

# Telecoms

## Reporting and what to look for in the numbers

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## A few examples why one should be awake

- An analysis of 16 mobile service providers (MSPs) in 1995/6 revealed a total market share of 150% - companies inflate numbers!
- Vodacom has a lower prepaid ARPU than MTN – how is it possible if most markets reflect higher prepaid ARPUs for the dominant mobile network operator (MNO)?
- According to the CCK, Telkom Kenya / Orange had 2.746mn subscribers at the end of 3Q11 – FT / Orange KPI file reflects only 0.815mn!

## How important is subscriber numbers?

- Important if the MNO starts a green-fields operation
  - 8.ta subscriber data under lot of scrutiny.
- Not that important in mature market with high SIM penetration and lots of multiple SIMs
  - Benchmarking based on common currency (CC) or local currency (LC) revenue far more important.

# Telecoms - reporting and what to look for in the numbers

## How margins differ

- Between MNOs in a country
- Between operations of one MNO across geographies
- Between countries
- Bottom-line: no two markets are the same!
  - Aspects such as first-mover advantage; cost of doing business and competitive nature of the market need to be considered.

## ARPUs and ARPM and AMOUs

- ARPU is not a revenue driver – it is revenue!
- Volume (AMOU) or Price (ARPM) is a driver, what about demand elasticity?
- Bottom-line: no two markets are the same!
  - Aspects such as first-mover advantage, interconnect regime, SIM penetration, competitive dynamics, need to be considered.

# REPORTING AND KPI CATEGORIES

## What types of reports / reporting?

- Interim and final results – press releases and presentations
- Quarterly trading updates – only Vodacom in South Africa with MTN providing Q subscriber and ARPU updates
- Annual reports.

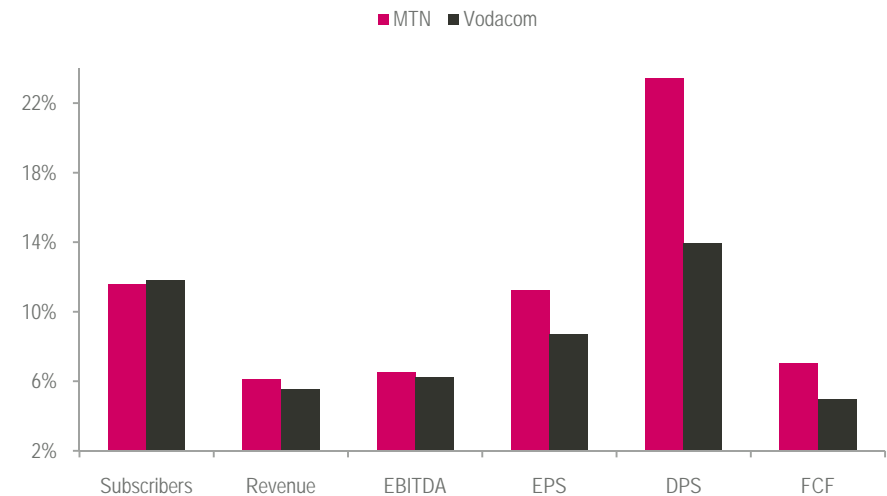
## Why our interest in reporting?

- Revenue and growth
- Expenses and sustainability of margins (EBITDA)
- Capex
- Cash flow (EBITDA minus capex)
- Valuation
- Benchmarking – does company A deserve to trade at premium / discount to its peer group?

## KPI categories

- Subscribers – gross connections
- Usage - AMOU
- Revenue – ARPU and ARPM
- Coverage and concentration / spread – geographic and population
- Market share - revenue
- Incremental performance – subscriber and revenue growth
- Operational efficiencies – capex per minute and expense ratios
- Marketing – subscriber acquisition costs
- Quality – call setup success rate (CSSR) and call drop rate (CDR)
- Green & sustainability – energy consumption / subscriber, CO2 emission
- Financial & valuation – EV/EBITDA and FCF yield
- Country telecom sector KPI – SIM penetration
- Tower sharing – tenancy ratio and average rental per tenant per month
- Spectrum efficiency – BH erlang

## 3-year growth rates, 2010 to 2013



# LET US SET THE SCENE.....

## Salient features

### Strong financial performance

- Group service revenue up 6.0% (6.9%\*)
- Group EBITDA up 7.6% (9.8%\*)
- Group operating free cash flow up 5.6% to R6 930 million
- Headline earnings per share up 6.9% to 324 cents
- 44.4% increase in interim dividend per share to 260 cents

### Mobile data is the key growth driver

- Group data revenue growth of 31.1%
- Group data revenue represents 14.1% of service revenue
- 38.1% increase in Group active data customers to 12.4 million

### Investing for data growth

- Group capital expenditure of R3 462 million
- Expansion of 3G and fibre networks
- Focus on network stability and improved customer experience

### Group salient features for the six months ended 30 September 2011

- ADSL subscribers increased 13.7 % to 795,419.
- Calling plan subscribers increased 4.7 % to 797,827.
- Internet all access subscribers increased 3.9 % to 556,886.
- Managed data network sites increased 12.6 % to 37,181.
- Active mobile subscribers of 1,140,289 with a blended ARPU of R63.32
- Operating revenue down 3.2 % to R16.4 billion.
  - Voice revenue decreased 5.5 % to R6.6 billion.
  - Data revenue decreased 7.9 % to R5.1 billion.
- Operating expenses increased 8.2 % to R15.4 billion.
  - Fixed-line operating expenses decreased 3.9 % to R11.7 billion.

## Highlights

Group subscribers up 7.5% since 31 December 2010 to 152.3 million

EBITDA margin up 1.3 percentage points to 44.6%

Free cash flow\* up 23.7% to R19,494 million

Adjusted HEPS up 7.2% to 470.1 cents

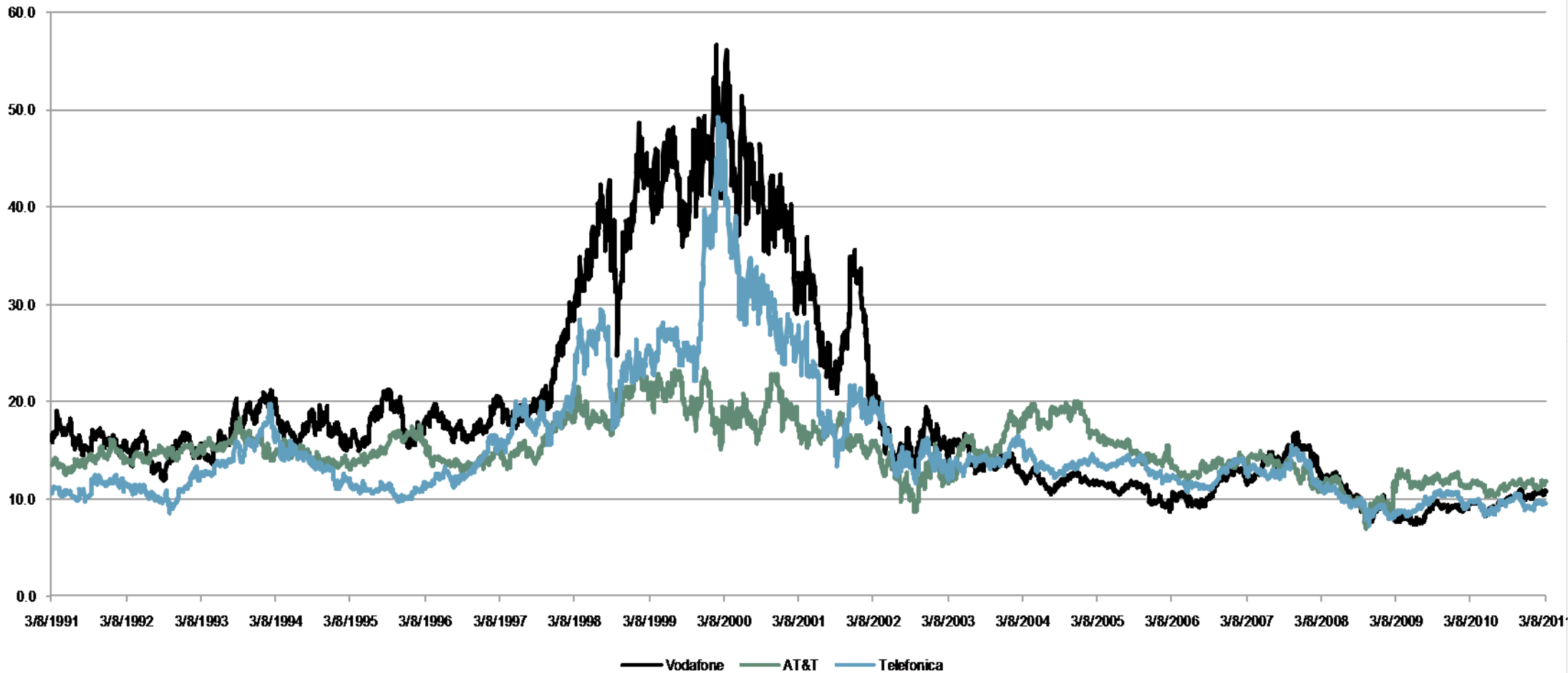
Interim dividend of 273 cents per share

Payout ratio increased to 65%

\* EBITDA minus capital expenditure

# NOT EXCITING, DATA PROMISING?

Historical P/E multiples



Currently one of the lowest P/Es historically

# RATINGS - MOBILE

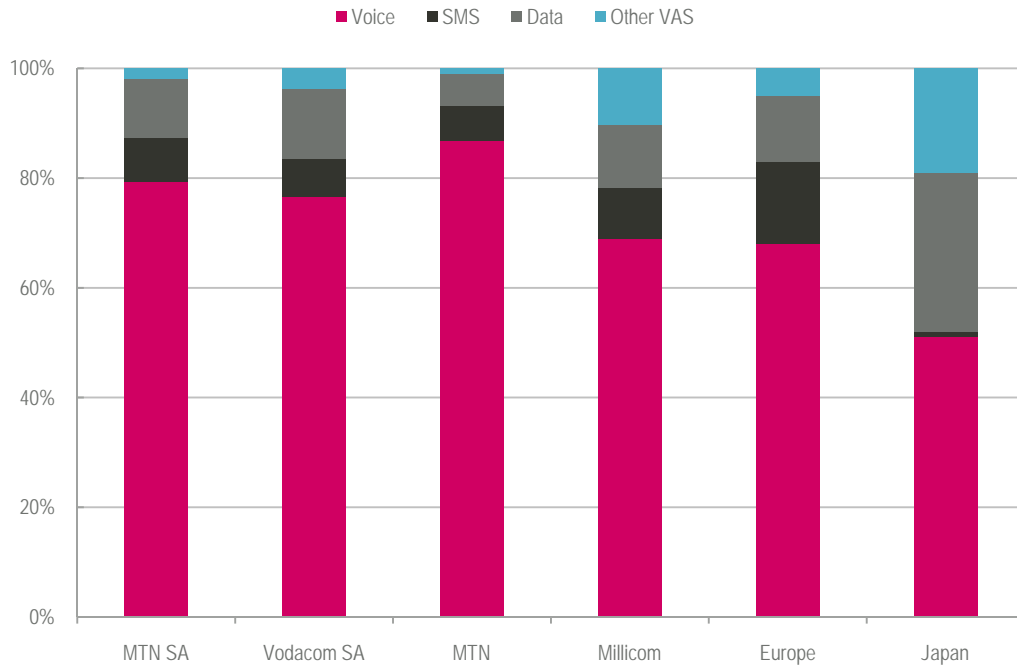
## Mobiles – relative valuation

	EV/sales			Sales CAGR		EV/EBITDA			EBITDA CAGR			P/E			Earnings CAGR			EBITDA margin			DY		
	2010	2011E	2012E	2010-12E	2010	2011E	2012E	2010-12E	2010	2011E	2012E	2010-12E	2010	2011E	2012E	2010	2011E	2012E	2010	2011E	2012E		
<b>Russian mobile operators</b>																							
MTS	1.4	1.3	1.2	6%	3.2	3.1	3.1	2%	11.2	12.0	10.0	6%	43%	41%	40%	7%	6%	7%					
VimpelCom	1.9	1.9	1.8	5%	4.5	4.7	4.5	1%	17.5	11.6	9.9	33%	43%	40%	40%	6%	7%	7%					
<b>SA mobile operators</b>																							
MTN	2.3	2.0	1.9	5%	5.6	4.6	4.5	6%	14.1	9.8	9.4	22%	41%	44%	43%	4%	5%	6%					
Vodacom	2.2	2.0	2.0	2%	6.5	5.8	5.9	4%	14.4	11.5	11.6	12%	34%	34%	35%	5%	7%	7%					
SA mobiles average	2.3	2.0	2.0	3%	6.1	5.2	5.2	5%	14.3	10.6	10.5	17%	38%	39%	39%	4%	6%	6%					
<b>Turkish mobile operators</b>																							
Turkcell	1.2	1.4	1.5	-7%	3.7	4.5	4.7	-9%	8.6	14.2	10.9	-11%	33%	31%	32%	5%	6%	4%					
<b>African mobile operators</b>																							
Orascom Telecom	1.8	1.2	1.0	5%	4.3	2.7	2.2	7%	nm	10.5	6.4	na	43%	45%	44%	0%	2%	4%					
ECMS	1.5	1.7	1.6	3%	3.6	4.5	4.1	2%	6.6	70.6	17.0	17%	41%	36%	38%	14%	1%	5%					
Safaricom	1.2	1.2	1.2	-1%	3.0	3.5	3.5	-7%	7.2	9.7	9.7	-13%	39%	35%	35%	8.1%	7.8%	7.5%					
Sonatel	2.2	2.1	2.1	8%	4.1	4.0	4.0	6%	7.9	8.8	8.2	-1%	54%	52%	51%	11%	12%	12%					
Econet	1.9	1.5	1.3	25%	3.8	3.4	3.0	9%	5.0	4.8	4.6	15%	49%	46%	45%	4%	8%	13%					
Starcomms	1.0	1.0	1.2	-21%	5.1	5.1	7.1	-26%	nm	nm	nm	nm	19%	19%	17%	0%	0%	0%					
African mobiles avg	1.6	1.5	1.4	3%	4.0	3.9	4.0	-1%	6.7	20.9	9.2	4%	41%	39%	38%	6%	5%	7%					
<b>EM</b>																							
America Movil	2.3	2.2	2.0	5%	5.6	5.6	5.2	2%	12.8	12.4	11.6	5%	41%	39%	39%	1%	1%	1%					
Bharti TeleVentures	na	2.9	2.4	17%	na	8.4	6.6	23%	na	24.2	15.0	na	34%	0.3	37%	0%	0%	0%					
China Mobile	na	1.9	1.7	9%	5.4	3.9	3.7	7%	11.2	10.3	10.4	4%	49%	48%	46%	4%	5%	5%					
Millicom	3.2	2.8	2.5	12%	6.8	6.3	5.6	9%	18.5	13.6	12.8	20%	47%	45%	45%	6%	2%	2%					
Partner	1.1	1.5	1.4	1%	3.0	4.8	4.6	-9%	4.6	6.7	6.9	-18%	38%	32%	31%	21%	10%	11%					
Zain	2.6	2.6	2.5	3%	7.8	5.7	5.5	20%	3.7	11.6	11.1	-42%	33%	45%	45%	na	6%	7%					
EM avg	2.3	2.3	2.1	8%	5.7	5.8	5.2	9%	10.2	13.1	11.3	-6%	40%	41%	40%	6%	4%	5%					
<b>DM</b>																							
AT&T Wireless	1.9	1.9	1.8	1%	5.6	5.6	5.2	2%	12.7	12.7	11.7	4%	34%	34%	35%	5%	6%	6%					
Elisa	2.3	2.2	2.2	2%	6.4	6.7	6.5	-1%	14.4	13.4	13.0	5%	36%	33%	33%	6%	9%	9%					
Taiwan Mobile	4.2	3.8	3.3	13%	11.0	11.0	10.1	5%	21.1	20.8	18.2	8%	38%	34%	33%	na	5%	6%					
Telefonica	2.0	1.9	1.9	2%	4.7	5.3	5.3	-6%	8.4	9.0	8.9	-3%	42%	36%	36%	10%	11%	12%					
Telenor	1.8	1.7	1.6	4%	5.9	5.5	5.1	8%	19.4	12.4	10.8	34%	30%	31%	33%	4%	5%	6%					
Tele2	1.4	1.7	1.6	4%	5.4	6.3	5.7	6%	8.1	11.7	10.1	-11%	27%	26%	28%	20%	12%	12%					
Verizon	1.4	1.4	1.2	4%	4.3	4.3	3.6	4%	17.0	17.3	14.8	7%	33%	32%	33%	5%	5%	5%					
Vodafone	2.5	2.5	2.4	1%	8.0	7.8	7.6	1%	9.9	10.6	10.3	-2%	32%	31%	32%	5%	8%	7%					
DM avg	2.2	2.1	2.0	4%	6.4	6.6	6.1	2%	13.9	13.5	12.2	5%	34%	32%	33%	8%	8%	8%					
Premium/(discount) of SA mobiles to DM	3%	-5%	-2%		-6%	-21%	-16%		3%	-21%	-14%												
Premium/(discount) of African mobiles to DM	-28%	-32%	-30%		-38%	-41%	-35%		-52%	55%	-25%												

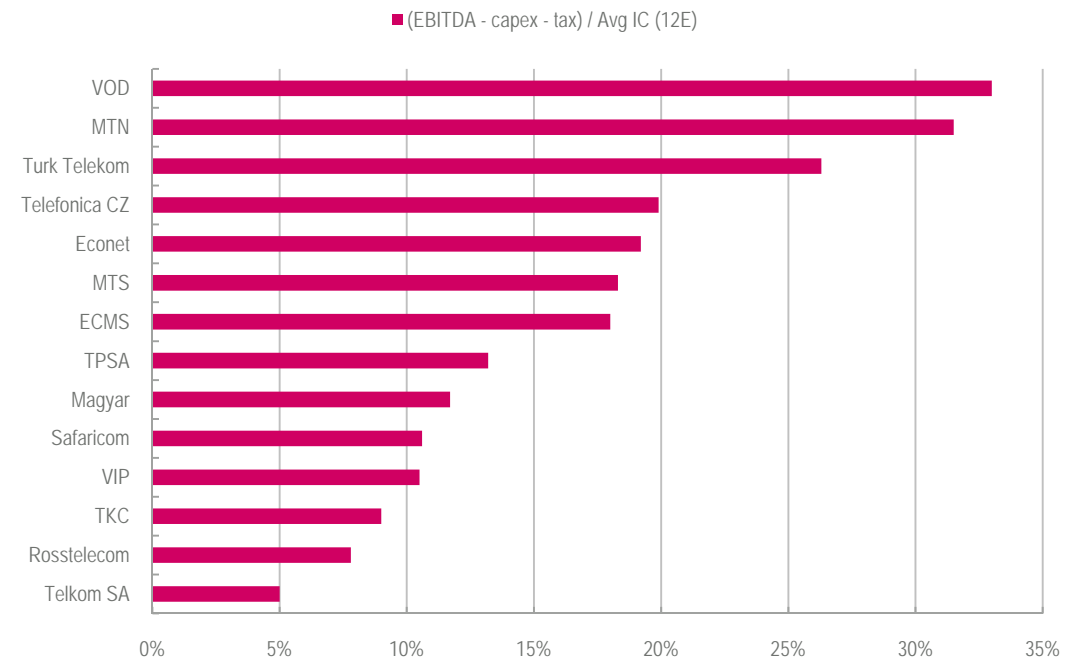
Source: Company data, Bloomberg, Thomson Reuters, Renaissance Capital estimates

# EXAMPLES OF BENCHMARKING

## Revenue contributions, last reported results



## Cash-based multiples, \$ returns



# SUBSCRIBERS

Kenya – just one example!

Period ended ('000)	Sep-10	Mar-11	Jun-11	Sep-11
Safaricom - company reported	16,710	17,180	n/a	18,100
Safaricom - CCK reported	16,715	17,205	17,353	17,946
Variance	0.0%	-0.1%	n/a	0.9%
Telkom Kenya / Orange - company reported	740	1,122	865	815
Telkom Kenya / Orange - CCK reported	876	2,613	2,729	2,746
Variance	-15.5%	-57.1%	-68.3%	-70.3%

Vodacom – gross connections, overstatement

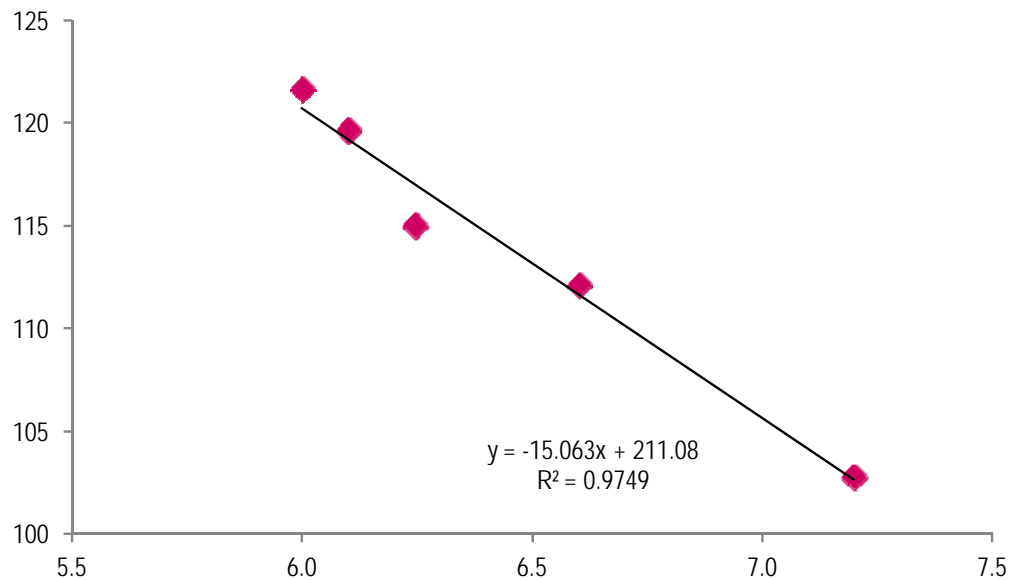


Active or not?

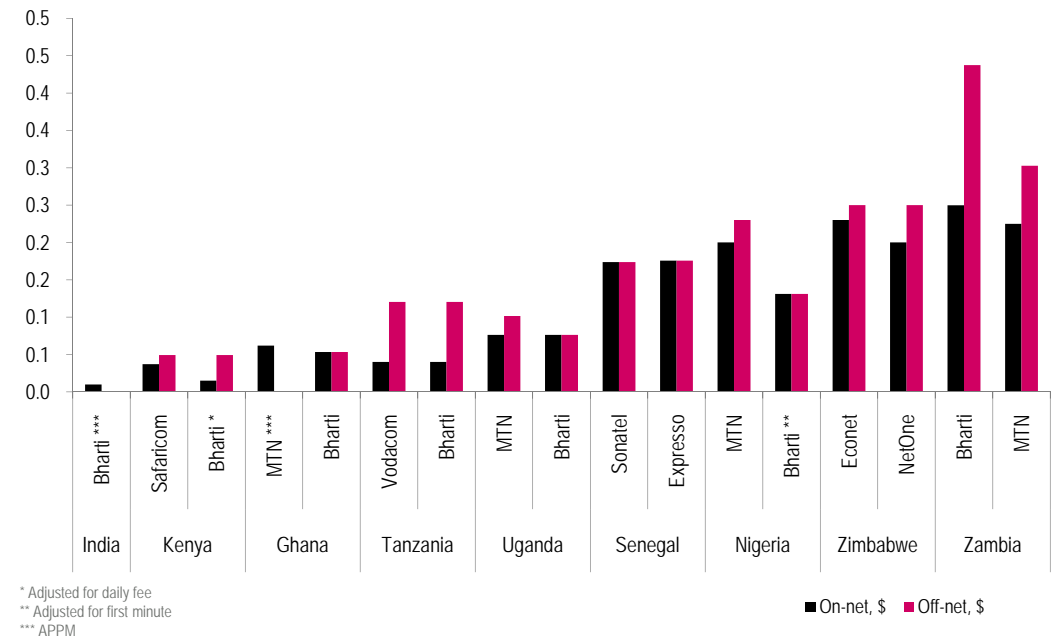
- Different definitions of “active” subscriber and hence significant variances between MNO KPI sheet / telecoms regulator data and our calculations
- Also multiple SIMs
- Kenya
  - According to Telkom Kenya / Orange, its definition is based on 30-day active window
  - According to the CCK, it publishes the number of SIMs registered in the MNO register.
- South Africa
  - To benchmark against other MNOs, we restate Vodacom subscriber numbers starting with ARPU variances
  - In the past, Vodacom had various changes to its disconnection rules
  - SIM registration had an impact as well – gross connection back to pre-SIM registration levels

# ARPU, AMOU AND ARPM

Airtel Africa – ARPU (\$, x-axis)  
vs AMOU (min, y-axis)



SSA – pricing (APPM) in \$/min



## Investment case in SSA primarily focused on voice

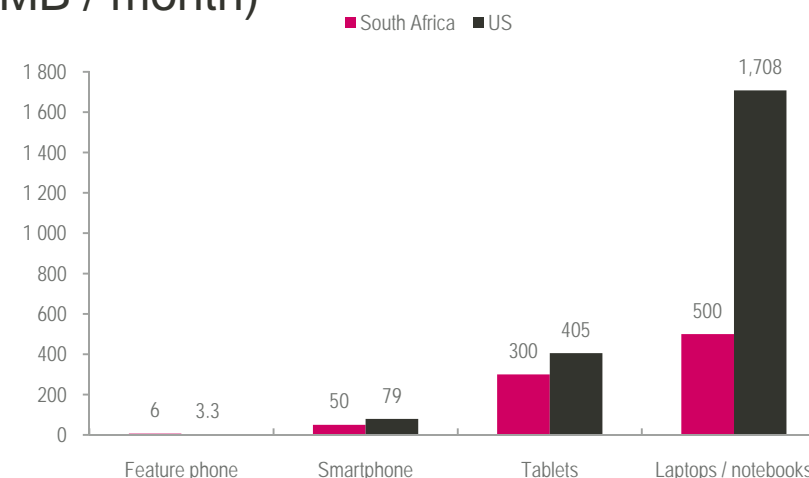
- Elasticity to price cuts have in most cases been positive although less than one
  - Safaricom had more than 50% usage growth, from 65min to 100min since September 2010 when the price war started.
  - Safaricom tariff declined by 62.5%, from KES8/min to KES3/min
  - Airtel Africa's "minute factory model" test delivered positive results, although difficult to argue across which geographies
    - Comments as to "opex model" reserved for now.....

# PROMISING DATA

## The key revenue driver

- Reporting on data / broadband differs from company to company
- Even reporting inconsistencies within companies
- What is important?
  - Revenue, revenue, revenue
  - Usage per device and changes in usage over time
- Our focus is data rather than messaging (SMS, MMS)
  - Sometimes referred to as “unique data”

## Data usage by device: South Africa vs US (MB / month)



## Non-voice services revenue, MTN and Vodacom

Period ended	1H09	2H09	1H10	2H10	1H11	YoY change	12-months to Jun-10	12-months to Jun-11	YoY change
<b>ZARmn</b>									
<b>MTN</b>									
SMS	961	1,060	1,192	1,298	1,294	8.6%	2,252	2,592	15.1%
Data	1,091	1,384	1,727	1,911	2,037	18.0%	3,111	3,948	26.9%
Sub-total	2,052	2,444	2,919	3,209	3,331	14.1%	5,363	6,540	21.9%
<b>Vodacom</b>									
SMS	1,307	1,381	1,420	1,322	1,605	13.0%	2,801	2,927	4.5%
Data	1,791	2,342	2,667	3,313	3,416	28.1%	5,009	6,729	34.4%
Sub-total	3,098	3,723	4,087	4,635	5,021	22.9%	7,810	9,656	23.6%

# PROMISING DATA?

Not if it is Telkom data.....

Period ended	FY09	1H10	FY10	1H11	FY11	1H12
Revenue (ZARmn)	9,310	4,830	9,930	5,550	10,699	5,114
Leased lines and other data revenue	7,452	3,847	7,922	4,434	8,517	4,045
Data connectivity	4,951	2,477	5,097	2,707	5,324	2,670
Leased lines excluding MNOs	3,914	1,837	3,716	1,917	3,693	1,808
ADSL revenue	1,037	640	1,381	790	1,631	862
Internet access	1,525	869	1,721	986	1,816	806
MNS, VPNs	891	467	1,033	641	1,242	545
Other	85	34	71	100	135	24
Leased line facilities - MNOs	1,858	983	2,008	1,116	2,182	1,069
<b>ADSL data</b>						
ADSL subscribers	548,015	602,720	647,462	699,368	751,625	795,419
Average ADSL subscribers	480,103	575,368	597,739	673,415	699,544	773,522
Monthly run-rate	9,374	9,118	7,457	8,651	8,710	7,299
ADSL revenue / subscriber / month (ZAR)	180.00	185.39	192.53	195.52	194.29	185.73

Not if you look at (Vodacom) pricing (mismatch)

Year end March	FY09	FY10	FY11
<b>Vodacom South Africa</b>			
Mobile data revenue (ZARmn)	3,512	4,614	6,180
Data volume (PB)	3.3	5.1	7.6
Pricing (ZAc / MB)	106	88	70
<b>Vodafone Europe</b>			
Mobile data revenue (GBPmn)	2,501	3,245	3,871
Data volume (PB)	41	88	147
Pricing (pence / MB)	6	4	3
Pricing (ZAc / MB)	90	45	29

# EXPENSE RATIOS

## Across different years

Expense item	MTN Nigeria	
	FY06	FY10
Interconnect & roaming	10.8%	5.6%
Sales, distribution & marketing	8.8%	10.3%
Cost of goods sold	2.1%	2.3%
Staff expenses	4.1%	3.0%
Network operating costs	8.7%	10.3%
General & administration	8.2%	5.6%
Total	42.8%	37.1%
EBITDA margin	57.2%	62.9%

## Across geographies

Expense item	MTN	MTN
	Nigeria	South Africa
Interconnect & roaming	5.6%	15.3%
Sales, distribution & marketing	10.3%	19.0%
Cost of goods sold	2.3%	13.1%
Staff expenses	3.0%	4.9%
Network operating costs	10.3%	7.2%
General & administration	5.6%	6.5%
Total	37.1%	66.0%
EBITDA margin	62.9%	34.0%

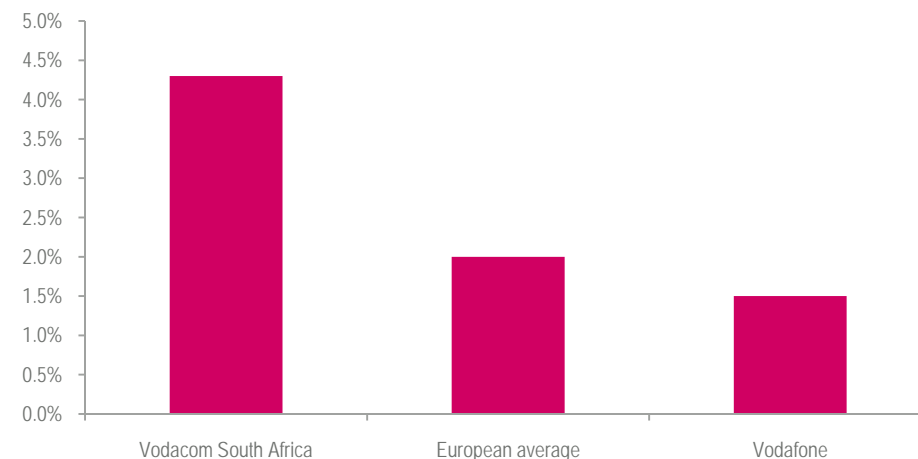
## Across MNOs in a country

Expense item	MTN	Vodacom	Cell C	Industry
Interconnect & roaming	16.4%	13.6%	26.0%	15.8%
Sales, distribution & marketing	19.8%	20.3%	38.0%	21.9%
Cost of goods sold	13.8%	10.8%	9.0%	11.5%
Staff expenses	4.7%	6.4%	8.0%	6.0%
Network operating costs	6.9%	6.7%	1.6%	6.3%
General & administration	5.0%	7.3%	6.0%	6.3%
Total	66.6%	65.1%	88.6%	67.9%
EBITDA margin	33.4%	34.9%	11.4%	32.1%

## RAN – 3G roll-out

MNO	3G BTSs per 1mn POPs
Telekom Austria	373
Vodafone (average)	133
European average	132
Vodacom	93
MTN	59

## Backhaul - leased-line opex ratio

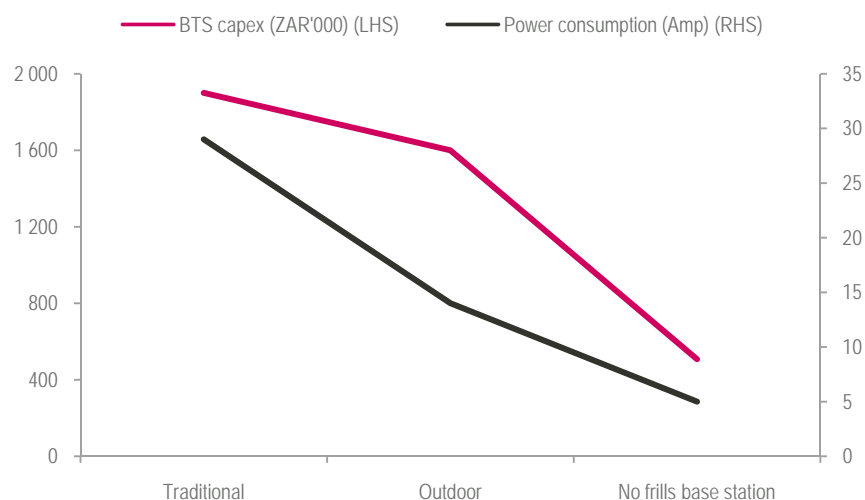


## RAN and Backhaul

- South Africa is different to Europe where current backhaul is 50:50 between microwave and leased lines
  - Vodacom (and South Africa for that matter) is primarily leased lines
  - Typically E-1 lines or 2Mbps per BTS for 2G; 3 to 5x more for 3G; 10 to 15x more for LTE
- Vodacom's transmission costs is about ZAR2bn per annum
  - Appears high compared to European standards
  - Self-provisioning could result in cost savings
  - Strong business case for self-provisioning driven by growth in data and penetration of corporate segment

# GREEN AND SUSTAINABILITY

## Energy consumption of BTSs - Vodacom



## MTN Nigeria – hybrid power solutions

Type of generator set (kW)	7.5	15.0	25.0	Total
% of BTS sites	40.0%	40.0%	20.0%	
Number of BTSs	3,644	3,644	1,822	9,110
Diesel consumption per hour (liter)	1.0	1.6	1.8	
Diesel consumption per month (mega liter)	2.6	4.2	2.4	9.2
Diesel consumption per year (mega liter)	31.5	50.4	28.3	110.2
Price per liter of diesel (\$)	1.21	1.21	1.21	
Total cost of diesel (\$mn)	38.1	61.0	34.3	133.3
Total network operating costs (\$mn)				483.7
Diesel costs as %				27.6%
Network operating cost expense ratio				10.3%
Diesel cost as % of total opex				7.7%
EBITDA margin				62.9%
Assume hybrid systems at 15kW, 25kW sites				
Assume run 6 hours / day on hybrid system				
Total cost of diesel (\$mn)	38.1	45.7	25.7	109.5
Saving				21.7%
EBITDA margin after				63.4%

## Benchmarking for energy consumption

- In general, 30% of site operation costs in Africa relates to energy
- Vodacom South Africa
  - RAN swap at one-third of Vodacom BTSs have resulted in electricity savings of 33GWh annualised
  - Installation of free cooling at one-third of Vodacom BTSs have resulted in electricity savings of 11GWh annualised
  - Total electricity consumption of 297.6GWh in FY11 or ZAR180mn or **11.2kWh per subscriber** – benchmarking is **10.0kWh per subscriber**
- MTN Nigeria
  - Diesel fuel bill of \$133mn per annum or **27.6%** of network operating costs or 7.7% of total opex
  - Introduction of hybrid systems (as per 1H11 results presentation) to result in savings of 20% plus based on our analysis
  - Benchmarking – energy as percentage of network operating costs = **25.0%**

# CLCR INDUSTRY

## Using Telemasters financials to analyse CIBs.....

Telemasters (ZARmn)	Airtime	CIB	Total
<b>FY08</b>			
Revenue	161.4	17.6	179.0
Cost of sales	143.9	0	143.9
Gross profit	17.5	17.6	35.1
Gross margin (%)	10.8%		19.6%
Opex	14.1	0	14.1
Operating profit	3.4	17.6	21.0
Operating margin	2.1%		11.7%
<b>FY09</b>			
Revenue	215.1	16.1	231.2
Cost of sales	191.3	0	191.3
Gross profit	23.8	16.1	39.9
Gross margin (%)	11.1%		17.3%
Opex	17.3	0	17.3
Operating profit	6.5	16.1	22.6
Operating margin	3.0%		9.8%
<b>FY10</b>			
Revenue	231.3	5.6	236.9
Cost of sales	200.7	0	200.7
Gross profit	30.6	5.6	36.2
Gross margin (%)	13.2%		15.3%
Opex	21.9	0	21.9
Operating profit	8.7	5.6	14.3
Operating margin	3.8%		6.0%

## Recent news flow from industry

- Elimination of CIBs and lower MTRs require CLCR operators to develop new business models – VoIP.
- No new SIMs / CLCR contracts
  - Rather disconnections – refer to Reunert FY11 AR – disconnection of 20,000 on-billing SIMs
- Telkom SA aggressive to recapture lost business and deep discounting is in play – 1H12 Telkom FtM traffic up 1.5% YoY.

	Nashua			Vox Telecom		
	Airtime	CIB	Total	Airtime	CIB	Total
Revenue (ZARmn)	1,027	89	1,116	1,235	75	1,310
Cost of sales (ZARmn)	916		916	1,132	0	1,132
Gross profit (ZARmn)	111	89	200	133	75	208
Gross margin (%)	10.8%		17.9%	10.8%		15.9%
Opex (ZARmn)	89			98		
Operating profit (ZARmn)	22	89	111	36	75	111
Operating margin	2.1%		10.0%	2.9%		8.4%
Nashua Mobile operating profit			306			
...from CLCR			111			
...CLCR contribution			36.3%			

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