

STATE OF DIGITAL: ANGOLA

THE UPSIDES AND PITFALLS OF
AFRICA'S LAST DIGITAL
ELDORADO

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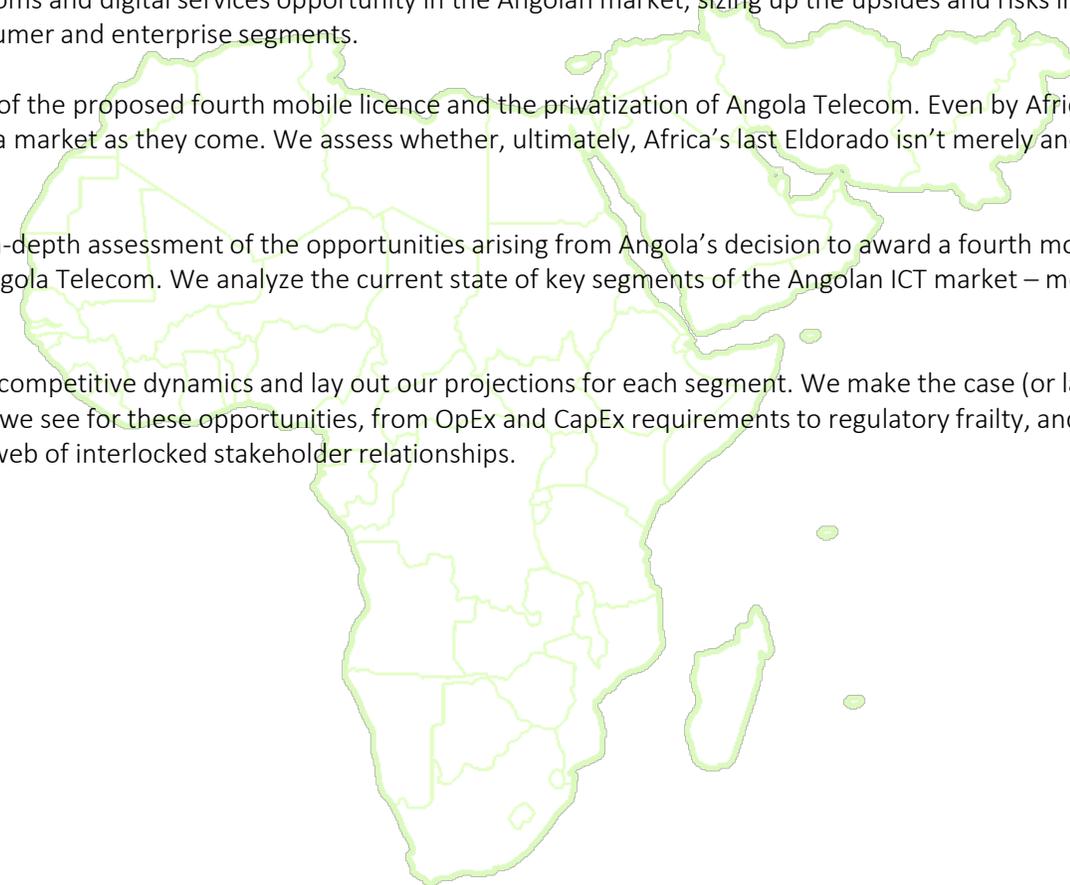
MARCH 2018



Report summary: Africa's last digital Eldorado



- In the midst of an acute economic crisis, Angola has decided to open up its telecoms market in a bid to attract foreign capital. Our State of Digital report takes a look at telecoms and digital services opportunity in the Angolan market, sizing up the upsides and risks in the country's digital infrastructure, consumer and enterprise segments.
- We provide an in-depth assessment of the proposed fourth mobile licence and the privatization of Angola Telecom. Even by African standards, Angola remains as tough a market as they come. We assess whether, ultimately, Africa's last Eldorado isn't merely another investor mirage.
- **State of Digital: Angola** provides an in-depth assessment of the opportunities arising from Angola's decision to award a fourth mobile licence and privatize state-owned Angola Telecom. We analyze the current state of key segments of the Angolan ICT market – mobile, B2B and wholesale.
- We assess addressable demand and competitive dynamics and lay out our projections for each segment. We make the case (or lack thereof) and outline the critical risks we see for these opportunities, from OpEx and CapEx requirements to regulatory frailty, and the crucial challenge posed by Angola's web of interlocked stakeholder relationships.





The insights derived from our research on the Angolan market are distilled in this report, covering critical key questions and points, including:

- **Angola's economic crisis and the advent of a new president are providing the momentum for action** that the country's policymakers and stakeholders have long resisted.
- **The potential is solid.** This the third largest economy, and the fourth largest telecoms market in sub-Saharan Africa in revenue terms. The B2B segment is one of the largest in sub-Saharan Africa, largely due to the presence of a relatively dynamic financial sector, and an active ecosystem of foreign companies in the mining and oil and gas sectors.
- While not immune from the challenges that have afflicted the broader ICT sector, **the B2B segment has performed better than the broader market;**
- There is upside: mobile penetration is low, **half of Angola's mobile addressable market is underserved.** The very nature of the Angolan mobile market creates substantial room for differentiation for a new entrant.
- For the fourth licence, the subscriber case is strong, as is the revenue case. **We find the OpEx and CapEx cases to be extremely challenging.**
- Angola Telecom (AT) is a troubled business. But we see solid underlying value in its unique pool of assets; **in this case, the parts look better than the whole.**
- **A critical characteristic of the Angolan ICT market is its remarkable interlocking of interests.** These will be difficult to break.
- This matters, because **success in the Angolan market, in our view, would require a challenging of the existing market structure,** along with tangible regulatory action to foster true competition.
- **The opening of Angola's telecoms market is welcome – but still doesn't go far enough for the opportunity to be truly compelling.**

The Corporate/Premium version of this report includes more than 50+ supporting charts and data points in Excel format (See Report Specs).

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EXECUTIVE SUMMARY: AFRICA'S LAST DIGITAL ELDORADO

MACRO-ECONOMIC CONTEXT: DISTRESS SPURS ACTION

Overview: the third largest economy in sub-Saharan Africa
The Angolan economy is in a state of crisis
Why now: A new president, and a momentum for action

TELECOMS MARKET OVERVIEW

A highly concentrated ~\$1.8bn ICT services market
Three years of significant lost value for the Angolan ICT market
Summary outlook – moderate growth lies ahead
Angola enterprise ICT adoption – The players

THE ANGOLAN MOBILE OPPORTUNITY

Angola mobile: big market, punching below its weight
Mobile addressable market – only ~60% served to date
It's not just the economy: business model and SIM registration dampen market growth
...but mobile broadband is a bright spot
The revenue side: the fourth largest market in sub-Saharan Africa
Breaking down the Angolan pricing model: high and higher
Angola's challenging price context – higher than most, yet still falling in real terms
Angola's tough revenue cycle: this is not just about inflation and FX
Looking for upside: incumbent operators have few options to boost the revenue base
Our projections: competition underpins strongly positive outlook

ANGOLA'S ENTERPRISE ICT OPPORTUNITY

Breaking down Angola's B2B ICT demand
The fixed broadband market: Luanda, Benguela or (mostly) bust
The third largest ICT B2B market in sub-Saharan Africa
B2B is doing better than the broader ICT market
Angola ICT B2B – Our projections

ANGOLA WHOLESALE: THE MAKING OF A HUB

Angola wholesale: more dynamic internationally than domestically
Angola wholesale: building a traffic hub

MAKING THE CASE: ANGOLA'S GREENFIELD LICENCE

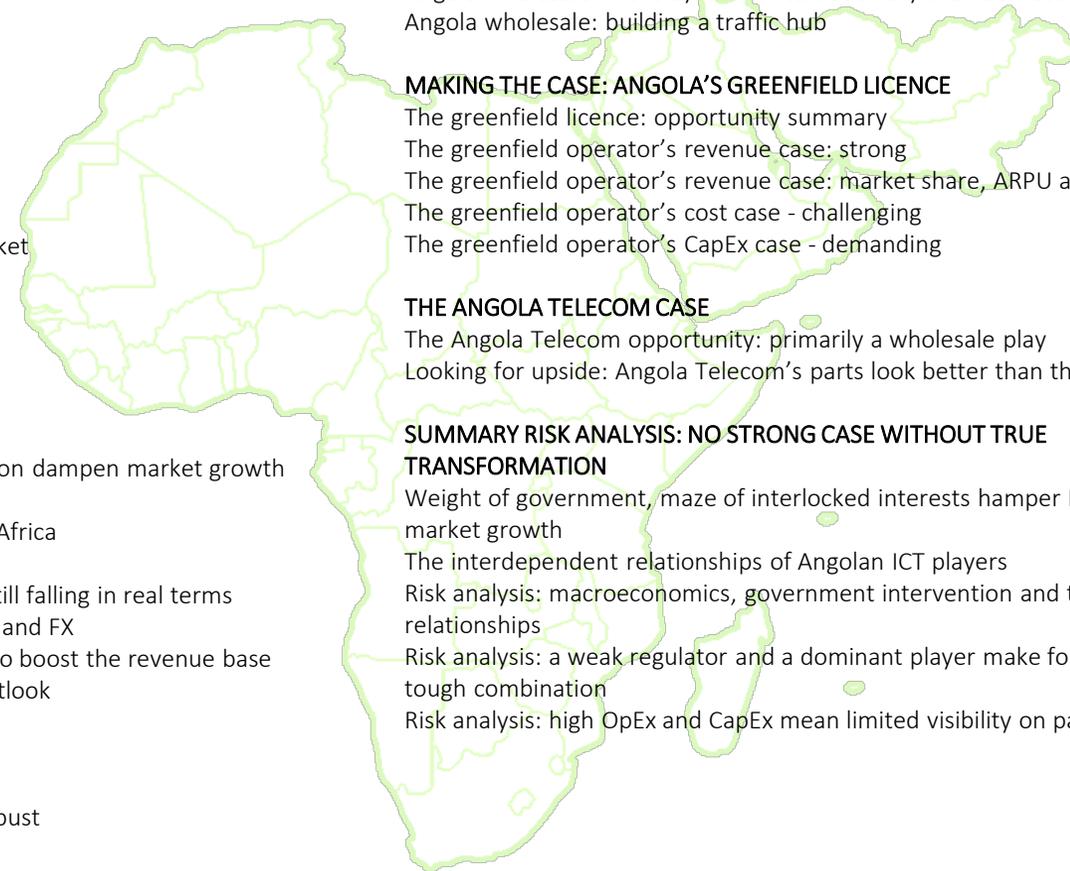
The greenfield licence: opportunity summary
The greenfield operator's revenue case: strong
The greenfield operator's revenue case: market share, ARPU and MBB
The greenfield operator's cost case - challenging
The greenfield operator's CapEx case - demanding

THE ANGOLA TELECOM CASE

The Angola Telecom opportunity: primarily a wholesale play
Looking for upside: Angola Telecom's parts look better than the whole

SUMMARY RISK ANALYSIS: NO STRONG CASE WITHOUT TRUE TRANSFORMATION

Weight of government, maze of interlocked interests hamper ICT market growth
The interdependent relationships of Angolan ICT players
Risk analysis: macroeconomics, government intervention and tangled relationships
Risk analysis: a weak regulator and a dominant player make for a tough combination
Risk analysis: high OpEx and CapEx mean limited visibility on payback





MACRO-ECONOMIC CONTEXT: DISTRESS SPURS ACTION

Real GDP growth: Angola vs. Sample African peers
 Annual inflation in the 25%-40% band – one of the highest levels in Africa
 FX: the kwanza has lost ~60% of its value against the dollar since 2015

TELECOMS MARKET OVERVIEW

Angola ICT revenue by segment: Consumer vs. B2B vs. Wholesale
 Angola ICT revenue by service provider: From Unitel and Movitel to MStelcom and TV Cabo
 Angola ICT services revenue – 2014 vs. 2017
 The impact of FX and inflation on Angola ICT services revenue – 2014 vs. 2017
 The growth outlook: Angola revenue distribution by segment – 2017-22F
 Charting the key players: who they are, where they are strong

THE ANGOLAN MOBILE OPPORTUNITY

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ANGOLA'S ENTERPRISE ICT OPPORTUNITY

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 Angola ICT B2B revenue structure – 2017 E*
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ANGOLA WHOLESALE: THE MAKING OF A HUB

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 Angola international capacity – 2010-2020
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 SACS and MONET cables: key specifications

MAKING THE CASE: ANGOLA'S GREENFIELD LICENCE

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 Angola fourth operator - Share of SIMs and share of mobile revenue 2019-24F
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 Angola vs. Sample African peers – SIMs per employee
 Angola annual mobile CapEx – 2012-17

THE ANGOLA TELECOM CASE

Angola Telecom fixed connections - 2012-17
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 The Angolan web: Angolan ICT players shareholding relationships



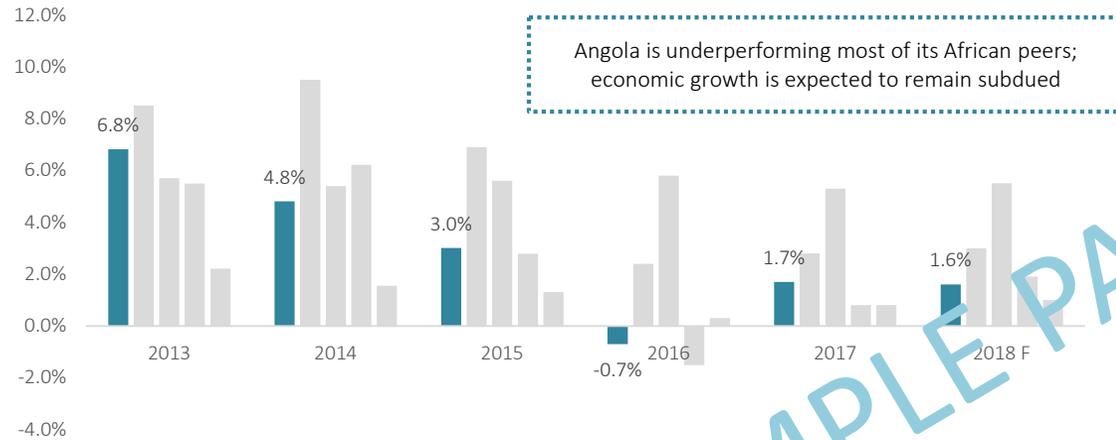
SAMPLE PAGES

The following are sample pages for this report, provided for indicative purposes only, with edits, and in no particular order.



The Angolan economy is in a state of crisis

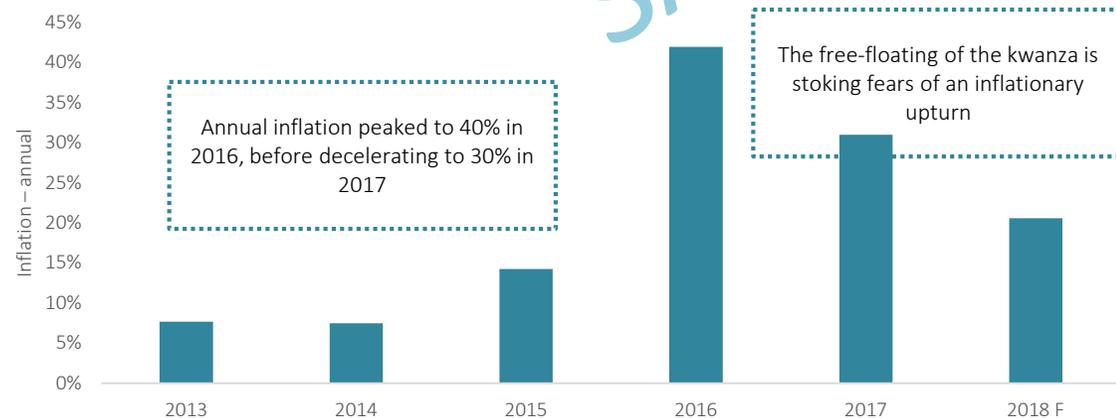
Real GDP growth: Angola vs. Sample African peers



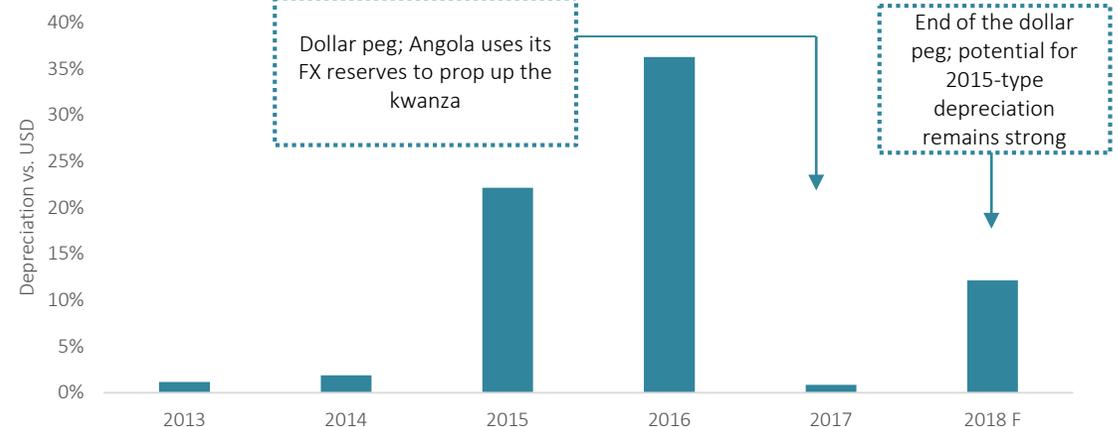
Looking for a way out of recession

- Angola's economy has been in a state of quasi-recession since 2013, due to the sharp slide in oil prices – (~96% of the country's exports). Inflation has been high, reaching ~30% on an annual basis in 2017, and almost 100% on a cumulative basis since 2014.
- The fiscal deficit was around 5.3% of GDP in 2017, increasing the pressure on external borrowing.
- The Angolan Central bank abandoned the pegging of the Angolan kwanza to the dollar in January 2018. The currency floats freely, within a range whose upper band is kept secret to tamp down speculation.
- The next two years will be challenging; the IMF is projecting growth around 1.4%-1.6% in 2018 and 2019, The AFDB's outlook puts growth in the 2.4%-2.8% band, while the Angolan government, more optimistically, forecasts a growth of 4.9%, with a fiscal deficit brought down to ~3% of GDP.

Annual inflation in the 25%-40% band – one of the highest levels in Africa

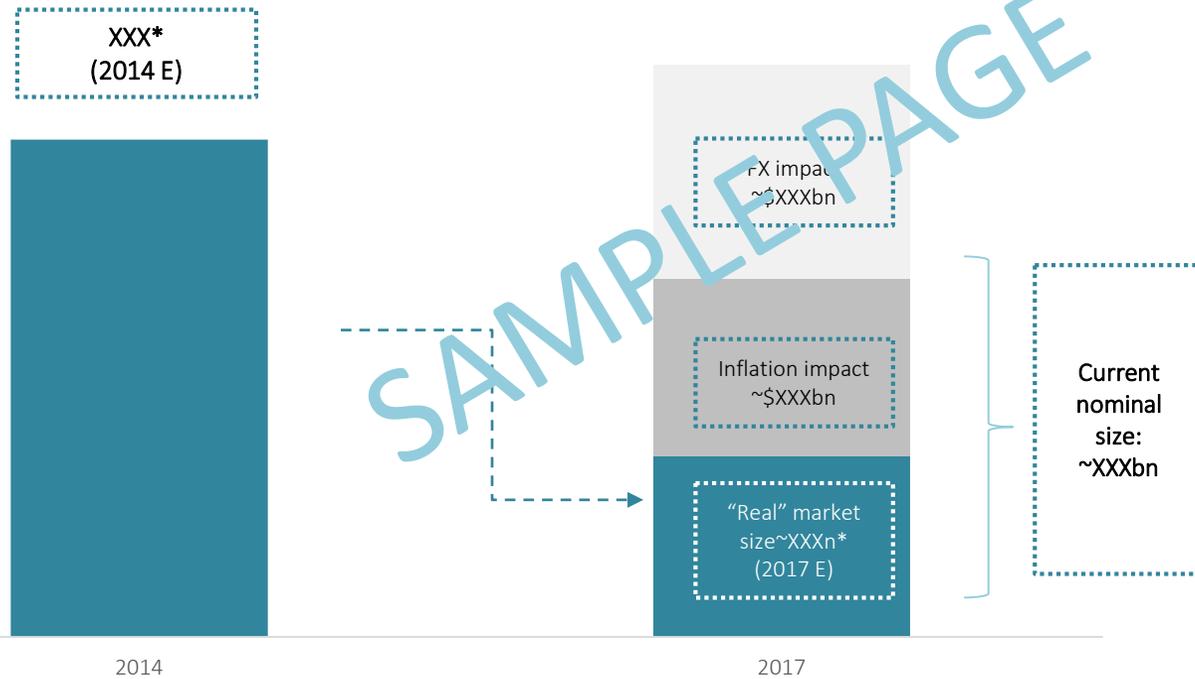


FX: the kwanza has lost ~60% of its value against the dollar since 2015



Three years of significant lost value for the Angolan ICT market

FX, inflation and erosion of value: Angola ICT services revenue – 2014 vs. 2017

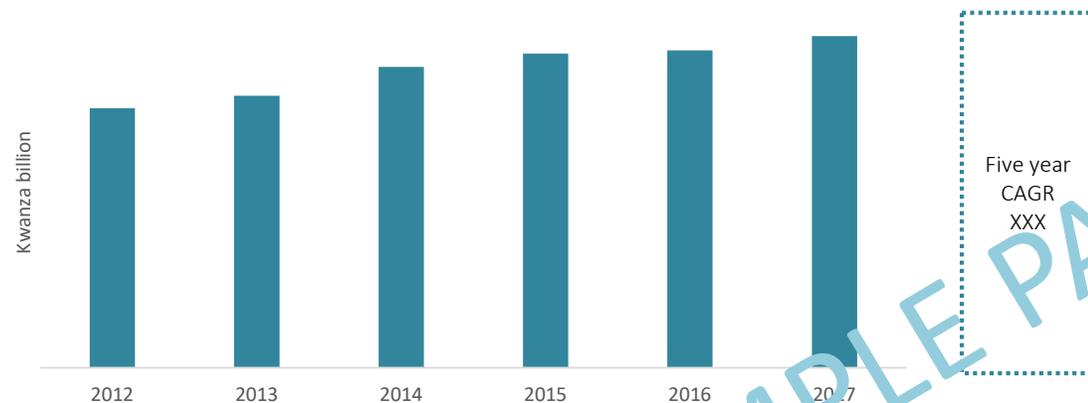


- There is no understating the significant loss of value the Angolan ICT market has experienced over the past four years.
- **We estimate that the Angolan ICT market has lost between XXXbn and XXXbn in US dollar revenue value since 2014**, due to sharp FX and inflation impact.
- This isn't just an Angolan problem; FX depreciation has been a challenge across sub-Saharan Africa. But in Angola, the combination of high inflation and sharp depreciation has been especially devastating.
- **The opening of the Angolan telecoms market to international investors is therefore, in essence, a recovery play.**

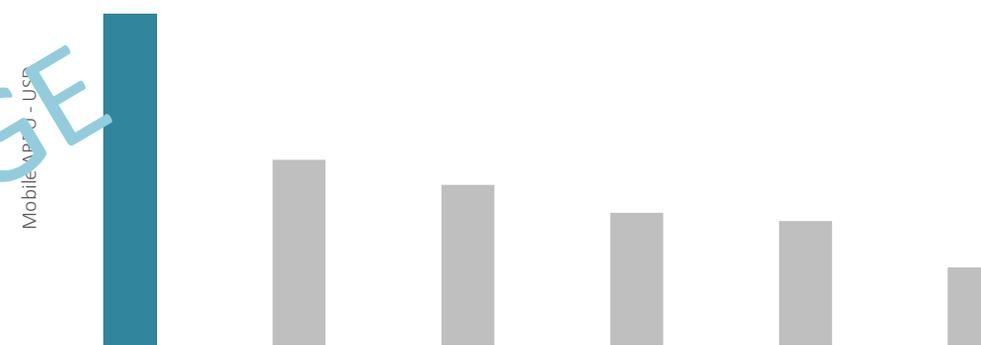
*2017 revenue estimates translated at February 2018 FX
Sources: Xalam Analytics estimates

The revenue side: the fourth largest market in sub-Saharan Africa

Angola mobile services revenue – AOA bn



Angola ARPU vs. Sample African peers



Angola mobile services revenue growth – AOA vs. USD



High ARPU, high revenue base

- Angola has long been something of a best-kept secret in African telecoms. **With an annual revenue around XXX, this is the fourth largest telecoms market in sub-Saharan Africa**, in USD revenue terms. Only South Africa, Nigeria and Kenya are larger – an astonishing feat for a market with only 11m mobile subscriptions.
- Angolan ARPU is high; at around XXX, it is the highest in Africa**, a result of a market and pricing structure that is highly slanted towards mid to upper income segments.
- The combination of high MBB penetration and high data prices suggest a contribution to revenue well above 20%. The data contribution for Movitel is estimated to be higher than the market average, given the company's positioning and its emphasis on migrating users towards data-focused packages.

Source: Xalam Analytics estimates



Standard

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~60 Charts & Visuals



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