EM Credit - Europe

African corporates: $40bn and counting

Industry Overview

15 May 2019 Corrected

$40bn outstanding in African corporate credit

If Africa were a single country (rather than 54), then its corporate issuance would rank No.3 in EEMEA behind UAE and Russia, with $40bn outstanding. It would be No.10 in EM globally, just ahead of Turkey ($36bn) and behind Chile ($42bn). African corporate issuance has nearly doubled since 2014 ($24bn), and sovereign issuance has grown from $26bn to $96bn. Economic growth, demographic changes, and modernization are driving African demand for goods and services. There are an estimated 400 African companies with annual revenues over $1bn, and sub-Saharan Africa's 1bn people have 450mn SIM cards and mobile penetration of 44%.

African corporate returns average +9.7% in 4M19

African corporates have returned an average of 9.7% through April 2019, a striking reversal after returns of -2.9% in 2018. The highest returns have come from some of last year's biggest underperformers, including >10% returns for bonds from First Quantum (Zambia), Puma Energy and Eskom. No African corporates have seen negative returns so far this year. On average, African corporates have net leverage of 2.9x, roughly in line with EM HY (3.0x) and LatAm HY (2.9x). We also look at African corporate revenues generated outside Africa as well as revenues earned in hard currency.

$4.5bn maturing through 2020, up to $10bn supply in 2019

There is $850mn in African corporate credit maturing in the remainder of 2019 (two callable Nigerian sub debt issues), followed by another $3.6bn due in 2020 all from South Africa (including AngloGold, Naspers, FirstRand, and Mondi bonds). So far in 2019 there has been $2.6 in corporate issuance; we expect 2019 issuance of up to $10bn from African banks and corporates overall.

Basic Industries is the largest sector

45% of African issuance is from basic industries (mining, chemicals, paper & packaging), 14% is utilities (Eskom), and telecom / technology names are 10%. Only 9% is financials, lower than in other emerging markets and lower than five years ago. One issue is deciding 'what is Africa,' as South African listed companies like Mondi, Sappi, Sasol and many miners are significant exporters with hard currency revenues. State owned companies are more scarce in Africa than in other emerging markets.

30% of issuance is high grade rated; 26% BBs, 33% Bs

30% of African corporate bonds outstanding are rated Triple B, higher than 21% at FYE17. This is due to rising issuance from higher rated names. 33% of issuance is rated Single B, down from 40% at FYE17, although this is partly lower due to downgrades at Eskom to CCC (this accounts for 12% of issuance).

$3.4bn in defaults since Jan 2013; no defaults in 2018

Since 2013, African issuers have seen defaults from five names on 10 bonds with a face value of $3.4bn. In that timeframe, EEMEA saw $14.6bn in defaults from 28 issuers on 41 bonds. Of the African defaults, Afren and Sea Trucks were not in the ICE BofAML EEMEA corporate index, and Edcon was widely viewed as a European HY issuer.

Refer to important disclosures on page 14 to 16.
12002598

Timestamp: 15 May 2019 06:01AM EDT

Transforming World
Markets: Frontier

Global Emerging Markets | Corporate Credit Europe

Kay Hope
Research Analyst
MLI (UK)
+44 20 7995 9301
kay.hope@baml.com

Ali Dhaloomal
Research Analyst
MLI (UK)
+44 20 7996 9107
ali.dhaloomal@baml.com

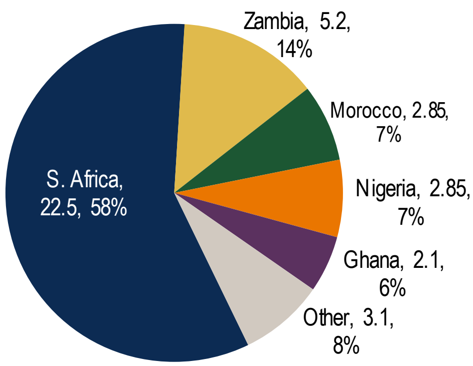
GEMS Corporate Credit Rsch
BofAS
+1 646 855 4096

$40bn in corporates, $96bn in sovereigns

Issuance from African corporates is following sovereigns, and has grown from $24bn outstanding in May 2014 to $40bn as of May 15, 2019. While South Africa remains the largest corporate issuer (with $23bn outstanding, or 58% of the total), another 14% comes from Zambia (First Quantum) and 7% comes from each of Morocco (OCP) and Nigeria (multiple issuers).

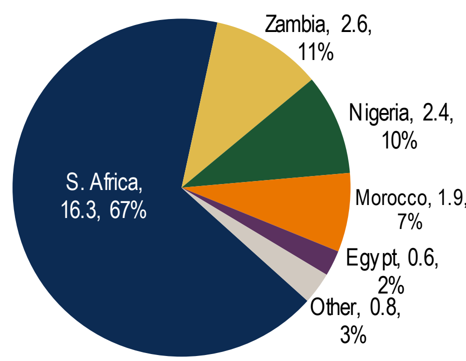
In this report, we rely on figures from the ICE BofAML Global Indices – these include only Eurobonds in USD and EUR, and we exclude FRNs, supranationals, issuance <$250mn, and bonds due within 12 months. In some cases, it is not straightforward to determine exactly what counts as Africa – for instance, the charts below include 'Other,' which includes $1.35bn in bonds from Puma Energy. We have done our best to break out different issuers and countries so that investors can make their own adjustments.

Chart 1: May 2019 - Africa corporate bonds out ($bn)



Source: ICE Data Indices, LLC

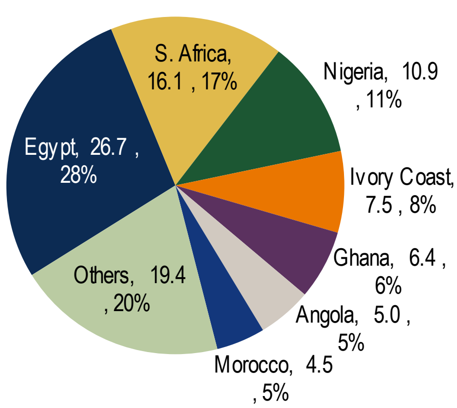
Chart 2: May 2014 - Africa corporate bonds out ($bn)



Source: ICE Data Indices, LLC

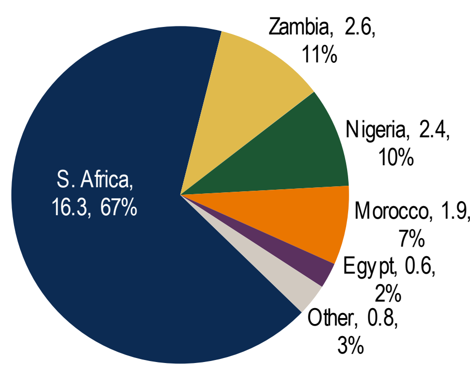
African sovereign debt outstanding has more than tripled since 2014, growing from $29bn (May 2014) to $96bn as of May 2019 – and the countries represented has grown from 13 to 16 (including a 2019 debut issue from Benin). Among sovereigns, Egypt is the biggest issuer ($26.7bn), followed by South Africa ($16.1bn). Some investors might prefer to include countries like Egypt, Morocco ($4.5bn) and Tunisia ($3.0bn) in a separate category, but we have included them here.

Chart 3: May 2019 - Africa sovereign bonds outstanding ($bn)



Source: ICE Data Indices, LLC

Chart 4: May 2014 - Africa sovereign bonds outstanding ($bn)



Source: ICE Data Indices, LLC

Corporate issuance and maturities

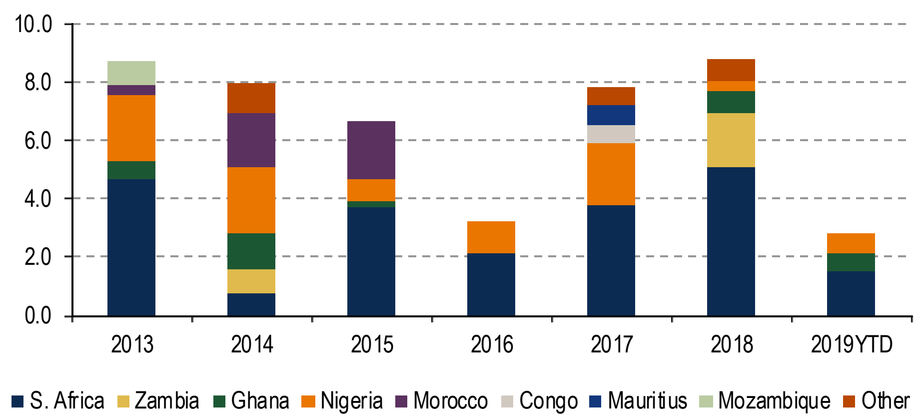
Corporate issuance from Africa has been relatively steady in recent years. In 2013-2019 YTD, annual issuance has been $6-9bn (with exception of 2016), mainly from South Africa, which represents 45% of total issuance. The number of countries represented has increased from five in 2013 to 11 in 2019 YTD, although it can be subjective to assign a country to corporates operating across a wide geography.

With exceptions including Eskom and First Quantum, much of the issuance we see in Africa is a single tranche or two Eurobond maturities. We expect corporate issuance to grow in the coming years in response to rising African demand for goods and services. In 2019 YTD, issuers are already refinancing Eurobonds or undertaking liability management, including corporates like Sappi Ltd (2019 issuance of EUR 450mn), Kosmos Energy ($650mn was issued, in part to call its 2021s).

Higher oil prices in 2018-2019 have facilitated new issuance from the energy sector, including Seplat Petroleum (Nigeria), Sasol (South Africa) and Tullow Oil (Ghana). Tullow and Seplat have benefitted from higher oil, and Sasol is close to completing a petrochemicals facility in the US.

We expect 2019 issuance of up to $10bn from African corporates compared to $2.6bn that has come to market through 15 May 2019. This issuance does not include new bonds from the Africa Finance Corp. ($650mn), for instance, which is classified as a supranational.

Chart 5: Africa corporate issuance, 2013-2019 YTD historical issuance in USD/EUR (in USD mn equiv.)



Source: BofA Merrill Lynch Global Research (EMDL/Supply, Demand and Macro/New Issue Roundup)

Below is issuance by country. Where all of the bonds outstanding are from a single issuer, we have indicated the ticker in brackets for convenience.

Table 1: Africa corporate issuance by country, 2013-2019 YTD, in USD equiv.

Country	2013	2014	2015	2016	2017	2018	YTD 2019
Congo (HLSTWR)	0	0	0	0	600	0	0
Ghana (mainly TLWLN, KOS)	0	553	225	0	0	800	650
Mauritius (LIQTEL)	0	0	0	0	730	0	0
Morocco (BMCE in 2014, OCPMR)	300	1,850	2,000	0	0	0	0
Mozambique (EMATUM)	850	0	0	0	0	0	0
Nigeria	2,260	2,300	750	1,100	2,100	350	0
South Africa	4,676	750	3,727	2,139	3,812	5,075	1,509
Zambia (FMCN)	0	850	0	0	0	1,850	0
Other	1,150	1,938	0	0	600	750	450

Source: BofA Merrill Lynch Global Research (EMDL/Supply, Demand and Macro/New Issue Roundup)

Corporates: $850mn due in 2019, another $3.6bn in 2020

African issuers have a fairly thin maturity calendar for the next 12 months. In June-Dec 2019, a total of $2.6bn in sovereign bonds will fall due from South Africa, Kenya and

Angola. There are also two subordinated bank bonds callable in 2019 (both at par): Access Bank ($400mn/June) and First Bank of Nigeria ($450mn/July). Outside ICE BofAML indices (due to small issue size), there is also $13mn due from Helios Towers Nigeria (now owned by IHS Towers) and $200mn due from Diamond Bank. In the first five months of 2020, South Africa and Egypt have bonds maturing (for a total of $2.6bn), and AngloGold and FirstRand bank will see maturities of $1.2bn. Later in 2020, Naspers has a $1bn maturity in July, Mondi has EUR 500mn due in September, and Gold Fields has $848mn due in October 2020.

Table 2: African maturities – next 12 months – about $5.2bn coming due across corporates and sovereigns, shown in $mn

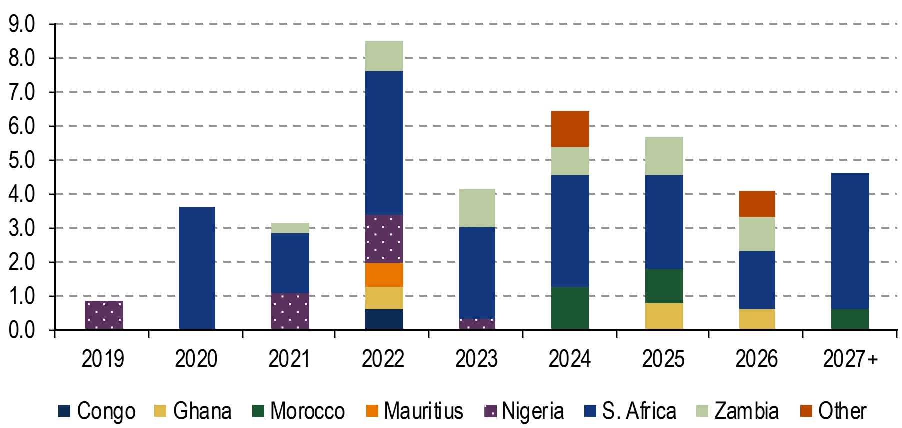
Issuer	Ticker	Coupon	Maturity	Crncy	Rating	Country	Sector	Amount Out
Access Bank – sub debt callable in 2019	ACCESS	9.250	6/24/2021 (2019)	USD	CCC1	Nigeria	Financials	400
First Bank of Nigeria – sub debt callable in 2019	FBNNL	8.000	7/23/2021 (2019)	USD	CCC2	Nigeria	Financials	450
AngloGold	ANGSJ	5.375	4/15/2020	USD	BB1	South Africa	Materials	700
FirstRand	FSRSJ	4.250	4/30/2020	USD	BB1	South Africa	Financials	500
							Total (incl calls)	**2,050**
South Africa	SOAF	6.875	5/27/2019	USD	BB1	South Africa	Agencies/Quasi	1,748
Kenya	KENINT	5.875	6/24/2019	USD	B1	Kenya	Agencies/Quasi	750
Angola	ANGOL	7.000	8/17/2019	USD	B2	Angola	Agencies/Quasi	125
South Africa	SOAF	5.500	3/9/2020	USD	BB1	South Africa	Agencies/Quasi	1,619
Egypt	EGYPT	5.750	4/29/2020	USD	B3	Egypt	Agencies/Quasi	1,000
							Total	**5,242**

Source: BofA Merrill Lynch Global Research, EMDL (Option 2 - GEMs Corporate Credit Strategy / 12 - Strategy Models/Charts / 14 – Maturity Schedules)

The chart below traces maturity by country for African corporates. Zambia issuance is entirely First Quantum and reflects the company's $6bn in bonds. Likewise, Congo issuance is Helios Towers, Ghana is Tullow Oil, Mauritius is Liquid Telecom, Morocco is OCP, and 'Other' is mainly Puma Energy. South Africa has regular maturities in each year except 2019. Nigeria has maturities until 2023 only, reflecting its narrower list of issuers and lower ratings.

The heaviest year for maturities is 2022, which is in line with EEMEA overall (when $63bn in EEMEA corporate debt matures). African corporates will see just over $8bn maturing that year, including $4.8bn from South African names. South African corporates maturities include $1bn each from Transnet and Sasol.

Chart 6: Maturities by country for Africa (in USD bn)



Source: ICE Data Indices, LLC

Basic industry is the dominant sector

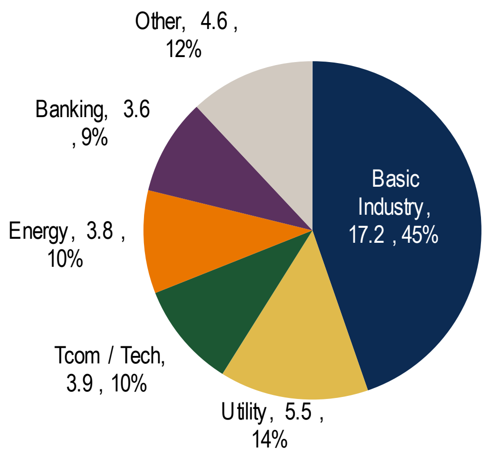
The key sectors for African issuance have not changed much in the past decade: basic industries (including metals & mining, pulp & paper, and chemicals & fertilizers) and utilities top the list. Financials are smaller today than they were in 2014 in proportional terms (now 9%) and in the absolute amount outstanding ($3.6bn). Telecoms/technology has grown to $3.9bn outstanding, with issuance from MTN Group, the largest mobile operator in Africa, as well as Helios Towers, IHS Nigeria, and Liquid Telecom. In energy (now $3.8bn outstanding), Tullow Oil, Puma and Seplat all issued in 2018, and Kosmos Energy issued $650mn in 2019.

The category 'Others' is 12% of issuance (May 2019) – this includes media company Naspers (through Myriad International), South Africa's multinational internet and media company whose main asset is a stake in Tencent. The other major component is South Africa's largest freight logistics company, Transnet, which is 100% state owned.

Fewer quasi-sovereigns among African corps

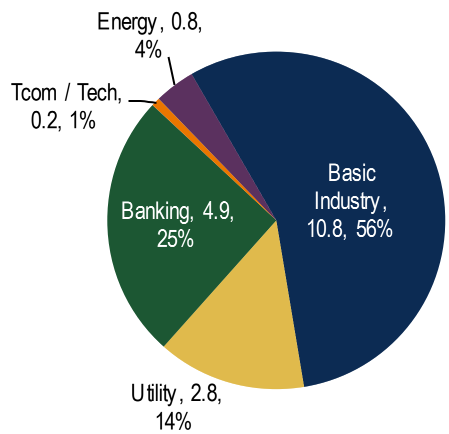
Unlike many other emerging markets, the overall proportion of state-owned companies in Africa is modest. In Global EM (EMCB), quasi-sovereigns are 49% of total issuance and 7 of the 10 largest issuers. In Africa, state-owned names are among the largest issuers, but they are only 24% of issuance. Eskom ($5.5bn) and Transnet ($1bn) are 100% owned by the government of South Africa, and Morocco's OCP ($2.85bn out) is also 100% state owned. The remaining issuers do not have meaningful state ownership.

Chart 7: Africa Sectors - May 2019 ($bn equiv.)



Source: ICE Data Indices, LLC

Chart 8: Africa Sectors - May 2014 ($bn equiv.)



Source: ICE Data Indices, LLC

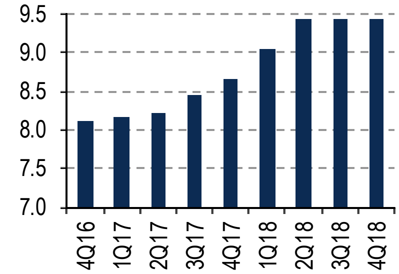
Basic Materials

Basic Industries has historically been the largest sector in Africa (45% of the total in May 2019) with bond issuance growing to $17.2bn from $10.8bn in May 2014. South Africa's Sasol has $3.25bn in bonds out, making it the largest single issuer in the sector today. Zambian metals & mining company First Quantum has $5.2bn bonds outstanding, and Moroccan (state owned) petrochemical name OCP has $2.85bn.

In Basic Materials, LTM EBITDA has increased to $9.4bn in FYE18 from $8.1bn in 4Q16, mainly on higher commodity prices. Sasol EBITDA in particular has increased (by almost $1bn). At the same time, capex has fallen to $7.6bn (4Q18) since it peaked at $8.1bn (2Q17) – much of this is due to lower spending at OCP. OCP is nearing completion of the first phase of a major investment program that includes a slurry pipeline, expansion of open pit mine capacity, beneficiation, and expansion of port infrastructure.

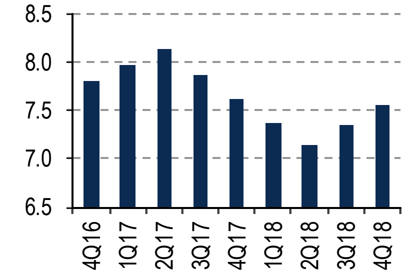
Gross and net leverage are little changed since 4Q17, but are still higher than 4Q16. Debt and leverage have moved most at OCP and Sasol. Gross leverage at Sasol has risen from about 0.8x in LTM 2Q15 to about 2.0x at 4Q18, while leverage at First Quantum, Tullow Oil and the telecoms names has moved downward. Sasol is about to launch its Lake Charles Chemicals Project in Louisiana, USA, which includes a 1.5mtpa ethane cracker and six downstream chemical units. Sasol has invested $10.9bn of the $11.8bn of needed capex for the project. Contracts for the project are in place and 80% of LCCP should be launched in summer 2019.

Chart 9: Basic Materials: LTM EBITDA ($bn)



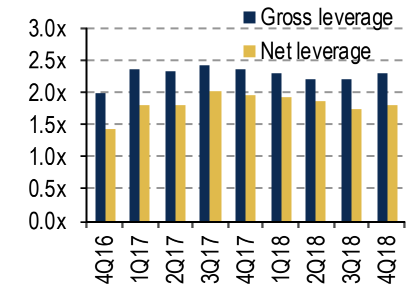
Source: BofA Merrill Lynch Global Research, Company reports

Chart 10: Basic Materials: LTM Capex ($bn)



Source: BofA Merrill Lynch Global Research, Company reports

Chart 11: Basic Materials: Gross & net lvg



Source: BofA Merrill Lynch Global Research, Company reports

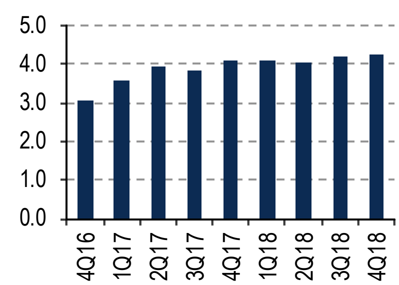
Telecommunications and Technology

The African Telecoms and Technology sector has seen rising EBITDA and largely stable leverage for LTM 4Q16-4Q18, with average gross and net leverage of 2.0x and 1.6x, respectively. The companies in this sector have a diverse customer base across Africa (particularly MTN, operating in 21 African countries, and Liquid Telecom in 13). Revenues for names like MTN are mainly in local currency, although Nigerian revenues have a USD link (with a lag). IHS and Helios Towers also have a high proportion of USD-linked revenues (again, IHS revenues are from Nigeria, so there is a lag).

EBITDA has risen across all of the telecom and tech names in our screen (MTN, IHS, Helios Towers and Liquid Tel) due to growing demand for telecom, internet and cloud-based services (depending on the company) as well as acquisitions and cost savings. EBITDA for the sector was $4.3bn at FYE18. Expanding 3G, 4G and 4G/LTE coverage has also driven demand. EBITDA growth has outpaced borrowing, allowing leverage to fall. The telecom & tech sector is guiding for another strong year in 2019.

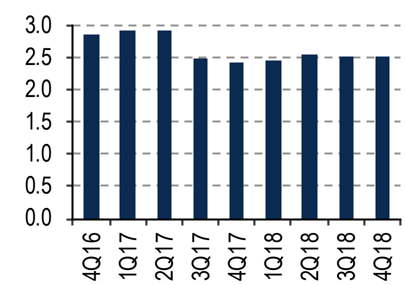
Capex is varied but rising in the sector due to strong market competition that drives companies to increase investment to reach more clients. As a result, capex is mainly used to upgrade and extend infrastructure. MTN, which is Africa's largest telco issuer, had a capex of $2.1 in LTM4Q18, which was mainly used for the roll out of 3G and 4G sites.

Chart 12: Telecom & Tech: LTM EBITDA ($bn)



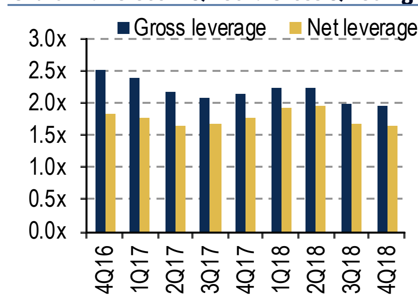
Source: BofA Merrill Lynch Global Research, Company reports

Chart 13: Telecom & Tech: LTM Capex ($bn)



Source: BofA Merrill Lynch Global Research, Company reports

Chart 14: Telecom & Tech: Gross & net lvg (x)



Source: BofA Merrill Lynch Global Research, Company reports

Varied fundamentals across the region

African corporates have varied fundamentals, which is in line with ratings from BBB to CCC. Only about $9.4bn in corporate issuance (out of $40bn) comes from quasi-sovereigns (Eskom, Transnet and OCP), or about 24%.

As with other emerging markets, African corporates are heavily skewed toward commodity companies. Metals & mining, chemicals, energy – most of these industries can charge in hard currency for commodity products. These companies also tend to have a range of customers. African issuers are not limited to customer relationships in Africa – many have a high proportion of sales elsewhere. In the table below, we have estimated the proportion of revenues generated in Africa for each company. We also estimate the proportion of sales in USD, EUR, and CHF, or the proportion of sales that is linked to USD. Gold, oil, diamonds and copper are sold at world prices in hard currency, benefitting names like Anglogold, Gold Fields, Kosmos Energy, Petra Diamonds and Tullow Oil. In some cases, sales are made in ZAR that is USD-linked. Companies like these receive 85% of revenues or more in hard currencies (or are closely linked).

Some of the companies below do have significant exposures to Africa and to local currency. This is true for Eskom, Transnet and MTN. MTN's Nigerian revenues are generally USD-linked, but with a lag that can be painful if NGN devalues sharply at the wrong time. IHS Nigeria has USD-linked contracts that reset quarterly, semi-annually and annually to help mitigate this risk.

Some of the names on our list face very specific risks. Liquid Telecom earns close to 45% of its revenues in ZAR, and 34% of EBITDA comes from Zimbabwe. While the Zimbabwe business is cash flow generative, it is challenging to take hard currency out of the country. $102mn of $139mn of Liquid's cash sat in Zimbabwe at 30 Nov 2018, and the Zimbabwean currency is devaluing.

Puma Energy owns and operates fuel storage facilities in addition to distributing and selling petroleum products, lubricants and aviation products. The company operates in highly regulated markets worldwide, although its largest market is Angola. Devaluation of the Angolan kwanza and a freeze on fuel prices are squeezing margins. Regulations do not allow Puma to raise fuel prices to consumers, which drove revenues and EBITDA down in 2018.

Table 3: Key African corporate issuers – estimated % of revenues generated in Africa plus proportion of sales in hard currencies (USD, EUR, CHF, etc.)

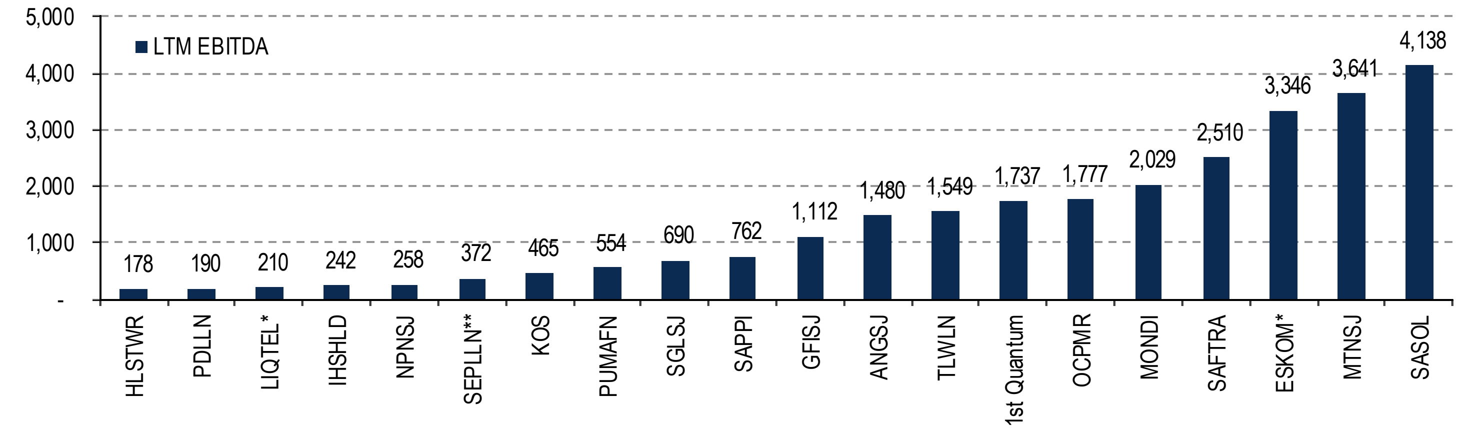
Company	Industry	Ticker	Africa as % of sales	FX as % of sales	Comment
Anglogold	Metals/Mining	ANGSJ	40%	High	Receives cash outside of Africa, although most capex is in Africa
Eskom	Utility	ESKOM	100%	Low	The vast majority of revenues is from domestic sales
First Quantum	Metals/Mining	FMCN	25%	High	Copper producer in Zambia (606kt in 2018), sales mainly in USD
Gold Fields	Metals/Mining	GFISJ	10%	High	USD/oz gold price, revenues are USD-linked
Helios Towers	Telecom/Tech	HLSTWR	100%	Mid/High	57% of revenues in USD or pegged to EUR. Ops in DRC, Tanzania, Congo B, Ghana, SoAf
IHS Nigeria	Telecom/Tech	IHSHLD	100%	Mid	Revenues received in NGN, but USD-indexed (with a lag)
Kosmos Energy	Energy	KOS	<10%	High	Oil company in offshore Ghana and Guinea (45kbpd), expanding to Mexico
Liquid Telecom	Telecom/Tech	LIQTEL	75%	Mid	$102mn of $139mn in cash is held in USD equiv. in Zimbabwe, ~43% of revenues in ZAR
Mondi Plc	Paper/Packaging	MNDILN	<10%	High	Revenues: 38% W Europe, 22% EEMEA, 17% Americas, 10% Russia, 13% Other
MTN Group	Telecom/Tech	MTNSJ	90%	Low	%s are estimated; 27% of revenue is Nigeria (NGN), indexed to USD (with a lag)
Myriad Invts/Naspers	Media	NPNSJ	27%	Mid	57% of revenues from Asia, 13% Europe, 2% LatAm, 1% Other
OCP Group	Chemicals	OCPMR	25%	High	100% state owned, assets and production in Morocco, production mainly exported
Petra Diamonds	Metals/Mining	PDLLN	100%	High	All sales in S. Africa, sales are USD-linked, but in ZAR
Puma Energy	Energy	PUMAFN	32%	Mid	20% of gross profit from Angola (local currency); some countries have USD links
Sappi Ltd	Paper/Packaging	SAPPI	10%	High	Revenues are 41% Europe, 23% N. America, 26% Asia/other, 10% Africa
Sasol Ltd	Chemicals	SASOL	50%	High	Lake Charles to ramp up will reduce Africa revenues. Revenues are or USD-linked
Seplat	Energy	SEPLLN	<10%	High	Receive in USD
Sibanye/Stillwater	Metals/Mining	SGLSJ	70%	High	Sales in South Africa, but USD-linked
Transnet	Transport	SAFTRA	100%	Low	100% state owned; 55% of group EBITDA is rail, 35% ports, and pipelines 10%
Tullow Oil	Energy	TLWLN	<10%	High	70-75% of production is located in Ghana

Source: Company reports, Moody's, Standard & Poor's, Fitch Connect, BofA Merrill Lynch Global Research

How many African companies have >$1bn in annual revenues?

African issuers vary considerably by size, although investors are often surprised to hear that there are ca.400 African companies generating over $1bn in annual revenues (McKinsey). Africa's largest Eurobond issuers by EBITDA (>$1.5bn EBITDA) tend to be either state owned or IG rated. Exceptions include AngloGold, MTN (formerly IG) and Tullow Oil. In our view, the higher proportion of smaller companies (EBITDA <$500mn) partly reflects less state ownership / fewer 'national champion' issuers. Among African issuers, 35% (or 7 out of 20) have LTM EBITDA <$500mn, and three (15%) are quasi-sovereigns. Among EEMEA issuers we follow, 22 of 80 (27.5%) have LTM EBITDA <$500mn and 21 (or 26%) are quasi-sovereigns.

Chart 15: LTM FY18 EBITDA by company (US$mn)

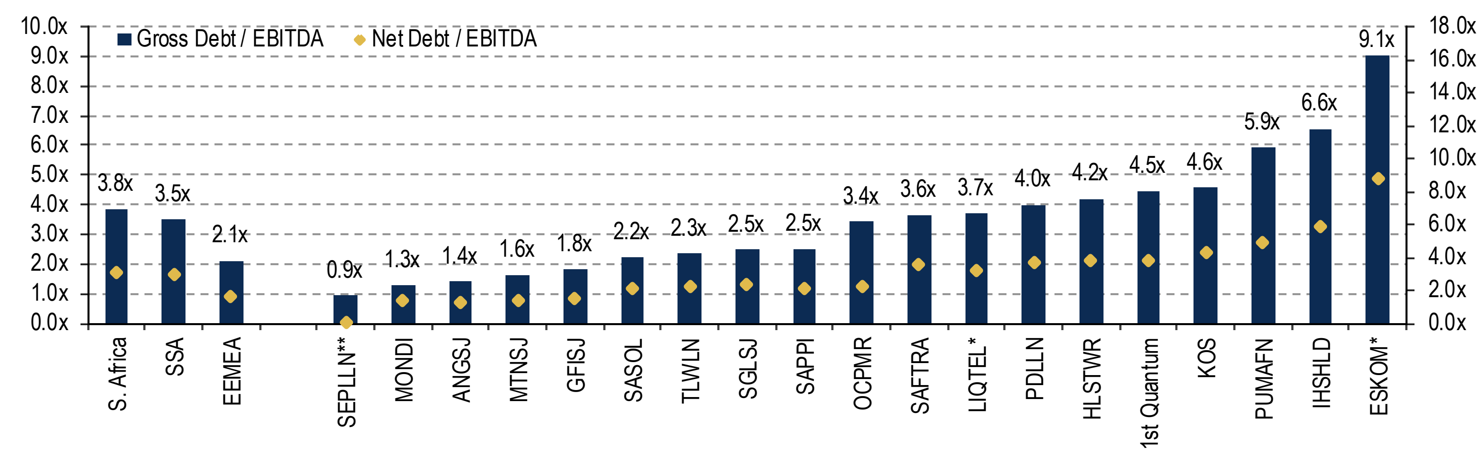


Source: (*) LTM data is as of LTM3Q18; (**) LTM data is as of LTM1Q19
Source: Company reports, BofA Merrill Lynch Global Research

Net leverage in Africa is higher than for EEMEA overall (EEMEA overall has more large, higher rated companies in places like Russia and the Middle East). In fact, the simple average across our sub-Saharan Africa sample (ex-OCP) is gross leverage of 3.5x and net leverage of 2.9x. This is lower gross leverage than US HY (4.3x) and EM HY (4.3x) and considerably lower than Asia HY (6.7x). On a net leverage basis, African corporates (2.9x) are roughly in line with EM HY (3.0x) and Latam HY (2.9x). The highest gross leverage in Africa is seen at state-owned companies Eskom (9.6x) and OCP (8.4x). Companies like IHS and Helios Towers have seen falling leverage as EBITDA grows.

Chart 16: Gross and net leverage by corporate, including averages for South Africa, Sub-Saharan Africa and EEMEA (shown in turns of leverage)*

Eskom figures as of LTM 3Q18, Liquid Telecom leverage as of LTM3Q19 (30 Nov 2018), Seplat is as of LTM 1Q19

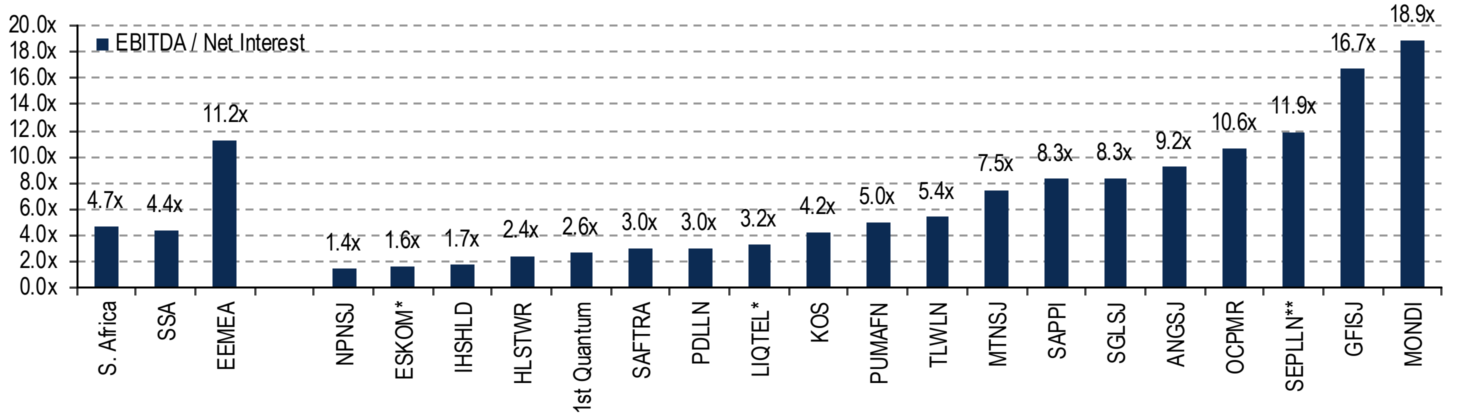


*Naspers excluded from chart to avoid distortion . At FYE18, Naspers's reported gross debt was 17.7x, although net leverage was close to zero.
Source: Company reports, BofA Merrill Lynch Global Research

Interest coverage is lower in Africa, although companies with low interest coverage tend to hold higher cash positions. By contrast, interest coverage is very high for EEMEA overall due to Russia (>18x) and MENA (>13x). Short-term debt is generally low among African corporates, averaging just 9% of total debt across our sample. Only Sibanye and SAFTRA reported short-term debt that was over 20% of total debt at FYE18.

Chart 17: Interest coverage by corporate, including averages for South Africa, Sub-Saharan Africa and EEMEA (shown in turns of leverage)

Eskom figures as of LTM 3Q18, Liquid Telecom leverage as of LTM 3Q19 (30 Nov 2018), Seplat is as of LTM 1Q19



*Sasol excluded from chart to avoid distortion. At FYE18, Sasol's reported interest coverage was 36.4x.

Source: Company reports, BofA Merrill Lynch Global Research

Banks – less issuance vs other regions

Banks are a smaller sector in Africa than in other emerging markets, at just 9% of the issuance outstanding ($3.6bn). In Global emerging markets (EMCB index), banks are 14.5% of the total, and in EEMEA, they are 21.1%. The bank issuers in Africa are not state owned, making them different from names like Sberbank in Russia or Qatar National Bank, for instance. Our index does not include supranational banks, so names like the African Development Bank ($9bn in bonds outstanding) and Afreximbank ($2.1bn outstanding) are excluded (they are part of an ICE BofAML Supranationals index, E0SU).

African banks are closely linked to the commodity cycle, and the downturn in commodity prices in 2014-2016 had a strong negative impact. As prices have rebounded, banks' performance has improved. Nigerian banks were top performers in 2017 – First Bank of Nigeria 2019s returned 35%, followed by Access Bank 2021s (23.7%) and 2019s (23.1%). FirstRand 2020s (South Africa) had the lowest returns for 2017, at 4.4% (BB1 rating). Total returns for African banks were positive in 2018 when the average return for African names was -2.9%, including an 8.5% return at Fidelity Bank. Returns have been positive so far in 2019 as well, Absa Group, Fidelity Bank, United Bank for Africa and Zenith Bank all returning over 7%. Most issuance is senior unsecured, although South Africa's Absa Group and FirstRand each have a subordinated bond outstanding.

Table 4: Bank issuance from Africa is only 9% of the total African corporate bonds outstanding, in USD equiv.

Description	Ticker	Coupon	Maturity	Avg Rating	Country	Ranking	Currency	Face Value
Absa Group Ltd	ABGSJ	6.25	4/25/2023	BB2	S. Africa	T2	USD	400
Access Bank Plc	ACCESS	10.5	10/19/2021	B2	Nigeria	SENR	USD	300
Ecobank Transnational Incorporated	ETINL	9.5	4/18/2024	B3	Togo	SENR	USD	450
Fidelity Bank Plc	FIDBAN	10.5	10/16/2022	B3	Nigeria	SENR	USD	400
FirstRand Bank Limited	FSRSJ	6.25	4/23/2023	BB2	S. Africa	T2	USD	500
FirstRand Bank Limited	FSRSJ	4.25	4/30/2020	BB1	S. Africa	SENR	USD	500
United Bank for Africa Plc	UBANL	7.75	8/6/2022	B2	Nigeria	SENR	USD	500
Zenith Bank Plc	ZENITH	7.375	5/30/2022	B2	Nigeria	SENR	USD	500
							USD	**3,550**

Source: ICE Data Indices, LLC

Higher returns, wider spreads in Africa

African corporate credit returns were +9.7% through 30 April, beating major EM indices and presenting a striking turnaround from 2018. Returns have been particularly strong for the names that underperformed last year, particularly large issuers including First Quantum, Puma Energy and Eskom (all >10%). The lowest returners have still seen positive returns this year – these include Sappi, mainly on underperformance in its 2032s, and Liquid Telecom 2022s (+3.1%). African corporates have outperformed EM (EMCB) and EM indices in 4M19 and in in four of the past five years. They have outperformed EM BBs in three of the past five years (and in 4M19 as well).

The table below shows a weighted average total return for issuers with multiple maturities. The total return for each bond comes from the ICE BofAML Index System.

Table 5: Total returns by issuer, 2014-4M19 (figures in %)

Name	2014	2015	2016	2017	2018	4M19
Absa Group Ltd	--	--	--	--	--	8.7
Access Bank Plc	-1.6	6.6	17.1	23.3	3.8	5.9
African Bank	-25.5	13.3	--	--	--	--
AngloGold Ashanti Holdings plc	10.9	-4.8	30.1	11.3	0.9	6.3
BMCE / Banque Maroc. du Commerce Ext.	--	6.8	6.1	--	--	--
Diamond Bank	--	14.9	-9.1	--	--	--
Edcon Ltd	-28.9	-11.6	-76.2	--	--	--
Eskom Holdings	7.4	-8.8	23.3	6.7	-1.8	10.8
Fidelity Bank Plc	0.2	0	12.8	--	8.3	8.5
First Bank of Nigeria	-2.3	0.2	7.4	35.1	--	--
First Quantum Minerals Ltd.	--	-22.7	70.8	12.5	-8.9	16.0
FirstRand Bank Limited	3.3	--	6.7	4.4	2.3	4.3
Gold Fields Limited	9.5	-6	38.1	8.7	1.7	4.0
Grow thpoint Properties International	--	--	--	--	--	4.8
Guaranty Trust Bank plc	1.3	5	15.4	--	--	--
Helios Tow ers (HLSTWR)	--	--	--	--	2.6	6.3
IHS Netherlands Holdco BV	--	--	--	14.7	2.5	6.0
Kosmos Energy Ltd	--	--	--	10.8	5.0	--
Liquid Telecom	--	--	--	--	3.4	3.1
Mondi Finance Plc	--	--	3.7	1.2	-0.4	4.2
MTN Group	--	-6.8	10.9	12.7	-3.0	7.3
My riad International (Naspers)	6.1	2.3	9	9.6	-1.5	7.4
Office Cherifien des Phosphates (OCP)	--	0.4	7.8	11.8	-0.3	5.3
Petra Diamonds	--	--	37.2	--	-1.8	7.6
Puma International	--	8.4	11.9	5.5	-17.0	14.2
Sappi Papier Holding GmbH	9.6	5	11.2	2.1	1.8	1.2
Sasol Group	11.4	-3.5	13.5	6.6	0.0	8.5
Seplat Petroleum	--	--	--	--	--	8.1
Sev en Energy	--	-34.3	--	--	--	--
Standard Bank	5.5	--	--	--	--	--
Stillw ater Mining / Sibanye	--	--	--	--	-2.9	9.8
Transnet SOC Limited	7.9	-2.6	12.7	6.9	-0.4	6.4
Tullow Oil	-12.9	-11.8	47.2	13.6	0.9	9.8
United Bank for Africa Plc	--	--	--	--	3.7	7.5
Zenith Bank Plc	--	5.4	15.4	11.6	2.5	7.8
African corporate returns overall	**4.2**	**-0.1**	**9.8**	**17.9**	**-2.9**	**9.7**
ICE BofAML Corporate Index Returns	**2014**	**2015**	**2016**	**2017**	**2018**	**4M19**
EM Corp Plus Index (EMCB) – avg rating BBB2	3.6	1.1	9.6	6.9	-1.3	5.6
EEMEA Corp Index (EMRE) – avg rating BBB3	-1.6	8.9	8.1	5.3	-1.0	5.6
EM BBB Index (EM2B)	4.1	-1.4	7.5	7.5	-2.2	6.3
EM BB Index (EM3B)	2.4	2.4	13.5	8.7	-1.4	7.1
EM B Index (EM6B)	-5.9	2.2	22.8	10.3	-4.1	6.0

*'—' indicates no bonds outstanding for the full year. Figures are a weighted average when multiple issuers are outstanding.

African corporate returns are as calculated by the ICE BofAML Global Index System.

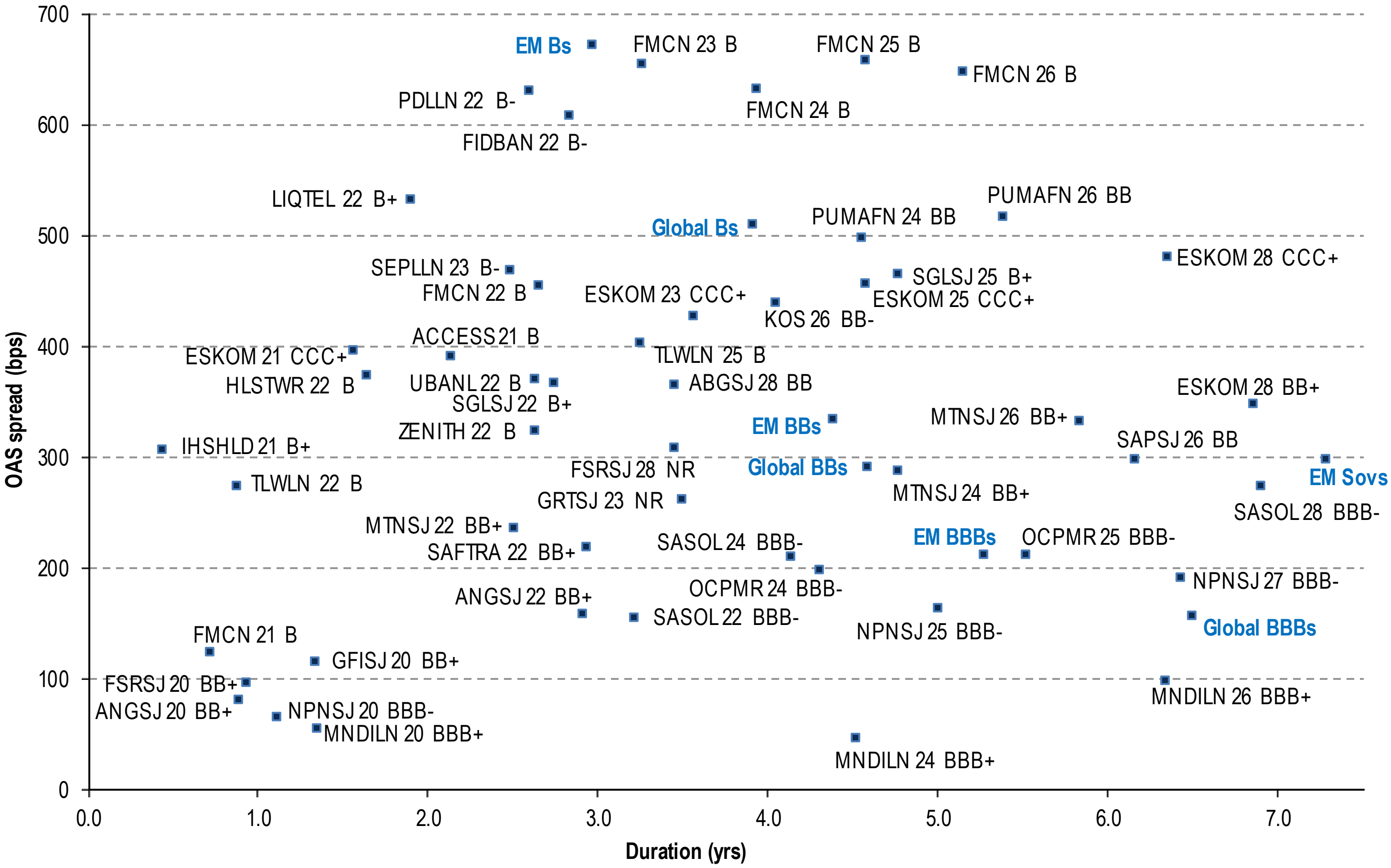
Source: BofA Merrill Lynch Global Research, ICE Data Indices, LLC.

African corporates offer a pick up compared to global peers with similar ratings – this is typical in other emerging markets as well. Among Single Bs, however, African names are generally indicated at tighter levels than EM Bs. This is partly due to wide spreads for Single Bs from China and Argentina, although African Single Bs also tend to have short duration. First Quantum/FMCN is an exception to this, and it trades between EM

Bs and Global Bs. 100% state owned Eskom is also indicated inside EM Bs despite a composite rating of CCC+, but this is a result of the 100% state ownership.

Among high grade-rated names, Sasol and OCP are indicated at similar levels to EM BBBs, although Mondi is tighter than Global BBBs (Mondi is the highest-rated African corporate). Anglogold is an issuer that trades in line with BBBs despite BB+ ratings. Overall, spreads are highest in countries with lower ratings – which is not much of a surprise.

Chart 18: African corporates by OAS spread and years duration – each ticker also includes composite rating*



*Composite rating as determined by Bloomberg.
Source: BofA Merrill Lynch Global Research, Bloomberg

Ratings (A)BC – from BBB to CCC

33.0% of African corporates (by amount outstanding) have an average rating of B, and 25.7% are BB. The proportion of Single Bs has decreased significantly from 40.2% (7pp in 16 months), mainly as a result of upgrades from HY to IG, reaching 29.6% from 21.3% in FY17. As we go to print, 11.7% of African corporates have CCC ratings (all are Eskom bonds without state guarantees), a slight increased from the 6.3% seen in FYE17.

Overall, 30% of African issuance is IG-rated – all of it in South Africa and Morocco (OCP). High grade issuers in South Africa include Mondi (BBB1, the highest rating in South Africa), Myriad (Naspers, at BBB3), Sasol and Growthpoint. We expect countries with higher sovereign ratings (like South Africa at Baa3/BB+/BB+ and Morocco at Ba1/BBB-/BBB-) to continue to have a higher proportion of higher-rated corporates.

Table 6: African corporate bonds outstanding by rating (%)

	Africa	
	2017	**4MQ19**
AA	0.0%	0.0%
A	0.0%	0.0%
BBB	21.3%	29.6%
BB	**32.1%**	**25.7%**
B	**40.2%**	**33.0%**
CCC	6.3%	11.7%
CC	0.0%	0.0%
C	0.0%	0.0%
IG	**21%**	**30%**
HY	**79%**	**70%**
Average	**BB3**	**BB3**

Source: ICE Data Indices, LLC

Table 7: African corporate bonds outstanding by rating ($bn)

	Africa	
	2017	**4MQ19**
AA	-	-
A	-	-
BBB	7.3	11.3
BB	**10.9**	**9.9**
B	**13.7**	**12.6**
CCC	2.2	4.5
CC	-	-
C	-	-
Total ($bn)	**34.0**	**38.3**
IG	**21%**	**30%**
HY	**79%**	**70%**

Source: ICE Data Indices, LLC

Defaults: 5 issuers, $3.4bn since 2013

Since 2013, African corporates have seen $3.4bn in defaults, affecting five issuers and a total of 10 bond issues. The defaults came from names in South Africa (African Bank and Edcon) and Nigeria (Afren, Seven Energy, Sea Trucks). Neither Afren nor Sea Trucks were in the ICE BofAML indices, and Edcon was viewed as a European high yield issuer. There were no African corporate defaults in 2018.

The table below lists the defaulted issuers from Africa for 2013-4M19. In that timeframe, EEMEA has seen $14.6bn in defaults from 28 issuers on 41bonds. Latam issuers have seen defaults from 34 names on 64 bonds with a face value of $53bn.

Mozambique's Ematum 6.305% 2023 bonds (also called the 'tuna bonds') are not included in the list below. Those bonds, issued in 2013, were exchanged into Mozambique sovereign bonds in April 2016 (MOZAM 10.5% 2023). Mozambique missed a coupon on the exchanged bonds in January 2017, although this was no longer considered a corporate default at that stage.

Table 8: African corporate defaults, 2013-4M19

Month	Ticker	Issuer Name	Country	Region	Type Of Default	# of Bonds	Amt (US$mn)	Comment
31/08/2014	ABLSJ	African Bank Limited	South Africa	EMEA	Chapter 11	2	700	
31/07/2015	AFRLN	Afren	Nigeria	EMEA	Bankruptcy	3	855	not in index
30/04/2016	EDCON	Edcon Ltd	South Africa	EMEA	Missed interest payment	3	945	European HY issuer, LBO
30/11/2016	SEVENE	Seven Energy	Nigeria	EMEA	Missed interest payment	1	300	
31/01/2017	SEATRK	Sea Trucks Group Ltd	Nigeria	EMEA	Missed interest payment	1	575	not in index

Source: BofA Merrill Lynch Global Research, EMDL (Option 2 - GEMs Corporate Credit Strategy / 12 - Strategy Models/Charts / 16 - Default Forecast)

Special Disclosures

Some of the securities discussed herein should only be considered for inclusion in accounts qualified for high risk investment.

Disclosures

Important Disclosures

BofA Merrill Lynch Credit Opinion Key

BofA Merrill Lynch Global Research provides recommendations on an issuer's bonds (including corporate and sovereign external debt securities), capital securities, equity preferreds and CDS as described below. Convertible securities are not rated. An issuer level recommendation may also be provided for an issuer as explained below. BofA Merrill Lynch Global Research credit recommendations are assigned using a three-month time horizon.

Issuer Recommendations: If an issuer credit recommendation is provided, it is applicable to bonds and capital securities of the issuer except bonds and capital securities specifically referenced in the report with a different credit recommendation. Where there is no issuer credit recommendation, only individual bonds and capital securities with specific recommendations are covered. CDS and equity preferreds are rated separately and issuer recommendations do not apply to them.

BofA Merrill Lynch Global Research credit recommendations are assigned using a three-month time horizon:
Overweight: Spreads and /or excess returns are likely to outperform the relevant and comparable market over the next three months.
Marketweight: Spreads and/or excess returns are likely to perform in-line with the relevant and comparable market over the next three months.
Underweight: Spreads and/or excess returns are likely to underperform the relevant and comparable market over the next three months.

BofA Merrill Lynch Global Research uses the following rating system with respect to Credit Default Swaps (CDS):
Buy Protection: Buy CDS, therefore going short credit risk.
Neutral: No purchase or sale of CDS is recommended.
Sell Protection: Sell CDS, therefore going long credit risk.

BofA Merrill Lynch Research Personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.
BofA Merrill Lynch fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets.

Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Merrill Lynch policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.
Prices are indicative and for information purposes only. Except as otherwise stated in the report, for the purpose of any recommendation in relation to: (i) an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report; or (ii) a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including Bank of America Merrill Lynch trading desks.
The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities that may not be offered or sold in one or more states or jurisdictions. Readers of this report are advised that any discussion, recommendation or other mention of such securities is not a solicitation or offer to transact in such securities. Investors should contact their BofA Merrill Lynch representative or Merrill Lynch Global Wealth Management financial advisor for information relating to fixed income securities.
Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended.
SECURITIES DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.
Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.
The securities discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these securities are exempt from registration or have been qualified for sale.
Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.
This report, and the securities discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors.
Information relating to Affiliates of BofAS, MLPF&S and Distribution of Affiliate Research Reports:
BofA Merrill Lynch Global Research policies relating to conflicts of interest are described at https://rsch.baml.com/coi
"BofA Merrill Lynch" includes BofA Securities, Inc. ("BofAS"), Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") and its affiliates. Investors should contact their BofA Merrill Lynch representative or Merrill Lynch Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Merrill Lynch" and "Merrill Lynch" are each global brands for BofA Merrill Lynch Global Research.
BofAS and/or MLPF&S or may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF); BAMLI DAC (Milan): Bank of America Merrill Lynch International DAC, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Investment Industry Regulatory Organization of Canada; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; Merrill Lynch (Japan): Merrill Lynch Japan Securities Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; DSP Merrill Lynch (India): DSP Merrill Lynch Limited, regulated by the Securities and Exchange Board of India; Merrill Lynch (Indonesia): PT Merrill Lynch Sekuritas Indonesia, regulated by Otoritas Jasa Keuangan (OJK); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (Russia): OOO Merrill Lynch Securities, Moscow, regulated by the Central Bank of the Russian Federation; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Spain): Merrill Lynch Capital Markets Espana, S.A.S.V., regulated by Comisión Nacional del Mercado De Valores; Merrill Lynch (Brazil): Bank of America Merrill Lynch Banco Multiplo S.A., regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.
This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request;

has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by Merrill Lynch (Japan), a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by DSP Merrill Lynch (India); and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Bank of America N.A., Australian Branch (ARBN 064 874 531), AFS License 412901 (BANA Australia) and Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distribute this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of BANA Australia, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. Bank of America Merrill Lynch International DAC, Frankfurt Branch (BAMLI DAC (Frankfurt)) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Merrill Lynch entities, including BAMLI DAC and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Merrill Lynch group. You may be contacted by a different BofA Merrill Lynch entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please use this link http://www.bankofamerica.com/emaildisclaimer for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Merrill Lynch.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Merrill Lynch clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Merrill Lynch, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

BofA Merrill Lynch is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Certain investment strategies and financial instruments discussed herein may only be appropriate for consideration in accounts qualified for high risk investment.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

UK Readers: The protections provided by the U.K. regulatory regime, including the Financial Services Scheme, do not apply in general to business coordinated by BofA Merrill Lynch entities located outside of the United Kingdom.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Merrill Lynch, through business units other than BofA Merrill Lynch Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Merrill Lynch is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

Copyright, User Agreement and other general information related to this report:

Materials prepared by BofA Merrill Lynch Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Merrill Lynch, including investment banking personnel. BofA Merrill Lynch has established information barriers between BofA Merrill Lynch Global Research and certain business groups. As a result, BofA Merrill Lynch does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Merrill Lynch Global Research personnel's knowledge of legal proceedings in which any BofA Merrill Lynch entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Merrill Lynch in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Merrill Lynch Global

Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Merrill Lynch and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Merrill Lynch is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Merrill Lynch. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Merrill Lynch is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without notice. BofA Merrill Lynch is under no obligation to update this information and BofA Merrill Lynch's ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Merrill Lynch will not update any fact, circumstance or opinion contained herein.

Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.

Neither BofA Merrill Lynch nor any officer or employee of BofA Merrill Lynch accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.