

Uganda is doing well:

GDP is growing, tax revenues are growing even faster than GDP and the tax-to-GDP ratio is therefore improving.

The mobile money tax has a crippling effect:

It limits financial inclusion and threatens jobs of mobile money agents directly and other jobs indirectly.

New taxes may lead to lower tax revenues:

The social media tax may cost up to UGX 2.8 trillion in forgone GDP growth and UGX 400 billion in taxes per year.

ICT sector taxation slows Uganda's development:

Dropping all ICT excise duties would make the economy grow faster, benefit the poor and raise more tax revenues.

ICT SECTOR TAXES IN UGANDA

Unleash, not squeeze, the ICT sector

Rather than fostering economic growth, the government of Uganda is looking at ways of raising additional tax revenues from the ICT sector. This ignores the role of the ICT sector as a contributor to other sectors of the economy. Removing all ICT sector excise duties would facilitate GDP growth, stimulate job creation and help the informal sector to become more formal, leading to a wider tax base and higher tax revenues. Economic growth will generate more tax revenues and enable investment in other parts of the economy, such as infrastructure. The ICT sector needs to be turned into a growth engine to power Uganda's ambitious development programme.

Introduction

In July 2018, the Ugandan government imposed new taxes on the ICT sector in the form of excise duties on social media use and mobile money services. Two new excise duties were introduced: a mobile money tax of 1% on the transaction value of payments, transfers and withdrawals and a social media tax of 200 UGX per day. The excise duty on mobile money (MM) fees was also increased from 10% to 15%.

The lower the price of mobile broadband, the faster the adoption rate, and thus GDP and tax revenue grows.

The additional taxes increase the cost of both data consumption and mobile money usage and will lead to slower broadband and mobile money adoption. Immediately after the imposition of the taxes, data use and mobile money transaction values declined.

International experience has shown that this type of price increase results in an immediate drop in usage. When usage starts growing again, it is from a significantly lower base, with an associated economic cost.

As a result, mobile operators (MNOs) have lower revenues and ultimately pay less PAYE, VAT and corporate income tax. The negative externalities from

the new taxes do not stop there. Because the ICT sector feeds into other sectors in the economy, an increase in price and a consequent reduction in usage has a negative effect on economic growth and job creation across Uganda's economy.

Table 1: Uganda's excise duties on the ICT sector continue to increase, holding back a sector that facilitates economic growth across Uganda's economy.

	Apr 02	Jul 05	Jul 14	Jul 18
Airtime	7%	12%	12%	12%
VAS			20%	20%
Landlines			5%	12%
International calls**			USD 0.09/m	USD 0.09/m
MM fees			10%	15%
Value of MM payments, transfers & withdrawals*				1%
Social Media tax				200 per day

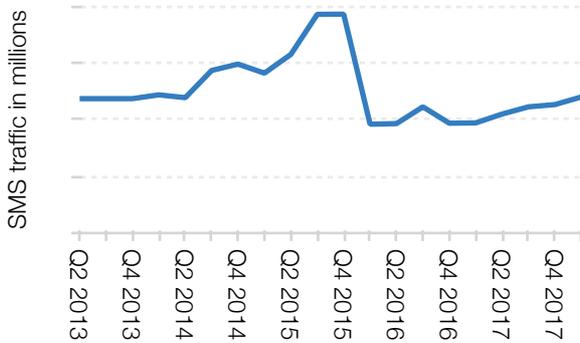
* An amendment bill is currently before parliament to reduce the tax to 0.5% on withdrawals only.

** Calls from Kenya, Rwanda and South Sudan are exempt in the 2018 Amendment.

Figure 1 gives an example of a drop in SMS traffic after the introduction of an excise duty on SMSes in

Guinea in Q4 2015. While the SMS traffic started to grow again after the initial drop, it has not yet reached the volume prior to the introduction of the tax.¹

Figure 1: Example of Guinea where new a tax on SMS was imposed in Q4 2015 lead to a drop in SMS traffic.



The context surrounding the new excise duties is that the telecom sector is already highly taxed. Table 2 shows that for every UGX 1,000 in airtime, 446 shillings go to the state.

Table 2: Split of UGX 1,000 airtime shows that nearly 50% of the airtime value goes to the state

	UGX	Tax	Comments
VAT 18%	180	180	
Excise duty	120	120	0
Staff cost	86	17	Assuming average PAYE of 20%
Commissions	276	28	10% withholding tax
EBITDA	338	101	30% corporate tax
Total	1,000	446	
Source	Staff cost and commissions are based on MTN AFS for 2017: https://bit.ly/2nddMRS		

Figure 2 displays the revenues from excise duties on airtime, international calls and mobile money fees collected by the Uganda Revenue Authority (URA) over time. While it shows increasing tax revenues, it also signals the increasing burden on the ICT sector and how the sector is being held back from facilitating information exchange, making markets more effective, and allowing the poor to participate in the information society.

Although the growth looks impressive, the overall contribution to URA's revenues is below 2.5%.

Figure 2: ICT excise duty revenues increased over the years.

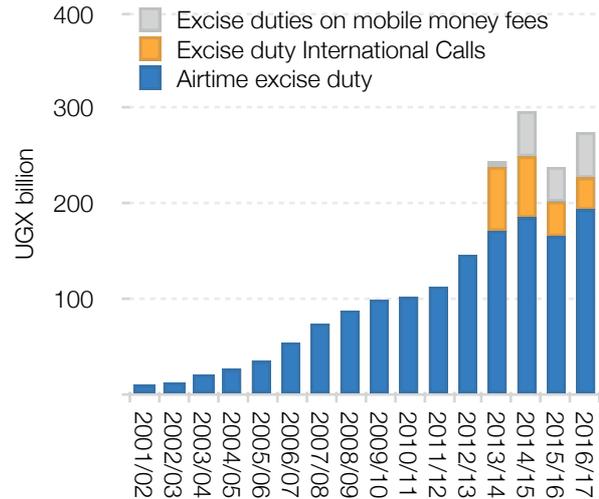
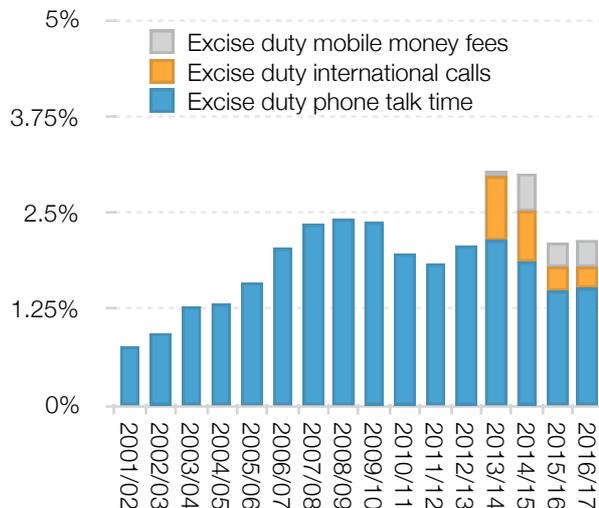


Figure 3 demonstrates that the ICT sector excise duties contribute only a small share to overall tax revenues. Removing all excise duties across the ICT sector would actually lead to more tax revenues by facilitating economic growth and growing tax revenues across all sectors.

Figure 3: ICT excise duty revenues make up only a fraction of total tax revenue collection



This policy brief aims to validate this hypothesis, after assessing the impacts of the new taxes on the ICT sector and the Ugandan economy. The following sections demonstrate that excise duties on the telecommunications and mobile money sectors distort the market, resulting in sub-optimal ICT deployments across Uganda's economy and ultimately lower tax revenues.

¹ Data from Regulatory Authority for Posts and Telecommunications, www.rapt.gov.ug.

Balancing tax revenues and GDP growth

Any government has to balance the opposing objectives of collecting taxes on the one hand and economic growth, job creation and inclusion of the poor into the information society on the other.

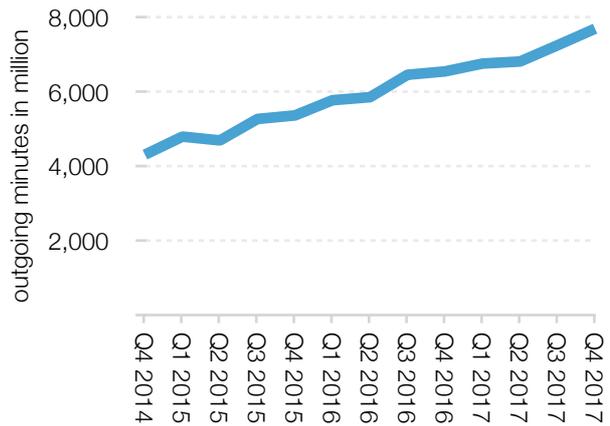
Wider mobile broadband use increases economic growth and jobs, not only in the ICT sector but in Uganda as a whole.² ICTs drive economic growth by providing better access to information, productive efficiency, new jobs, reduced exposure to shocks and a delivery platform for financial services, eEducation, eGovernment, eHealth and eAgriculture.^{3 4}

In early July 2018, Uganda’s government issued a statement defending the new excise duties.⁵ The imposition of the new taxes was justified on the grounds that Uganda’s tax-to-GDP ratio was lower at 14.2% than the rest of Africa, where the average is 18%, and Europe, where the average is 30%.

There are multiple strategies that Uganda could adopt to improve its tax-to-GDP ratio. The World Bank issued a comprehensive report on the reforms needed in Uganda, in which it encouraged Uganda to improve its tax-to-GDP ratio to above 20%.⁶

The World Bank argued that one of the reasons for the shortfall in collecting tax revenues was the transition from traditional voice and SMS calls to OTTs, resulting in a decline in excise duties because OTTs are not subject to excise tax. This is incorrect and Figure 2 shows that the revenue from excise duty on airtime increased over time and, despite a drop during the financial year 2015/16⁷, it increased again in 2016/17. Furthermore, voice traffic continues to increase (Figure 4).

Figure 4: Domestic voice traffic continues to increase despite higher OTT use (UCC).



This view also ignores the fact that OTTs drive data usage for MNOs. Increases in data revenues more than compensate for the loss of revenues from voice and SMS, and result in higher corporate income tax.⁸ Also, an excise duty on OTTs contravenes best practice principles, such as imposing excise duties only on products and services that have negative externalities, such as alcohol and tobacco.⁹

The example of the excise duty of 9 US cents per minute on incoming international calls, which was imposed July 2014, contains a valuable lesson that was ignored by the World Bank report: New taxes may initially look impressive in terms of revenues but may disappoint as soon as people get a chance to adjust their behaviour. This is clearly visible from excise duties collected on calls received from abroad (see Figures 2 and 3). The initial tax revenue of UGX 68 billion dropped to UGX 34 billion after the second year as consumers switched from regular international calls to OTT calls. A similar effect will be observable with the social media tax of UGX 200 per day. Ugandans will likely change their habits and learn to use virtual private networks (VPNs) and shift

² Andrianaivo et al, 2012, Mobile Phones, Financial Inclusion and Growth, available at <http://www.rei.unipg.it/rei/article/view/75>.

³ Aker, J. C., and I. Mbiti. 2010. Mobile Phones and Economic Development in Africa. Journal of Economic Perspective 24(3):207-232. Available at http://sites.tufts.edu/jennyaker/files/2010/09/aker_mobileafrica.pdf.

⁴ All of the e-services fall into the category of Over-the-Top (OTT) applications. OTTs allows for innovation and generate considerable consumer surplus: https://www.wik.org/fileadmin/Studien/2017/CCIA_RIA_Report.pdf

⁵ Museveni in the Observer, 4 July 2018, Museveni on why Ugandans have to pay social media, mobile money tax, available at <https://observer.ug/news/headlines/58099-museveni-on-why-ugandans-have-to-pay-social-media-mobile-money-tax.html>.

⁶ World Bank, 2018. Financing Growth and Development: Options for raising more domestic revenues. Uganda Economic Update 11th Edition, available <http://documents.worldbank.org/curated/en/425631526323380885/pdf/126184-WP-PUBLIC-FinalReportUgandaEconomicUpdate.pdf>.

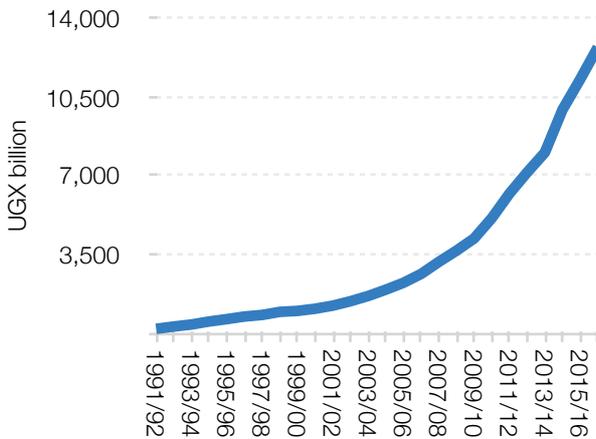
⁷ The drop in 2015/16 coincided with a drop of the contribution of the ICT sector to GDP (see Figure 8).

⁸ Esselaar and Stork, 2018. OTT applications driving data revenue growth, available at www.researchichtsolutions.com. Also MTN group financial results available at: <https://www.mtn.com/en/investors/Pages/default.aspx>.

⁹ Matheson, T. & Petit, P. (2017). Taxing Telecommunications in Developing Countries. International Monetary Fund. Retrieved from <https://www.imf.org/en/Publications/WP/Issues/2017/11/15/Taxing-Telecommunications-in-Developing-Countries-45349>.

social media time to WIFI to lower the tax burden on their budgets.

Figure 5: Net URA Collections is growing exponentially year to year



Considering URA’s net collection, which indicates a strong growth path (Figure 5), the situation is not nearly as dire as the World Bank report makes it out to be.

Table 3: Tipping point for tax to GDP ratio linked to acceleration of development and growth is between 12.75% to 15%

World Bank and GoJ	2015	2016	2017
Uganda’s Tax-to-GDP Ratio	12.9	13.5	14.2

Also, the IMF argues that there is a tipping point for the tax-to-GDP ratio associated with significant acceleration of development and growth of between 12.75% and 15%.¹⁰ Table 3 shows that Uganda already falls into this bracket and its tax-to-GDP ratio has continuously improved over the past 3 years (Table 3).

Figure 6: Tax collection has grown faster than GDP since 2012 (Sources: URA and UBOS)

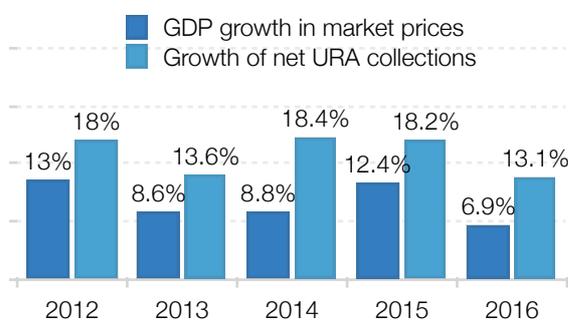
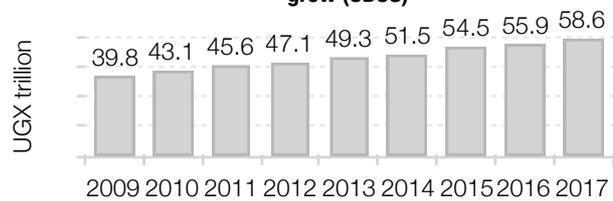


Figure 6 shows that tax revenue growth has been faster than GDP growth since 2012, demonstrating the improvements in tax collection that Uganda has achieved. Figure 7 displays the GDP in constant prices, demonstrating that Uganda’s economy grew constantly.

Figure 7: GDP growth in constant prices continues to grow (UBOS)



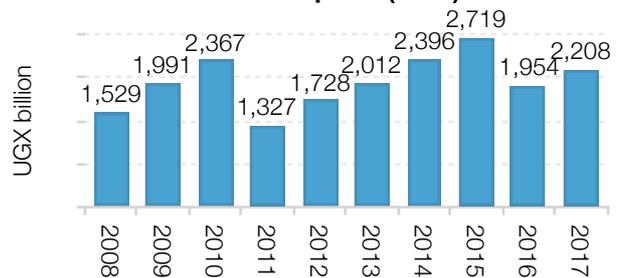
At the same time, the ICT sector’s contribution to GDP in nominal and percentage terms has been erratic (see Figures 8 and 9). If the ICT sector were following international trends, one would have expected it to grow in line with GDP or even faster.

Figure 8: Share of ICT Sector contribution to GDP (UBOS)



In OECD countries, the ICT sector’s contribution to GDP is on average 6%, compared to Uganda’s contribution of 2.2%.¹¹

Figure 9: ICT Sector contribution to GDP in current prices (UBOS)



The erratic contribution of the ICT sector to GDP is an indication that the ICT sector’s potential is not being fully realised and that it could have a significantly larger impact on economic growth.

¹⁰ IMF Working Paper, 2016. Tax Capacity and Growth: Is there a Tipping Point? Available at <https://www.imf.org/external/pubs/ft/wp/2016/wp16234.pdf>.

¹¹ World Bank, 2016. Digital Dividends. World Development Report, available at <https://openknowledge.worldbank.org/bitstream/handle/10986/23347/9781464806711.pdf>.

Tax Best Practice Principles

There are five best practice principles that contribute to an efficient tax system.¹² Table 4 lists each of these principles. Excise duties on airtime, mobile money services and social media contravene each of these five principles.

Table 4: Best practices principles for taxation

Principle	Description
Broad-based	A broad base of taxation means that a lower tax rate is required to raise the same revenue, while sector specific taxes distort incentives and require higher levels of taxation to get the same revenue.
Take into account externalities	Excise duties should be imposed on activities with negative externalities where the objective is to lower consumption, such as alcohol or tobacco, and should not be imposed on sectors with positive externalities, such as telecoms.
Simple and enforceable	Taxes should be clear, easy to understand, and predictable, thereby reducing investor uncertainty and ensuring better compliance.
Incentives for competition & investment should be unaffected	Higher taxes for one sector in comparison to the rest of the economy could reduce investment in that sector.
Progressive not regressive	The tax rate should increase as the taxable amount increases. Specific value taxes on small amounts should be avoided because they make the poor pay more.
Source	GSMA, 2016

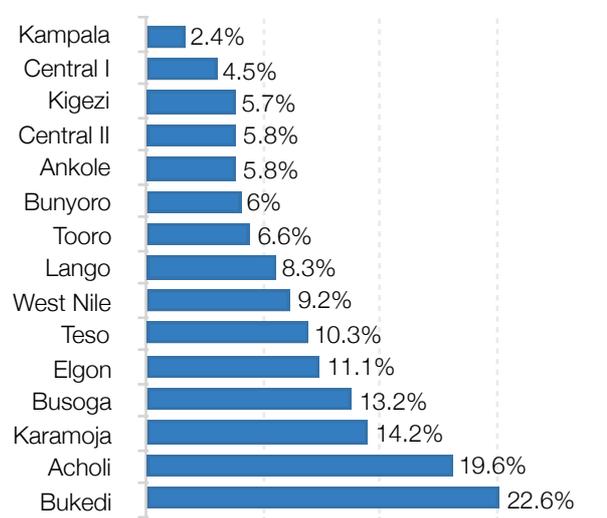
The taxes of July 2018 are:

- **Not broad-based:** Single out the ICT sector.
- **Penalise positive externalities:** Multiple layers of taxes for a sector that is meant to be a growth engine for the economy.
- **New taxes are not simple and enforceable:** The social media taxes can be circumvented by using VPNs or shifting social media use to Wifi. Also, excise duties on mobile money and social media have been imposed without any analysis of the

effects, and they are difficult to understand. The mobile money tax has been subject to two clarifications from the URA, and the Excise Act of 2018 is being revised by parliament three weeks after its initial passing.

- **Significant effects on competition:** The mobile money tax discriminates the mobile money channel compared to other payment channels, like credit cards and bank transfers. The tax has led to a drastic drop in mobile money transaction volumes and value since its introduction. The social media tax resulted in declining data revenues, which will may have follow-on impacts on investment decisions regarding 3G and 4G upgrades.
- **Progressive tax:** The social media tax is regressive and not progressive. The poor and the rich have to pay the same, whether they are in metropolitan Kampala or in rural Bukedi. Figure 10 shows that the social media tax is only 2.4% of average individual income in Kampala, but 22.6% of the average individual income in Bukedi. Also, users effectively pay a double tax by paying excise duty and VAT on airtime and then the social media tax as well.

Figure 10: Social media tax of UGX6000 per month as share of average individual income by sub-region shows that Ugandans are unevenly affected by the tax



¹² See GSMA. (2016). Digitalisation and mobile sector taxation in Europe: The experience in Hungary. Retrieved from https://www.gsma.com/mobileforddevelopment/wp-content/uploads/2016/03/GSMA_Digitalisation_and_mobile_sector_taxation_experience_in_Hungary.pdf ; OECD. (2015). Final Report Addressing the Tax Challenges of the Digital Economy. <https://doi.org/http://dx.doi.org/10.1787/9789264202719-en>; Coplin, N., Altamirano, P., Omiyi, P. & Rowen, D. F.

(2014). IMF Advice to Low-income countries on tax policy. Retrieved from http://www.new-rules.org/storage/documents/IMF_Advice_to_Low-Income_Countries_on_Tax_Policy.pdf.

Impact of mobile money taxes

The mobile money excise duties introduced by the Ugandan government provide an opportunity to analyse demand elasticities under extreme circumstances, in this case, an average price increase of 71%¹³ for cash-to-cash transactions amongst registered MTN users (Table 5).

A MTN mobile money user sending UGX 1,500 to another MTN mobile money user would have to pay UGX 250 for the transfer. When the receiving person wants to withdraw the money at an agent, he or she would need to pay another UGX 330. The cash-to-cash transaction cost is thus UGX 580 or 39% of the transaction value. With the new tax on transaction value, the total transaction cost increases to 41%, which is a nominal cost increase of 2%. An important calculation is, however, the price increase from the situation before and after the introduction of the tax. For a UGX 1,500 cash-to-cash transaction, the price increase is 5% ((41%-39%)/39%). For a cash-to-cash transaction of UGX 3 million, it is 161%. The new tax thus constitutes a massive price increase for larger transfer amounts (see Table 5).

The immediate impact on transaction numbers and transaction value has been devastating. MTN released data for the two periods June 1-25 and July 1-25. Comparing these two periods, before and after tax shows that mobile money use is highly price elastic.

“In Uganda, greater financial inclusion is the key to unlocking rapid growth”

<http://blogs.worldbank.org/africacan/in-uganda-greater-financial-inclusion-is-the-key-to-unlocking-rapid-growth>

The new taxes led to a drop in transaction value of 46% for peer-to-peer (P2P) transactions, 23% less in value of payments, and 26.5% less cash-in and 25% less cash-out value (Table 6). That the transaction value declined more than the number of transactions is indicative of the discrimination of the new tax against higher value transactions.

Table 6: Change in MTN's mobile money transaction volume

	Total	Cash in	Cash out	P2P	Payment
Transactions	-15%	-8%	-18%	-31%	-6%
Value	-29%	-27%	-25%	-46%	-23%

Table 5: 71% average price increase for a cash to cash transaction between registered MTN users

Cash to Cash transfer amount (midpoints)	Fee for sending to registered users	Fee for withdrawal at agent	Transaction cost June 2018		1% tax on value for sending + 1% on withdrawal	Transaction cost July 2018		Price increase
			UGX	%		UGX	%	
1,500	250	330	580	39%	30	610	41%	5%
3,751	500	440	940	25%	75	1,015	27%	8%
10,001	1,000	700	1,700	17%	200	1,900	19%	12%
22,501	1,000	880	1,880	8%	450	2,330	10%	24%
37,501	1,000	1,210	2,210	6%	750	2,960	8%	34%
52,501	1,000	1,500	2,500	5%	1,050	3,550	7%	42%
92,501	1,500	1,925	3,425	4%	1,850	5,275	6%	54%
187,501	1,500	3,575	5,075	3%	3,750	8,825	5%	74%
375,001	1,500	7,000	8,500	2%	7,500	16,000	4%	88%
750,001	2,000	12,500	14,500	2%	15,000	29,500	4%	103%
1,500,001	2,000	19,800	21,800	1%	30,000	51,800	3%	138%
3,000,001	2,000	35,200	37,200	1%	60,000	97,200	3%	161%
4,500,001	2,000	49,500	51,500	1%	90,000	141,500	3%	175%
Unweighted Average								71%

¹³ It is an unweighted average based on all transaction tiers. The actual average, i.e., weighted by transaction volumes, may be lower depending on the transfer habits of Ugandans, which are subject to change, as indicated by the high price elasticity.

The figures reported by Airtel are very similar, with P2P transaction values dropping by 45% and cash-in dropping by 32% between June and July 2018.

Table 7: Change in Airtel's mobile money transaction

	Total	Cash in	Cash out	P2P	Payment
Transactions		-26%	-21%	-31%	-6%
Value	-33%	-32%	-28%	-45%	-36%

For both companies, the cash-in value declined despite cash-in being free, because people preferred not to put cash into the system, knowing that they would be charged on the transfer and withdrawal value, in addition to the mobile money fees. The new taxes are destroying one of the most important features of a financial system: trust.

Simplicity is also under threat. Before the introduction of the tax, fees could be easily calculated by subtracting a withdrawal fee, an important feature when paying someone for goods or services. Most senders include a withdrawal fee so that they know what the recipient will receive as the final amount. The new tax on transaction value requires a complex calculation to determine the final amount that the recipient would receive.

These taxes will result in:

- Lower transaction volume, which will mean lower tax revenue from mobile money fees.
- Handicapped financial inclusion efforts by encouraging a reliance on cash.
- The new tax will affect the retail banking sector, due to the positive correlation between mobile money and formal banking adoption.
- Distortion of competition because the mobile money tax discriminates against a single payment channel. The formal banking channels are exempt from the tax.

Airtel's and MTN's data show that taxing mobile money has complex side effects and that elasticities are not the same for the different mobile money services.

Table 9: Price elasticities based on MTN data for June 1-25 compared to July 1-25 based on average elasticities across all transactional tiers

Mobile money service	Price elasticity
P2P transfer	-2.68
Withdrawal at agent	-1.52
Merchant payments	-1.35

Table 8: Airtel's mobile money fees favour large transactions. Lower fees for smaller transaction value would increase transactions volume and lead to higher mobile money penetration.

midpoints	Sending to registered users		Withdrawal at agent		Sending to unregistered users & other networks		Merchant transactions	
	UGX	%	UGX	%	UGX	%	UGX	%
1,500	250	16.67%	330	22%	1,000	66.67%	190	12.67%
3,751	500	13.33%	440	11.73%	1,000	26.66%	330	8.80%
10,001	1,000	10%	700	7%	2,000	20%	1,000	10.00%
22,501	1,000	4.44%	880	3.91%	2,200	9.78%	1,600	7.11%
37,501	1,000	2.67%	1,210	3.23%	2,800	7.47%	2,000	5.33%
52,501	1,000	1.90%	1,500	2.86%	2,800	5.33%	2,650	5.05%
92,501	1,500	1.62%	1,925	2.08%	4,400	4.76%	3,500	3.78%
187,501	1,500	0.80%	3,575	1.91%	8,400	4.48%	3,950	2.11%
375,001	1,500	0.40%	7,000	1.87%	11,000	2.93%	5,050	1.35%
750,001	2,000	0.27%	12,500	1.67%	21,000	2.80%	10,700	1.43%
1,500,001	2,000	0.13%	19,800	1.32%	40,000	2.67%	20,500	1.37%
3,000,001	2,000	0.07%	35,200	1.17%	70,500	2.35%	40,000	1.33%
4,500,001	2,000	0.04%	49,500	1.10%	70,500	1.57%	40,000	0.89%
Unweighted Average		4.0%		4.8%		12.1%		4.7%

It may be too early to determine if the medium-to-longer-term impacts will be more or less dramatic. On the one hand, people may have no alternative to mobile money use in the short term, since some recipients live in remote areas or do not have access to bank accounts. On the other hand, mobile money users may not have been able to shift to alternative financial services in the first three weeks after the introduction of the taxes but may re-evaluate their options in the longer term.

The new taxes exacerbate an already complex situation. The existing fee structure is high, with the average transaction cost for a cash-to-cash transaction of 17% or higher for transfers of UGX 10,000 or less (Table 8). Even simple low value transfers between mobile money users of the same network carry a considerable cost. Sending UGX 1,500 to another registered user costs 16.67% of the transaction value. Cashing out would cost another 22% of the transaction value (Table 8). This discourages lower value transfers.

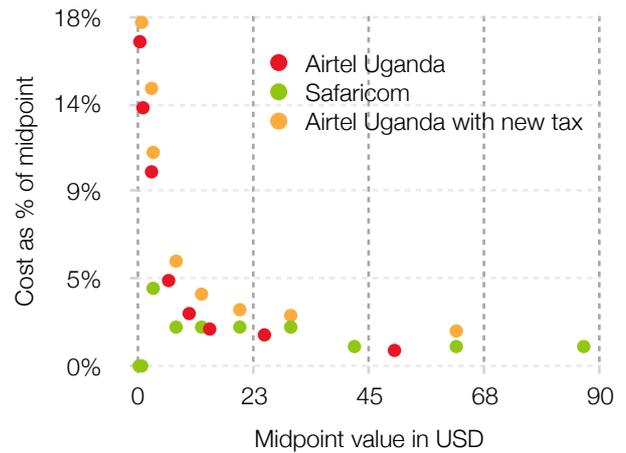
“... digital platforms have crowded in more users into the formal financial system, with the number of accounts in commercial banks increasing from 4.5 million as at June 2015 to 7.4 million as at June 2017; while the number of accounts in financial institutions licensed by the BoU (Commercial banks, Credit Institutions and MDIs) rose by 3.3 million over a two year period to 9.3 million accounts as at June 2017.”Source: <http://newz.ug/ugandas-banking-system-is-sound-bank-accounts-have-jumped-to-7-4m-bank-of-uganda/>

Comparing Airtel Money to MPESA (Safaricom, Kenya) shows that Airtel money is significantly more expensive for lower transfer amounts (Figure 11).

Safaricom zero-rated P2P transfers up to KSh100 (USD 1). This facilitates adoption of mobile money among the poor and also encourages the use of mobile money for day-to-day transactions, such as buying sugar or milk at an informal corner store. The new mobile money tax makes such zero-rating impossible in Uganda.

The tax on the value of transfers now discourages higher transfer amounts as well. The result will be a contraction of the mobile money market. This has direct and indirect effects. The direct effects are less revenues for mobile money operators, potentially fewer mobile money agents and lower excise duty revenues on mobile money fees for the state.

Figure 11: Airtel Money transaction fees are then those of Safaricom in Kenya for lower transaction values



The indirect impacts include slower economic development, fewer jobs and less taxes from sectors other than the ICT sector.

Direct impact on Employment

The reduction in transaction numbers and transaction value and the expansion and increase of the withholding tax (WHT) to all mobile money and airtime agents, not just those with a turnover of above 1 million UGX, means that the number of agents will decline, leading to the further reduction of mobile money use in Uganda. Between Q4 2016 and Q3 2017, the number of agents grew, along with increasing transaction value. The number of reported agents is likely to be higher than the actual number of agents because mobile money agents trade for several mobile money services. To avoid over-counting, the total number of agents is divided by three for the calculations in this policy brief.

The transaction value elasticity is 0.53 between Q4 2016 and Q3 2017.

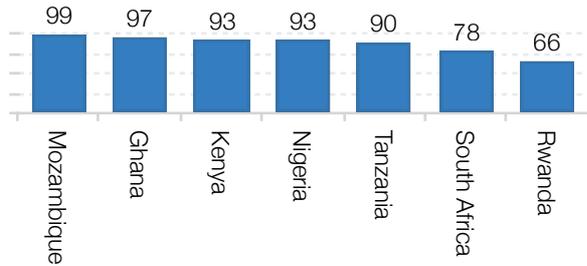
Number of agents reported by BoU: 147,146
 $147,146 / 3 = 49,049$
 $-0.29 * 0.532 = -0.1542$
 $-0.1542 * 49,049 = 7563$

Supposing that the trend persists, the 29% decline in overall transaction value experienced by MTN may lead to a 15% reduction in mobile money agents, jeopardising 7,600 jobs, mostly in the lower-income segment of mobile money agents in less profitable and mostly rural areas.

Burden of Social Media Tax

One of the justifications for implementing a tax on social media is that it is a luxury good and is used only by wealthy people. Research ICT Africa's nationally representative surveys show that this is not the case. In Kenya, for example, 93% of Internet users use social media.¹⁴

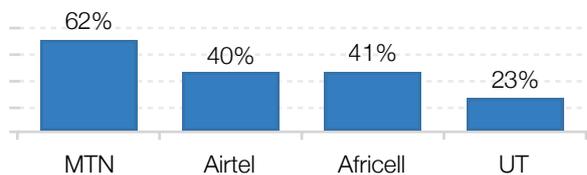
Figure 12: RIA's national surveys show that most Internet users also use social media



Social media is also one of the main drivers behind mobile broadband adoption. It allows users to generate their own content in the language they prefer. It also allows them to communicate at a much lower cost than traditional voice or SMS, across networks and national borders. There are multiple cases that demonstrate the economic and social benefits of social media, for ride sharing, mobile phone technical support and study groups.¹⁵

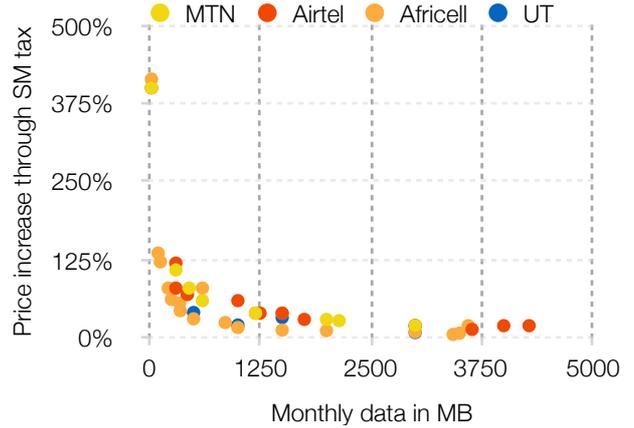
The social media tax of UGX 200 per day equals UGX 6,000 a month. Assuming that most Internet users use social media, this means an average price increase of between 23% and 62% across all prepaid data packages of Uganda's national mobile networks (Figure 13).

Figure 13: Average prepaid data price increase across all prepaid data products due to SM tax



The increase affects the poor in particular. Figure 14 shows that low-value bundles are more heavily taxed, with some bundles facing 400% to 500% price increases. This is obviously not affordable and means that low-usage bundles will effectively be taken off the market. Users will move away from daily packages and will lower their usage significantly.

Figure 14: Social Media tax discriminates against low usage data bundles - i.e. the poor



The introduction of the social media tax has, overnight, moved Uganda 8 places down the affordability rankings for 1GB of prepaid data per month. Uganda has moved from being ranked 9th cheapest to the 17th cheapest country in Africa (Figure 15). Uganda's fall in position compared to the rest of Africa doesn't really convey the gravity of the situation.

Figure 15: Uganda's ranking dropped from 9th to 17th cheapest country in Africa for 1GB prepaid per month.

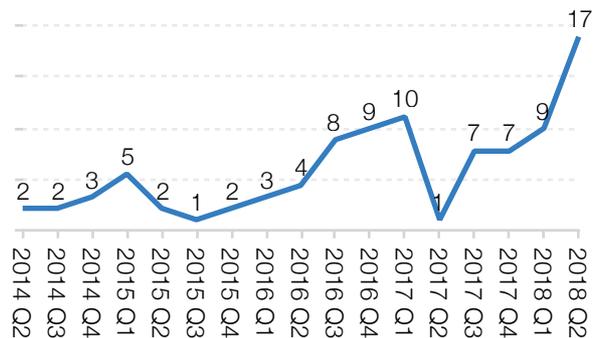
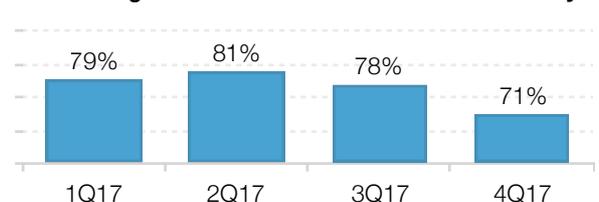


Figure 16 shows the social media tax expressed as percent of MTN's average revenue per user (ARPU) per month. The UGX 6,000 tax per month makes up 71% of MTN's ARPU in Q4 2017; i.e., on average, 71% of a communication budget would be spent on the tax before even consuming data or airtime.

Figure 16: UGX 6,000 per month expressed as share of MTN Uganda's ARPU indicates its in-affordability.



¹⁴ Research ICT Africa will be releasing the Ugandan results shortly. These were not available during the time that this report was published.

¹⁵ See https://www.microsoft.com/en-us/research/wp-content/uploads/2017/06/AfriCHI_Kasera_ONeill_Bidwell_Camera_Final_final.pdf and <http://www.irrodl.org/index.php/irrodl/article/view/3279/4446>

Impact of Social Media Tax

The link between broadband penetration and GDP growth is well established. The ITU lists a range of studies that measure the macro economic effects of mobile broadband penetration.¹⁶ The effects vary for sets of countries and time periods and range from 0.8% to 1.5% of additional GDP growth for an increase of 10% in mobile broadband penetration.

Table 10: International results on impact of 10% increase in broadband penetration on GDP growth.

Authors	Countries	GDP growth
Czernich et al 2009	OECD, 1996-2007	0.9-1.5%
Koutroumpis 2018	OECD, 2002-2016	0.82-1.40%
OECD 2013	EU countries, 1980-2009	1.1%
Qiang et al 2009	Low income countries 1980-2006	1.4%
Scott 2012	Low income countries 1980-2011	1.35%

A factor of 1.4% additional GDP growth for 10% higher broadband penetration, when applied to Uganda, would lead to UGX 7.2 trillion additional GDP and UGX 1 trillion additional tax revenues over five years (see Table 11).

Table 11: Additional GDP and income tax in UGX billion based on 10% increase in broadband penetration.

	GDP impact of 10% penetration	Additional GDP based on 1.4% factor	Additional tax income based on tax-to-GDP ratio of 14.2%
2017	100,027		
2018	100,027	1,400	201.64
2019	101,427	1,420	204.46
2020	102,847	1,440	207.32
2021	104,287	1,460	210.23
2022	105,747	1,480	213.17
5 year effect		7,201	1,037

The Government's aim should be to grow broadband use if it wants to reap the benefits of increased economic growth and therefore increased taxes. By

imposing taxes on social media, the government of Uganda forgoes economic growth and imposes an economic cost on the economy as a whole.

Table 12 displays the price elasticity of mobile Internet users and a price time series for the cheapest product available from dominant operators in Uganda for 1GB prepaid mobile data, expressed in 2014 prices. The results show that a price drop of 10% would result in an increase in mobile broadband use of 28.39%. Or, conversely, that an increase of 10% in prices would lead to a decline of 28.39% in active broadband users.

Table 12: Price elasticity of mobile internet users measured against price of cheapest product for 1GB mobile prepaid data per month from dominant operators in January 2014 prices.

Quantity	Period	Elasticity
Mobile Internet users (UCC)	Q4 2014 -Q4 2017	-2.839

MNOs reported a drop of 20% in subscribers that used data since the imposition of the social media tax. This is a lower drop compared to what a price increase of UGX 6,000 per month might have had. One of the mitigating factors is that subscribers use social media less and therefore don't have to pay the social media tax every day. Another factor could be an increase in VPN use that bypasses the tax. Finally, subscribers could save their social media interactions for when they are on WIFI, also bypassing the social media tax.

Basing the estimate of the economic cost on the reported 20% drop in active mobile broadband subscribers, gives the following calculation:

$$\text{2018 forgone GDP growth} = \text{GDP}_{2017} * 1.4\% * 2 = \text{UGX 2.8 trillion}$$

$$\text{2018 forgone taxes} = \text{UGX 2.8 trillion} * 14.2\% = \text{UGX billion 398}$$

A 20% drop in active Internet users translates into 2.8% forgone GDP growth, i.e., UGX 2.8 trillion less in GDP and UGX 400 billion less in taxes per year. The expected tax revenue of the social media tax for the financial year 2018/19 is UGX 284 billion,¹⁷ representing a net loss in tax revenue of UGX 116 billion.

¹⁶ ITU (2013). Taxing telecommunication/ ICT services: an overview.

¹⁷ http://www.finance.go.ug/sites/default/files/Publications/Government%20of%20Uganda%20Budget%20Speech%20for%20Fiscal%20Year%202018-2019_1.pdf.

Dropping 12% Excise Duty on airtime

The previous sections have focused on the taxes introduced in July 2018. Excise duty on airtime, however, has been in place since 2002 at 7% and was increased to 12% in 2014. This section aims to assess what the direct and indirect impacts would be if the excise duty on airtime would be dropped. Three steps are required:

1. Estimate demand elasticity for voice traffic and mobile subscribers. If the excise duty on airtime falls way, consumers will have 12% more airtime to spend. This equals a 12% reduction in prices even if nominal prices do not change.
2. Assess the impact on economic growth of increased mobile penetration applying results from multiple international studies to Uganda.
3. Calculate the direct and indirect effects on Uganda (for direct effects see Table 3).

Table 13: Price elasticities of outgoing voice and mobile subscribers against OECD basket 30 calls 100 SMS (cheapest product of dominant operators in January 2014 prices).

Quantity	Period	Elasticity
Outgoing traffic (UCC)	Q4 2014 -Q4 2017	-1.798
Subscribers (UCC)	Dec14- Dec17	-0.634

Table 13 shows the price elasticity calculation. If the 12% excise duty on airtime was dropped, the consequences would be:¹⁸

- 21.6% increase in outgoing minutes and thus revenues.
- 7.6% additional growth of mobile subscribers.

Table 14: Impact of 10% increase in mobile penetration leads to about 0.8% additional GDP growth

Authors	Countries	GDP growth
Waverman, Meschi & Fuss 2005	92 countries 1980-2003	0.59%
Qiang et al 2009	Low income countries 1980- 2006	0.8%

In addition to the direct impact on the sector, there would also be an impact on the broader economy. Table 14 shows that the impact of an additional 10% mobile penetration would result in additional GDP growth of between 0.59% and 0.8%.

Table 15: Impact on GDP and taxes in UGX billion

	GDP impact of 10% penetration	Additional GDP based on 0.8% factor & elasticity of -0.634	Additional tax income based on tax-to-GDP ratio of 14.2%	Excise duty phone talk time
2017	100,027			194.3
2018	100,027	608.16	86.36	
2019	100,635	611.86	86.88	
2020	101,247	615.58	87.41	
2021	101,863	619.32	87.94	
2022	102,482	623.09	88.48	
5 year effect		3,078.02	437.08	

The result would be an additional UGX 3 trillion in GDP and an additional UGX 437 billion in taxes over 5 years from sectors other than the ICT sector.

Table 16: Net impact - Dropping the 12% excise duty is nearly tax neutral for the first year. The compound impact means that over the years the net effect will be positive.

UGX billion		With ED	Without ED
Direct	Excise Duties (URA 2016/17)	194.3	0
	implied industry airtime revenues	1,619	1,969
	MNO Profits from airtime (35%)	567	689
	VAT	291	354
	Corporate Tax	170	207
	Net direct tax impact	656	561
Indirect	Additional GDP		608.2
	Additional tax revenues (14.2%)		86.4
Tax impact for 1st year		655.8	647.5

Table 16 compares two scenarios with and without the 12% excise duty on airtime for the URA financial year 2016/17. In the short term, the overall effect of dropping the 12% excise duty on airtime is fairly tax neutral but benefits the poor by reducing the cost of airtime. In the medium term, the net tax effect is likely to be positive, due to the compound effect of annual additional GDP growth.

¹⁸ $(-1.798) * (-0.12) = 0.21576$ and $(-0.634) * (-0.12) = 0.07608$

Conclusion

Uganda's economy is growing; its tax revenues are growing even faster, and the tax-to-GDP ratio is therefore steadily improving. Based on the underlying economics, the imposition of ad hoc ICT sector taxes has no justification. A pro-growth and pro-poor strategy would go in the opposite direction and, rather than leveraging more tax, reduce the existing tax burden on the ICT sector.

The July 2018 taxes created significant uncertainty and the economic impacts should be carefully considered. Excise taxes specifically should be considered carefully as they are regressive in nature,

The economic cost of the social media tax is likely to be a reduction of US\$ 750 million in GDP growth and US\$ 106 million in forgone taxes.

and typically are imposed as a measure to mitigate negative externalities.

Excise duties on ICTs slow down economic growth and job creation and also slow the transition from informal to formal sectors by penalising financial inclusion and VAT compliance.

The mobile money tax didn't consider the full economic impact. The increase in transaction costs makes mobile money unaffordable for the poor, incentivising cash use and weakening tax compliance.

The social media tax suffers from a myriad of problems. It is difficult to implement because it can be bypassed by using WIFI or using a VPN. Unfortunately, these options are not easily available to the poor. The tax of UGX 6,000 per month represents 71% of MTNs monthly ARPU, so it is wildly unaffordable. It has the effects of dampening consumption, reducing mobile operator revenues and reducing the incentive to invest in future network upgrades (or to get a return on investment for upgrades that have already been undertaken in 2018). And this list of negative effects doesn't even cover the impact on the overall economy of a reduction of 2.8% in economic growth and UGX 400 billion in foregone taxes.

The government of Uganda has an opportunity to accelerate mobile broadband adoption, and therefore stimulate economic growth and raise tax

revenues, by removing the social media tax, the mobile money tax, the 12% excise duty on airtime and the 20% excise duty on VAS.

The lower the price, the faster the adoption rate, and thus GDP and tax revenue grow. Dropping all excise duties for the ICT sector will lead to higher, not lower, tax revenues, freeing up more money for infrastructure spending and moving Uganda closer to Vision 2040 where Uganda would have an ICT sector that contributes 40% to exports¹⁹, benefiting the whole of Uganda.

Recommendation

The main recommendation of this policy brief is to use the ICT sector to grow Uganda's economy, jobs and tax base by eliminating all ICT sector excise duties. The more Ugandans that have broadband access, the easier it will be to serve them with e-gov, e-health, e-education and financial services. Dropping ICT excise duties will serve Ugandans better and grow tax revenues faster, creating a win-win situation.

Disclaimer

The study was funded by Facebook. The objective of this policy brief is to inform the current debate in Uganda and support evidence-based ICT policy and regulation. The views expressed in the policy brief are those of the authors only. The policy brief is based on consultations with mobile operators during July and August 2018 and public data from the Bank of Uganda (BoU), Uganda Communications Commission (UCC), Uganda Revenue Authority (URA) and Uganda Bureau of Statistics (UBoS).

Authors: Dr Christoph Stork & Steve Esselaar

About Research ICT Solutions: We provide objective transparent and evidence-based ICT policy and regulatory advice. Our clients include regulators, government agencies, telecom operators, multi-national firms and multi-lateral agencies.

890 Ruckle Court
North Vancouver, V7H 2P6
Canada
M: +1 778 865 5695
E: steve@researchictolutions.com
U: www.researchictolutions.com

¹⁹ <http://npa.ug/vision2040/vision-targets.htm>