



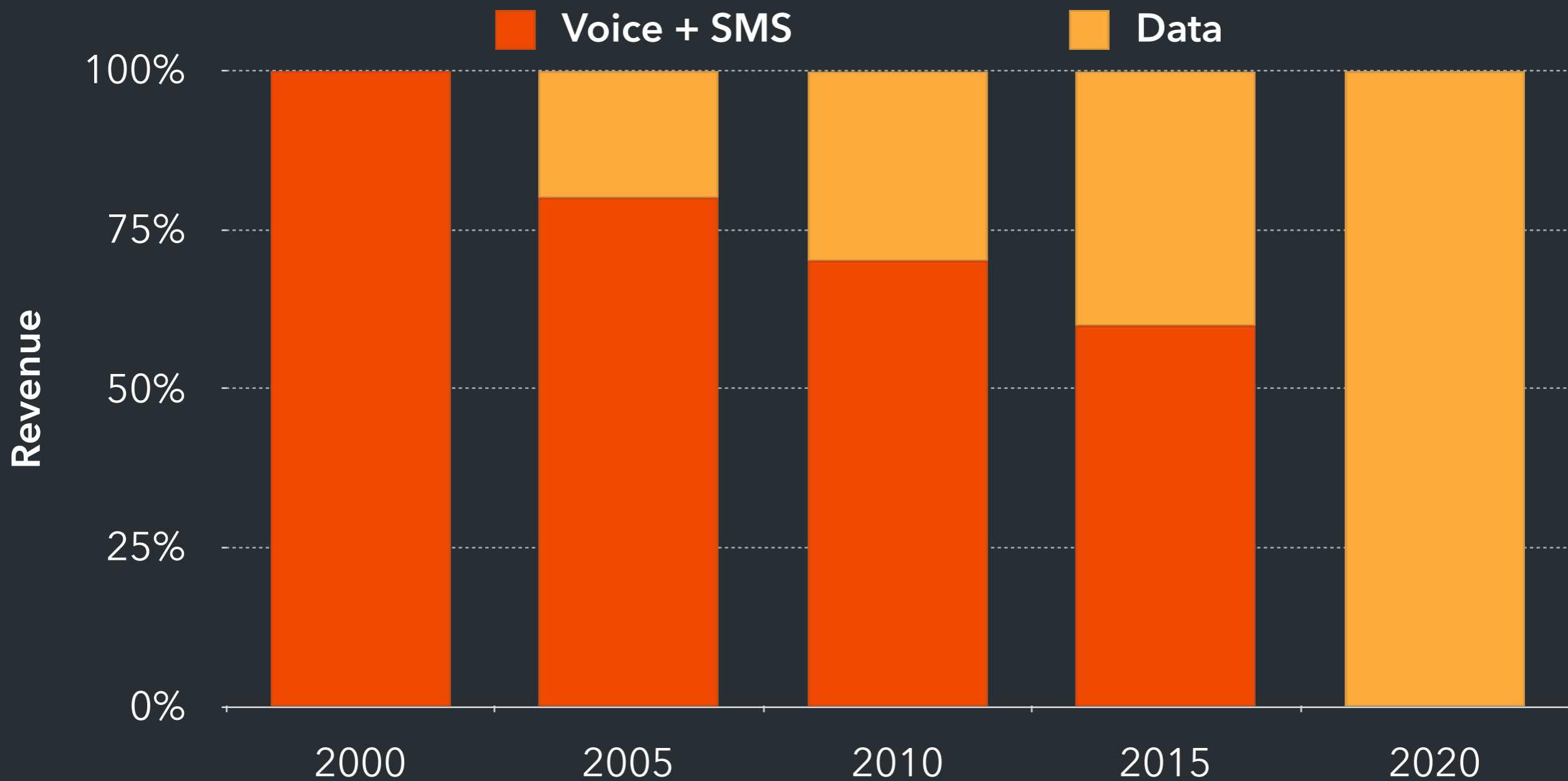
OTT - THREAT OR OPPORTUNITY FOR AFRICAN TELCOS?

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MOBILE BROADBAND

- Mobile broadband (2.5G and 3G) and declining smart phone prices have lead to a rapid increase in Internet use
- Computer based Internet access - is a privilege of the few in Africa (formal jobs or Internet Cafe)
- Mobile BB
 - Requires less skills than computer based access
 - It does not require electricity at home
 - It is prepaid
- Mobile BB is expensive for the poor, and at the same time as it is a cost saving tool
 - It is expensive when using the full Internet including media streaming
 - It is cheap when Over The Top (OTT) services are used instead of voice and SMS

/GLOBAL TREND



Separation of access and service platforms

/PHASE 6: MNO = ACCESS ONLY PROVIDERS

- Pricing = flat access
- Billing = very easy
- Marketing = performance can be measure objectively
- Dumb Pipe Syndrom? Investors don't complain if the make reasonable returns
- Some operators in Africa prepare for transition: Bundling to keep stable ARPU and simulate flat access e.g.

VOICE AND SMS VS DATA RETAIL PRICES

Q1 2016	Lowest average prices in US cents				% 1 Mb when purchased as a 1GB top up expressed in share of other prices		
	1 Mb out of bundle	1 SMS	1 Minute	1 Mb based on 1 GB top up	1 MB out of bundle	1 SMS	1 voice minute
Malawi	0.89	3.78	9.30	0.67	75%	18%	7%
Sudan	1.08	0.71	0.71	0.43	40%	61%	61%
Ethiopia	1.76	1.76	3.37	0.96	55%	55%	28%
Tanzania	1.88	1.47	5.29	0.60	32%	41%	11%
Egypt	1.97	1.97	1.97	0.32	16%	16%	16%
South Africa	2.50	2.50	5.14	0.70	28%	28%	14%
Botswana	2.65	2.12	7.04	1.79	68%	84%	25%
Tunisia	2.74	1.37	1.70	0.50	18%	36%	29%
Cote d'Ivoire	3.81	3.81	8.95	0.82	22%	22%	9%
Kenya	5.65	1.13	3.01	0.50	9%	44%	17%
Namibia	7.76	3.02	12.50	0.55	7%	18%	4%
Mozambique	7.93	3.81	10.84	0.36	5%	9%	3%
D.R Congo	9.00	4.00	8.44	1.30	14%	33%	15%
Angola	9.01	9.01	20.03	1.86	21%	21%	9%
Lesotho	11.15	4.46	10.70	0.84	8%	19%	8%
Zambia	16.66	3.28	13.54	0.90	5%	27%	7%

/ OTTS PROVIDE A COMPETITIVE OPPORTUNITY

Small Operator

- On-net / Off-net discrimination does not apply to OTT services
- The size of the subscriber base doesn't provide a competitive advantage
- OTTs stimulate data use through social networks - boost data market share

Dominant operators

- may embrace OTTs to defend their market share and discourage market entry
- A new operator- several years to break even while building a network
- A new operator would have to build a business case around flat access pricing rather than traditional mobile business model in a market with wide spread OTT use



**MNO RESPONSE TO
OTTs**

RESPONSE TO

/BLOCKING OTTS

- In Europe, the initial response by mobile operators had been to block or throttle peer-to-peer traffic or VoIP
- The European Commission in 2013 raided telecom operators on grounds of throttling concerns
- AT&T blocked mobile VoIP following the release of the iPhone but soon faced consumer and regulatory pressure and backed down
- Morocco operators blocked Voice over IP services - Viber, WhatsApp and Skype without subscribers knowledge
- ▶ Blocking directly violates the idea of net neutrality, an open Internet accessible to all
- ▶ Consumer pressure has been more effective though

/REGULATING OTTS

- Regulatory intervention to prevent customers using OTTs
- To protect operators from market erosion
- Regulating zero rated OTTs based on net neutrality principle (India 2016, Egypt 2016)
- Regulatory intervention to create an equal playing field - OTTs have no licence or tax obligations (Vodacom and MTN in South Africa)

/EMBRACING OTTS

1. Bundling dedicated data for social media (MTC in Namibia)
2. Zero rated OTTs - without charging for data services
3. Free Basics package from internet.org
 - Operators in 21 African countries have partnered with Facebook to offer zero rated Free Basics on their platforms
 - Interestingly, in nine of the African countries it is being driven by Airtel despite the head of Airtel Africa calling for regulation of OTT services
 - Malawi and the Democratic republic of Congo are the only countries in Africa in which the service is being offered by two operators

/SIMULATE OTTS THROUGH BUNDLING

- Bundle voice, SMS and data into packages that provides OTT like services
- Price of the top-up so that it receives the desired ARPU
- $4 \times 7 \text{ day validity top up} = \text{ARPU} * \text{Subscribers} = \text{desired revenue}$
- Sometimes lose to unlimited voice call and text messages
- Operators in 24 African countries offered bundling voice, text and data together in 2015

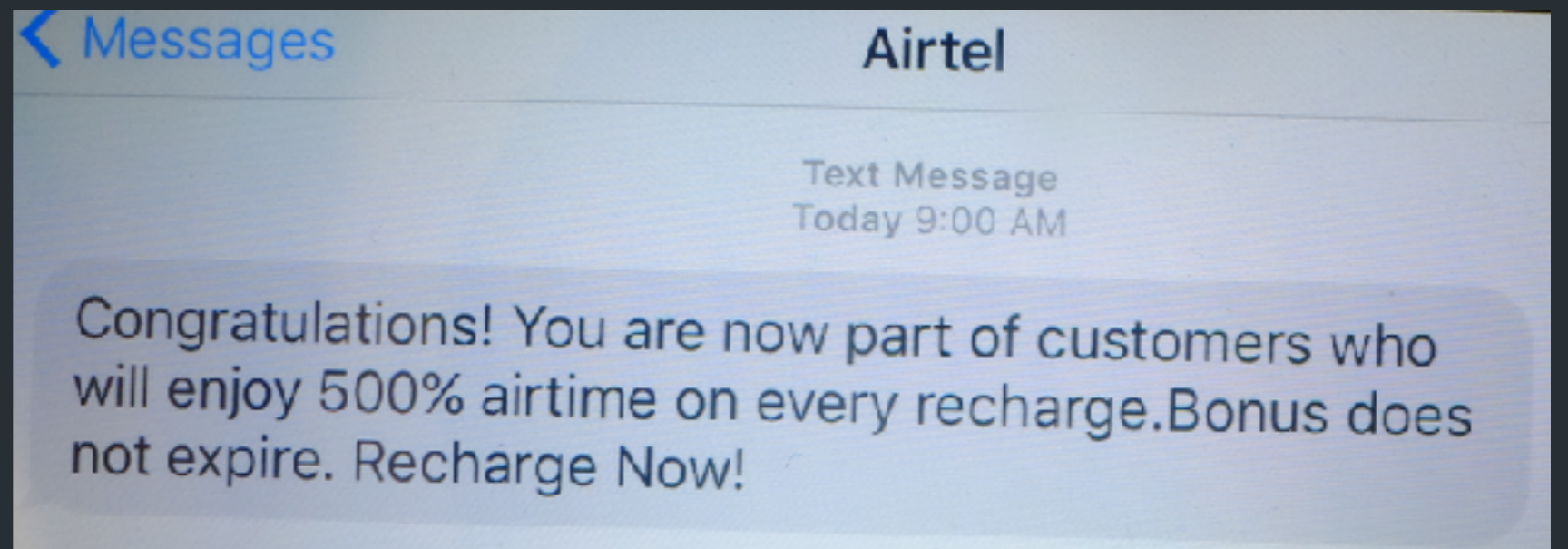
/OFFERING NON TELCO OTT

- Safaricom offers MPESA successfully
- Streaming music and videos (zero rated - i.e. not charging for data)
 - In South Africa, Vodacom partnered with Deezer, a music streaming service - ZAR59 per month for unlimited music access
 - MTN offered its own video streaming service - MTN Vu formerly known as MTN Front Row

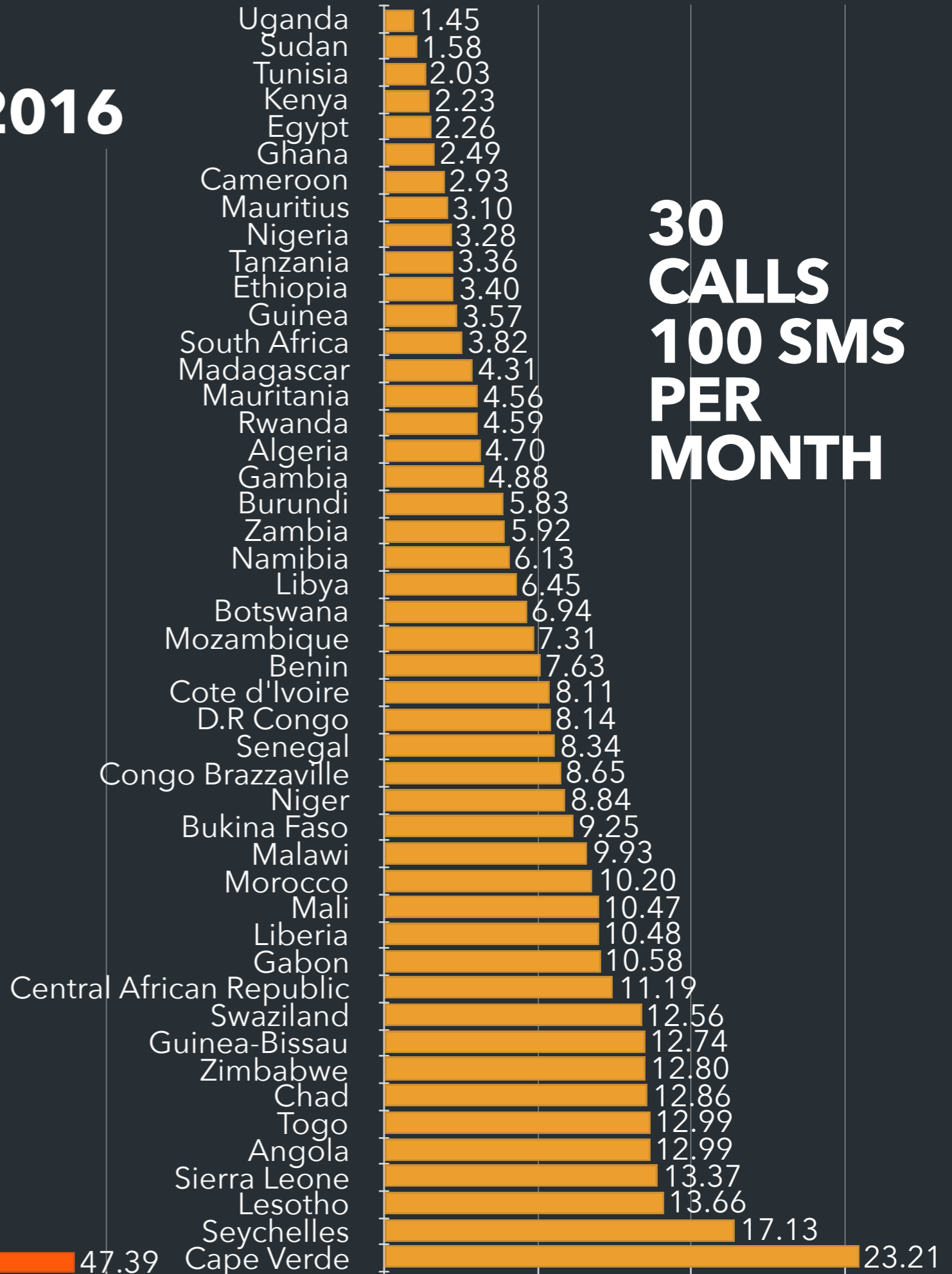
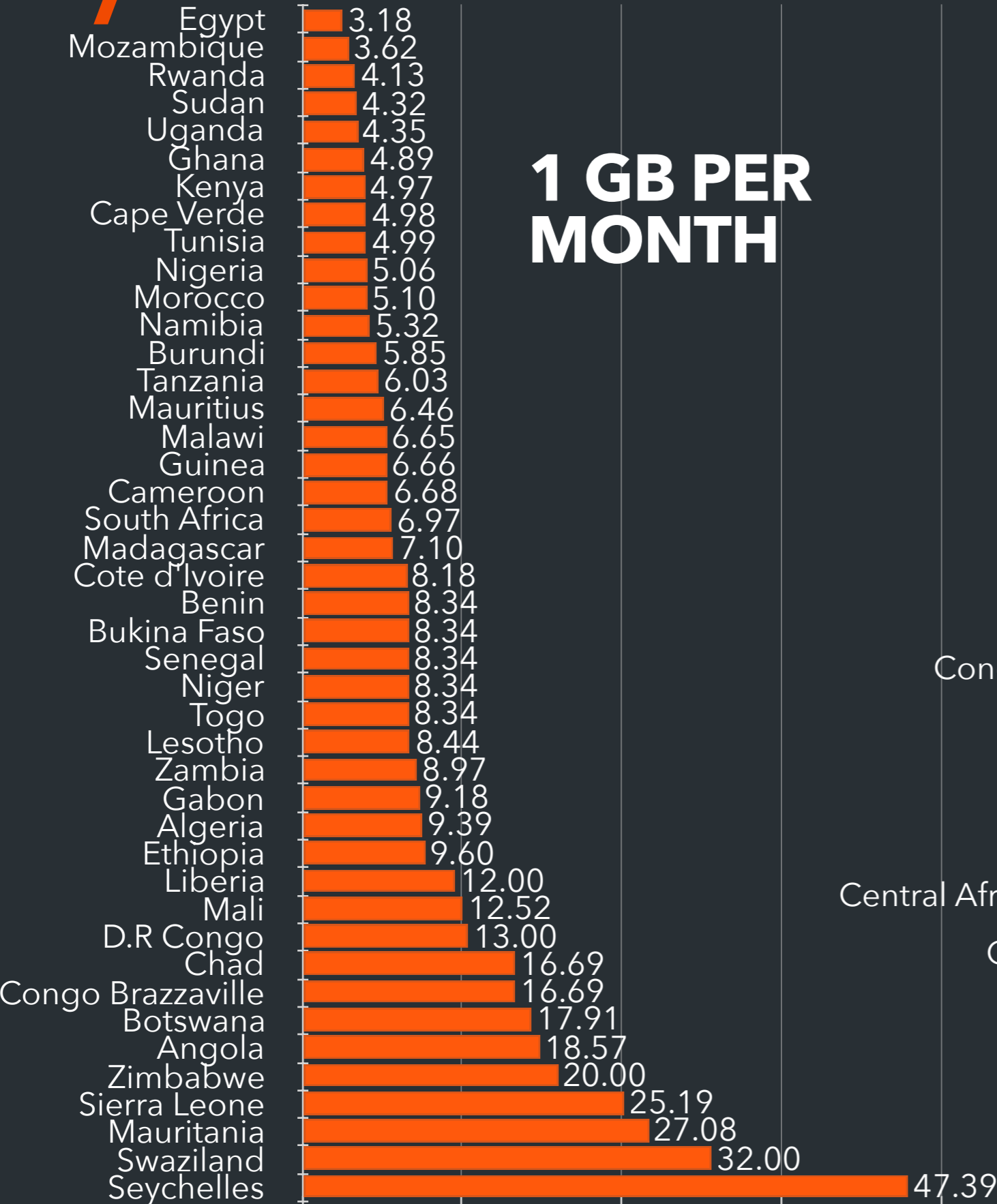
/OFFERING OWN OTT

- An operator could develop a own OTT service
- Deutsche Telekom offers a WhatsApp alternative with its immmr service
- Such a strategy would facilitate the transition to a flat rate access model

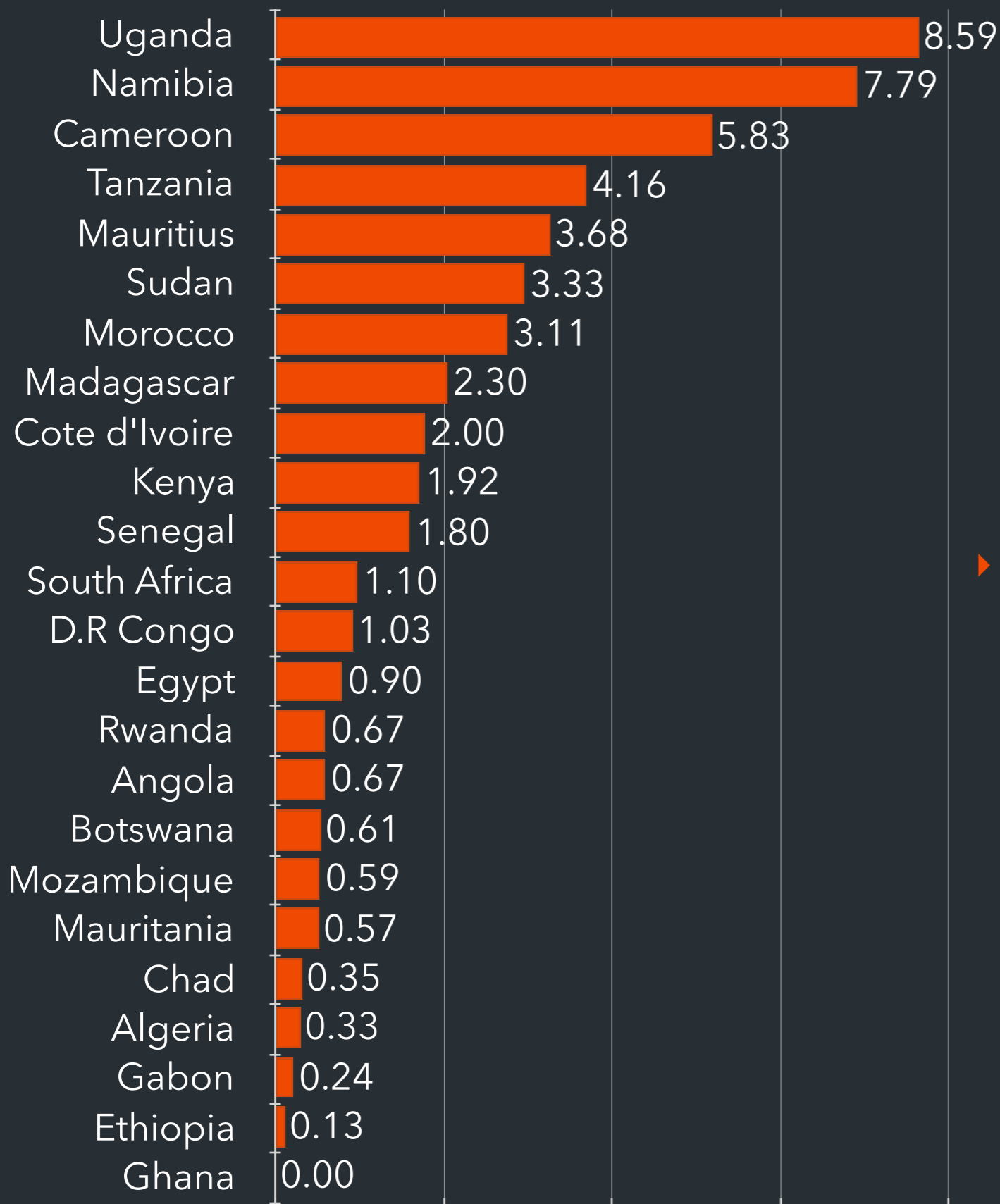
/MOBILE PRICES



LOWEST PREPAID Q1 2016



HIGHEST VALUE FOR MONEY INDEX Q1 2016

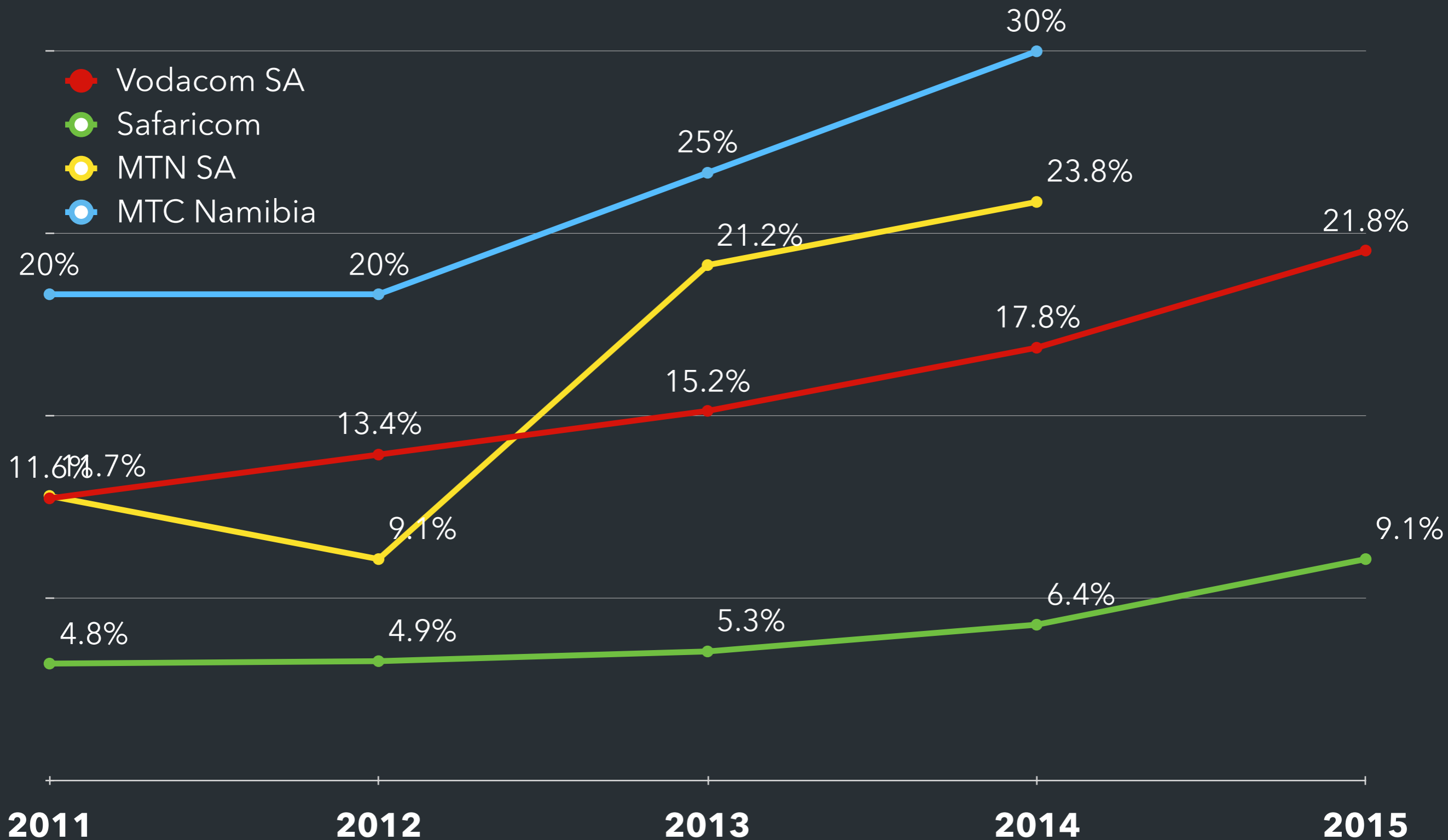


- ▶ Valuing bundled voice, SMS and data from a OTT users perspective
 - ▶ 1 minute = 0.2 US cents,
 - ▶ 1 SMS = 0.1 US cent
 - ▶ 1 MB data = 1 US cents
 - ▶ 1 MB Social Media = 0.5 US cents



**CASE STUDIES:
KENYA, NAMIBIA,
SOUTH AFRICA**

DATA REVENUES AS SHARE OF TOTAL REVENUE

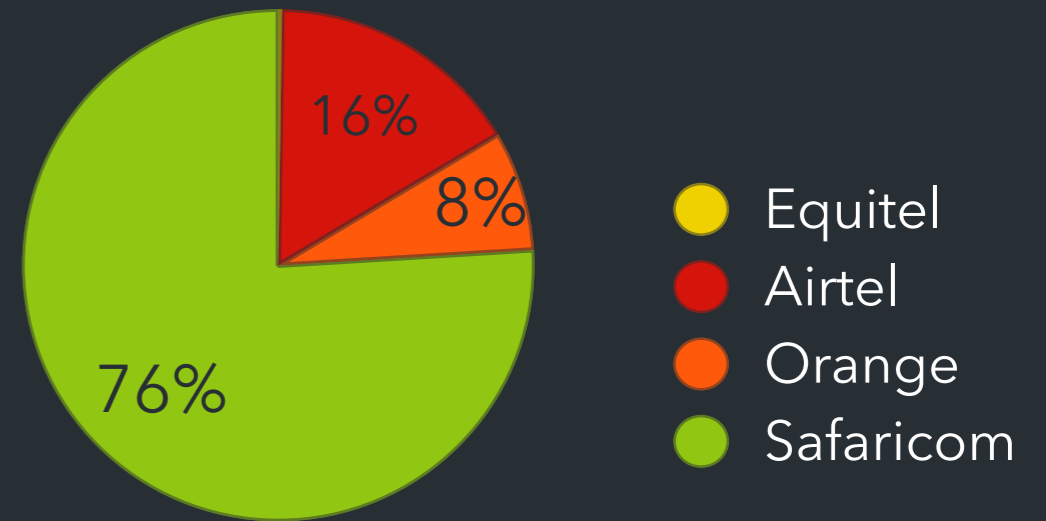


/COMPARISON BETWEEN DOMINANT OPERATORS

		Kenya	South Africa	Namibia
Number of Mobile operators		3	4	2
Marketshare of dominant operator in terms of active SIM		67%	MTN 33% Vodacom 42%	96%
Marketshare of dominant operator in terms of traffic		76%	NA	99%
Cheapest OECD Basket	USD	2.23	3.82	6.12
	Ranking	4	13	21
Cheapest 1 GB	USD	4.97	6.97	5.3
	Ranking	7	19	12
Highest Bundled Top up	BVI	1.92	1.1	7.79
	Ranking	10	12	2
Share of Data Revenue of total for dominant operator FY 2014		6.4%	23.8%	30%

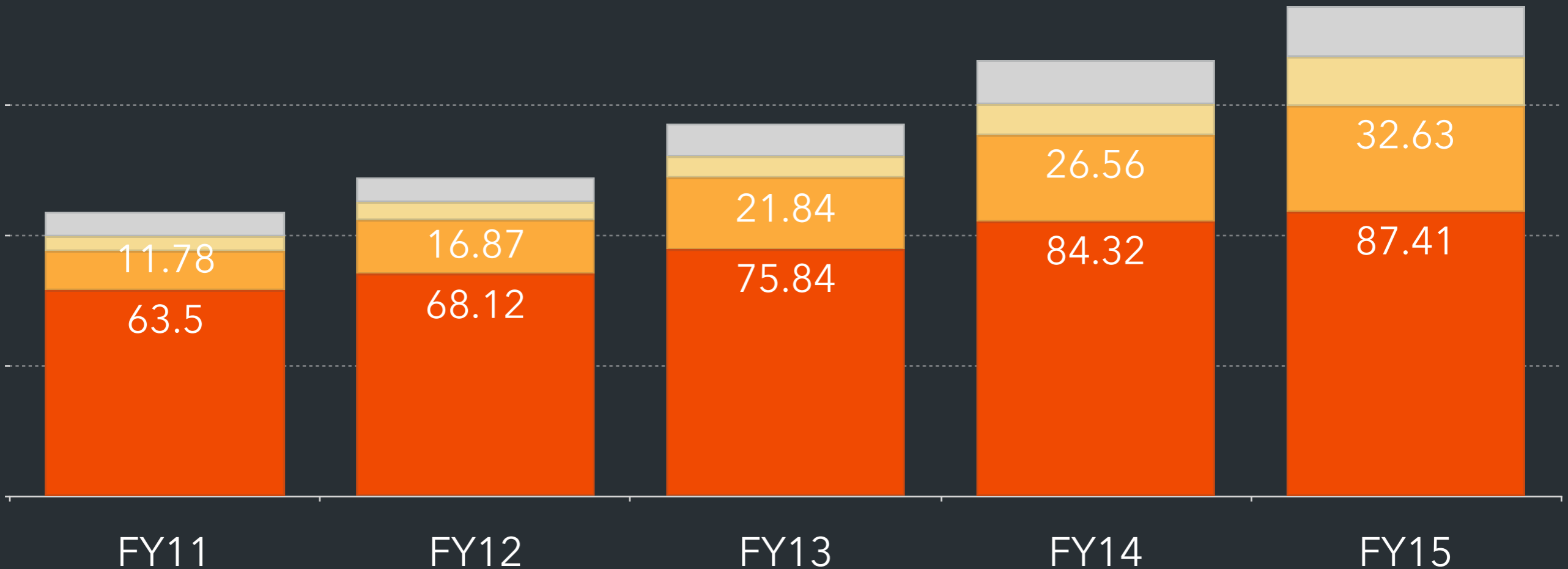
KENYA SAFARICOM

- Offering Non Telco OTT - MPESA
- Data revenue compared to voice low, 9% of total revenue
- Voice Revenues still increasing



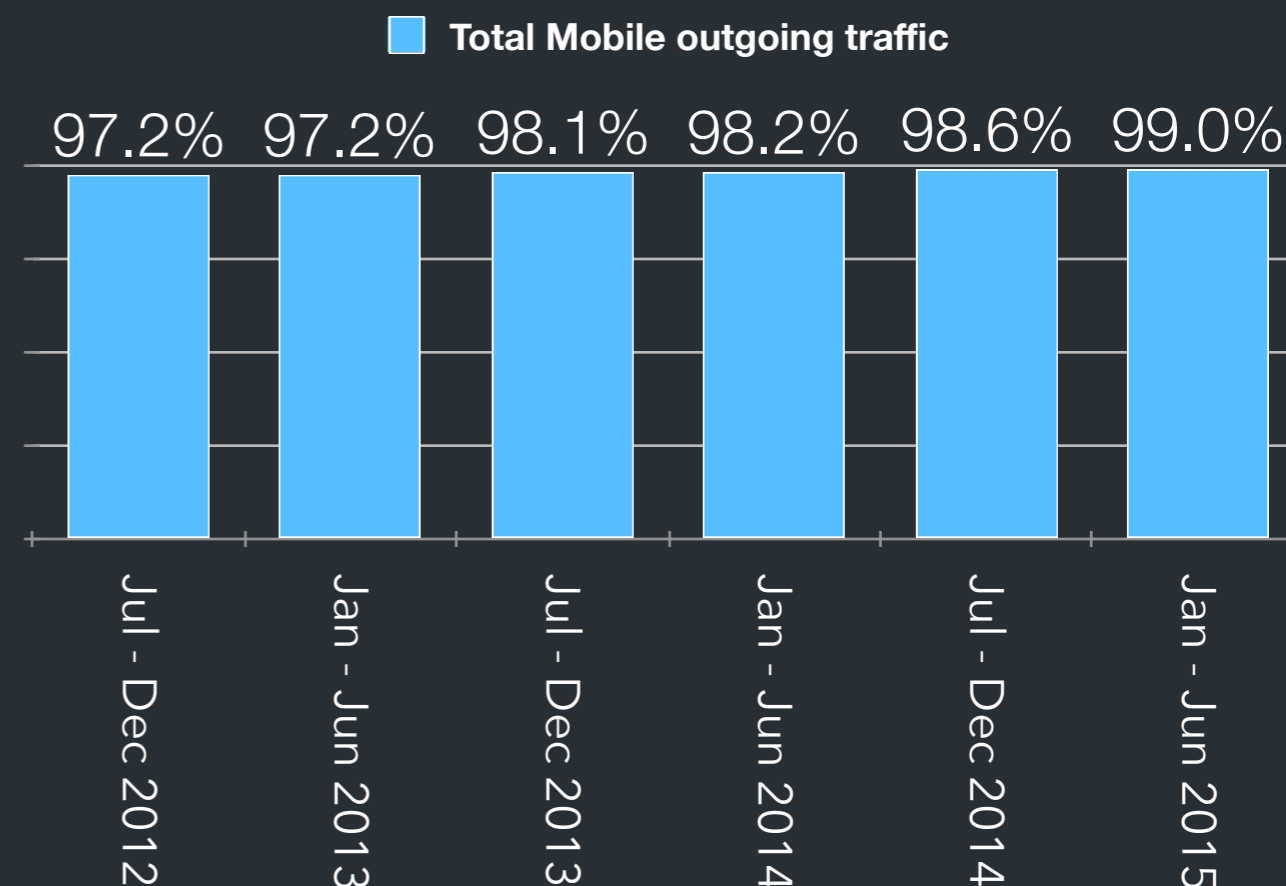
Market share by voice traffic July to Sep 2015

■ Voice
 ■ M-Pesa
 ■ Mobile data
 ■ SMS



NAMIBIA MTC

- MTC Namibia is close to unlimited bundles for several years
- to defend market share and keep new competition out
- MTC's aim for constant ARPU and competitive pressure leads not to lower ARPUs but to more bundled value
- This strategy is simulating flat rate pricing for unlimited voice and SMS



MTC's KPIs	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Revenue N\$ million	769	937	1,113	1,232	1,390	1,407	1,453	1,617	1,832	2,082
Shareholders' equity N\$ million	646	903	999	1,136	1,153	1,166	1,121	1132	1,173	1,212
Net profit after tax N\$ million	293	337	340	358	388	397	319	353	425	505
EBITDA margin	61%	60.2%	52.2%	50.9%	53.8%	55.8%	53.2%	53.2%	55.0%	54.7%

SOUTH AFRICA

- Voice and SMS revenues in decline while data revenue increases
- APRUs declining
- CellC embraces OTT - zero rated facebook and whatsapp
- Dominant operators Vodacom and MTN argue for regulating OTTs

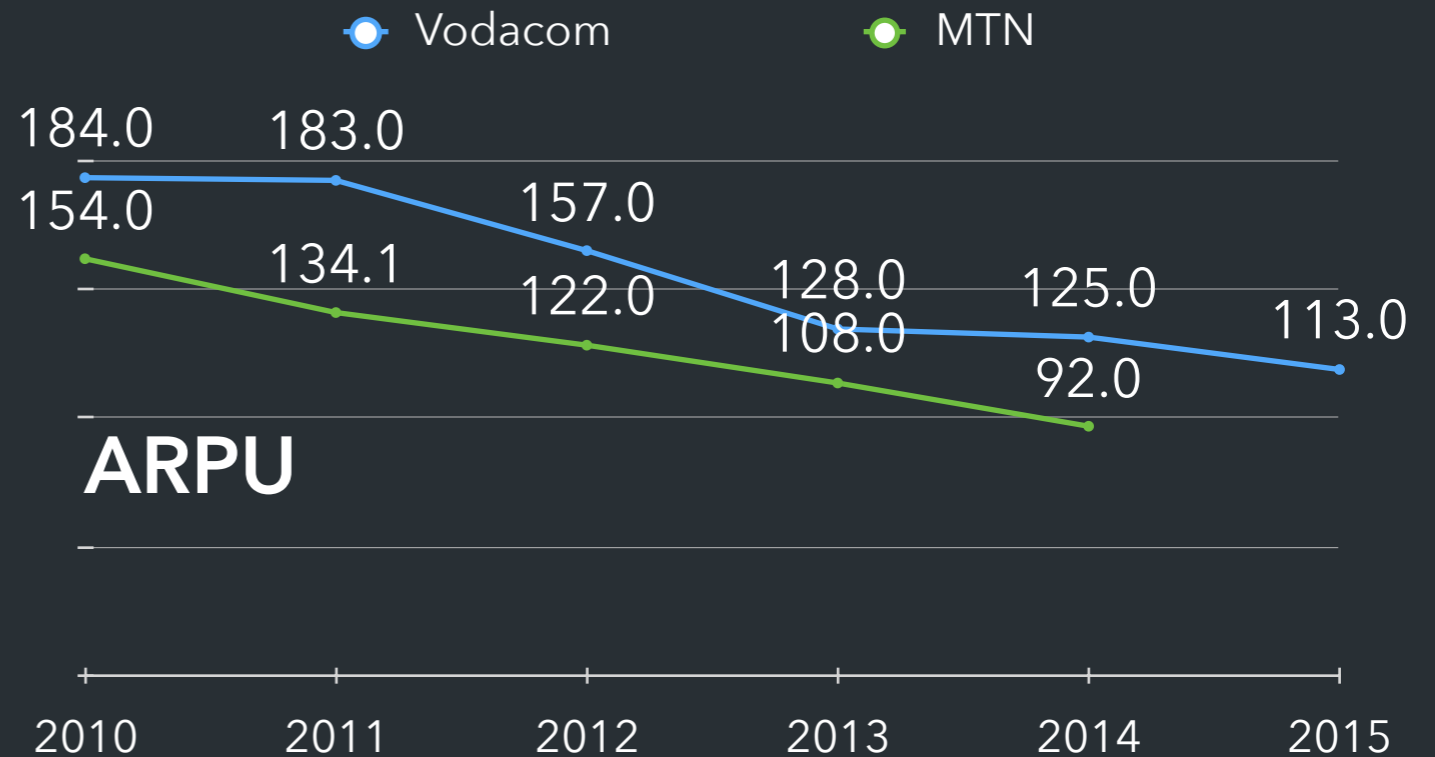
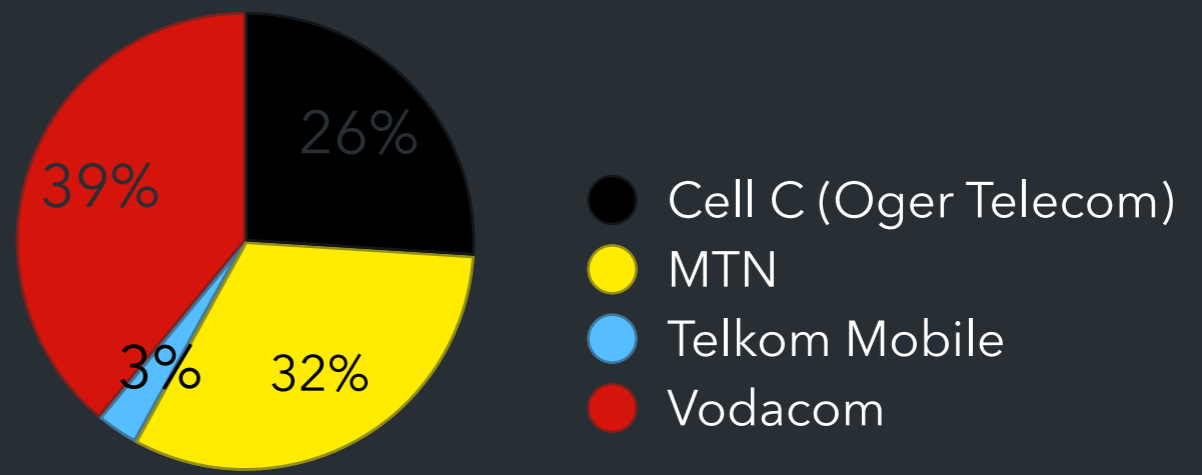
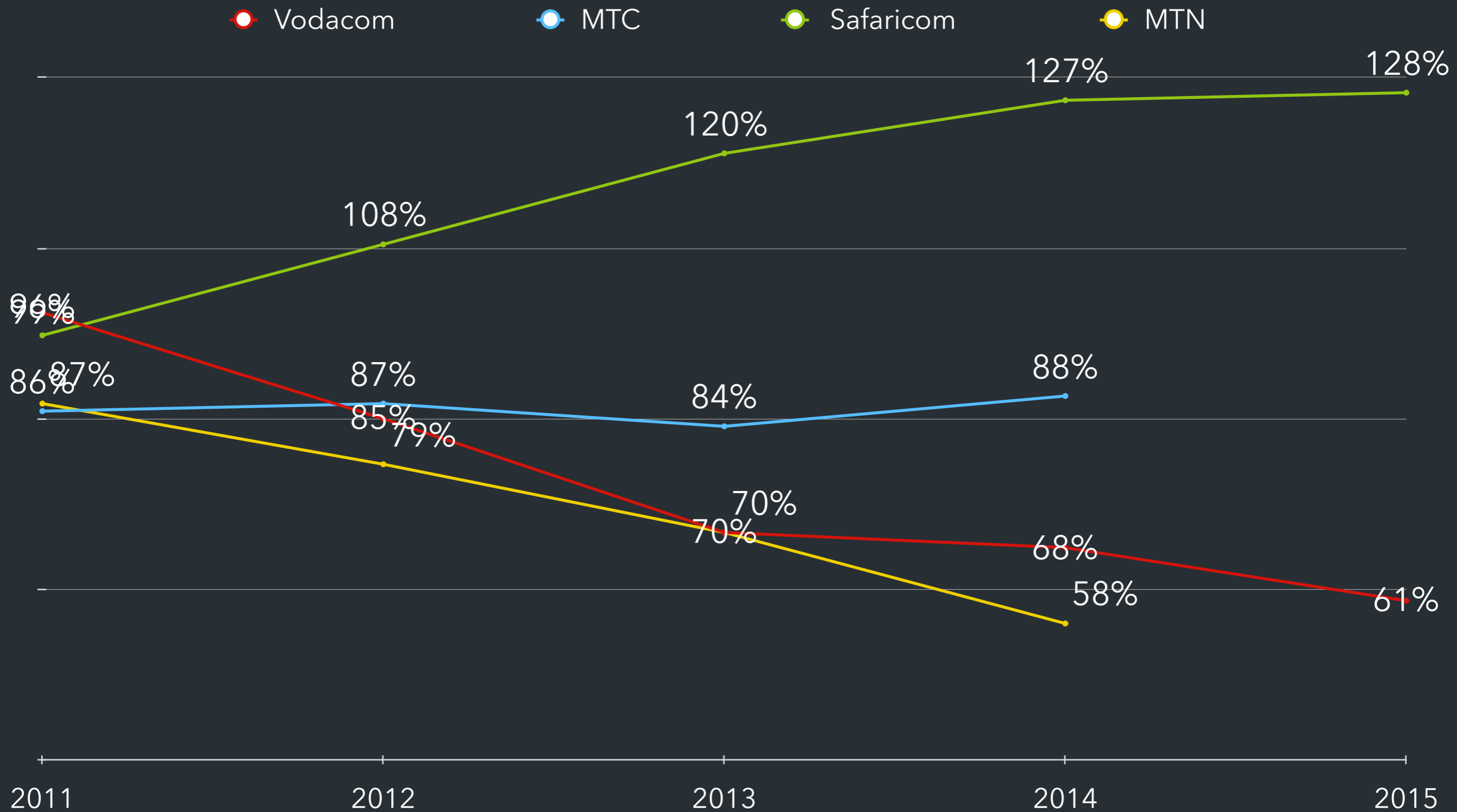


Table 5: Revenues in R(m)		2013	2014	2015	Change
Vodacom	Mobile voice	29,151	28,135	25,855	Down
	Mobile	3,027	2,675	2,522	Down
	Mobile Data	8,882	10,974	13,538	Up
MTN	Mobile voice	22,125	19,677	-	Down
	Mobile	2,365	2,069	-	Down
	Mobile Data	8,656	9,264	-	Up

/ BLENDED ARPU 2010 = 100%



/CONCLUSION

- Zero rated OTTs can be used to gain market share for new entrants or defend market share against new entrants
- Declining voice revenues can be combated with increasing data revenues
 - or non-telco OTTs like mobile money
 - jury is still out on video and music
- Providing prepaid products that resemble flat rate pricing is a successful strategy to retain revenues
- An access only model would reduce expenses for billing and branding thus retaining profitability with declining revenues
 - New business model for MNO
 - Ghana 4G data only providers are there already