AFRICA -
A GROWING AND DIVERSE CONTINENT

Opportunities and Challenges for Private Sector Infrastructure Investment

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WORLD BANK GROUP

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AFRICA - A CONTINENT OF ATTRACTION

- Shared global goals
- Long term development trajectory
- Cultural, diplomatic and security connections across the world
A continent among the world’s fastest growing over the last decade

Several countries as growth “cheetahs”—in the top segment of global fast pacers

Near-term bumps in growth, with short term outlook rather muted

A marketplace with substantial long-term potential
SUB-SAHARAN AFRICA GROWTH PROSPECTS

Real GDP Growth

Source: The World Bank
- Land area of 30 million km² – 3 times bigger than China or the USA, Europe and 75 times bigger than Japan

- Population of 1 billion million—and growing rapidly

- Economic structures are varied: “modern”; “mixed”; “resource rich”; “agriculture-dependent”
A number of African countries remain resilient. Côte d’Ivoire, Ethiopia, Kenya, Mali, Rwanda, Senegal, and Tanzania are the countries in the region showing resilience.

Source: World Bank staff calculation based on the WDI database.
By 2030, the continent will be home to 1.7 billion people. And nearly one-quarter of the world’s population will call Africa home by 2050 (2.4 billion people).

Growing middle-class

A place where perceptions of risk are high

But where returns can be achieved and markets expanded
**Performance of quoted companies in developing countries (%)**

<table>
<thead>
<tr>
<th>Region</th>
<th>All Industrial Firms</th>
<th>Manufacturing firms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Profit Margin</td>
<td>Return on Equity</td>
</tr>
<tr>
<td>Africa</td>
<td>Median</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>75th percentile</td>
<td>20</td>
</tr>
<tr>
<td>Asia</td>
<td>Median</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>75th percentile</td>
<td>13</td>
</tr>
<tr>
<td>South America</td>
<td>Median</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>75th percentile</td>
<td>17</td>
</tr>
</tbody>
</table>

Notes. The performance measures reported in the table were constructed by the author using a panel of 6922 firms across three regions with a total of 28842 observations spanning the years 2002-2007. It is an unbalanced panel with an average of 4.2 observations per firm. It covers all Africa, and selected Asian and South American countries. The majority of firms are in manufacturing and services, with a smaller proportion in agriculture, mining and construction.

*Source: Warnholz (2008)*
Potential In The Market For Chocolate

Chocolate Import Volumes (China, Million US$)

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>200</td>
<td>250</td>
<td>300</td>
<td>350</td>
<td>400</td>
</tr>
</tbody>
</table>

Trade in cocoa beans, whole or broken, raw or roasted (Million US$)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>China's imports from Côte-d'Ivoire</td>
<td>17,766</td>
<td>25,697</td>
<td>13,371</td>
</tr>
<tr>
<td>Côte-d'Ivoire's exports to world</td>
<td>2044,456</td>
<td>3045,103</td>
<td>3507,608</td>
</tr>
<tr>
<td>China's imports from world</td>
<td>113,337</td>
<td>106,408</td>
<td>91,533</td>
</tr>
</tbody>
</table>

Trade in chocolate and other food preparations containing cocoa (In Million US$)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>China's imports from Côte-d'Ivoire</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Côte-d'Ivoire's exports to world</td>
<td>7,537</td>
<td>68,267</td>
<td>134,147</td>
</tr>
<tr>
<td>China's imports from world</td>
<td>352,37</td>
<td>464,824</td>
<td>515,91</td>
</tr>
</tbody>
</table>

POTENTIAL IN THE MARKET FOR OCTOPUS EXPORTS TO JAPAN AND THE WORLD

Source: COMTRADE
Across the globe, there is a large and urgent infrastructure agenda

- 1.2 billion people live without electricity,
- 663 million lack improved drinking water sources,
- 2.4 billion lack improved sanitation facilities, and
- 1 billion live more than 2 km from an all-weather road
ENERGY PRODUCTION NEEDS TO EXPAND IN AFRICA

MW per 1,000 people (median)

<table>
<thead>
<tr>
<th>Region</th>
<th>1990</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSA</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>SA</td>
<td>0.07</td>
<td>0.15</td>
</tr>
<tr>
<td>MENA</td>
<td>0.25</td>
<td>0.40</td>
</tr>
<tr>
<td>LAC</td>
<td>0.30</td>
<td>0.43</td>
</tr>
<tr>
<td>EAP</td>
<td>0.15</td>
<td>0.84</td>
</tr>
</tbody>
</table>
TRANSPORT NEEDS TO EXPAND IN AFRICA

a. Road density
km of road per sq. km of land area (median)

- SSA: 0.11 (1990), 0.09 (2011)
- SA: 0.31 (1990), 0.48 (2011)
- MENA: 0.14 (1990), 0.11 (2011)
- LAC: 0.13 (1990), 0.19 (2011)
- EAP: 0.16 (1990), 0.47 (2011)

b. Railroad density
km per sq km of area (median)

- SSA: 0.004 (1990), 0.002 (2011)
- SA: 0.021 (1990), 0.016 (2011)
- MENA: 0.005 (1990), 0.006 (2014)
- LAC: 0.003 (1990), 0.006 (2014)
Can we move from billions to trillions?

- What we mean by PPPs
- Learning from global experience
- Opening doors in Africa
WHAT IS “PRIVATE”? “COMMERCIAL”?

- Capital market and financial sector
- Project and corporate finance
- Commercial and / or ‘purely private’?
- Backed by user fees, or also by taxes?
Number of PPP Projects by Country (1990–2015)
HOW THE TYPE OF PPPs IN AFRICA HAS EVOLVED
How to Fill the Financing Gap in Infrastructure

- Raising capital execution
- Eliminating operational inefficiencies
- Tariff cost recovery
- Potential for reallocation

Infrastructure needs: 93.3
Spending: 48
Infrastructure gap: 48
Optimizations: 17.4
Optimized gap: 30.6
Opportunity for PPPs: USD 30bn gap to which PPPs can contribute 40%
Supporting the private sector through better risk management - "De-risking"

De-risking:
- Places
- Platforms
- Projects
Capitalizing on WBG Knowledge Assets to Support Global Public Goods

Can commercial financing be cost-effectively mobilized for sustainable investment? If not...

Can upstream reforms be put in place to address market failures? If not...

Can risk instruments & credit enhancements cost-effectively cover remaining risks? If not...

Can development objectives be resolved with scarce public financing?

Public and Concessional Financing, including Sub-Sovereign
- Public finance (incl. national development banks and domestic SWF)
- MDBs and DFIs

Public and Concessional Resources for Risk Instruments and Credit Enhancements
- Guarantees
- First Loss

Upstream Reforms & Market Failures
- Country and Sector Policies
- Regulations and Pricing
- Institutions and Capacity

Commercial Financing
Macro-economic conditions

Business environment

Legal, institutions, and governance framework
**Mainstreaming the Upstream – Country Level**

- **Macro-fiscal environment**
  - Fiscal space
  - Exchange rate concerns

- **Institutional capacity to manage investment and resources**
  - Planning
  - Project appraisal
  - Budgeting
  - Public and PPP
  - Procurement
  - Implementation
  - Monitoring

- **Domestic financial sector**
  - Local capital markets (equity, debt, instit. investors)
  - Local financial services capability

- **Investment climate & social context**
  - Rule of Law
  - Conflict & Security
  - Social protection systems

- **Sub-sovereign investment capacity**
  - Sub-national fiscal capacity to finance investment

- **Forms of MDB support**
  - Analysis of public expenditure capacity (PEFA)
  - Domestic revenue mobilization capacity (TADAT)
  - Public Investment Management support (PIMA)
  - Technical Assistance & Policy Lending
  - PFRAM, Investment Prioritization & InfraScope tools

- **Credit-worthiness of sub-national jurisdictions and municipalities**

- **Local rule of law**

- **Investment Climate Assessment, Doing Business, FCV support, Social Protection System T.A.**

- **Sovereign investment capacity**

- **Sub-national fiscal capacity to finance investment**

- **State of sub-national investment management systems and institutions**

- **Guarantees & Treasury issuances of local bonds T.A. for shadow credit ratings FSAP**

- **Macro-fiscal environment**

- **Institutional capacity to manage investment and resources**

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State-owned enterprises: reform and modernization

Improving Sector regulation and management
Technical Assistance on market structure, and pricing:
- Rules and regulations for new investment, competition, treatment of incumbent service provision
- Subsidies, affordability, tariff structures and levels
- Exclusivity and 3rd party access regulations over private infrastructure
- Standardization in contracts, risk clauses
- Ratings and standards, including for sustainability

Capacity building and Technical Assistance through training, technical assistance and accreditation courses. Procurement assessment and strengthening, including for PPPs.
Beneficiaries include:
- Line agencies and utilities as procurers and off-takers
- PPP units and project preparation facilities
- Sector regulators

Technical Assistance for:
- Calculating viability gap and public good elements of service provision
- Valuing externalities & carbon accounting
- Investment decision-making under uncertainty

Investment lending to catalyze private investment
- Expanded access for the poor and targeted subsidy design under affordability constraints
- Climate-smart investments requiring public contributions such as mass transit and rail for modal shift
- Land acquisition, resettlement, retraining and social protection costs

Policy Lending in Support of the Above
**USING THE “CASCADE” IN PRACTICE – DE-RISKING PROJECTS**

- Project preparation
- Certainty of inputs
- Guarantees on financial flows / specific risks
- “Good faith” partnerships
- Arbitration
What is the scope for private financing and/or delivery of project:
• Risk transfer
• Public good and investment needs

What is required to prepare and structure the project?
• Technical feasibility
• E&S feasibility
• Financial structuring
• Carbon accounting

Are credit enhancements, risk instruments or funded support necessary to mobilize private finance?

Test the cascade:
• Assessment of overall project benefits and requirements including climate and resilience investment needs
• Sector level assessment to test readiness for PPPs
• Assessment of market interest
• Scope for risk transfer and generation of value for money and assessment of affordability to govt and consumers
• Review of performance of existing public assets that could be recycled

Address Sustainable Project Preparation
Mobilization of grants and reimbursable fees (e.g., from GIF Upstream Window) for project preparation and project structuring, bid design and transaction support.

Technical Team, Financial Solutions, IFC, MIGA and Treasury assessment of appropriate credit enhancements to achieve financing and delivery goals:
• Guarantees
• Insurance Products
• First Loss/Blended Finance
• Other Credit Enhancements

Support to address viability gap shortfalls and provide public financing required.
KENYA: POWER SECTOR TRANSFORMATION

Kenya: Power sector transformation

Electric Power Act
- Created Electricity Regulatory Board
- Restructured and commercialized KPLC, Kenya Power Company and TRDC
- Commitment to introduce private sector participation in generation
- Adoption of least cost investment planning

Energy Act (2006)
- Established single sector regulator (ERC) and Energy Tribunal
- Privately in which KenGen through an IPO

Energy Transmission Company (KETRACO) and Geothermal Development company (GDC) established
- Feed-in Tariff introduced

Rural Electrification Authority (REA) established

National Climate Change response strategy passed

Public Private Partnership Act operationalized

Electricity Generation
1990: 723 MW
2000: 1,054 MW
2016: 2,299 MW

Electricity Access
1990: 10.9%
2000: 14.5%
2016: ~55%

New Energy Bill (in Parliament)
- Role sharing b/w national and county govts. in planning and service delivery
- Transparent and Competitive licensing of renewable energy
- Open Access in T&D

Impact
+1,576 MW
+44% access

GoK policy reforms

IDA Activity
$1.8 Billion

Private Investment
$2.45 Billion

RESULTS TO DATE
$2.45 billion total private investment mobilized
1st long-term commercial loans for private power plants in Kenya

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Electricity Generation ($ millions)

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Kenya: Water

**Legal & Regulatory Framework**
- Kenya Water Act 2002 separates responsibilities for asset ownership and operation, and introduces ring fencing
- Tariff reform 2009
- Water Act of 2016 actively encourages debt financing

**Financial Markets**
- Seven formal credit ratings undertaken (2008)
- Shadow credit ratings for 43 WSPs (2011)
- Shadow credit ratings for 54 WSPs (2015)

**Asset Improvement**
- IDA $150m grant for asset improvement
- ADB/IDA/EBE: Ndukkane dam & major infrastructure projects supported thru loans
- AFD/KfW/ADB: WSBs and WSPs supported thru loans to the government
- IBRD provided $450m additional financing under WaSSIP

**Support for Local Banks**
- IBRD: K-Rep Bank program scaled up w/EU support (2016)

**Pipeline**
- $6m in commercial loans to Nairobi WSC for 10 years

**Results to Date**
- $12.7 million commercial financing mobilized to improve services in low income areas, with $20 million in pipeline.

Tenor of loan increased from 5 years in pilot phase to 10 years.

*Commercial financing includes commercial loans from domestic banks, which may be supported by partial credit guarantees from development partners.*
CAMEROON: Power Sector Transformation

**Power Generation**
- 1998: 800 MW
- 2010: 933 MW
- 2016: 1,287 MW

**Electricity customers**
- 1998: 532,000
- 2012: 712,000
- 2016: 1,042,000

**New Electricity Law**
- First phase of policy and structural reforms to improve efficiency and governance in the sector
- Introduce private sector participation

**Creation of Electricity Development Corporation (EDC)** with the mandate to develop, own and operate new hydropower assets

**Commissioning of first IPP in Cameroon: Dibamba HFO (88MW)**

**Rural Energy Fund established**

**Creation of a sector regulator**

**Creation of a rural electrification agency (AER)**

**GoC entered in a 20 year concession with AES Corporation to operate the vertically integrated power utility SONEL**

**New Electricity Law (2011/022) to facilitate hydropower development and pave the way for the creation of a new publicly owned transmission company (unbundling of the sector)**

**Adoption of a decree to set the water tariff for hydropower producers**

**Commissioning of second IPP: Kribi gas-to-power (216MW)**

**AES sold its equity stake in AES-SONEL to ACTIS**

**AES SONEL becomes ENEO**

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**Rural Electrification Master Plan Approved**

**Creation of Nachtigal Hydro Power Company (NHPC) – first hydro IPP (420MW) - Financial close expected in 2017**

**Total private investment: $369.3 million (+ Note: about EURO 1 billion)**
Africa is a continent with huge needs
And huge potential

Private sector participation and investment in its infrastructure
is a key to long term success

There are new ways to manage risks and so capture commercial opportunities
THANK YOU
CONTACTS

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