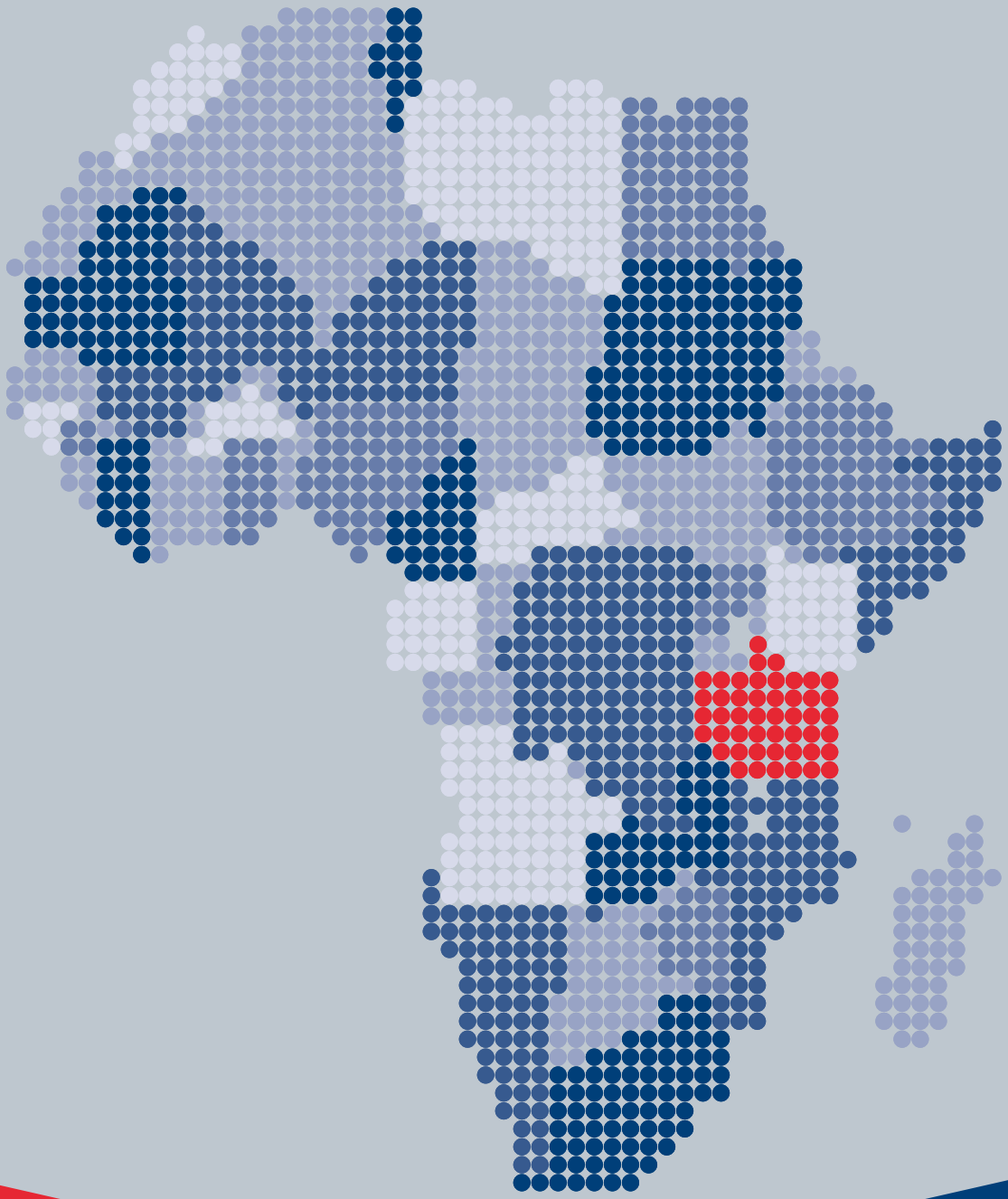
Digital inclusion and mobile sector taxation in Tanzania



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Deloitte contact
Davide Strusani
Assistant Director, TMT Economic Consulting, London
dstrusani@deloitte.co.uk
www.deloitte.co.uk

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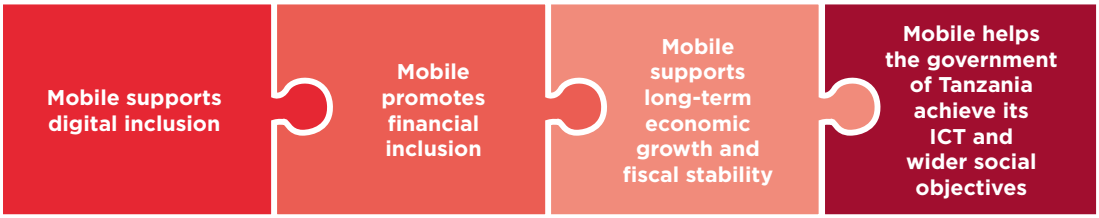
Mobile services are delivering significant benefits for Tanzania

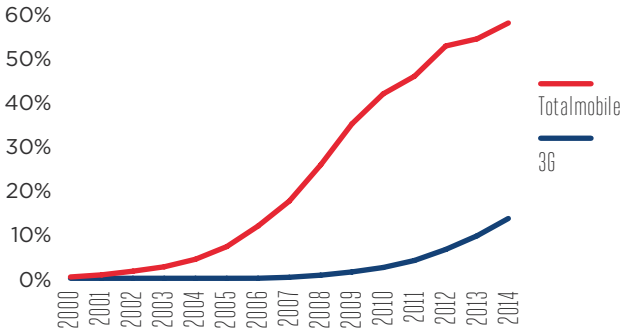
The number of Tanzanians with access to mobile telephony has more than tripled since 2007, and now over 17 million Tanzanians, 34% of the population, have a mobile phone. This increase in access is delivering wide-ranging benefits in Tanzania:

- It promotes digital inclusion, enabling millions more to benefit from the exchange of information for business and social purposes, increased productivity, and improved access to education, healthcare and government services.
- Mobile money services have increased financial inclusion and access to banking services. Tanzania is a world leader in this market, with 44% of adults having access to banking through these services.
- Thanks to these effects, mobile services are creating economic activity in Tanzania both through the direct contribution of the mobile operators and the contribution of industries such as network equipment providers and creators of applications and other services. This increases GDP growth, employment, tax revenues and long-term stability.
- Mobile is the most cost-effective way of extending access to ICT in Tanzania. It is also fundamental to achieving the Tanzania Development Vision 2025 objectives of improving ICT access in under-served areas and developing the use of ICT in the provision of government services.



However, barriers to the adoption of mobile services remain. Mobile and internet penetration increased rapidly in the decade to 2011, but has slowed since then, and Tanzania risks being overtaken by other countries in the region. For much of the population, affordability remains a barrier to access. Infrastructure investment is also required to connect remote and rural areas; if these areas remain unconnected a digital divide may emerge as some Tanzanians remain excluded from the benefits of mobile services.

Mobile and 3G penetration



Source: GSMA Intelligence

Figure 1

High levels of mobile-specific taxation risk reducing mobile sector and economic growth in Tanzania

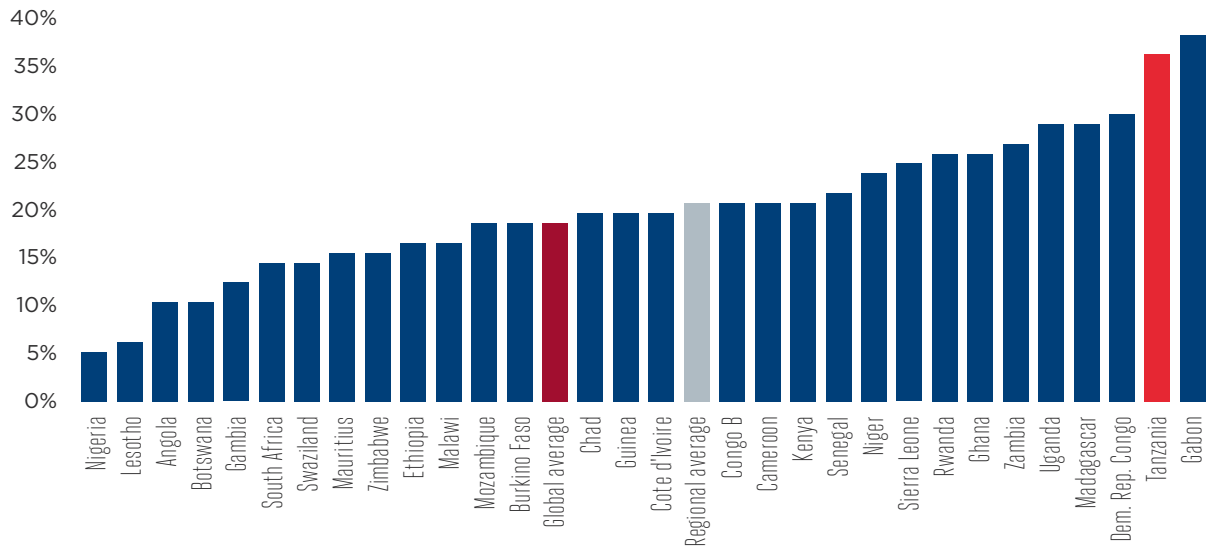
Mobile is one of the most heavily taxed sectors in Tanzania, with operators subject to 10 different taxes, along with regulatory fees and charges. Through these various taxes, operators pay USD 540 million in taxes annually, contributing over 11% of total tax revenues in Tanzania.

Consumers are subject to taxes on devices, subscription and usage. These taxes increase the total cost of mobile ownership for Tanzania consumers and create barriers to affordability:

- In addition to VAT, mobile services such as calls, SMS and data are subject to an additional airtime excise that has increased three times in the last three years, and now stands at 17%.
- SIM cards are subject to VAT, and in 2013 the Tanzanian government introduced a monthly tax of TZS 1000 on active SIM cards. Although this has since been removed, there are discussions of reinstating this tax.
- In addition to VAT, mobile money services are subject to an excise tax of 10% on money transfer fees.

As a result, taxes account for about 35% of the costs of mobile ownership in Tanzania; this is the second highest level in Africa, and almost double the global average. These sector-specific taxes result in a tax burden on mobile that is higher than on many products and services that are recognised to create negative social and environmental impacts: the tax burden on tobacco products is 32%, on alcohol 27%, and on petrol 35%. In contrast, mobile services create positive network effects by facilitating communication and the flow of the information, increasing productivity throughout the economy. Through this high tax burden, the government risks signalling that it aims to discourage consumption of mobile services.

Taxation as a share of the total cost of mobile ownership in Africa



Source: GSMA/Deloitte Global Mobile Tax Review 2011; Data from operators in Tanzania 2014

Figure 2

Taxes account for about 35% of the costs of mobile ownership in Tanzania

Operators are also subject to a number of sector-specific taxes, in addition to corporate tax and a local service levy paid by all companies. Many of these taxes reduce incentives and resources for infrastructure investment; examples include the Universal Service Obligation of 0.3% of total revenues and the ending of the exemption for some operators from customs duties on network equipment. Operators are also subject to the Surtax on International Incoming Traffic (SIIT), which fixes international termination rates, with 48% going to the government.

Mobile-specific taxes are inefficient and limit digital inclusion and economic growth in Tanzania

As seen below, taxes on mobile fail to align with many of the widely recognised principles of taxation outlined by organisations such as the International Monetary Fund.

1. In general, taxation should be broad based

Mobile-specific taxes such as the airtime excise lead to inefficiently low consumption and investment in the mobile sector in Tanzania.

2. Taxes should account for sector and product externalities

Mobile sector taxes in Tanzania fail to account for positive network effects and spillovers onto sectors such as agriculture, healthcare and education.

3. The tax system should be simple, understandable and enforceable

Frequent increases to the level of the airtime excise and uncertainty over the possible reintroduction of the SIM tax deter investment.

4. Incentives for competition and investment should be unaffected

Taxes on operators' total revenues reduce incentives for investment in infrastructure and quality of service improvements

5. Taxes should not be regressive

Taxes on mobile lead to a disproportionate burden on poorer Tanzanians and risk excluding them from the benefits of digital and financial inclusion.

The following mobile-specific taxes are expected to have the most negative impact on the Tanzanian economy due to their failure to align with these principles:

- **The excise tax** fails to account for positive externalities created by the mobile sector, and increases barriers to affordability. This excludes many Tanzanians from the benefits of digital inclusion and reduces productivity and economic growth. This also risks damaging the government's own tax revenues.

- **The tax on mobile money** could potentially reverse financial inclusion gains made in Tanzania if it makes carrying out basic transactions more expensive. This may also risk deterring innovation and investment in the development of other mobile services and applications.

- The reintroduction of **the SIM card tax** would increase barriers to mobile ownership and threaten digital inclusion. By excluding consumers from mobile ownership, the government may lose the revenue that could be generated through taxes paid on mobile usage and operator revenues.

- **Ending the customs duty exemption on network equipment** will disincentivise investment in infrastructure. It fails to take into account the fact that mobile infrastructure provides a public good and that many projects, particularly in remote areas, may not be economically viable with this tax in place. Reducing investment also reduces the economic activity associated with site installation, civil works and the employment linked to these activities; this leads to reductions in tax revenues.

- **The Surtax on International Incoming Traffic** increases the costs of trade for local and regional businesses, risks reducing remittances to local consumers and reduces Tanzania's overall competitiveness.

By rebalancing mobile-specific taxes, the Tanzanian government can promote digital inclusion, economic growth and fiscal stability

The important tax contribution that the mobile sector makes to Tanzanian government revenues and public services is recognised. Taxation on the mobile sector may deliver short-term benefits to the government, but this comes at the cost of long-run socio-economic development and growth and is ultimately counterproductive. By reducing taxes on the mobile sector, the Tanzanian government can not only increase digital and financial inclusion and economic growth, but also recover higher tax revenues through more efficient and broad-based taxation.

A complex model of the Tanzanian mobile sector and its macroeconomic impacts, described in detail in the Appendix, is used to estimate the impacts on mobile penetration, GDP growth and tax revenues of changes to taxation in Tanzania. The following proposed suggestions would enable the Tanzanian government to minimise the inefficiencies associated with taxation on mobile while maintaining revenue neutrality in the medium-term.

ELIMINATING THE AIRTIME EXCISE ON MOBILE BROADBAND is estimated to lead to an additional one million mobile broadband connections, delivering USD 113 million in additional revenues to the industry. The impacts would affect the whole Tanzanian economy: by 2020, increases in mobile access and usage could enable it to become 0.6% more productive. Thanks to these increases in productivity across the economy, annual GDP could increase by up to USD 366 million, with almost 15,000 new jobs created. These wide benefits mean that if these changes are undertaken, the government would achieve revenue neutrality within two years, and additional tax revenues of about USD 33.6 million by 2020.

REDUCING THE AIRTIME EXCISE ON ALL SERVICES TO 10% is expected to enable an additional 1.7 million Tanzanians to access mobile services, and about 0.8 million additional broadband connections. This increase in mobile penetration would increase the productivity of economic activity in Tanzania by 0.9% by 2020, adding 27,000 new jobs and contributing an additional USD 549 million to GDP in 2020. As a result of this increased economic growth, the Tanzanian government will achieve revenue neutrality within four years, and enjoy USD 11.3 million in additional revenues in 2020.

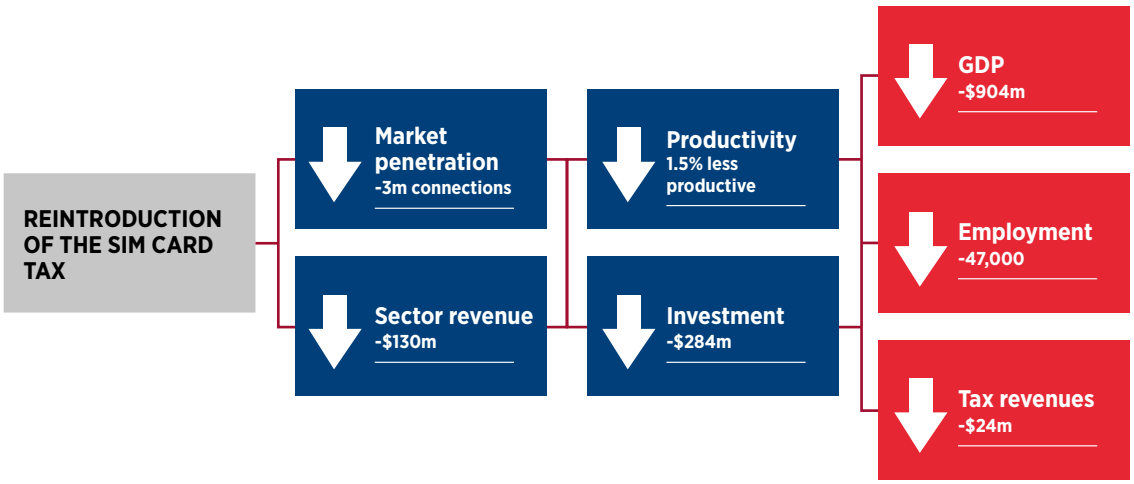
Reductions to the airtime excise increase internet access, GDP growth and fiscal stability

Source: Deloitte analysis based on operator data

Figure 3

RULING OUT THE REINSTATEMENT OF THE SIM CARD TAX.
The suggested reintroduction of the SIM card tax would reduce mobile penetration, with three million fewer Tanzanians having access to mobile and broadband services. This would reduce productivity by almost 1.5%, leave 47,000 fewer Tanzanians in employment and cost up to USD 905 million per year in lost GDP by 2020. As a result of this lost economic growth, the government of Tanzania would be USD 24 million worse off in 2020.

Reinstating the SIM card tax reduces GDP growth and medium-run tax revenues



Source: Deloitte analysis based on operator data

Figure 4

In addition to the impacts modelled above, research suggests that removing or reducing other mobile-specific taxes can promote financial inclusion, international competitiveness and infrastructure investment.

REMOVING THE M-MONEY TAX could support financial inclusion and could provide incentives for continued innovation in the mobile sector.

REMOVING THE SIIT can reverse the 27% fall in international incoming traffic seen after the introduction of the tax in 2013, generating up to USD 1 million in corporate tax revenues, up to USD 0.6 million through remittances and their impact on the economy, and USD 1.1 million for Tanzanian businesses through increased cross-border trade. Eliminating this tax would also make Tanzania more competitive and attractive to foreign investors.

REINSTATING THE CUSTOMS EXEMPTION ON NETWORK EQUIPMENT can reduce the cost of electronic network equipment by around 15%, increasing the economic viability of infrastructure investment in remote areas. By restoring the exemption, operators have indicated that the Tanzanian government could enable them to invest in an additional 300 network sites, potentially providing mobile coverage to 1,000 villages, and 3G coverage to over 150 villages.

REBALANCING TAXES ACROSS THE ECONOMY can enable the Tanzanian government to reap these benefits while mitigating the short-term loss of revenues. For example, the government can consider rebalancing taxes towards goods and services that do not create positive externalities for wider society.

In summary, these proposals can potentially deliver the following socio-economic benefits to Tanzania:

INCREASE DIGITAL INCLUSION TO LEVELS SEEN IN MORE DEVELOPED AFRICAN ECONOMIES:

By removing barriers to affordability, the elimination of the airtime excise on mobile broadband would enable an additional one million Tanzanians to access the mobile internet by 2020. Reducing the airtime excise on all services to 10% increases the number of mobile users by 1.7 million, with 0.8 million of these new users having access to broadband by 2020. Reinstating the customs duty exemption for mobile broadband could reduce the cost of network equipment by up to 15%, encouraging the investment needed to extend mobile coverage into remote areas.

EXTEND THE BENEFITS OF FINANCIAL INCLUSION:

Reducing the airtime excise to 10% enables an additional 1.7 million consumers to access mobile services, which could include mobile money. Removing the tax on mobile money charges could improve the affordability of these services, enhancing financial inclusion.

SUPPORT ECONOMIC GROWTH AND FISCAL STABILITY:

Through increased penetration and improvements in productivity, removing the airtime excise on mobile broadband generates an additional USD 366 million in annual GDP by 2020, and creates an additional 15,000 jobs. Reducing the airtime excise to 10% increases GDP by USD 549 million in 2020, and increases employment by 27,000. Eliminating the SIIT reduces the costs of cross-border trade, enabling Tanzanian businesses to expand internationally and encouraging foreign investment.

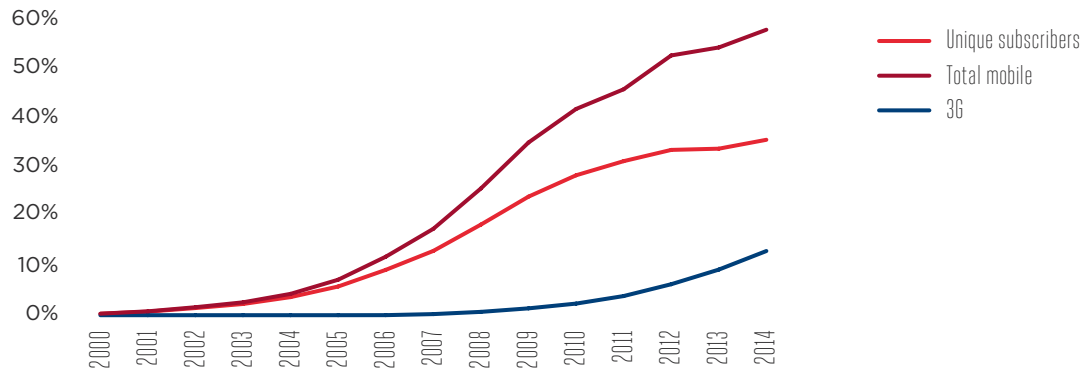
SUPPORT THE TANZANIAN GOVERNMENT IN ITS AMBITION TO INCREASE ACCESS TO ICT IN UNDER-SERVED AREAS, WHILE ENSURING FISCAL STABILITY.

1 The mobile sector in Tanzania

1.1 Mobile services are delivering economic and social benefits to Tanzania

The development of the mobile telecommunications sector in Tanzania is led by four mobile operators: Airtel, Tigo, Vodacom and Zantel. Tanzania's mobile sector has grown rapidly over the last 10 years, and operators now serve over 17 million unique customers, a twelve-fold increase over the last decade. While the fixed-line penetration rate stood at 0.4% in 2013, mobile penetration rates now surpass 50%[1].

Mobile and broadband penetration rates



Source: GSMA Intelligence

Figure 5

The period of rapid growth in the mobile market in Tanzania coincided with a significant decrease in the effective price of mobile services, making mobile services affordable to a larger number of Tanzanians. In 2009, the effective price of mobile services was about USD 0.11 per minute of use; by 2014 this had fallen to USD 0.04[2].

1. Buddecom (2014),"Tanzania: Telecoms, mobile and Broadband - Market Insights, Statistics and forecasts" Link: http://www.budde.com.au/Research/Tanzania-Telecoms-Mobile-and-Broadband-Market-Insights-Statistics-and-Forecasts.html?r=51 2
2 The effective price of mobile use per minute is defined as the average revenue per user, divided by average usage; Data from GSMA Intelligence

MOBILE SERVICES PROMOTE DIGITAL INCLUSION

Millions of Tanzanians now benefit from access to mobile services, while rapid growth in access to mobile broadband is creating further opportunities, both for consumers and for the mobile sector.

By reducing communication and transaction costs and facilitating the exchange of information, mobile services increase productivity across the economy, support the expansion of businesses and enable the more effective delivery of public services. The further extension of mobile and 3G access is fundamental to ensuring digital inclusion, i.e., the principle that the benefits of telecommunications should be available to all, regardless of location or socioeconomic status.

MOBILE MONEY SERVICES PROMOTE FINANCIAL INCLUSION

One area in which mobile services have had a transformative impact in Tanzania is in financial services. Mobile money services were first introduced in Tanzania in 2008, when only 9% of the population had access to formal banking. Since then, over 30 million mobile money accounts have been registered, with 43% of adults using these services to pay bills, make transfers to family and friends and conduct business transactions. Mobile money services therefore contribute to greater financial inclusion, enabling more Tanzanian consumers and businesses to manage their savings, insure themselves against uncertainty and reduce the cost of business transactions[3].

MOBILE SERVICES PROMOTE ECONOMIC GROWTH AND FISCAL STABILITY

The benefits and opportunities created by mobile also contribute to Tanzania's long-term economic growth and stability. By promoting digital inclusion and supporting the knowledge economy, mobile services have a direct impact on productivity and GDP growth and facilitate cross-border trade and the expansion of Tanzanian businesses. This in turn contributes tax revenues to the Tanzanian government. Mobile services also support a variety of other industries that form part of the mobile ecosystem, such as equipment providers, workers in the network engineering and maintenance industry, and providers of related businesses services. Other opportunities enabled by mobile services include the development of mobile applications in healthcare, education and other sectors. For example, innovations such as m-agriculture that link farmers to markets for their products and provide information on better farming techniques and market prices can contribute to economic growth. This has a particular impact on an economy, such as Tanzania's, which is still dependent on agriculture, with the sector contributing 28% of GDP and employing about 80% of the labour force[4].

A GSMA study[5] conducted in 2006, when mobile penetration was only 14%, estimated that as a result of these various impacts the mobile communications industry contributed approximately 4.6% of total GDP in Tanzania. This represents both the direct contribution of the sector, and the contribution of the wider ecosystem of industries supported by the mobile sector, including manufacturing, infrastructure construction, and software and content development; the sector also creates employment for around 150,000 Tanzanians, directly and indirectly. Since then, mobile penetration has increased by over three times.

3. GSMA (2014),"Tanzania: Enabling Mobile Money Policies". Link http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/03/Tanzania-Enabling-Mobile-Money-Policies.pdf4
4. CIA World Factbook: https://www.cia.gov/library/publications/the-world-factbook/geos/tz.html
5. GSMA/Deloitte (2009), "Taxation and the growth of mobile in East Africa"

1.2 Mobile services are key to achieving the government's ICT strategy

The government of Tanzania recognises the many benefits of ICT and has taken a number of steps to support and develop the sector. This includes promoting stability and security in order to encourage investment. Through the Tanzania Development Vision 2025, the government has set out an ambitious strategy for the development of mobile and internet communications in the country. These include:

- For Tanzania to become a hub for ICT infrastructure; and
- To "enhance nation-wide economic growth and social progress by encouraging beneficial ICT activities in all sectors[6]."

As well as these broader goals, the government of Tanzania has also emphasised the importance of ICT in sectors such as healthcare, education and financial services. For example, the Ministry of Health recently issued a National eHealth Strategy paper,[7] setting out the potential uses for ICT in the healthcare system:

- ICT can support medical professionals through the sharing of data and information, through remote training and through remote diagnosis.
- Along with supporting medical practitioners, mHealth technologies can help patients manage their conditions and improve access to information on disease prevention and environmental health.
- However, the Ministry of Health notes that further investment, particularly in rural areas, is required in order to realise the full potential of mHealth technologies.

The Bank of Tanzania also stated that it aims to extend access to financial services to 50% of the population by 2015, and recognises the importance of mobile money services in achieving this goal[8].

Mobile services are fundamental to helping the government achieve the aforementioned goals and extend the benefits of ICT throughout Tanzania. Since only 0.4% of the population has access to fixed-lines,[9] mobile services have proved to be the most cost-effective way of enabling access to ICT and the most popular means of internet access.

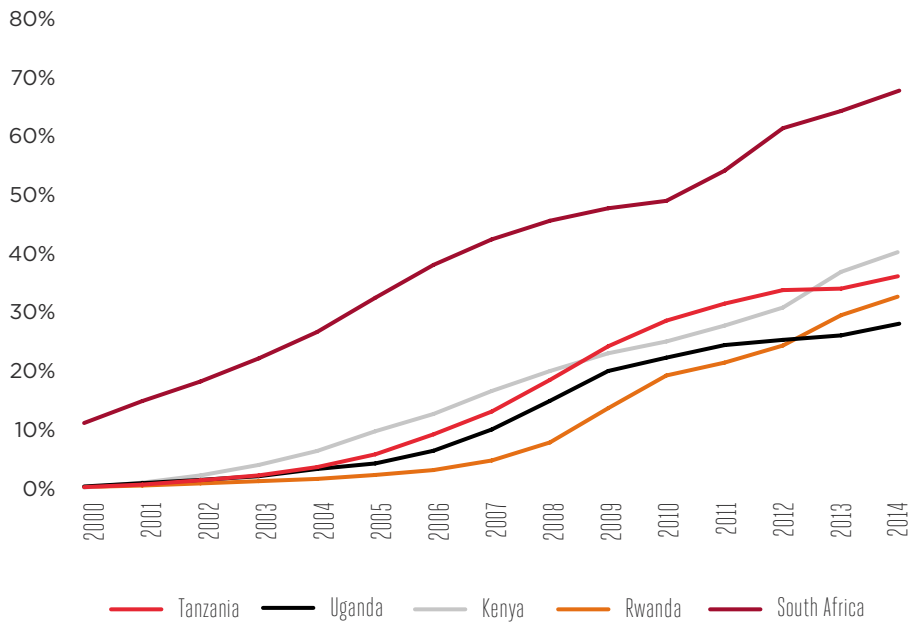
Mobile also creates business opportunities for Tanzanian enterprises and innovators, for example, in the development of value-added mobile applications and services and the creation of local content. However, achieving the government's ICT goals and realising the full benefits of mobile services will require mobile and broadband access to be extended to the whole population of Tanzania. This requires further steps to be taken to address the barriers of affordability and limited infrastructure.

6. Tanzania Ministry of Communications and Transport (2003): National Information and communications technology policy Link: http://unpan1.un.org/intradoc/groups/public/documents/unpan/unpan033693.pdf
7. Tanzanian Ministry of Health and Social welfare (2013): Tanzania National eHealth Strategy http://www.tzdpg.or.tz/fileadmin/documents/dpg_internal/dpg_working_groups_clusters/cluster_2/health/Key_Sector_Documents/Tanzania_Key_Health_Documents/Tz_eHealth_Strategy_Final.pdf
8. GSMA (2014),"Tanzania: Enabling mobile money policies" Link: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/03/Tanzania-Enabling-Mobile-Money-Policies.pdf
9 Buddecom (2014), "Tanzania: Telecoms mobile and broadband- market insights, statistics and forecasts" http://www.budde.com.au/Research/Tanzania-Telecoms-Mobile-and-Broadband-Market-Insights-Statistics-and-Forecasts.html?r=51

1.3 High taxes risk jeopardising mobile sector and economic growth in Tanzania

Although the mobile sector grew rapidly between 2002 and 2011, 30 million Tanzanians remain without access to mobile services, while broadband penetration stands at less than 12%. Moreover, growth in mobile penetration has stalled since 2012 and Tanzania risks falling behind other countries in the region. While the proportion of the Tanzanian population using mobile services remains above the level in Uganda and Rwanda, these countries currently exhibit a faster growth rate, whereas mobile access in Kenya has overtaken Tanzania. This suggests that there is considerable potential for growth in these markets, in particular in the market for mobile broadband; however, an additional impetus may be required to make the most of these opportunities.

Percentage of population with mobile subscriptions, by country



Source: GSMA Intelligence

Figure 6

The slowdown in the mobile sector risks widening the digital divide in Tanzania, as those with access to mobile and ICT enjoy the increasing benefits of new mobile applications and improved local content, while those in under-served areas are excluded from these advantages. Tanzanian operators also face the challenge of declining revenues per user, which have fallen from about USD 27 in 2000 to less than USD 5 in 2014. This decline reduces the funds available for infrastructure investment in under-served areas.

In order for Tanzania to realise the full benefits of mobile services and to promote sustainable and long-term economic growth, further steps need to be taken to promote digital inclusion and extend access to mobile services to the remainder of the population.

There are two key issues that need to be addressed in order to extend access to mobile services: **affordability of services for all consumers,** regardless of their income levels, and **coverage in remote and under-served areas.** Both of these issues risk being exacerbated by high levels of taxation on the mobile sector.

Although the cost of mobile ownership fell rapidly prior to 2011, since then it has remained fairly constant, while consumer taxes on the mobile sector increased significantly over the same period.

While affordability remains a barrier for consumers, operators in Tanzania are facing increased pressure on revenues, and average revenues per user are lower in Tanzania than in other countries in the region. As well as facing the indirect impact of consumer taxes on demand for mobile services, operators are also subject to a number of additional taxes on both profits and revenues, many of which are specific to the sector. This burden on operators reduces the incentives for infrastructure investment and the funds available for investment.

The importance of taxes on the mobile sector for the Tanzanian government revenues is recognised, however current taxes on the mobile sector are inefficient and ultimately counter-productive, with short-run revenues coming at the cost of long-run economic growth.

This study, which is based on a macroeconomic model of the Tanzanian mobile sector and economy, suggests a number of options for the government to rebalance mobile-specific taxation in a way that promotes economic growth and protects the government's tax revenue position.

Section 2 of this report describes in full the taxes levied on the mobile sector in Tanzania, and the implications of these taxes for the mobile sector and the wider economy. It also compares the taxes levied in Tanzania with international benchmarks and with best practice on taxation principles as recommended by leading international organisations.

Section 3 provides effective recommendations for rebalancing taxes on the mobile sector. These policies can support the Tanzanian government's goal of digital and financial inclusion, while increasing economic growth and productivity.

Section 4 concludes by demonstrating how the recommendations presented in section 3 can help the government achieve its ICT objectives while maintaining revenue neutrality in the medium-term.

The Appendix describes in detail the macroeconomic model of the Tanzanian mobile sector and economy that has been used in the analysis to estimate the impacts of rebalancing mobile sector taxes.

Mobile-specific taxes represent a significant barrier to mobile access and affordability in Tanzania.

2 The mobile sector in Tanzania

Taxation that is specific to the mobile sector affects both mobile consumers and operators.

2.1 Consumer taxes create barriers to affordability

The current structure of taxation in Tanzania increases the cost of accessing mobile services through taxes on all components of mobile ownership. This taxation is higher than that applying to other goods and services in Tanzania:

First, consumers need to purchase a device, which is subject to VAT and customs processing fees.

Consumers then need to activate their devices, which in 2013 incurred an additional tax of TZS 1000 per month on SIM card activation and use. Although this tax has since been removed, there is a possibility that it may be reinstated.

Lastly, mobile services such as calls, SMS, data usage and airtime vouchers are subject to both a VAT of 18% and an additional excise tax of 17%. The latter is specific to mobile services and does not apply to other goods or services, de facto penalising mobile services.

Consumer taxes on mobile devices and services in Tanzania

	TAX BASE		TAX TYPE	TAX RATE
Taxes on consumers	Devices		VAT	18%
			Customs processing fee	0.6%
	Services (calls, SMS, mobile internet, mobile money)	Activation	VAT	18%
		Usage (all services except m-money)	VAT	18%
			Excise tax	17%
		M-money charges	VAT	18%
			Excise tax	10%

Key: Consumer taxes on devices | Consumer taxes on services | Mobile-specific

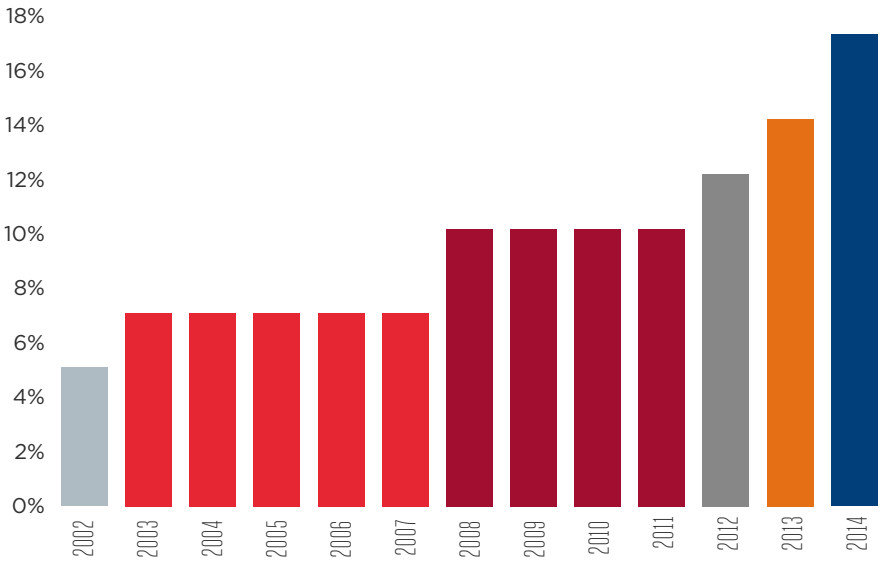
Source: Deloitte analysis based on operator data

Table 1

For a number of years, mobile services were perceived as a luxury good in Tanzania, which triggered a number of additional taxes. Now, the importance of access to mobile services for all sectors of the population is widely recognised, and these taxes risk excluding millions from the benefits of mobile ownership.

The combined effect of these levies on all aspects of mobile ownership is that taxes now account for about a third of the cost of mobile ownership in Tanzania. This figure has grown over the last decade mainly due to successive increases in the airtime excise, which has more than tripled since 2002. As well as directly affecting the costs of services, this can deter consumers from purchasing mobile devices by creating uncertainty about the threat of future tax increases.

Increases in the airtime excise over time



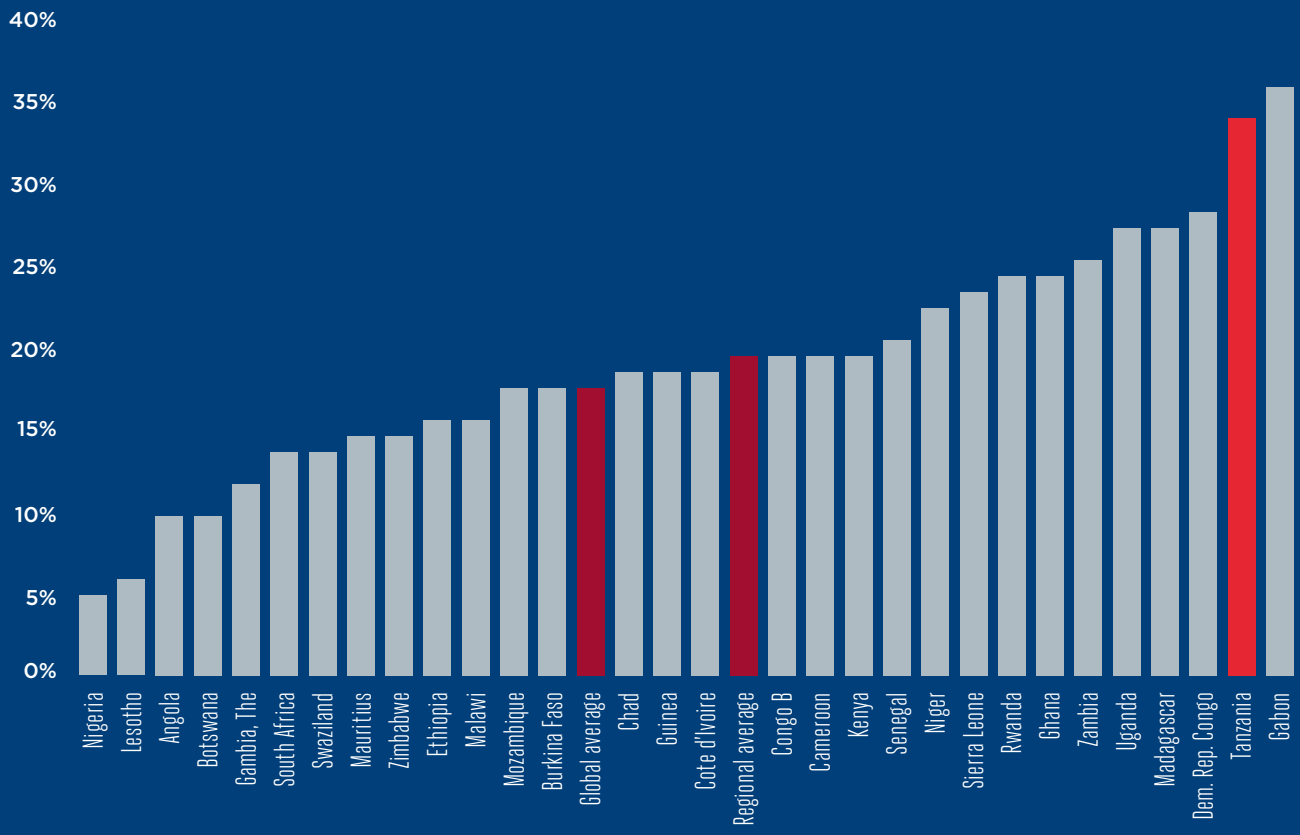
Source: Tanzanian Revenue Authority

Figure 7

Tanzania has the second highest tax burden relative to the cost of mobile ownership in Africa, and this burden is twice the global average. This is driven by the airtime excise on mobile usage, which at 17% is one of the highest mobile-specific taxes levied in Africa. The tax on mobile devices is now lower, thanks to the introduction of an exemption from customs duties on handsets in 2008[10]. However it is unclear whether this exemption will be extended in the next budget.

10. East African Community, "Common External Tariff," http://www.tra.go.tz/documents/customs/EACTariff%202012.pdf

Tax as a proportion of the total cost of mobile ownership



Source: GSMA/Deloitte Global Mobile Tax Review 2011; Tanzania data supplied by operators, 2014

Figure 8

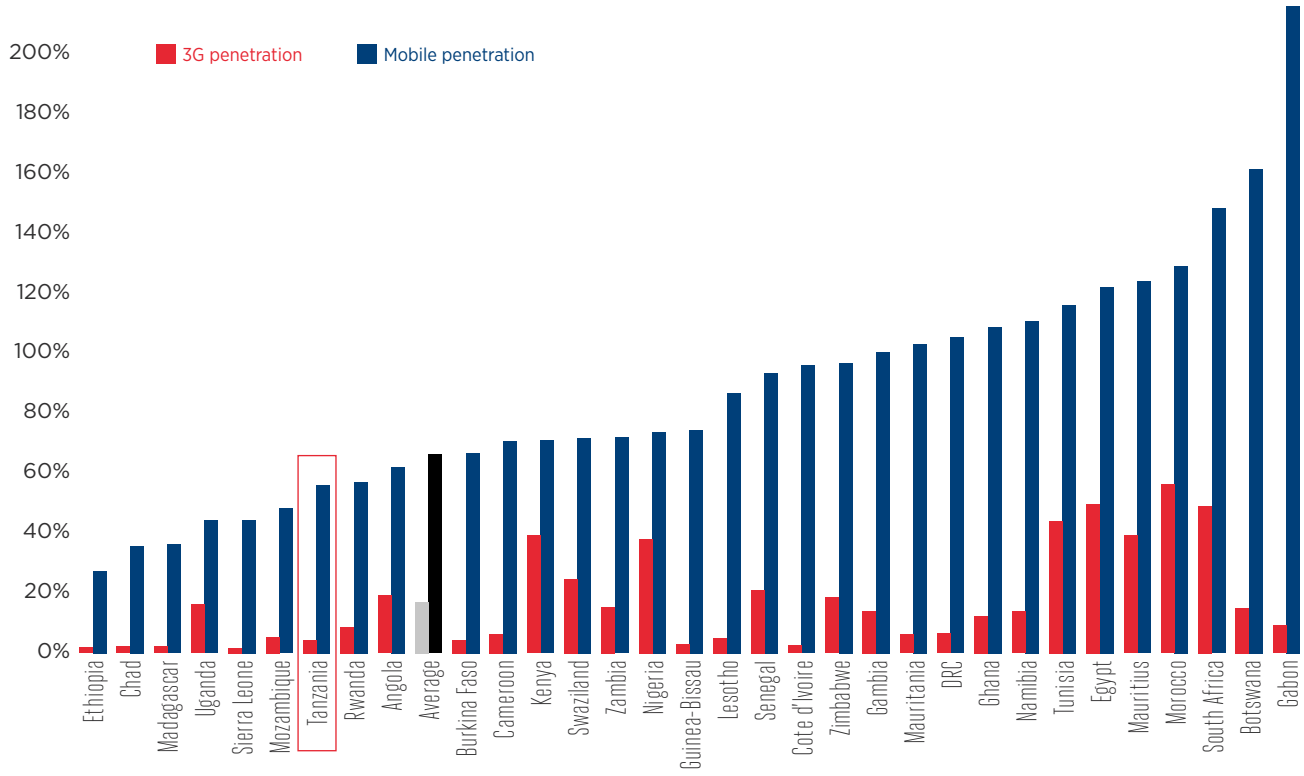
At 35%, the total tax burden on mobile services is higher than the burden on certain products and services recognised to have negative health and environmental impacts. For example, the tax burden on tobacco and alcohol is less than that on the mobile sector, at 32%[11] and 27%[12] respectively. Gasoline is taxed at a similar rate of 35%[13]. These three goods are recognised to create negative externalities and taxes can be imposed in order to discourage consumption. In contrast, mobile services exhibit positive benefits for society and the Tanzanian economy.

By taxing mobile at a similar rate to these services, the government risks sending a signal that it wishes to discourage mobile consumption.

As shown in figure 9 below, Tanzania lags behind many other African countries in terms of both mobile and internet penetration. By increasing the cost of mobile ownership, taxes create a barrier to affordability and make it more difficult to promote mobile ownership and digital inclusion.

11. Based on data on the price of goods from http://www.numbeo.com/cost-of-living/country_result.jsp?country=Tanzania&displayCurrency=TZS and the tax rate from PWC "East African Tax Guide," http://www.pwc.com/ke/en/pdf/2013-east-african-tax-guide.pdf
12. This is calculated as the average of all alcoholic beverages for both imported and domestic goods.
13. This is calculated as an average of petrol and diesel prices and taxation.

Mobile and 3G penetration



Source: GSMA Intelligence, 2014

Figure 9

Along with the airtime excise levied on general mobile services such as calls, SMS and data usage, Tanzania charges an additional tax on m-money transfer fees of 10%.

These services are viewed as an easy source of tax revenues[14], with governments anticipating a limited decrease in demand in response to taxes.

However while the immediate impacts of taxes on these services may be limited, such taxes can have a more pernicious effect in the long-run. The fact that successful mobile applications have attracted additional taxes may deter investment and innovation in mobile applications in other areas such as healthcare, education and agriculture.

14 . The Economist, "Charging the Mobile" http://www.economist.com/news/finance-and-economics/21579870-east-african-governments-are-targeting-telecoms-firms-charging-mobile

2.2 Taxes on operators reduce growth and investment in the mobile sector

Along with the consumer taxes described above, Tanzania levies several taxes on mobile phone operators that are additional to the taxes on other sectors. These include taxes on imported equipment - whether SIM cards, airtime vouchers or network equipment - and recurring taxes on revenues and profits. Operators also pay a number of annual regulatory and license fees, such as spectrum licenses and numbering fees.

Taxes levied on mobile operators in Tanzania

	TAX BASE		TAX TYPE	TAX RATE
Taxes on operators	Imported network equipment		VAT	18%
			Customs duty	0-25%
	Airtime vouchers		Customs duty	25% + 0.6% fee
	SIM cards		Customs duty	10% + 0.6% fee
	Taxes	Profits	Corporation tax	30%
		Revenues	Local service levy	0.3%
		Area/estimate	Municipal advertising tax	Varies
		Termination	SIIT	48%
	Annual regulatory fees	Revenues from qualifying services	Universal Service Obligation (USO)	0.3%
			Variable licence fee	0.8%

Key: Operator taxes on equipment | Other operator taxes | Mobile-specific

Source: Deloitte analysis based on operator data

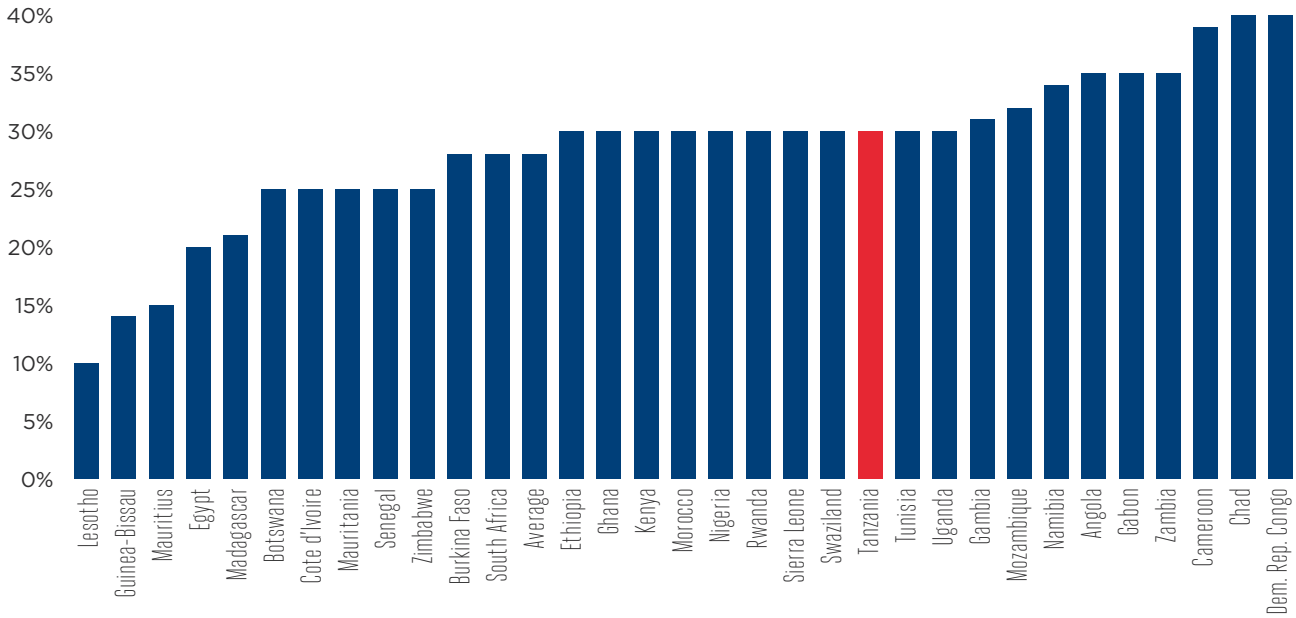
Table 2

As a consequence of these taxes, and the consumer taxes mentioned above, operators in Tanzania paid over USD 540 million in taxes in the 2013/14 financial year, accounting for almost 50% of their revenues. While the turnover of the mobile sector directly contributes 3.8% of Tanzanian GDP, the sector provides over 11% of Tanzanian tax revenues.

Not all of these taxes are specific to the mobile sector. Corporate tax and the local service levy apply across industries, while VAT and customs duties on imported equipment are levied on all items. However, imports of such equipment were exempt from taxation from 2002 to 2014, in order to encourage investment in this sector. With the ending of this exemption there is a risk of decreased investment in infrastructure, threatening the development of the mobile sector in Tanzania.

The corporate tax rate in Tanzania is levied on all sectors, at a rate of 30%, which is slightly higher than the regional average of 28%.

Corporate tax rates by country



Source: International Finance Corporation, World Bank Group, 2014

Figure 10

Operators in Tanzania paid over
USD 540 MILLION
in taxes in the 2013/14 financial year

UNIVERSAL SERVICE OBLIGATION CONTRIBUTIONS

In addition to these general taxes, operators pay a number of sector-specific taxes, including the Universal Service Obligation (USO) and annual licensing fees. These two taxes (along with the local service levy) are levied on total revenues, which can have a particularly detrimental impact on investment: by taxing total turnover rather than profits, companies have little incentive to spend on infrastructure or quality of service improvements.

The Tanzanian government set up Universal Communications Service Access Fund (UCSAF) with the goal of extending network coverage to remote and under-served areas. Operators contribute a USO of 0.3% of their revenues to this fund; **in 2013 this fee amounted to just over USD 3 million.** However, the fund's activities are limited, and a recent bid process to extend coverage to remote areas fell through as the fund underestimated the expenditure requirements. The UCSAF is not unusual in this regard: a GSMA study of similar funds worldwide found that fewer than one in eight funds was able to meet their own targets, and that a third had failed to dispense any funds[15]. Given the challenges and administrative and bureaucratic burdens faced by these funds, resources for infrastructure investment may be allocated more efficiently by the operators themselves.

THE SURTAX ON INTERNATIONAL INCOMING TRAFFIC

Operators in Tanzania are also subject to the Surtax on International Incoming Traffic (SIIT). **Since its introduction in October 2013, operators have paid approximately USD 12 million in SIIT.** This tax fixes termination charges on incoming international calls, with the government collecting 48% of these charges. The costs of the tax largely fall on the operators or on international businesses and consumers; however, they affect Tanzanian consumers by increasing the cost of communication with friends and family abroad, leading to a potential decrease in remittances. These taxes also increase the costs of trade, which both limits the expansion of local businesses and deters investment from overseas firms, and may encourage the use of illegal SIM boxes, increasing congestion on networks[16].

15. GSMA (2013) "Universal Service Fund study" http://www.gsma.com/publicpolicy/wp-content/uploads/2013/04/GSMA-USF-Main-report-final1.pdf
16. Deloitte/GSMA (2011) "Mobile Taxation: Surtaxes on international incoming traffic" http://www.gsma.com/publicpolicy/wp-content/uploads/2012/03/mobiletaxationsurchargesoninternationalincomingtraffic.pdf

2.3 Mobile taxes in Tanzania are inefficient and inequitable

The importance of tax revenues in the development of public policies and services is well known, and it is recognised that in developing markets the establishment of an effective tax policy has to contend with numerous practical difficulties including widespread informal activity, limited institutional capabilities and political pressure to avoid taxing special interests[17]. As a result of these competing issues, tax policy frequently has to sit somewhere between the theoretically correct response and the one that recognises the practicalities of taxation in a market[18].

There are however a number of principles that are widely recognised as contributing to an effective tax system, and if applied in Tanzania, could not only expand the mobile sector but lead to significant economic growth and increased tax revenues for the governments.

Organisations such as the IMF list the following principles:

- **In general, taxation should be broad-based:** Taxation alters incentives for production and consumption, but economic distortions will generally be minimised where the burden of taxation is spread evenly across the economy. The various mobile-specific taxes levied in Tanzania, such as the airtime excise, are likely to reduce consumption of mobile services and investment in the sector, compared to the efficient level.

- **Taxes should account for sector and product externalities:** The case for taxation to address negative externalities such as those arising from tobacco consumption is well recognised[19]. However the same logic also applies in the case of sectors and products with positive externalities. In the case of the mobile sector, these positive externalities include network effects[20] and the benefits that mobile services create for other sectors of the economy, which can take advantage of mobile technology and the productivity gains that it enables. Low levels of taxation can encourage use of these services.

- **The tax and regulatory system should be simple, easily understandable and enforceable:** Uncertainty and lack of transparency over taxation systems and liabilities may deter investors and is also likely to increase enforcement costs for government. Frequent changes to the airtime excise and the introduction of new taxes such as the SIM tax and the tax on mobile money create uncertainty and deter both consumers and operators from spending on mobile services.

- **Dynamic incentives should be unaffected:** Taxation should not disincentivise efficient investment or competition in the ICT sector. In situations where the tax system does provide disincentives, tax revenue could be significantly reduced in the long-run. Taxes on operators' total revenues (rather than taxes on profits), taxes on imported network equipment and the SIIT create barriers to competition and investment.

These principles are intended to minimise the inefficiencies associated with taxation and the distortive impacts that taxes may have on the wider economy. Optimal taxes are those that minimise these inefficiencies.

17. IMF (2001), 'Tax policy for developing countries'
18. Ibid.
19 An externality refers to an impact on the wider economy that is not accounted for by the consumer purchasing the good. For example, consumers of tobacco create an additional cost for others through second-hand smoke, but do not take into account this impact when choosing whether to smoke.
20. Network effects are a particular type of positive externality, which arise because the value of being a mobile user increases with the number of other users in the network. It is regarded as an externality because the individual does not take into account the positive impact on the rest of the network when making their consumption decision.

Examples include broad-based consumption taxes such as VAT, with adjustments for the positive and negative externalities created in the wider economy; corporate taxes that are levied on profits, not revenues, and so do not distort investment decisions are also more efficient, in particular if they account for externalities.

In addition to the principles outlined above, it is widely accepted that taxes should be equitable, and that the burden of taxation should not fall disproportionately on the poorer members of society.

Consumption taxes such as VAT and the airtime excise are regressive since they create a higher burden relative to income for poorer consumers. A tax such as the airtime excise can therefore create barriers to both digital and socioeconomic inclusion.

The table below summarises how the taxes levied in Tanzania align with these principles (and the extent to which these taxes are regressive, and are likely to limit digital inclusion).

Alignment of mobile taxes in Tanzania with key principles

Tax	Broad-based	Accounts for externalities	Transparent and enforceable	Provides dynamic incentives	Equitable (not regressive)
Value-added tax	✓	✗	✓	✓	✗
Airtime excise	✗	✗	✓	✗	✗
Sim card tax (proposed)	✗	✗	✗	✗	✗
Tax on m-money	✗	✗	✗	✗	✗
Customs duty on equipment	✓	✗	✗	✗	✓
Corporation tax	✓	✗	✓	✓	✓
Local service levy	✓	✗	✓	✗	✓
Universal obligation	✗	✓	✓	✗	✓
Variable license fee	✗	✗	✓	✗	✓
SIIT	✗	✗	✗	✗	✓

Source: Deloitte analysis

Table 3

As can be seen in the table, many of the taxes levied on the mobile sector fail to align with the key principles of efficient taxation, with ramifications for the development of the sector and for the wider economy. The following taxes have been identified as particularly distortive:

The airtime excise reduces digital inclusion and limits the potential of mobile services.

While all sector-specific taxes have a distortionary effect, the airtime excise is particularly damaging since it also fails to account for the positive externalities created in the wider economy. This tax is also regressive, imposing a larger burden on poorer consumers, and potentially excluding them from the many benefits of internet access.

The SIM card tax could limit digital inclusion.

Although the SIM card tax was only in place between July 2013 and December 2013, there is a possibility that it will be reintroduced. Given that consumers are generally more sensitive to the price of handsets and devices than the price of services, this could have a significant impact on take-up of mobile services, and hence on digital inclusion. The ongoing debate and uncertainty over this tax also risks deterring consumers.

The tax on mobile money could reduce financial transactions.

Like the airtime excise, the tax on mobile money is distortive and regressive, and risks excluding poorer consumers from the benefits of access to banking and financial services by making these services costly and inaccessible. The introduction of this tax may also have ramifications for innovation in other sectors: the fact that successful mobile applications have been a target for taxation may discourage investment into mobile applications and technologies in sectors such as healthcare and education.

Levying customs duty on imported equipment disincentivises investment.

Imports of network equipment were exempt from customs duty between 2002 and 2014, but with the ending of this exemption the costs of mobile network equipment could increase by up to 25%. This risks making some infrastructure investments, especially those in remote areas, economically unviable and fails to take into account the fact that mobile network infrastructure may be considered a public good.

The SIIT increases the costs of trade and limits regional development.

The SIIT is particularly distortive since it only applies to international incoming calls. It increases the costs of trade and makes it more difficult for Tanzanian businesses to expand internationally, while potentially deterring foreign firms from investing in Tanzania. There are also issues with its enforcement: by having the revenues collected by a third party the costs of administrating the tax are increased and revenues are diverted away from the government and outside of the country, therefore representing pure leakage for Tanzania.

In addition to the above negative impacts of these specific taxes, the multitude of taxes levied on mobile creates additional compliance costs for operators. These costs include filing returns, attending Tanzania Revenue Authority audits and investigations, and consultancy and legal fees for dealing with assessments of objections and appeals in tax courts.

The inefficiencies created by these various taxes not only limit the development of the mobile sector, but also hinder economic growth and the realisation of the positive externalities created by mobile services. **As a result, the government of Tanzania risks losing out on revenues that could be generated if the tax system was more efficient.**

3 Case studies: Impacts of taxation on mobile services

A number of countries worldwide have experienced the sectoral and macroeconomic impacts resulting from a change in tax policy in the mobile sector. A range of evidence from markets is presented here, illustrating the positive impacts that a reduction in mobile sector taxation can have on penetration and government revenues; conversely, an increase in tax can potentially decrease usage and investment.

Case study:

VAT EXEMPTIONS ON HANDSETS IN KENYA LED TO IMPROVED ECONOMIC PERFORMANCE

The cost of access has been widely recognised as a barrier to the adoption of mobile technology. In recognition of this, the Kenyan government exempted mobile handsets from VAT in 2009, which had previously been implemented at 16%[21]. Mobile operators and other handset dealers immediately passed this exemption directly onto consumers.

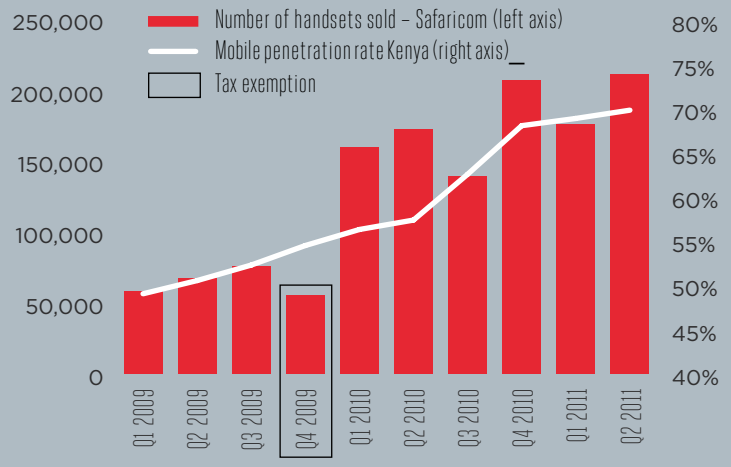
In the three years following, the VAT reduction contributed to an increase in handset sales of 200%, outpacing growth elsewhere in Africa. This increased penetration from 50% to 70%, above the 63% average across Africa[22].

Over the same period, the contribution of mobile telephony to the Kenyan economy grew by almost 250%, while mobile-related employment increased by 67%[23]. Moreover, the impact of mobile telephony on Kenyan productivity increased by over 300% in five years[24].

Consequently, more recent government proposals to re-introduce VAT across the ICT sector have caused widespread concerns around the negative impact on rural poverty, mobile penetration and economic growth[25].

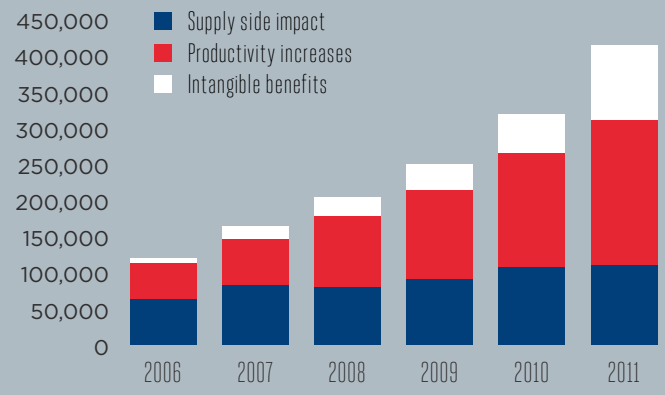
Combined with wider market price reductions, the VAT exemption helped to increase access to a wide range of mobile services, with mobile usage increasing by 113%. This has been recognised as improving economic growth, productivity and economic and social equality.

Increase in mobile penetration and handset sales following the removal of VAT on handsets



Source: Deloitte/GSMA: Mobile telephony and taxation in Kenya

Economic impact of mobile telephony in Kenya, KES millions



Source: Deloitte/GSMA: Mobile telephony and taxation in Kenya

21. Deloitte (2011), 'Mobile telephony and taxation in Kenya'.
22. GSMA (2012), 'Taxation of mobile telecoms: Sector-specific taxes on consumption and international traffic'.
23. Deloitte (2011), 'Mobile telephony and taxation in Kenya'.
24. Ibid.
25. CIO (2013), 'Kenyan government VAT on ICT will hurt the underprivileged'. http://www.cio.co.ke/news/main-stories/kenyan-government-vat-on-ict-will-hurt-the-underprivileged

Case study:

LOWER TAXATION BOOSTS MOBILE SECTOR GROWTH IN URUGUAY

In 2007, the Uruguayan government abolished an excise tax (ITEL) on airtime that affected telecom usage, directly impacting mobile consumers. This fixed tax, consisting of UYU 0.4 per minute for local calls and UYU 2 per minute for long distance calls, accounted for 30-50% of the cost of calls[26].

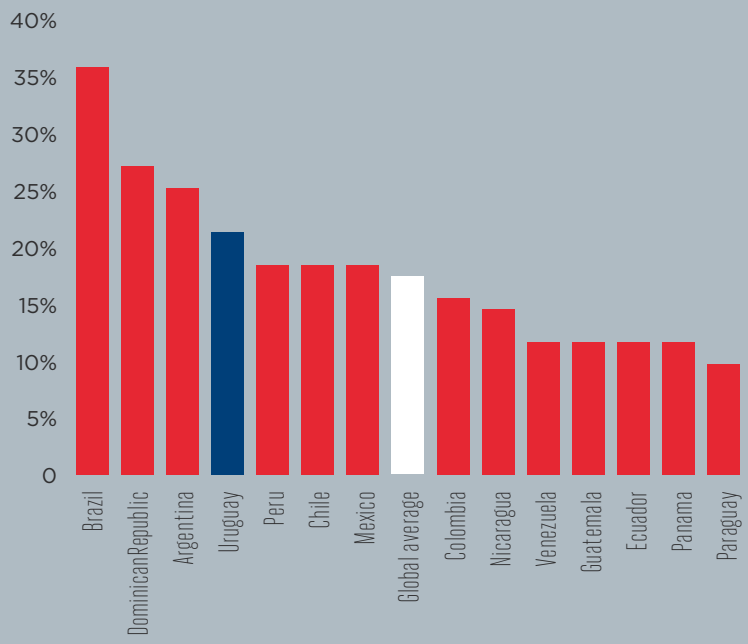
This fixed tax affected usage and also contributed to increasing barriers to mobile ownership, especially for low income consumers. Consequently, the removal of this tax has led to a number of positive effects:

- Call prices have fallen by 67%.
- In the years following the tax abolition, mobile penetration has more than doubled, increasing from 65% to 141%.
- Usage increased by more than three times.

As a result of the growth in the market the tax contribution of mobile network operators has also increased four-fold, providing a significant windfall to the government. This illustrates that revenues lost through reductions in distortive, mobile-specific taxes can be recovered through more broad-based taxation on the sector as it grows.

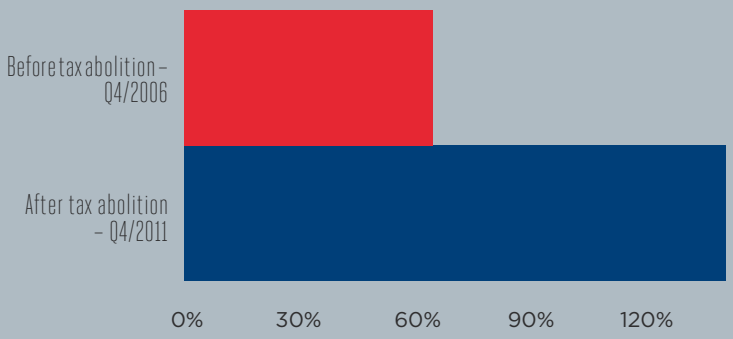
Through the reduction of mobile-specific taxation, the government of Uruguay increased the usage of mobile services by removing barriers to affordability. By developing supportive taxation and regulatory policies, the government enabled the growth of the mobile sector, and the associated benefits from increased employment and investment.

Tax as a percentage of total cost of mobile usage, 2011



Source: GSMA Latin American Mobile Observatory 2011

Uruguay's mobile and smartphone penetration



Source: GSMA Latin American Mobile Observatory 2011

26. Throughout, figures are sourced from: Deloitte/GSMA (2014), "Mobile Taxes and fees: A toolkit of principles and evidence" http://www.gsma.com/publicpolicy/wp-content/uploads/2014/02/Mobile-taxes-and-fees-A-toolkit-of-principles-and-evidence_fullreport-FINAL1.pdf

Case study:

INCREASES IN MOBILE-SPECIFIC TAXATION REDUCED INVESTMENT IN NETWORK INFRASTRUCTURE IN CROATIA

After years of strong growth, Croatia suffered from a strong recession in 2009 following the global financial crisis[27].

In addition to the direct impact of the recessionary environment on the mobile industry, in 2009 the government introduced a 6% tax on operators gross revenue from mobile calls and SMS. This aimed to raise funds as part of its response to the financial crisis.

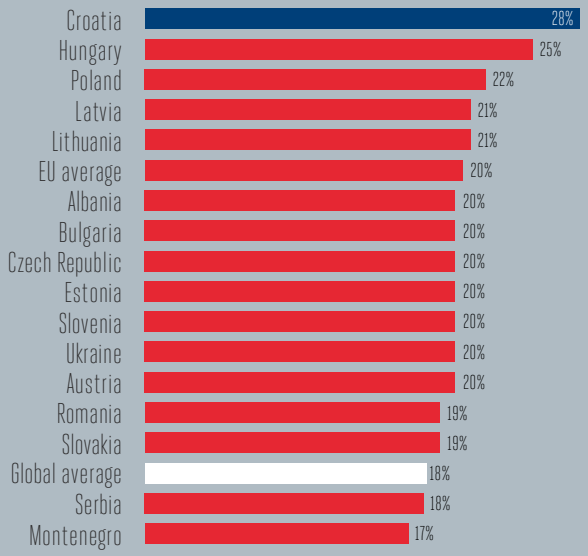
Following the tax introduction, the tax burden increased to 28% of the cost of mobile ownership, the highest in Europe.

Croatia's mobile tax had important implications:

- Volumes of mobile calls and SMS decreased (for the first time) in 2010 by 4% and 14% respectively.
- Unlike VAT, the tax could not be itemised in prices/receipts, and was therefore not transparent to consumers.
- Mobile-specific taxation as a proportion of MNOs' revenue increased significantly after 2008. The total tax burden on mobile grew by 2% in 2009 and by 10% in 2010 as a result of the introduction of this mobile-specific tax.
- Falls in operator revenues led to noticeable decreases in mobile operator capital expenditure, particularly towards network expansion.

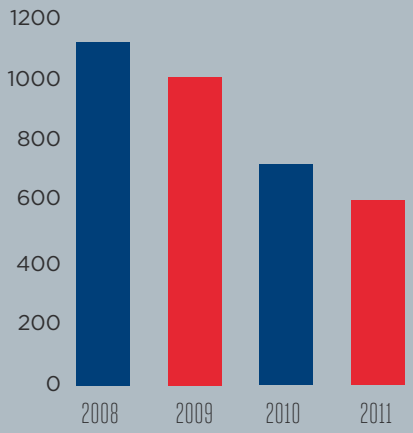
The increase in mobile-specific taxation constrained the usage of mobile services and reduced operator investment in network infrastructure, reducing quality of service. By taxing mobile operators at a higher rate than other businesses, the government imposed an additional cost on consumers and raised barriers to entry. Consequently, the Croatian government removed the 6% tax on calls and SMS in 2012.

Tax as a percentage of total cost of mobile usage, 2011



Source: GSMA/Deloitte Global Mobile Tax Review 2011

Mobile operator capital expenditure, HRK millions



Source: GSMA Intelligence

27. Throughout, figures are sourced from: Deloitte/GSMA (2014): A toolkit of principles and evidence http://www.gsma.com/publicpolicy/wp-content/uploads/2014/02/Mobile-taxes-and-fees-A-toolkit-of-principles-and-evidence_fullreport-FINAL1.pdf

4 How can the government rebalance mobile taxes to achieve economic growth and fiscal stability

The current system of mobile sector taxation in Tanzania is counterproductive to digital inclusion, financial inclusion, economic growth and long-run fiscal stability. In particular, the following five taxes risk increasing barriers to affordability, reducing investment, and undermining the competitiveness of the Tanzanian economy:

1. The airtime excise on mobile calls, SMS and data
2. The potential tax on SIM cards
3. The excise on mobile money transfer charges
4. Customs duties on imported network equipment
5. The SIIT

By rebalancing these taxes, the government of Tanzania can further its goals of promoting digital inclusion and increasing access to ICT, while benefitting from increased tax revenues in the medium-term as a result of GDP growth.

This section of the report discusses the implications for the economy of Tanzania of changes to each of these taxes and quantitatively estimates the impact of reducing the excise tax or reintroducing the tax on SIMs.

The scenarios below are considered, assessing the impacts of each on digital inclusion, financial inclusion, and economic and fiscal stability:

Scenario 1: Removing the airtime excise on mobile data only
Scenario 2: Reducing the airtime excise on all mobile services to 10%
Scenario 3: Reintroducing the SIM card tax
Scenario 4: Removing the tax on mobile money
Scenario 5: Eliminating the SIIT
Scenario 6: Eliminating the customs duty on network equipment

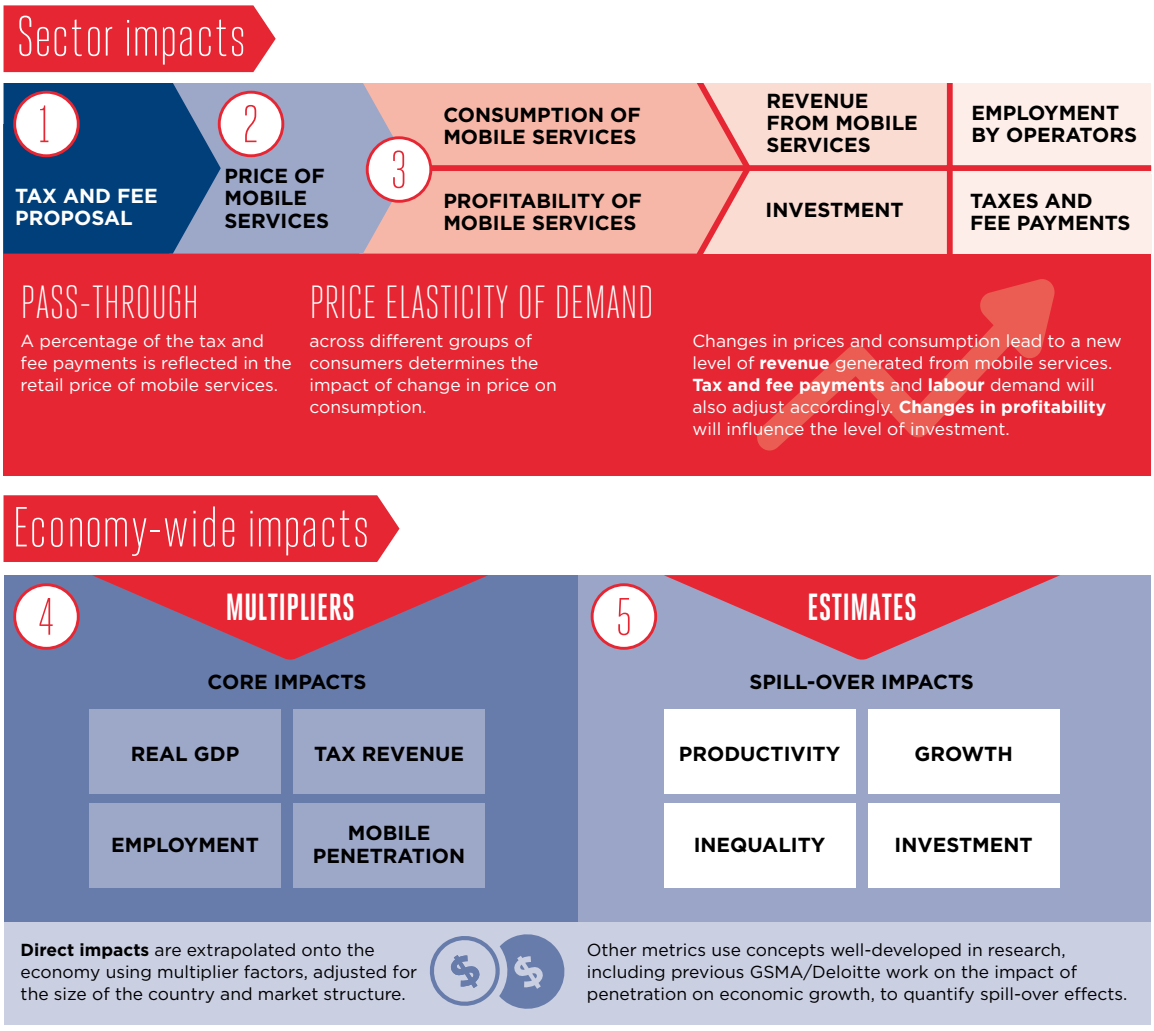
The short-term losses in revenue that would result from the reduction of taxation on the mobile sector could potentially be offset by rebalancing taxes towards goods and services that create negative externalities. In the longer term, increased economic growth would be expected to enable revenues to be recovered through more broad-based consumption and income taxes.

The impacts of the first three scenarios are assessed using a complex economic model, described below, and scenarios 4 and 5 are assessed in a qualitative manner, drawing on existing research into taxation in Tanzania.

MODELLING THE IMPACT OF CHANGES TO MOBILE TAXATION IN TANZANIA

The figure below provides an overview of how the various macroeconomic impacts of taxation on mobile services are estimated.

The impacts of mobile sector taxation



Source: Deloitte analysis

Figure 11

For each of the scenarios for taxation considered, the model calculates the impact of a change in the level of taxation on consumer prices.

The impact on demand for mobile devices and services in Tanzania is estimated based on the elasticity of demand; this in turn affects the revenues of operators.

These changes within the mobile sector have ramifications for the wider economy.

First, an increase in mobile penetration is directly associated with an increase in productivity and GDP growth.

There is also an additional impact through the effect on mobile operators: increased demand generates additional employment opportunities in the sector, while the increase in operators' revenues enables additional investment.

Thanks to this additional GDP growth, the potential loss of tax revenues from the mobile industry can be offset by tax revenues from more broad-based consumer and corporate taxes.

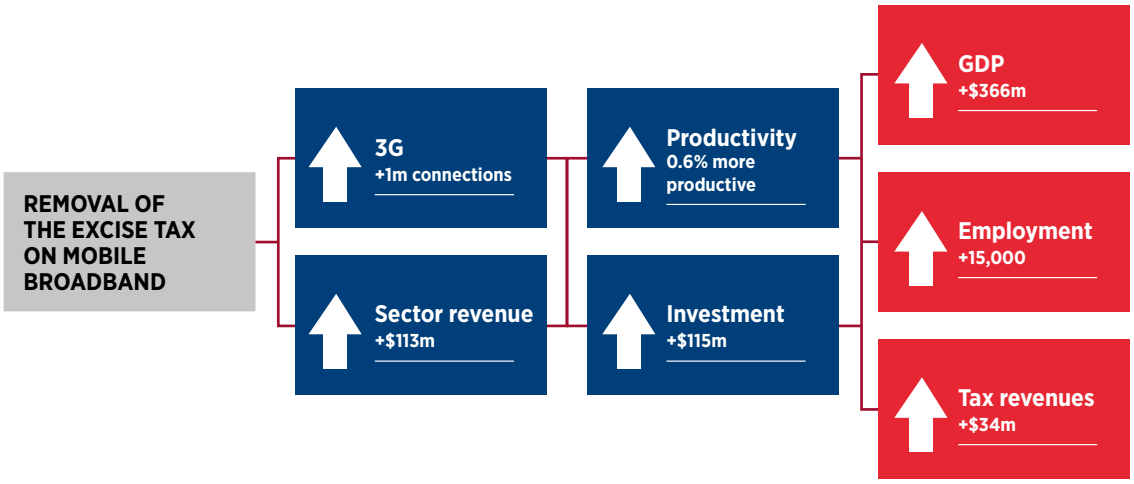
The inputs for the model are provided by the three leading operators in Tanzania, the GSMA and publicly available statistics from the World Bank and the IMF. The outputs are derived based on estimates of the elasticity of demand for mobile services from a number of developing markets, while the impacts of mobile and broadband penetration on GDP have been derived from robust econometric analysis of similar markets in Africa.

For a full discussion of the methodology and assumptions, please see the Appendix.

4.1 Removing the excise tax on mobile data supports digital inclusion and a knowledge-based economy

Internet penetration in Tanzania lags behind the levels seen in other countries in the region; for example, while almost half of Kenyans have access to the internet, only 19% of Tanzanians do so. In Tanzania, the mobile sector is critical for the provision of internet access as substantial infrastructure has been developed for mobile services that do not exist for fixed-line services. Therefore, the Tanzanian government could consider completely removing the excise tax on mobile data.

Economic impacts of eliminating the airtime excise on mobile broadband in 2020



Source: Deloitte analysis based on operator data

Figure 12

Reducing the cost of both data usage and calls/SMS usage will lead to:

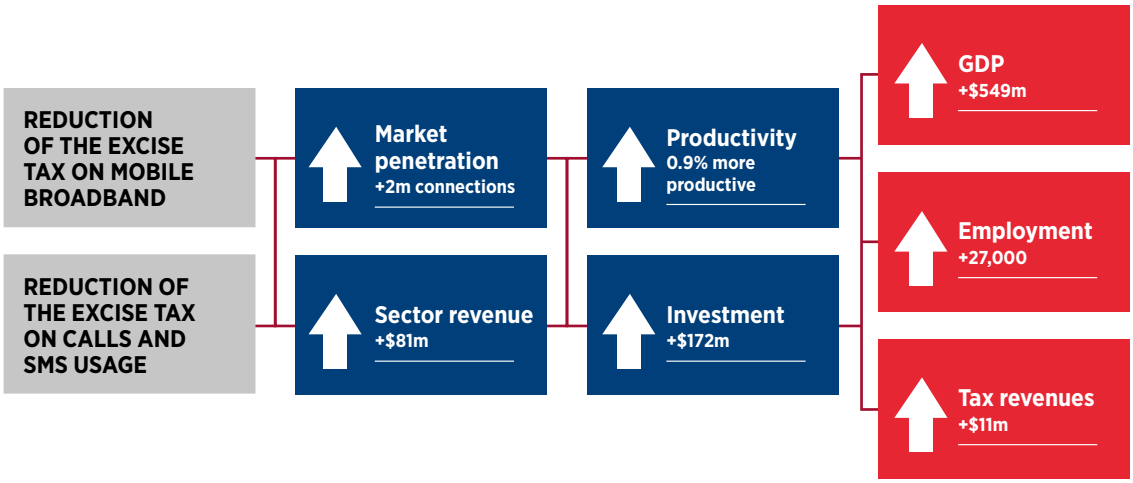
- Increased demand for mobile broadband and an extra one million 3G connections, increasing 3G internet penetration to 14% by 2020.
- Increased productivity of workers and businesses, leading to Tanzanians becoming 0.6% more productive.
- Additional GDP growth, delivering an additional USD 366 million in 2020 and providing employment for an additional 15,000 Tanzanians, as a result of the direct impacts of the mobile operators and the indirect impacts generated by activities enabled by mobile operators.
- The government being better off in the medium-term with extra tax revenues of nearly USD 34 million.

Removing the airtime excise only on mobile data promotes digital inclusion, providing one million more Tanzanians with access to the internet via 3G services by 2020. This has wider economic impacts on economic growth, creating USD 366 million additional GDP and 15,000 extra jobs by 2020, while allowing for the government to achieve a neutral revenue impact by 2017.

4.2 Reducing the excise tax on all mobile services to 10% from 17% promotes digital inclusion and economic growth

The excise tax is levied on the mobile sector alone, failing to take into account the positive impacts mobile services have on other sectors of the economy, and therefore is likely to be particularly distortive. Moreover, there has been a rapid increase in its rate, which the government stated was only temporary and so would be reduced. The Tanzanian government could consider reducing the excise tax to 10% from its current level of 17% on all mobile services (that is, on mobile broadband, calls and SMS). The economic impacts of such a policy are shown below.

Economic impacts of reducing the airtime excise to 10% on all services, in 2020



Source: Deloitte analysis based on operator data

Figure 13

Reducing the cost of both data usage and calls/SMS usage will lead to:

Higher demand for mobile broadband, calls and SMS usage, which increases market penetration. This will create an additional two million connections by 2020, 0.8 million of which are 3G connections.

Higher penetration rates increase the productivity of the Tanzanian economy by 0.9%, and leads to USD 172 million in additional investment.

An additional USD 549 million in GDP and 27,000 more Tanzanians in employment as a result of the wider economic impacts.

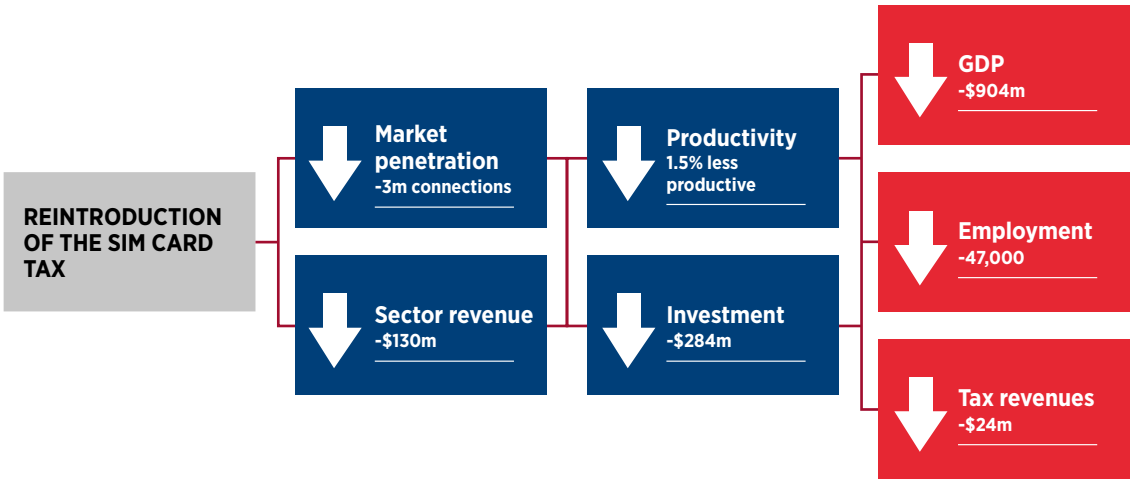
The government being better off in the medium-term, with USD 11 million in additional tax revenues.

Reducing the excise tax on all mobile services can promote digital inclusion by providing two million more Tanzanians with access to mobile services by 2020. This has wider economic impacts on economic growth, creating an additional USD 549 million and 27,000 more jobs, while also resulting in higher tax revenues in the medium-term.

4.3 Reintroducing the SIM card tax would inhibit economic growth and ultimately reduce tax revenues

The SIM card tax was introduced in 2013 and was later scrapped. However, the government has not ruled out the possibility of reintroducing this tax. As the figure below shows, the long-term impacts of such a policy will offset any short-term increase in tax revenues.

Economic impacts of reintroducing the tax on SIM cards in 2020



Source: Deloitte analysis based on operator data

Figure 14

By reintroducing the SIM card tax, handsets become more expensive which will lead to:

- Reduced demand for mobile phones and as a result lower penetration; total connections will fall by three million, with 0.9 million of these being lost 3G connections, meaning mobile penetration will be just 60% in 2020.
- Tanzanians being 1.5% less productive as a result of lower penetration.
- Economic losses of USD 904.5 million in GDP and 47,000 jobs.
- The government only benefitting from higher tax revenues in the short-term as by 2020, tax revenues will be reduced by USD 24 million.

Reintroducing the SIM card tax limits digital inclusion in Tanzania through higher retail prices, reduced demand, and hence reduced investment incentives, restricting three million Tanzanians from access to mobile. This has negative implications for economic growth and prosperity in the Tanzanian economy, costing Tanzania USD 904 million in GDP, 47,000 jobs and lower tax revenues in the medium-term.

4.4 Removing the 10% tax on mobile money promotes financial inclusion

Tanzania has emerged as a leader in mobile money services:

- 44% of adults used mobile money services in Tanzania in 2013, overtaking Kenya's 38%[28].
- In December 2013 alone, almost 100 million mobile money transactions took place, amounting to USD 1.8 billion[29].
- Thanks to these services, the share of the population with access to financial services has almost doubled from 27% in 2009 to 50% at the end of 2013, enabling the country to reach its targets for financial inclusion two years earlier than anticipated[30].
- Access to mobile financial services has been shown to yield a variety of benefits, including higher savings rates and the ability to insure against economic shocks[31].

However, there is a risk that segments of the population remain excluded from these benefits. **The richest 20% of the population are 15 times more likely to use mobile money services than those in the poorest 20%,** and a similar discrepancy exists between those with a high school education and those who have not completed primary education[32]. There is also a divide between rural and urban areas: while mobile money penetration rates have reached 65% in urban areas, **only about 25% of the rural population uses these services.**

Similar divides exist in mobile penetration rates, and the affordability of basic mobile services creates a barrier to the take-up of mobile money. Steps such as the removal of the airtime excise that increase digital inclusion can therefore support financial inclusion. **Reducing the airtime excise on all services to 10% could lead to additional 1.7 million people using mobile services, and consequently having access to mobile money services.**

However, steps also need to be taken to address the specific barriers to the use of mobile money, such as the excise tax on m-money transfer fees. A mobile money tax was first introduced in 2013 when an excise duty of 0.15% was charged on transfers exceeding TZS 30,000. The tax was then replaced in 2014 with the current m-money fee excise tax. The 10% excise on the value of mobile money transfer fees risks limiting take-up of these services, with evidence from both Kenya and Uganda indicating that the burden of this tax is passed on in full to consumers. Mobile money transfer fees represent a larger percentage of the total money transfer for smaller transfers than for larger transfers. Since the mobile money excise is charged on transfer fees, the tax is a larger share of the cost for smaller transfers[33], this tax is therefore regressive and imposes a larger burden on poorer consumers.

As well as impacting on access to mobile money services, the tax on the value of mobile money transfer fees also impacts on use of these services. As a result of increased transaction fees, consumers may be deterred from using mobile money services, reducing transaction volumes. Such a reduction in transactions could reduce turnover and revenues in this market, limit consumers' ability to transfer funds and manage risks, and impact on the productivity of small businesses that rely on mobile money services rather than traditional banking.

Given that only a small minority of the Tanzanian population have access to formal banking services, the consumer's unimpaired ability to use mobile money services rather than being required to travel long distances to bank branches to make transactions in person reduces transaction costs and increases the efficiency of the economy.

28. Balancing Act: Telecoms, Internet and Broadcasting in Africa, "Tanzania ahead of Kenya in use of Mobile Money" http://www.balancingact-africa.com/news/en/issue-no-713/money-transfer/tanzania-ahead-of-ke/en
29. GSMA (2014), "Enabling mobile money policies in Tanzania" http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/03/Tanzania-Enabling-Mobile-Money-Policies.pdf
30. Benno Ndulu, Governor of the Bank of Tanzania, http://www.centralbanking.com/central-banking/news/2356625/tanzania-hits-financial-inclusion-target-early-due-to-mobile-surge
31. Weil and Mbiti (2011), "Mobile Money: The Impact of m-pesa in Kenya" (http://www.theigc.org/sites/default/files/weil_mbiti_and_mwenga_0.pdf
32. World Bank, "A bank in your pocket: The mobile money revolution in Tanzania" http://blogs.worldbank.org/africacan/a-bank-in-your-pocket-the-mobile-money-revolution-in-tanzania
33. Fixed tariffs on mobile money transfers make up about 1% of the transfer value for small transfers of up to TZS1000; about 0.5% of the value of transfers of about TZS 100000; and less than 0.2% of the value of transfers of over TZS1000000. (Source: published tariff schedules from Airtel and Vodacom.)

Reducing the airtime excise from 17% to 10% on all services could enable 1.7 million Tanzanians to access mobile money services.

4.5 Eliminating the SIIT promotes Tanzanian businesses and regional trade

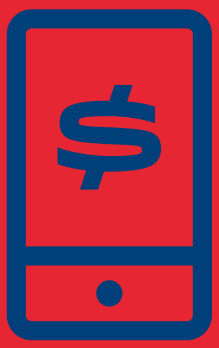
The SIIT (Surtax on International Incoming Traffic) is a tax applied to termination charges on incoming calls to Tanzania. The SIIT takes the form of an imposed fixed price that operators must charge for international inbound termination, of which the government receives a set amount[34]. By fixing the price of termination, rather than allowing it to be set at the market rate, the introduction of the SIIT increased the price of international incoming calls to Tanzania by 90%[35].

This increase in prices has led to a significant drop in demand. A previous GSMA study has estimated that in the nine months following the introduction of the SIIT in January 2013, incoming international traffic fell by 27% compared to the base case. This was due to a decrease in the number of calls and a decrease in their average duration, from about 31 minutes to 24 minutes. This has had impacts on a number of aspects of the Tanzanian economy, including corporate tax revenues, international remittances and regional trade. Moreover, the tax has encouraged the use of illegal SIM boxes that re-route international incoming calls as local calls. This affects corporate revenues and tax payments, as well as congesting a disproportionate amount of spectrum.

Potentially more damaging than the immediate impacts of the SIIT is the long-run impact on Tanzania's competitiveness. By increasing the cost of cross-border transactions, the introduction of the SIIT sends a signal that the Tanzanian economy is less open to foreign investment and may lead companies to direct their investment to other countries in the region.

34. In Tanzania, the SIIT was introduced at TZS 191.33, with the government keeping TZS 112.80; this increased termination rates from TZS 211.50 to TZS 402.83.
35. The analysis throughout this section is based on the following report that estimates the impacts of the SIIT in a number of African economies, compared to a counter-factual case: GSMA (2012), "Mobile taxation: Surtaxes on international incoming traffic" http://www.gsma.com/publicpolicy/wp-content/uploads/2012/03/mobiletaxationsurchargesoninternationalincomingtraffic.pdf..

ELIMINATING THE SIIT WOULD HAVE A NUMBER OF POSITIVE EFFECTS:



Through the impact on international incoming call volumes and operator profits, the government of Tanzania may gain

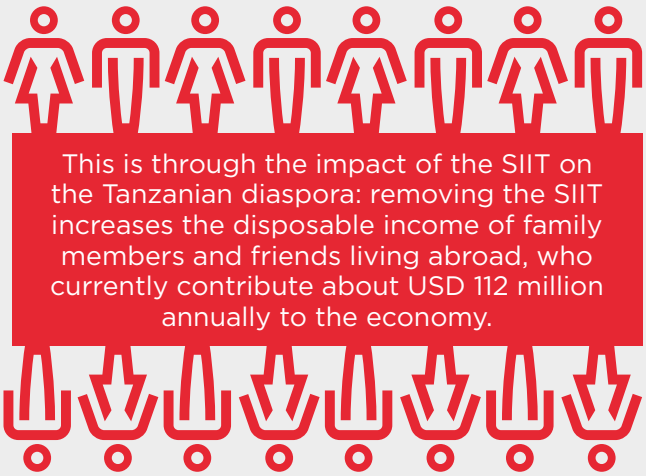
USD 1 million

annually in corporate tax revenues

Tanzania could gain

USD 0.4 million

annually in remittances, with a wider impact on the economy of USD 0.64 million.



This is through the impact of the SIIT on the Tanzanian diaspora: removing the SIIT increases the disposable income of family members and friends living abroad, who currently contribute about USD 112 million annually to the economy.

BY REDUCING THE COST OF INTERNATIONAL TRANSACTIONS, THE ELIMINATION OF THE SIIT COULD PROMOTE TRADE. THIS COULD BE WORTH

USD 1.1 million

annually to Tanzanian businesses and almost

USD 5 million

to businesses elsewhere on the continent.

BY REDUCING BARRIERS TO THE TRADE, THE ELIMINATION OF THE SIIT SUPPORTS THE GROWTH OF TANZANIAN BUSINESSES, AND MAKES THE COUNTRY MORE COMPETITIVE AND ATTRACTIVE TO INTERNATIONAL INVESTORS.

As well as having a direct positive impact on the Tanzanian economy, increased competitiveness can lead to greater diversity and stability in the economy in the longer term.

4.6 Eliminating the customs duty on network equipment incentivises investment

As well as affordability, lack of continued investment is also a barrier to providing access to mobile and internet services in rural areas. Pressure on operators' revenues from increasing taxation and decreasing average revenue per user (ARPU) reduce the funds available for investment. This issue is exacerbated by the ending of the customs duty exemption for network equipment. This tax has a direct effect on the cost of infrastructure investment, and may have a particular impact in remote and rural areas where the returns on investment are likely to be lower.

In the past, the Tanzanian government granted mobile operators exemption from the customs duty on network equipment in order to promote further investment in the sector. However, this exemption came to an end in 2014. This additional tax increases the burden on operator's revenues and as a result their ability to invest in the required infrastructure that will enable them to expand into rural areas. While the effects of ending this exemption are not yet observed in the data for Tanzania, it has been estimated that:

> The customs duty could increase the cost of network expansion by around 15%, given the contribution that imported network equipment makes to the cost of a base station. For certain items, the reduction in cost could be as much as 25%.
>
> This will have a negative impact on infrastructure investment, especially in remote areas, where such projects are often only marginally economically viable in the absence of this tax.

As a result, ending the customs duty exemption could discourage investment in rural areas, making it more difficult for the government to achieve its goals of expanding mobile and internet coverage to an additional 4,000 villages. In contrast, extending the customs duty exemption could promote digital inclusion.

> Operators have indicated that extending the exemption of the customs duty on network equipment for at least two more years could result in 300 more mobile sites in Tanzania, which could provide over 1,000 more villages with mobile coverage, and over 150 villages with 3G access[36].

Reducing the cost of network equipment increases investment and access in rural areas, which allows more of the Tanzanian population to benefit from 2G and 3G services, promoting digital inclusion. Operators have indicated that over 1,000 more villages could potentially have access to mobile and the internet if customs duty on network equipment was removed. This will have wider economic impacts on the Tanzanian economy.

36. Based on estimates provided by operators to GSMA.

5 Reducing taxes on mobile enables the government to achieve its ICT objectives while protecting revenues

Reducing sector-specific taxation supports Tanzania's ICT objectives

The government's key objectives regarding ICT were described in section 1.2. The objectives and the resulting factor impacts if the taxes are removed or reduced are summarised in table 4 below.

Tanzania's ICT objectives and taxation policy

ICT objectives	Taxes that impede objectives	Impacts of removing these taxes
• Access for rural and under-served urban areas	• Excise on mobile broadband and calls/SMS	• Affordability of mobile services
• E-Government – access to healthcare, education and financial services	• Customs duties on imported network equipment	• Access to mobile services in all areas
• Hub for ICT by 2025	• Excise on mobile money transfer fees	• Mobile and 3G penetration
• Improvements in infrastructure	• SIIT	• Investment in network infrastructure

Source: Deloitte analysis

Table 4

In order to achieve its ambitious ICT objectives, it is crucial that the government creates an environment that enables all of Tanzania to gain access to mobile telephony and its benefits. Analysis in the previous sections indicates that reducing the airtime excise on all services to 10% could create an additional 1.7 million connections, while eliminating the airtime excise on data only could support one million additional 3G connections. By improving access to mobile services, reducing these taxes allows millions to benefit from increased digital inclusion; this includes access to m-healthcare, m-agriculture and mobile money services.

Along with improvements in affordability, increases in network coverage are fundamental to achieving the government's ICT objectives. This is a particular issue in rural areas, and the government is seeking to expand coverage to an additional 4,000 villages, which will require further investment in network infrastructure. Reductions in consumer taxes, which increase penetration and operators' revenue, can help provide the funds for this investment. An extension of the customs duty exemption can also encourage investment by making network sites in remote areas more economically viable.

Reducing mobile-specific taxation does not jeopardise the Tanzanian government's financial position in the medium-term

The analysis has shown that the pursuit of Tanzania's ICT objectives need not come at the expense of other areas of public policy. By enabling the flow of information and increasing productivity, the increase in mobile and internet penetration resulting from a decrease in taxation on the sector increases productivity and leads to additional economic growth of up to USD 550 million annually by 2020, throughout the economy. This growth in GDP expands the tax base, allowing the government of Tanzania to recover foregone tax revenues through more broad-based taxation with a less distortive impact on the economy. In contrast, short-run measures to increase revenues through taxation on mobile come at the cost of economic growth and are ultimately counter-productive.

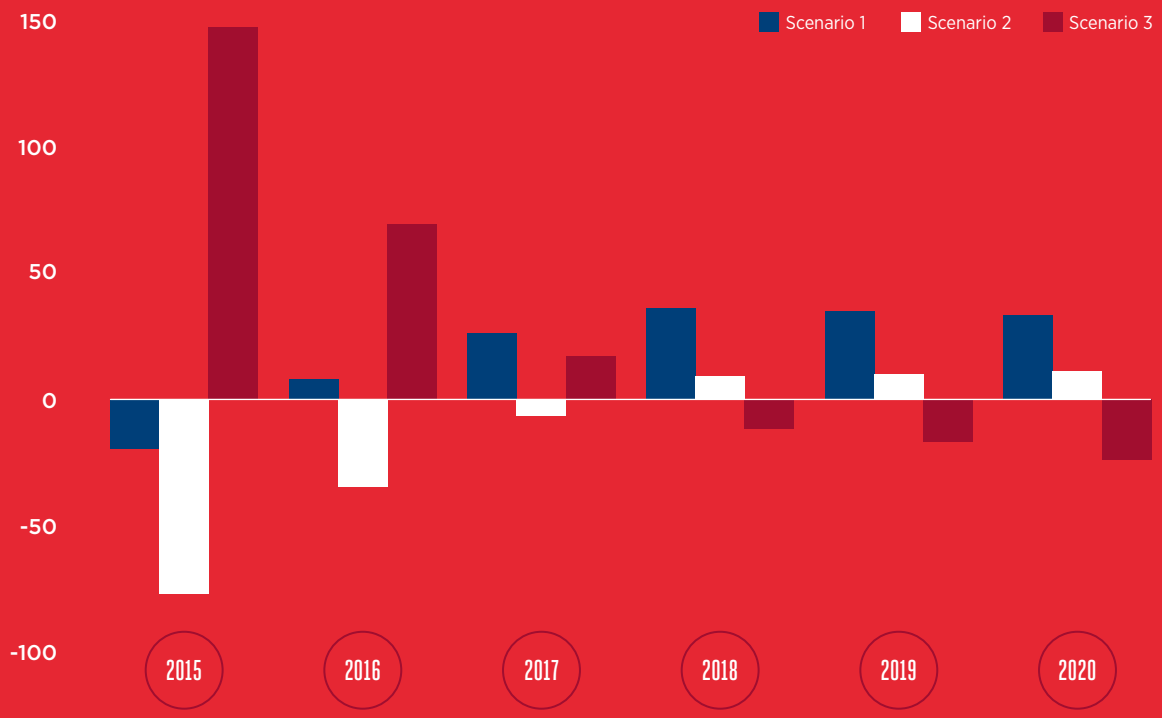
As can be seen in Figure 15, while a change in tax policy may lead to a short-run reduction in tax revenues, in the medium-term, tax revenues will increase due to the positive impacts mobile has on the wider economy.

Both scenario 1 and 2 show higher tax revenues than the counterfactual over time, with scenario 1 becoming positive as early as 2016.

There are also steps that the government can take to address this short-run gap in revenues. For example, the government could consider phasing in reductions to taxes on mobile or increasing taxes on products and services which are recognised to have a negative impact on wider society.

On the other hand, in the medium-term, introducing a new tax has negative implications for the government. Due to lower usage of mobile phones, the positive impacts to both the sector and the wider economy are not realised and so the tax base is lower, resulting in lower tax revenues than the base case by 2018.

Difference between scenario and counterfactual, government tax revenues



Source: Deloitte analysis based on operator data

Figure 15

Appendix: Modelling alternative tax scenarios: methodology and results

In order to conduct the tax scenario analysis, a complex macroeconomic model was created that models mobile telephony in Tanzania. This model is able to forecast the impact of more than 25 sector-specific and macroeconomic variables out to 2020. These impacts can be driven by either removing or changing current taxes and fees or the introduction of a new tax or fee. The model uses country-specific inputs that are provided by the operators and the GSMA in addition to publicly available statistics from the World Bank and the IMF. The outputs are derived through assumptions on elasticities[37] that have been estimated from robust econometric analysis.

A.1 Estimation of the economic impact of a tax change

The purpose of the model is to simulate policy scenarios, in the form of changes to taxes and/or fees levied on mobile services, and quantify the resulting impacts across time on the mobile sector and wider economy.

The modelling approach can be summarised as the development of a baseline for the mobile sector and economy, and the simulation of tax alternatives, which include the quantification of the policy scenario impacts. It is assumed that the tax policy is implemented in 2015, and the model estimates the effects out to 2020.

37. An elasticity describes the quantitative impact of a variable on another variable; the usual notation is that a 1% increase in a variable will lead to an x% change in another variable.

A.1.1 The base case

A base case is constructed which covers the mobile sector and the macro-economy of Tanzania. The purpose of this base case is to quantify the current economic environment and serve as a basis for comparison against any policy reform. The base case is composed of three interlinked components:

- **Taxes and fees paid on the provision and consumption of mobile services**
  In order to estimate this, data was provided by three of the largest operators that serve more than 90% of the mobile market: Tigo, Vodacom and Zantel. Data included the total tax and fee payments, broken down by the type of tax or fee, so the current burden of taxation on operators' revenues could be assessed.

- **Size and economic footprint of the mobile services sector**
  The GSMA Intelligence database provides data on mobile sector variables such as penetration rates, revenues and number of connections. This is used to estimate the size of the mobile sector in Tanzania and to forecast its growth.

- **Size of the macro-economy**
  Macroeconomic data comes from the IMF and the World Bank. In particular, the IMF produces forecasts up to 2019 for variables such as Tanzanian GDP and population, which are used as the basis for forecasting other macroeconomic variables in the model.

Using these data inputs, the model is able to estimate a base case scenario that describes what the Tanzanian economy would look like up to 2020 if the taxes and fees were to remain unchanged.

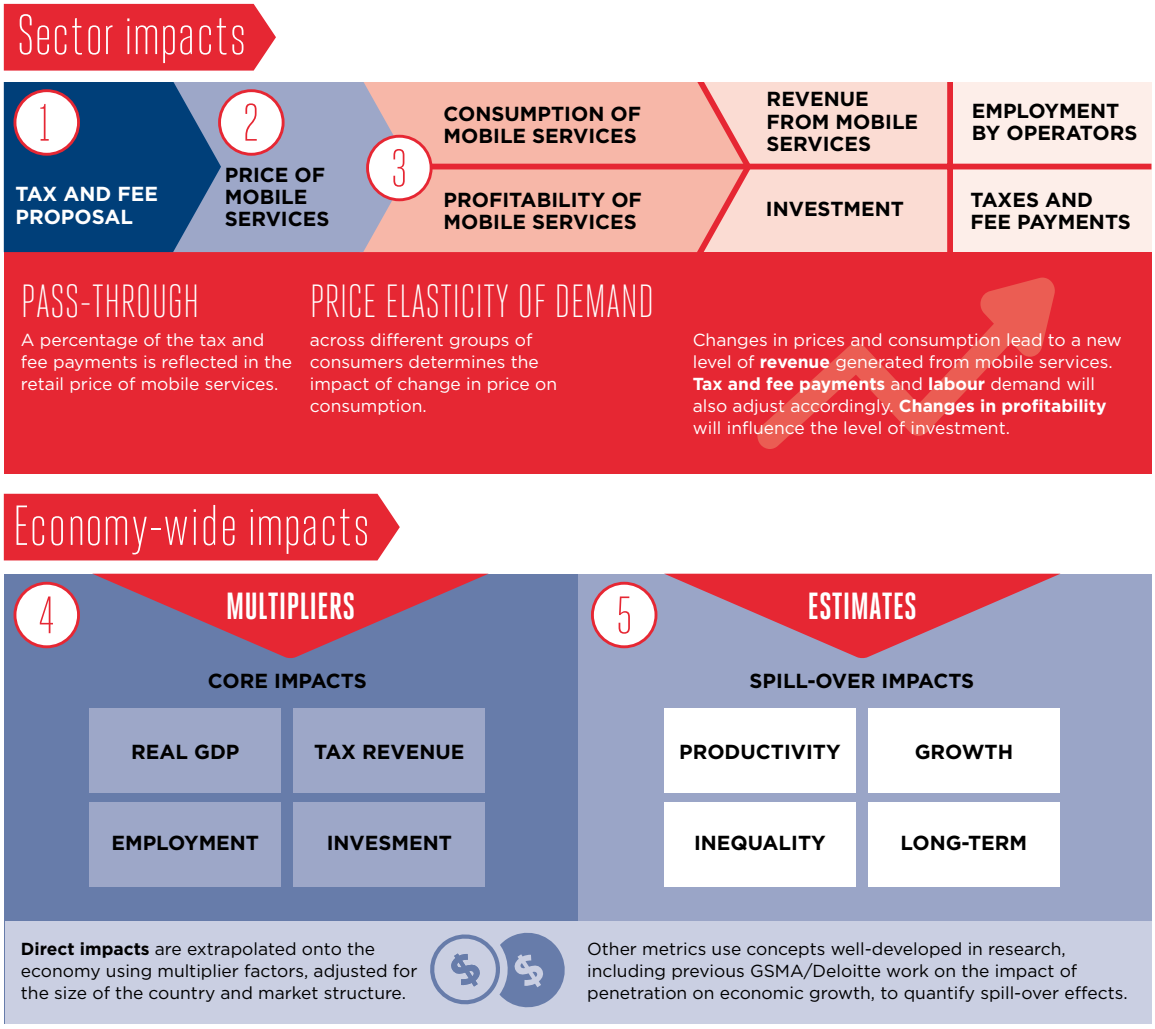
A.1.2 Introduction of a tax or fee reduction

A tax scenario is considered as a shock to the base case, leading to quantifiable variations in the size and economic footprint of the mobile services sector and the wider economy. A change in taxation policy is simulated in 2015. This is the element characterising the difference between the base case scenario (where the tax and fees remain the same) and the alternative scenario (where the tax is reduced/eliminated).

The tax scenarios analysed can be in the form of a change in the rate and level of taxes and fees, abolition of current taxes and fees or an introduction of a new tax or fee. The tax scenarios analysed in this report are explained in more detail in the following section.

The modelling methodology is shown in figure 16. The impacts are quantified at the sector level and the economy-wide level. At the sector level, changes to taxes and fees impact prices and consumption of mobile services, and therefore impact the economic activity in the mobile sector. At the economy-wide level, impacts on the mobile services sector influence macroeconomic variables such as GDP and employment, tax revenues and mobile penetration. This is extrapolated onto the wider economy using a set of multipliers and research-based empirical principles.

Modelling methodology



Source: Deloitte analysis

Figure 16

Steps in the modelling process:

1 The tax or fee change can effect both the price of mobile service and the profitability of each unit sold, depending on the extent to which the tax reduction is passed on to consumers, as opposed to increasing the margin for operators. This is modelled by a pass-through rate, which determines the percentage of the tax and fee payments that is reflected in the retail price of mobile services. All assumptions in the model are described in more detail in the section below.

2 The price of mobile services determines the level of consumption. In order to estimate this, assumptions are made on the price elasticity of demand, which states how much demand for mobile services change in response to a price change.

3 Changes in prices and consumption alter the amount of revenue generated from mobile services, and tax and fee payments and labour demand adjust accordingly. Changes in profitability affect the level of investment.

4 These sector impacts lead to economy-wide impacts, which are estimated based on assumptions regarding the impact of the mobile sector on the wider Tanzanian economy. These effects include the impact on GDP, calculated through a multiplier that links mobile and 3G penetration to economic growth, and the effect on employment, calculated through a multiplier based on the number of new jobs generated in the mobile sector.

5 The spill-over effects are driven by the core economy-wide impacts. Changes in GDP, tax revenues, employment and investment lead to changes in productivity and growth.

A.1.3 Key assumptions behind the model

The outputs of the policy scenarios depend on the assumptions made in the methodology. The assumptions in the model come from a review of academic literature and previous studies in this area. They are discussed in more detail below.

Pass-through rates
As illustrated in the first step in the modelling methodology taxes and fees paid by operators and consumers may be completely or partly passed through to the end-consumer prices. The level of pass-through of taxes and fees to final prices will depend on market power and the price elasticity of demand, among other factors. For this analysis, an average pass-through rate of one has been assumed; this is based on conversations with mobile operators.

Price elasticity of demand
As illustrated in the second step in the modelling methodology, a change in the price of mobile services leads to a change in the consumption of these services, both in terms of ownership and usage. Consumption changes depend on the price elasticity of demand, that is, the responsiveness of consumers to price changes. The assumptions regarding elasticity of demand are based on a review of studies conducted in a number of developing markets. Based on this review, the elasticity of demand for mobile subscriptions is assumed to be -0.83[38]. For those that own mobile devices, demand for mobile and broadband services is more elastic: the elasticity of demand for mobile services is assumed to be -0.95[39]; the elasticity of demand for broadband services has been assumed to be -2.2[40].

Employment multiplier
The employment multiplier is used to estimate the impact of a change in employment in the sector on total employment in the economy. The magnitude depends on the economic features of the sector, such as how interconnected it is across its supply chain. The employment multiplier is assumed to be 11.1[41]; that is, for every additional job created within the mobile sector, an additional 11.1 jobs are generated in the wider Tanzanian economy.

Market penetration impact
There is substantial evidence in the literature on the impact of mobile penetration on GDP growth. Robust analysis has been conducted by Deloitte into the impact of mobile and 3G penetration on GDP growth. For this analysis the multiplier associated with mobile penetration is assumed to be 0.28%; that is, a 1% increase in market penetration leads to an increase in GDP growth of 0.28 percentage points[42]. In terms of the impact of internet penetration, it is assumed that a 1% increase in internet penetration increases the GDP growth rate by 0.077 percentage points in African economies[43]. This model does not model switching between 2G

38. Chabossou et al (2009), UK Competition Commission (2003)
39. Ibid
40. Galperin, H and Ruzzier, C (2013) "Price elasticity of demand for broadband: Evidence from Latin America and the Caribbean", Telecommunications Policy, Volume 37.
41. This figure was based on a number of studies conducted in developing and developed countries; see, for example, Moretti (2010), O2 for ONS (2002), Ovum (2010); Zain, Ericsson (2009),Kaliba et al (2006), consultant analysis.
42. This is based on a Deloitte study of 40 African economies over the period 1996-2011; for full details of the methodology, see Deloitte/Cisco/GSMA 2012, "The impact of mobile telephony on economic growth" http://www.gsma.com/publicpolicy/wp-content/uploads/2012/11/gsma-deloitte-impact-mobile-telephony-economic-growth.pdf
43. Qiang, C. Z. W., Rossotto, C.M., 2009. Economic Impacts of Broadband, in Information and Communications for Development 2009: Extending Reach and Increasing Impact, World Bank, Washington D.C., 35-50.

and 3G services and so these impacts are treated separately[44].

Total Factor Productivity impact
The impact on Total Factor Productivity (TFP) is calculated based on the change in GDP, employment and investment. TFP is a measure of economic productivity that accounts for changes in output over and above those expected as a result of increased employment and investment. It is defined as follows:

$$TFP = \frac{GDP}{Capital^{a} Labour^{\beta}}$$

where it is assumed that a = 0.3 and β=0.7 [45].

A.2 Results

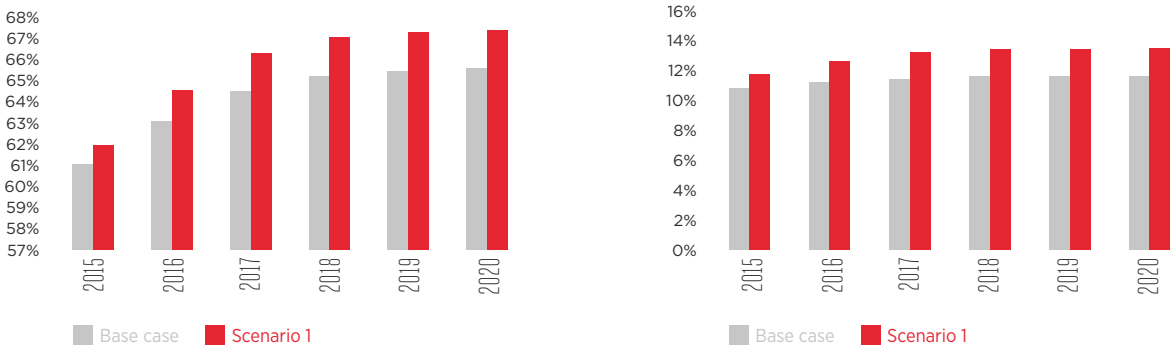
In this report, a taxation policy simulation model was used in order to assess the impacts of a change in taxation policy on the mobile sector and the wider economy. Three scenarios were addressed and each compared against the base case scenario. The overall findings of each scenario are described in more detail in the sections below, on the assumption that the change in tax policy is implemented in 2015.

A.2.1 Scenario 1

The first scenario assesses the impacts of removing the excise tax on mobile broadband only. Currently this tax is at a rate of 17%. Eliminating this tax would lead to both an increase in mobile and 3G penetration, where the latter is currently very low in Tanzania compared to other Sub-Saharan African countries. Mobile broadband is important in Tanzania in providing access to the internet, and the current tax rate is constraining data usage.

Removing the mobile broadband tax leads to lower prices on data usage, and this reduces the total cost of owning a 3G handset. As a result, demand for 3G-enabled handsets increases, and penetration rates increase as more 3G connections are activated. By 2020, 3G penetration will reach 13%, one percentage point higher than it would have been if this excise tax was not removed.

Mobile and 3G penetration rates



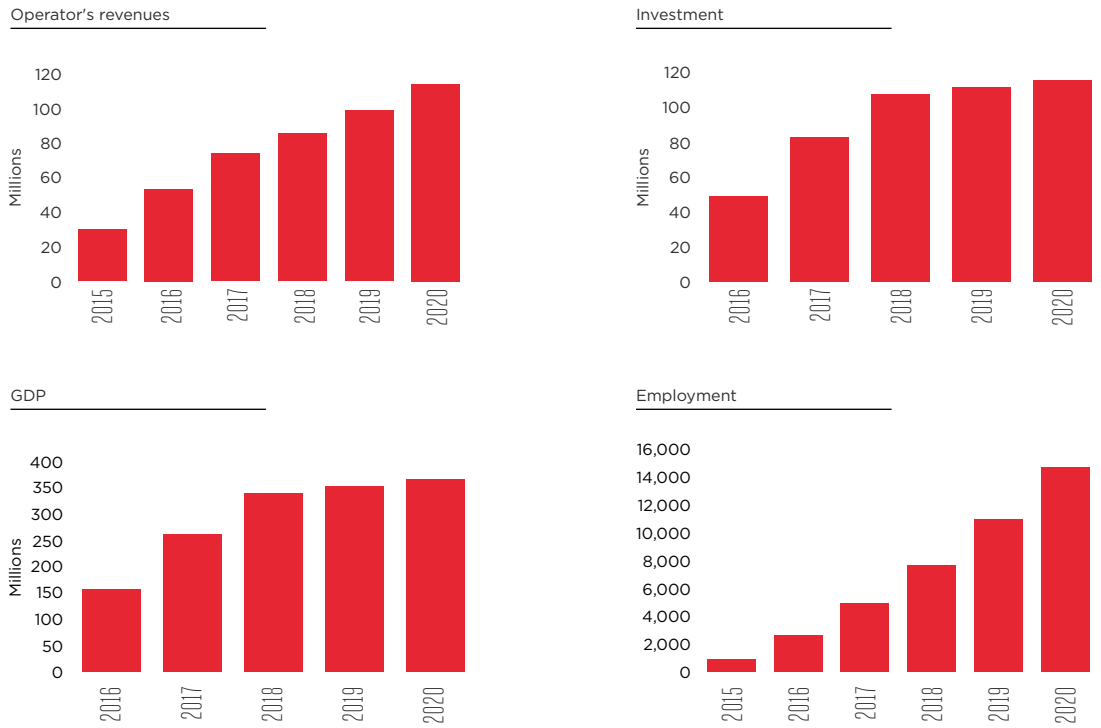
Source: Deloitte analysis based on operator data

Figure 17

44. That is, given that it is not known whether a new 3G subscriber may previously have been a mobile user, this is treated as an increase in internet penetration only, not as an increase in mobile and internet penetration.
45. Bassanini A and Scarpetta S (2001), "The Driving Forces of Economic Growth: Panel Data Evidence for the OECD countries"

As a result of increased demand and penetration, operator's revenues increase: by 2020 they will be USD 113.3 million higher than without the tax change. This impacts on GDP and employment, which are also higher as a result of the tax change. GDP will be USD 365.6 million higher in 2020, and 14,700 more people will be employed. As mobile services become more profitable through increased demand, operators increase their investment, which leads to higher total investment in the economy and an increase in productivity of 0.59%.

Difference between scenario 1 outputs and base case outputs

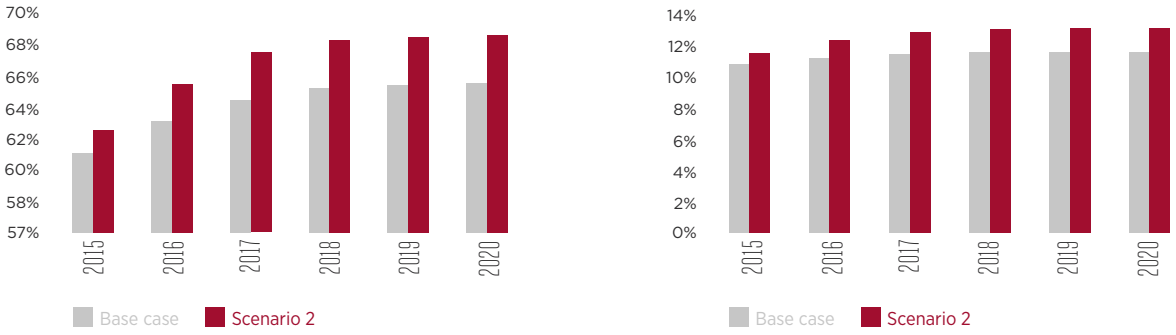


Source: Deloitte analysis based on operator data

Figure 18

Even though the economy will realise considerable benefits with the tax policy change, this will not come at a cost to the government. It is only initially in 2015, when the tax policy change is implemented, that the government will suffer from lower revenues than in the base case scenario. From 2016 onwards, government tax revenues will be higher than the base case as the increase in demand and economic growth is sufficient to increase the total tax base. Therefore, rebalancing the tax structure on mobile phones can result in substantial benefits for all players in the Tanzanian economy: consumers, operators and the government.

Mobile and 3G penetration rates



Source: Deloitte analysis based on operator data

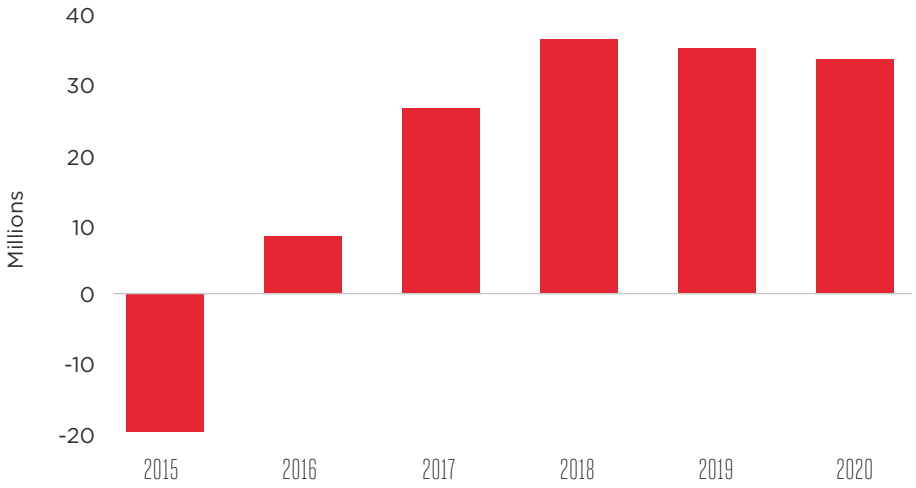
Figure 19

A.2.2 Scenario 2

The second scenario models the impacts of a reduction in both the excise on mobile broadband and the excise on calls and SMS usage, which are currently at 17%. The scenario assesses the impacts of reducing this to 10%.

This scenario impacts the costs of data, calls and SMS usage, which reduce the total cost of owning both 2G and 3G handsets. Therefore, demand for all handsets will increase and penetration rates rise as a result of higher 2G and 3G connections. Compared to the base case, by 2020, there will be 0.9 million more 2G connections and 0.8 million more 3G connections. 3G penetration will be 13%, one percentage point higher than the base case scenario.

Difference between scenario 1 tax revenues and the base case

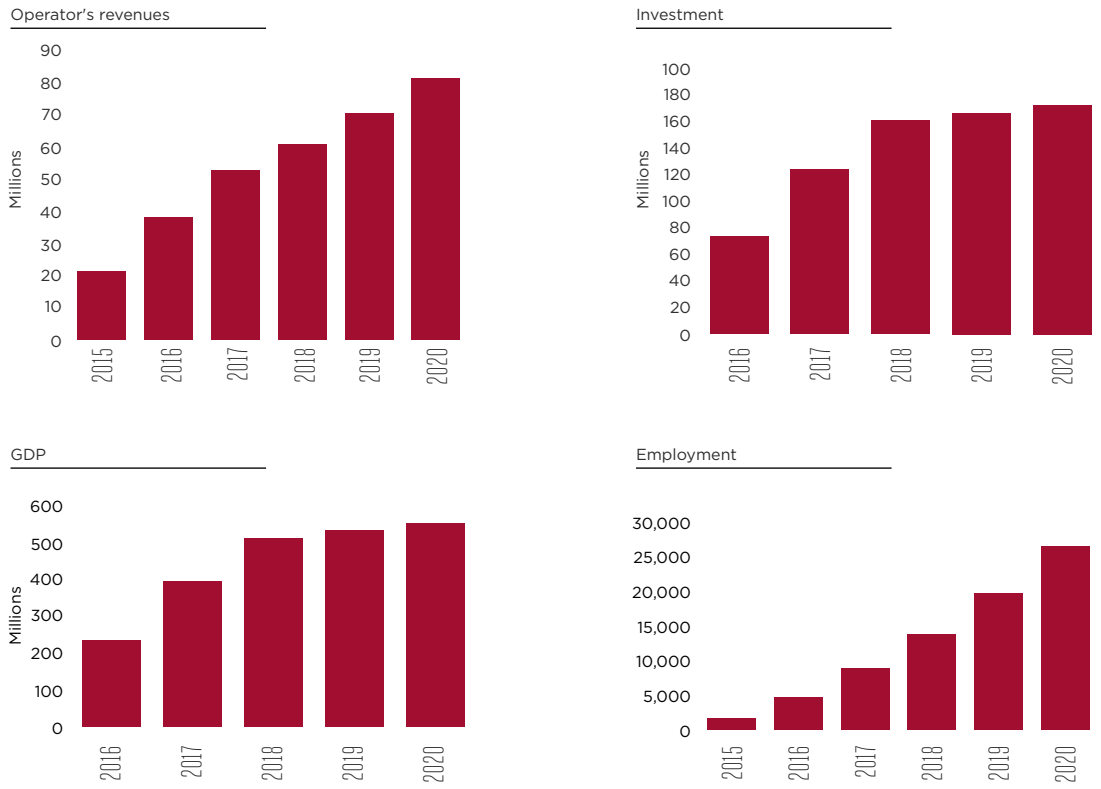


Source: Deloitte analysis based on operator data

Figure 20

As penetration rates will increase, operator's revenues will also increase by USD 81.3 million and as a result, investment will increase by USD 172 million compared to if the taxes remained unchanged. This feeds through to an additional USD 548.8 million in GDP by 2020, and 26,500 more people will be employed. As a result, productivity will be 0.88% higher in 2020 than it would be if the tax change was not implemented.

Difference between scenario 2 outputs and base case outputs

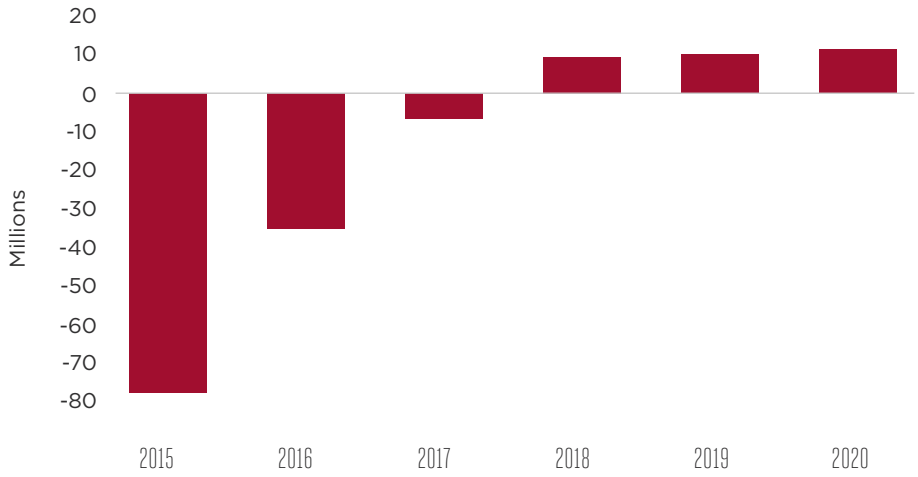


Source: Deloitte analysis based on operator data

Figure 21

Scenario 2 also results in higher tax revenues by 2020. There is a larger lag on when the tax revenues begin to recover as the initial decrease is fairly substantial. This is because the excise tax on calls and SMS usage makes up a much larger proportion of the total tax payments paid by operators, 23%, compared to only 3% for the excise tax on mobile broadband. Therefore, a change that affects the tax payments from calls and SMS usage will have a large impact on the total tax payments paid by operators. When the tax change is implemented in 2015, tax revenues are USD 77.5 million lower than in the base case scenario. But this is recovered, so that by 2020, tax revenues overtake the base case scenario and are USD 11.3 million higher.

Difference between scenario 2 tax revenues and the base case



Source: Deloitte analysis based on operator data

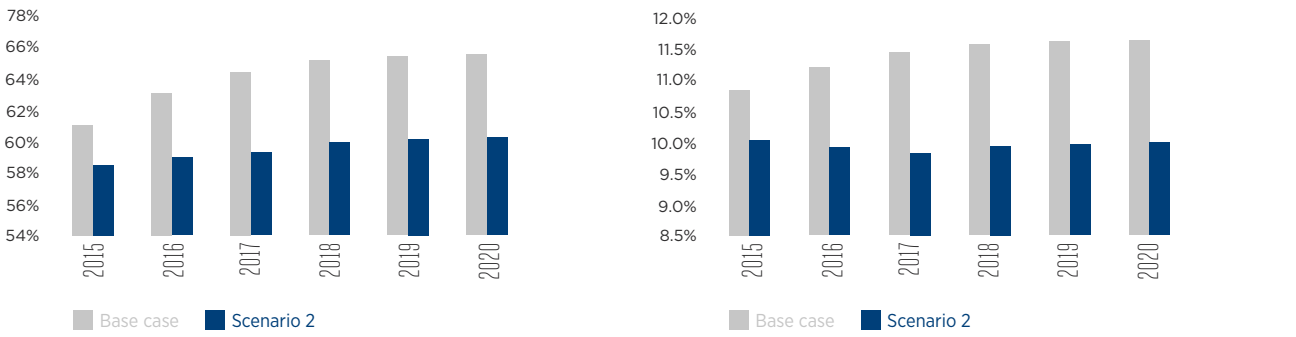
Figure 22

A.2.3 Scenario 3

The third scenario models the negative impacts of a reintroduction of the SIM card tax, which is charged at a flat rate of TZS 1000 a month. This was chosen for the modelling scenario as it was introduced in 2013 and then abolished. Therefore, this scenario will assess the impacts of reintroducing this tax.

The introduction of this tax makes owning a handset more expensive as it affects the cost of activation. Therefore, demand for handsets will reduce as a result and penetration rates will see an initial fall in the year the tax is introduced. Over time, penetration will continue to grow again but it will grow at a lower path, and by 2020 penetration rates will not have recovered from the tax introduction. By 2020, there will be 2.1 million fewer 2G connections and 0.9 million fewer 3G connections.

Mobile and 3G penetration rates

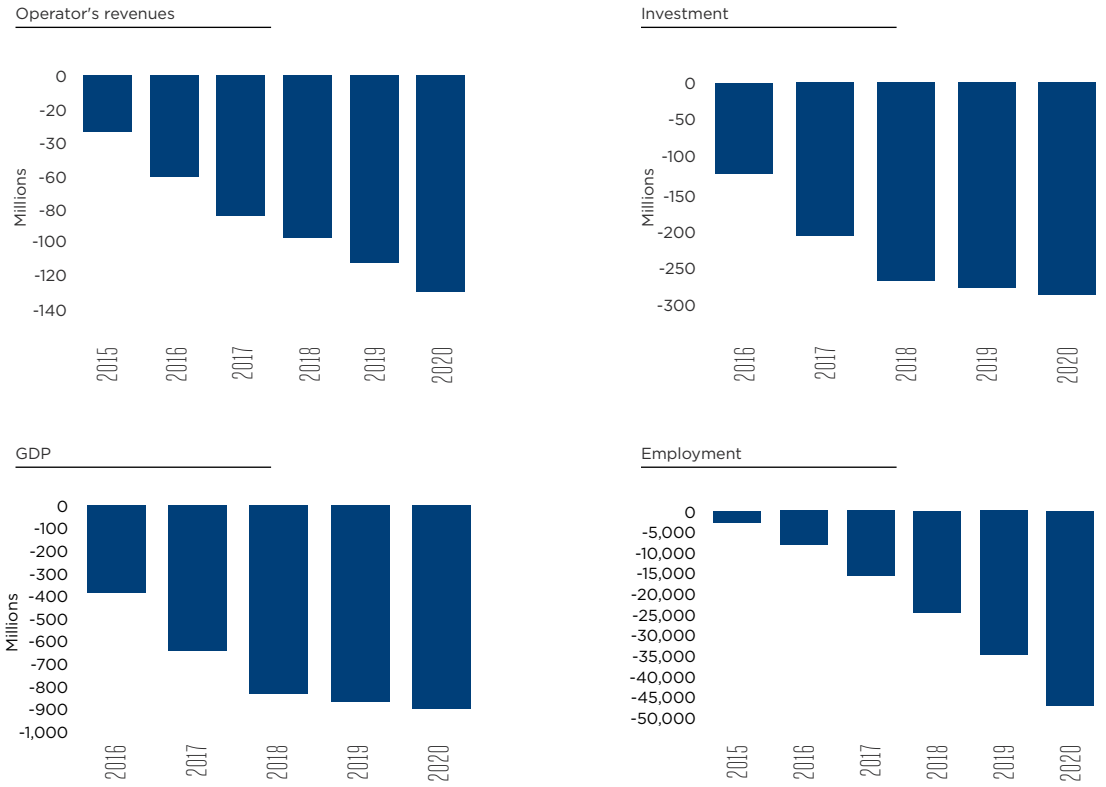


Source: Deloitte analysis based on operator data

Figure 23

A reduction in penetration rates will lead to a fall in operator revenues, which results in lower investment. By 2020, operator revenues will be USD 129.7 million less than the base case and total investment will be USD 284.2 million less. This leads to lower GDP of USD 904.5 million and 47,000 less people will be in employment. This causes productivity to be 1.45% lower with the tax introduction.

Difference between scenario 3 outputs and base case outputs

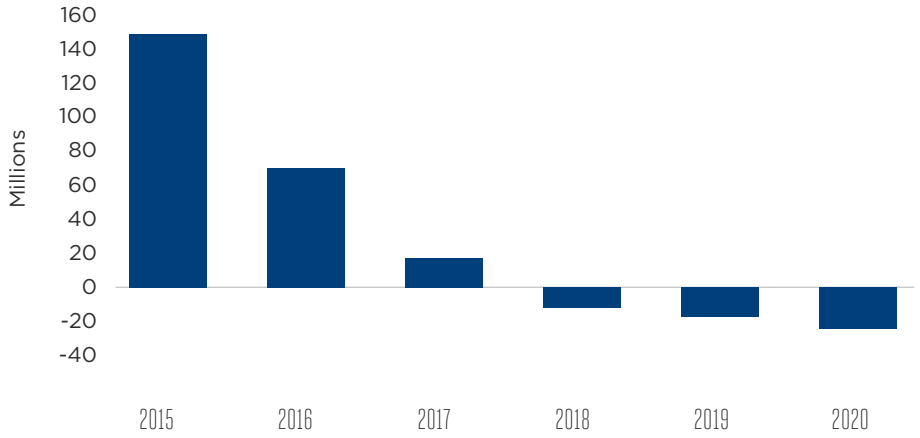


Source: Deloitte analysis based on operator data

Figure 24

In the early years following the introduction of the SIM card tax in 2015, the government will benefit from higher tax revenues, as to be expected. However, over the longer term, lower GDP and employment will result in declining tax revenues, and by 2018 they will actually be lower than if the tax was never introduced. Therefore, in scenario 3, there is only a short-term gain for the government in terms of tax revenues, but this comes at a cost to GDP, employment and investment.

Difference between scenario 2 tax revenues and the base case



Source: Deloitte analysis based on operator data

Figure 25

GSMA Head Office
Level 2, 25 Walbrook
London, EC4N 8AF,
United Kingdom
Tel: +44 (0)207 356 0600

www.gsma.com