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Enhancing SME Financing in Africa: The Role of NonBanks

Finance for All: Promoting Financial Inclusion in West Africa
ECOWAS Regional Conference, September 20, 2016, Dakar, Senegal

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Africa Growth Initiative

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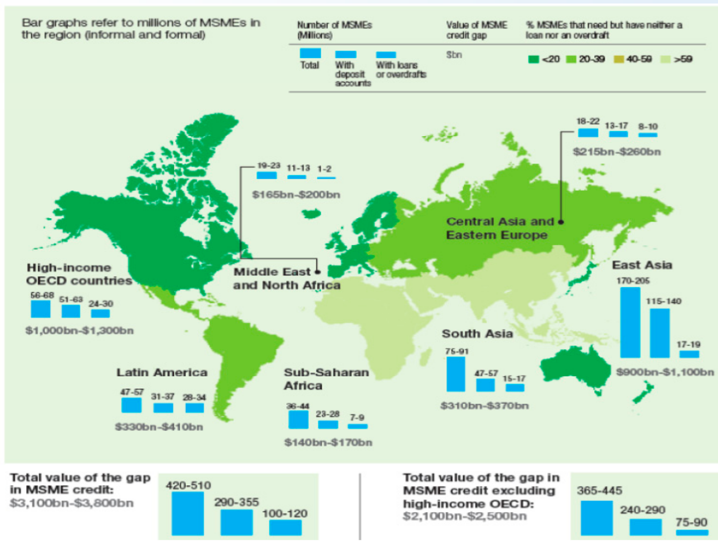
1. Is There a Role for Nonbanks in Enhancing Financial Inclusion?

The limits of Bank SME Finance

BROOKINGS 3

SMEs, especially women-owned SMEs, face a large financing gap as information asymmetry is high……



Source: Stein et al (2010)

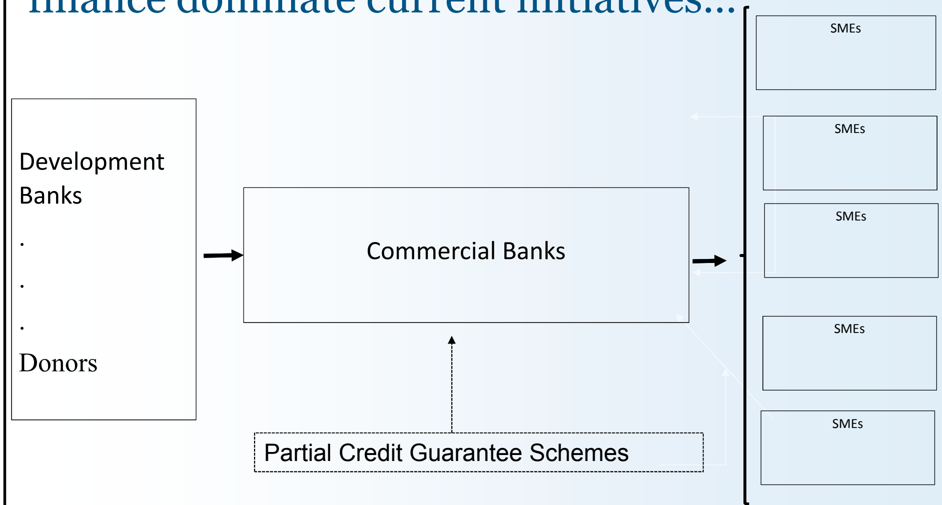
BROOKINGS 4

…collateral constraints are often cited as a key financing challenge for SMEs…

Economy	Percent of firms identifying access to finance as a major constraint	Proportion of loans requiring collateral in order to get the financing	Value of collateral needed for line of credit as a percentage of the value of the line of credit.
Sub-Saharan Africa	36.8%	83.5%	214.2%
All Countries	25.7%	78.7%	205.1%

BROOKINGS 5

Initiatives to enhance bank lending to SMEs finance dominate current initiatives…



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Bank financing is the main source of SME finance…BUT

- Collateral is still needed, costs can be high, and maturities are typically short;
- SMEs in some sectors (e.g technology, services…) do not have enough collateral;
- SMEs may no be able to pledge existing collateral when property rights/contract enforcement are weak (e.g. land issues);
- **Cost of credit risk assessment to reduce information asymmetry is fixed and not low enough to push banks to finance SMEs.**

Current SME financing toolbox includes (Hamilton and Beck, 2016)

- Partial Credit Guarantee Schemes
- Credit/Equity Lines to financial institutions
- Lease finance
- General equity funds to SMEs
- Financial government benefits for SMEs: tax benefits (tax holidays, VAT threshold, tax allowances or credits, preferential tax treatment) and tax relief for other investments in SMEs
- Loan and grant funding to support SMEs/Blended finance (loans and grants)
- **Innovative and Technology based Solutions (FinTech)**

The IFC strategy for sub-Saharan Africa includes…

- **Financial Institutions Group**: investments in financial institutions and financial services providers; advisory services to clients;
- **Financial Infrastructure**: building and enhancing the necessary FI for financial inclusion (collateral registries, credit reporting frameworks, leasing, insurance)
- **Partnership for FI:** established in 2012 is a 7-year $37.4 million initiative to expand microfinance and advance digital financial services in the region.

Takeaway

Bank lending to SME has some limitations:

- Because the fixed cost of credit risk assessment to reduce the large information asymmetry between SMEs and banks is too high (or not low enough) to push banks to finance SMEs without an element of subsidy;
- Because some SMEs are in sectors with little collateral (technology and services) or in environments where contract enforcement is weak (land rights);

Innovative and Technology based Solutions (FinTech) can help overcome these limitations.

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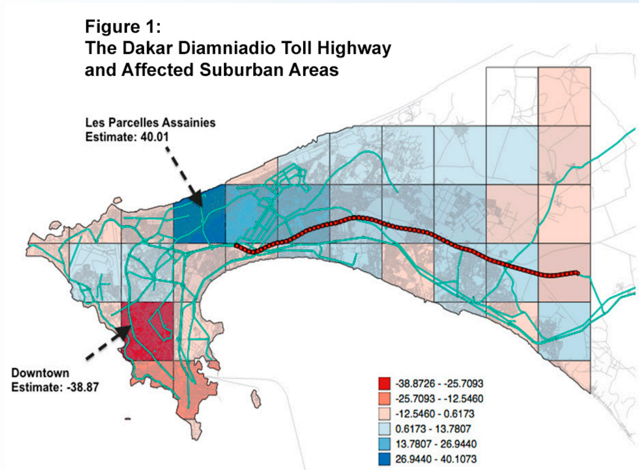
2. Enhancing the Role of Nonbanks in SME Finance

Reducing Credit Risk Assessment Costs through Technology and Innovation (FinTech)

BROOKINGS 11

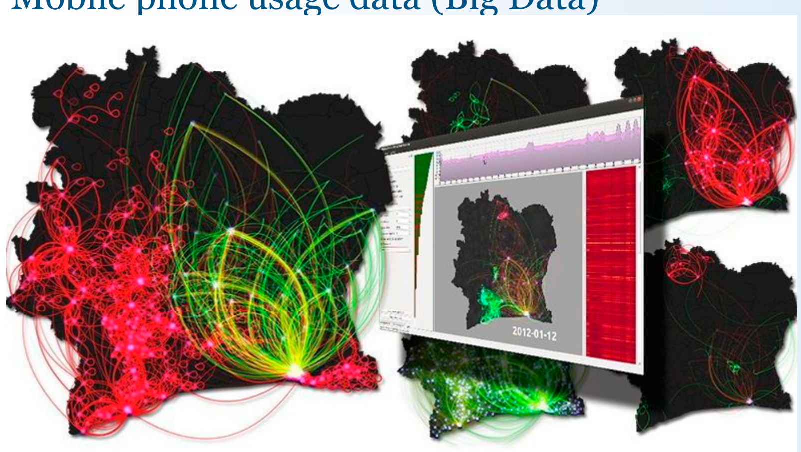
Reducing credit risk assessment costs: Mobile phone usage data (Big Data)



Source: Thiemo Fetzer & Amadou Sy (NetMob Conference, MIT, 2015)

BROOKINGS 12

Reducing credit risk assessment costs: Mobile phone usage data (Big Data)



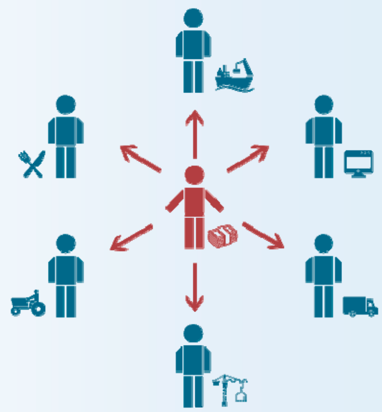
Source: Stef van den Elzen, BVJorik Blaas / Danny Holten / Jan-Kees Buenen, BVJarke J. van Wijk, Robert Spousta / Anna Miao / Simone Sala / Steve Chan
http://www.unglobalpulse.org/D4D-Winning-Research

BROOKINGS 13

Online Aggregator Platform for SMEs www.validus.sg Peer-to-Business (P2B)

Investors

- Focus on **accounts receivable** and **working capital financing** to allow SMEs to access finance and grow;
- Very short term maturities help reduce credit risk
- Use technology to significantly reduce costs of credit risk analysis
- Diversify and fractionalize risk by spreading lending across many businesses over time



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Online Aggregator Platform for SMEs www.validus.sg Peer-to-Business (P2B)

Borrowers

- Fast approval
- Low interest rates
- Financing

BROOKINGS 15

Online Aggregator Platform for SMEs www.validus.sg Peer-to-Business (P2B)

ACCOUNTS RECEIVABLE FINANCING

- Accelerate cash flows by offering invoices or accounts receivables for financing.
- Use the available capital to meet your operational overheads.
- The duration for the funding could be for 30/60/90 days.
- Credit Bureau checks the payment ratings for “buyers”, and the better the rating of the “buyers”, the lower the rate

WORKING CAPITAL FINANCING

- Get loans for 6/9/12 months to fulfil your working capital requirements.
- Pay your suppliers better, manage your growth with a strong cash flow, or refinance an existing loan that is at a higher interest rate from other financial institution.
- Once you pay back your dues in time, your interest rate gets lowered for your next loan application on the platform.
- Build your track record and your credibility with the credit bureau

BROOKINGS 16

Peer-to-Peer (P2P) Lending: Lufax (China)

- Lufax is the world’s third largest P2P firm and the fastest growing; It has been created by Ping An Insurance Company of China;
- Lufax uses Ping An’s balance sheet to guarantee all of its loans;
- Products include unsecured P2P loans with average maturity of 1-3 years (with a secondary market for their trading); real-estate-mortgaged investment products with an average maturity of 3-12 months.
- Lufax rates its customers using a proprietary risk model building on the borrower’s educational background, occupation, job stability, and the purpose of the loan.
- In addition to the proprietary model, it prices risks by surveying a company’s operations, drawdown, business teams’ capabilities…

http://www.lendacademy.com/lufax-p2p-firm-china/

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3. Enhancing the Role of Nonbanks in SME Finance

Would Increased Capital Markets Investment Work?

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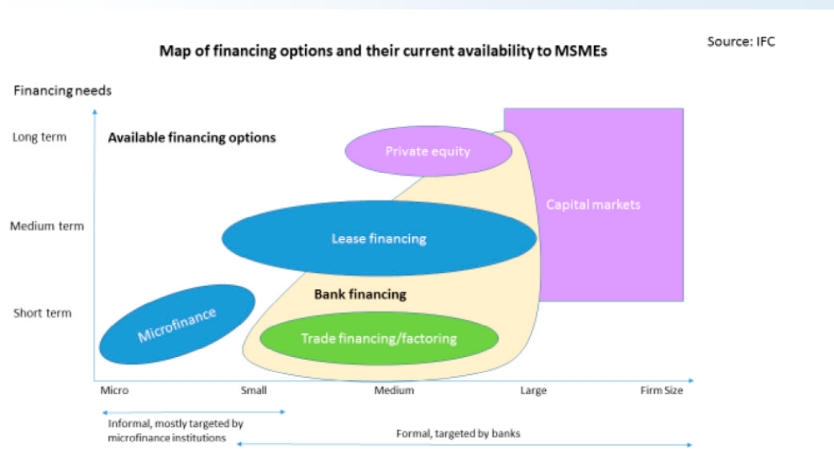
SME Exchanges



BROOKINGS 19

Takeaways

Bank lending to SME has some limitations:

- Because the fixed cost of credit risk assessment to reduce the large information asymmetry between SMEs and banks is too high (or not low enough) to push banks to finance SMEs without an element of subsidy;

- Because some SMEs are in sectors with little collateral (technology and services) or in environments where contract enforcement is weak (land rights);

Innovative and Technology based Solutions (FinTech) can help overcome these limitations.

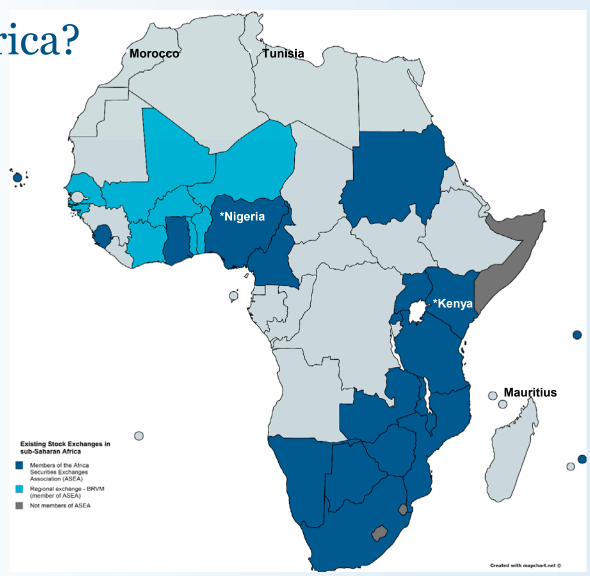
SMEs, depending on their stage of growth, need different types of financing. Larger and mature SMEs can access equity markets but these will need to be adapted.

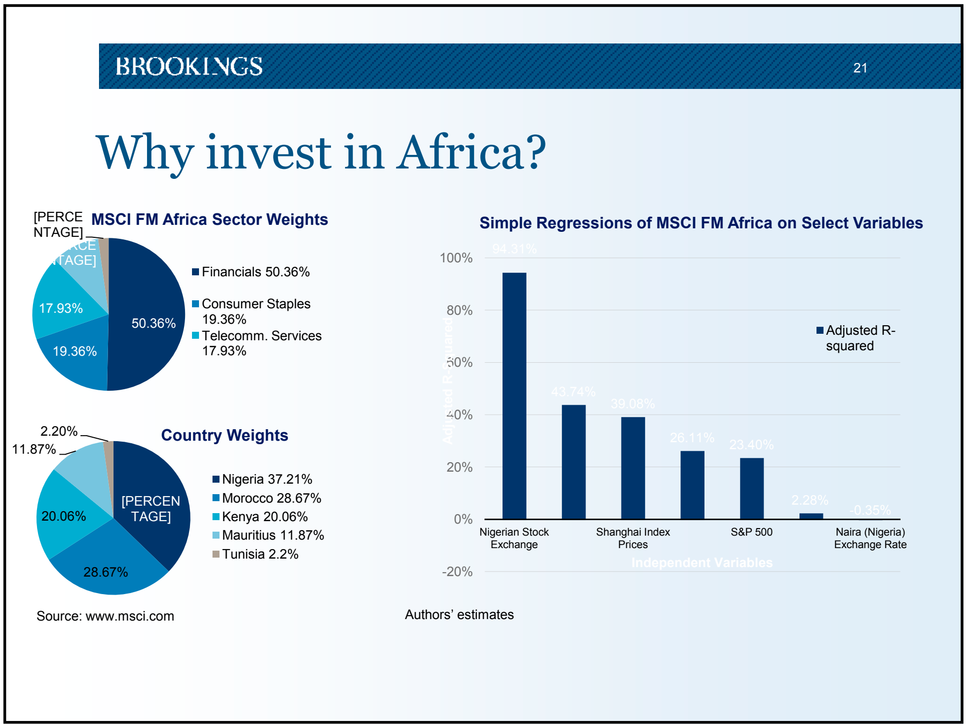
BROOKINGS 20

Why invest in Africa?

MSCI FM Classification Requirements	
Company size	$620M
Security size	$49M
Security liquidity	2.5% ATVR†
Openness to foreign ownership	At least some
Ease of capital inflows/outflows	At least partial
Efficiency of the operational	

Source: www.msci.com

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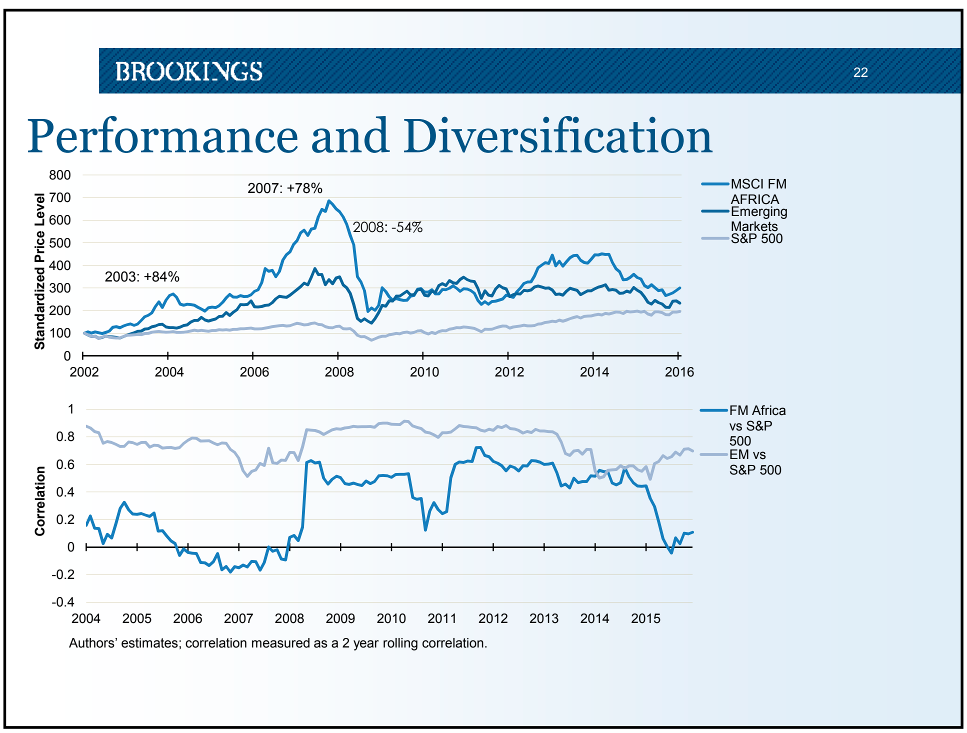
Why invest in Africa?
MSCI FM Africa Sector Weights
Financials 50.36%
Consumer Staples 19.36%
Telecomm. Services 17.93%
50.36%
19.36%
17.93%
Country Weights
Nigeria 37.21%
Morocco 28.67%
Kenya 20.06%
Mauritius 11.87%
Tunisia 2.2%
2.20%
11.87%
20.06%
28.67%
Source: www.msci.com
Simple Regressions of MSCI FM Africa on Select Variables
Adjusted R-squared
100%
80%
60%
40%
20%
0%
-20%
Nigerian Stock Exchange
Shanghai Index Prices
S&P 500
Naira (Nigeria) Exchange Rate
Authors' estimates


BROOKINGS
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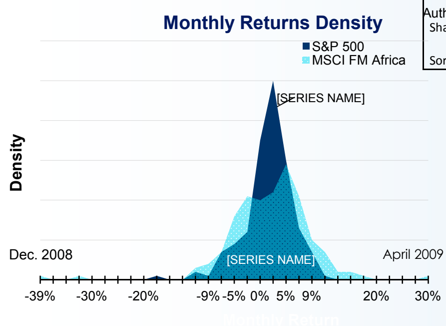
Performance and Diversification
Standardized Price Level
2007: +78%
2008: -54%
2003: +84%
MSCI FM AFRICA
Emerging Markets
S&P 500
FM Africa vs S&P 500
EM vs S&P 500
Correlation
Authors' estimates; correlation measured as a 2 year rolling correlation.

BROOKINGS 23

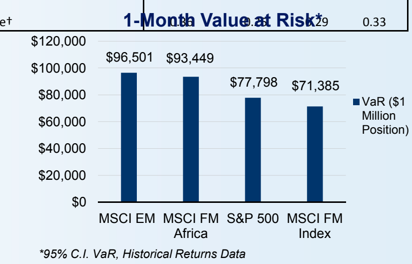
Risk Measures

Performance Statistics (Monthly Data: May 2002 - May 2016)				
	FM Africa	FM Index	EM	S&P 500
Annualized Continuous Return	7.9%	4.7%	6.0%	4.8%
Annualized Standard Deviation	25.7%	19.2%	23.0%	14.8%
Beta	0.62	0.73	1.23	1.00
Sharpe Ratio *	0.26	0.18	0.21	0.24
Sortino Measure†	[illegible]	[illegible]	0.29	0.33

Authors' estimates



Authors' estimates



Authors' estimates

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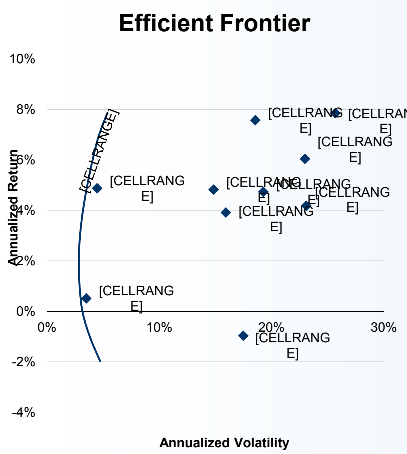
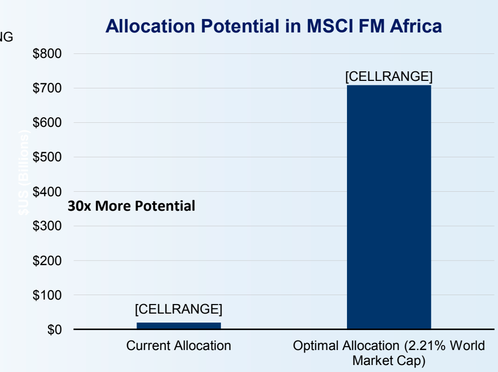
Allocation

- Under-allocation
- Limited access to capital



Authors' estimates



Authors' estimates

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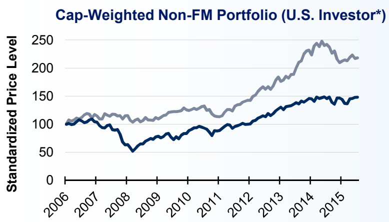
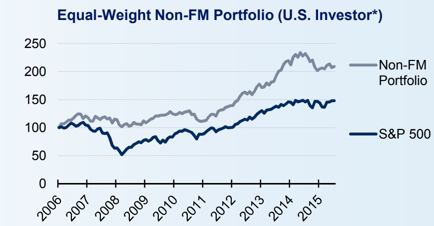
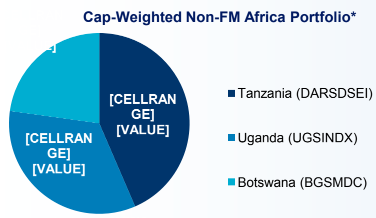
Non-MSCI FM Portfolios







Performance (Monthly Data: Dec 2006 - Jun 2016)

	Non-FM Africa Cap-Weighted	Non-FM Africa Equal-Weighted	S&P 500
Annualized Continuous Return	8.2%	7.7%	4.1%
Annualized Standard Deviation	11.5%	11.5%	15.8%
	0.17	0.21	1.00

Authors' estimates

BROOKINGS 26

Takeaways

- There is a case for investing in African equity markets from a risk/return and diversification perspective;
- There is a case for significantly scaling up existing global investment in African equity markets from an efficient frontier perspective…
- But investors are not coming. Why?

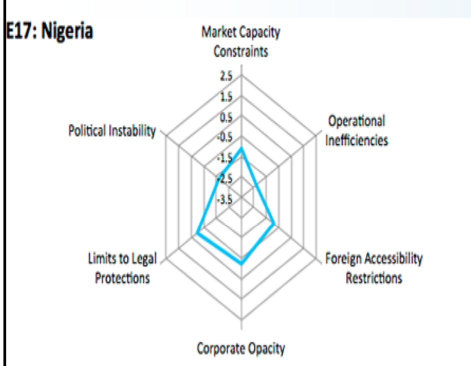
BROOKINGS 27

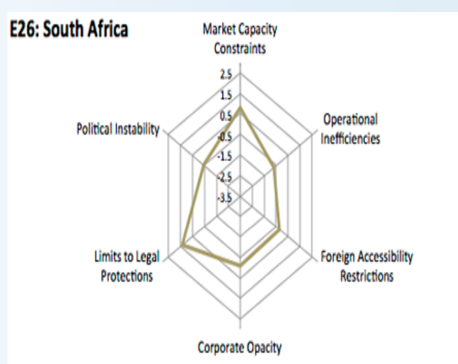
Constraints to Investment in Africa

- Size requirements
- Liquidity
- Operational inefficiency
- Capital controls
- Political instability
- Lack of governance and legal protections

BROOKINGS 28

Constraints to Investments

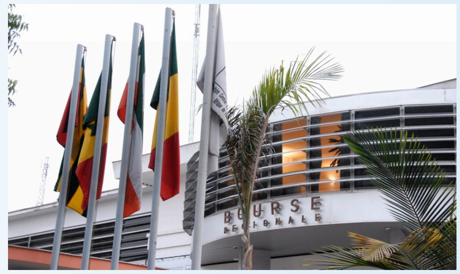




The radar diagrams below by country indicate their respective fundamental risk indicator scores in 2012. The scores are obtained using principal component analysis (PCA) using procedures explained in Chapters 4 to 9 in Karolyi (2015, Oxford University Press). The scores are standardized on a Normal scale for all 57 emerging (shown below) and developed countries; scores that are negative indicate greater fundamental risks and those that are positive, less fundamental risks. http://www.emergingmarketsenigma.com/

BROOKINGS 29

Addressing constraints: Regional Integration



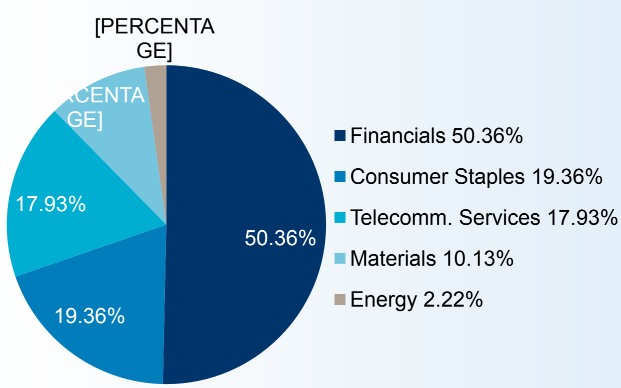
African Securities Exchanges Association → African Exchanges Linkage Project

African Development Bank → African Exchanges Linkage Project

Regional Exchange(s): BRVM

BROOKINGS 30

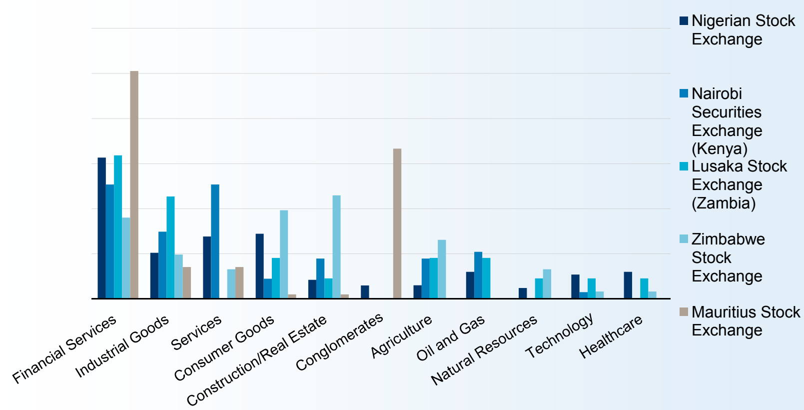
Even if constraints are lifted, few sectors will have access to finance…



MSCI FM Africa Sector Weights

BROOKINGS 31

Even if constraints are lifted, few sectors will have access to finance…



"Agriculture, already Africa's largest employer, is the most immediate means of catalyzing economic growth and employment for young people." (World Bank, Africa Development Forum)

BROOKINGS 32

Only a few large companies will have access to finance…

TOP 10 CONSTITUENTS

	Country	Mkt Cap (USD Billions)	Index Wt. (%)	Sector	Sector Wt. (%)
MAROC TELECOM	MA	2.13	9.02	Telecom Srvcs	50.3
SAFARICOM	KE	2.11	8.91	Telecom Srvcs	49.7
NIGERIAN BREWERIES	NG	1.93	8.17	Cons Staples	42.2
ATTIJARIWAFA BANK	MA	1.43	6.05	Financials	12.0
MCB GROUP	MU	1.41	5.96	Financials	11.8
ROCKCASTLE GLOBAL (ZA)	MU	1.40	5.90	Financials	11.7
GUARANTY TRUST BANK	NG	1.21	5.11	Financials	10.2
EAST AFRICAN BREWERIES	KE	1.09	4.59	Cons Staples	23.7
NESTLE FOODS NIGERIA	NG	0.95	4.03	Cons Staples	20.8
ZENITH BANK	NG	0.88	3.70	Financials	7.3
Total		14.55	61.45		

MSCI FM Africa. Source: www.msci.com

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3. Enhancing the Role of Nonbanks in SME Finance

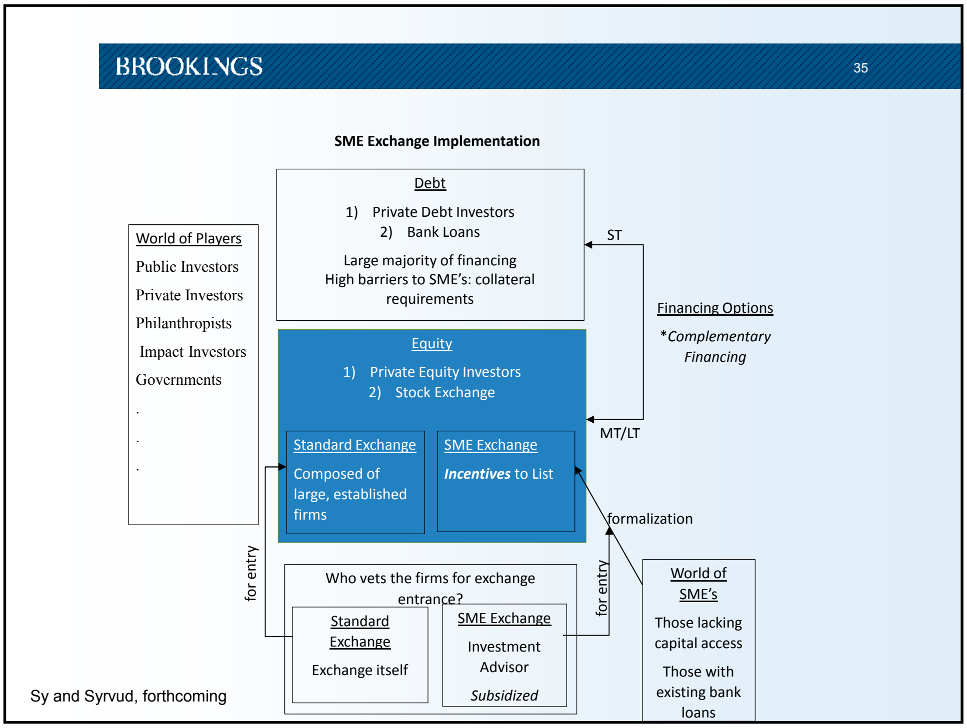
Adapting Capital Markets through SME Exchanges

BROOKINGS 34

SME Exchanges (Harwood & Konidaris, 2015)

Initiatives in Africa include the JSE AltX (South Africa) and the Aternative Securities Market (ASeM Nigeria). Harwood & Konidaris (2015) recommend to

- Focus on SMEs with a sizeable growth rate
- Have the SME exchange legally related to the main board
- Do not reduce disclosure content to reduce costs
- Allow private placements
- Have well regulated advisors to vet issuers and provide comfort about the quality of the issue
- Have outreach, public awareness campaign and training for SMES
- Consider tax incentives for investors.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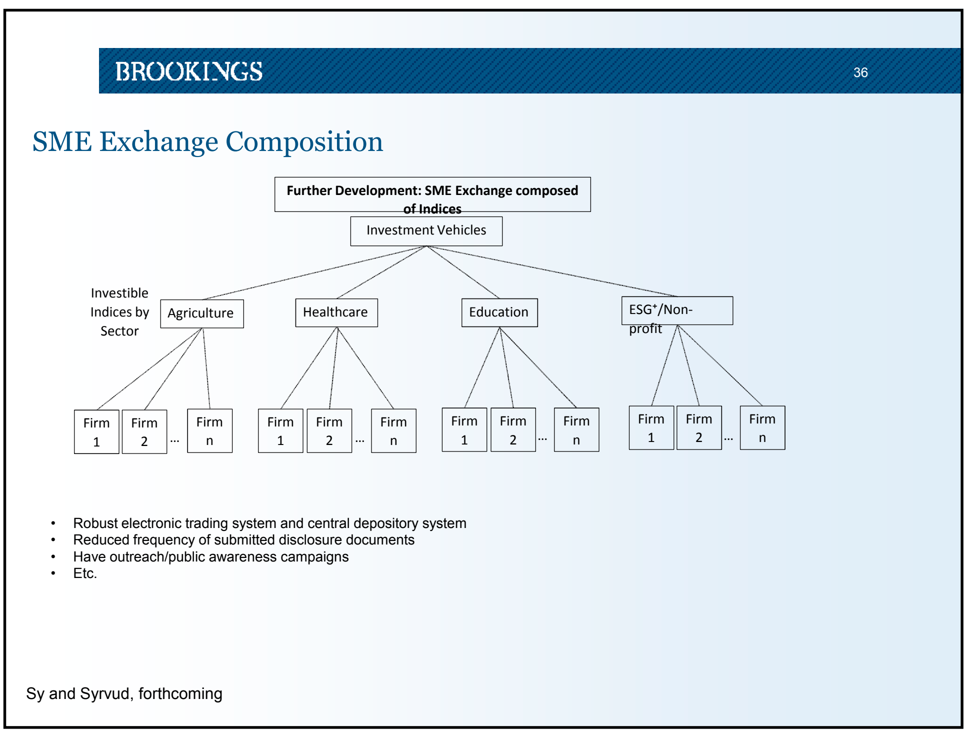
SME Exchange Implementation
Debt
1) Private Debt Investors
2) Bank Loans
Large majority of financing
High barriers to SME's: collateral requirements
World of Players
Public Investors
Private Investors
Philanthropists
Impact Investors
Governments
ST
Financing Options
*Complementary Financing
Equity
1) Private Equity Investors
2) Stock Exchange
MT/LT
Standard Exchange
Composed of large, established firms
SME Exchange
Incentives to List
formalization
for entry
Who vets the firms for exchange entrance?
Standard Exchange
Exchange itself
SME Exchange
Investment Advisor
Subsidized
for entry
World of SME's
Those lacking capital access
Those with existing bank loans
Sy and Syrvud, forthcoming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SME Exchange Composition
Further Development: SME Exchange composed of Indices
Investment Vehicles
Investible Indices by Sector
Agriculture
Healthcare
Education
ESG*/Non-profit
Firm 1
Firm 2
...
Firm n
• Robust electronic trading system and central depository system
• Reduced frequency of submitted disclosure documents
• Have outreach/public awareness campaigns
• Etc.
Sy and Syrvud, forthcoming

BROOKINGS 37

Five Takeaways

1. Bank lending to SME has some limitations:

- Because the fixed cost of credit risk assessment to reduce the large information asymmetry between SMEs and banks is too high (or not low enough) to push banks to finance SMEs without an element of subsidy;

- Because some SMEs are in sectors with little collateral (technology and services) or in environments where contract enforcement is weak (land rights);

2. Innovative and Technology based Solutions (FinTech) can help overcome these limitations.

BROOKINGS 38

Five Takeaways

3. SMEs, depending on their stage of growth, need different types of financing. Larger and mature SMEs can access equity markets but these will need to be adapted.

4. Regulation will need to keep pace with innovation.

5. SMEs should be a priority for policymakers, they create jobs. It is a political win-win!

BROOKINGS 39

References

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BROOKINGS 40

Thank You!

Brookings Africa Growth Initiative

http://www.brookings.edu/about/projects/africa-growth