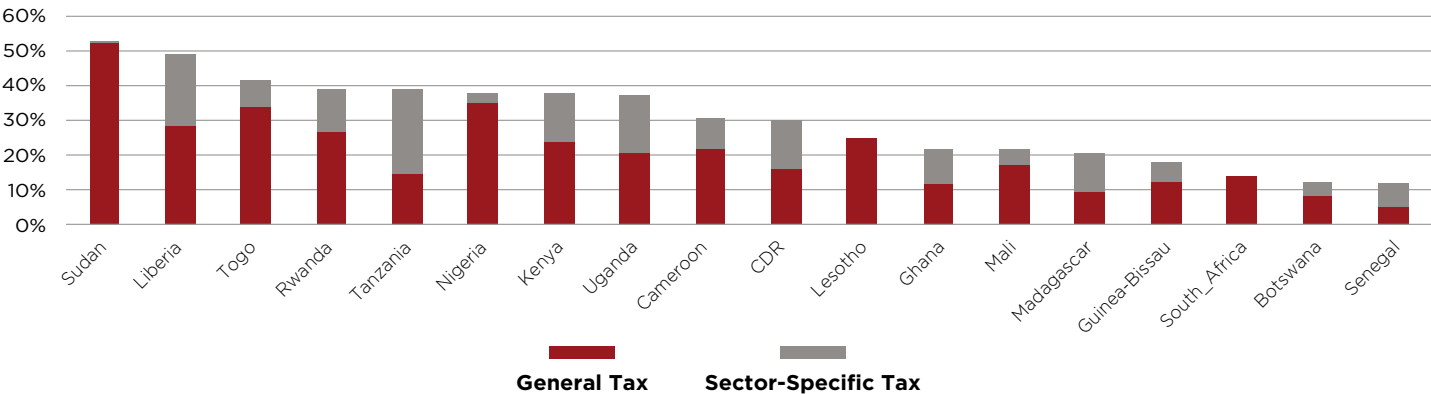
### 3.2 The tax contribution of the mobile section in SSA

The GSMA collected and analysed data on tax and fee payments from our mobile operator members.<sup>27</sup> In 18 SSA countries for which data is available, the mobile sector paid an estimated USD 9 billion in taxes and fees in 2021, representing on average 30% of mobile

sector revenues. Mobile sector-specific taxes are a key contributor to total tax payments. On average, sector-specific taxes represent approximately 9% of total market revenue.

FIGURE 3.3

TAX AND FEE PAYMENTS AS A PROPORTION OF MOBILE SECTOR REVENUES FOR SELECTED COUNTRIES IN SSA (2021)



Source: GSMA analysis and operator data.

25 See GSMA country reports on taxation for an evaluation of the economic impacts of tax reform: <https://www.gsma.com/publicpolicy/regulatory-environment/taxation> . Others have calculated similar effects, for example: [https://researchichtsolutions.com/ict-evidence-portal-africa/ict\\_evidence\\_portal\\_africa.php](https://researchichtsolutions.com/ict-evidence-portal-africa/ict_evidence_portal_africa.php)

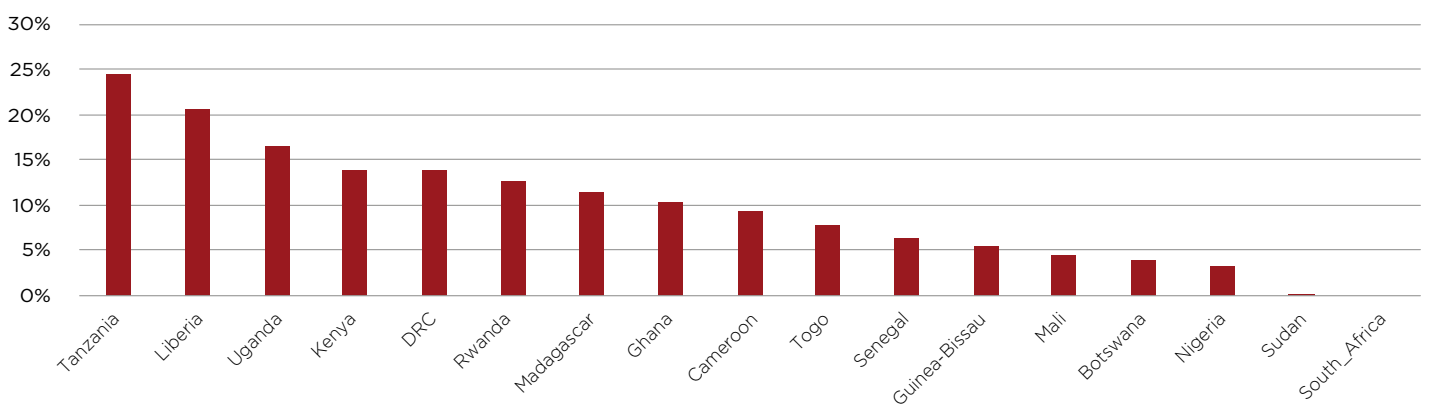
26 Katz and Jung, The impact of taxation on the telecommunication industry, Information Economics and Policy 2023.

27 The results presented in this section are based on data collected from mobile operators in SSA, operating overall in 15 countries in the region. Data was collected on tax payments including general taxes such as VAT and corporate tax, and sector-specific taxes such as regulatory fees and excises. One-off or auction spectrum licence fees are not taken into account in this analysis, which means that the total tax contribution of the mobile sector could be higher than stated. Where data was not available for all operators in a market, the was of tax payments was uplifted by revenue market share.

In 2021, the mobile market in Tanzania was subject to the highest level of sector-specific taxation across our sample of countries where sector-specific taxes and

fees comprised 24% of the mobile sector revenues, followed by Liberia and Uganda at 20% and 16% respectively.

**FIGURE 3.4**  
SECTOR-SPECIFIC TAXES AND FEE PAYMENTS AS A PROPORTION OF MARKET REVENUE SSA (2021)



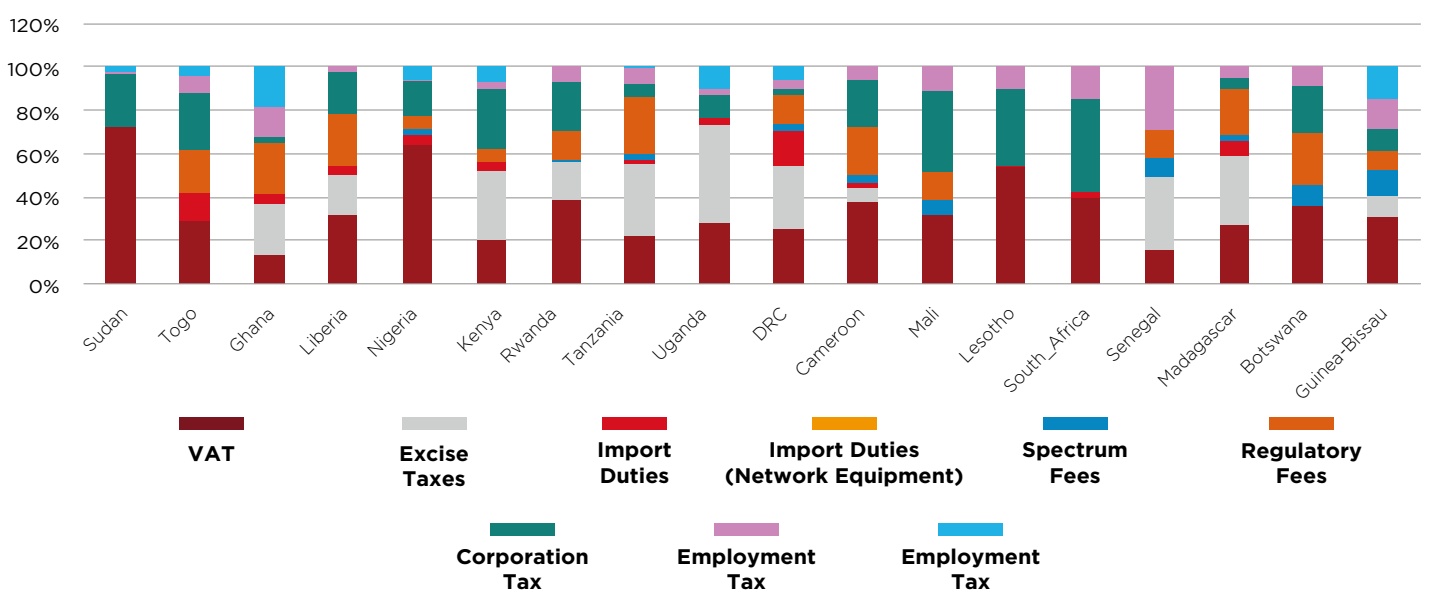
Source: GSMA analysis and operator data.

In terms of tax structures, countries across the region have different approaches to the type of taxation applied to the mobile sector:

- Uganda at 45% and Tanzania and Senegal at 34% respectively generate the highest excise taxes on the use of mobile services as a proportion of total tax payments.

- In Tanzania, regulatory fees paid by mobile operators alone represented 26% of total tax payments followed by Ghana, Botswana and Liberia at 23%.
- In Guinea-Bissau, the mobile operators pay the highest spectrum fees at 12% of total tax payments followed by Senegal and Botswana at 9%.

**FIGURE 3.5**  
TAX PAYMENTS SPLIT BY TYPE OF TAX FOR SELECTED COUNTRIES IN SSA (2021)



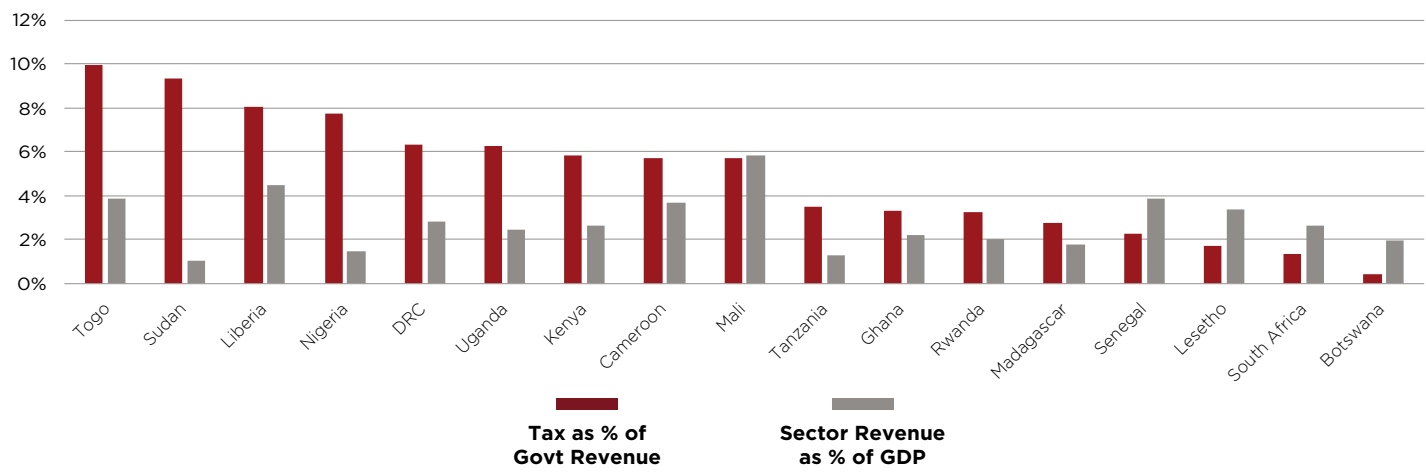
Source: GSMA analysis and operator data.





**FIGURE 3.6**

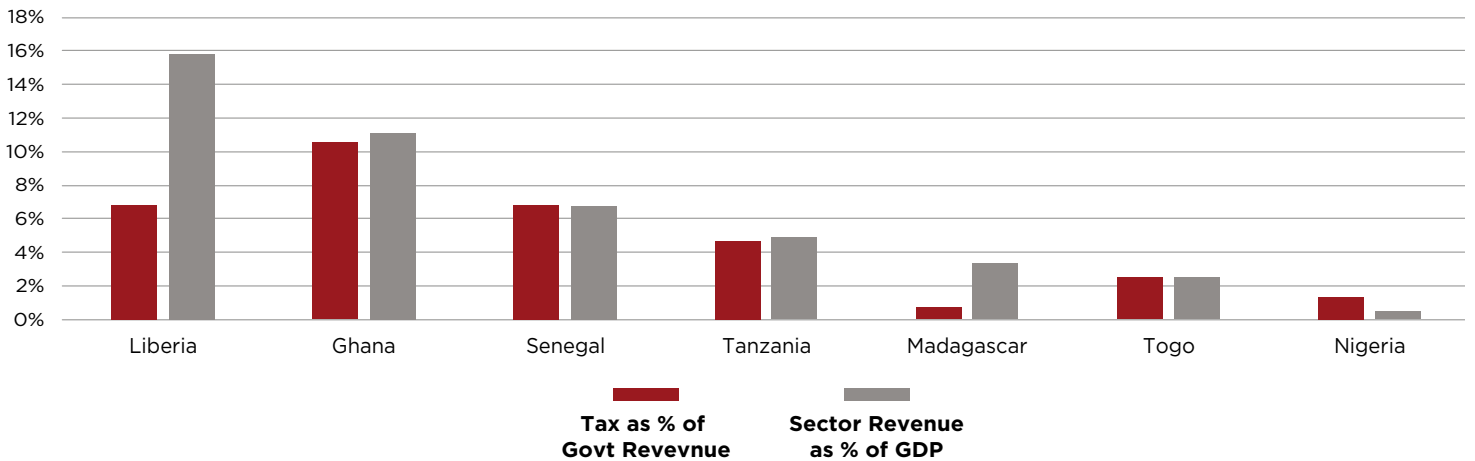
**RELATIVE CONTRIBUTION OF MOBILE SECTOR TO GOVERNMENT REVENUES AND GDP**



Source: Operators' data and IMF WEO Database.  
 Source: GSMA analysis, operator data, IMF data. Data for 2021.

FIGURE 3.7

TAX CONTRIBUTION AND GDP SHARE OF THE MINING SECTOR



Source: EITI Reports and IMF WEO Database

The high tax burden, numerous taxes and the high level of formalisation of the mobile sector imply that its contribution to government tax revenue is often high and greater than its relative size in the economy.

While comparing the tax contribution of the mobile sector in relation to its economic size (measured by the sector’s revenues as a percentage of GDP) across selected SSA countries, our findings highlight that, among the 18 countries for which data is available, taxes and fees levied on the mobile industry as a share of total government revenues exceed the sector’s economic size in the economy, with exceptions in 4 countries. In Sudan, the mobile sector accounts for 9% of government revenues, while only constituting 1% of the economy – a substantial 7-fold difference. Likewise, Togo and Nigeria contribute 10% and 8% to government revenues respectively, while making up 1% and 4% of the economy. In countries like Liberia, DRC and Uganda, this proportion is notably about 4 times higher.

GSMA conducted an analysis to contrast the tax burden on the mobile sector with that imposed on the mining sector. GSMA compared the tax contribution of the mining sector to government revenues in relation to its economic size in several SSA countries where data is accessible. Our findings reveal that unlike the mobile sector, in the majority of countries the tax contribution of the mining sector is either on par with or lower than its size in the economy. This suggests that the mobile sector is subject to a comparatively greater tax burden.



# 4. Impacts of taxation on mobile infrastructure investment



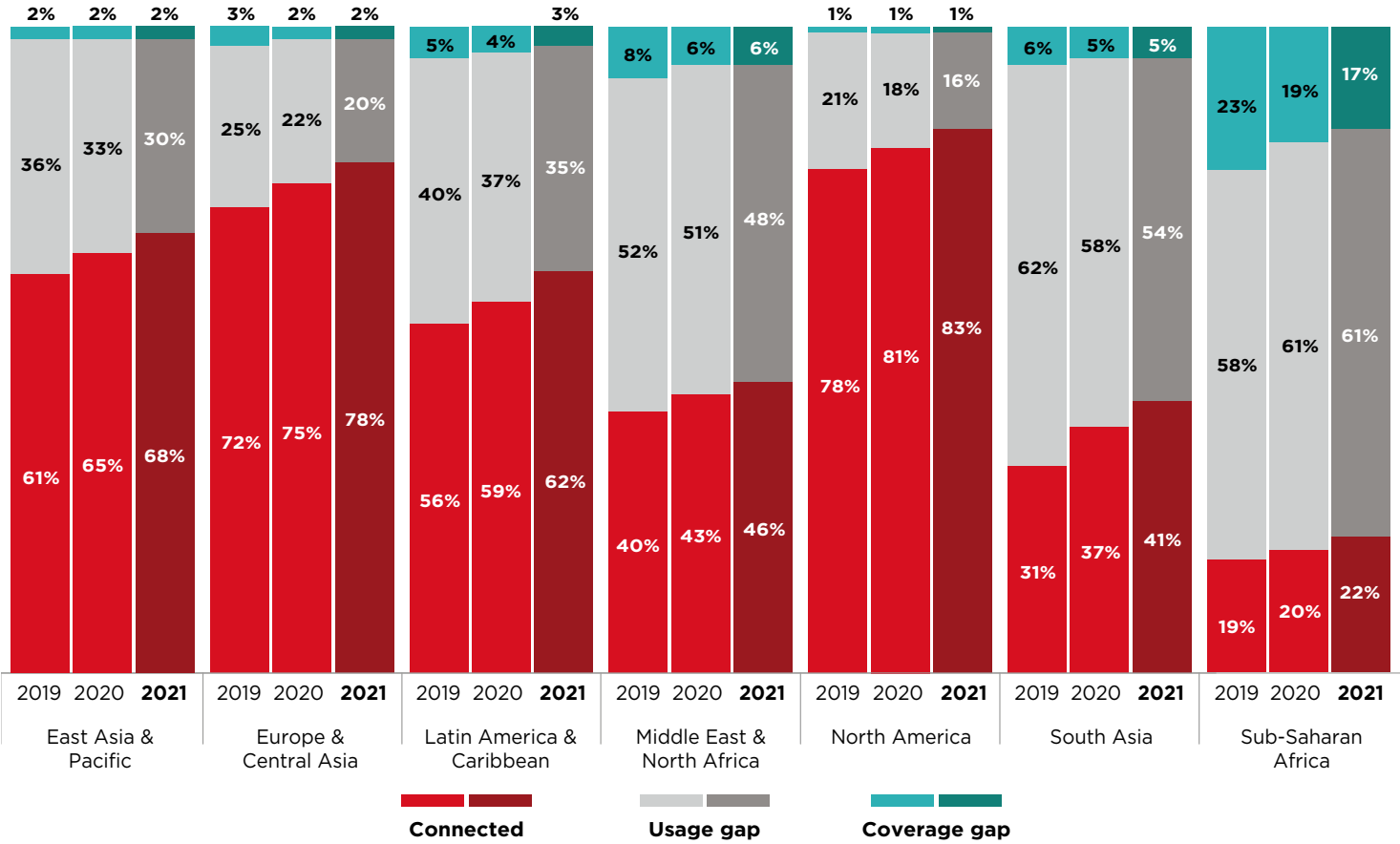
# 4.1 Impacts of mobile taxation on investment in SSA

During 2017-2021, mobile operators have made approximately USD 43 billion<sup>28</sup> in investments in mobile networks, resulting in a significant fall in the coverage gap in SSA from 50% in 2014 to 17% in 2021.

However, the region is still home to 48% of the world's uncovered population – an estimated 200 million people in 2021.<sup>29</sup> The region's coverage gap is more than three times the global average.

FIGURE 4.1

EVOLUTION OF MOBILE INTERNET CONNECTIVITY BY REGION (2019-2021)



Source: GSMA, The State of Mobile Internet Connectivity 2022.

28 GSMA Intelligence

29 Source: GSMA, The State of Mobile Internet Connectivity 2022.

30 World Bank, GSMA, 2022, Using Geospatial Analysis to Overhaul Connectivity Policies How to Expand Mobile Internet Coverage and Adoption in Sub-Saharan Africa.

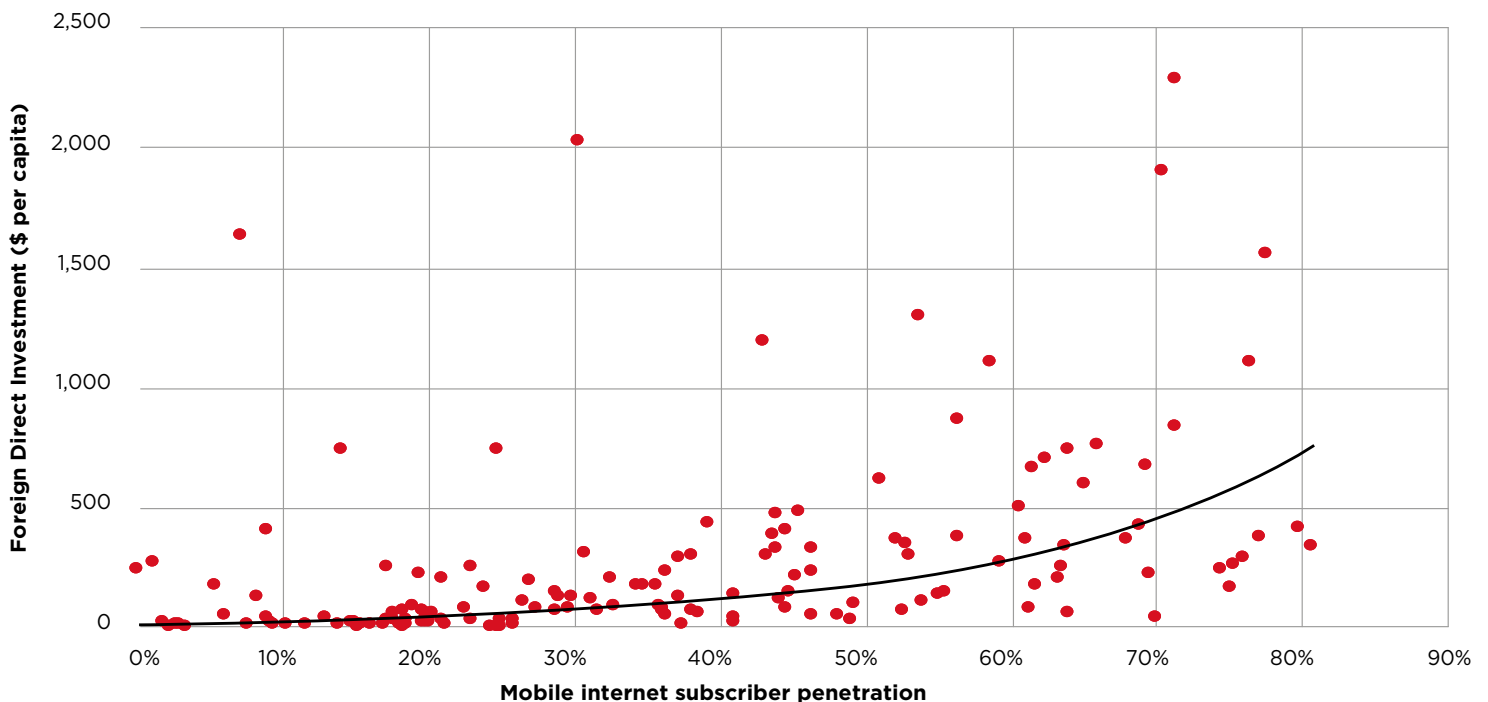
Tax policy has been shown to be able to influence network roll-out by incentivising coverage and adoption.<sup>30</sup> However, as shown in the previous sections many countries in SSA apply tax regimes that are distortive for the mobile sector and can act as barriers to attracting investment in digital infrastructure. Taxation can affect investment through several channels:

- Imposing sector-specific taxes reduces returns on investments in the mobile market and can be **distortive to investment decisions if the tax burden is discriminatory** compared to other sectors. As shown above, this could be the case in SSA where, in 33 out of 35 countries, mobile operators are subject to at least two sector-specific levies charged on operators' revenues, which are particularly distortive because they apply regardless of the level of investment. Moreover, in certain countries in the region, operators are subject to additional profit taxes or face higher corporate tax rates besides general profit taxes. Duties on importing network equipment can also act as a significant barrier to network investment by directly increasing the equipment cost.

- **Complex taxes and fees** in many countries in the region can disincentivise investments in digital infrastructure by increasing mobile operators' **compliance costs**. According to PWC's 2020 Paying Taxes report, Africa has the highest number of tax payments and it takes the taxpayers the second highest time to comply when compared to all other regions.<sup>31</sup>
- As shown in previous chapters, tax reforms on the mobile sector are frequent in SSA and new taxes are introduced in many countries yearly. **Frequent changes in the tax regime and uncertainty** may lead investors to delay or cancel planned investments, or even withdraw existing investments. The 2020 World Bank's Global Investment Competitiveness Survey report<sup>32</sup> highlights that policy uncertainty of the governments was critically important in the investment decisions for two-thirds of the investors questioned.
- The overall high tax burden on the mobile sector may **negatively impact FDI**, diverting investments where returns are higher, the digital economy is more developed and stronger demand for mobile services makes the investment more attractive. This can also hurt attracting FDI in other sectors of the economy as a study of FDI patterns in the early 2000s found that FDI is greater in countries that have better telecoms networks.<sup>33</sup>

FIGURE 4.2

TOTAL ECONOMY-WIDE FDI PER CAPITA AND MOBILE INTERNET SUBSCRIBER PENETRATION



Source: GSMA, Rethinking the Mobile Taxation, 2019.

31 PWC, Paying Taxes 2020.

32 World Bank's Global Investment Competitiveness Report 2019/2020.

33 Communications Networks and Foreign Direct Investment in Developing Countries, R. Lydon and M. Williams, 2005.



## 4.2 Case study: Impacts of tax reform on mobile investment in Zimbabwe

Since 2015, the adoption of mobile internet amongst adults in Zimbabwe has doubled to almost half the population (aged 18+). The usage gap (covered but not connected) makes up 70% of the unconnected population. The majority of internet users are accessing legacy 2G or 3G technologies, rather than 4G. One in six people still do not live in an area covered by a mobile broadband network.<sup>34</sup>

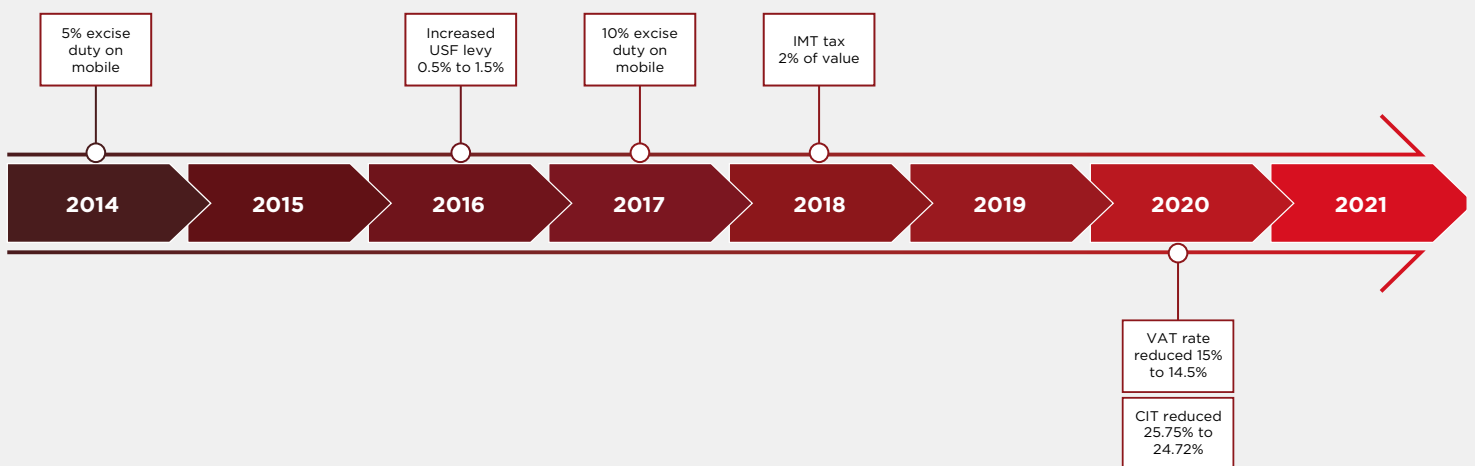
More worryingly, coverage expansion has largely stalled in recent years: 3G coverage has remained at 84% since 2018, while 4G coverage remained at 35% between 2017-2020, though it increased to 39% in 2021. Just over 6% of the country's population does not have access to any mobile coverage (2G or higher).

At the same time, Zimbabwe has faced a macro-economic crisis in recent years, following the re-introduction of the Zimbabwe dollar in 2019. Inflation grew to more than 500% in 2020 and was 99% in 2021. RBZ data for August 2022 shows continuing high annual inflation rates above 100%. GDP declined in 2019 (before Covid-19) and remained negative in 2020, though it grew by 6% in 2021 and is expected to grow by around 3% in 2022 (IMF and AfDB).

Mobile investment and usage have been impacted by the challenging macro-economic environment but also by an increasing burden in mobile sector taxation.

FIGURE 4.3

### INCREASING TAX BURDEN ON THE MOBILE SECTOR IN ZIMBABWE



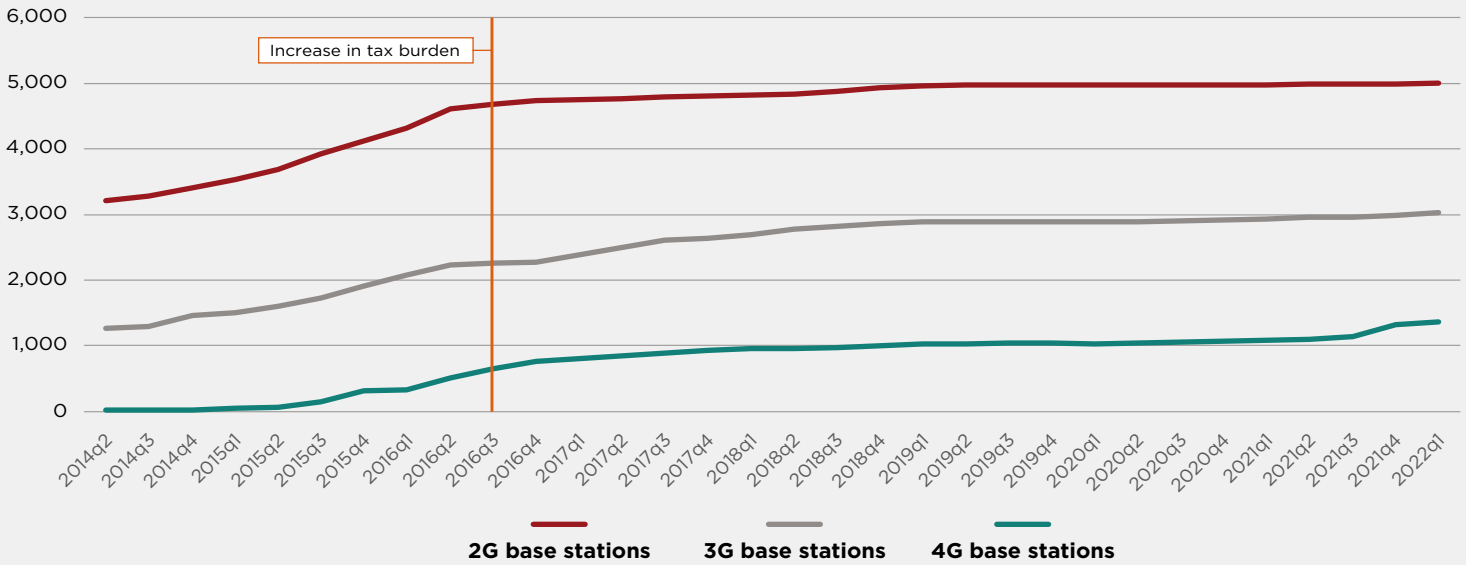
Source: GSMA.

As a result, base station deployments have stalled: there has been little deployment of new sites since 2017, with the exception of some 4G expansion at the end of 2021. This slowdown in deployment coincides

with the period in which the tax burden on operators has significantly increased (higher USF, excise duties and smartphone fees).

FIGURE 4.4

BASE STATION DEPLOYMENTS IN ZIMBABWE

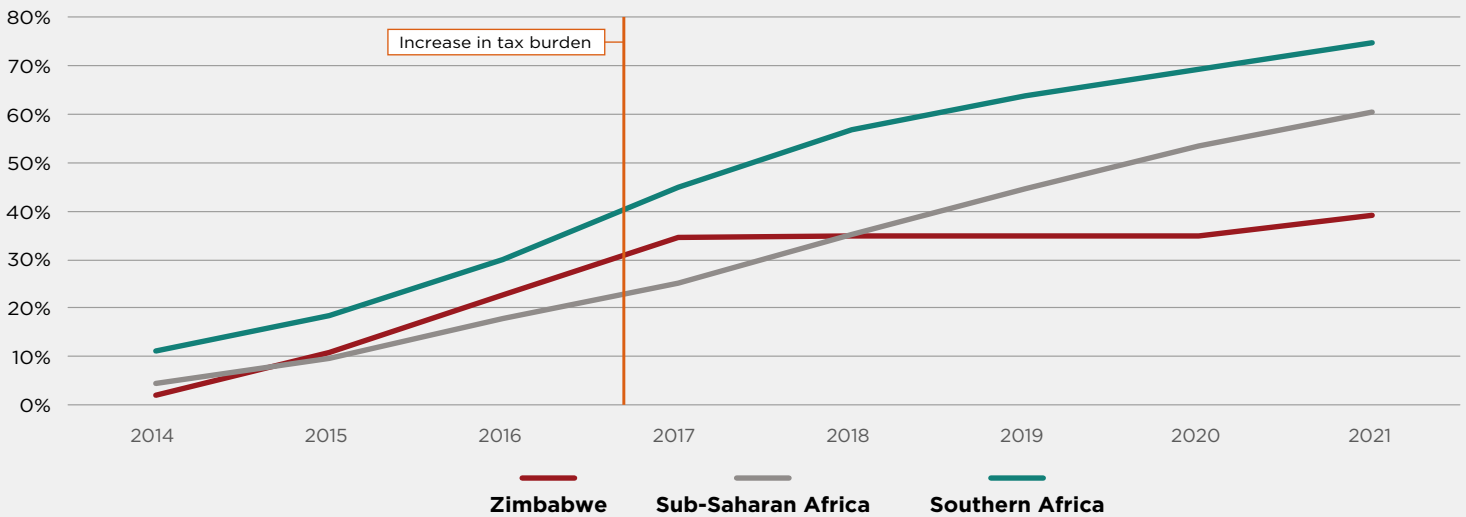


Source: GSMA Intelligence.

As a result of low investment, 4G network coverage in Zimbabwe is lagging behind other countries and neighbours, with a significant deflection since 2017 compared to other regional comparators.

FIGURE 4.5

4G COVERAGE (% POPULATION) IN ZIMBABWE COMPARED TO REGION AND SUB-REGION



Source: GSMA Intelligence.

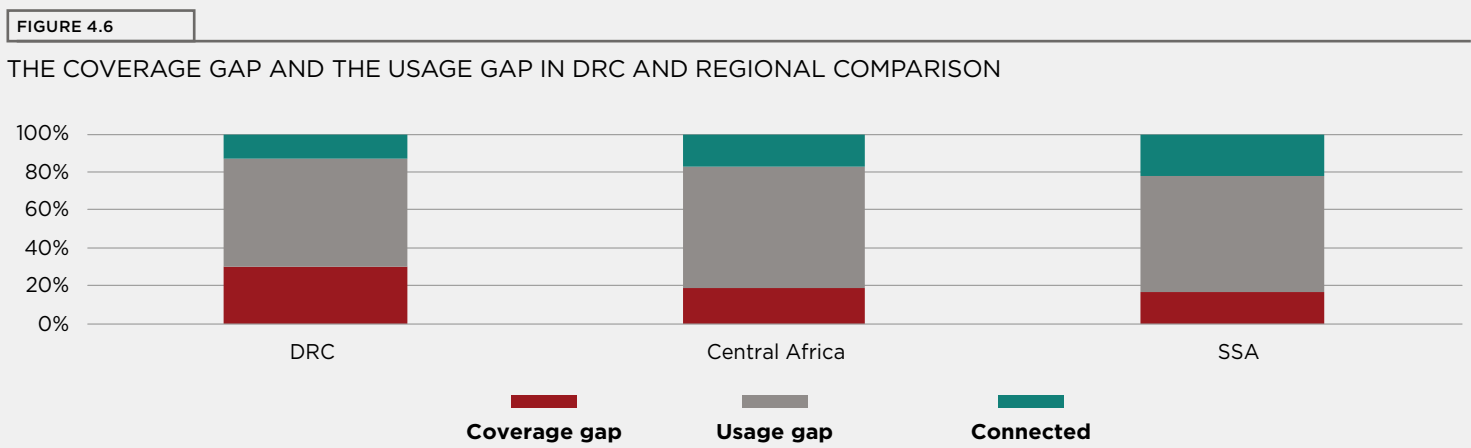




### 4.3 Case study: Impact of tax reform in DRC

In the Democratic Republic of Congo (DRC), mobile penetration by unique subscriber stands at 42%, while mobile internet penetration is 23% (against the SSA average of 28%). The proportion of population that is not covered by a mobile network (the coverage

gap) is very large compared to the SSA average, 46% compared to 19%. And within those that are covered by a mobile network, 31% of the Congolese population do not use mobile internet, i.e. this is the size of the usage gap.



Source: GSMA Intelligence Database.

This points to the need to further develop the mobile market in the DRC in order to accelerate digital transformation, digital inclusion and economic diversification. However, the mobile sector continues to be taxed over and above the rate for the rest of the economy, with significant changes and uncertainty

around the tax regime. In 2022, a new levy from ARPTC (the regulator) was proposed.<sup>35</sup> An increase in the annual licence fee from 3% to 5% was first adopted by the National Assembly in the Finance Law 2023, but then rejected by the Senate.<sup>36</sup>

35 <https://developingtelecoms.com/telecom-business/operator-news/13605-drc-telecoms-levy-spat-escalates.html>

36 DRC Finance Law 2023.

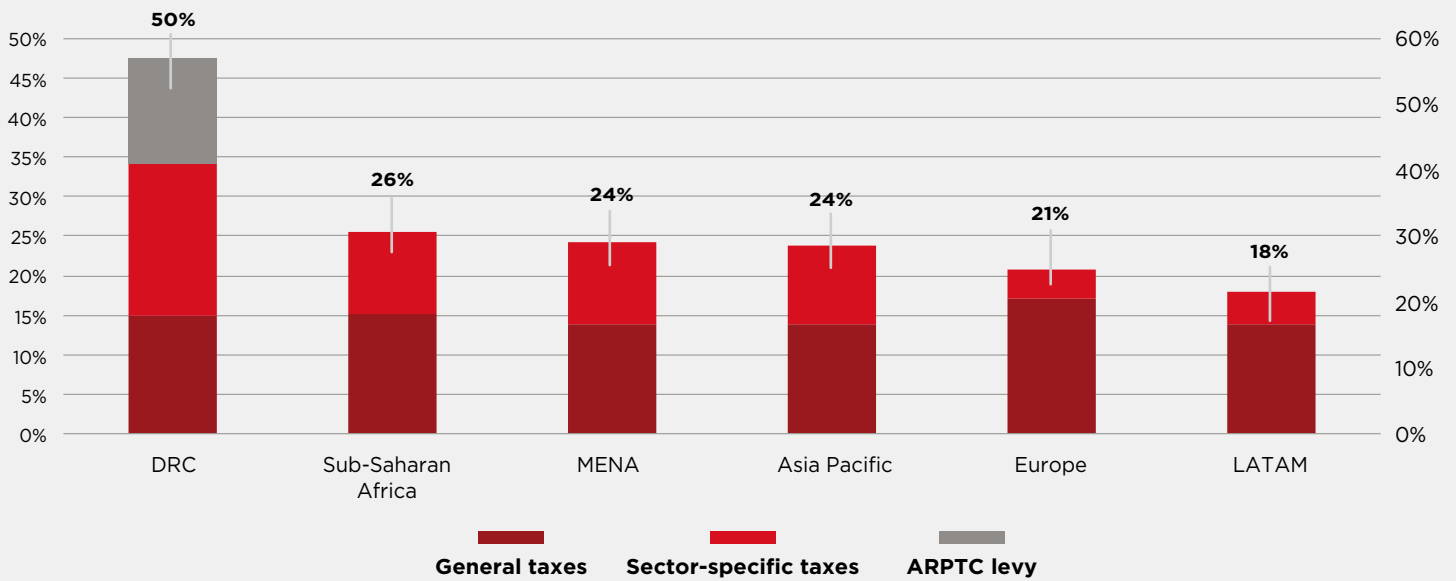
In the medium term improving the business climate and the competitiveness of the mobile sector is key to DRC's development and, as part of this, reforming taxation on the mobile sector can provide economic benefits and support national development.

Already, the mobile sector contributes significantly to tax revenues and socio-economic development in the DRC, especially compared to other sectors and

to its size in the economy. In 2020, mobile sector revenue was estimated at CDF 2,171 billion (USD 1,177 million), accounting for 2.4% of DRC's GDP. The total tax contribution of the Congolese mobile sector was estimated at CDF 740 billion (USD 401 million) in 2020. This represents about 34% of total mobile sector revenue. The GSMA calculates that the new ARPTC levy would bring the total tax burden to 48% of sector revenues.

FIGURE 4.7

TOTAL MOBILE TAX PAYMENTS AS A PERCENTAGE OF MOBILE REVENUES IN DRC



Source: GSMA analysis and operator data. 2020 values, except for the ARPTC levy, which is calculated for 2022.

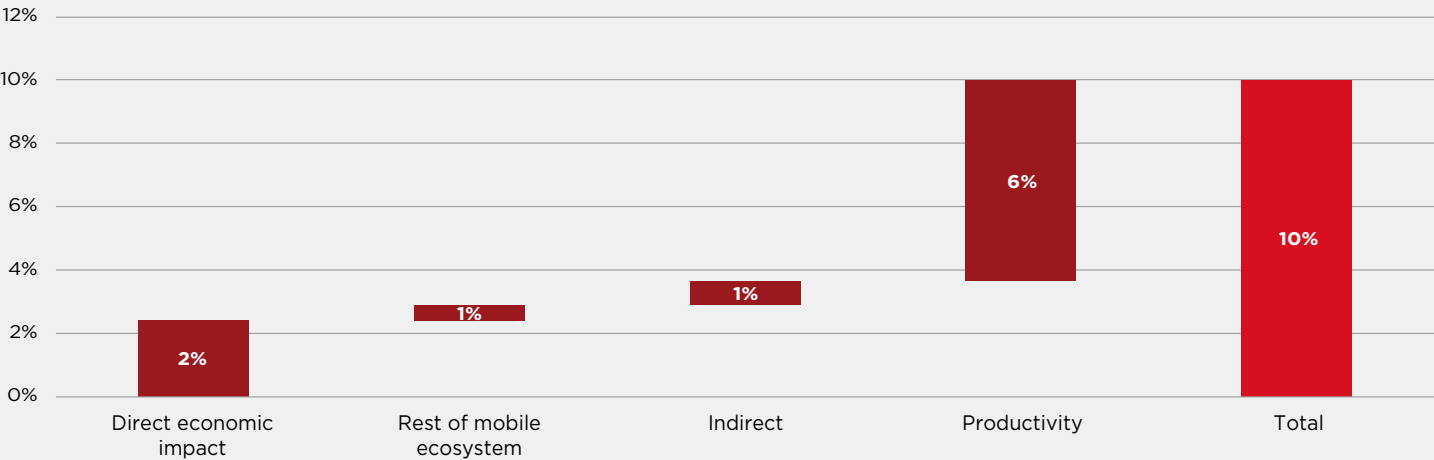
In 2020 mobile market revenue accounted for 2.4% of DRC's GDP, while the sector's tax and fee payments accounted for around 11% of total government tax revenue. In addition to the direct economic impact,

the mobile industry supports a much wider digital ecosystem as well as productivity improvements throughout the economy.



**FIGURE 4.8**

**ECONOMIC CONTRIBUTION OF THE MOBILE SECTOR TO DRC (AS A % OF GDP)**



Source: GSMA estimates; ARPTC Rapport T4 2021. Data refers to 2020.

The positive economic impact of removing sector-specific taxation has been demonstrated in various studies.<sup>37</sup> For example, the World Bank estimated that the removal of sector-specific taxes in the DRC would increase both 3G and 4G rural coverage by

more than three percentage points, equivalent to almost 1.5 million people, and could increase mobile adoption and mobile internet adoption by 7.4 and 6.4 percentage points, respectively.<sup>38</sup>

37 GSMA, Reforming mobile taxation in DRC, 2018.

38 World Bank, Using Geospatial Analysis to Overhaul Connectivity Policies: How to Expand Mobile Internet Coverage and Adoption in Sub-Saharan Africa, February 2022.

# 5. Impacts of taxation on mobile money

## 5.1 Mobile money taxation in SSA

Over the past decade since its emergence, MM has grown exponentially in SSA, enabling a leap-frog in financial infrastructure and contributing to greater financial inclusion, productivity and transparency in the economy. In 2020, there were 157 live MM services in SSA, with 548 million registered accounts and 160 million active users, an increase of 18% year-on-year. The volume of transactions over MM services was 27.4 billion, with a corresponding USD 490 billion value.<sup>39</sup>

MM has been shown to reduce inequality in access to financial services<sup>40</sup> by providing an affordable, safe and convenient means for financial transactions to those who do not have access to traditional financial services, especially marginalised groups such as women, young people, rural poor and displaced persons.<sup>41</sup> MM is a key driver of socio-economic

growth by creating employment, driving business productivity, facilitating savings and reducing remittance costs, and providing stability during economic downturns.<sup>42 43</sup>

Crucially from the perspective of domestic revenue mobilisation, MM promotes the move away from cash-based economies and thus strengthens the formal economy and widens the tax base. Cash transactions are often unregistered which allows for the development of a shadow economy and the evasion of tax payments. By contributing to higher transparency of transactions compared to cash payments and providing a more convenient means for tax payment and collection, MM services can improve the efficiency of collection and increase government revenue.<sup>44</sup>

39 GSMA, State of the Mobile Money Industry report 2021.

40 Klapper, L., Ansar, S., Hess, J., and Singer, D. (2019). Sub-Saharan Africa series: Mobile money and digital financial inclusion. World Bank. See also: GSMA, The impact of mobile money on monetary and financial stability in Sub-Saharan Africa, 2019.

41 Tavneet, S. (2017). Mobile Money. Annual Review of Economics. See also

42 De, S. (2015). Reducing remittance costs and the financing for development strategy. World Bank. Ky, S., Rugemintwari, C. and Sauviat, A. (2018). Does Mobile Money Affect Saving Behaviour? Evidence from a Developing Economy. Journal of African Economies.

43 WEF (2015). How mobile money is driving economic growth. GSMA (2019). Harnessing the power of mobile money to achieve the sustainable development goals.

44 GSMA, Digitalising person-to-government payments, 2020.

Despite these benefits, governments in SSA are increasingly turning to MM services for short term revenue generation by implementing taxes on MM fees and transactions, in an effort to counteract the revenue lost from taxes on voice and SMS.<sup>45</sup>

The table below lists the taxes that are applicable on MM services in the SSA countries for which data is available.

TABLE 5.1

APPLICABLE TAXES ON MM IN SUB SAHARAN AFRICA

Country	Year tax implemented	Tax base	Value / Rate	MM – specific?
Cameroon	2022	Transaction fee	0.2% of transaction value	Yes
Cote d'Ivoire	2015	Transaction fee	18% of transaction fee	Also some bank transfers
Cote d'Ivoire	2019	Total revenue	7.2% of total revenue	Yes
Congo	2019	Transaction value	1% of transaction value	All electronic payments
Ghana	2022	Transaction value	1.5% of transactions above 100 Ghanaian cedi (USD 13; £11). Reduced to 1% in 2023.	Yes
DRC	2019	Total revenue	3% of total revenue	No
Kenya	2018	Transaction fee	12% of transaction fee	No
Tanzania	2021	Transaction value	Different rates. Reduced in 2021 and 2022.	Yes at first. Intention to expand base
Uganda	2013-2015	Transaction fee	10% of transaction fee	No
Uganda	2018	Withdrawals	0.5% of value of withdrawal	Yes
Zimbabwe	2018	All transfers, with exceptions*	2% of value transferred	No

These taxes on MM, especially those raised on transaction values, have detrimental effects on the mobile market and consumers alike, and risk reversing the recent gains in financial inclusion and digital transformation.<sup>46</sup> Importantly, while there had been scepticism in the past on the degree of demand elasticity to increases in the price of mobile services, analysis of the impacts of MM taxation shows a steep sensitivity to price of mobile consumers, as will be shown in the case study below, which points to a significant regressive impact of the tax.

Moreover, the recent experience of the introduction of the MM levy in Tanzania and E-levy in Ghana has shown that these taxes tend to underperform with respect to expected revenue generation for the government<sup>47</sup> because of reduced demand for MM services in response to increase in cost; as well as being particularly regressive for lower income groups.<sup>48</sup>

45 Muthiora, B. and Raithatha, R. (2017). Rethinking Mobile Money Taxation. GSMA. And GSMA 2020, The causes and consequences of mobile money taxation.

46 World Bank (2018). Uganda Economic Update 11th Edition, Financing Growth And Development: Options for Raising More Domestic Revenues. UNCDF (2018). Understanding the Consequences of Mobile Money Taxation in Uganda.

47 GSMA, Tanzania mobile money levy impact analysis, 2022 and GSMA, Ghana E-levy impact analysis, forthcoming.

48 Mobile Money Taxation and Informal Workers: Evidence from Ghana's E-levy, Nana Akua Anyidoho, Max Gallien, Mike Rogan and Vanessa van den Boogaard, ICTD Working Paper 146, Institute of Development Studies in September 2022.



## 5.2 Case study: Impact of the mobile money levy in Tanzania

MM is the main way for Tanzanians to access formal financial services with 72% of Tanzanians reporting using MM services and 22% reporting using commercial bank services. The percentage of Tanzanian citizens using formal financial services increased from 16% to 65% between 2009 and 2017, to 76% in 2023.<sup>49</sup> Uptake has been largely driven by mobile money services, with adoption going from 60% of the population in 2017 to 72% in 2023.<sup>50</sup> As of June 2021, Tanzania had 33.2 million MM accounts relying on a network of agents managing transactions across rural and urban areas.<sup>51</sup>

The Government of Tanzania recognised MM as the main driver of financial inclusion in the country, contributing directly to Tanzania's economic growth and social development objectives. As set out in Tanzania's National Financial Inclusion Framework, "MM services have been the main driver in the provision of financial services to the under-served especially women and people living in rural areas".<sup>52</sup> Despite this, from July 2021 Tanzania introduced a new tax on MM transfer and withdrawal transactions, excluding merchant, business and government payment transactions. This levy applies in addition to VAT (18%) and excise duty on MM transfer and withdrawal fees (10%). Recognising the persisting large and detrimental impact of the levy, the government subsequently reduced the levy several times.<sup>53 54</sup>

Analysis shows that following the introduction of the MM levy, the average transaction fee increased significantly as a result of the levy, with tax as a percentage of transaction fee increasing from 23% in June 2021 to up to 84% for P2P transactions in July and August.<sup>55</sup>

As MM transactions became more expensive, MM users rapidly reduced their usage of MM in favour of alternative payment methods such as cash. Users also removed their assets from their MM accounts in favour of alternative payment methods such as cash. Between June and September 2021, the total number of P2P transactions reduced drastically from 30 to 18 million (-38%) per month, while the total number of cash-out transactions reduced from 33 to 25 million (-25%) per month. Since then and until March 2022, the market has slowly started to recover but on a lower growth trajectory.

It took 16 months for P2P transaction to recover their peak volumes of June 2021. Cash-out volumes still have not recovered. We estimate that the loss in growth, had the tax not been introduced, is equivalent to 30% fewer transactions in March 2023 for P2P and 60% for cash-out.

49 Finscope Tanzania (2009, 2017 and 2023). Insights that drive innovation.

50 Ibid.

51 Tanzania Communications Regulatory Authority. Quarterly Communications Statistics.

52 Insert link to Tanzania National Financial Inclusion Framework.

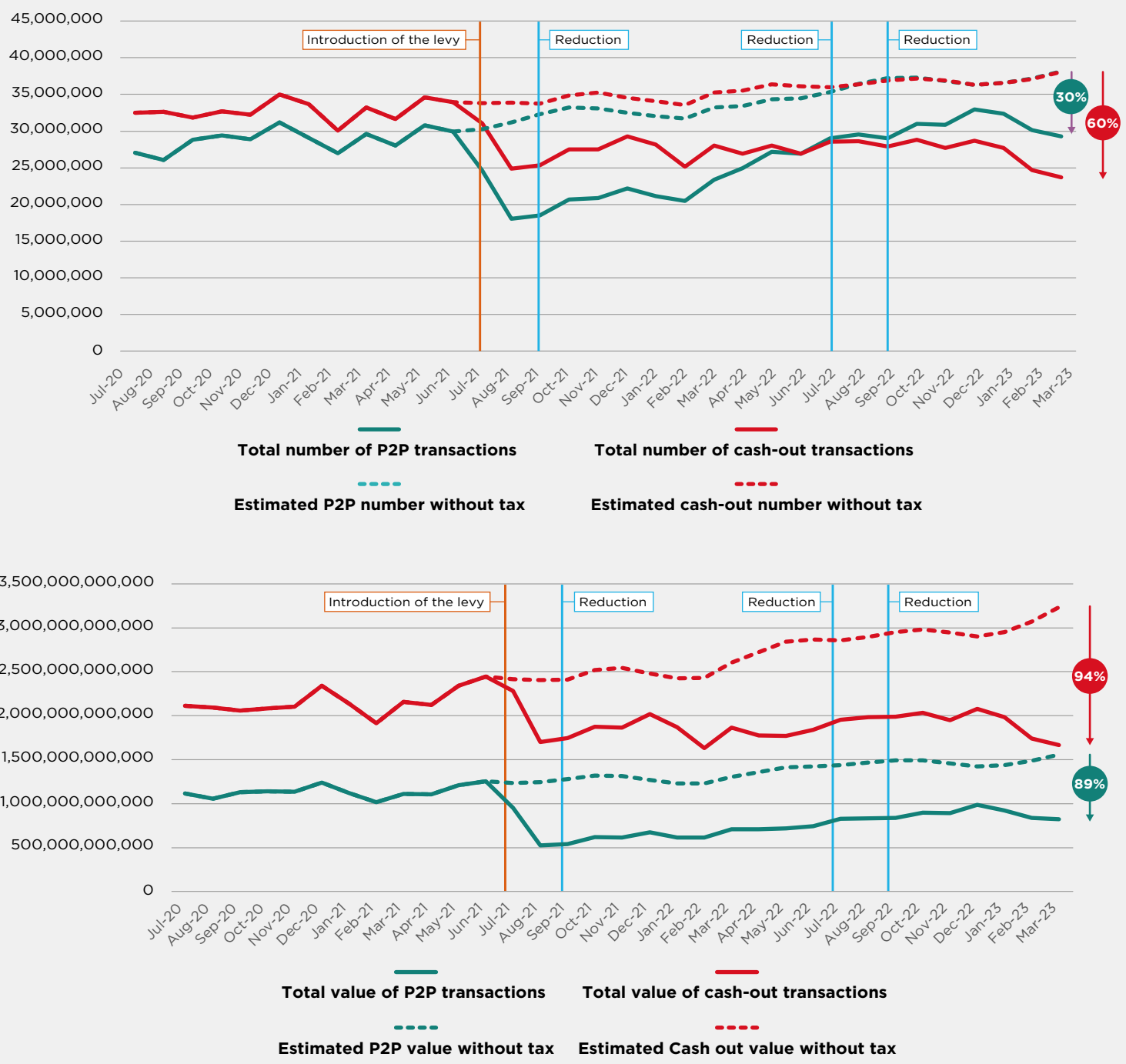
53 The United Republic of Tanzania (2021). Special Supplement. The National Payment Systems (Electronic mobile money transfer and withdrawal transactions levy) (Amendment) regulations, 2021. See also: <https://www.ictd.ac/blog/tanzania-waive-electronic-money-transfer-levy-except-mobile-money/#:-:text=The%20government%20announced%20a%2010,of%201st%20October%202022>.

54 The levy was later reduced in September 2021, July 2022 and September 2022. Tanzania Revenue Authority: <https://www.tra.go.tz/index.php/laws>

55 Source: GSMA analysis and operator's data. The full analysis can be found at: GSMA, Mobile Money Levy Impact Assessment, 2023.

FIGURE 5.1

TOTAL NUMBER AND VALUE OF TRANSACTIONS, P2P AND CASH-OUT



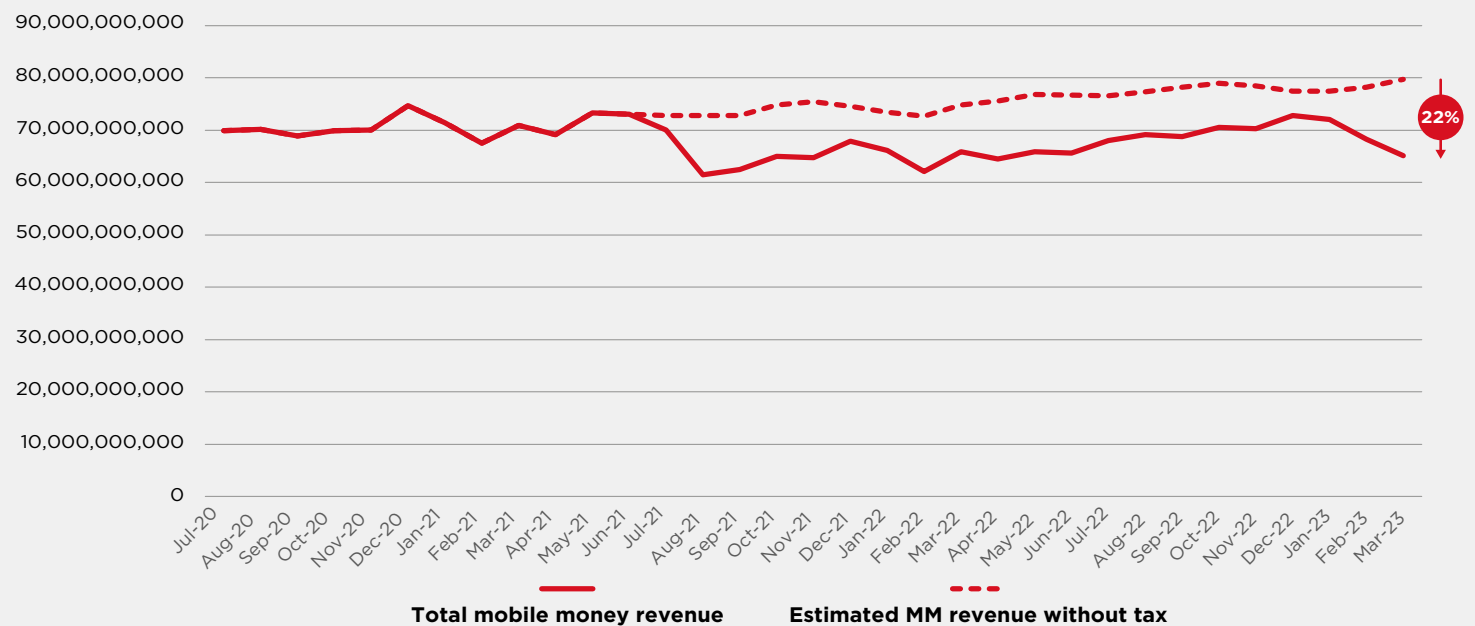
Source: GSMA analysis and operator's data. The vertical lines denote the timeline of the reforms: red for the introduction of the levy in June 2021 and orange for subsequent reductions. Estimation of the counterfactuals are based on rolling average of the growth rates of the previous 12 months.

For P2P transactions, lower value transactions are driving the recovery in volumes and have rebounded slightly above their levels pre-tax. Middle and higher value transaction have still not recovered their pre-tax levels and are, respectively, 31% and 58% lower than in June 2021. This may reflect the sensitivity of MM users to price.

Following the introduction of the mobile money levy, mobile money revenue reduced sharply from TZS 736 to 6154 billion (-1628%) per month between June

and August, to only stabilise to around TZS 6555 billion in September from October 2021. It has since started to grow back again, but on a lower growth trajectory. It took 18 months to recover to the levels of June 2021. We estimate that in March 2023, mobile money revenues would have been 22% higher had the levy not been introduced at all. Because MM agents' revenue consists of a percentage of MNOs' revenues, it is likely that their revenue has reduced significantly too from July, leading some of them to stop their MM activity.

**FIGURE 5.2**  
FIGURE 5.2: ACTUAL AND ESTIMATED MM REVENUE, USD BILLIONS



Source: GSMA analysis and operator's data. Estimation of the counterfactuals are based on rolling average of the growth rates of the previous 12 months.

The reduction in affordability of MM therefore threatens to reverse the commendable financial inclusion gains as Tanzanians revert to cash, particularly amongst the vulnerable and the poorest segments of the population. While the reduced revenues will discourage investment in the sector. Moreover, considering the positive impact of MM on

productivity, the sharp and sustained decrease in MM usage and revenues since the levy was introduced points to longer term impacts on mobile connections and the wider economy, which could imply up to 1.5% lost GDP per year and reduced tax revenues in the medium term.<sup>56</sup>





## 6. Impacts of taxation on inclusive digital transformation

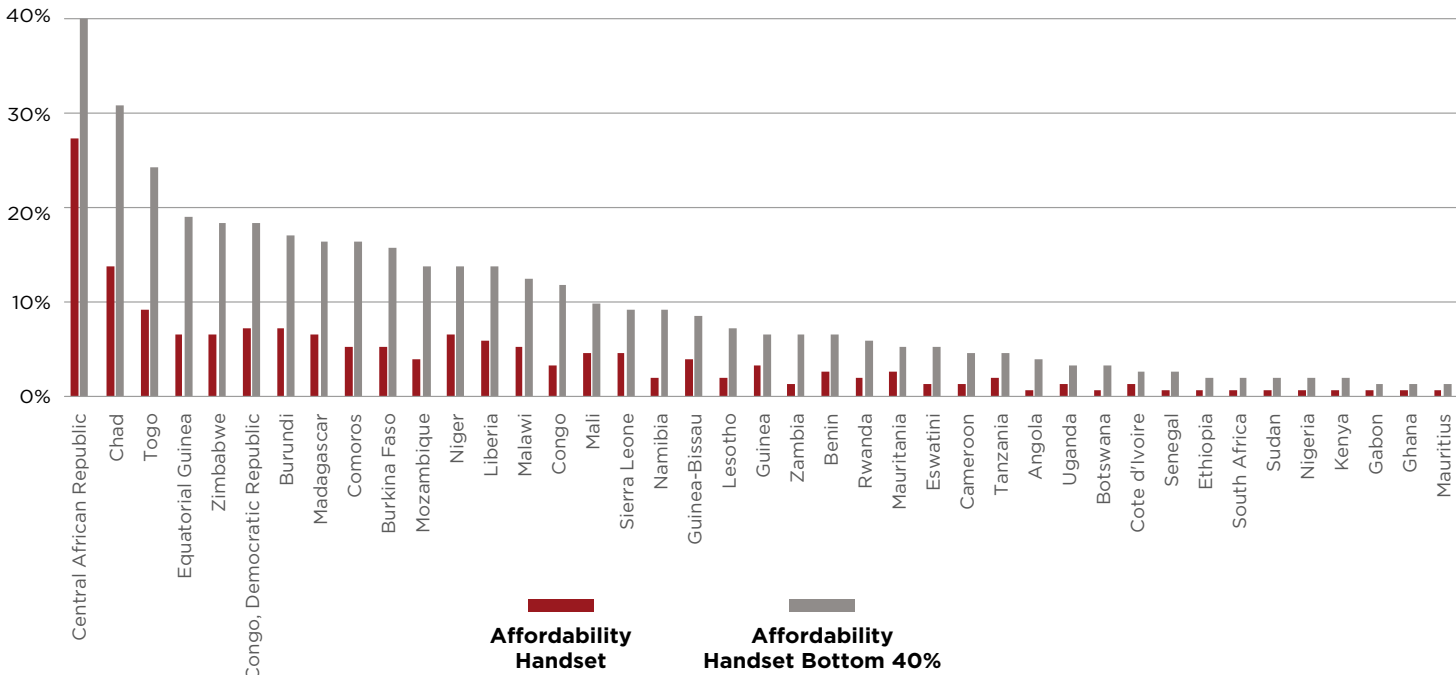


# 6.1 Impact of taxation on affordability of handsets and mobile services in SSA

Mobile operators in SSA have invested significantly in deploying mobile broadband networks over the last decade and this has resulted in a 31% reduction in the coverage gap between 2014 and 2020. However, the adoption has not kept pace, and the usage gap is now more prominent than the coverage gap, as seen above. Affordability remains a substantial barrier to using mobile internet, particularly for the lowest-income and underserved populations. The pricing of handsets and mobile services is greatly affected by consumer taxes, creating a major obstacle to affordability. This section of the report presents insights regarding the affordability of mobile handsets and services in the SSA region and provides analysis on how consumer taxes impact the affordability of handsets and mobile services.

Mobile handsets continue to be highly unaffordable in SSA region, especially for those with lower incomes. An analysis of data from 41 SSA countries in 2022 reveals that the price of a basic internet-enabled mobile phone constitutes an average of 44% of the monthly GDP per capita. However, for individuals within the lowest 40% income bracket, this cost equates to an average of 113% of the GDP per capita. In Burundi, the cost is as much as seven times the monthly GDP per capita for individuals in this income group.

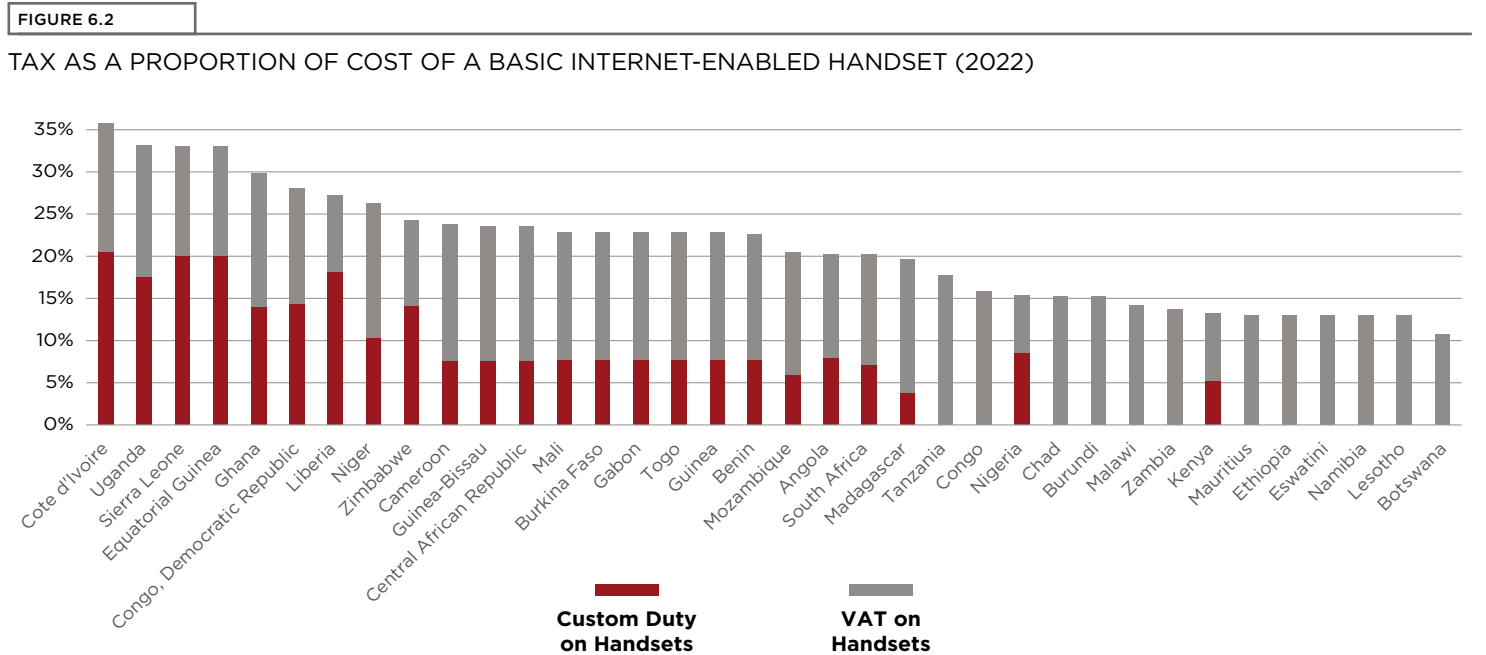
**FIGURE 6.1**  
**COST OF A BASIC INTERNET-ENABLED HANDSET AS A SHARE OF MONTHLY GDP PER CAPITA FOR DIFFERENT INCOME GROUPS IN SELECTED COUNTRIES IN 2022**



Source: GSMAi analysis and Tarifica data.

Handset prices are greatly affected by consumer taxes, mainly driven by the high custom duties imposed on the imported handsets. Based on an analysis of levies imposed on handsets in 36 countries in the SSA region for which data is available, on

average, tax payments represent 21% of the cost of a basic internet-enabled handset. Cote d'Ivoire has the highest proportion of tax at 36%, followed by Uganda, Sierra Leone and Equatorial Guinea at 33%.



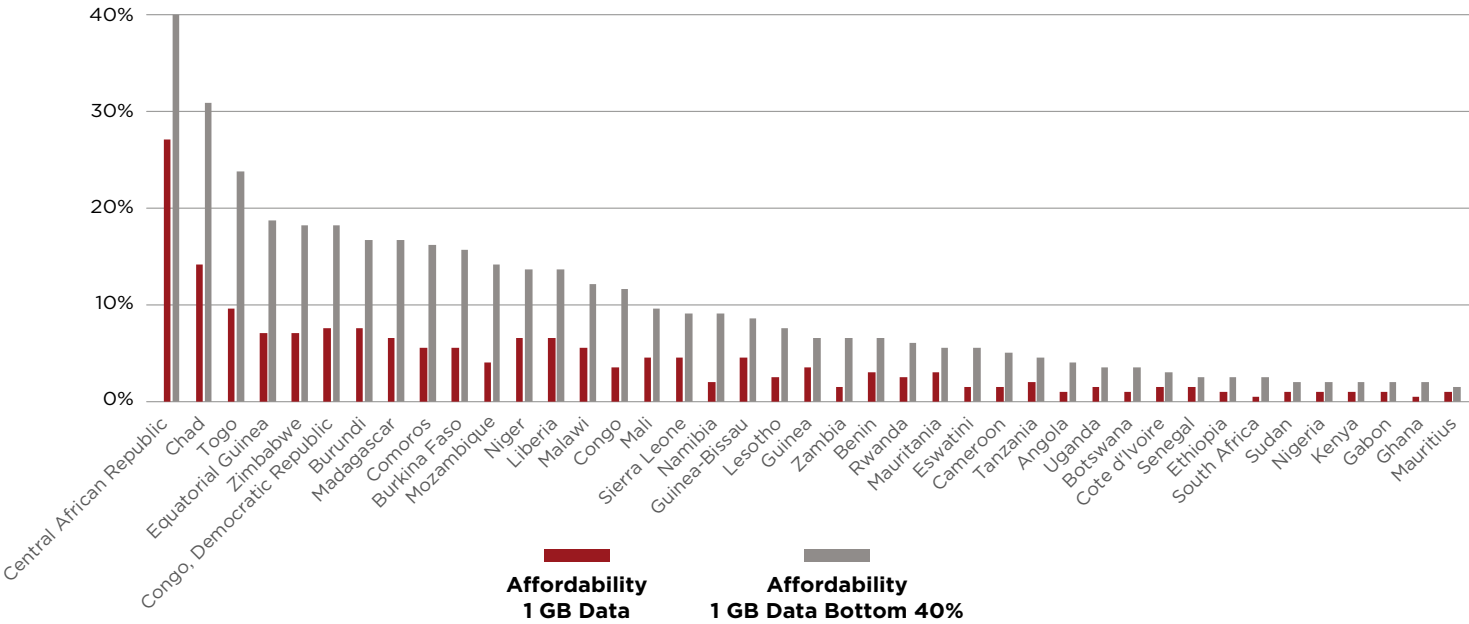
Source: GSMA analysis and Tarifica data.

Data for 42 countries in SSA shows that in 2022 the cost of 1 GB data was, on average, 4% of monthly GDP per capita. However, for individuals in the bottom 40% income group, the cost represents 12% of the monthly GDP per capita, reaching as high as 115% in Central African Republic.

The average cost of 1 GB of data for countries included in this analysis is above the UN's affordability target of 2% of income per capita, suggesting that the basket is unaffordable for the lower-income groups. Most of the countries in this region are still behind the UN's former affordability target of 5% by 2015.

**FIGURE 6.3**

**COST OF 1 GB DATA BASKET AS A SHARE OF MONTHLY GDP PER CAPITA FOR DIFFERENT INCOME GROUPS IN SELECTED COUNTRIES IN 2022**



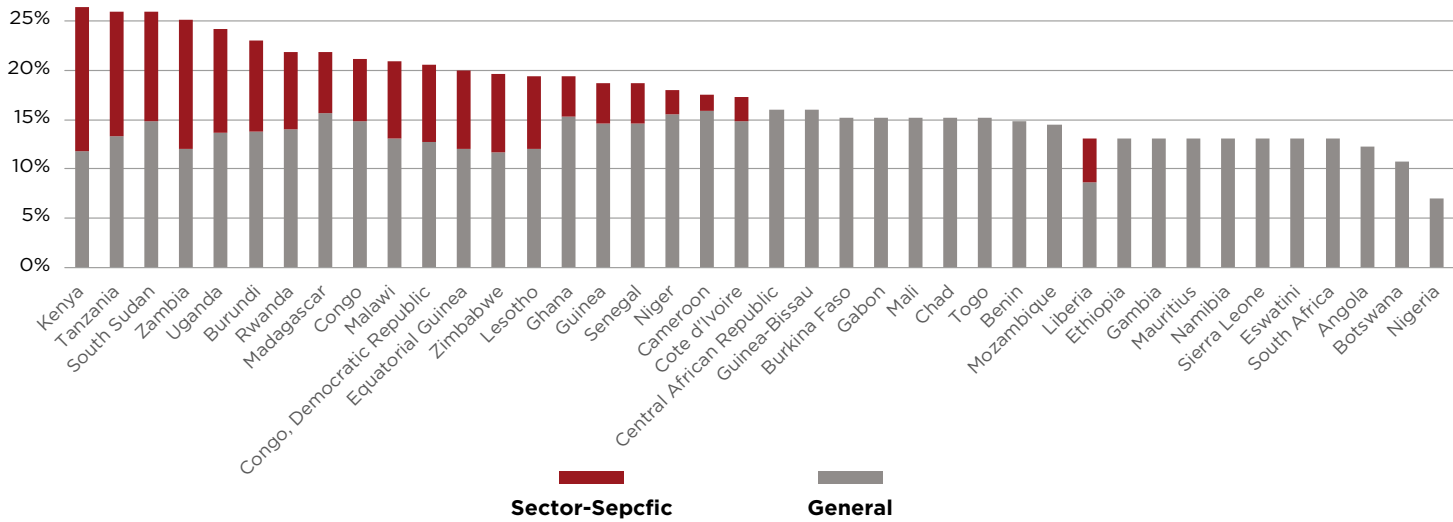
Source: GSMA analysis and Tarifica data.

Taxes imposed on mobile services contribute significantly to the overall cost of using internet in SSA. Based on an analysis of levies imposed on mobile consumers in 40 countries for which data is available, tax payments represent 17% of the cost on average for a 1GB data basket. Kenya, Tanzania and South Sudan

have the highest proportion of tax at 26%, followed by Zambia and Uganda at 25% and 24% respectively. Nigeria, Botswana, Angola and South Africa have the lowest proportion of tax between 7 and 13%.

**FIGURE 6.4**

**FIGURE 6.4: TAX AS A PROPORTION OF THE COST OF 1 GB DATA BASKET (2022)**



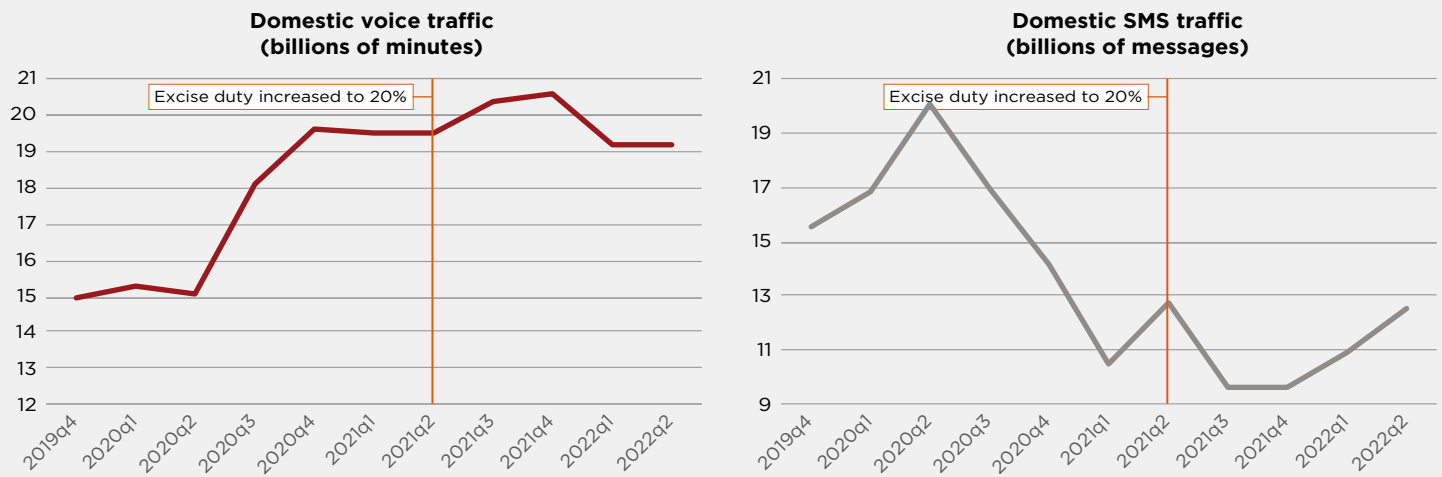
Source: GSMA analysis and Tarifica data.

## 6.2 Case study: Impacts of tax reform on mobile usage in Kenya

In Kenya, the excise duty on the usage of mobile services is one of the highest in SSA, having increased from 10% to 15% in 2018 and then from 15% to 20% in 2021. The increase in the excise tax in 2021 contributed to higher prices for some mobile services, which led to a decrease in the usage of these services, lower growth of mobile subscriptions, and eventually lower-than-expected revenues for the government.

Following the increase in excise duty, SMS usage declined for two quarters, before picking up in 2022 Q1. By contrast, the use of voice increased per subscriber initially – possibly because the price of bundles remained unchanged – but then declined.

**FIGURE 6.5**  
IMPACT OF EXCISE DUTY ON DOMESTIC VOICE AND SMS TRAFFIC IN KENYA

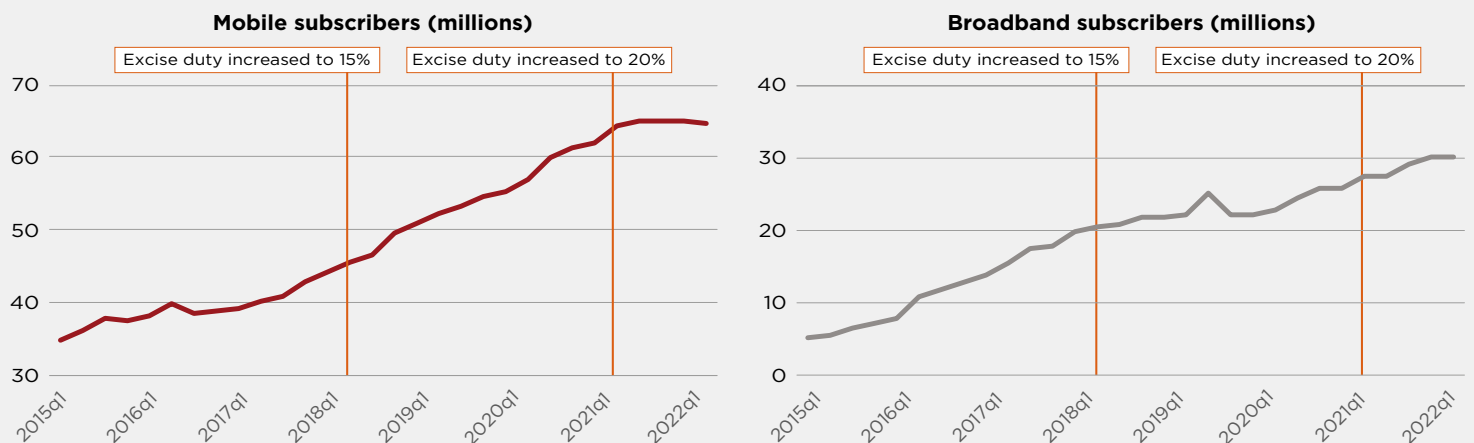


Source: GSMA analysis.

The number of mobile subscriptions had been steadily increasing in Kenya until 2021. However, growth has stagnated since 2021 Q3 following the increase in excise duty. On the contrary, broadband subscriptions increased following the outbreak of the Covid-19

pandemic and continued to increase until 2022 Q2. This was because the operators absorbed the tax increase on data bundles, instead of passing it to the consumers.

**FIGURE 6.6**  
IMPACT OF EXCISE DUTY ON NUMBER OF MOBILE AND BROADBAND CONNECTIONS IN KENYA



Source: Kenya Communications Authority.

## 6.3 Case study: How mobile supports digital government and Domestic Revenue Mobilisation

Mobile technology plays a key role in the digital transformation of governments, facilitating more efficient delivery and improved access to government services through digital channels. “Digital government” refers to the use of digital technologies to manage internal systems and processes, deliver government services, and engage with stakeholders.<sup>57</sup> According to the UN e-government survey 2020, mobile broadband access is necessary for citizens and businesses to benefit fully from digital government services<sup>58</sup> and, in turn, digital government services are recognised as vital for fostering economic growth, developing the digital economy, and promoting trust in government institutions.<sup>59</sup>

Digital government encompasses a wide range of services: government-to-government (G2G), government-to-people (G2P, such as cash transfers), government-to-businesses (G2B), business and person-to-government (P2G).<sup>60</sup> In particular, P2G services have huge potential to accelerate Domestic Revenue Mobilisation (DRM) through digital payment systems, and are therefore important for countries with a high level of cash activity and informal economies and low tax-to GDP ratios, such as SSA countries. P2G payments can be applied to services such as monthly utility bills, annual education fees or one-off payments for a business registration tax. An array of public entities could benefit from digitalising P2G payments — from local schools and municipalities to regional utility companies and national ministries.

By making government services and payments more convenient and efficient for users in both urban and rural areas, digitalisation of government payments leads to greater reach and compliance which, in turn, increases revenue generation for governments. The IMF estimated that digitalisation of all payments to governments in developing countries could

generate savings of about 0.8% to 1.1% of GDP each year through reduced leakage and fraud and increased efficiency of payments. About 29% of this would accrue to the digitalisation of P2G payments, amounting to a saving for governments of about 0.2% to 0.3% of GDP (USD 64–93 billion) on average across the developing world.<sup>61</sup> The World Bank considers e-government central to achieve high-level national objectives, for example it recommended strengthening e-government in The Gambia to achieve revenue generation of 20 percent of GDP.<sup>62</sup>

In 2019, a GSMA survey found 94 active MM P2G services across 24 countries in SSA. Utility payments were the most common MM P2G payment type (24). Tax and education-related payments were the next most common types (20 and 21 countries respectively).<sup>63</sup> These developments are promising but there remains much room to improve and increase digital government in SSA. For example, in 2020 UNDESA compiled the E-Government Development Index (EGDI) and found that countries in Africa performed mostly below the global average, reflecting perhaps the persistence of the digital divide. With respect to digital DRM, in Nigeria only 9% of transactions for tax receipts were digital, representing 34% of tax receipts by value.<sup>64</sup>

The Africa Tax Administration Forum reports that since 2010 there has been a steady rise in mobile payment and in 2020 60% of revenue administrations agencies accepted mobile tax payment.<sup>65</sup> African national tax administrations are showing widespread support for digital tax services to collect tax revenue, as it is recognised that in the future it will be the ideal tool for increasing revenue collection from the informal sector, improve domestic resource mobilisation and strengthen financial resources available to African governments.<sup>66</sup>

57 USAID Digital government model 2022. Definition in the USAID Digital Ecosystem Framework. Originally adapted from OECD (2014), Recommendation of the Council on Digital Government Strategies, OECD/LEGAL/0406.

58 UNDESA e-government survey 2018 and 2020.

59 See <https://www.govstack.global/> and ITU e-government framework.

60 P2G payments are defined as any payment from an individual or a business (payer) to a public entity (payee), including payments for public services, taxes and utility services. Such payments can be collected from public entities at the local, regional and national level.

61 Lund S., White O., Lamb J. (2017). The value of digitalizing government payments in developing economies, in IMF (2017). Digital revolutions in public finance. <https://www.imf.org/en/Publications/fandd/issues/2018/03/gupta>

62 World Bank, Digital Economy diagnostics The Gambia, 2021

63 GSMA, Digitalising person-to-government payments, 2020.

64 The value of digitalizing government payments in developing economies, in IMF (2017).

65 ATAF's ATO 2021.

66 ATAF and OECD, Africa's development dynamics 2022.

Many SSA countries have achieved significant progress in expanding their revenues through administrative reforms and successful initiatives in e-government initiatives, of which some are listed below:

- In **Rwanda**, MM is the most popular option to pay for government services on the IremboGov platform, an online portal for digital government. Mobile services allow users to access government services remotely and in a convenient manner, providing access to multiple government services at once, including tax payments.<sup>67</sup> Irembo has been particularly successful due to the strong emphasis placed on ICT strategies in the Rwanda Vision 2050 strategy and the Smart Rwanda Master Plan. The e-government platform supports a two-way communication between government and citizens, not only providing e-services but also allowing users to request information and issue complaints.<sup>68</sup>
- **Tanzania** established a dedicated e-government Authority in 2019 with a mandate to facilitate public access to digital services.<sup>69</sup> Research from the country has shown that shifting to digital P2G and B2G payments in certain cash-heavy industries can reduce leakage by up to 40%, and increase annual tax revenue in the country by USD 477 million per annum.<sup>70</sup>
- In **Kenya**, public sector digitalisation saved the Government an estimated USD 290 million over four years, as P2G payments improved the efficiency of public services.<sup>71</sup> By digitising payments due to it from motorists, the Kenya National Transportation Safety Authority saw an increase in monthly revenue from USD 1.1 million in July 2015 to USD 2 million in October 2016, demonstrating how government support for MM can enlarge the tax base.<sup>72</sup>
- Similarly, it has been estimated that a successful digitalisation of P2G payments in **Ghana** has the potential to increase non-tax revenues of the Government by about 40%, equivalent to USD 630 million.<sup>73</sup>
- Liberia's revenue authority, the LRA, has found it difficult to register small and informal businesses. To overcome this issue, the LRA used Kobo, a mobile data collection toolbox, to easily and accurately collect taxpayer information from small and informal businesses.<sup>74</sup>
- The domestic tax administration division in **Benin** improved revenue between 2016 and 2020 through a set of successful reforms, including electronic VAT invoicing system and improved taxpayer services to optimise VAT management; the leveraging of ICT to improve the efficiency of tax collection and taxpayer compliance; upgrade of taxpayer services such as online and automated taxpayer registration, filing of returns, and tax payment.<sup>75</sup>
- **Uganda** has an e-government master plan that is updated every 2 years including robust legal framework on open government data and data protection.<sup>76</sup>
- In **Madagascar**, the government developed a system allowing small and medium-sized enterprises to pay taxes digitally across four regions. The value of tax collected was estimated to be approximately USD 18 million at the end of 2021.<sup>77</sup>
- Through the eTransform Ghana Project, the government of **Ghana** has been working towards increasing the availability of e-government services and better serving the public. Several initiatives and platforms have been introduced, such as the Ghana.GOV website (a platform hosting most of the e-services), mobile membership renewals for beneficiaries of the National Health Insurance Scheme (NHIS), digital payments of cash transfer interventions, and a national digital identification card system. The services have proved very popular, although often e-government services suffer from low awareness and use, especially by women.<sup>78</sup>

67 GSMA, Digitalising person-to-government payments, 2020.

68 UN e-government survey 2020.

69 UN e-government survey 2020.

70 Better than Cash Alliance, 2016, Person-to-Government Payments: Lessons from Tanzania's Digitization Efforts.

71 GSMA, 2017, Person-to-Government (P2G) Payment Digitisation: Lessons from Kenya.

72 <https://www.gsma.com/mobilefordevelopment/resources/government-person-p2g-payment-digitisation-lessons-kenya/>

73 GSMA, 2018, P2G Payments via Mobile Money: Unlocking Opportunity for Consumers, Governments and Providers.

74 ATAF 2017 tax outlook.

75 ATAF's ATO 2021.

76 UN e-government survey 2020.

77 <https://projects.worldbank.org/en/projects-operations/project-detail/P161491>

78 GSMA, Inclusive E-Government Services in Ghana: Enhancing Women's Access and Usage , July 2023.





## 7. Policy recommendations



This section outlines key recommendations that governments in SSA can consider when balancing the competing objectives of raising government revenues while minimising the distortive impacts of taxation on digital development. These reform options seek to apply to the mobile sector the best practice principles of taxation recognised by international organisations such as IMF, World Bank and OECD<sup>79</sup> to support the government's efforts to promote fair and effective domestic revenue mobilisation while advancing the Sustainable Development Goals.<sup>80</sup>

## **Recommendation 1: Remove the tax-induced barriers to the affordability of mobile services**

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Affordability remains a crucial barrier to accessing and using mobile services in SSA, particularly for those in lower-income groups. As highlighted in the report, the substantial tax burden placed on consumers, particularly through sector-specific excise taxes and high import duties, results in mobile handsets and services becoming excessively expensive, ultimately having detrimental consequences on digital connectivity. Taxation on mobile consumers could be reformed to enhance the affordability of mobile devices and services. This could be achieved through the following measures:

- Eliminating or decreasing industry-specific excise taxes applied to mobile services
- Reducing or eliminating import duties on mobile handsets and refraining from imposing higher VAT rates than the standard rate.
- Removing fixed-rate taxes imposed on consumers, such as activation and numbering taxes, which disproportionately affect individuals with lower incomes and contribute to making mobile services less affordable for them.

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79 OECD (2014), "Fundamental principles of taxation", in *Addressing the Tax Challenges of the Digital Economy*, OECD Publishing, Paris. IMF WEO 2022 and IMF (2011) *Revenue Mobilization in Developing Countries* and Tanzi, V. and Zee, H. (2001) *Tax Policy for Developing Countries*. IMF. *Course on Practical Issues of Tax Policy in Developing Countries*, World Bank, April 28-May 1, 2003.

80 <https://www.addtaxinitiative.net/about> and [www.tax-platform.org](http://www.tax-platform.org). Also: De Paep, G., Hart, T. and Long, C. (2017). *Domestic resource mobilisation and the transition towards sustainable development*. ODI.

## **Recommendation 2: Establish a conducive tax environment to enhance operators' ability to invest in the upgrading and expansion of mobile networks**

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Mobile operators undertake large amounts of upfront investment to deliver and continuously improve mobile services. Sustainable positive cash flow is the cheapest and – in some territories only – a form of financing for flexible investments in mobile networks. Tax payments reduce this cash flow, restricting the amount that operators can further invest in infrastructure. It is, therefore, important that the governments in SSA countries ensure that the taxes applied to the mobile operators are internationally competitive, broad-based, stable, and simple in a way that supports a balanced approach to collecting revenues without jeopardizing investment in the mobile infrastructure and thus the long-term development of the sector. The tax regimes applied to the mobile sector in SSA countries could be made more supportive for investment by:

- Removing the sector-specific taxes/fees on mobile operators particularly those imposed on operators' revenues irrespective of profitability to ensure fair treatment of the sector and encourage investment in mobile infrastructure

- Removing import duties on the import of network equipment to reduce the cost of operators' investment in the networks' expansion and innovation
- Streamlining and stabilising taxes within the mobile sector to reduce operators' compliance expenses and offer them predictability, enabling more effective investment planning.
- Consider tax incentives in exchange for operators' dedication to commit to less financially appealing investments such as deploying connectivity in underserved, remote and rural regions.

## **Recommendation 3: Strengthen access and use of mobile money and digital government services**

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Mobile money services play a pivotal role in promoting financial inclusion, driving economic growth, and fostering social development in SSA. Nonetheless, as emphasized in the report, taxes imposed on Mobile Money transactions have adverse effects on its accessibility and usage, particularly in markets where disadvantaged rural populations have limited access to other financial services. Therefore, it is

important for governments in SSA countries to refrain from taxing MM services, thereby improving their accessibility. Wider access to MM services can facilitate their integration into government payment systems, potentially leading to increased transparency, improved service delivery efficiency, and enhanced revenue mobilization.



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