

Data Service Market Inquiry

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Research ICT Africa- Evidence based policy

ADMINISTRATIVE DATA (Supply Side/regulated)

- Data from operators, service providers, equipment suppliers
- ICASA/ITU (Indicator Expert Group)
- (Demand side)
- Nationally representative User Survey (ZADNA/IDRC)
- ITU/UNCTAD Partnership on Measuring Information Society

BIG DATA

Digitisation, mass processing, storage, analytics from large public/private data sets (Privacy/surveillance)

- cost reductions
- time reductions- real time
 - planning
 - evaluating

NATIONAL STATISTICAL DATA (StatsSA)

- Macro-economic/
- Census/labour force/ households survey
- ICT Satellite Account

Research ICT Africa Mobile Pricing Index (RAMPI)

- **Voice/ SMS basket:** the cost of 30 prepaid mobile voice calls for a total of 50 minutes, distributed between destinations and 'peak' periods, added to that of 100 SMSs, and divided by the subscription value for the period of one month.
- **Data baskets:** the cost of 1 GB, 500 MB and 100 MB prepaid mobile data bundles, valid for monthly, weekly and daily periods.

Are data prices in South Africa high?

- The cost of cheapest of 1 GB of data is used to compare prices in South Africa with other African countries
- South Africa performs poorly in the RAMP index, coming 35th of out of 49 African countries
- The cost of cheapest 1 GB of data in South Africa is USD 8.28 (ZAR 99) seven times higher the cost of 1 GB in Egypt (USD 1.13) and nearly three times the cost of same data in Ghana, Kenya and Nigeria

SA's Cheapest 1GB data Compared to Africa's Top Performers

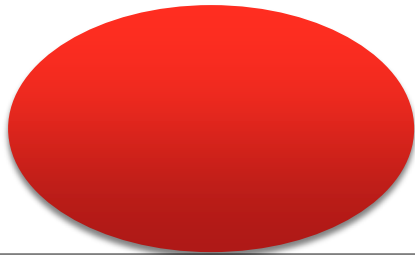
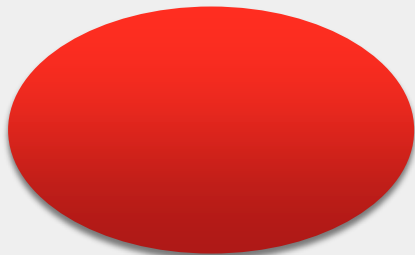


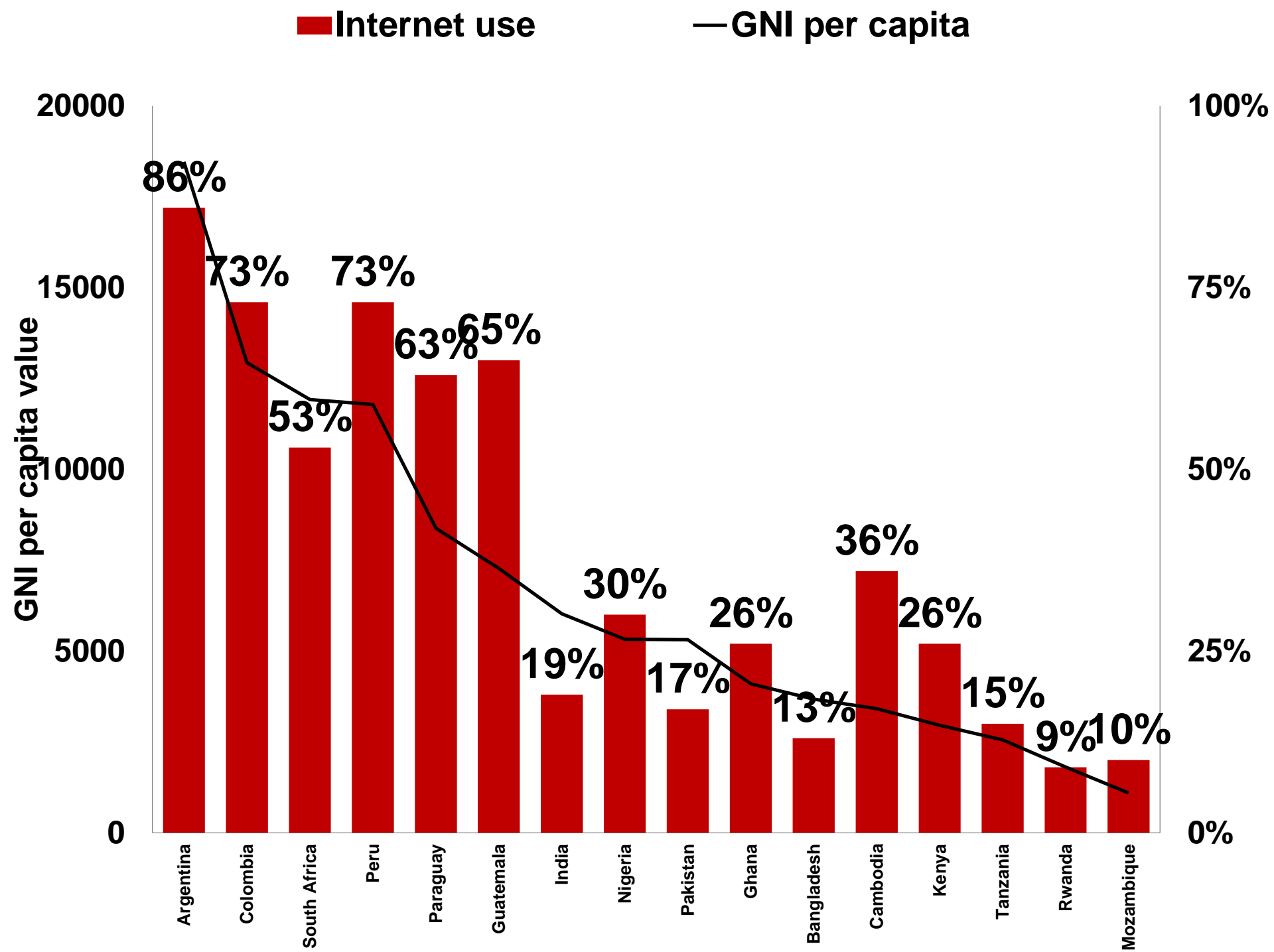
FIGURE 4: SA'S CHEAPEST PREPAID MOBILE 1GB BASKETS COMPARED TO AFRICA'S TOP PERFORMERS (USD)

Source: RAMP Index, 2018

Benchmarking SA against large African Markets

Table 1: Benchmarking South Africa against Ghana, Kenya and Nigeria

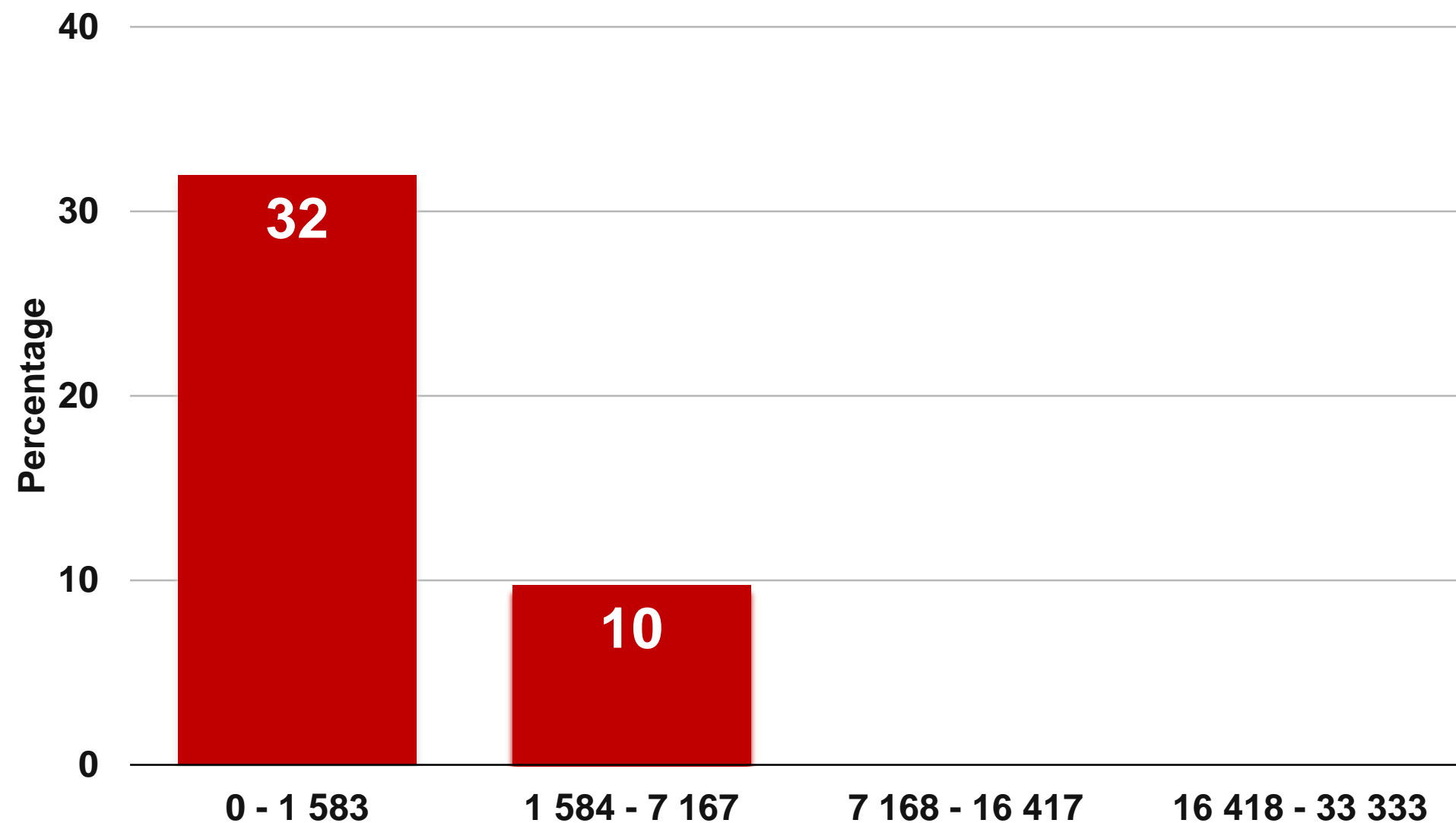
Affordability	Comparison average	Traffic Light	Country-level indicator	Source
Mobile prepaid 1GB basket (USD)	2,64		8,28	RIA, 2018
Dominant operator: mobile prepaid 1GB basket (USD)	4,06		10,94	RIA, 2018



❖ Despite high prices Internet penetration in South Africa is higher than any other surveyed African countries

❖ But lower than Argentina, Colombia, Paraguay and Peru and Guatemala

But Internet remains unaffordable to the low-income earners

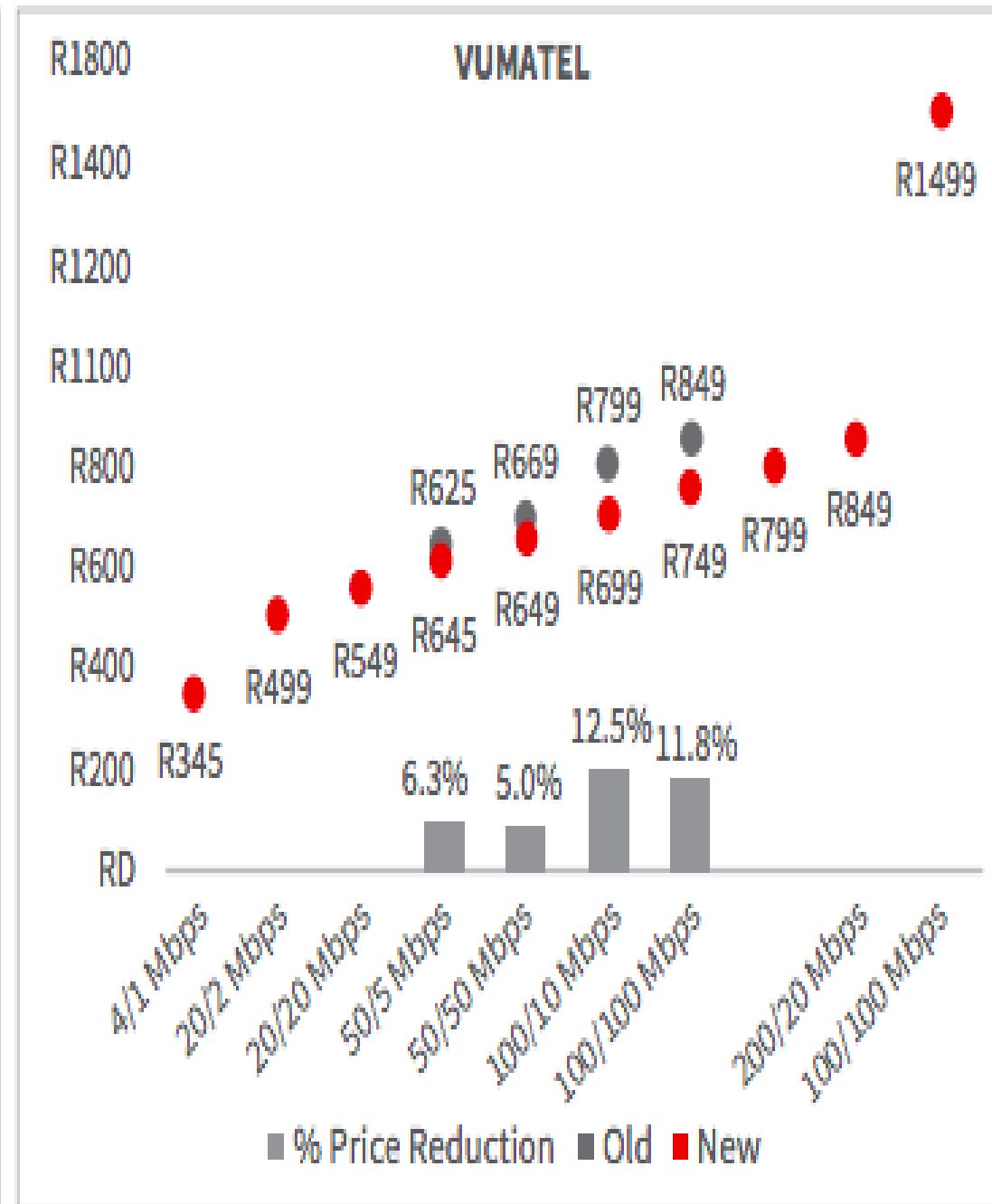
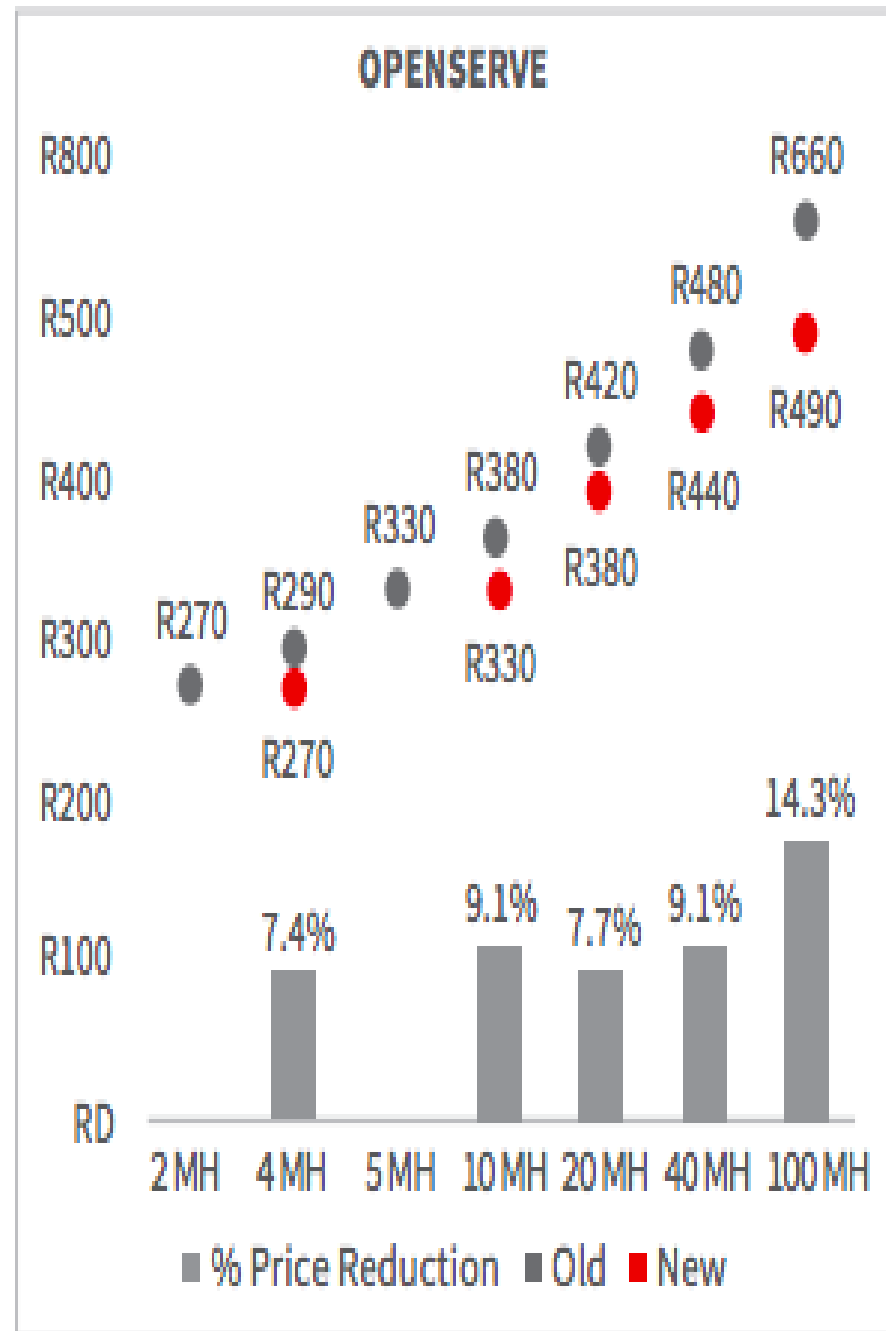


- ❖ The 2017 RIA After Access Survey shows that low-income earners pay a significantly high proportion of their disposable income to access telecommunication services
- ❖ The cost of Internet or the affordability divide between the low-income and high-income South Africans is creating barriers to connecting the low-income earners
- ❖ The Survey shows that almost 50% of South Africans do not use the Internet and further these 50% are those in the bottom of the pyramid

Cost drivers

- **~High rand-dollar exchange rate-** Which affects equipment import required for the constant upgrading of mobile network.
- **~Increasing costs of key inputs** – Have had an inflationary effects on data prices
- **~In the absence of high-demand spectrum being released to operators for 4G:** high bandwidth services are also not being deployed in the cost-effective manner which further exacerbate the high cost of data.
- **Regulatory issues:** The failure of ICASA to put in place some mandatory and foundational regulation means that the wholesale facility and service market, which is highly imperfect by nature, does not produce the intended competitive results

Competition in data market (wholesale)

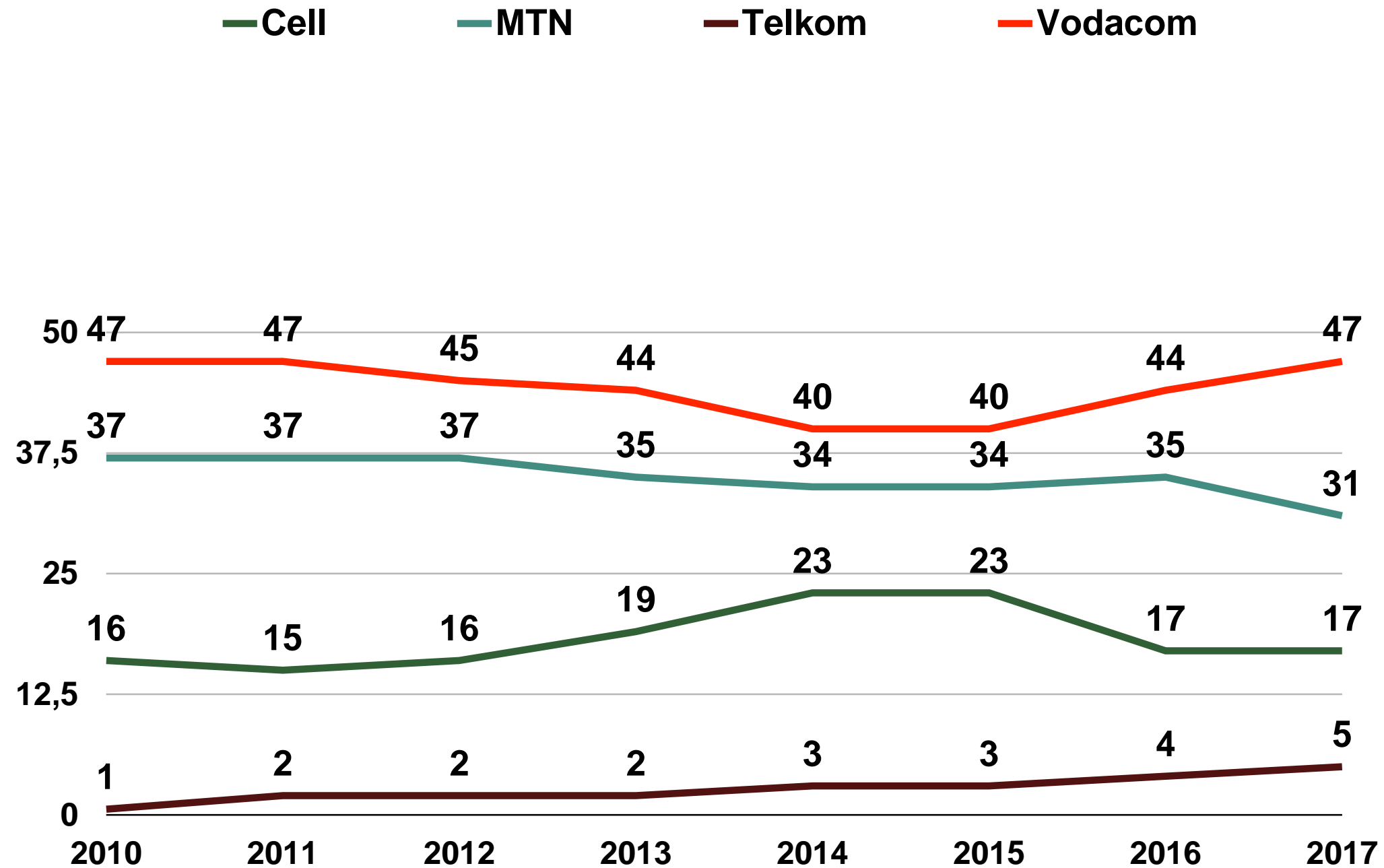


Competition in fibre network roll-outs in South Africa was initiated by the high court ruling that ended Telkom's monopoly in 2005.

The appointment of Vumatel to provide fibre to home (FTTH) in Parkhurst intensified competition in the FTTH market.

Though the number of players in this market has increased to 35, the main players: Vumatel, MTN, Vodacom and Openserve own 80% of the market.

Mobile Market

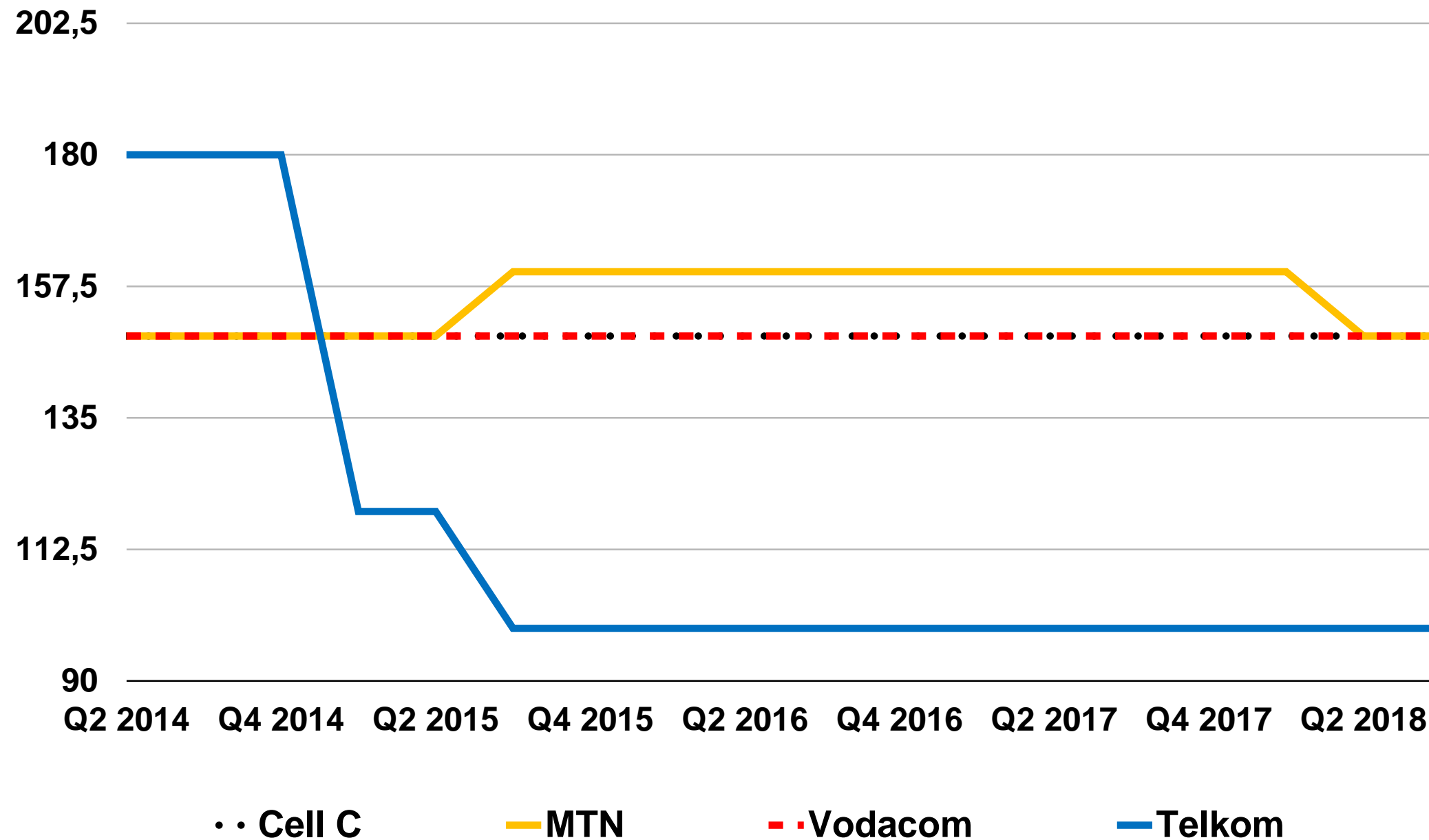


The south African mobile market is dominated by two players: Vodacom and MTN.

Using the HHI the market is found to be highly concentrated which in index higher than 2500.

Despite smaller players (Cell C and Telkom) adopting a number of competitive strategies they have failed to gain substantial market share.

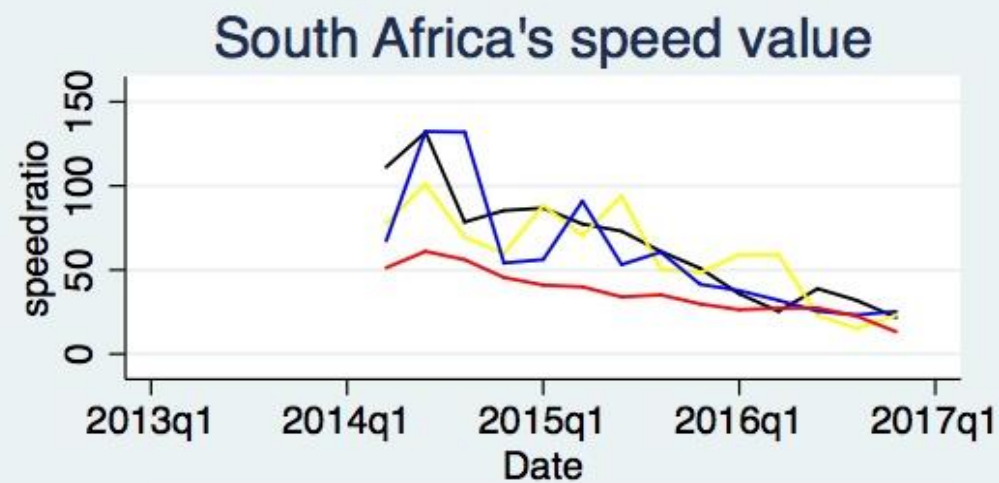
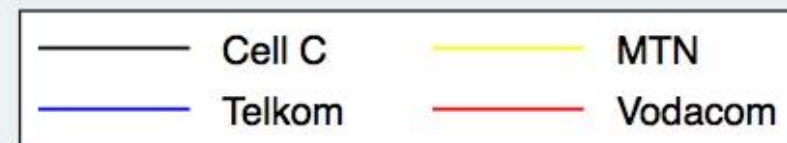
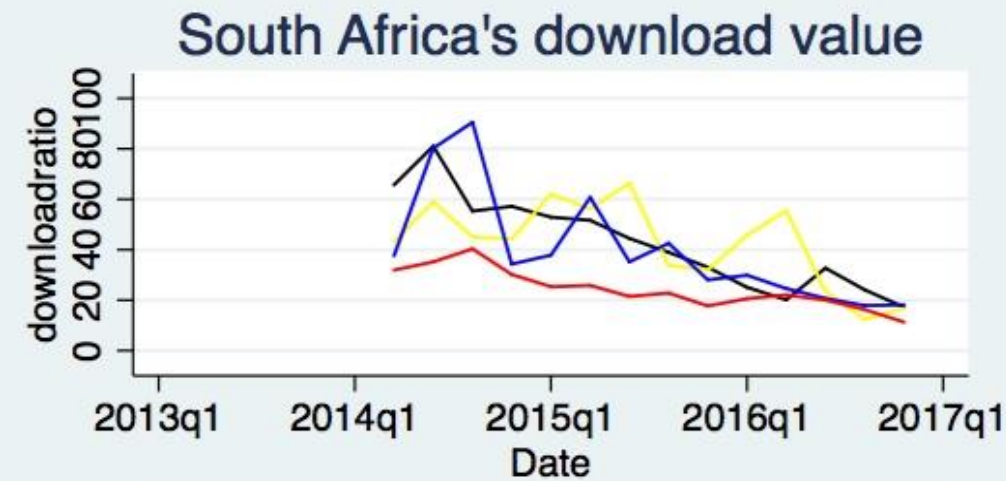
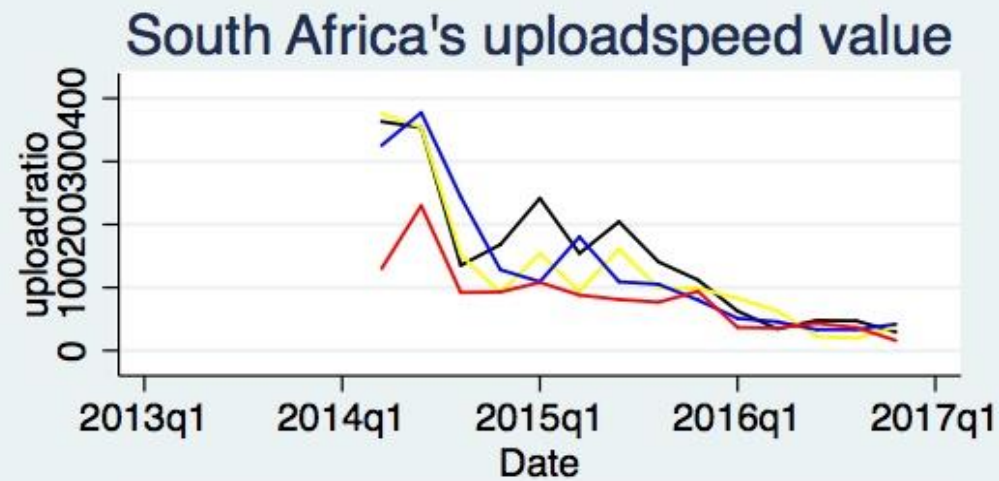
Pricing strategy and competition



MTN offers the cheapest 500 MB data bundles for daily (ZAR 50) and weekly (ZAR 55) periods, but Telkom again offers the cheapest 500 MB monthly bundle at ZAR 69. Similarly, MTN offers the cheapest 1 GB weekly bundle (ZAR 70) but does not compare well in the 1 GB monthly comparison. Vodacom's ZAR 149 promotional package (2 GB) offers the most value with an effective rate of ZAR 74.50 per GB, but Telkom's 1 GB is still the cheapest at a nominal price of ZAR 99.

- Rain now offers the cheapest tariffs across the board: a 100 MB bundle will cost a customer ZAR 5, significantly less expensive than the previously lowest ZAR 29 100 MB offering of Cell C, MTN and Telkom. Rain's 500 MB costs less than half that of Telkom's 500 MB bundle and also out-competes its 1 GB bundle price by being just about half the cost (ZAR 50).

Quality adjusted prices



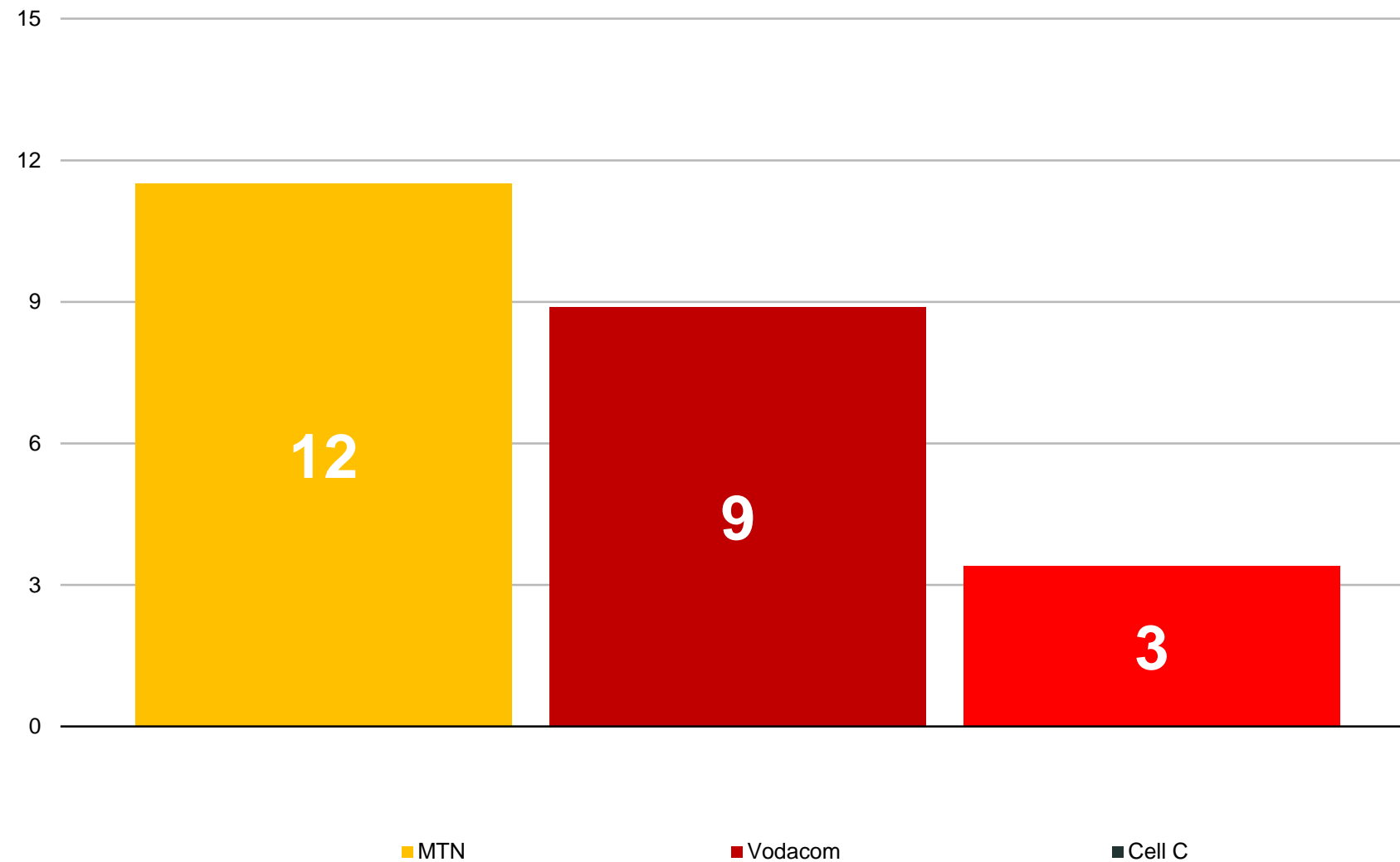
Represents the ratio between the 1GB data basket and the average download and upload speeds, shows that the two dominant operators Vodacom and MTN offer higher quality, respectively.

In the same period Telkom's quality was the lowest. However, since Q1 2016, it seems that smaller operators improved their quality, catching up with dominant operators in Q2 2016 (in line with increased network investments). Vodacom SA's high prices are accompanied by higher Internet speeds, compared to MTN SA and Cell C, which are performing less well on the measure based on average download/upload speed (in Mbps) divided by 1GB basket costs.

Quality and Coverage

- ❖ South Africa is connected to six submarine cables.
- ❖ Telkom, Liquid Telecom South Africa (previously Neotel) and Broadband Infraco have made considerable backbone and backhaul investment over the past decade, giving South Africa the most extensive coverage in the continent
- ❖ Supplemented by recent expansion of fibre networks in larger metropolitan areas

Mobile operator investments



Mobile operators have made significant network infrastructure investment to be able to carry vast volumes of data.

Vodacom coverage- 3G - 99.97%, 4G (80%)

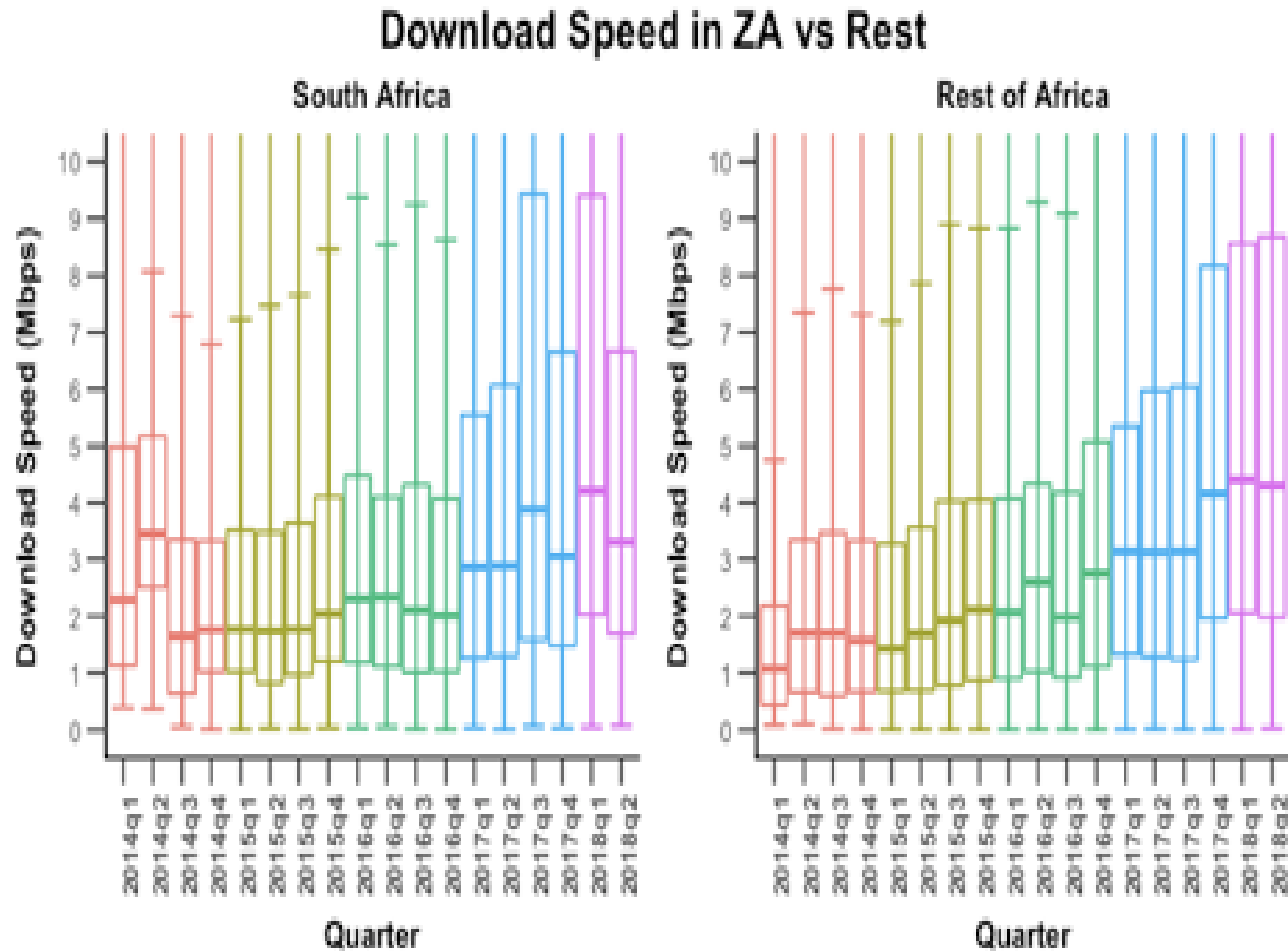
MTN coverage- 3G - 98%, 4G (80%)

Competition in the mobile market is no longer about pricing only, quality is more critical especially in the data market.

Big operators are likely to win this battle as they are able to re-invest revenues gained from their large market shares

FIGURE 6: OPERATORS' CAPITAL EXPENDITURES (ZAR BILLIONS) IN 2017/18

Download speed in ZA vs Rest of the World (Speedchecker)



- ❖ South Africa performs well in comparison to other African countries.
- ❖ download speeds in South Africa have been improving due to innovations and technological developments.
- ❖ A development which can be associated with investments by telecommunication