Enhancing SME Financing in Africa: The Role of NonBanks

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

The limits of Bank SME Finance
SMEs, especially women-owned SMEs, face a large financing gap as information asymmetry is high......

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

<table>
<thead>
<tr>
<th>Economy</th>
<th>Percent of firms identifying access to finance as a major constraint</th>
<th>Proportion of loans requiring collateral in order to get the financing</th>
<th>Value of collateral needed for line of credit as a percentage of the value of the line of credit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>36.8%</td>
<td>83.5%</td>
<td>214.2%</td>
</tr>
<tr>
<td>All Countries</td>
<td>25.7%</td>
<td>78.7%</td>
<td>205.1%</td>
</tr>
</tbody>
</table>
Initiatives to enhance bank lending to SMEs finance dominate current initiatives...

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 not 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)
Reducing credit risk assessment costs:
Mobile phone usage data (Big Data)

Figure 1:
The Dakar Diannadiol Toll Highway and Affected Suburban Areas

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

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

Source: Stef van den Elzen, BV Jorik Blaas / Danny Holten / Jan-Keess Buenen, BV Jarke J. van Wijk, Robert Spousta / Anna Mao / Simone Sala / Steve Chan
http://www.unglobalpulse.org/D4D-Winning-Research
Online Aggregator Platform for SMEs [www.validus.sg](http://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

**Borrowers**
- Fast approval
- Low interest rates
- Financing
## Online Aggregator Platform for SMEs [www.validus.sg](http://www.validus.sg)

### Peer-to-Business (P2B)

<table>
<thead>
<tr>
<th>ACCOUNTS RECEIVABLE FINANCING</th>
<th>WORKING CAPITAL FINANCING</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Accelerate cash flows by offering invoices or accounts receivables for financing.</td>
<td>• Get loans for 6/9/12 months to fulfil your working capital requirements.</td>
</tr>
<tr>
<td>• Use the available capital to meet your operational overheads.</td>
<td>• 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.</td>
</tr>
<tr>
<td>• The duration for the funding could be for 30/60/90 days.</td>
<td>• Once you pay back your dues in time, your interest rate gets lowered for your next loan application on the platform.</td>
</tr>
<tr>
<td>• Credit Bureau checks the payment ratings for “buyers”, and the better the rating of the “buyers”, the lower the rate</td>
<td>• Build your track record and your credibility with the credit bureau</td>
</tr>
</tbody>
</table>

## 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…

3. Enhancing the Role of Nonbanks in SME Finance

Would Increased Capital Markets Investment Work?
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.
Why invest in Africa?

MSCI FM Africa Sector Weights
- Financials 50.36%
- Telecomm. Services 17.33%
- Consumer Staples 19.36%
- Others 17.61%

Country Weights
- Nigeria 37.21%
- Morocco 28.67%
- Kenya 20.06%
- Mauritius 11.87%
- Tunisia 2.2%

Source: www.msci.com

Simple Regressions of MSCI FM Africa on Select Variables

Country Weights
- Nigeria 37.21%
- Morocco 28.67%
- Kenya 20.06%
- Mauritius 11.87%
- Tunisia 2.2%

Source: www.msci.com

Performance and Diversification

MSCI FM Africa vs S&P 500
- 2007: +78%
- 2008: -54%
- 2009: +31%
- 2010: -19%
- 2011: +20%
- 2012: -22%
- 2013: +13%
- 2014: -15%
- 2015: +12%
- 2016: -9%

EM vs S&P 500
- 2007: +84%
- 2008: -54%
- 2009: +21%
- 2010: -3%
- 2011: +12%
- 2012: -20%
- 2013: +15%
- 2014: +17%
- 2015: -9%
- 2016: +11%

Authors' estimates; correlation measured as a 2 year rolling correlation.
Finance for All: Promoting Financial Inclusion in West Africa

IMF-BCEAO: ECOWAS Regional Conference
Dakar, Senegal

20 September 2016

Risk Measures

<table>
<thead>
<tr>
<th>Performance Statistics (Monthly Data: May 2002 - May 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Annualized Continuous Return</td>
</tr>
<tr>
<td>Annualized Standard Deviation</td>
</tr>
<tr>
<td>Betas</td>
</tr>
<tr>
<td>Authors’ estimates Sharpe Ratio *</td>
</tr>
<tr>
<td>Sortino Measure†</td>
</tr>
</tbody>
</table>

Allocation

- Under-allocation
- Limited access to capital

Allocation Potential in MSCI FM Africa

Authors’ estimates

Authors’ estimates
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?
Constraints to Investment in Africa

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

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.emergingsmalenigma.com/](http://www.emergingsmalenigma.com/)
Addressing constraints: Regional Integration

African Securities Exchanges Association

African Development Bank

African Exchanges Linkage Project

Regional Exchange(s): BRVM

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

MSCI FM Africa Sector Weights

- Financials 50.36%
- Consumer Staples 19.36%
- Telecomm. Services 17.93%
- Materials 10.13%
- Energy 2.22%

50.36% 19.36% 17.93% 10.13% 2.22%
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)

Only a few large companies will have access to finance...

<table>
<thead>
<tr>
<th>Country</th>
<th>Mkt Cap (USD Billions)</th>
<th>Index Wt. (%)</th>
<th>Sector</th>
<th>Sector Wt. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAROC TELECOM</td>
<td>MA</td>
<td>2.13</td>
<td>9.02</td>
<td>Telecom Srvcs</td>
</tr>
<tr>
<td>SAFARICOM</td>
<td>KE</td>
<td>2.11</td>
<td>8.91</td>
<td>Telecom Srvcs</td>
</tr>
<tr>
<td>NIGERIAN BREWERIES</td>
<td>NG</td>
<td>1.93</td>
<td>8.17</td>
<td>Cons Staples</td>
</tr>
<tr>
<td>ATTJARIWAFA BANK</td>
<td>MA</td>
<td>1.43</td>
<td>6.05</td>
<td>Financials</td>
</tr>
<tr>
<td>MCB GROUP</td>
<td>MU</td>
<td>1.41</td>
<td>5.96</td>
<td>Financials</td>
</tr>
<tr>
<td>ROCKCASTLE GLOBAL (ZA)</td>
<td>MU</td>
<td>1.40</td>
<td>5.90</td>
<td>Financials</td>
</tr>
<tr>
<td>GUARANTY TRUST BANK</td>
<td>NG</td>
<td>1.21</td>
<td>5.11</td>
<td>Financials</td>
</tr>
<tr>
<td>EAST AFRICAN BREWERIES</td>
<td>KE</td>
<td>1.09</td>
<td>4.59</td>
<td>Cons Staples</td>
</tr>
<tr>
<td>NESTLE FOODS NIGERIA</td>
<td>NG</td>
<td>0.95</td>
<td>4.03</td>
<td>Cons Staples</td>
</tr>
<tr>
<td>ZENITH BANK</td>
<td>NG</td>
<td>0.88</td>
<td>3.70</td>
<td>Financials</td>
</tr>
</tbody>
</table>

MSCI FM Africa. Source: www.msci.com
3. Enhancing the Role of Nonbanks in SME Finance

Adapting Capital Markets through SME Exchanges

SME Exchanges (Harwood & Konidaris, 2015)

Initiatives in Africa include the JSE AltX (South Africa) and the Alternative 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.
SME Exchange Implementation

Debt
1) Private Debt Investors
2) Bank Loans
Large majority of financing
High barriers to SME’s collateral requirements

Equity
1) Private Equity Investors
2) Stock Exchange

ST
Financing Options
* Complementary Financing

MT/FT

Who sets the firms for exchange entrance?

SME Exchange

Investment Advisor

Subsidized

Standard Exchange
Composed of large, established firms.

SME Exchange
Incentives to List

World of SME’s
Those lacking capital access
Those with existing bank loans

SME Exchange Composition

Further Development: SME Exchange composed of Indices

Investible Indices by Sector
Agriculture
Healthcare
Education
ESG/Non-profit

Firm 1
Firm 2
Firm n
Firm 1
Firm 2
Firm n
Firm 1
Firm 2
Firm n
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
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;
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2. **Innovative and Technology based Solutions (FinTech) can help overcome these limitations.**

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!**
References


• Securities and Exchange Commission, Nigeria, 2016, “Capital Market Financing for SMEs”

• Sy Amadou & Tor Syvrud, forthcoming, “African Frontier Markets,” Brookings

Thank You!

Brookings Africa Growth Initiative

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