

Presentation to stakeholders and members of the public

Telecommunication competition market study in Kenya

20 February 2018 • Stéphane Piot, Philip Bates, Kerron Edmunson

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This presentation summarises the key findings of our market review of the Kenyan telecoms sector

- The Communications Authority of Kenya (CA) selected Analysys Mason to undertake a telecommunication competition market study (referred to as *market review* throughout this presentation):
 - it is based on our interactions with the CA and other stakeholders between 24 May 2016 and 12 May 2017 (including industry meetings, data requests and numerous exchanges including formal submissions from stakeholders), a review of legislation, regulations and licences, and a subsequent review of the judgment in the recent Okiya Omtatah vs. CA & Others case in the High Court
- This presentation summarises the approach used in the market review, as well as the key findings from this study

The CA's powers encompass the promotion of competition, ex-ante and ex-post jurisdiction [1/5]

- Electronic communications networks are widely regarded as the backbone of the information society – critical to the growth of the economy
- Ex-ante regulation is often required in nascent or growing telecoms markets in the interests of sustainable competition in network infrastructures and services
- Regulation is seen as temporary, needed only until normal market conditions develop, and is applied regardless of the technology, stimulating innovation, protecting the consumer, driving choice, improving quality of service, and ensuring that prices are reasonable ⁽¹⁾
- Relying only on ex-post regulation may result in significant harm to competition – the patient may have died by the time the ex-post penalty is applied, and the ex-post penalty does not directly have an effect on market structure

The CA's powers encompass the promotion of competition, ex-ante and ex-post jurisdiction [2/5]

- Our review has been based on the following two Acts:
 - Kenya Information and Communications Act, 1998 (as amended in 2013 and 2015. which later amendments have been overturned) ('KICA')
 - Competition Act, 2010 (with its 2012 and 2014 amendments) ('Competition Act')
- It has also been based on a number of regulations approved under KICA in 2010, including:
 - Fair Competition Regulations
 - Tariff Regulations
 - Interconnection, Provision of Fixed Links, Access and Facilities Regulations
 - Consumer Regulations
- We have also considered the licence conditions for various categories of licensee, and correspondence from operators to CAK and CA and between those parties

The CA's powers encompass the promotion of competition, ex-ante and ex-post jurisdiction [3/5]

- The CA's powers in relation to competition under KICA include:
 - the promotion of competition (section 23(2)(b))
 - ex-ante and ex-post jurisdiction (sections 84Q, 84R, 84S and 84T)
 - making regulations
 - imposing licence conditions
- The CA's powers are both ex ante and ex post – there is general agreement in this regard, and KICA is clear that CA has primary jurisdiction
- The amendments made to KICA in 2015 to align it with the Competition Act and to align the respective regulatory activities of the CA and the Competition Authority of Kenya (CAK) no longer apply
 - the definition of dominance under KICA has been applied by CA
 - the joint committee of the CA and the CAK is liaising on matters of concurrent regulation, including this review

The CA's powers encompass the promotion of competition, ex-ante and ex-post jurisdiction [4/5]

- The CA's regulations (approved by the Cabinet Secretary/Minister) include powers to:
 - define a market
 - assess the level of competition in the market
 - determine dominance (Competition Act has 50% threshold for presumption of dominance)
 - determine and impose remedies
- The CA's powers relate to network infrastructure, network services, and content services
 - Mobile money services are most often provided using USSD or STK
 - Mobile money services can be classified as both an application and content service (and application services licences include reference to content services which specifically include financial services)
 - Mobile money services (USSD, STK, application services and content services) cannot be provided without the network platform

The CA may determine remedies to address market failure [5/5]

- Remedies can be applied at the wholesale or retail level to address market failures in either market
- Remedies are more common at the wholesale level but services such as national roaming and mobile money are retail services by definition
- The likely short-term impact of remedies needs to be weighed against the likely-long term impact of fewer MNOs in Kenya, and returning the producer surplus to the consumer where possible
- The remedies proposed were considered to be the least intrusive
- Following the consultation responses we have recommended some amendments to remedies to ensure that they are appropriate and proportionate in the circumstances described by the respondents, and the CA, on the basis of the facts established by the market review
- We have also taken account of the fact that threat of ex-post regulation does not appear to have greatly influenced competition in recent years

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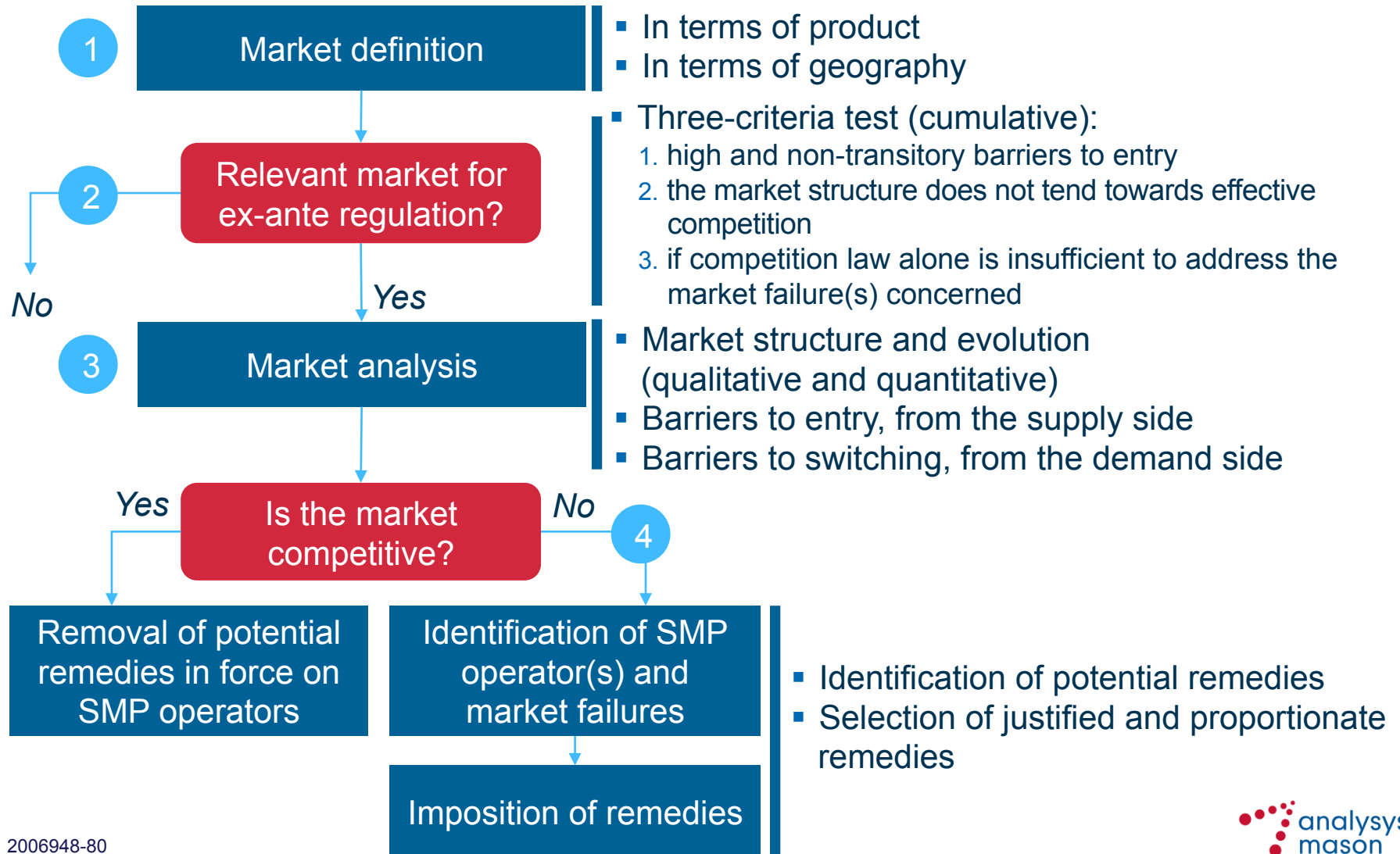
Changes made as a result of consultation

Other market failures

Our approach is based on international best practice applied to the Kenyan market

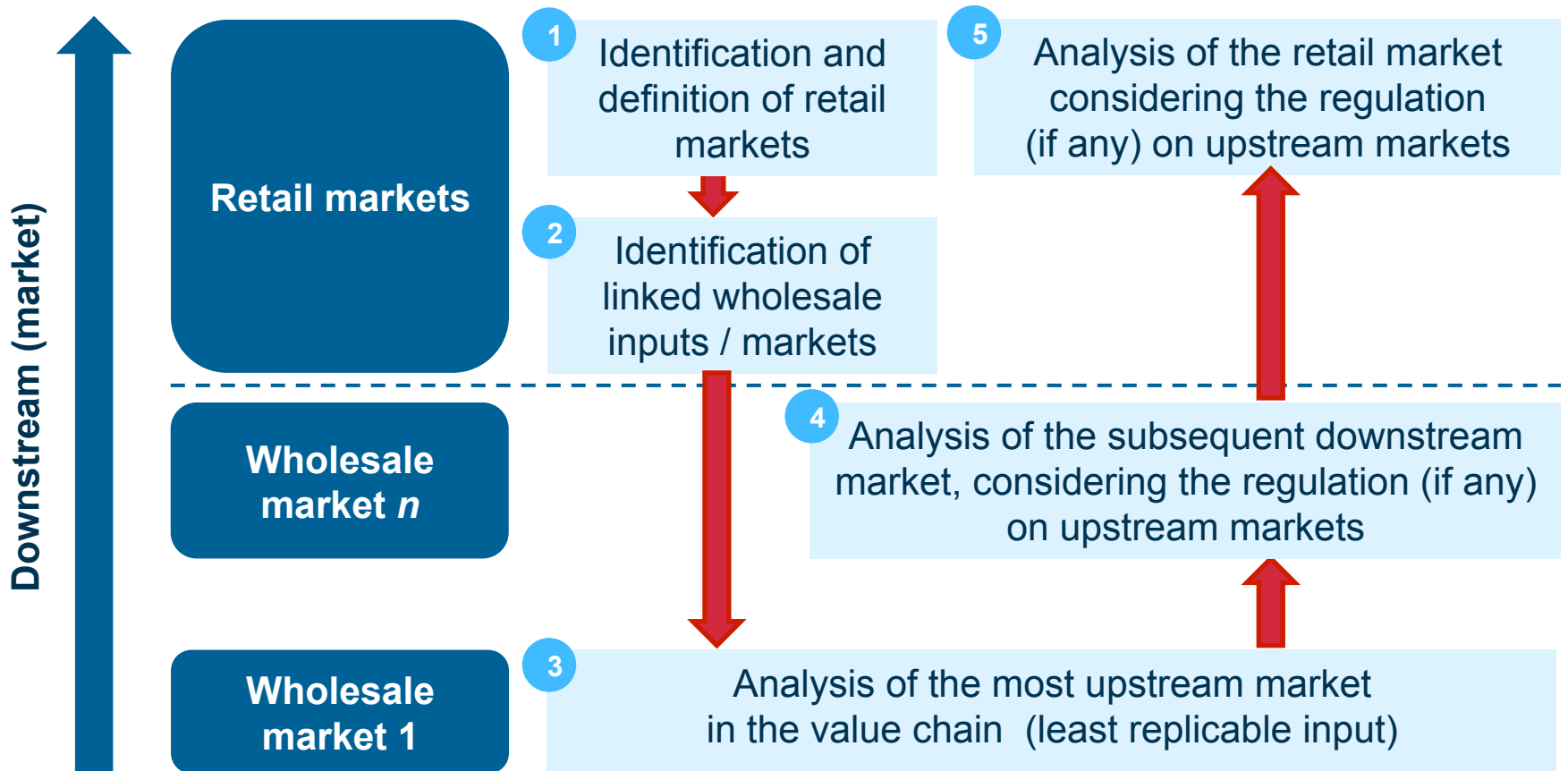
- We start with a high-level overview of the current conditions and prevailing trends in Kenya's telecoms market:
 - to understand the positioning of the key market players, the main trends in the market and how Kenya's telecoms market compares with peers (status quo, backwards- and forwards-looking review)
- We then perform a proper market review (market definition, analysis and identification of remedies) based on the framework for telecoms market review originally developed by the European Commission, which is recognised as best practice
- We use the 'modified greenfield approach' to prioritise the order in which the markets are analysed
- Notional market / self-supply: retail perspective rather than a hypothetical wholesale market
- Time horizon: three years

Our approach to the market review is relatively standard, based on the European framework



The modified greenfield approach consists of analysing first the most upstream markets

Modified greenfield approach used in this study



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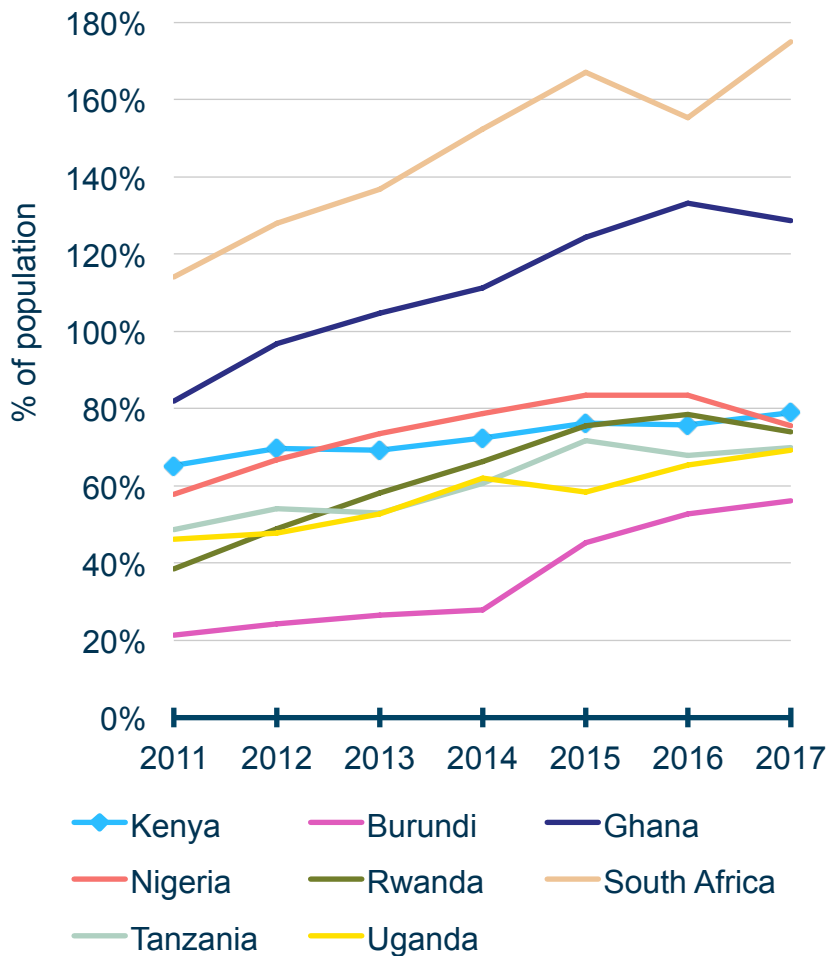
Analysis of retail markets and remedies

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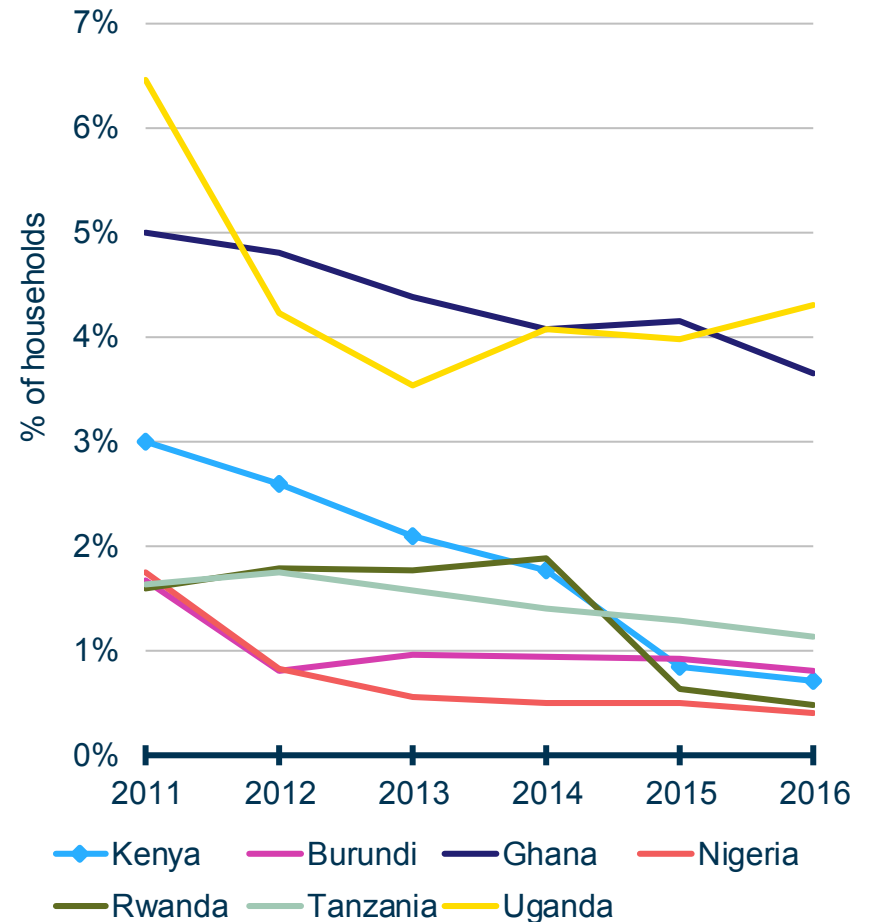
Other market failures

Mobile and fixed penetration in Kenya are broadly in line with benchmark countries

Mobile penetration

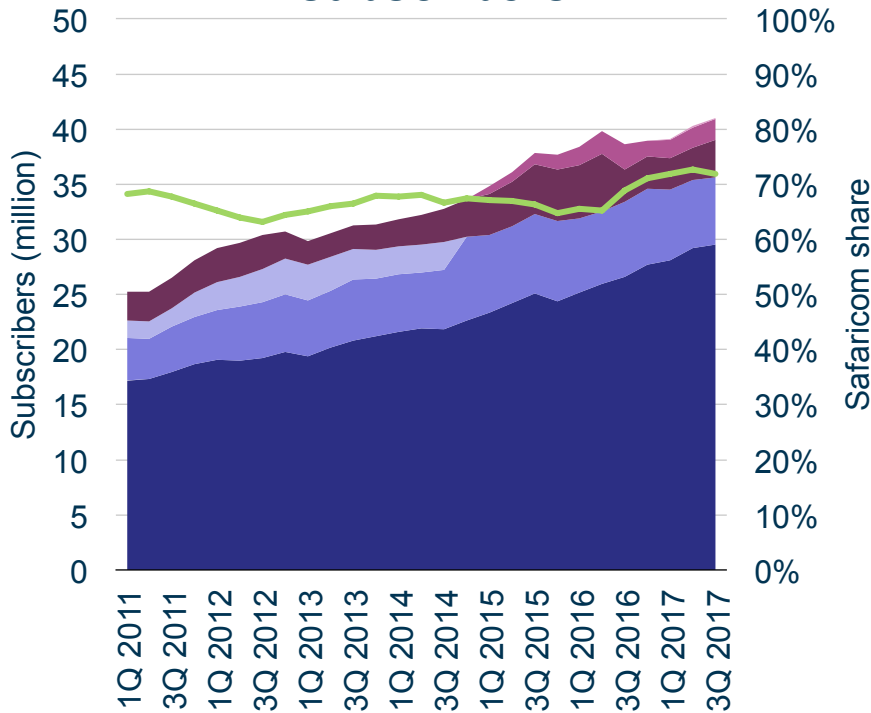


Fixed penetration

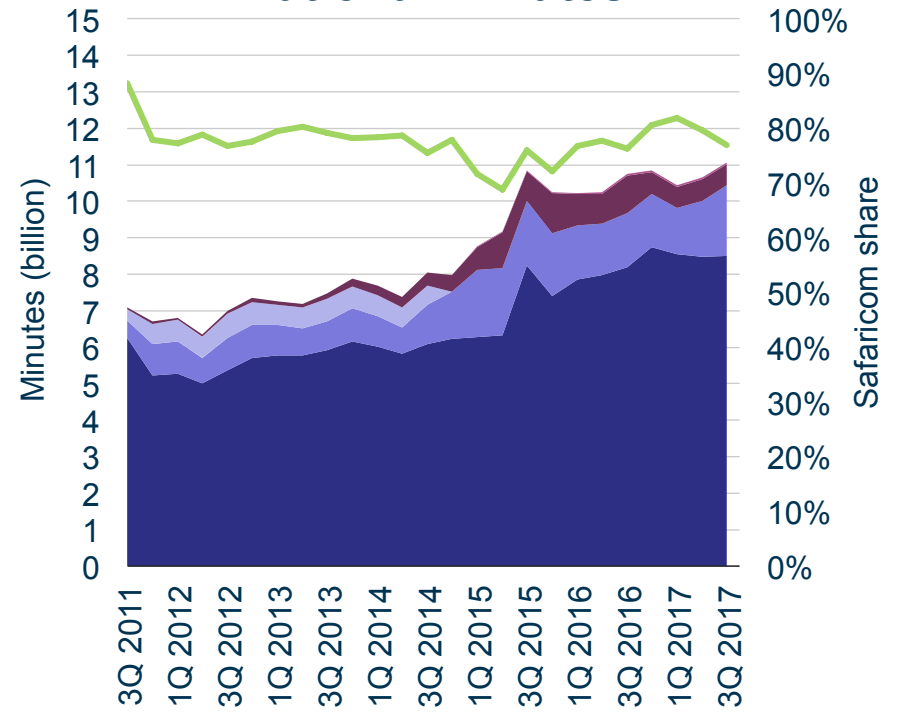


Safaricom has more than 70% market share of subscribers, minutes and revenue ...

Safaricom's market share of subscribers



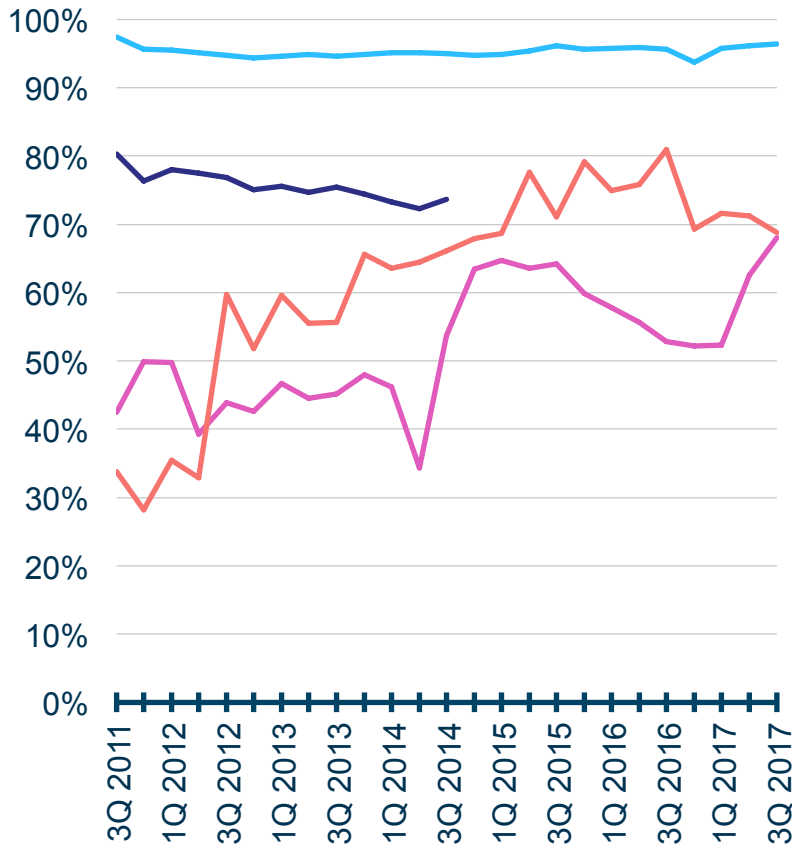
Safaricom's share of national minutes



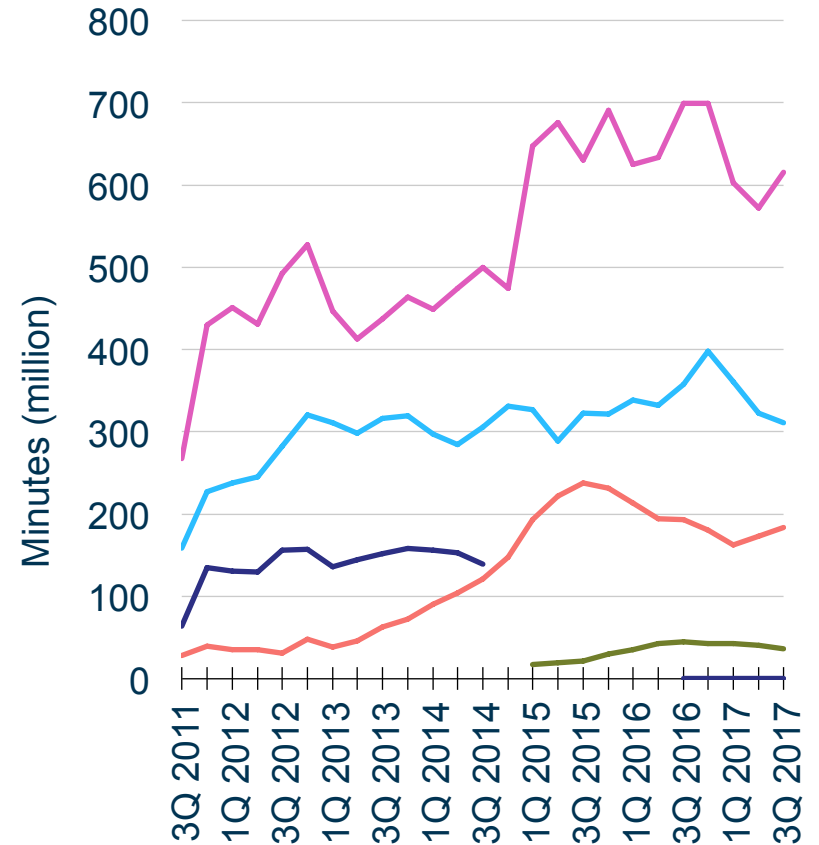
- Safaricom
- Airtel
- Essar (yu)
- Telkom Orange
- Finserve Equitel
- Other
- Safaricom share (right axis)

... and benefits from a very high share of on-net traffic, paying out less than Airtel

Share of on-net traffic



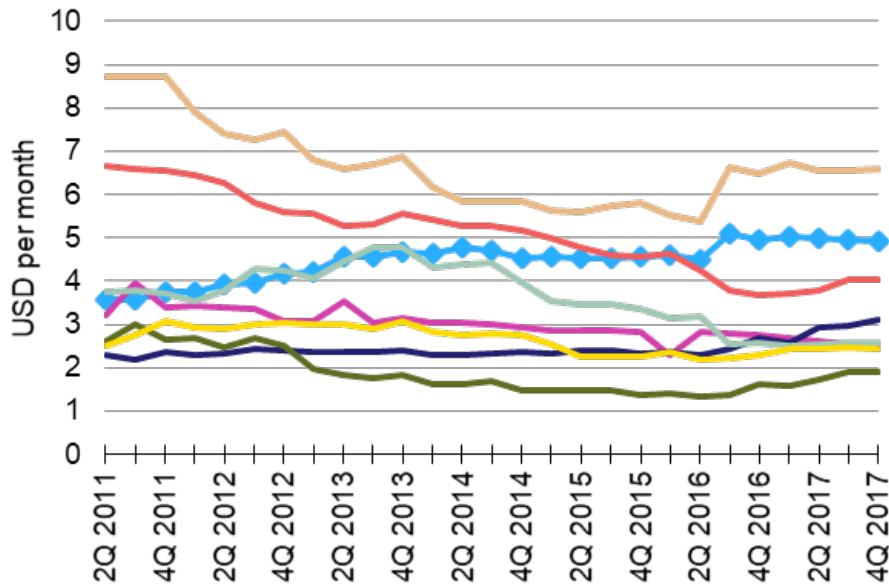
Off-net traffic by operator



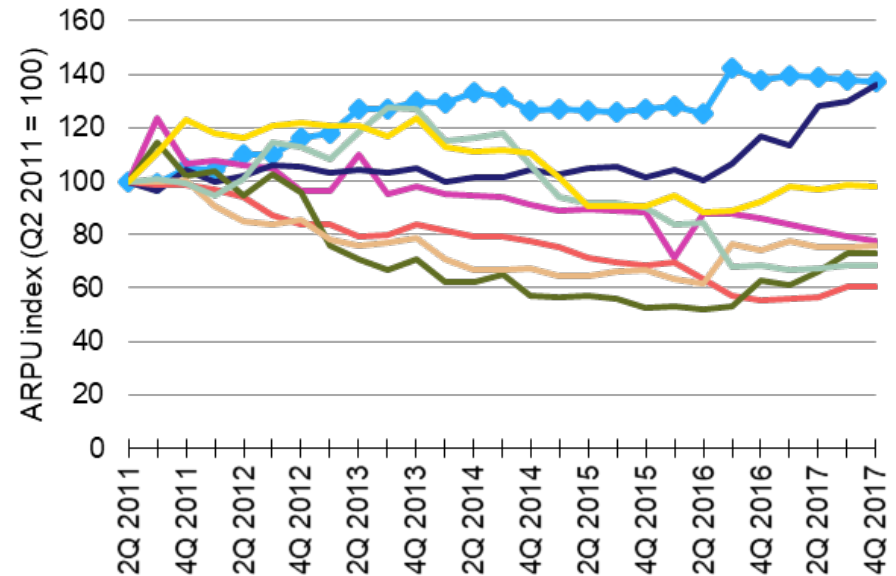
— Safaricom — Airtel — Essar (yu) — Telkom Orange — Finserve Equitel

Mobile ARPU has increased by 40% in the last 6 years and is at the high end of our benchmarks

Mobile average revenue per user (ARPU)



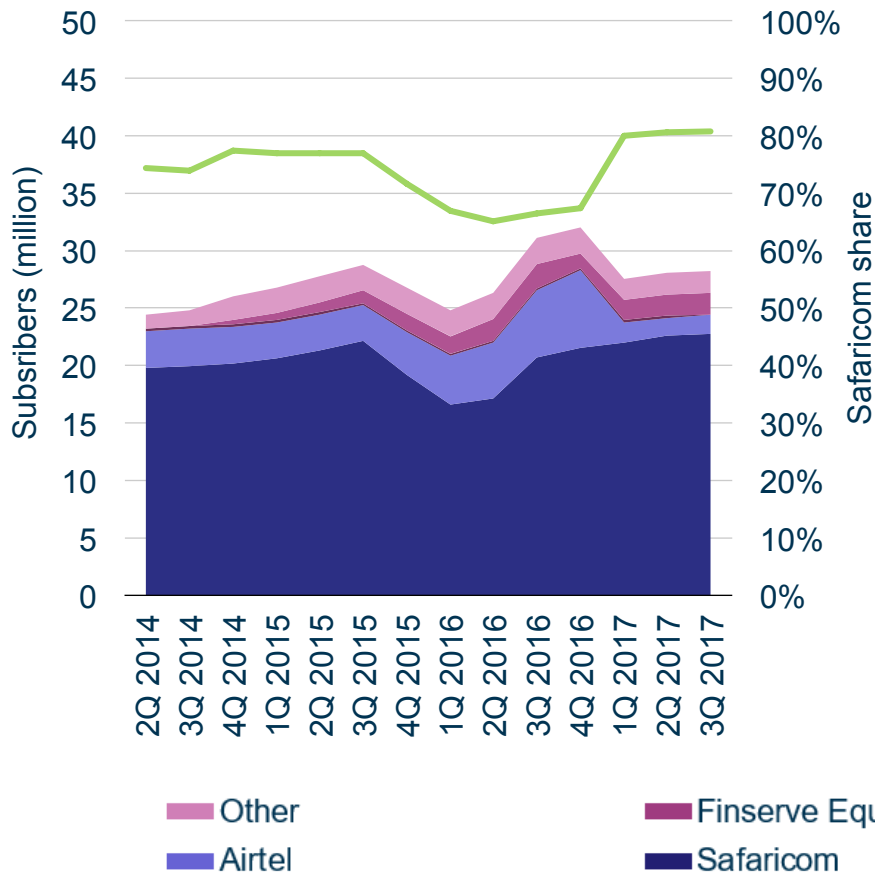
ARPU index



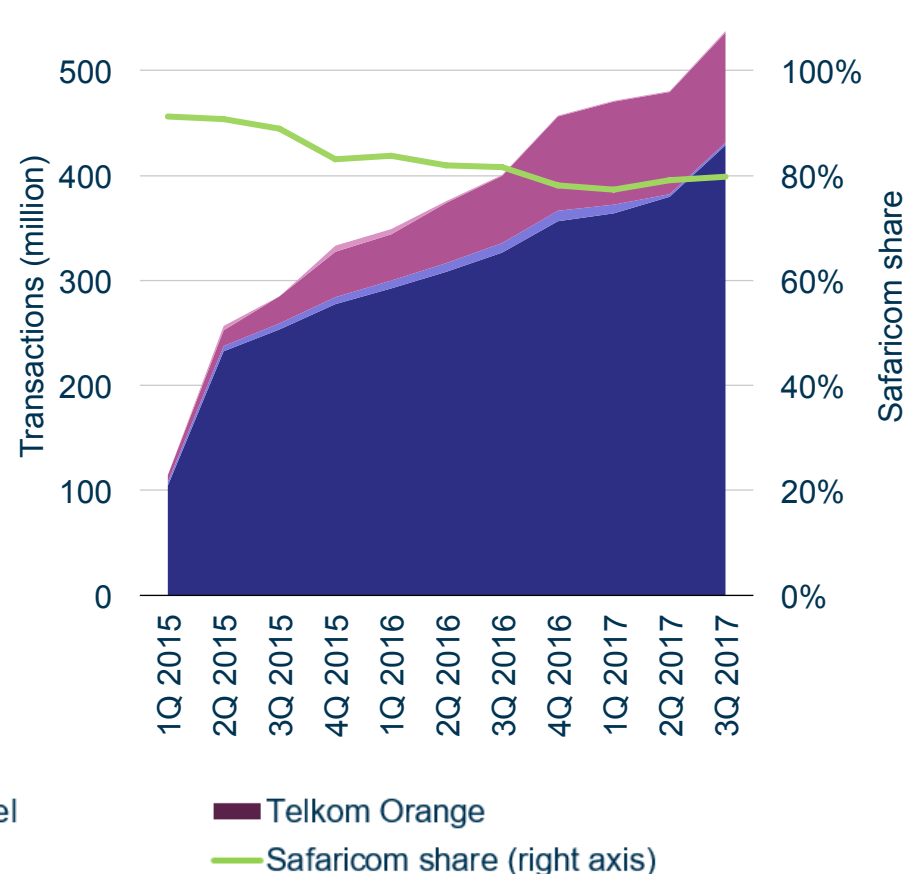
—◆— Kenya — Burundi — Ghana — Nigeria — Rwanda — South Africa — Tanzania — Uganda

Safaricom also enjoys a very high market share in the mobile money market

Safaricom's share of mobile money subscriptions

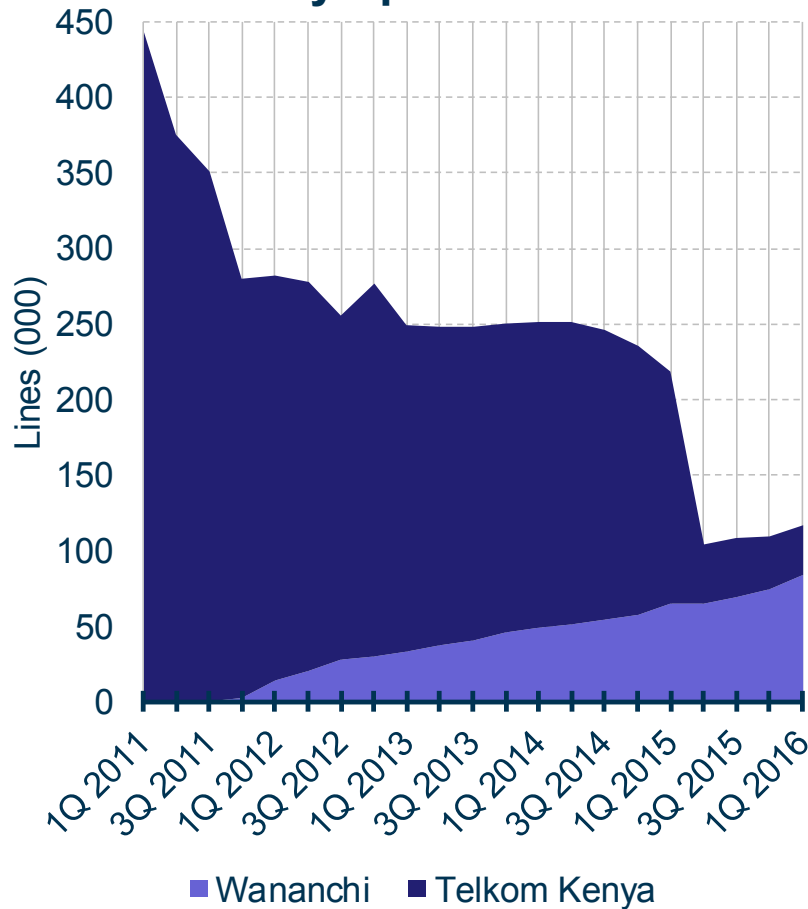


Safaricom's share of mobile money transactions

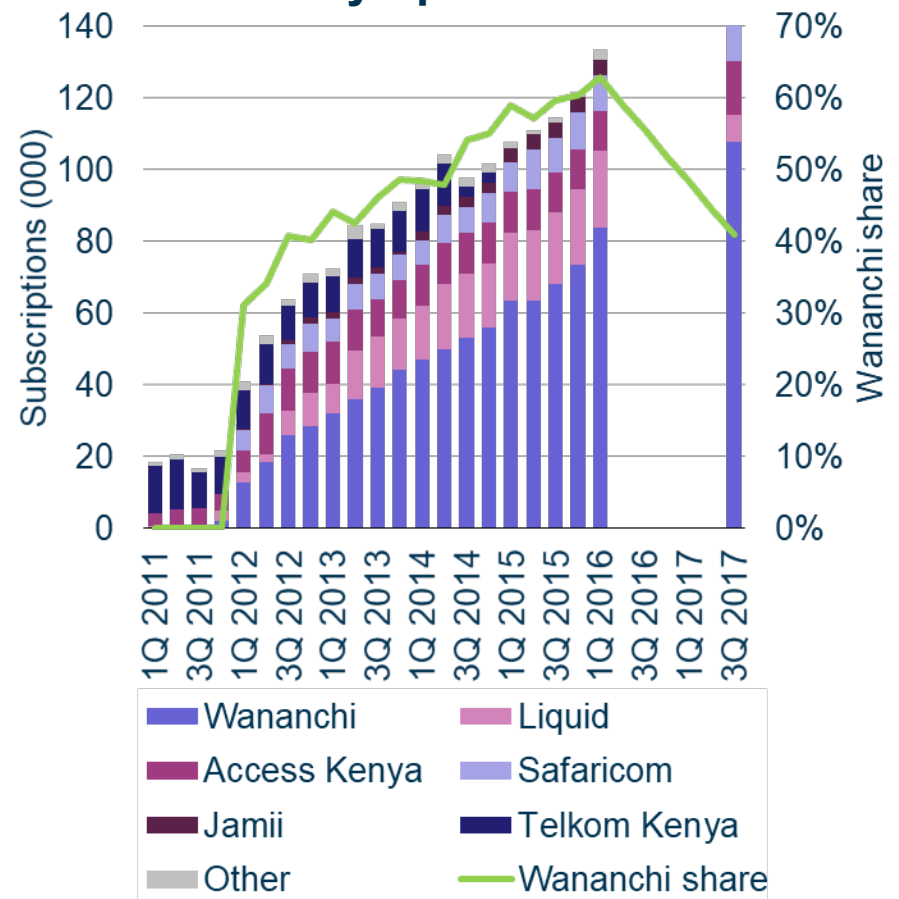


Fixed broadband lines and voice (over broadband) lines are growing, but the market is still in its infancy

Fixed voice lines by operator



Fixed broadband lines by operator



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Other market failures

We have identified five retail markets [1/3]

Retail market	Definition
Mobile communications	<ul style="list-style-type: none">▪ Mobile national and international calls, SMS, narrowband and broadband data services provided over 2G, 3G and 4G networks▪ Includes prepaid and postpaid offers for consumers and enterprise customers▪ Is separate and distinct from fixed communications markets▪ National in scope
Mobile money	<ul style="list-style-type: none">▪ Includes mobile wallet services provided by mobile operators, similar services offered by other providers, and mobile-centric bank accounts▪ Is separate and distinct from the mobile communications market (despite an obvious dependency on mobile communications and mobile platforms)▪ Is separate and distinct from the markets for cash payments, card payments, money orders and electronic funds transfer (EFT)▪ National in scope

We have identified five retail markets [2/3]

Retail market	Definition
Fixed narrowband services	<ul style="list-style-type: none">▪ Includes fixed voice access and all types of voice calls (local, national and international)▪ Is separate and distinct from the mobile communications market▪ Is separate and distinct from fixed broadband services▪ Is limited to the overall network coverage of fixed operators
Fixed broadband services for consumers	<ul style="list-style-type: none">▪ Is separate and distinct from the retail market for fixed narrowband communications▪ Is separate and distinct from the market for enterprise fixed broadband and leased lines▪ Is geographically defined by the scope of operator network footprints, which are currently relatively limited but are expected to extend over time

We have identified five retail markets [3/3]

Retail market	Definition
Fixed broadband services for enterprises and leased lines	<ul style="list-style-type: none"><li data-bbox="490 429 1696 525">▪ Is separate and distinct from the retail fixed broadband market for consumers<li data-bbox="490 551 1818 646">▪ Includes single-ended Internet access services and point-to-point services<li data-bbox="490 672 1769 768">▪ Includes services offering different broadband speeds and bandwidths<li data-bbox="490 793 1760 889">▪ Is geographically limited by the geographical scope of the operators' networks

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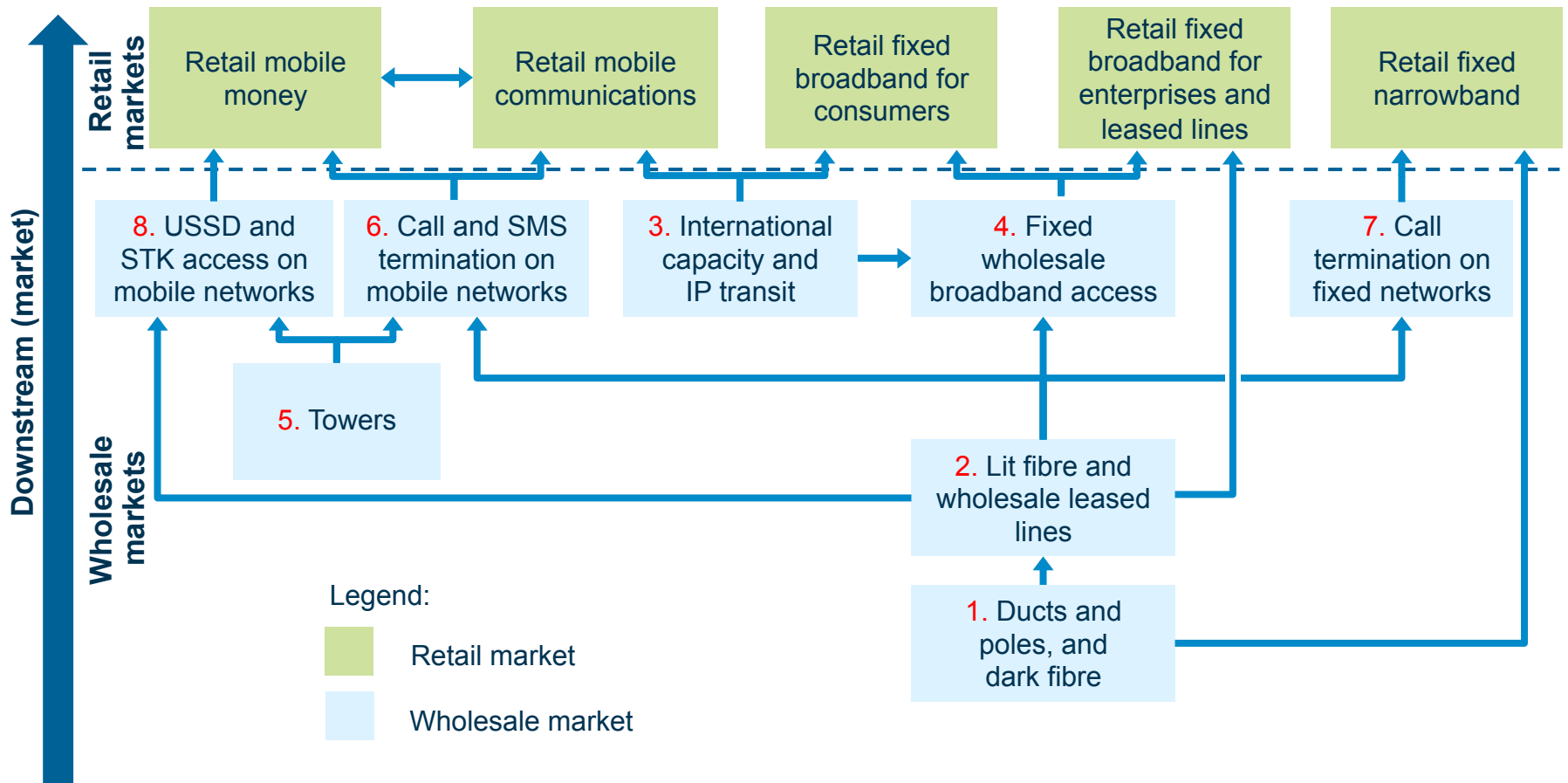
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Other market failures

We have identified eight wholesale markets which are linked to the relevant retail markets

Identification of linked wholesale markets



We have analysed these eight wholesale markets [1/3]

Market	Susceptibility to ex-ante regulation	Findings on SMP ⁽¹⁾
Ducts and poles, and dark fibre	No – no specific competition issues identified in the market for ducts and dark fibre infrastructure; no high barriers to entry	Not applicable
Lit fibre and wholesale leased lines	No – effective competition exists	Not applicable
International capacity and IP transit	No – effective competition exists and is likely to increase in the next three years as new capacity is brought into use	Not applicable

We have analysed these eight wholesale markets [2/3]

Market	Susceptibility to ex-ante regulation	Findings on SMP
Fixed wholesale broadband access	No – emerging market; ex-ante regulation would be premature and inappropriate. However, there is a need to closely monitor the evolution of this market	Not applicable
Towers	Yes – not economically viable for smaller operators to extend coverage in low-density areas	Safaricom is dominant in this market
Call and SMS termination on mobile networks	Yes – each mobile operator retains a monopoly on call and SMS termination to its mobile network	Each mobile operator is dominant in its own network

We have analysed these eight wholesale markets [3/3]

Market	Susceptibility to ex-ante regulation	Findings on SMP
Call termination on fixed networks	Yes – each fixed operator retains a monopoly on call termination to its fixed network	Each fixed operator is dominant in its own network
USSD ⁽¹⁾ and STK ⁽²⁾ access on mobile networks	Yes – each mobile operator has an effective monopoly on USSD and STK access in its own network	Each mobile operator is dominant in its own network

⁽¹⁾ *Unstructured Supplementary Service Data*

⁽²⁾ *SIM application Tool Kit*

We propose four main remedies to be imposed in the following markets: the tower market ...

Proposed remedy	Limited coverage and competition	High pricing	Potential to delay or deny request	Comment
Access through regulated site sharing	✓		✓	Limited to 7 most rural counties ⁽¹⁾ with review after 5 years
Tariff control	✓	✓		LRAIC ⁽²⁾ in the relevant geography
Non-discrimination	✓		✓	Internally and externally
Reference access offer	✓		✓	For approval by the CA

⁽¹⁾ Isiolo, Garissa, Mandera, Marsabit, Samburu, Turkana & Wajir

⁽²⁾ Long-run average incremental cost

... the fixed and mobile voice call termination markets ...

Proposed remedy	Refusal to allow access	High charges	Discrimination	Unreasonable technical issues	Comment
Access	✓				Voice termination
Tariff control	✓	✓			LRIC ⁽¹⁾
Non-discrimination			✓	✓	Internally and externally
Reference access offer			✓	✓	For approval by the CA

Note: The proposed obligations are comparable to the current situation

... and the market for USSD and STK access

Proposed remedy	Refusal to allow access	High charges	Discrimination	Lack of transparency	Comment
Access	✓				Provide USSD access to all licensed content SPs ⁽¹⁾
Tariff control	✓	✓			LRIC or <KES1 per session
Non-discrimination			✓	✓	Externally
Reference interconnection offer			✓	✓	For approval by the CA

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Safaricom is dominant in the retail markets for mobile communications and mobile money

Market	Susceptibility to ex-ante regulation	Findings on SMP
Retail mobile communications market	Yes – Meets the three-criteria test	Safaricom (strong presumption of dominance based on market share of subscribers, volume and value confirmed by analysis of qualitative factors)
Retail mobile money	Yes – Meets the three-criteria test	
Retail fixed narrowband services	No – relatively low barriers to entry and no specific market failures	Not applicable

We believe that the other identified retail markets are not susceptible to ex-ante regulation

Market	Susceptibility to ex-ante regulation	Findings on SMP
Retail fixed broadband services for consumers	No – early stage of development and no specific market failures	Not applicable
Retail fixed broadband services for enterprises and leased lines	No – relatively competitive and no specific market failures	Not applicable

The principal remedies proposed are national roaming and retail offer restrictions on Safaricom

Proposed remedy	Lack of competition and high tariffs	Poor services in rural areas	Long-term viability of other ops.	Comment
Access	✓	✓	✓	2G/3G/4G national roaming on cost basis: limited to 7 most rural counties for 5 years
Tariff control	✓	✓		Replicability of tariffs and prohibition of on-net discounts
Non-discrimination			✓	Prohibition of individually-tailored loyalty schemes and promotions
Reference offer			✓	For national roaming

... and a prohibition of surcharges for mobile money transfers to unregistered users for Safaricom

Proposed remedy	Lack of competition and high tariffs	Lack of innovation	Impact on mobile comms	Comment
Surcharges prohibition for cross-platform transfers	✓	✓		Same fees for transfers to registered and unregistered users, including those of other platforms

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We have made a small number of changes as a result of the stakeholder consultation process

■ Wholesale remedies

- *Regulated tower sharing*. Original proposal covered 14 counties (67% of territory / 30% of population). Now reduced to 7 northern counties (50% of territory / 10% of population) based on principle of proportionality and in recognition of investment made by Safaricom in rural infrastructure

■ Retail remedies

- *National roaming*. Footprint reduced in line with reduction in footprint of regulated tower sharing for same reason
- *Wallet-to-wallet mobile money transfers*. An earlier draft of the report proposed implementation by end of 2017 with functional separation of Safaricom and M-Pesa if this was delayed by factors within Safaricom's control. This remedy could be seen as (a) disproportionate, and (b) constraining the CA's discretion to act as it saw fit at the time. Final report is therefore silent on what further remedies the CA might consider

Prohibition on Safaricom surcharges for transfers to unregistered users is retained

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We have also identified a number of proposals to address other market barriers [1/2]

Relevant market	Description
Mobile communications	<ul style="list-style-type: none"> Desirable to have a more even allocation of low-frequency (sub-1GHz) spectrum among mobile operators (but no short-term impact expected) An NFP⁽¹⁾ that owns/controls any in-building wireless solutions should be required to make them available to other NFPs on a non-discriminatory and cost-oriented terms
Mobile money	<ul style="list-style-type: none"> Should set up a system under which agents can support multiple mobile money platforms using a single float (but more a matter of banking regulation)
Fixed broadband for enterprises and leased lines	<ul style="list-style-type: none"> Any licensed NFP that controls/has monopoly entry to a building or site should be required to make it available to all other licensed NFPs on a non-discriminatory and cost-oriented terms
Fixed broadband for consumers	<ul style="list-style-type: none"> The CA should strengthen its enforcement mechanisms against 'illegal' broadband networks

⁽¹⁾ Network facilities provider

We have also identified a number of proposals to address other market barriers [2/2]

Relevant market	Description
Content services	<ul style="list-style-type: none"> ▪ All licensed NFPs that support third-party content / applications service providers could be required to publish a reference access offer under the 2010 Interconnection and Provision of Fixed Links, Access and Facilities Regulations ▪ CA should consider review of competition in media content markets
Other	<ul style="list-style-type: none"> ▪ Finalisation of the draft Infrastructure Sharing regulations ▪ Review of quarterly data collected, reduction of burden on small operators, extension of data collected to at least the markets covered in the study (leased lines, USSD market) ▪ Better liaison and interaction between the CA, the CAK and the Central Bank of Kenya

Contact details

Stéphane Piot

Partner

stephane.piot@analysismason.com

Analysys Mason, 25 rue d'Artois, 75008 Paris, France

Philip Bates

Principal

philip.bates@analysismason.com

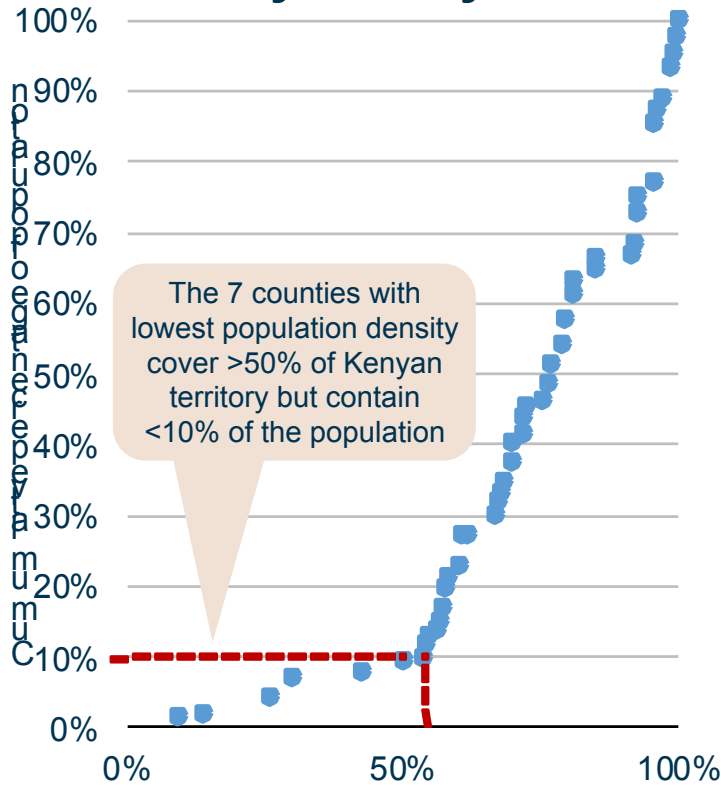
Analysys Mason Limited, Bush House,
North West Wing, Aldwych, London WC2B 4PJ, UK

Our terms of reference

- i. To identify the relevant markets (sub-markets) within the telecommunication sub-sector, the number of players that exist and their respective market shares.
- ii. To establish the levels and extent of competition in the various telecommunication sub-markets identified; and identify players with significant market power.
- iii. To identify the market barriers, if any, that prevent or restrict entry, competition and the growth of the players in the era of changing technologies.
- iv. To provide a proposal on the best ways by which the identified barriers and factors acting as a hindrance to growth can be considerably minimised or eliminated.
- v. To establish whether any anti-competitive behaviour exists or has taken place and evaluate the extent this has helped certain players entrench dominance in telecommunication sub-sector.
- vi. To identify specific stimulus that can be injected in the Internet/data sub-segment in order to ensure that there is effective competition, accessibility, affordability and growth.
- vii. To recommend the optimal or appropriate and proportionate regulatory response to the competition issues identified within the existing regulatory and legal framework.
- viii. To develop accounting separation guidelines that will be applicable to identified dominant firms.
- ix. To recommend any other relevant intervention(s) that would go a long way towards enhancing effective management of competition in the telecommunication subsector in Kenya.

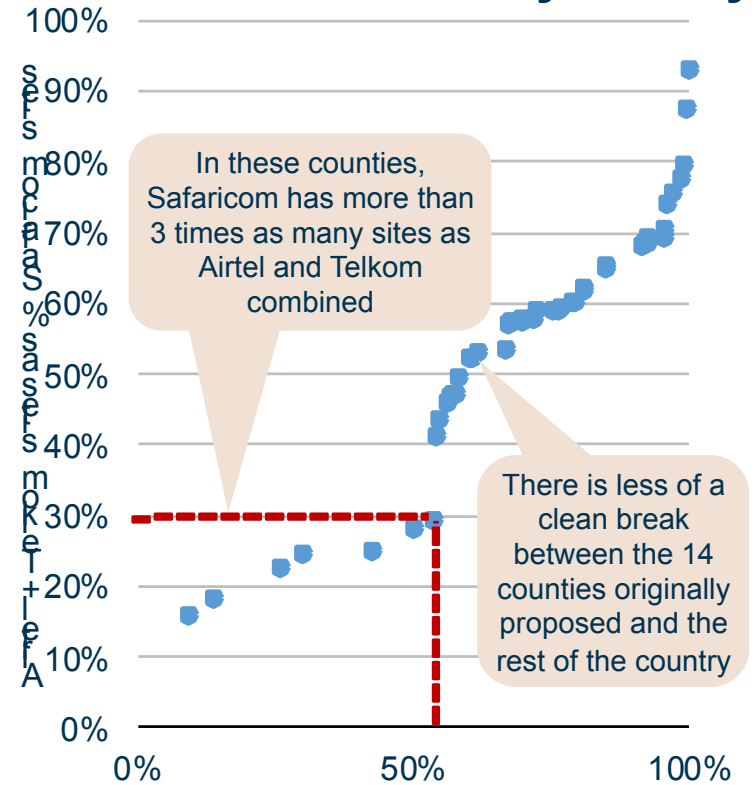
We reduced the no. of counties for tower sharing and roaming based on geographical analysis

Cumulative population and area by county



Cumulative percentage of area

Total Airtel plus Telkom sites as % of Safaricom sites by county



Cumulative percentage of area

Note: Counties ranked by population density

Source: CA and Analysys Mason

In addition to market share, several quantitative and qualitative factors may be taken into account to assess market power

- product prices and profitability
- overall size of the undertaking
- market concentration
- vertical integration
- product and/or services diversification (for example, bundled products or services)
- a highly developed distribution and sales network
- control of an infrastructure that is not easy to duplicate
- economies of scale
- economies of scope
- technological advantages or superiority
- easy or privileged access to capital markets/financial resources
- commercial barriers to entry
- regulatory barriers to entry
- ability of customers to switch suppliers
- absence of or low countervailing buying power
- absence of potential competition
- barriers to expansion