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Example of practical analysis of proposed profitability evaluation criteria of private equity investment in a set of African target countries

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Abstract

The aim of this thesis is to analyze the main aspects related with foreign direct investments in developing countries, with a particular focus on Sub-Saharan Africa (SSA) and on the energy sector.

The starting point will be the study of opportunities and threats of this area of the world, then, the focus will pass to the as is investment approach, considering the main actors involved in the process. The third chapter, instead, will put the attention on private equity investors, analyzing the main differences they should face in respect to the developed world, and the latest trends. Going in depth with this analysis about private equity, the focus will pass on another fundamental point: profitability issues in SSA countries, comparing then the situation with Latin America and Caribbean (LAC) countries, where we can find similarities, but also shortfalls that can be avoided in the SSA case.

Finally, the last chapter will introduce a useful model in order to spot the most attractive countries for investment, and then, the ones resulting on the top of the list will be analyzed more in depth.

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INTRODUCTION

In a moment in which returns on investments in the developed world are getting lower and lower, the interest of private investors towards developing countries is continuously increasing.

In particular Africa is experiencing a large growth in recent years and it offers a lot of investment opportunities with high expected returns. Moreover, Africa lacks of both capital and management expertise, so, foreign private investors are a perfect fit, helping innovative and dynamic African companies and providing an opportunity to those who want to both contribute to, and benefit from, Africa's growth story.

However, higher returns come with higher risk: in fact, the macro situation in Africa leads to a difficult environment for private investors that often are discouraged despite interesting opportunities. Overcoming these obstacles, and adapting to the demands of doing business in Africa is at the heart of the challenge.

A particular focus will be given to the energy sector that is one of the most interesting ones, both for the quantity of opportunities and for its importance in the general development of African economies.

Starting from the the main opportunities and challenges investors have to face in these countries, the main players involved in the current investment approach, and the key facts related with private equity in Africa, this thesis is going to make a deep analysis and accurate considerations, aiming at the definition of the main factors that an investor should consider in order to identify the most attractive countries in this environment in terms of expected profitability and mitigation of the risks.

CHAPTER I

1 – Opportunities and challenges to investments in African countries

Africa's difficult economic geography presents a particular challenge for the region's infrastructure development.

Relative to other continents, Africa is characterized by low overall population density (36 people per square kilometer), low rates of urbanization (35%), but relatively rapid rates of urban growth (3.6% a year), a relatively large number of landlocked countries (15), and numerous small economies.

Moreover, the European colonization of African countries created many challenges in the moment they got their independence, in particular:

- Multi-ethnic states that had no logic to their boundaries. This caused situations with many ethnic groups in one state or one ethnic group spread over many states. Both led to conflict.
- Economies geared toward colonial goals. The Europeans were not trying to create mature and stable economies. They just wanted the colonial economies to help the colonizing country. This meant that the newly independent countries had weak economies that were generally only geared towards extractive industry.
- A lack of educated citizens to take over the running of the government and economy. The colonizers didn't really care about educating Africans because they had little need for highly educated subjects. Once independence came, not enough Africans had been educated or trained well enough to take over major positions in a modern government.

Africa's atomized nation-states are reflected in the region's fragmentary infrastructure networks. Sub-Saharan Africa comprises 48 nation-states, many of which are very small.

Intraregional connectivity is therefore very low, whether measured in transcontinental highway links, power interconnectors, or optic fiber backbones. Most continuous transport corridors are concerned with providing access to seaports, whereas the intraregional road network is characterized by major discontinuities.

Few cross-border interconnectors exist to support regional power exchange, even though many countries are too small to produce power economically on their own.

For these reasons it is interesting to analyse the current investment dynamics in the continent, in order to identify the main opportunities in the various sectors and the main challenges.

INFRASTRUCTURES

Infrastructure has been responsible for more than half of Africa's recent improved growth performance and has the potential to contribute even more in the future.

Across Africa, infrastructure contributed 99 basis points to per capita economic growth from 1990 to 2005, compared with 68 basis points for other structural policies.

That contribution is almost entirely attributable to advances in the penetration of telecommunication services.

The deterioration in the quantity and quality of power infrastructure over the same period retarded growth, shaving 11 basis points from per capita growth for Africa as a whole and as much as 20 basis points for southern Africa.

Simulations suggest that if all African countries were to catch up with Mauritius (the regional leader in infrastructure) per capita growth in the region could increase by 2.2%.

In most African countries, particularly the lower-income countries, infrastructure emerges as a major constraint on doing business, depressing firm productivity by about 40%.

For one set of countries, power emerges as the most limiting factor by far, cited by more than half the firms in more than half the countries as a major business obstacle. For a second set, inefficient functioning of ports and associated customs clearance is equally significant. Deficiencies in transport and in ICTs are less prevalent but substantial in some cases.

Infrastructure is also an important input to human development. Safe and convenient water supplies save time and arrest the spread of a range of serious diseases—including diarrhea, a leading cause of infant mortality and malnutrition. Electricity powers health and education services and boosts the productivity of small businesses. Road networks provide links to global and local markets. ICTs democratize access to information and reduce transport costs by allowing people to conduct transactions remotely.

Moreover, Africa's infrastructure services are twice as expensive as elsewhere, reflecting both diseconomies of scale in production and high profit margins caused by lack of competition.

Not only are Africa's infrastructure networks deficient in coverage, but the price of the services provided is also exceptionally high by global standards.

The explanation for Africa's higher prices sometimes lies in genuinely higher costs, and sometimes in high profits. The policy prescriptions for the two cases are, of course, radically different.

NETWORKS

Africa's infrastructure networks increasingly lag behind those of other developing countries and are characterized by missing regional links and stagnant household access.

The differences are particularly large for paved roads, telephone main lines, and power generation. For all three, Africa has been expanding stocks much more slowly than other developing regions;

Africa started out with stocks that were generally not very different from those in South or East Asia in the 1960s for roads, in the 1970s for telephones, and in the 1980s for power. The comparison with South Asia, which has similar per capita incomes, is particularly striking.

Even where infrastructure networks are in place, a significant percentage of households remains unconnected, suggesting that demand-side barriers exist and that universal access entails more than physical rollouts of networks. As might be expected, access to

infrastructure in rural areas is only a fraction of that in urban areas, even where urban coverage is already low by international standards.

ENERGY

Power is by far Africa's largest infrastructure challenge, with 30 countries facing regular power shortages and many paying high premiums for emergency power.

Power consumption, at 124 kilowatt-hours per capita annually and falling, is only 10% of that found elsewhere in the developing world, barely enough to power one 100-watt light bulb per person for 3 hours a day.

More than 30 African countries experience power shortages and regular interruptions to service.

The underlying causes vary: failures to bring on new capacity to keep pace with the demands of economic growth, droughts that reduced hydropower in East Africa, oil price hikes that inhibited affordability of diesel imports for many West African countries, and conflicts that destroyed power infrastructure in fragile states.

1.1 Focus on the energy sector

Sub-Saharan Africa is a rich area in terms of energetic resources, but the production of energy is very poor. For the development of this region, that includes the 13% of the world population but that counts for only the 4% of global energy demand, the availability of reliable and economically accessible energy resources is a crucial point. Since 2000, Sub-Saharan Africa has experienced a rapid economic growth and energy consume is grown of 45%. Governments are intensifying their efforts in order to overcome the main bureaucratic and political barriers that are slowing down investments in energy production; however, the inadequacy of energy infrastructures can restrain the attainment of important improvements in the standard of living of the population.

In Figure 1.1.1 it is possible to see how electricity access varies inside the whole continent and in the Sub-Saharan region. The figure represents the percentage of population that has access to energy: in dark red we have the biggest percentages and so on the lightest represent the lowest. In particular, it is possible to notice how you pass

from zones as North Africa, where almost the whole population has access to electricity, to zones as Niger, Chad, Democratic Republic of Congo and so on, where the percentage of population with access to energy is almost nothing. Looking at other areas in the world you can understand how Sub-Saharan Africa is characterized by problems rooted in the territory. Therefore, afterwards African regions will be examined, understanding the state of electricity supply in the territory.

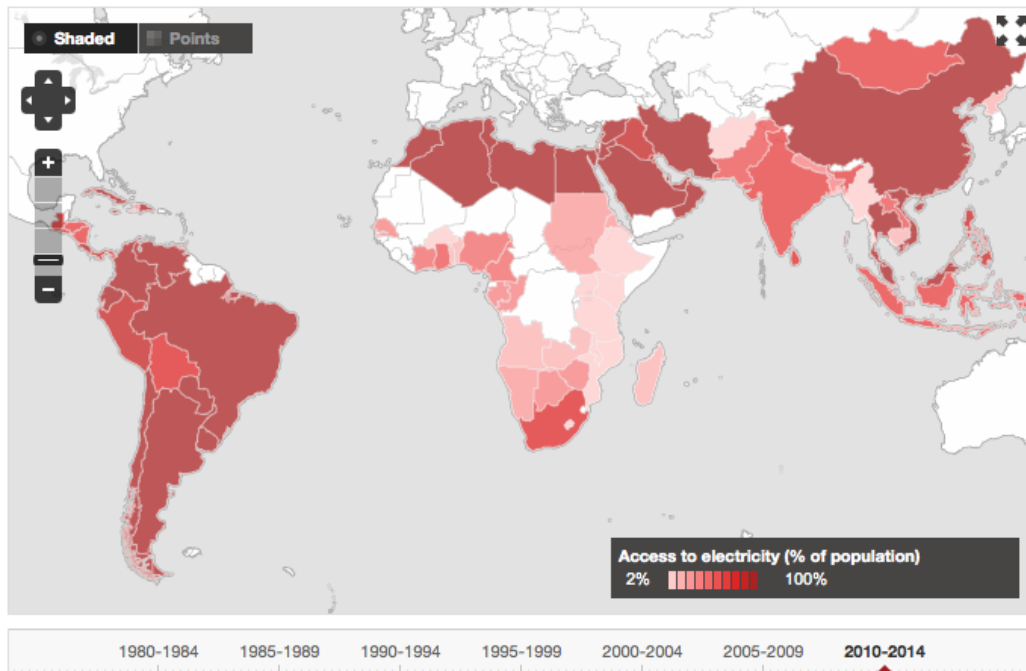


Figure 1.1.1: Electricity access (% of population), World Bank (2013)

For the previous considerations about the northern region of Africa, you can consider this area as already developed both on the energy access and because, confining with the Mediterranean Sea, they have good commercial and strategic agreements with Europe. So the aim is to exclude these countries, being them misaligned in respect to the rest of the continent for a group of reasons: you can think at the diversities in the status of available resources, or at the different markets on which these territories can trade. For example, the European Commission has started since 1995 with countries of Mediterranean area a market of free trade, with the objective of eliminate the barriers to investments and promote negotiations, liberalizing the commerce of goods and

services¹.

The nations involved in this partnership are Morocco, Algeria, Tunisia, Libya and Egypt. This in fact has allowed them to get a good advantage in respect to other countries in the region, in except of South Africa. So, this area is not so interesting for this work and, moreover, it is affected by difficult political and religious situations that reduce the pull of investments. For these reasons it is been decided to exclude this part from the target nations of the case study.

It is possible to make a similar reasoning for the southern area of the continent: in particular, thinking at the strategic position of South Africa, that in time permitted it to become a hub in the continent regarding international markets of Austral area. Moreover, you have to consider also the heritage they get from the British administration of the legal system, the banking and financial sector, that increased the foreign direct investments in the country; moreover, in 2009 South Africa produced the 30% of the GDP of the Sub-Saharan Africa. It is also significant the fact that the installed electrical capacity in 2011 in South Africa is 44,2 GW against the 41,8 GW in the rest of the Sub-Saharan region.

We have already stressed the fact that the situation varies widely from area to area, but, if you consider Sub-Saharan Africa as a whole, only 290 on 936² million of people have access to energy and the total number of the ones who did not is increasing. Efforts in promoting electrification are intensifying, but they are not able to follow the demographic increase. Despite the increase in investments in new energy supply, since 2000 to today, two third of the total were devoted to development of resources focused on exports.

1.2.1 Electricity for shaping the future

The severe lack of electrical infrastructures is putting at risk the efforts to reach a faster economical and social development. For that minority of people that nowadays can benefit from a connection to an electrical network, the supply is often unreliable, this

¹ Named Euro-Mediterranean partnership, <http://ec.europa.eu/trade/policy/countries-and-regions/regions/euro-mediterranean-partnership/>.

² Data from World Bank 2013.

leads to the widespread use of private and costly backup generators powered with diesel or petrol. In a lot of areas, electrical tariffs are among the highest in the world and, excluding South Africa, the reported losses due to the poor maintenance of the transmission and distribution networks are the double of the standard. The implemented reform programs begin to generate developments in efficiency and in attract new capital, also from private investors, though the starting point is very low and currently at 90 GW (half of which in South Africa). Urban areas benefit from the biggest improvements in terms of coverage and reliability of electrical supply centrally managed.

Mini-grid and off-grid systems provide, instead, electricity at 70% of the ones who get the access in rural areas, as we will see later. Thanks to the success of some electrification programs, as the ones implemented by Ghana and Rwanda, the total number of people without access to energy will start to decrease starting from 2020 and it is expected that, before 2040, 950 millions of people will acquire access to electricity, a big step further, but not sufficient yet. According to these estimates from IEA³, in 2040 more than 500 millions of people, principally in rural areas, will be free of access to electricity. From Figure 1.2.1.1 it is easy to understand how the rapid growth in population is not helping the improvement of the rates of access to electricity.

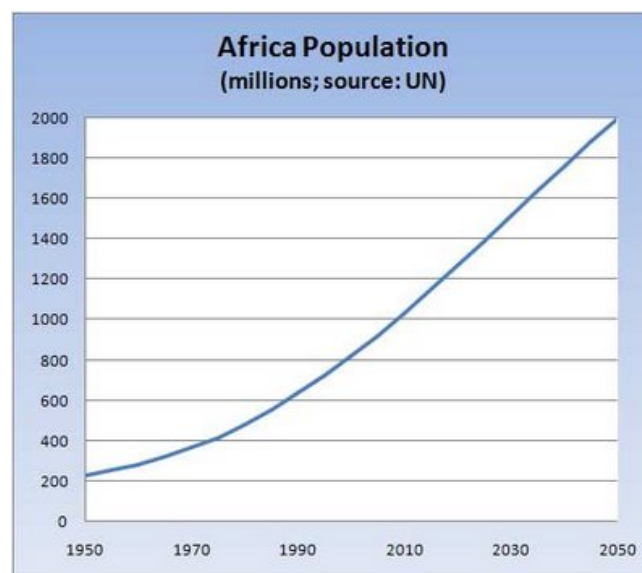


Figure 1.2.1.2: Population expansion in Sub-Saharan Africa

³ IEA: International Energy Agency.

Mini-grid and off-grid systems in rural regions of Eastern Africa tend also to be more sustainable thanks to the fact that there are mobile banking mechanisms as M-Pesa, developed for the first time in Kenya, that allow to people to pay the electrical services with their mobile phones in an easy way.

Sub-Saharan Africa is beginning to exploit its large potential for renewables energies. Hydropower accounts for a fifth of the current electricity generation, but it is used for less than the 10% of its estimated potential. The Democratic Republic of Congo, where only the 9% of the population has access to electricity, represents an example of coexistence among a huge hydropower potential and an extreme energy poverty. The political instability, the limited access to credit, the little dimension of markets and the poor interconnections with near countries, are all elements that have restrained the exploitation of hydropower resources. These constraints are gradually failing, thanks principally to a larger regional cooperation and the emergence of the China, among the traditional lenders, as important investor in big infrastructural projects. The development of a new hydropower capacity in countries as the Democratic Republic of Congo, Ethiopia, Mozambique and Guinea, among the others, is fundamental for the reduction of average costs of electrical supplies in the region, in that it determines a lower weight of oil-fired power stations.

An increasing contribution for the development of new electricity supplies comes from the others renewables energies, primarily from solar technologies. Geothermal becomes the second biggest source of electricity in the Eastern Africa, mainly in Kenya and Ethiopia. It thinks that in 2040, two thirds of the mini-grid and off-grid solutions used in rural areas will be powered by solar photovoltaic, mini-hydropower or wind. With the costs reduction, the competitiveness of renewables plants increases in respect to diesel generators (despite they are usually used together), mostly where there are enough funds to cover the high investment costs.

The bioenergy consumption, principally firewood and charcoal, is superior in respect to the demand of all the sources of energy considered together, situation that the

improvement of economical conditions will modify slowly. In Sub-Saharan Africa, four persons on five rely on the traditional use of solid biomass, mostly firewood, to cook. The increase of 40% of the demand of bioenergy expected from now to 2040 is worsening the tensions on the forests and the efforts to promote a more sustainable production of wood are hindered by the fact that large part of the supply chain of these sources, firewood and charcoal, is managed outside the traditional economical circuits. The scarcity of resources, together with the efforts made in order to make alternative fuels as GPL available, leads to a lower use of wood, mainly in the cities.

Approximately the 30% of all the discoveries of oil and gas realized in the last 5 years are concentrated in the Sub-Saharan Africa, reflecting the growing interest for the resources of this continent. Nigeria is the richest country regarding oil resources; however, regulatory uncertainties, militant activities and the thefts of oil in the Delta of Niger represent a deterrent for investments and production, to the point that Angola is expected to surpass Nigeria becoming the principal producer of crude oil in the region at least until the beginning of the 2020 decade⁴. The value of the 150.000 barrels of crude oil that are estimated to being lost every day due to thefts, is higher than 5 billion dollars in one year, it would be sufficient to finance the universal access to electrical energy for the whole Nigerian population within 2030. Several smaller producers, as South Sudan, Niger, Ghana, Uganda and Kenya, experience an increase in their production of oil. Countries which possess natural gas resources can feed their internal economical development and increase the inflows from exports, but only if they are able to implement adequate regulatory, infrastructural and prices systems. In Sub-Saharan Africa incentives to the use of gas are expected to grow, supported by electrical sector reforms and the realization of infrastructures; however, as today, the volume of flare gas (flaring⁵) is equal to the one consumed inside the region. Over the years, due to the flaring 1.000 billions of cubic meters of gas were wasted, a volume that if it was been used to produce electricity it would cover the current electrical requirement of Sub-Saharan Africa for more than one decade. Nigeria confirms itself as the principal consumer and producer of the region, but the centre of gravity of new projects within

⁴ Source: IEA, World Energy Outlook 2014.

⁵ Flaring is the burning of natural gas that cannot be processed or sold.

gas moves towards the Eastern coast and to the huge offshore discoveries made in Mozambique and Tanzania. In Mozambique are focused the biggest projects as well as the firsts to be realized. The export of GNL from the Eastern coast is favoured by the relative geographical proximity to the Asian markets, and both the countries are determined to promote their respective domestic markets of gas, in its infancy today.

The production and consumption of charcoal is also gradually spread outside South Africa, but in the Sub-Saharan energetic mix this source is overcome by oil that states as the second largest fuel, after the bio energies. In many cases, the development of new productions of charcoal is thwarted by their remote locations and by the lack of adequate rail and port infrastructures. These elements affect also the perspectives of South Africa in that the existing mines, near Johannesburg, are running low. Most of the increase of the 50% of the regional production is used for domestic purposes, particularly for the electrical generation; the only important new international outflow regards the coking coal produced in Mozambique. The future of coal is also limited by energetic politics: South Africa, main actor in the African carboniferous market, is searching to diversify its mix of electrical generation; renewables, regional projects for hydropower, gas and the possible new nuclear capacity contribute to reduce the weight of coal in electricity production, that is expected to decrease from the current level higher than 90% to less than two thirds of the total (about 66%) in 2040. However, its relatively low cost makes that coal remains a source of primary importance in those sectors in which the price of electricity continues to represent a serious element for concern. Sub-Saharan Africa is also particularly exposed to climate changes, even if its contribution to the world CO₂ emissions linked to energy remains limited (its quota increases to 3% of the total in 2040). But the main challenges remain the ones inside the region and concern not only the needs of a growing population, but also the weakness of the institutional scene, an unfavourable climate to investments and technical and political barriers that hinder the regional commerce. All in all, there is a scenario in which the energetic system is in rapid expansion, but that still toils to keep up with the necessities that it is called to satisfy. Moreover, while the access to modern energetic services is increasing for the poorest bands of the population, hundreds of millions of people, mainly in the rural communities, remain without.

1.2 Constraints to private investment

Between 1990 and 2013, investments in new power generation capacity totaled approximately \$45.6 billion (\$31.3 billion, excluding South Africa), or far below what is required to meet Africa's growth and development aspirations). Although public utilities have historically been the major sources of funding for new power generation capacity, that trend is changing. Most African governments are unable to fund their power needs, and most utilities do not have investment-grade ratings and so cannot raise sufficient debt at affordable rates. Official development assistance (ODA) and development finance institutions (DFIs) have only partially filled the funding gap. ODA and concessional funding has fluctuated considerably over the past two decades and has recently been overshadowed by Independent Power Projects (IPPs) and Chinese-supported investment. Indeed, private investments in IPPs and Chinese funding are now the fastest-growing sources of finance for Africa's power sector. A good investment climate provides opportunities and incentives for firms to invest profitably, create jobs and expand output, thereby increasing private investment and growth. The literature shows that the better the investment climate the higher the levels of private investment are likely to be.

However, in the poorest developing countries, businesses frequently operate in investment climates that undermine their incentive to invest and grow. Businesses seek to maximize the risk adjusted rate of return to investment after tax. Investment climate constraints serve to depress the potential rate of return on investment, increase risk and/or prevent the entrepreneur from capturing the returns on offer. The literature highlights seven investment climate constraints that affect the rate of private investment and the survival and growth of firms:

- **Macro level stability:** Macro instability (economic, social and political) deters investment by making future rewards more uncertain or undermining the value of assets. Studies show that the greater the level of instability, the lower the rate of private investment and growth. Instability also increases the risk of firms going bankrupt, suffering slower growth or contracting if political conflict ensues. Fiscal and

monetary policies that reduce inflation, policies that help to establish a competitive exchange rate, and political and social stability are needed to sustain high rates of investment and growth.

- **Crime and corruption** represent a substantial risk to earning attractive returns to investment and increase the cost of doing business, whether through the payment of bribes, the direct loss of goods or the costs of crime prevention. There is strong evidence that, at the macro level, these factors reduce the rate of private investment, job creation and growth. At the firm level, there is some evidence to show that these factors reduce the growth of output, investment and job creation. Greater transparency and accountability, simplification of administrative procedures and merit-based human resource management in public administration make it possible to curb corruption.
- **Business regulation and licensing.** Whereas firms need to be regulated and licensed, if the costs they incur in complying with regulation are unnecessarily high, business entry and firm growth will be lower. The literature points to faster growth when countries improve their rank in the World Bank's Doing Business Index, especially if they move from being one of the worst performers to being amongst the best. There is some evidence also of poor licensing and regulation leading to low entry rates of new firms and lower productivity and growth of established firms. However, by itself, better business regulation may not result in faster economic growth.
- **Institutions and the legal system.** There is strong cross country evidence in the literature that weak institutions, particularly for the protection of property rights, and an ineffective judiciary that is unable to enforce contracts, reduce investment and growth. This is supported by firm level evidence which shows that secure property rights and better contract enforcement enable firms to grow: they increase their incentives to invest longer term, feel secure in trying out new suppliers, and enter into more complex contracts. Better systems of registering property, improved security of land tenure and reforms that reduce the cost of

contract enforcement, such as promoting alternative dispute resolution, are policies that support better institutions and legal systems.

- **Taxation.** Excessively high rates of tax exact a high cost in terms of lower private investment and growth. They reduce the incentive to invest because the after tax returns to investors are lower. In addition, the cost of compliance with the administration of taxes can be high. The literature shows that lower rates of tax can increase investment and growth. Higher rates of tax can decrease business entry and the growth of established firms, with the medium sized firms hit hardest, as the small can trade informally, and the large avoid taxes. As well as reducing tax rates, policies that broaden the tax base, simplify the tax structure, improve administration and give greater autonomy to tax agencies help to reduce this constraint.
- **Financial Constraints.** Firms need to be able to access external finance to invest more. Moreover, the higher the cost of capital the lower the expected rate of return to the entrepreneur. There is a robust body of literature that shows that financial deepening, measured by the ratio of private credit to GDP, results in higher rates of growth and faster growth in the incomes of the poor, especially in the poorer countries with less well developed financial sectors. Studies show that firms able to access external finance are more likely to survive, invest and grow than those denied access.
- **Infrastructure.** Access to infrastructure allows firms to become more productive (energy), reduce transaction (ICT) and transportation costs (roads, railways) and expand their businesses by reaching markets further afield. There is ample evidence to show that greater investment in infrastructure leads to faster growth. Studies also point to higher levels of investment, greater productivity and faster growth of firms that have better access to infrastructure, especially in the poorer countries where infrastructure is less developed. Greater investment in infrastructure, public and private, and higher expenditure on maintenance are needed to reduce this constraint.

Much of the literature focuses on correlating one or more of these seven investment climate factors to macro level impacts on investment and growth. Studies which trace the effect of these factors on the survival and growth of firms are much rarer, a gap that needs to be addressed.

In addition to these external factors, there are constraints internal to firms that prevent greater private investment. The literature points to access to technology and good quality management as important internal constraints.

CHAPTER II

2- The investment approach

2.1 Overview of potential players

Capital to energy projects is provided by a variety of financial instruments, which include different types of debt, equity and mezzanine finance. Each of the capital providers, i.e. investors, have specific return requirements that, depending on the financing mix, determine the project cost of capital.

Table 2.1.2: Summarizing table on investors and their main interests, (CPI, 2011)

Investor Type	Risk Requirements	Metrics of Interest	Cost of Capital
<i>Debt</i>	Low risk tolerance, generally will not bear technology or completion risks, typically insulated from operational risks.	Debt service coverage ratio (DSCR), Margin or Interest Rate	Low
<i>Mezzanine</i>	Somewhat low risk tolerance, will bear some operational risks, but generally not completion risks.	IRR, Interest Rate and Default Probability (for Fixed-Income Instruments)	Low – Medium
<i>Balance Sheet Equity</i>	Bears all project risks.	IRR, other metrics relevant to internal decision-making	Medium
<i>Project Finance Equity</i>	High risk tolerance, willing to concentrate project risk by increasing project leverage.	Project IRR, Levered IRR	Medium - High

2.1.1 Debt investors

They are willing to bear the least risk in turn for the lowest returns. Their target investment projects are generally ones not using untested technologies; contractual arrangements are often required in order to protect from technology-related delays or underperformance. This kind of investors is particularly cautious regarding policy and regulatory risks, especially when the cash flows, they earn return on, depend on policy support. Debt investors usually gain capital over a determined coupon rate, or over specified margin above a benchmark interest rate⁶.

A characteristic concern of debt investors is about the default risk of their investment. Rigorous assessments of project risks are therefore conducted by taking under analysis the different scenarios in which the borrower would default on debt, and the happening probability of those scenarios.

The debt service coverage ratio (DSCR) is one of the main metrics considered when evaluating default risk. For example, debt financiers in wind projects look at the DSCR under a wide range of wind resource scenarios: they might require that low wind conditions with a 10% chance of occurring generate sufficient cash flows to cover 1,2-1,4 times the amount of debt payments. Certain contractual conditions may be used to maintain adequate DSCR, like cash sweeps⁷ or sculpted amortization schedules⁸.

2.1.2 Mezzanine investors

Their investment objectives are various. Debt-like predictability of returns might be demanded on one side, while, on the other, in turn of higher rate of returns they might tolerate more default risk. Equity with a capped return in exchange for limited exposure

⁶ When a debt instrument specifies a margin rather than a fixed rate, the margins usually measured in basis point above an interbank rate, such as LIBOR or EURIBOR.

⁷ Cash sweeps capture cash flows that would not be used to service debt for advance repayment of the principal and interest. This contractual clause is designed to protect debt investors from unexpectedly low project cash flows. Cash sweeps reduce the amount of project cash flow available for project equity investors.

⁸ Sculpted amortization allows debt service payment amounts to vary with cash flows, to account for variation in cash flows across seasons. This is another way of protecting debt investors from low project cash flows, by capturing additional payments when cash flows are high. Sometimes amortization schedules are sculpted to maintain a constant debt service cover ratio.

to equity risks could also be a preferred option.

Tax equity is a mezzanine investment tool created by the US structure of tax incentives for renewables energies(RE). Tax equity investors achieve returns primarily based on tax credits for financing or producing RE and on tax benefits deriving from accelerated depreciation of the cost of capital of a project. In order to absorb the typical tax benefits, tax equity investors need to have enough tax liability. As their returns are mainly based on tax and depreciation policy, these investors are affected mostly by regulatory risk rather than by cash flow and revenue risks from which are somehow protected.

2.1.3 Balance sheet equity investors

Typical balance sheet equity investors are large utilities financing new projects with fully owned capital. As they are the only capital providers in the project financing structure, they undertake most or all of the project risks. They generally care for good Internal Rate of Return (IRR) or Return on Equity (ROE) to assess the project profitability. The IRR is compared with the cost of capital of the company and it acts as a threshold rate designated for a particular type of project, given its risk profile.

2.1.4 Project finance equity investors

Project finance equity investors hold a share of the ownership in their projects together with other equity partners, mezzanine investors and debt ones. Undertaking most of the project risks equity investors, which often coincide with the project developers, are rewarded with higher potential returns, which can be increased by the use of leverage that helps in concentrating project risks with a smaller amount of capital.

As very often project developers are the stakeholders with the most control over many aspects of a project, they are likely to be more appropriate in managing or mitigating project risks. The most common metric used when equity and debt are both part of the financing mix is the levered IRR, the rate of return after debt is serviced. Equity investors evaluate the rate of return they receive given the risks they absorb, meaning that they are most interested in the risk-adjusted rate of return on their investment.

2.2 Policy influence on the investment environment

Policies influence the allocation of costs and revenues, the allocation of risks, and the technology choices and business practices of the energy sector actors. Concretely, policies can directly affect the following:

- **Revenue certainty:** income streams from the sale of renewable energy projects suffer from high levels of volatility. Investors are likely to require a premium to bear such uncertainty, and policies can help in reducing costs and improving revenues.
- **Risk perception:** investors, perceiving project risks, are likely to ask for a premium for projects that depend on substantial incentives based on their perception on the political sustainability of the incentives.
- **Risk distribution:** policy can influence the allocation of risks among project stakeholders or reduce the impact of such risks on financing costs and thereby broaden the base of interested investors by meeting their maximum acceptable risk.
- **Duration:** different classes of investors have different investment horizons, and their investment decisions are strongly influenced by a project financing term.
- **Cost and completion certainty:** construction and operational costs and timing uncertainties can substantially impact on investors' returns. Policy requirements can reduce these risks or shift them other stakeholders comfortable with bearing them. They can also reduce development timeframes and increase success rates in order to achieve improvements in the developer capital efficiency and returns and attract investor interests.

2.3 Sources of investment

Before talking about the various sources of capital available for energy projects, it is important to underline the different natures of the capital that can be invested.

DEBT FINANCING

Debt financing means the use of borrowed funds: the borrower is provided with capital by a lender for a defined economic purpose in exchange of the debt repayment plus a

small return over the transaction at the term of the lending agreement. Debt financing can be under the form of loans (under recourse or limited recourse structures), leasing arrangements, guarantees and bonds. It can also include options by which loans are converted to an agreed amount of equity of the borrower so that the transaction return increases for the lender. Lenders obtain their repayment from the specific economic activity for which the capital has been used, therefore they need to assess and manage risks that would affect that repayment.

The simplest debt agreement is the basic loan where a sum of capital is lent for a fixed period of time, to be repaid by a certain date and with a percent interest on the sum and other transaction costs.

Bonds are a debt security mechanism, in which the borrower (authorize issuer) owes the lender (holder) a debt and, depending on the terms, is obliged to pay interest (coupon) and/or to repay the principal at a later date, termed maturity. They are a way to create the investment needed now to deliver the benefits over long-term. Green bonds are tied to specific climate change mitigation or adaptation investments and allow governments to raise capital o support the private sector in raising capital to build energy generation and its infrastructure and support energy economic development opportunities.

EQUITY FINANCING

Equity financing refers to the acquisition of funds through the issuance of common or preferred stock in anticipation of income from dividends and capital gain as the value of the shares rises. Also sometimes refers to the acquisition of holdings in unlisted companies or private start-up companies. Equity is the residual claim or interest of the investors in an asset, after all liabilities are paid; it is last claim against assets, paid only after all other creditors are paid. The equity held by individuals is often held through mutual funds or other pooled investment vehicles. In case of PF, unless the sponsor is a large company, it is typically provided by private equity funds.

In the end equity financing involves a direct investment into companies or projects, and can involve public listing on a stock exchange. Equity providers look for a return from the profits of the company or project, based on the risk they take and the money they invest; for this reason, it is also called risk capital.

Depending on the geographical area where the investment is needed and its development status, capital can be provided by different sources. Energy investments in developing countries are carried out by foreign and domestic professional investors (including private equity, insurance companies, pension funds) and start-up projects developers.

Table 2.3.2: Investment sources by area

Developing Countries	Developed Countries
Funds	Funds
Development Financial Institutions	Institutional Investors

2.3.1 Institutional investors

Traditional sources of private funding for energy are becoming more constrained in their ability to provide long-term capital. For example, it has become more difficult to obtain bank loans with long maturities as commercial banks face capital constraints and liquidity. In addition, the new Basel III banking regulation will most likely have an impact far from positive on energy financing: the new requirements will in fact require banks to have more capital in their balance sheets as a coverage for higher risk loans and it is expected that capital commitments associated with long-term energy projects may become too expensive for the banks to finance. In addition, as a result of the financial crisis, some of the most active have withdrawn from the market, mainly due to liquidity problems and the fact that these loans consume a lot of capital, but reward with low profits.

For these reasons it is to be expected that institutional investors will play an increasingly important role in financing energy projects⁹. Institutional investors are long-term investors organized as legal entities whose legal form varies widely: from straightforward profit maximizing joint stock companies to limited liability partnerships and incorporation by special statute. They operate both independently or as part of a

⁹ At the end of 2012 assets of the global fund management industry amounted at \$118 trillion.

larger company group, e.g. mutual funds who often are banks' and insurance companies' subsidiaries. As institutional investors manage and invest other people capital they often are synonymous to intermediary investors. According to the OECD (Organization for Economic Co-operation and Development) classification, there are three main categories of institutional investors.

Table 2.3.1.4: Types of institutional investors, (OECD, 2013)

Traditional Institutional Investors	Alternative Institutional Investors	Asset Managers
Pension Funds Investment Funds ¹⁰ Insurance Companies	Sovereign Wealth Funds Private Equity Hedge Funds Exchange Traded Funds	Independent Asset Managers Asset Management arms

SOVEREIGN WEALTH FUNDS

Sovereign Wealth Funds (SWFs) are state-owned investment vehicles that manage portfolios of financial activities, and lie among the most dynamic actors in the emerging international financial landscape. In the more recent years SWFs have recorded a notable growth trend which is to attributable to the rise in foreign exchange reserves that in certain countries have reached a level beyond what is required for monetary policy or contingency motives.

SWFs are usually capitalized by current account surpluses, typically from energy exports or a highly competitive manufacturing sector, and fuelled in part by sizable regular sovereign contributions.

¹⁰ Mutual funds are part of investment funds

Table 2.3.1.5: Top 10 SWF, (swfinstitute, 2015)

Country	Sovereign Wealth Fund Name	Assets USD-Bil	Inception	Origin
Norway	Government Pension Fund – Global	824.9	1990	Oil
UAE – Abu Dhabi	Abu Dhabi Investment Authority	773	1976	Oil
China	China Investment Corporation	746.7	2007	Non-Commodity
Saudi Arabia	SAMA Foreign Holdings	668.6	n/a	Oil
Kuwait	Kuwait Investment Authority	592	1953	Oil
China	SAFE Investment Company	547**	1997	Non-Commodity
China – Hong Kong	Hong Kong Monetary Authority Investment Portfolio	417.9	1993	Non-Commodity
Singapore	Government of Singapore Investment Corporation	344	1981	Non-Commodity
Qatar	Qatar Investment Authority	256	2005	Oil & Gas
China	National Social Security Fund	236	2000	Non-Commodity

The *Santiago Principles* illustrate and classify the SWFs into five categories: they are owned by a general government, manage or administer assets to achieve financial objectives and employ a set of investment strategies that include investing in foreign financial assets. They can also be:

- Stabilization funds are set up to insulate the budget and economy from commodity price volatility and external shocks. Their investment horizon is short. They tend to invest largely portfolios of highly liquid assets (and sometimes in instruments that are negatively correlated with the origin of risks faced by the fund) pursuing a low risk tolerance.
- Savings funds intend to share wealth across generations transforming non-renewable assets into diversified financial assets. Their investment profile underlines a high risk-to-reward ratio.
- Development funds are established to allocate resources to priority socio-economic projects, usually infrastructure.

- Pension reserve funds are set up to meet identified outflows in the future with respect to pension-related contingent-type liabilities on the government balance sheet. They held high shares in equities and other investments to offset rising pension costs.
- Reserve funds for pensions are set up to meet outflows in the future with respect to the pension-related liabilities on the government budget. They held high shares in stocks and other investments to offset rising pension costs.
- Reserve investment corporations plan to reduce the negative carry costs of holding reserves or to earn higher return on large stocks, while the funds' assets are still considered as reserves. To achieve this goal, they pursue higher returns by high investment in equities and alternative investments.

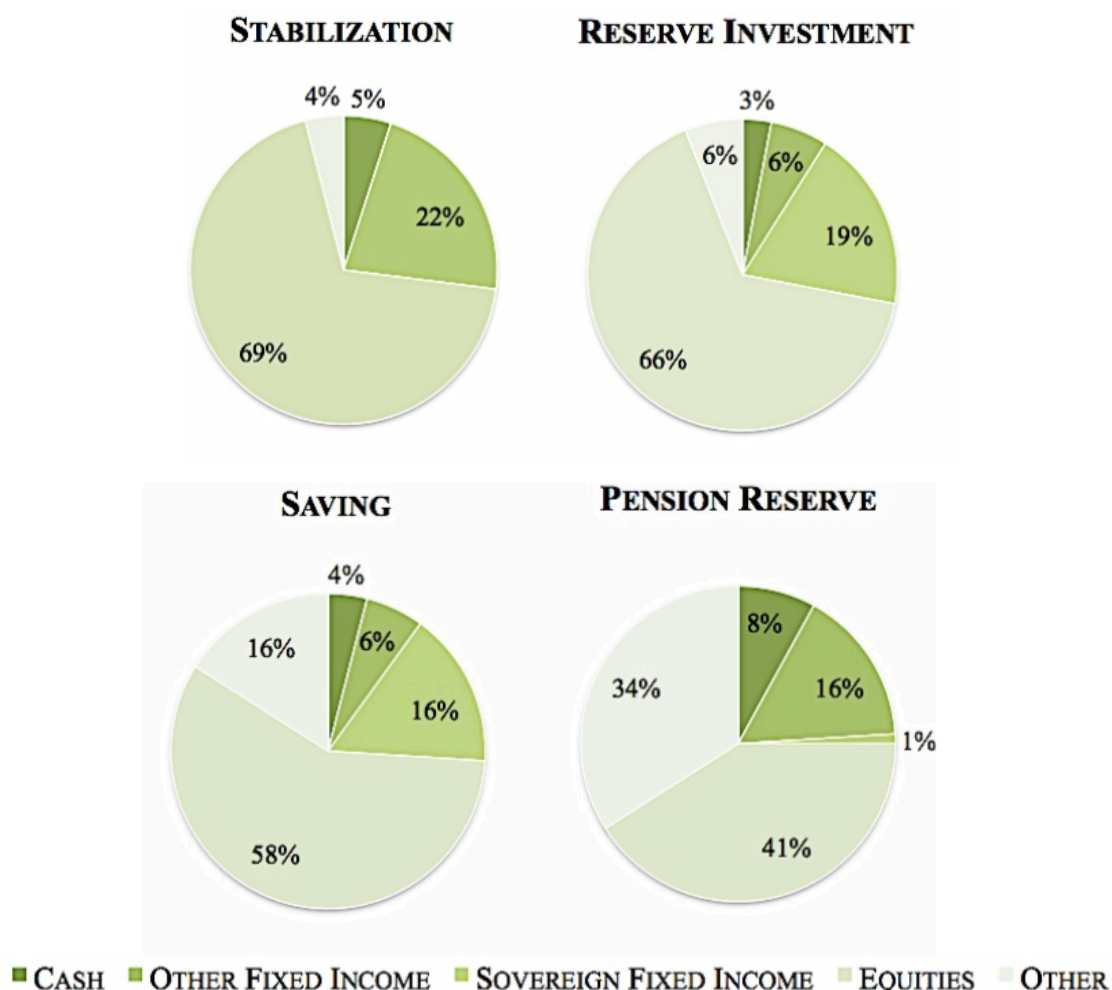


Figure 2.3.1.2: Asset allocation at SWF, by types of fund (IMF, 2012)

Some of them serve as central state ownership agencies with controlling stakes in listed state-owned enterprises with portfolio investment in companies both local and foreign while other SWFs are themselves state-owned enterprises. But their objective is in any case to provide husbanding wealth for future contingencies, including exhaustion of natural resource, distributing economic benefits to society, potentially through direct grants or economic development and stabilizing the economy in the event of near-term volatility by being active mainly in the financial services and real estate sectors. More recent trends show that SWFs have shifted their attention to other two target sectors: natural resources (oil, natural gas, coal and metals) and their associated industries (RE, energy transmission). This trend is not surprising given the nature of SWF establishment, they in fact are meant to manage their nation wealth for the benefit of future generations in the spirit of assuring intergenerational equity, and therefore they need to consider the consequences of their current investment behavior on the long-term availability of natural resources.

ASSET MANAGERS

Whether to include asset managers among the institutional investors is rather controversial. The reason for this lies in the very “definition” of asset managers. The managed capital is provided both by physical persons and institutional investors such as pension funds, SWFs and insurance companies that still remain the principal decision-makers. Asset managers therefore invest in behalf of their clients basing the investment strategy on the clients’ investment policy and objectives.

As asset managers, these investors suffer from top investment performance pressure needing to offer liquidity over the short and medium term: therefore, the investments are mostly made in liquid assets, so that liquidity is easily available when their clients withdraw. That is, they do not invest in project type assets that would be aligned with energy. However, exceptions exist, such as some private equity funds and infrastructure funds that specifically target direct investments in projects requiring lock-in periods of long duration. An important result is that if these funds target a specific group of institutional investors, marketing and execution of these funds is unlikely to meet the investment needs of any particular institution, especially considering how the

investment objectives of institutional investors vary.

The last two decades have seen a positive trend in the outsourcing of asset management. Asset management companies at the end of 2012 were estimated to have about \$68 trillion under management.

Table 2.3.1 6: Top 10 Asset Managers, (IPE, 2015)

Company	Country	2015 total	2014 total
		31.12.14 (€m)	31.12.13 (€m)
1 BlackRock	US/UK	3,844,383	3,140,715
2 Vanguard Asset Management	US/UK	2,577,380	1,997,915
3 State Street Global Advisors	US/UK	2,023,149	1,701,651
4 Fidelity Investments	US	1,595,380 ⁽¹⁾	1,411,250
5 BNY Mellon Invest. Management EMEA	US/UK	1,407,163	1,149,878
6 J.P. Morgan Asset Management	US/UK	1,266,805	1,129,854
7 Capital Group	US	1,167,231	907,909
8 PIMCO	US/Germany/UK	1,162,583 ⁽¹⁾	1,116,984
9 Pramerica Investment Management	US	968,628	804,608
10 Amundi	France	865,985	777,111

It is to note that some the asset managers are themselves traditional or alternative institutional investors, that manage their assets through special asset management arms. This is often true for insurance companies whose asset management arms are one of the largest categories of asset managers. These asset management arms, beyond managing the assets of the insurance company, also manage assets on behalf of other institutional investors.

INSURANCE COMPANIES

Large sophisticated investors, whose corporate performance depends on the performance of their investment portfolio, dominate the insurance company segment. Insurance companies are also asset managers, investing money both for external clients and for their parent insurance company funds. Some of the world leading insurance companies are making important commitments to energy.

Insurance companies also have significant exposures to climate change on the liability side of their balance sheets (through insurance claims arising from floods, storms and other catastrophic events). This makes them in a good position to evaluate and understand climate change risks. Being institutional investors, insurance companies have a role in providing risk mitigation instruments, which are crucial in order to mobilize capital from other sources.

Although some big insurance companies have committed to energy, regulation may be a hindering element. In addition, it may be more difficult for insurance companies to collaborate in terms of investment, given that as asset manager are also their direct competitors. Investment from insurance companies has the scope to increase, but the headline numbers and the potential should not be overestimated.

Among insurance companies there is a significant difference whether their business is life or non-life related.

Life Insurance Companies

To date, life insurance companies were the most active participants in direct investment in RE projects. Large players with a strong incentive to maximize the return respecting their relatively stringent risk management dominate the sector; life insurers' asset allocation is heavily into debt. In addition, the liabilities associated with life insurance policies are long-term and reasonably foreseeable encouraging life insurance companies to invest in long-term assets such as RE projects.

Among the various types of institutional investors, life insurance companies are best-suited and most capable investors in energy projects, and many are active participants in the market for project finance.

Non-Life Insurance Companies

Non-life insurance firms, mainly real estate companies and property damage, face various restrictions on direct project investing. Companies and their investment portfolios are generally smaller and there is greater uncertainty in the frequency distribution of the claims during the year; unlike life insurance, property and casualty

policies are often renewed on an annual basis. These factors increase the demand for liquidity. Shorter investment horizons reduce the attractiveness of long-term investment, while the smaller portfolios make direct investment in energy projects relatively more expensive and the potential additional return unjustified.

2.3.2 Funds

Investments in equity taking an ownership stake in a project, or the company, involve investment by a range of financial investors such as private equity funds, infrastructure funds and pension funds, in companies or directly in projects or portfolios of assets. Funds usually reach investment decisions using the IRR, as a key tool, to evaluate each potential project as it allows measuring and comparing the profitability of investments. Funds generally have expectations on the idea IRR they need to achieve. The IRR can be said to be the rate of growth a project is expected to generate.

All the following enlisted funds are considered a source of equity and they engage depending on the type of business, the stage of development of the technology, and degree of risk associated.

VENTURE CAPITAL FUNDS

They generally enter the investment during the early-stage of technology start-ups: they accept high risks and expect high returns for the provided capital.

Characteristics

1. The raised money come from a wide range of sources with high-risk profiles, including insurance companies, mutual funds, pension funds and individuals;
2. They target untested technologies and markets meaning their interest is in early stage companies;
3. VC funds face a high risk of failure in each venture they enter.

PRIVATE EQUITY FUNDS

The range of technology development stages at which they enter the investment is broader. They contribute at growing the capital so that the commercial rollout is enabled, or at staking equity when the technology is mature, generally expecting to exit the investment made within a short/mid-term.

Characteristics

- Funds drawn from a wide range of sources with medium-risk profiles, including insurance companies, mutual funds, pension funds and individuals;
- Their target is usually represented by opportunities with enhanced returns;
- They are interested in companies and projects with the more mature technology, including the ones preparing to raise capital in the public equity markets (pre-IPO), demonstrator technologies or under-performing public companies.

INFRASTRUCTURE FUNDS

They seek low-risk investments in mature companies or projects with longer-term horizon and lower expected returns, e.g. they might invest in roads, rails, power plants and transmission grids.

Characteristics

- They raise money from a range of institutional investors and pension funds;
- Being interested in long duration, steady low risk cash flows they target essential assets meaning proven technologies.

PENSION FUNDS

This kind of capital source is the most risk-averse with even longer time horizon and larger amounts of money to invest. They may allocate capital specialized funds or invest in bonds, which could be issued to raise capital for energy projects.

Characteristics

1. Typical direct investments can be: public equity; corporate and government bonds; real estate; private equity; CCE¹¹;

2.3.3 Development Financial Institutions

As already said energy investors in developing countries can be both foreign and local. Development Financial Institutions (DFI) fall in the category of the foreign investors and have a crucial role in channelling international funds to local actors, usually through national government agencies or national development banks. Considering that private investors look especially for the maximum financial return, DFI may include among their purposes the market development as well as the economic and the social impact. This allows them to find the value of investments in energy beyond financial returns. DFIs interventions allow long-term finance, early stage project risk mitigation and investments balancing depending on the private sector choices. In many developing economies national development banks are fundamental for the local energy financing.

Most of the financing was made in the form of loans with some exception where equity finance agreements were made. Development banks activity goes beyond providing capital, as they in facts also give help in preparing and analysing technical and financial documents for energy projects.

The reason why development banks often step in first in energy investment in developing countries is linked to the very nature of the investment, in facts public investors are more likely to accept less attractive risk-to-reward profiles in the short term if the long view of these risks, inherent in the development process, is worth it. Countries where public banks operate have the advantage of having them supporting policies goals and attracting private sector players by taking the riskier components of the financing packages and enabling commercial investors to provide the remaining funding.

¹¹ CCE= Cash and cash equivalents. An item on the balance sheet that reports the value of a company's assets that are cash or can be converted into cash immediately. [*Investopedia.com*]

CHAPTER III

3- Private equity in Africa

As private equity is one of the best fit for the African investment environment, given its nature that combines capital infusion and management expertise, in this chapter we are going to illustrate the main characteristics and developments of this source of finance in the region.

3.1 PE in developing countries

In many respects, private equity in developing and developed countries is similar. In both settings, professional investors provide equity or equity-linked capital to privately held firms. Another key element is the ongoing involvement of the private equity investor in monitoring and assisting the company.

Where private equity in developing countries differs is in its implementation. There are several key differences:

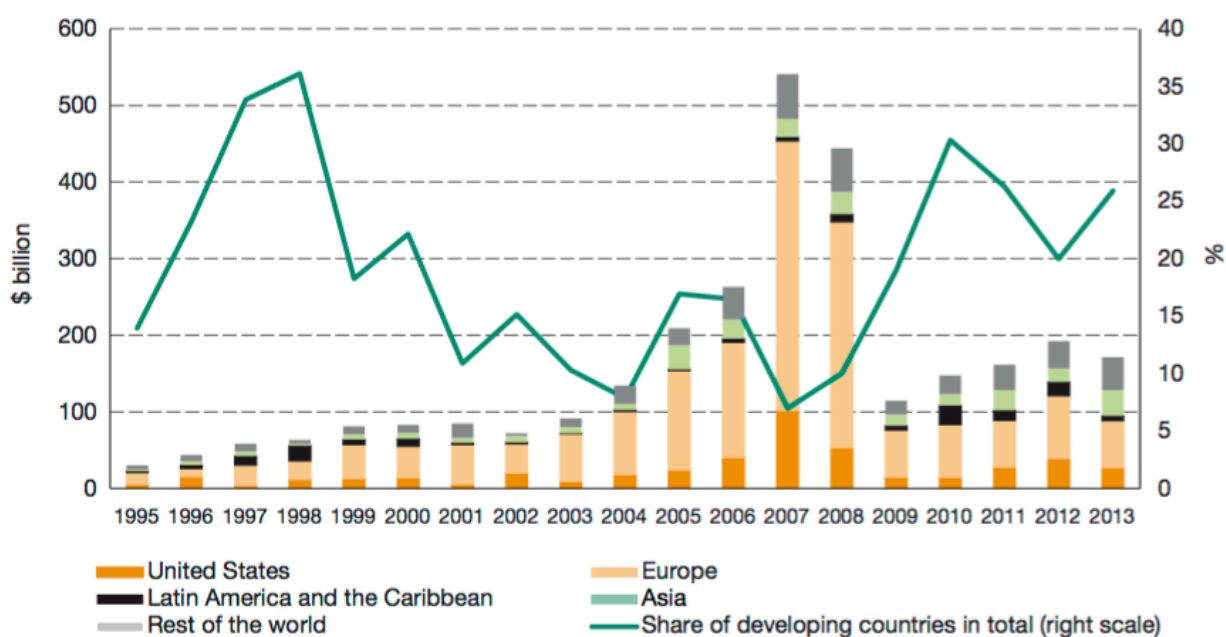
- **Fund structure.** The fund structure standard in developed countries is the limited partnership. The general partners are the individual venture capitalists (or an investment management firm controlled by these individuals). The general in return they are paid a management fee plus a share of the profits. The limited partners are prohibited from playing an active role in managing the investments and usually enjoy tax benefits. But in many portions of the developing world, particularly in Asia, there has been a general lack of legal structures that allow the establishment of limited partnerships. In these regions, many funds have been structured as corporations, which often do not have the forced liquidation feature of limited partnerships.
- **Funding sources.** Many of the sources of capital for private equity funds for private equity funds in developing countries are similar: e.g., pension funds and university endowments, typically based in the developed

world. Several additional parties, however, have played an important role in the raising of private equity funds in developing nations. These have included foreign aid organizations like the U.S. Agency for International Development, quasi- governmental corporations like the Overseas Private Investment Corporation, and multilateral financial institutions like the International Finance Corporation.

- **Types of investments.** Private equity funds in developing nations undertake transactions familiar in the United States, including leveraged buyouts, consolidations of fragmented industries, and venture capital investments. But they also undertake several types of transactions less common in the U.S. setting, including investments in privatizations, infrastructure projects such as highways and shipyards, and strategic alliances¹².
- **Exiting.** Perhaps the most vexing aspect of private equity investing in developing nations has been the difficulty of exit. The fortunes of private equity investors in the developed world have been largely linked to those of the market for initial public offerings (IPOs). Private equity investors in developing countries cannot rely on these offerings. Even in “hot markets” where large foreign capital inflows are occurring, institutional funds are usually concentrated in a few of the largest corporations. Smaller and new firms typically do not attract significant institutional holdings, and have much less liquidity. Consequently, private equity investors in developing countries have tended to rely on the sale to portfolio firms to strategic investors. This can be problematic, however, when the number of potential buyers is small. The purchaser can exploit the private equity investor's need to exit the investment, and acquire the company for below its fair value.

¹² In many cases, major corporations have made strategic investments in developing countries without a detailed knowledge of the business environment or their partners. To address these information gaps corporations have increasingly welcomed private equity fund as third party investors. The private equity investor is expected to provide much of the informed monitoring of the local partner that the corporation finds difficult to undertake.

Private equity firms are becoming relatively more active in emerging markets (figure 3.1.1). In particular, in Asia they acquired more companies, pushing up the value of M&As. Outside Asia, some emerging economies, such as Brazil, offer opportunities for the growth of private equity activity. For example, in Latin America, where Latin America-based private equity firms invested \$8.9 billion in 2013, with \$3.5 billion going to infrastructure, oil and energy. In addition, FDI by foreign private equity firms for the same year was \$6 billion. Also African countries are becoming an interesting field for foreign private equity firms and, as we will see in detail later, in last years PE investments grown significantly in the area. In contrast, slow M&A growth in regions such as Europe meant fewer opportunities for private equity firms to pick up assets that might ordinarily be sold off during or after an acquisition. Furthermore, the abundance of cheap credit and better asset performance in areas such as real estate made private equity less attractive.



Source: UNCTAD FDI-TNC-GVC Information System, cross-border M&A database (www.unctad.org/fdistatistics).
 Note: Data refer to gross values of M&As by private equity firms; they are not adjusted to exclude FDI by SWFs.

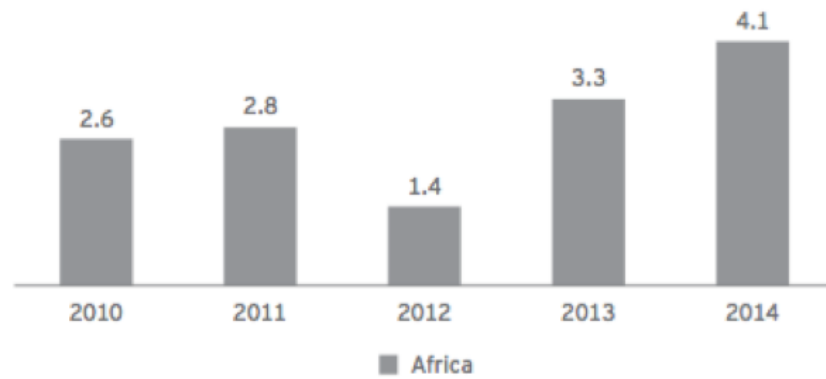
Figure 3.1.1: FDI by PE funds, by major host region, 1995-2013

3.2 Africa's situation

Over the last several years, the emerging markets have evolved into a critical pillar of global investors' strategies. As growth rates declined across most of the developed world in the aftermath of the credit crunch, private equity (PE) firms turned to emerging markets as an engine of growth. In 2008, Africa accounted for less than 4% of emerging markets fundraising. Now it accounts for over 9%. While global investor interest has begun shifting back in favor of the growing developed economies in recent months and away from some of the emerging economies that have weaker economic or political environments, Africa's strong long-term growth fundamentals continue to drive the development of the PE industry on the continent. In general, African entrepreneurs have begun to appreciate how private equity can help their businesses expand and, by improving such things as internal auditing and book-keeping, make them more robust. The rich world's negative association of private equity with asset-stripping "vultures" does not apply here.

FUNDRAISING

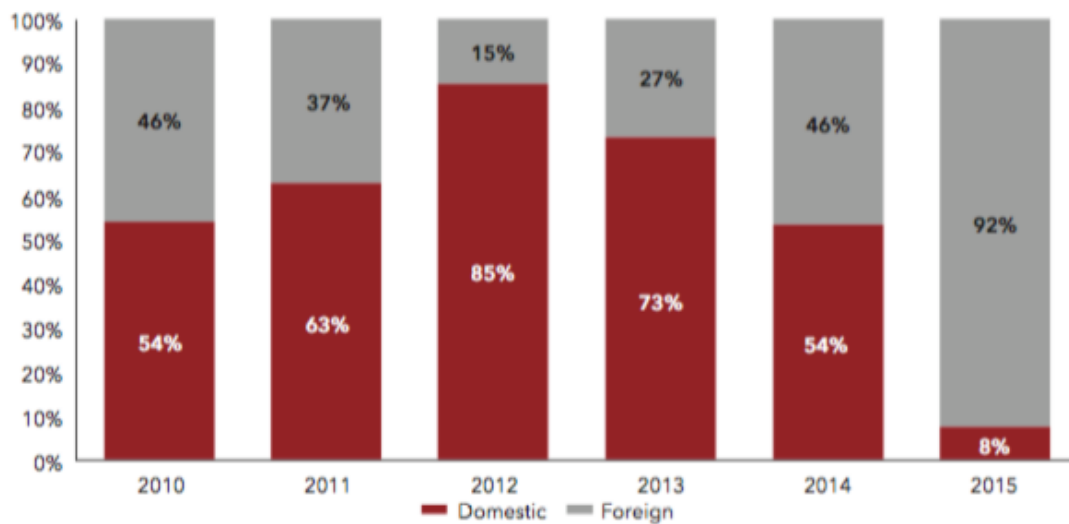
Limited partners (LPs) remain committed to Africa and the opportunity therein. Fundraising for the region remained strong in 2014, increasing 24% to US\$4.1b, from US\$3.3b a year earlier. Perhaps most significantly, the rise came amid an environment in which many investors shifted their focus back to developed markets, such as the US and Europe. Despite the more bullish sentiment toward developed markets last year, the continent's robust fundraising showed that investors continue to believe in Africa's potential. Africa is in many ways a beneficiary of investors' increasing comfort with the risk profile of emerging markets.



Sources: AVCA, EMPEA, Preqin, EY.

Figure 3.2.1: Fundraising in Africa US\$b

Africa weathered the global financial crisis well in comparison to many other regions and, it has not so far experienced the economic slowdown seen in China and India in recent times. Indeed, Africa is increasingly attractive to foreign investors. This is clearly shown in Figure 3.2.2 – the proportion of foreign capital invested into private equity in Africa increased from 15% in 2012 to 92% in 2015 and far outweighs domestic capital.



Source: PEI Research & Analytics data

Figure 3.2.2: Domestic vs. foreign Africa-focused fundraising

As at 1 January 2016, there were 59 Africa-focused closed-ended private equity funds in market or coming to market, targeting \$14.14 billion collectively. BTG Pactual Africa Fund and DVK Africa Development Fund were the largest of these (see Table 3.2.1). Each has a target size of \$1 billion and both are managed by fund managers

based outside of Africa.

Table 3.2.1: Top 10 Africa-focused investment funds (2016)

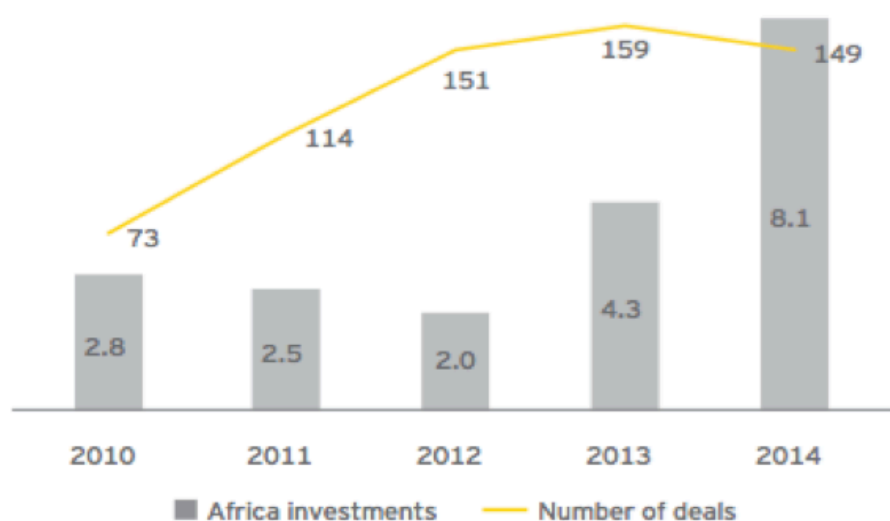
Fund name	Head office	Fund manager	Target size(\$bn)	Fund strategy
BTG Pactual Africa Fund	Brazil	BTG Pactual	1	Buyout/corporate private equity
DVK Africa Development Fund	UK	DVK Group	1	Venture capital/Growth
ECP Africa fund IV	US	Emerging capital partners	0,75	Buyout/Corporate private equity
African Capital Alliance Fund IV	Nigeria	Africa Capital Alliance(ACA)	0,6	Venture capital/Growth
Agvance Africa Fund of Funds	US	GCM Grosvenor	0,5	Fund of Funds / Co-Investment
Frontier Resource Group I	UAE	Frontier Resource Group	0,5	Buyout/corporate private equity
Pembani Remgro Infrastructure Fund	South Africa	Pembani Remgro Infrastructure Managers	0,5	Venture capital/Growth
Vital Capital Fund II	Switzerland	Vital Capital Investments	0,5	Buyout/corporate private equity
8 Miles Fund I A	UK	8 Miles	0,45	Venture capital/Growth
Actis Africa Real Estate 3	UK	Actis	0,4	Venture capital/Growth

Fundraising for investments in Africa has significantly increased for two straight years, and interest in the region continues to rise, driven by a number of key trends, including

a rising middle class, demographic growth and low PE penetration. Clearly, investors see significant long-term potential in the region. Africa should remain high on LPs' radar screens as its PE industry continues to grow and mature, while some emerging markets with which the region competes for capital reach saturation, and as existing investments are harvested and add to the industry's success stories.

TRANSACTIONS

According to AVCA data, the aggregate deal value of completed African transactions in 2014 rose nearly 90% to US\$8.1b. Activity was spread across a range of deal types. The largest deal was the US\$3.2b of further capital raised for IHS Nigeria Ltd. to acquire additional telecommunications infrastructure.



Source: AVCA.

Figure 3.2. 3: Africa investments by year, US\$b

EXITS

Given the increase in fundraising and investment activity over the last several years, the window for realizations for many of these investments is starting to widen, with more companies entering the period where an exit becomes increasingly imperative.

Indeed, the growing portfolio overhang and the imperative to exit are issues that the industry has dealt with across the globe. In developed markets, improved conditions for M&A activity and robust IPO markets have allowed PE sponsors to exit portfolio companies at a record pace. However, exits across many of the emerging markets have been less robust, the result of challenging macro conditions, particularly in markets like China and Latin America. Sub-Saharan Africa saw a marked increase in exit activity in 2014. In 2013, there were 29 disclosed exits. Last year saw 40 disclosed PE exits, an increase of 38%, and a high for exits in the region.



Figure 3.2.4: PE exits by year, 2007-14

More than half, 55%, were via trade sales. While the majority of 2014's exits were via trade sales, the year saw a number of significant secondary transactions, which continue to grow in significance as an exit route for SSA investments.

3.3 Representative investments

In this paragraph some relevant examples of PE investments will be illustrated, in order to analyse the real scenario of the latest years.

- **PanAfrican Energy corporation (PAE)/EMP Africa:** in December 2000, EMP Africa committed to investing in PanAfrican Energy Corporation (“PAE”), an independent oil and gas exploration and production company focused on acquiring and developing oil properties in Sub-Saharan Africa. At the time of investment, the Company had oil properties in Gabon, as well as a significant interest in a gas to power project in Tanzania. PAE was a joint venture formed between EMP, RMB Resources and PanOcean Energy Corporation, a Jersey based oil and gas exploration and production company listed on the Toronto Stock Exchange. The investment amount for EMP was **US\$20.8 million** in common and preferred shares¹³.

Investment rationale:

- Strong growth potential through acquisition of attractively priced, mature properties considered too small or marginal by oil industry majors.
- Attractive existing portfolio of proved producing and proved undeveloped reserves.
- Few independent oil and gas companies active in sub- Saharan Africa secondary oil and gas property market.
- Strong management team with extensive industry experience and a proven track record of acquiring and developing properties.

Investment performance:

- At the time of commitment, PAE’s assets were producing approximately 900 bopd¹⁴. PAE expanded production to almost 10,000 bopd per day on a proportionate basis through development of existing fields and through acquisitions.

¹³ A preferred stock is a class of ownership in a corporation that has a higher claim on its assets and earnings than common stock. Preferred shares generally have a dividend that must be paid out before dividends to common shareholders, and the shares usually do not carry voting rights.

¹⁴ Abbreviation for barrels of oil per day, a common unit of measurement for volume of crude oil. The volume of a barrel is equivalent to 42 US gallons.

[<http://www.glossary.oilfield.slb.com>]

- During Africa Fund I's ownership, revenue increased at a CAGR¹⁵ of 110%.
- Further cash was generated when PAE sold its interest in the Tanzanian project for a significant gain.
- PAE's rapid production expansion and favourable oil prices provided the opportunity for the Company to buy out Africa Fund I's position.

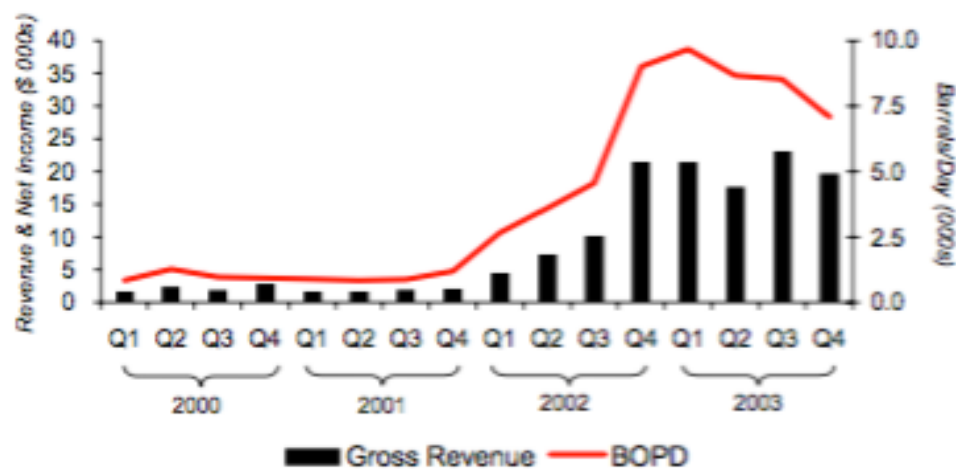


Figure 3.2.5: PAE's performance in the investment horizon

Exit:

- In June 2003, EMP Africa sold Africa Fund I's stake in PAE back to Pan Ocean Energy Corp for **US\$29.8 million**.
 - The sale resulted in a **30% IRR** for Africa Fund I and returned **1.4x capital invested**.
- **Ecobank/ECP:** In 1999, ECP, through the West Africa Growth Sicar (WAGS), invested \$2.6 million in Ecobank Transnational Incorporated (Ecobank), a regional banking group operating throughout West and

¹⁵ Compound annual growth rate (CAGR) is the mean annual growth rate of an investment over a specified period of time longer than one year. [investopedia.com]

Central Africa serving wholesale and retail customers. Ecobank provides a diversified range of banking and non-banking financial services and products through its various subsidiaries. In 2006, through EMP Africa Fund II PCC, ECP invested an additional \$11.8 million in Ecobank to finance the expansion of the company's activities and to recapitalize Ecobank's Nigerian subsidiary in light of new regulation. Between the 1988 launch of Ecobank's first subsidiary in Togo and 2007, when the company listed on three stock exchanges in West Africa, the company had grown to become the 15th largest banking group in Sub-Saharan Africa. The investment amount was **US\$ 14.4 million** in common shares.

Investment rationale:

- Ecobank had a strong competitive position as the largest regional bank and was well-positioned to capitalize on improved macroeconomic trends and intra-regional trade.
- Ecobank's management team had extensive industry experience and a proven track record.
- Ecobank's competitive position and strong financial results made the bank a viable IPO candidate.
- Regional integration of banks, sector reforms, and listing potential on local exchanges also made Ecobank an attractive acquisition target.

Value added:

- ECP board representation helped to set the strategy leading to the bank's rapid growth.
- ECP advised Ecobank management regarding Ecobank's strategy, governance, and capital structure.

Investment performance:

- From 1999 to 2007, Ecobank's revenue increased by fivefold and profit after tax nearly quadrupled.
- Ecobank's branch network increased to more than 320 branches over 18

countries.

- Revenue and profit after tax topped \$111 million and \$25 million, respectively, for the period ending in Q1 2007, representing growth over Q1 2006 of 59% and 70%, respectively.

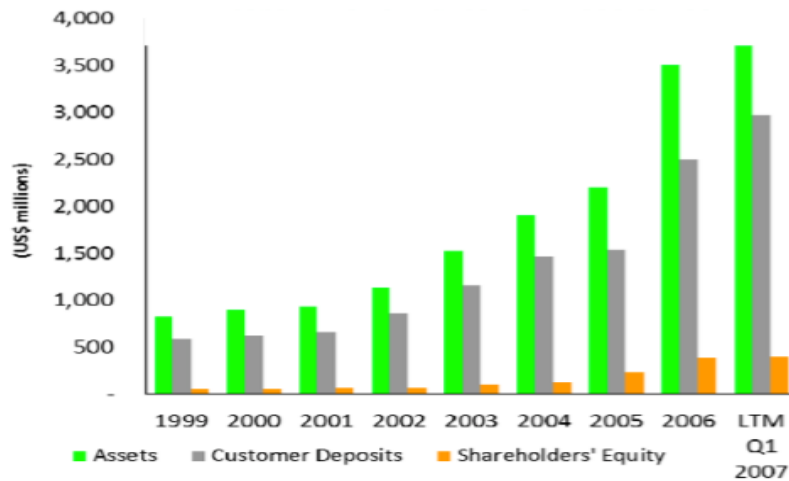


Figure 3.2.6: Ecobank performance from 1999 to 2007

Exit:

- In September 2006, Ecobank became the first bank in West Africa to successfully list on three national exchanges: the Bourse Régionale des Valeurs Mobilières (BRVM) based in Côte d'Ivoire, the Nigerian Stock Exchange (NSE), and the Ghana Stock Exchange. The NSE capitalization of \$37 billion and trading volumes of \$3.6 billion dollars as of September 2006 offered attractive liquidity for ECP to exit its positions. Beginning in 2007, ECP progressively sold its positions in Ecobank.
 - The overall sale resulted in total proceeds of approximately **\$48 million**, representing a **4.4x multiple of capital invested for the first fund** and a **3.0x multiple of capital invested for the second fund**.
- **Starcomms Nigeria Ltd/ ECP's Africa fund I:** in January 2005, ECP Africa Fund I committed to investing in Starcomms Nigeria Ltd. ("Starcomms"), a private telecommunications operator that owns and operates a CDMA wireless

network capable of offering mobile, fixed and data services. Starcomms launched its network in 2002 and by 2005 had grown to become the largest CDMA operator in Nigeria and a leading provider of 3G wireless broadband. Following the Fund's investment, Starcomms grew rapidly and, at the time of ECP's exit in July 2008, the company had grown its subscriber base by over 15x to 1.5 million. The investment amount was **US\$ 34.3 million** in common equity and shareholders loan.

Investment rationale:

- Despite being Africa's most populous country, Nigeria represented a significantly underserved market. At the time of the investment, Nigeria had a telecom penetration rate of only 5% leaving an addressable market of over 130 million potential mobile subscribers.
- Starcomms was the leading PTO in Nigeria and had already established brand recognition and a reputation of quality service.
- Starcomms was able to deploy its network for an attractive capital cost. GSM mobile operators paid \$285 million for a license to offer mobile service nationally. In addition to the substantial upfront costs, the licenses came with extensive obligations to rollout across the nation, including marginally economic areas. Starcomms, by comparison, acquired state by state CDMA licenses for between \$1 - \$5 million. Starcomms was thereby able to assemble a network in key states without rollout obligations resulting in substantially smaller capital cost.
- Starcomms' CDMA network enabled the company to offer true 3G data services well ahead of competing GSM operators, creating a second revenue stream with high average revenue per user (ARPU).

Value added:

- ECP set up and sat on the board of directors and the Compensation, Audit/Finance, Procurement, Governance sub-committees to provide for company oversight.
- ECP helped the company obtain alternative sources of debt financing which were vital to the rapid expansion of the network.

Deal Structure:

- Africa Fund I, together with Actis another international private equity firm, acquired a controlling interest in Starcomms.
- The structure separated economic and voting ownership ECP and Actis were thereby able to exercise joint control over the company despite owning less than 50% of the shares.
- The ECP investment comprised two parts: (i) a \$1.6 million equity investment and (ii) a \$20.0 million shareholder loan. Africa Fund I subsequently invested an additional \$9 million in the form of a shareholder's loan to support the company.

Investment performance:

- Starcomms expanded its customer base from approximately 100,000 subscribers to 1.5 million.
- At the time of Africa Fund I's exit, Starcomms was Nigeria's fourth largest telecom operator and the largest CDMA mobile operator.

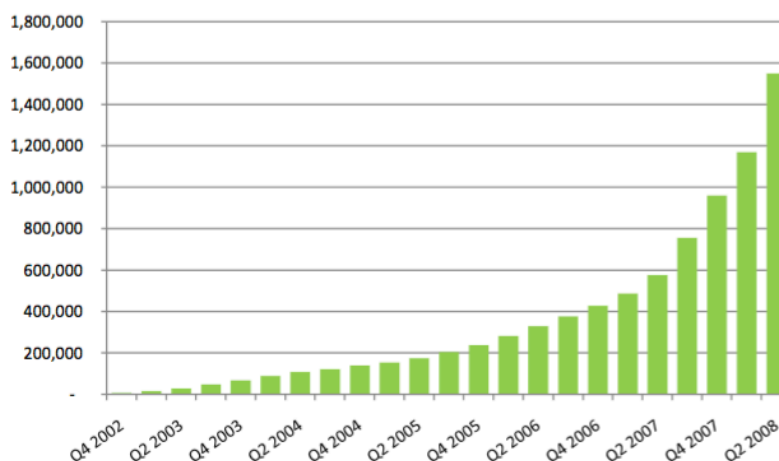


Figure 3.2.7: Starcomms gross subscribers

Exit:

- ECP's exit was made through a private placement of the company's shares. The shares were then listed on the Nigerian Stock Exchange (NSE), making Starcomms the first listed Nigerian telecom company on the NSE.
- The exit represents **2.9x ECP's initial investment**, with total proceeds of **US\$99.1 million**.

- **Continental Reinsurance/ECP:** In February 2007, through its Africa Fund II and Central Africa Growth Sicar, ECP invested in C-Re. Continental Reinsurance (C-Re) is the largest local reinsurance company in Nigeria. The Company offers non-life and life insurance to large African insurers. Headquartered in Lagos, C-Re operates in more than 35 African countries and has expanded its regional footprint with offices in Cameroon, Kenya and Tunisia. C-Re began writing non-life insurance in 1987 and listed on the Nigerian Stock Exchange (NSE) in 2007.

The investment amount was **US\$25.8 million** for a 30% stake in the company.

Investment rationale:

- Historically, the Nigerian insurance sector is highly fragmented and has suffered from a lack of capacity due to low capitalization levels. Excluding South Africa, Sub-Saharan Africa has one of the lowest insurance penetration rates at less than 1%.
- In 2003, the Federal Government of Nigeria commenced a series of reforms in an effort to strengthen the insurance and reinsurance sectors as well as bolster growth. These reforms included increased minimum capital requirements to \$20 million for insurance companies and \$80 million for reinsurance companies, a 30% local content requirement for the oil & gas industry, and a requirement that all insurance companies with more than five employees provide life insurance. Insurance and reinsurance companies were required to meet new capital base requirements by February 2007. This was seen as an opportunity for

making C-re the market leader from ECP's managers.

Value added:

- ECP's first task was to professionalize C-Re's operations and improve corporate governance.
- In order to control spending, ECP worked at the board level to set budgetary targets and capital expenditures. This served to set strict benchmarks for the Company moving forward.
- Post-investment, C-Re's underwriting capacity grew from \$15 million to \$80 million. With increased capital, C-Re had to better monitor its investment and improve operations. ECP helped bring in a new Chief Investment Officer, a Chief Risk Officer and an Internal Auditor.
- A credit department was also set up to improve the Company's collection abilities and reduce debtor balances.
- Additionally, ECP established a quality control department to help the Company comply with established policies.
- ECP also helped C-Re improve the quality of business by reducing broker commissions and increasing its risk management to meet international standards. In Nigeria, 60% to 70% of the insurance business is generated by brokers, who act as middlemen between the Company and the insurer. This system led to problems both on the collection and pay-out side, with money getting tied up or "stuck".

Investment performance:

- Gross premiums written by C-Re in 2010 were up 156% from 2007 figures. Non-life premiums for 2010 increased 21% over 2009, driven by growth in volume of the energy, treaty and Kenya revenue centers. Life premiums for 2010 were 40% higher than 2009, reflecting an extensive review of the life portfolio, change in risk programs and new businesses.
- Moreover, investment income for 2010 increased by 41% from 2009, showing an increase in profitability and lower management and administrative expenses.

- Additionally, C-Re’s implementation of a new Enterprise Risk Management (ERM) system helped the Company monitor its risk and improve its reporting, as well as standardize processes across C-Re’s main and regional offices. As a result, C-Re’s insurance ratios have improved significantly, as demonstrated by the graph below:

Table 3.2.2: Variation in C-re ratios of claims to premiums

	Q3 2009	Q3 2010	Total improvement
Ratio of claims to premiums(non-life)	55%	47%	8% drop
Ratio of claims to premiums(life)	51%	38%	13% drop

Exit:

- In 2015 ECP sold its stake to Saham Finances, the insurance arm of the Saham Group in an **undisclosed deal**.
- **Celtel International/ ECP:** In May 2000, Emerging Capital Partners (ECP) committed to investing in Celtel International, a Pan-African Global System for Mobile (GSM) telecommunications provider that acquired, developed, and operated GSM telephone networks. Celtel had been founded in 1998 to capitalize on deregulation and privatization in the African telecommunications sector. In early 2000, the company had only 44,000 proportional subscribers in four countries. At the time of ECP’s exit in March 2005, Celtel had the largest mobile network in Africa, with almost four million subscribers in 13 countries: Burkina Faso, Chad, Congo Brazzaville, the DRC, Gabon, Malawi, Niger, Sierra Leone, Sudan, Tanzania, Uganda, Zambia, and Kenya. The investment amount was **US\$50 million** in common shares.

Investment rationale:

- African demand for telecommunications services was significantly underserved.
- African cellular business was more profitable and faster growing than the world average.
- Management team had extensive industry experience and a proven track record.
- First-moved advantage would enable Celtel to pursue further licenses and acquisitions.

Value added:

- Provided additional capital to support the acquisition of KenCell Communications (then Kenya's second largest GSM operator) from Vivendi Telecoms International.
- Supported and assisted management in managing the regulatory process.
- Regularly advised Celtel on acquisitions and financing strategies.
- Thomas Gibian, then CEO, and Hurley Doddy, then COO, served on the board of Celtel.

Investment performance:

- From 2000 to 2004, Celtel's EBITDA had grown at a compounded annual growth rate of 158%.
- At the time of ECP's exit, Celtel's licenses covered over one-third of the African continent and 28% of the population.
- Celtel employed 5,000 people, 99% of whom worked in offices in Africa.
- At the time of the private equity fund's exit in 2004, Celtel had achieved sales of \$714 million, EBITDA of \$252 million, and earnings of \$147 million.

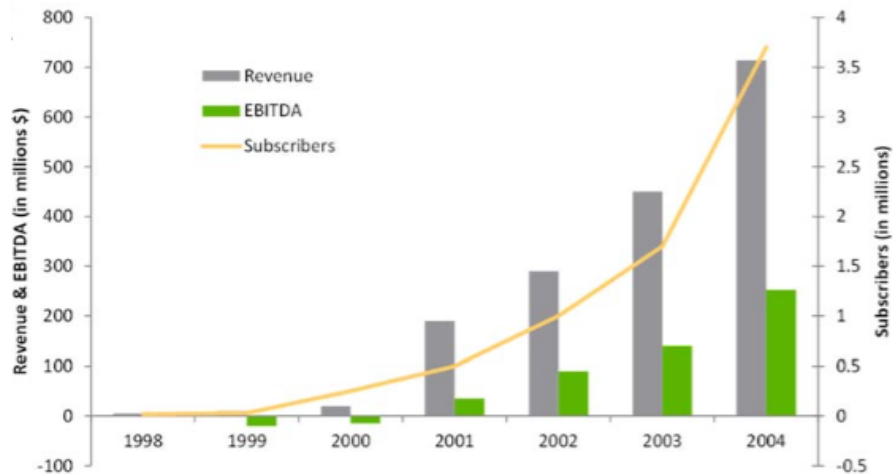


Figure 3.2.8: Celtel performance during the investment horizon

Exit:

- In March 2005, Celtel was sold to a Kuwaiti telecommunications company for **\$3.4 billion**.
- The sale resulted in the fund's receipt of a **4.2x multiple** of capital invested and a **36.0% IRR**.

You can see the key points of these cases in the next table:

Table 3.2.3: Summary of cases' key points

	Year of investment	Sector	Investment amount	Exit	Return
Pan African Energy(PAE)	2000	Oil & Gas	US\$20.8 million	Buyback(2003)	1.4x 30% IRR
Ecobank	1999	Financial services	US\$ 14.4 million	IPO (2006)	4.4x (first) 3x (second)
Starcomms Nigeria Ltd	2005	Telecom.	US\$ 34.3 million	Private placement	2.9x
Continental reinsurance	2007	Insurance services	US\$25.8 million	Trade sale(2015)	Undisclosed
Celtel	2000	Telecom.	US\$50 million	Trade sale(2005)	4.2x 36% IRR

You can see from this summary that, for the 5 cases considered, there were positive performances, with impressive rates of return. Generally, also the value added by the investor was fundamental for the development of the backed company, and for the improvement of the firm's financials. Another observation is related to the exit ways, in our cases there is only one IPO and the others are, for the biggest part, secondary sales.

After this complete view of exited investments, it is interesting to look at some of the most recent cases in the energy sector:

- **ENEO/Actis:** In 2014, Actis acquired a **56% stake**, for **US\$202 million**, in Cameroon's national electricity integrated utility, ENEO. ENEO owns and operates over 900MW of generation capacity and distributes electricity to more than 900,000 customers.

Investment rationale:

- Actis' investment in ENEO builds upon the track record that they have built in the electricity distribution sub-sector, benefiting from their experience in Uganda and Guatemala.
- The firm's focus is on improving safety and operational efficiency as well as expanding electrification rates in the sector, to support Cameroon's future economic growth.

Value added:

- Actis recruited a new CEO and CFO, both Cameroonian citizens with successful international careers and appointed new board members to promote better corporate governance.
 - With strong energy demand growth, the potential for follow-up investments is substantial, especially in additional power generation and network capacity.
- **Sumbe-Gabela-Waku Kungo Transmission line/Vital capital fund:** in 2014, Vital invested **US\$31.7 million** in the Sumbe-Gabela-Waku Kungo (SGWK) transmission line project. It aims to expand the Angolan national electricity

transmission network into rural areas, enabling a greater number of households, as well as factories, water systems, schools and medical facilities, access to grid-provided electricity. The scale of construction is considerable: 330km of electricity lines will be rolled out, of which 255km will be high-voltage, and 75km low-voltage lines. Five new electricity substations will be installed while two existing stations will be renovated.

Investment rationale:

- The social and economic impact of the SGWK project will be considerable. By connecting over 150,000 Angolans living in remote villages to the national electricity grid the project will replace inefficient and costly diesel-powered generation with a reliable source of power generated from clean renewable sources.
- The impact will go beyond immeasurably improving the standard of living for individual families. There will be a positive effect on business development, the resultant economic growth leading to job creation and further investment.
- Moreover, since the fuel from the national grid is primarily hydroelectric it is environmentally benign, a happy contrast to the existing diesel-powered systems.

Exit:

- Recently Vital Capital **exited** the investment via trade sale with an undisclosed **positive return**.
- **Globeleq Africa/Actis:** in 2001 Actis invested in Globeleq Africa, is an operating power company, which seeks to provide energy solutions across Africa. Launched in 2002, Globeleq became a power industry leader in growth markets by operating or acquiring interests in multiple power facilities totalling nearly 4,000MW of generation capacity in more than 20 countries. In 2007, Globeleq successfully divested most of the operating assets in its portfolio, retaining only a number of assets in sub-Saharan Africa.

Value added:

- Legal ownership of Globeleq (with its African asset base) was subsequently transferred in 2009 from CDC to Actis Infrastructure 2, with Actis becoming a controlling shareholder supporting the implementation of Globeleq's business plan.

Investment performance:

- During the past seven years Actis has invested over **US\$350 million** in Globeleq Africa. As a result, Globeleq Africa has more than doubled its installed capacity and the business is now the leading power generation platform on the continent.
- Key milestones during Actis's investment in Globeleq Africa have included the completion, on time and below budget, of the Azito power plant conversion in Cote d'Ivoire from open to combined cycle technology. The conversion increased the plant's installed capacity by almost 50% (to 432MW) eliminating the need for additional gas, this has significantly contributed to the stability of Côte d'Ivoire's power sector.
- Globeleq Africa also successfully backed the construction of three renewable energy generation assets with a combined capacity of 238MW under the first round of the ambitious South African Renewable Energy Procurement Program.
- The next growth milestone will be the expansion of the Kribi generation plant in Cameroon, currently in advanced development.
- In 2015, Globeleq Africa operated power facilities with a total of 1,234MW of generating capacity across a portfolio of assets that included: Songas: a gas-fired generation project in Tanzania, Tsavo: a heavy fuel oil-fired power station in Kenya, Azito: a gas-fired power project in Côte d'Ivoire, Kribi: a gas-fired plant and Dibamba: a heavy fuel oil-fired plant in Cameroon and three renewable projects in South Africa: Jeffreys Bay Wind, De Aar Solar Power and Droogfontein Solar Power.

Exit:

- In 2015 Actis sold a significant **minority stake (30%)** to Norfund, the Norwegian investment fund for developing countries, for a final cash consideration of **US\$227 million**.

3.4 Investments insurance

Most OECD governments and many non-OECD governments provide investment guarantees and political risk insurance designed to meet the needs of international investors. Private insurers also provide such services. Typically, international investment projects for which such insurance is sought are located in developing countries. In recent years, the value of investment guarantees has averaged about 3% of total FDI flows, but about 30% of FDI inflows to developing countries. Thus, investment guarantees and the public and private institutions that provide them influence investment flows to developing countries.

Investment guarantees cover a broad range of products and can be defined as any guarantee and or insurance product that is relevant for international investment. Political risk insurance (PR) is one of these guarantees. The World Bank Group's MIGA (Multilateral Investment Guarantee Fund) defines political risk as:

Political risks are associated with government actions which deny or restrict the right of an investor/owner i) to use or benefit from his/her assets; or ii) which reduce the value of the firm. Political risks include war, revolutions, government seizure of property and actions to restrict the movement of profits or other revenues from within a country.

PRI is of particular relevance for the international policy co-operation undertaken by the investment policy community. This is because of its focus on developing countries and its potential for altering the behaviour of both international investors and of host country political actors.

3.4.1 Political risk insurance: essential insurance concept

This section describes some concepts needed to understand insurance in general and PRI in particular. These are: insurable risk, moral hazard, incomplete contracting, transactions costs, missing markets and insurers of last resort.

“INSURABLE RISK”

It is one of the most basic insurance concepts – it helps define the conditions under which the insurance industry will be able, over the long run, to profitably provide insurance that clients will want to buy. The technical conditions that make a risk insurable are, according to the OECD Insurance Committee: “assessability (probability and severity of losses should be quantifiable); randomness (the time at which the insured event occurs should be unpredictable when the policy is underwritten, and the occurrence itself must be independent of the will of the insured); mutuality (numerous persons exposed to a given hazard should be able to join together to form a risk community within which the risk is shared and diversified)”.

Political risks deviate in important ways from this concept of the insurable risk. For example, insured political events may be at least partially under the control of and not “independent of the will of the insured” – by their actions, international investors may be able to influence the likelihood that insured political events will take place. Furthermore, political risks tend to be quite idiosyncratic (they are influenced by the specifics of the host country political environment, the sector and the investor-state relationship). Thus, it may not be the case that insured investors form a homogeneous “risk community” over which political risks can be pooled. Political events can unfold over many months or years, they take place within a relationship between investor and the host country officials and reasonable people can (and, as the survey will show, do) disagree about whether or not an insurable event has taken place – thus, at times, political risk is not easily assessable. Finally, the perception in the industry is that political risks are cross-correlated (so that insurers are likely to face multiple claims at the same time).

These deviations from what might be thought of as ideal insurance conditions help to explain PRI's institutional characteristics, especially in the areas of insurance contracting, information gathering, contract monitoring and dispute resolution.

MORAL HAZARD

It refers to changes in the insured's behaviour that are due to the insurance. Moral hazard is defined as the "incentive for additional risk taking that is often present in insurance contracts and arises from the fact that parties to the contract are protected against loss." In some insurance situations, this takes fairly simple forms – for example, a person who has insured valuable property against theft might take fewer steps to prevent theft. Moral hazard is a fundamental concept in the insurance industry because the design of all insurance products must account for it.

The concept of moral hazard is also relevant for PRI because the PRI coverage lowers insured investors' incentives to reduce their exposures to political risks. For example, investors might choose to enter riskier investment environments (indeed, one purpose of publicly-provided PRI is to facilitate investments in politically risky environments that would not have occurred without such insurance). Another possibility is that, because they are insured, investors might manage their host country relationships differently – for example, they might be less accommodating when disputes with host governments arise (a study comparing the behaviour of insured and uninsured investors appears to bear this out).

Insurers have a number of tools for dealing with moral hazard. One is "deductibles" in insurance contracts, which mean that the insured party is only reimbursed for part of the damage from the event. This helps to align the insured's interests with those of the insurer. In addition, some investment guarantees and PRI contracts (e.g. France's COFACE and the UK's ECGD) attempt to deal with moral hazard through clauses that exclude coverage of events that the insured entity might reasonably have been expected to avoid.

Because PRI deals with relationships between investors and various political actors in host societies (e.g. officials from central governments or from lower level

governments), the scope for moral hazard in PRI is more far-reaching and complex than for most other types of insurance. Usually, incentive effects of insurance operate only on the behaviour of the insured, but PRI has the potential to influence host country political behaviour as well. This can happen in at least two ways:

- Reduced market-based incentives for host country reforms and learning opportunities. PRI might interfere with market-based incentives for host country policy reform (but keeping in mind that OECD work has shown that host country competition for international investment is intense). Knowing that international investors can get PRI cover, host governments may face weakened incentives to seek out credible ways of committing to protect investments (e.g. enhancing public sector transparency and accountability and developing rules-based ways of resolving disputes with investors). Likewise, it may weaken incentives and learning opportunities for both investors and host governments to find institutions for managing their relationships in a productive and harmonious way throughout the life of the project (e.g. during bidding and contracting, monitoring and mutual accommodation in the event of disagreements).
- Shift in the dynamics of investor-state relationships. Publicly-sponsored PRI is also likely to influence the host government's evaluation of the risks of undertaking behaviour that is covered by the investment guarantee or PRI contract – in effect, these make the home country a potential actor in the investor-host state relationship. If the investor alerts the home country PRI provider of political events that might lead to a PRI claim, the home government may use diplomatic channels to attempt to forestall the event in the host country (that is, to engage in “advocacy”). If the investor makes a claim under the PRI contract, the home government might well try to recover the value of damages from the host country. In either case, the host government knows that, if it makes a move that is covered by the PRI contract, it knows that it is likely to find that its interlocutor in the relationship has shifted – that is, at some point, the home government will start to play a role in the

dispute. If the host government believes that the home government is more of a force to be reckoned with than the investor, then it is less likely to engage in the behaviour (indeed, this deterrence effect could be considered to be one of the main advantages of publicly-provided PRI). Wodehouse (2006) finds that presence of bilateral or multilateral lenders or insurers on a project have significant risk-mitigating effects for investors through the operation of this deterrence effect.

CONTRACTS, INCOMPLETE CONTRACTING AND TRANSACTION COSTS

The insurance industry is a huge industry covering many types of risk. In order to profitably provide insurance, companies have to: evaluate the risks they face (often they rely on statistical models); create and market insurance products and services that attract clients, that can be offered profitably and that manage the incentive effects of insurance on clients' behavior; and take steps to manage the company's insurance portfolio so as to obtain an appropriate overall combination of risk and return (e.g. through portfolio diversification, reinsurance and coinsurance).

Transactions costs refer to the costs incurred when exchanging good and services. Transactions costs in the PRI sector tend to be high relative to other parts of the insurance industry. The reasons for this are:

- High cost risk evaluation and packaging. Political risk is “human, subjective, severe and unpredictable”.¹⁶ The sources of this risk are multi-faceted (e.g. the behavior of governments and other political actors and national and sub-national levels; as well as sectorial and macroeconomic developments). Thus, unlike some other insurance sectors, PRI risk evaluators cannot rely primarily on “statistical” modelling; models need to be supplemented by situation-specific, qualitative analysis. This is an expensive process.
- High contracting and monitoring costs. PRI provides cover for what are often complex events unfolding over extended periods of time.

¹⁶ David James (2004)

Moreover, as noted above, the incentive effects of the insurance are multi-faceted and need to be managed carefully. This means that PRI contracts tend to be detailed and relatively non-standardised. For example, the survey shows that private political risk insurers often provide “bespoke” services (that is, their insurance policies are tailored to each client). Sometimes there is a need to monitor the project closely as the investment project evolves. In some cases, ongoing discussions are required between insured and insurer to clarify the meaning of the PRI contract (and possibly modify the contract) in light of unfolding political events.

- High cost claims management. Incomplete contracting refers to the fact that, in most situations, it is impossible to write contracts in advance that are so detailed as to foresee all possible contingencies. In PRI, even with its relatively detailed insurance contracts, this is an important consideration. Disputes often occur as to how the contract applies to a particular political event. These are usually resolved by arbitration or mediation and some public PRI agencies report on their disputes with clients and on how these were resolved.¹⁷ This need for ex post dispute resolution has two implications: 1) it raises the cost of administering PRI insurance; and 2) PRI insurance lowers political risk, but involves higher risks (relative to some other types of insurance) related to how the insurance contract will be executed in the event of a claim.

MISSING MARKETS AND INSURERS OF LAST RESORT

The concept of “missing markets” refers to the fact it is not always possible to form a market price for all possible products and risks. “Missing markets” are often viewed as being a condition that could potentially favour government intervention in markets (because if the government intervenes, it will not be “crowding out” private activity). In PRI markets, high transactions costs mean that many markets will not be able to be

¹⁷ MIGA, for example, in its 2006 Operational Overview states: MIGA did not pay any claims in 2006, but is actively seeking to resolve three pending claims... MIGA is also closely monitoring and actively working to resolve the problems of eight other disputes relating to investment guaranteed by the agency...

served profitably – that is, there will be missing risk markets (e.g. for smaller clients whose business might not generate enough revenues to cover the high transactions costs). Although government insurers will not, themselves, be able to avoid the high transactions costs that characterise the sector, governments may nevertheless choose to provide services to these market segments because they believe that there is some other benefit to be had from doing so.

Some government providers of PRI deliberately position themselves as “insurers of last resort” – their mission is to complement private markets by serving customers who cannot find private coverage.

CHAPTER IV

4- Profitability criteria of private investments in developing countries

The Sub-Saharan context often creates concerns for private investors relative to future profitability of the utility. Investors must be assured that there is sufficient money flowing into the sector to cover the costs plus appropriate returns across the full value chain. Financial flows and costs must be transparent. This is the single biggest challenge, as many sub-Saharan African countries are faced with a loss-making power sector that needs to grow at unprecedented rates. A combination of tariff subsidies, high losses, and very poor collections means that this cost is borne by government and the few paying end users. The conventional revenue collection mechanisms of developed world are not always possible and/or efficient in this case because of several differences. This is due, for a big part, by the underdeveloped financial sector.

4.1 Financial inclusion and collection problems

Financial inclusion has been broadly recognized as critical in reducing poverty and achieving inclusive economic growth. Financial inclusion is not an end in itself, but a means to an end—there is growing evidence that it has substantial benefits for individuals. Studies show that when people participate in the financial system, they are better able to start and expand businesses, invest in education, manage risk, and absorb financial shocks. Access to accounts and to savings and payment mechanisms increases savings, empowers women, and boosts productive investment and consumption. Access to credit also has positive effects on consumption—as well as on employment status and income and on some aspects of mental health and outlook¹⁸.

Financial inclusion, at its most basic level, starts with having a bank account. But it doesn't stop there—only with regular use do people fully benefit from having an

¹⁸ Karlan and Zinman, 2010.

account. Both these outcomes can be difficult to achieve. Digitizing payments can play an important part. Shifting payments such as wages or government transfers from cash into accounts can increase the number of adults with an account. And digitizing payments such as those for school fees or utility bills allows people who already have an account to benefit more fully from financial inclusion—by enabling them to make the payments in a way that is easier, more affordable, and more secure.

Given the central importance of finance for economic development and poverty alleviation, the superficiality of African finance is alarming. African financial systems are small, both in absolute terms as in relative terms.

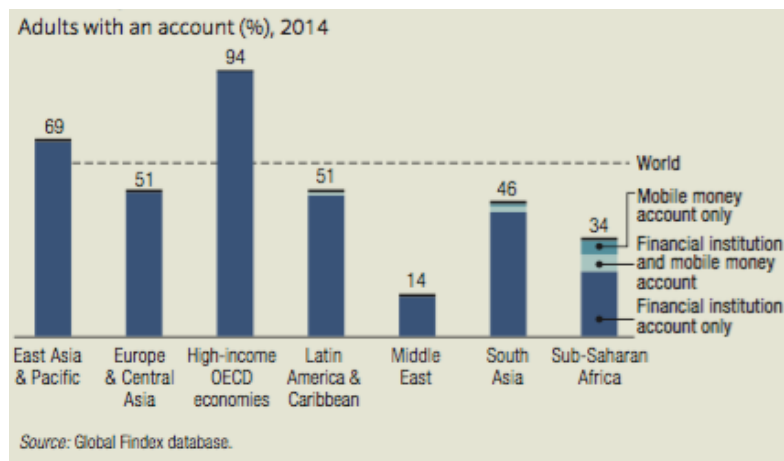


Figure 4.1.1: Account penetration in different areas

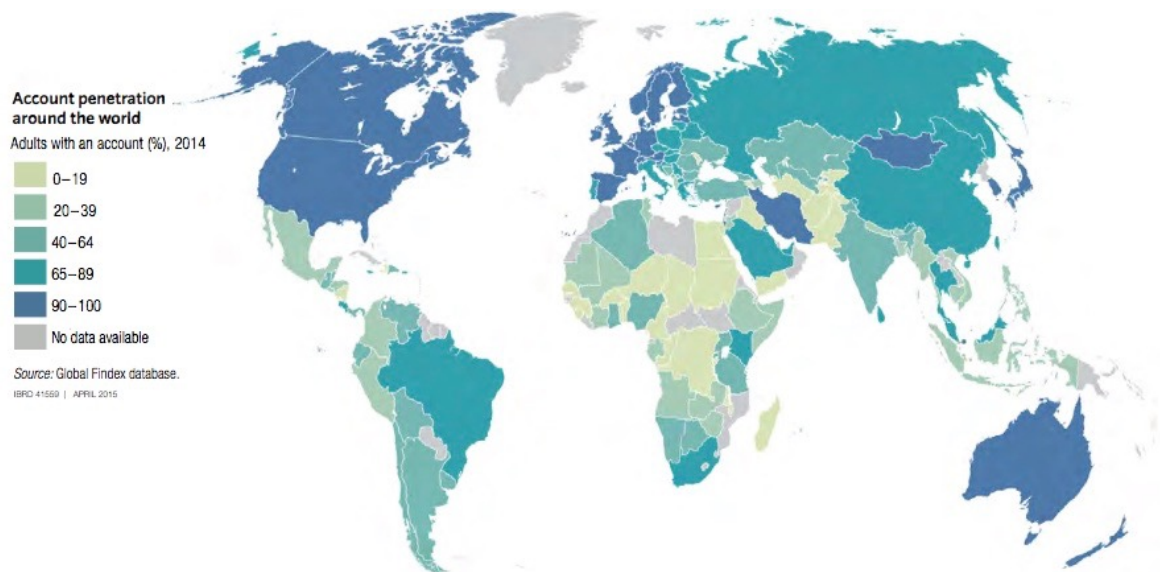


Figure 4.1.2: Account penetration across the globe

Figures 4.1.1 and 4.1.2 show the account penetration for the whole Sub-Saharan Africa and for single countries, respectively, with data for 2014. With a few exceptions—such as Mauritius, South Africa, and a handful of offshore financial centers— African financial systems are among the smallest across the globe, both in absolute terms and relative to economic activity. Many African financial systems are smaller than a mid-sized bank in continental Europe, with total assets often less than US\$1 billion. Small size is connected to low productivity and skill shortages, and prevents banks from exploiting scale economies; in addition, it might deter them from undertaking large investments in technology. In addition, Africa’s financial systems are characterized by very limited outreach, with less than one in five households having access to any formal banking service—savings, payments, or credit. Again, this in stark contrast not only to continental Europe, where access to a checking account is taken for granted, but also to other regions of the developing world, where penetration rates are typically between 30 and 50%.

Banking is also very expensive in Africa, as reflected by high interest spreads and margins. This spread between deposit and lending interest rates provides disincentives for both savings and lending, as it depresses the returns for savers and pushes lending interest rates up. Compared to other regions of the world, financial systems in Africa also have higher levels of overhead costs. High spreads, margins, and overhead costs can be explained by the same factors as the low levels of financial depth. The absence of scale economies and the very high risks due to weak and underdeveloped contractual frameworks and economic and political volatility drive up banking costs and reduce time horizons for both investors and borrowers. These costs make outreach to savers and borrowers who need small transactions commercially unviable.

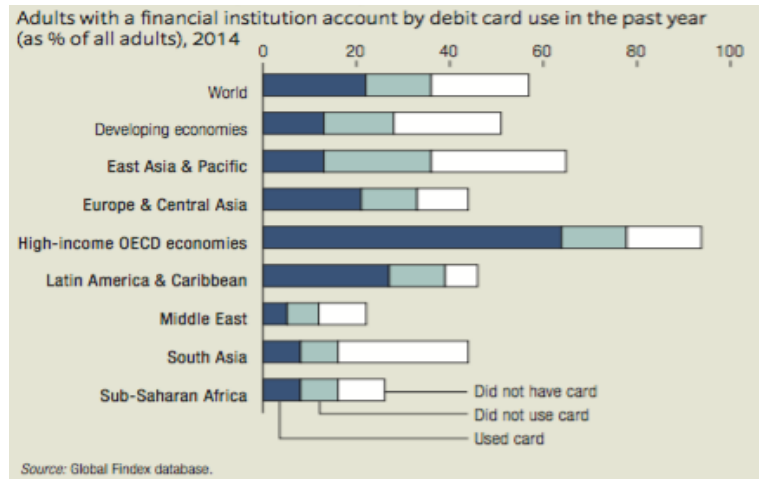


Figure 4.1.3: Debit card use by account holders

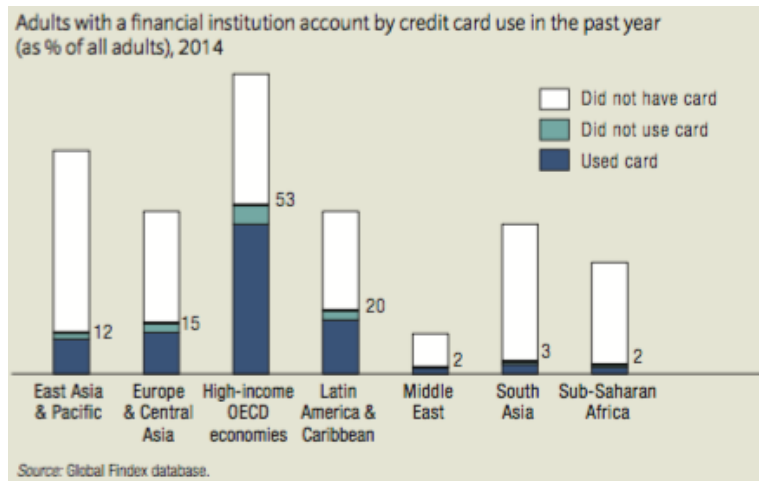


Figure 4.1.4: Credit card use by account holders

From figures 4.1.3 and 4.1.4 you can see also how the ownership and use of payment systems as debit and credit cards is underdeveloped in the area.

As you can imagine, low financial inclusion creates problems in revenue collection, because households, but also SMEs, are not always easy to reach and for them paying bills is difficult and costly. You can see from the next figure that in 2014 the percentage of adults that actually paid utility bills in Sub Saharan Africa is 26%, and the biggest part comes from cash payments.

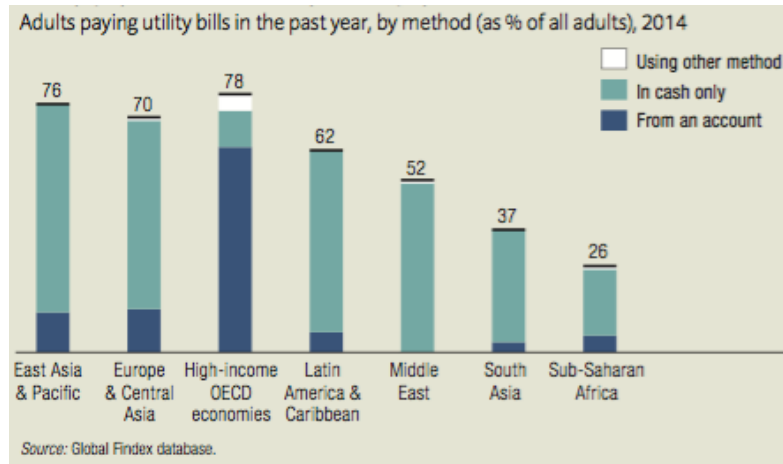


Figure 4.1.5: Utility payers and how they make payments

This clearly is a main concern for utility providers, and for investors that have interests in the future management and profitability of the infrastructure.

4.1.1 A look to the future

Mobile payment systems are a recent development that can help to overcome in part these problems. In Sub-Saharan Africa almost a third of account holders—or 12% of all adults—reported having a mobile money account. Within this group about half reported having both a mobile money account and an account at a financial institution, and half having a mobile money account only. Mobile money accounts are especially widespread in East Africa, where 20% of adults reported having a mobile money account and 10% a mobile money account only (figure 4.1.1.1). But these figures mask wide variation within the sub-region. Kenya has the highest share of adults with a mobile money account, at 58%, followed by Somalia, Tanzania, and Uganda with about 35%. In southern Africa penetration of mobile money accounts is also relatively high, at 14%, but just 2% of adults reported having a mobile money account only¹⁹.

¹⁹ World Bank, 2014

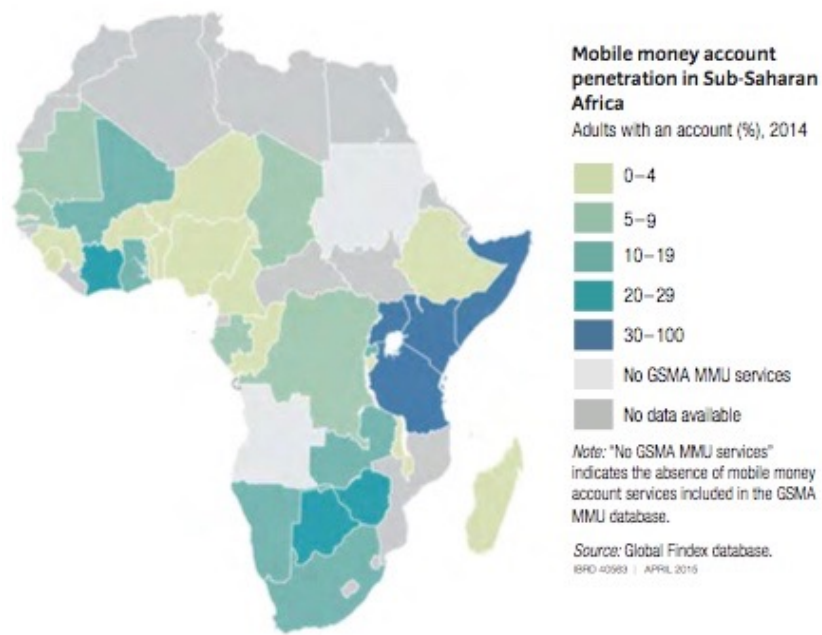


Figure 4.1.1.1: Mobile money account penetration in Sub-Saharan Africa

In Sub-Saharan Africa the mobile phone is increasingly being used to extend financial services over the limits of bank branches. Mobile money accounts, by providing more convenient and affordable financial services, offer promise for reaching unbanked adults traditionally excluded from the formal financial system—such as women, poor people, young people, and those living in rural areas.

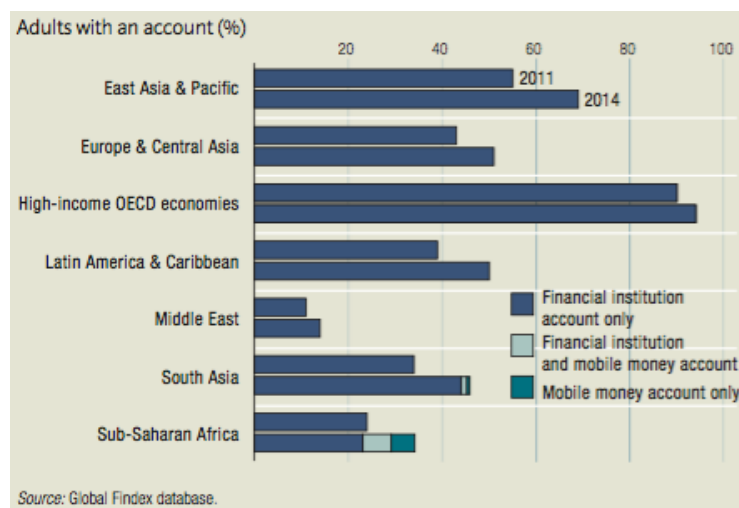


Figure 4.1.1.2: Account penetration, 2011 and 2014

In fact, as you can see from figure 19 the advent of mobile money has largely increased the account penetration, from 2011 to 2014. This can be a good starting point for the development of a better financial system in Sub-Saharan Africa, increasing the possibilities for easier collection mechanisms.

4.2 Financial sustainability for utility providers

In general, power utilities in sub-Saharan Africa are quasi-fiscal entities. These utilities channel a variety of transfers to consumers through underpricing, uncollected electricity bills, and a number of other inefficiencies (e.g., large power distribution losses). However, the total cost of such transfers is not reflected in the budget because a large portion is implicit or involuntary (e.g., power theft). A power utility company generates hidden costs when its realized revenue is less than the revenue it would collect were it operated with cost recovery tariffs based on efficient operations (i.e., operations with normal line losses and full collection of bills). In the last few decades, power companies in SSA tended to experience substantial hidden costs, which in turn constrained their ability to invest in new power capacity, to expand access, and to improve service quality. Excluding South Africa, the average cost of supplying one kWh in sub-Saharan African countries is the highest among developing countries. While tariffs may be higher than the average cost of generation (Figure 4.2.1), additional costs such as those relating to T&D losses, T&D investment and retail can add US\$60-100 per MWh to the total cost of electricity supply. Such prices serve as a deterrent to greater levels of investment in the power sector. Even so, sub-Saharan electricity tariffs, though varying by country and by type of customer, are in many instances among the highest anywhere in the world. On average, sub-Saharan electricity tariffs are between US\$130-140/MWh, with those for services and industries being 5% and 8% higher (on average) than those charged to households. In comparison, electricity tariffs in Latin America, Eastern Europe and East Asia are around US\$80/MWh. The inability to set electricity tariffs at levels that reflect both costs and a reasonable return on capital is a major obstacle to the long-term sustainability of many utilities in sub-Saharan Africa.

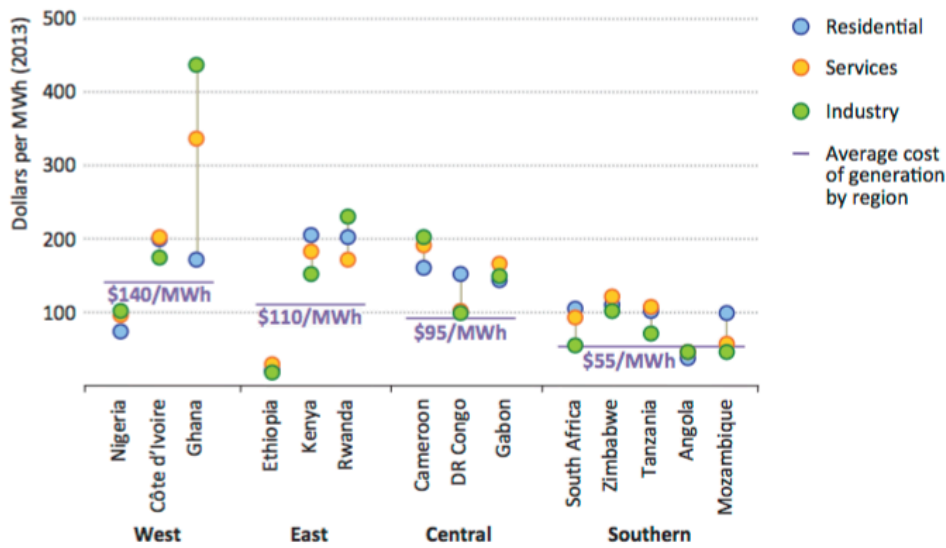


Figure 4.2.1: Grid electricity prices by end-user sector in selected countries, 2013

The financial viability of utilities is a critical factor in attracting IPP investments, and all these inefficiencies severely affect the financial standing of utilities. Governance reforms can critically improve the performance of state-owned utilities. Most utilities in Sub-Saharan Africa meet only about half of the criteria for good governance. Operational practices targeting technical and commercial efficiency can critically improve the financial standing of a utility in a short period of time. To reduce losses and protect revenues, utilities must take better control of technical losses, enhance service delivery, and improve billing and collection. Such actions are especially important as a utility approaches an IPP transaction. If the utility is financially fragile and is not collecting enough revenues, then the payment of power generators could be threatened. Robust Power Purchase Agreements (PPAs) have therefore become a requirement for new investors seeking to safeguard payment streams (that is, regardless of the financial health of the off-taker). PPAs denominated in U.S. dollars or euros, bolstered by credit enhancements and security measures, have been necessary to seal the deal for the majority of IPPs in Sub-Saharan Africa over the past two decades.

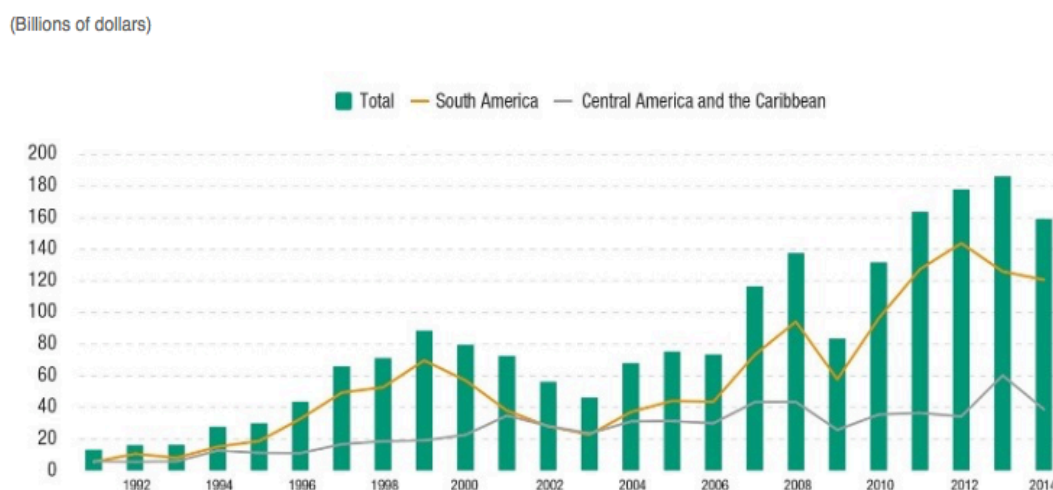
Power sector reforms to enhance efficiency and reduce losses should help reduce substantially the QFD of power utilities. It could be argued that tariff policy is not an effective tool to reduce QFDs because further tariff hikes only lead to lower collection rates and increased distribution losses (e.g., theft). Nevertheless, cost-recovery tariffs

can be achieved when combined with better services from power utilities. It is important to note that households and firms spend considerable amounts to deal with intermittent power supply and shortages (e.g., purchase and operation of petroleum-powered generators). The costs of own generation (by firms) is estimated in the range of US\$0.3–US\$0.7 per kWh—about three to four times as high as the price of electricity from the public grid. These costs are even higher for households.

Then, a sustained effort to better the performance of utilities must be at the center of countries’ reform agendas and also be consistently supported by development partners through financial and technical assistance.

4.3 Comparison with Latin American situation

Starting from this reasoning is interesting to look to a comparable situation that is the one of Latin America and Caribbean. In this area we can notice a different scenario: despite the advanced degree of development in respect to Sub-Saharan Africa and the richness of the area in terms of energy sources, considerable problems remains and the region’s appeal for foreign investment companies is diminishing. FDI inflows to developing countries increased by 5% in 2014 relative to the previous year, but, on the other hand Latin America and the Caribbean saw the largest fall in inflows among developing economies, with a 16% drop.

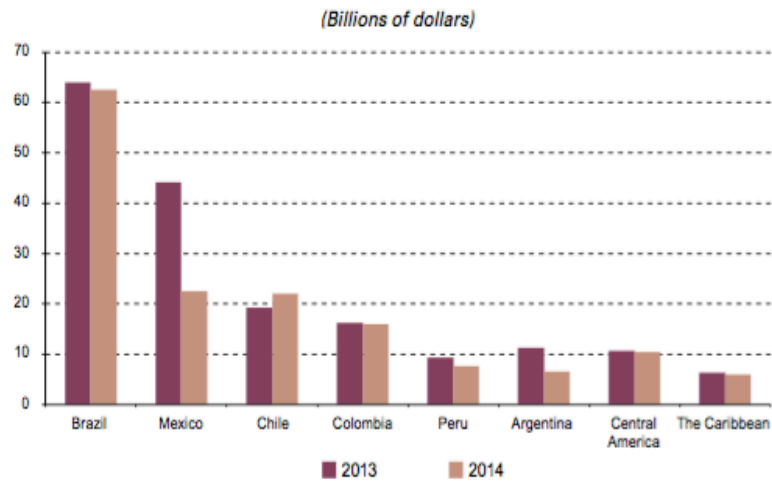


Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Note: Excludes Caribbean offshore financial centres.

Figure 4.3.1: FDI flows to Latin LAC in total and by main subregions, 1991-2014

Among the largest economies, Mexico recorded the steepest fall in inflows, with a drop of 49% to US\$ 22.795 billion. Brazil continues to be the largest recipient of FDI in the region, though inflows slipped by 2% to US\$ 62.495 billion. Chile remains the third largest recipient of FDI with US\$ 22.002 billion, up 14% on 2013. FDI to Central America fell by 2%, while FDI to the Caribbean fell by 5%.



Source: Economic Commission for Latin America and the Caribbean (ECLAC) on the basis of official figures and estimates as of 18 May 2015.

Figure 4.3.2: Latin America and the Caribbean (selected countries): inward foreign direct investment, 2013-2014

It would be interesting, for our purposes, understand the motives of this change in trend, identifying the main problems that can be avoided in the African case, with a particular focus on the energy sector.

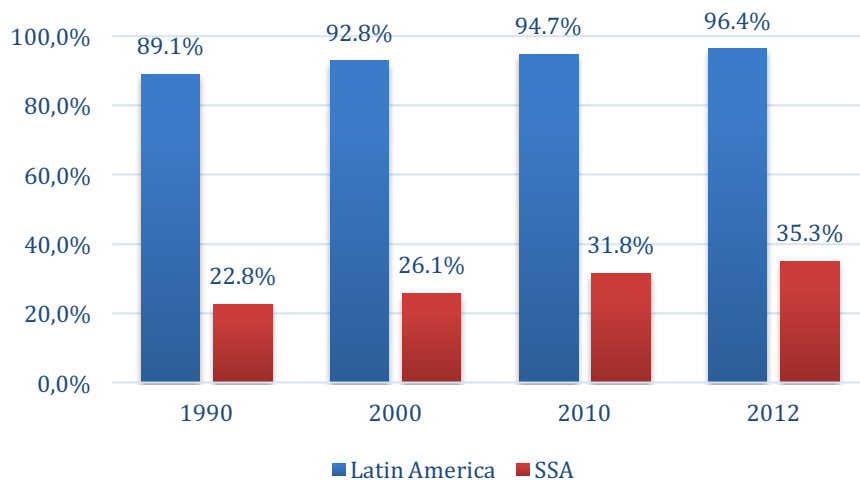


Figure 4.3.3: Access to energy comparison between LAC and SSA, (World Bank)

Despite a higher degree of development of the sector (Figure 4.3.3), and a more favourable context, the LAC energy sector remains heavily dependent on Governments' subsidies. Cost recovery is a major issue also in these countries: in fact, we have several cases of high generation cost, and also high losses are frequent, mainly due to network inefficiencies or low billing and collection rates.

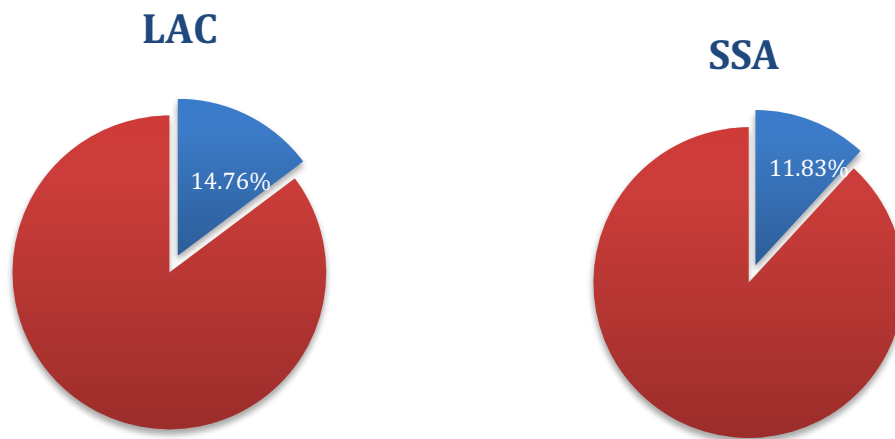


Figure 4.3.4: Transmission and distribution losses comparison(% of output), (WB)

As you can see from Figure 4.3.4, inefficiencies are even higher than in Sub-Saharan Africa, but due to local politics, LAC tariffs are in average lower, leading to a low profitability. This is a big concern for private investors interested in the industry: in fact, also considering the subsidization, the risk remains very high due to the distressed financial situation of LAC countries.

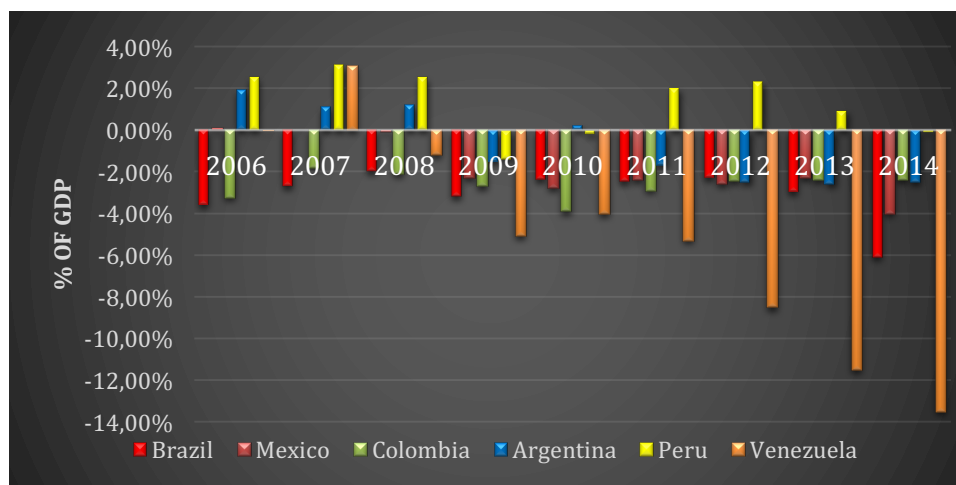


Figure 4.3.5: Main LAC Governments' budgets (% of GDP), 2006-2014, (tradingeconomics.com)

These considerations clearly apply to a number of countries in the LAC region, as energy subsidies weakened their fiscal positions and posed more general fiscal challenges. Energy subsidies constrain fiscal policy and weaken sustainability when they become large *vis-à-vis* government revenues, in particular tax receipts. While energy subsidies represented about 11% of tax revenues (on average) for the region during 2011–13, they were equivalent to about 32% of tax revenues for countries that ranked lower on measures of institutional quality, and just over 15% for Lower Income Countries. Looking at specific country examples, energy subsidies in 2011–13 represented a large share of tax revenues in Argentina (14%), Bolivia (20%), Haiti (23%), Ecuador (55%), and Venezuela (85%). This situation can be seen as unsustainable in the long term, and this is certainly a concern for the future profitability of the sector, and so for the returns of private investors.

Moreover, the bargaining power of private investors on LAC policies is very low, and this is another important difference if compared with SSA countries, where, considering their “starting point” in the development of policies, there is a higher degree of openness towards foreign investors. Therefore, this remains an important concern for foreign investors that consider the LAC area less attractive, and so they are beginning to prefer other countries for their capitals.

As a conclusion of this comparison is important to highlight that: the main problem of

LAC countries is the bad governance and in particular, the misalignment between energy policies and needs of foreign investors. So, SSA countries should continue to work on improving efficiency of the energy sector and, on the other hand, use policies as an incentive for foreign investors, aiming at increasing their future profitability, without worsening the situation for the population.

CHAPTER V

5- Country attractiveness measurement and analysis

In this chapter, the main SSA countries will be analyzed following a particular methodology, in order to spot the most attractive ones for foreign private investors.

5.1 Methodology

The objective of this paragraph is to create a tool useful to compare different countries in terms of relevant indicators that will be explained below. In particular, the analysis instrument that will be used is a matrix between two main dimensions.

COUNTRY ATTRACTIVENESS:

In this case the aim is to evaluate the attractiveness of a country, putting ourselves in the shoes of a foreign investor interested in the energy sector. To perform this valuation several indicators are used:

- **X1: Population without access to electricity:** this indicator is a composition of the total population of the country, its growth rate and the percentage of this population with no access to energy, taking into account also the rural population. Its meaning is to give a dimension to the opportunities of expansion of the energy sector in the country.
- **X2: Energy production from renewable sources (excluding hydro):** this indicator aims to size the opportunities coming from the development of renewables in the country.
- **X3: Total natural resources rents (% of GDP):** this indicator is used as a proxy of the richness of the country in terms of natural resources.
- **X4: Worldwide Governance Indicators (WGI):** based on a long-standing research program of the World Bank, the Worldwide Governance Indicators capture six key dimensions of governance (Voice & Accountability, Political Stability and Lack of Violence, Government Effectiveness, Regulatory Quality,

Rule of Law, and Control of Corruption) between 1996 and present. The Worldwide Governance Indicators are a compilation of the perceptions of a very diverse group of respondents, collected in large number of surveys and other cross-country assessment of governance. Some of these instruments capture the views of firms, individuals, and public officials in the countries being assessed. Others reflect the views of NGOs and aid donors with considerable experience in the countries being assessed, while others are based on the assessments of commercial risk-rating agencies.

For each one of these indicators a score between 0 (very bad) and 5 (optimal) is assigned. Then, the country attractiveness is computed using the following formula:

$$CA = (0.4 \cdot X_1) + (0.15 \cdot X_2) + (0.1 \cdot X_3) + (0.35 \cdot X_4)$$

It is a weighted average between the previously explained indicators in which the highest weights are given to the population without access to energy and the WGI indicators. This is due to the fact that these two indicators are the most relevant in our analysis, considering in some sense the attractiveness of the energy sector in the country and the reliability of the political sector.

The result will be again a score between 0 and 5 for the country attractiveness.

FINANCIAL SECTOR RELIABILITY:

As explained in the previous chapters, the reliability and development of the financial sector in a country has a fundamental importance for a foreign private investor. For this reason, the second dimension on which is built the matrix tries to evaluate the financial sector, and so, quantifying also the financial risk of the country. Again several indicators are used:

- **Aggregate Altman's Z-score:** this indicator, computed on the whole banking sector of the country aims to evaluate its soundness. In particular, the Z-score is a sign of the probability of default and it is computed as follows:

$$Z = (1.2 \cdot X_1) + (1.4 \cdot X_2) + (3.3 \cdot X_3) + (0.6 \cdot X_4) + (0.999 \cdot X_5)$$

Where:

- X1 is Working capital/Total assets.
- X2 is Retained earnings/Total assets.
- X3 is EBIT/Total assets.
- X4 is Market value of equity/Total liabilities.
- X5 is Sales/Total assets.

Typically, a score below 1.8 indicates that a company is likely heading for or is under the weight of bankruptcy. Conversely, companies that score above 3 are less likely to experience bankruptcy²⁰.

- **Stock Market Capitalization:** this indicator aims to size the stock market of the country, and so to evaluate its development. This is a very important information for a private equity investor, for which, an IPO is a possible way to exit the investment.
- **Currency risk:** this indicator represents the risk an investor bears investing in a country with a different currency. In fact, exchange rate variations could mean lower returns. It is computed as the percentage volatility of the exchange rate in respect to USD on the last 5 years.

Again these indicators are then scored following the same scale (0-5), and then the score for the financial sector reliability is calculated as the simple average between the three results.

At the end of this process, each country will be characterized by a score for each of the two dimensions, so, they will be put in the following matrix:

²⁰ Investopedia.com

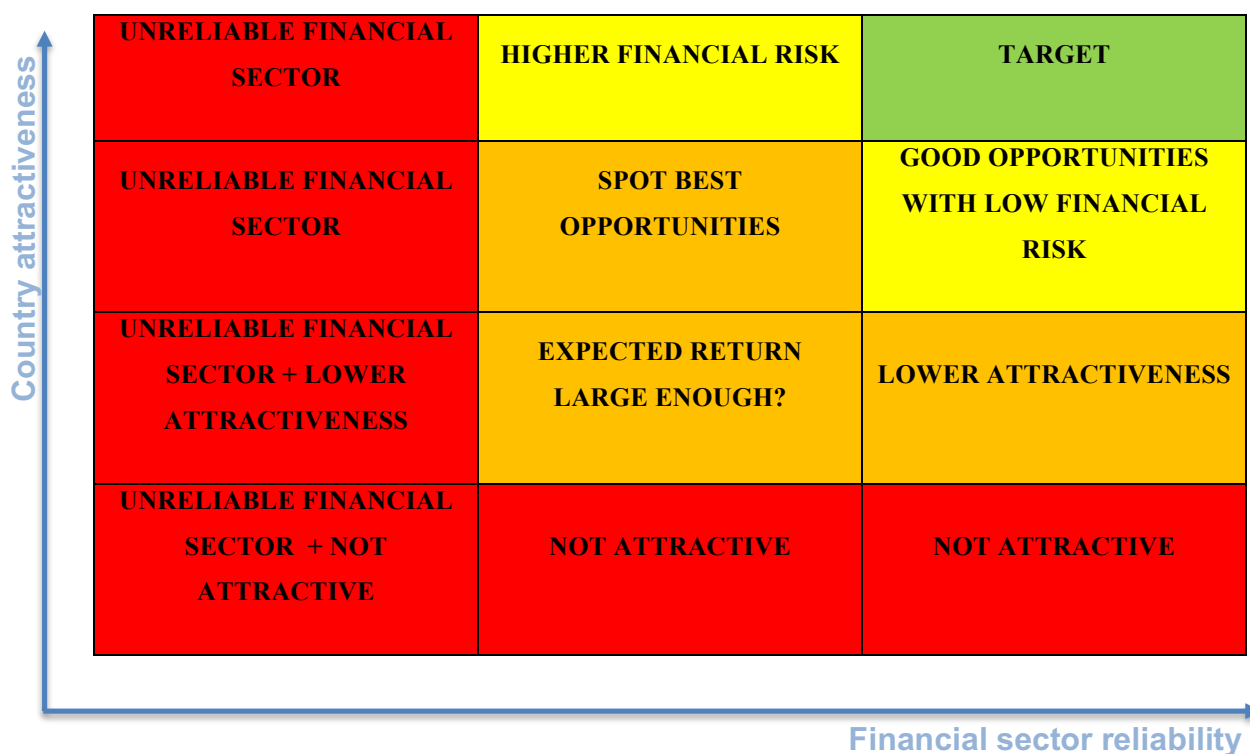


Figure 5.1.2: Country targeting matrix

This matrix is composed by twelve quadrants that are useful in order to identify the most interesting countries: in particular, going up we have an increasing attractiveness, and so, increasing expected returns, on the other hand, going from the left to the right we have increasing reliability of the financial sector, and so, decreasing financial risk. Therefore, it is possible to say that the most interesting countries will be in the upper right corner where we can expect high returns and the financial sector is reliable.

Using this matrix, after a detailed analysis of the countries, it will be possible to spot the most interesting countries for investments in the energy sector.

5.2 Analysis

In the following paragraph the main SSA countries will be analyzed, using the previously explained method, in order to spot the most attractive ones. Data related to the countries are in accordance with the Worldbank Database.

TOGO

- **Country attractiveness:** Togo's total population was 7,115,163 in 2014, its growth rate between 2011 and 2014 was 8% and the 60% lives in rural areas. The share of GDP given by natural resources was 7.8% in 2014, while only the 31.4% of the population had access to energy, and the share become 8.8% if we consider rural population. The energy production from renewable sources (excluding hydro) was the 4.5% of the total. Finally, its WGI rating in 2014 was -0.81.

Considering these information its overall country attractiveness rating is 2.82.

- **Financial sector reliability:** the aggregate z-score in 2013 was 2.85 and the stock market capitalization was irrelevant in respect to GDP. The CFA franc had an 8.86% volatility on the USD.

Said this, the financial sector rating is 2.5.

SIERRA LEONE

- **Country attractiveness:** Sierra Leone's total population was 6,315,627 in 2014, its growth rate between 2011 and 2014 was 7% and the 60% lives in rural areas. The share of GDP given by natural resources was 7.4% in 2014, while only the 14.2% of the population had access to energy, and the share become 1.2% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.74.

Considering these information its overall country attractiveness rating is 3.096.

- **Financial sector reliability:** the aggregate z-score in 2013 was 4.59 and the stock market capitalization was irrelevant in respect to GDP. The SLL had an 1.95% volatility on the USD.

Said this, the financial sector rating is 3.33.

SENEGAL

- **Country attractiveness:** Senegal's total population was 14,672,557 in 2014, its growth rate between 2011 and 2014 was 10% and the 56.6% lives in rural areas. The share of GDP given by natural resources was 4.44% in 2014, while the 56.5% of the population had access to energy, and the share become 26.6% if we

consider rural population. The energy production from renewable sources (excluding hydro) was the 1.7% of the total. Finally, its WGI rating in 2014 was -0.095.

Considering these information its overall country attractiveness rating is 3.21.

- **Financial sector reliability:** the aggregate z-score in 2013 was 40.78 and the stock market capitalization was irrelevant in respect to GDP. The CFA franc had an 8.86% volatility on the USD.

Said this, the financial sector rating is 2.83.

NIGER

- **Country attractiveness:** Niger's total population was 19,113,728 in 2014, its growth rate between 2011 and 2014 was 13% and the 81.5% lives in rural areas. The share of GDP given by natural resources was 16% in 2014, while only the 14.4% of the population had access to energy, and the share become 5.2% if we consider rural population. The energy production from renewable sources (excluding hydro) was the 0.9% of the total. Finally, its WGI rating in 2014 was -0.7.

Considering these information its overall country attractiveness rating is 3.53.

- **Financial sector reliability:** the aggregate z-score in 2013 was 18.99 and the stock market capitalization was irrelevant in respect to GDP. The CFA franc had an 8.86% volatility on the USD.

Said this, the financial sector rating is 2.83.

NIGERIA

- **Country attractiveness:** Nigeria's total population was 177,475,986 in 2014, its growth rate between 2011 and 2014 was 8% and the 53% lives in rural areas. The share of GDP given by natural resources was 12.5% in 2014, while the 55.6% of the population had access to energy, and the share become 34.4% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.18.

Considering these information its overall country attractiveness rating is 3.59.

- **Financial sector reliability:** the aggregate z-score in 2013 was 2.17 and the stock market capitalization accounted for the 10.34% if compared with the GDP. The NGN had a 9.93% volatility on the USD. Said this, the financial sector rating is 2.

LIBERIA

- **Country attractiveness:** Liberia's total population was 4,396,554 in 2014, its growth rate between 2011 and 2014 was 8% and the 50% lives in rural areas. The share of GDP given by natural resources was 28.12% in 2014, while the 9.8% of the population had access to energy, and the share become 1.2% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.79. Considering these information its overall country attractiveness rating is 2.99.
- **Financial sector reliability:** the aggregate z-score in 2012 was 2.02 and the stock market capitalization was irrelevant in respect to GDP. The LRD had a 10.92% volatility on the USD. Said this, the financial sector rating is 1.6.

EQUATORIAL GUINEA

- **Country attractiveness:** Equatorial Guinea's total population was 820,885 in 2014, its growth rate between 2011 and 2014 was 9% and the 60.24% lives in rural areas. The share of GDP given by natural resources was 43.3% in 2014, while the 66% of the population had access to energy, and the share become 43% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.42. Considering these information its overall country attractiveness rating is 1.578.
- **Financial sector reliability:** the aggregate z-score in 2011 was 3.98 and the stock market capitalization was irrelevant in respect to GDP. The CFA franc had an 8.86% volatility on the USD. Said this, the financial sector rating is 2.83.

GUINEA BISSAU

- **Country attractiveness:** Guinea Bissau's total population was 1,800,513 in 2014, its growth rate between 2011 and 2014 was 8% and the 51.45% lives in rural areas. The share of GDP given by natural resources was 17.67% in 2014, while the 60.6% of the population had access to energy, and the share become 21.45% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.24.

Considering these information its overall country attractiveness rating is 1.591.

- **Financial sector reliability:** the aggregate z-score in 2013 was 4.39 and the stock market capitalization was irrelevant in respect to GDP. The CFA franc had an 8.86% volatility on the USD.

Said this, the financial sector rating is 2.83.

GUINEA

- **Country attractiveness:** Guinea's total population was 12,275,527 in 2014, its growth rate between 2011 and 2014 was 8% and the 63.3% lives in rural areas. The share of GDP given by natural resources was 21.86% in 2014, while the 26.2% of the population had access to energy, and the share become 2.9% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.09.

Considering these information its overall country attractiveness rating is 2.97.

- **Financial sector reliability:** the aggregate z-score in 2013 was 6.04 and the stock market capitalization was irrelevant in respect to GDP. The GNF had a 5.38% volatility on the USD.

Said this, the financial sector rating is 3.

GHANA

- **Country attractiveness:** Ghana's total population was 26,786,598 in 2014, its growth rate between 2011 and 2014 was 7% and the 46.6% lives in rural areas. The share of GDP given by natural resources was 21.12% in 2014, while the 64.06% of the population had access to energy, and the share become 40.95% if

we consider rural population. The energy production from renewable sources (excluding hydro) was the 0.023% of the total. Finally, its WGI rating in 2014 was -0.03.

Considering these information its overall country attractiveness rating is 3.14.

- **Financial sector reliability:** the aggregate z-score in 2013 was 13.08 and the stock market capitalization accounted for the 7.46% if compared with the GDP. The GHS had a 33.92% volatility on the USD. Said this, the financial sector rating is 2.43.

GAMBIA

- **Country attractiveness:** Gambia's total population was 1,928,201 in 2014, its growth rate between 2011 and 2014 was 10% and the 40.85% lives in rural areas. The share of GDP given by natural resources was 7.09% in 2014, while the 34.52% of the population had access to energy, and the share become 25.65% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.62.

Considering these information its overall country attractiveness rating is 2.148.

- **Financial sector reliability:** the aggregate z-score in 2013 was 5.51 and the stock market capitalization was irrelevant in respect to GDP. The GMD had a 14.35% volatility on the USD. Said this, the financial sector rating is 2.56.

BURKINA FASO

- **Country attractiveness:** Burkina Faso's total population was 17,589,198 in 2014, its growth rate between 2011 and 2014 was 9% and the 70.97% lives in rural areas. The share of GDP given by natural resources was 15.86% in 2014, while the 13.1% of the population had access to energy, and the share become 1.4% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.525.

Considering these information its overall country attractiveness rating is 3.37.

- **Financial sector reliability:** the aggregate z-score in 2013 was 8.94 and the stock market capitalization was irrelevant in respect to GDP. The CFA franc had an 8.86% volatility on the USD.
Said this, the financial sector rating is 2.83.

MALI

- **Country attractiveness:** Mali's total population was 17,086,022 in 2014, its growth rate between 2011 and 2014 was 9% and the 60.83% lives in rural areas. The share of GDP given by natural resources was 12.98% in 2014, while the 25,6% of the population had access to energy, and the share become 11.9% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.83.
Considering these information its overall country attractiveness rating is 3.214.
- **Financial sector reliability:** the aggregate z-score in 2013 was 17,11 and the stock market capitalization was irrelevant in respect to GDP. The CFA franc had an 8.86% volatility on the USD.
Said this, the financial sector rating is 2.83.

SOMALIA

- **Country attractiveness:** Somalia's total population was 10,517,569 in 2014, its growth rate between 2011 and 2014 was 7% and the 60.9% lives in rural areas. The share of GDP given by natural resources was 14.51% in 2014, while the 32.7% of the population had access to energy, and the share become 17.25% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -2.21.
Considering these information its overall country attractiveness rating is 2.45.
- **Financial sector reliability:** the aggregate z-score was not disclosed in recent years, so we just consider the other two variables. The stock market capitalization was irrelevant in respect to GDP. The SOS had a 44.5% volatility on the USD.
Said this, the financial sector rating is 0.5.

BENIN

- **Country attractiveness:** Benin's total population was 10,598,482 in 2014, its growth rate between 2011 and 2014 was 8% and the 56.5% lives in rural areas. The share of GDP given by natural resources was 4.7% in 2014, while the 38.4% of the population had access to energy, and the share become 14.5% if we consider rural population. The energy production from renewable sources (excluding hydro) was the 0.58% of the total. Finally, its WGI rating in 2014 was -0.34.

Considering these information its overall country attractiveness rating is 2.986.

- **Financial sector reliability:** the aggregate z-score in 2013 was 13.33 and the stock market capitalization was irrelevant in respect to GDP. The CFA franc had an 8.86% volatility on the USD.

Said this, the financial sector rating is 2.83.

ZIMBABWE

- **Country attractiveness:** Zimbabwe's total population was 15,245,855 in 2014, its growth rate between 2011 and 2014 was 7% and the 67.5% lives in rural areas. The share of GDP given by natural resources was 9.63% in 2014, while the 40.46% of the population had access to energy, and the share become 16.05% if we consider rural population. The energy production from renewable sources (excluding hydro) was the 0.495% of the total. Finally, its WGI rating in 2014 was -1.3.

Considering these information its overall country attractiveness rating is 2.86.

- **Financial sector reliability:** the aggregate z-score in 2013 was 2.5 and the stock market capitalization was irrelevant in respect to GDP. The Zimbabwean dollar was the official currency of the country until 2009 when it was abandoned, now different kind of currencies are usable in the country, but the situation about the future is not reliable. Said this, the financial sector rating is 1.16.

MOZAMBIQUE

- **Country attractiveness:** Mozambique's total population was 27,216,276 in 2014, its growth rate between 2011 and 2014 was 9% and the 68.06% lives in

rural areas. The share of GDP given by natural resources was 13.55% in 2014, while the 20.2% of the population had access to energy, and the share become 5.4% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.54.

Considering these information its overall country attractiveness rating is 3.52.

- **Financial sector reliability:** the aggregate z-score in 2013 was 1,93 and the stock market capitalization was irrelevant in respect to GDP. The MZN had a 20.84% volatility on the USD.

Said this, the financial sector rating is 1.267.

ZAMBIA

- **Country attractiveness:** Zambia's total population was 15,721,343 in 2014, its growth rate between 2011 and 2014 was 10% and the 59.53% lives in rural areas. The share of GDP given by natural resources was 16.05% in 2014, while the 22.06% of the population had access to energy, and the share become 5.75% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.26.

Considering these information its overall country attractiveness rating is 3.524.

- **Financial sector reliability:** the aggregate z-score in 2013 was 15.3 and the stock market capitalization accounted for the 13.8% if compared with the GDP. The ZMW had a 30.52% volatility on the USD.

Said this, the financial sector rating is 2.6.

SWAZILAND

- **Country attractiveness:** Swaziland's total population was 1,269,112 in 2014, its growth rate between 2011 and 2014 was 5% and the 78.68% lives in rural areas. The share of GDP given by natural resources was 1.89% in 2014, while the 42% of the population had access to energy, and the share become 24.45% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.56.

Considering these information its overall country attractiveness rating is 1.74.

- **Financial sector reliability:** the aggregate z-score in 2013 was 14.07 and the stock market capitalization was irrelevant in respect to GDP. The SZL had a 24.4% volatility on the USD.
Said this, the financial sector rating is 2.33.

NAMIBIA

- **Country attractiveness:** Namibia's total population was 2,402,858 in 2014, its growth rate between 2011 and 2014 was 7% and the 54.32% lives in rural areas. The share of GDP given by natural resources was 2.43% in 2014, while the 47.26% of the population had access to energy, and the share become 17.35% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was 0.276.
Considering these information its overall country attractiveness rating is 2.15.
- **Financial sector reliability:** the aggregate z-score in 2013 was 4,55 and the stock market capitalization was irrelevant in respect to GDP. The NAD had a 24.39% volatility on the USD.
Said this, the financial sector rating is 2.6.

MALAWI

- **Country attractiveness:** Malawi's total population was 16,695,253 in 2014, its growth rate between 2011 and 2014 was 10% and the 83.9% lives in rural areas. The share of GDP given by natural resources was 12.5% in 2014, while the 9.8% of the population had access to energy, and the share become 2% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.4.
Considering these information its overall country attractiveness rating is 3.52.
- **Financial sector reliability:** the aggregate z-score in 2013 was 11.27 and the stock market capitalization accounted for the 19.36% if compared with the GDP. The MWK had a 58.5% volatility on the USD.
Said this, the financial sector rating is 2.4.

MADAGASCAR

- **Country attractiveness:** Madagascar's total population was 23,571,713 in 2014, its growth rate between 2011 and 2014 was 9% and the 65.53% lives in rural areas. The share of GDP given by natural resources was 10.9% in 2014, while the 15.4% of the population had access to energy, and the share become 8.1% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.77.

Considering these information its overall country attractiveness rating is 3.46.

- **Financial sector reliability:** the aggregate z-score in 2013 was 14.17 and the stock market capitalization was irrelevant in respect to GDP. The MGA had a 14.75% volatility on the USD.

Said this, the financial sector rating is 2.56.

BOTSWANA

- **Country attractiveness:** Botswana's total population was 2,219,937 in 2014, its growth rate between 2011 and 2014 was 6% and the 42.81% lives in rural areas. The share of GDP given by natural resources was 2.7% in 2014, while the 53.24% of the population had access to energy, and the share become 23.87% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was 0.64.

Considering these information its overall country attractiveness rating is 2.35.

- **Financial sector reliability:** the aggregate z-score in 2013 was 13.76 and the stock market capitalization accounted for the 28.5% in compared with the GDP. The BWP had a 15.74% volatility on the USD.

Said this, the financial sector rating is 3.26.

ETHIOPIA

- **Country attractiveness:** Ethiopia's total population was 96,958,732 in 2014, its growth rate between 2011 and 2014 was 8% and the 80.97% lives in rural areas. The share of GDP given by natural resources was 12.71% in 2014, while the 26.56% of the population had access to energy, and the share become 7.5% if we

consider rural population. The energy production from renewable sources (excluding hydro) was the 4.3% of the total. Finally, its WGI rating in 2014 was -0.8.

Considering these information its overall country attractiveness rating is 3.46.

- **Financial sector reliability:** the aggregate z-score in 2013 was 16.06 and the stock market capitalization was irrelevant in respect to GDP. The ETB had an 8.22% volatility on the USD.

Said this, the financial sector rating is 2.83.

ERITREA

- **Country attractiveness:** Eritrea's total population was 5,110,444 in 2014, its growth rate between 2011 and 2014 was 7% and the 77.87% lives in rural areas. The share of GDP given by natural resources was 19.2%, while the 36.07% of the population had access to energy, and the share become 11.95% if we consider rural population. The energy production from renewable sources (excluding hydro) was the 0.55% of the total. Finally, its WGI rating in 2014 was -1.47.

Considering these information its overall country attractiveness rating is 2.44.

- **Financial sector reliability:** the aggregate z-score was not disclosed in recent years, so we just consider the other two variables. The stock market capitalization was irrelevant in respect to GDP. The ERN had a 18.98% volatility on the USD.

Said this, the financial sector rating is 1.1.

DJIBOUTI

- **Country attractiveness:** Djibouti's total population was 876,154 in 2014, its growth rate between 2011 and 2014 was 4% and the 22.7% lives in rural areas. The share of GDP given by natural resources was 3.2% in 2014, while the 53.26% of the population had access to energy, and the share become 12.95% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.83.

Considering these information its overall country attractiveness rating is 1.48.

- **Financial sector reliability:** the aggregate z-score in 2013 was 15.01 and the stock market capitalization was irrelevant in respect to the GDP. The DJF had a 1.23% volatility on the USD.
Said this, the financial sector rating is 3.33.

SUDAN

- **Country attractiveness:** Sudan's total population was 39,350,274 in 2014, its growth rate between 2011 and 2014 was 7% and the 66.37% lives in rural areas. The share of GDP given by natural resources was 6.43% in 2014, while the 32.56% of the population had access to energy, and the share become 17.75% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.61.
Considering these information its overall country attractiveness rating is 3.36.
- **Financial sector reliability:** the aggregate z-score in 2013 was 19.97 and the stock market capitalization was irrelevant in respect to the GDP. The SDG had a 35.82% volatility on the USD.
Said this, the financial sector rating is 2.16.

UGANDA

- **Country attractiveness:** Uganda's total population was 37,782,971 in 2014, its growth rate between 2011 and 2014 was 10% and the 84.23% lives in rural areas. The share of GDP given by natural resources was 11.32% in 2014, while the 18.16% of the population had access to energy, and the share become 8.05% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.62.
Considering these information its overall country attractiveness rating is 3.08.
- **Financial sector reliability:** the aggregate z-score in 2013 was 18.99 and the stock market capitalization accounted for the 32.1% if compared with the GDP. The UGX had a 11.2% volatility on the USD.
Said this, the financial sector rating is 3.33.

TANZANIA

- **Country attractiveness:** Tanzania's total population was 51,822,621 in 2014, its growth rate between 2011 and 2014 was 10% and the 69% lives in rural areas. The share of GDP given by natural resources was 6.12% in 2014, while the 15.3% of the population had access to energy, and the share become 3.6% if we consider rural population. The energy production from renewable sources (excluding hydro) was the 0.64% of the total. Finally, its WGI rating in 2014 was -0.48.

Considering these information its overall country attractiveness rating is 3.79.

- **Financial sector reliability:** the aggregate z-score in 2013 was 12.11 and the stock market capitalization accounted for the 4.34% if compared with the GDP. The TZS had a 11.81% volatility on the USD. Said this, the financial sector rating is 2.8.

RWANDA

- **Country attractiveness:** Rwanda's total population was 11,341,544 in 2014, its growth rate between 2011 and 2014 was 7% and the 72.16% lives in rural areas. The share of GDP given by natural resources was 6.13% in 2014, while the 18% of the population had access to energy, and the share become 7.7% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.02.

Considering these information its overall country attractiveness rating is 3.48.

- **Financial sector reliability:** the aggregate z-score in 2013 was 10.18 and the stock market capitalization was irrelevant in respect to the GDP. The RWF had an 8.92% volatility on the USD. Said this, the financial sector rating is 2.73.

KENYA

- **Country attractiveness:** Kenya's total population was 44,863,583 in 2014, its growth rate between 2011 and 2014 was 8% and the 74.8% lives in rural areas. The share of GDP given by natural resources was 2.85% in 2014, while the 23% of the population had access to energy, and the share become 6.7% if we

consider rural population. The energy production from renewable sources (excluding hydro) was the 24.84% of the total. Finally, its WGI rating in 2014 was -0.57.

Considering these information its overall country attractiveness rating is 3.3.

- **Financial sector reliability:** the aggregate z-score in 2013 was 11.9 and the stock market capitalization accounted for the 25.5% if compared with the GDP. The KES had a 7.36% volatility on the USD. Said this, the financial sector rating is 3.67.

GABON

- **Country attractiveness:** Gabon's total population was 1,687,673 in 2014, its growth rate between 2011 and 2014 was 7% and the 13.08% lives in rural areas. The share of GDP given by natural resources was 37.38% in 2014, while the 89.3% of the population had access to energy, and the share become 44.9% if we consider rural population. The energy production from renewable sources (excluding hydro) was the 0.41% of the total. Finally, its WGI rating in 2014 was -0.54.

Considering these information its overall country attractiveness rating is 1.93.

- **Financial sector reliability:** the aggregate z-score in 2013 was 10.26 and the stock market capitalization was irrelevant in respect to the GDP. The CFA franc had an 8.86% volatility on the USD. Said this, the financial sector rating is 2.83.

CONGO DEM. REP.

- **Country attractiveness:** Congo Dem. Rep.'s total population was 74,877,030 in 2014, its growth rate between 2011 and 2014 was 10% and the 58.02% lives in rural areas. The share of GDP given by natural resources was 38.14% in 2014, while the 16.4% of the population had access to energy, and the share become 5.75% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.54.

Considering these information its overall country attractiveness rating is 3.58.

- **Financial sector reliability:** the aggregate z-score in 2013 was 11.86 and the stock market capitalization was irrelevant in respect to the GDP. The CDF had an 0.9% volatility on the USD.
Said this, the financial sector rating is 3.33.

CONGO REP.

- **Country attractiveness:** Congo Rep.'s total population was 4,504,962 in 2014, its growth rate between 2011 and 2014 was 8% and the 35.04% lives in rural areas. The share of GDP given by natural resources was 48.18% in 2014, while the 41.6% of the population had access to energy, and the share become 11.7% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.998.
Considering these information its overall country attractiveness rating is 2.17.
- **Financial sector reliability:** the aggregate z-score in 2013 was 3.39 and the stock market capitalization was irrelevant in respect to the GDP. The CFA franc had an 8.86% volatility on the USD.
Said this, the financial sector rating is 2.76.

CHAD

- **Country attractiveness:** Chad's total population was 13,587,053 in 2014, its growth rate between 2011 and 2014 was 10% and the 77.66% lives in rural areas. The share of GDP given by natural resources was 23.91% in 2014, while the 6.4% of the population had access to energy, and the share become 3.05% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.31.
Considering these information its overall country attractiveness rating is 3.23.
- **Financial sector reliability:** the aggregate z-score in 2013 was 10.17 and the stock market capitalization was irrelevant in respect to the GDP. The CFA franc had an 8.86% volatility on the USD.
Said this, the financial sector rating is 2.83.

CENTRAL AFRICAN REPUBLIC

- **Country attractiveness:** Central African Republic's total population was 4,804,316 in 2014, its growth rate between 2011 and 2014 was 6% and the 60.24% lives in rural areas. The share of GDP given by natural resources was 11.85% in 2014, while the 10.8% of the population had access to energy, and the share become 8.15% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.7.

Considering these information its overall country attractiveness rating is 2.53.

- **Financial sector reliability:** the aggregate z-score in 2013 was 11.48 and the stock market capitalization was irrelevant in respect to the GDP. The CFA franc had an 8.86% volatility on the USD.

Said this, the financial sector rating is 2.83.

CAMEROON

- **Country attractiveness:** Cameroon's total population was 22,773,014 in 2014, its growth rate between 2011 and 2014 was 8% and the 46.18% lives in rural areas. The share of GDP given by natural resources was 9.9% in 2014, while the 53.7% of the population had access to energy, and the share become 18.5% if we consider rural population. The energy production from renewable sources (excluding hydro) was the 0.99% of the total. Finally, its WGI rating in 2014 was -0.94.

Considering these information its overall country attractiveness rating is 3.24.

- **Financial sector reliability:** the aggregate z-score in 2013 was 18.03 and the stock market capitalization was irrelevant in respect to the GDP. The CFA franc had an 8.86% volatility on the USD.

Said this, the financial sector rating is 2.83.

BURUNDI

- **Country attractiveness:** Burundi's total population was 10,816,860 in 2014, its growth rate between 2011 and 2014 was 10% and the 88.24% lives in rural areas. The share of GDP given by natural resources was 14.23% in 2014, while

the 6.5% of the population had access to energy, and the share become 1.2% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -0.98. Considering these information its overall country attractiveness rating is 3.5.

- **Financial sector reliability:** the aggregate z-score in 2013 was 15.86 and the stock market capitalization was irrelevant in respect to the GDP. The BIF had an 8.82% volatility on the USD.

Said this, the financial sector rating is 2.83.

ANGOLA

- **Country attractiveness:** Angola's total population was 24,227,524 in 2014, its growth rate between 2011 and 2014 was 10% and the 56.72% lives in rural areas. The share of GDP given by natural resources was 32.72% in 2013, while the 37% of the population had access to energy, and the share become 6% if we consider rural population. The energy production from renewable sources (excluding hydro) was negligible. Finally, its WGI rating in 2014 was -1.01.

Considering these information its overall country attractiveness rating is 3.67.

- **Financial sector reliability:** the aggregate z-score in 2013 was 15.16 and the stock market capitalization was irrelevant in respect to the GDP. The AOA had an 13.54% volatility on the USD.

Said this, the financial sector rating is 2.6.

5.3 Targeting

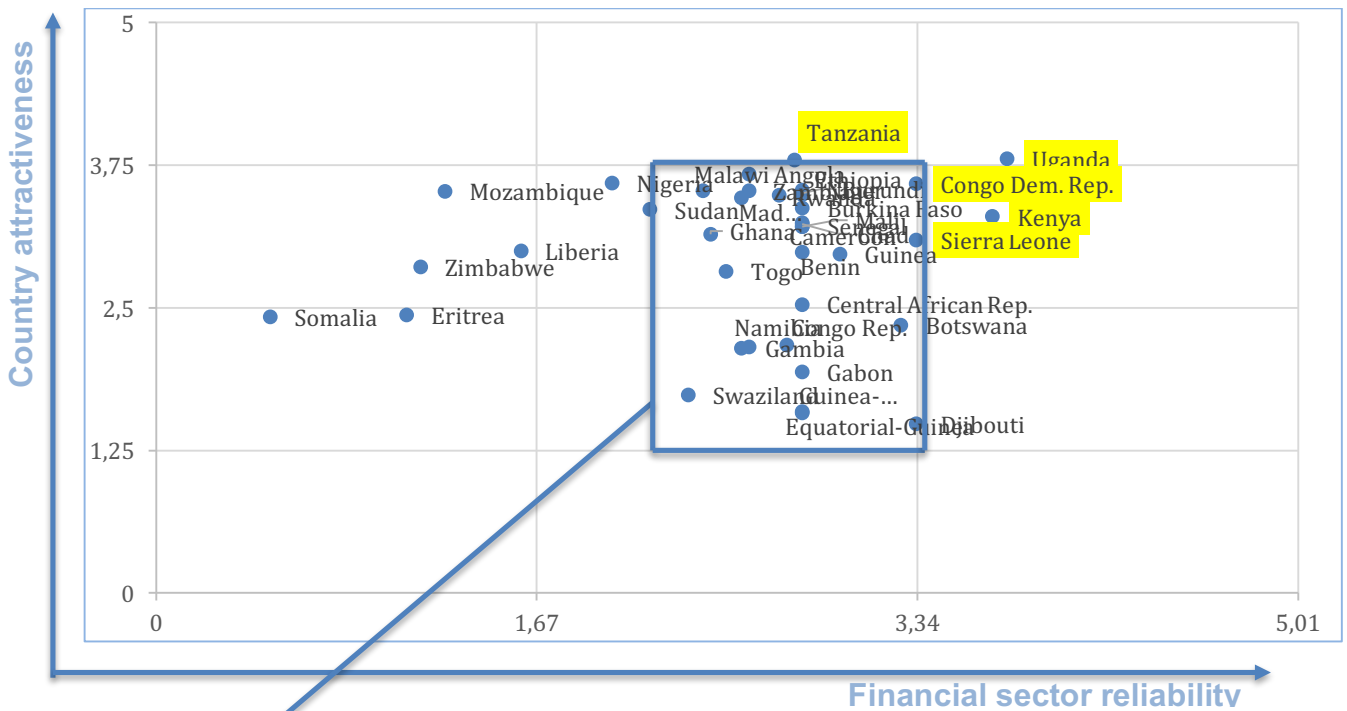
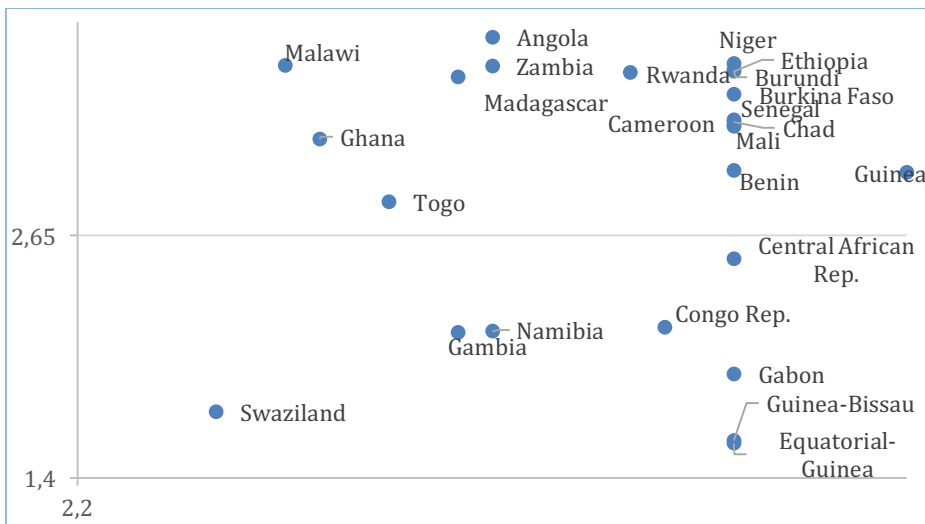


Figure 5.3.1: Analysis' results



In Figure 5.3.1 you can see the analyzed countries plotted on the matrix. It is possible to see that the countries are principally positioned in the central area of the matrix, then, in points in which the financial sector is not very reliable. On the other hand, there is a good number of states in which it is possible to find good investment opportunities.

In particular, we can highlight five countries that have the most attractive positioning, and so, that will become the object of the next step: Uganda, Congo Dem. Rep., Kenya, Tanzania and Sierra Leone.

5.4 Further analysis of target countries

In this further analysis other relevant factors will be taken into account, also considering qualitative parameters, in order to create a complete picture of the investment environment in these five countries.

5.4.1 Uganda

Uganda has an installed capacity of 810MW and peak demand of 509.4MW according to its electricity regulator, the Electricity Regulatory Authority (ERA). The installed capacity is dominated by hydropower (approximately 80%) and supported by heavy fuel oil and biomass cogeneration power plants. As with other Sub-Saharan African countries relying predominantly on hydropower, erratic rainfall and droughts have affected the electricity supply in recent years and led to load shedding. Currently with increased capacity and existence of two 50MW heavy fuel oil (HFO) powered plants, the incidence of load shedding due to shortage in supply is now close to zero. Only around 12% of the population have access to electricity and, aside from electricity, over 90% of energy consumption is biomass; principally firewood or charcoal.

Uganda's largest hydropower project is the 250MW Bujagali hydropower project which was commissioned in 2012, almost doubling Uganda's then installed capacity. This is a public private partnership between Government of Uganda (GoU), Blackstone Portfolio Company, Sithe Global Power and the Aga Khan Fund for Economic Development. It is a Build Own Operate Transfer project under a 30 year PPA and the construction included a 100km 220kV high voltage transmission line.

Aside from Bujagali, other substantial independent power projects are the 18MW Mpanga run of the river hydropower project owned by SAEMS, and the 13MW Bugoye

run of the river hydropower project owned by TronderEnergi and Norfund, 6MW Ishaha and 9MW Buseruka. Further substantial hydro projects are in the pipeline with the 600MW Karuma and 183MW Isimba projects expected to be commissioned in 2018. These are being constructed by Sinohydro and China International Water and Electric Corp respectively, with 85% of capital costs being funded by a sovereign loan provided by China Exim Bank to the GoU.

To further the increase in power generation capacity, the government of Uganda is promoting the development of the following small hydropower projects – Kikagati 16MW, Mitano 2.9MW, Lubilia 4MW, Nyagak III 4.5MW, Siti 1 & 2 21.5MW, Waki 5.4MW, Rwimi 10.4MW, Nyamwamba 9.2MW, Nengo Bridge 6.5MW and Muzizi 46MW. Some of these projects are being developed under Uganda’s GET FiT regime and indeed Uganda has been ranked tenth out of 55 emerging jurisdictions by Bloomberg in a global survey on investment climate and policies for clean energy and investments.

The GoU, acting through the Ministry of Energy and Mineral Development (MEMD), implemented a Power Sector Reform and Privatisation Policy, resulting in a liberalisation of Uganda’s power sector which is now relatively advanced. The state-owned Uganda Electricity Board was unbundled in 2001 into the Uganda Electricity Generation Company Limited (UEGCL), the Uganda Electricity Transmission Company Limited (UETCL) and the Uganda Electricity Distribution Company Limited (UEDCL). The unbundling also created a regulatory authority, the Electricity Regulatory Authority (ERA) overseeing the sector. Significant public investment has injected into the sector, particularly in the area of electricity supply. Following liberalisation, the power sub-sector is now attracting the largest private sector investments in the country. The sector is not only a vital input into other sectors, but also major source of employment.

The transmission system losses are approximately less than 4% and the distribution

system losses were 38% in 2005, 26.1% in 2012 and 24,9% in June 2013²¹. In 2004 the 33kV distribution assets of UEDCL were transferred under concession to a consortium of Globeleq (56%) and Eskom (44%) pursuant to a 20 years concession agreement. Globeleq and Eskom incorporated a project company for this purpose named Umeme Limited. Umeme Limited is the largest distribution company in Uganda, and is listed on both the Kampala and Nairobi stock exchanges. More recently in May 2014, Actis sold a substantial amount of its shareholding in a secondary offer on each stock exchange, with the US\$85.5 million raised used to benefit from lower borrowing costs and fund a five years investment programme to strengthen its distribution network in preparation for new IPPs anticipated to come online. Investec is now the largest shareholder in Umeme with 18.5% of the issued share capital, and each of Actis and the National Social Security Fund of Uganda hold 14.3%. UETCL is a public limited company owned by the Ministry of Finance, Planning and Economic Development, and remains the single operator of the transmission system and is the counterparty to power purchase agreements (immediately on-selling the power to the distribution network company). It has an operational mandate divided into single buyer business and transmission system operator, and therefore undertakes bulk power purchases and sales, import and export of energy, operation of the high voltage transmission system and the role of national system operator. Since the establishment of UETCL, 150km of 220kV transmission lines and 1441km of 132kV transmission lines have also been added to the national grid. UETCL maintains and operates 16 substations ranging from 66kV to 220kV substations. A number of old 132kV lines are being reconducted to improve the reliability and quality of supply in certain areas of the country.

The unbundling of the electricity sector has also resulted in the establishment of the Rural Electrification Agency and Board under the MEMD. The GoU plans to achieve a rural electrification rate of at least 26% by 2022 from 1% at the beginning of the decade.

²¹ Ministry of Energy and Mineral Development, Strategic Investment Plan 2014/15 – 2018/19, page 33

The end user tariff for domestic consumers is at UGX520.6²² one of the highest in East Africa. This is due the enormous raise of prices (52%)²³ in 2012 up to nearly cost-covering end-consumer prices. Currently, the end user retail tariff is based on consumer category. However, to cater for the poor, the life line tariff was not increased and remains at UGX100 per unit up to 15kWh per month. The following table shows all the Umeme tariffs from Q4,2014.²⁴

To promote the development and use of renewable energy sources, the Government has developed a feed-in-tariff structure. A Feed-in-Tariff (FIT) is an instrument for promoting private sector generation of electricity from renewable energy sources. This structure was named GET Fit: it has been highlighted as one of the most wellregarded and successful renewables feed-in-tariff regimes outside of South Africa. It was established in January 2010 by Deutsche Bank Climate Change Advisers, having been asked by The Advisory Group on Energy and Climate Change of the Secretary General of the United Nations to present new concepts for promoting renewable energy investments in developing countries. This has then been enhanced by public sector development partners (including Germany, the United Kingdom and Norway) providing financial support by way of a Premium Payment Mechanism (PPM) which is implemented by the German development bank KfW. The PPM is payable to the project company on top of the fixed tariff amount. The PPM enhances the viability of the project for the sponsors whilst ensuring that the tariff is affordable for UETCL. In order to avoid particular projects benefitting excessively from the PPM, each technology type has a capacity factor above which no premium payments can be received. In addition, there is a partial risk guarantee provided by the World Bank and a Private Financing Mechanism set out by Deutsche Bank to offer debt and equity at competitive rates. Under GET FiT the project company would sign a 20 years power purchase agreement (PPA) with UETCL and an implementation agreement with the GoU, acting through MEMD. The payment of the PPM is split, with 50% payable upon the commercial operations date of the project, and the remainder disbursed alongside the PPA against

²² Umeme (2014, Q4)

²³ Ministry of Energy and Mineral Development, Strategic Investment Plan 2014/15 – 2018/19, page 33

²⁴ Umeme - <http://www.umeme.co.ug/articles/TariffAdNV.pdf>

energy delivered, but limited to a five years period and by the capacity factor cap. Under the GET FiT program the government has been fast tracking the development of a portfolio of 15 small scale renewable energy generation projects (between 1-20MW) promoted by private developers with a total installed capacity of about 125MW. This has been done under phases 1 and 2, each consisting of a portfolio hydropower, biomass and bagasse power projects, and so far 12 projects representing 103MW have been approved. A third and final request for proposals under the PPM was launched on 10 November 2014 and 18 hydropower developers applied in January 2015.

In 2014, the solar photovoltaic part of GET FiT was launched, involving a reverse auction process similar to South Africa's renewable energy procurement programme for an aggregate installed capacity of 20–50MW. Concessions were awarded to the cheapest eligible bidders following due diligence on the respective bids.

Moreover, there are also foreign investment incentives published by the Uganda Investment authority:

- Investment Capital Allowances allowing investors to deduct from their net income a part of the investment capital.
- Duty and tax free import of plant and machinery.

It is also possible to elect foreign law as the governing law in commercial agreements subject to certain exceptions.

However, some problem remains: in particular, continuing reports of endemic corruption and financial mismanagement scare the most risk-adverse investors.

5.4.2 Kenya

Kenya's economy has been growing at approximately 5.1% per year over the last 10 years; however, economic growth is constrained by an insufficient supply of electricity. As of the end of March 2015, Kenya has an installed generation capacity of only 2,295MW or 0.049kW per capita. Although this has grown from an installed capacity base of 1,885MW as of the end of June 2014, it is still very low. The energy generation comes principally from Hydro (45%), fossil fuels (32%) and Geothermal (13%).

The Government of Kenya's Vision 2030 economic development blueprint program aims to double Kenya's rate of growth. Investment in the electricity services industry is critical if the government is to achieve the Vision 2030 blueprint. The electricity demand is projected to grow to 18,000MW by 2030 due to an increase in the number of customers connected to electricity as well as increased intensity of energy utilization. Note that this would equal a compound annual growth rate of 16.2% from the current base.

Kenya Power is the wholesale buyer of electricity, and is obligated to purchase electricity from all power generators – including KenGen and IPPs -- on the basis of negotiated Power Purchase Agreements. Kenya Power is responsible for onward transmission of purchased electricity and is the sole distributor of electricity from the national grid to consumers in Kenya. Kenya Power is listed on the Nairobi Stock Exchange, is 49.9% owned by private shareholders, with the remainder owned by the Government of Kenya, and is profitable and creditworthy.

The Kenya Electricity Generating Company (KenGen) manages all public power generation facilities and is the main generator of electricity in Kenya which it sells on a wholesale basis to Kenya Power. KenGen, which produces approximately 80% of the Kenya's electricity, has an installed capacity of March 2015 of 1,564MW, which accounts for 68% of total installed capacity from various sources including hydro, thermal, geothermal, and wind. KenGen is responsible for developing new public sector generation facilities to meet increased demand. KenGen is listed on the Nairobi Stock Exchange, is 30% owned by private sector shareholders and 70% owned by the Government of Kenya.

In 2008, the Kenyan government created the Kenya Electricity Transmission Company (KETRACO) to develop new, high-voltage electricity transmission infrastructure to facilitate grid access for rural areas, allow for grid interconnection with new generating plants, and enable regional power trade with neighboring countries. KETRACO is 100% owned by the Government of Kenya and is responsible for planning, designing, constructing, owning, operating, and maintaining new high voltage (132 kV and above) electricity transmission infrastructure. In 2013 the transmission and distribution losses

were equal to the 18%²⁵ of the total production.

In Kenya there is also a relevant part of IPPs, private investors in the power sector involved in generation either on a large scale or in renewable energy projects under the Feed-in-Tariff Policy. They currently contribute about 28% to the country's installed capacity.

Kenya recognizes the importance of creating a sustainable environment conducive to inward Foreign Direct Investment (FDI) and has developed an enabling framework:

- The Kenyan shilling has a floating exchange rate and is able to be freely traded.
- There are no restrictions on borrowing by foreign companies.
- Foreign and domestic companies may open foreign currency accounts in local banks.
- Kenya has lowered or eliminated tax duties to attract investment.
- Guaranteed capital repatriation and dividend and interest remittance by foreign investors.
- Kenyan law provides protection against the illegal expropriation of private property.
- Kenya is a signatory to the UNCITRAL²⁶ and ICSID²⁷ dispute resolution conventions.
- Both S&P and Fitch have provided Kenya with a long term sovereign credit rating of "B+".

Kenya is developing a market-based economy, where the role of the Government is to act as regulator of competitive markets rather than to act as a participant in those markets. Kenya is open to both private sector investments from local sources as well as from foreign sources of capital, and has developed a number of policies aimed at attracting foreign capital. FDI into Kenya has shown significant increase in the last ten

²⁵ IEA statistics © OECD/IEA 2014

²⁶ Commission that formulates and regulates international trade in cooperation with the World Trade Organisation.

²⁷ International Centre for Settlement of Investment Disputes.

years as companies respond to incentives by investing in Kenya's privatized industries and infrastructure. The Kenyan Government is looking to the private sector to deliver a substantial portion of the required electricity infrastructure. The Public Private Partnership (PPP) Act of 2013 was promulgated to support private sector investment under PPP.

Moreover, Kenya's energy market offers reasonably independent regulation, cost-reflective tariffs, and a functional market design:

- Kenya has completed the vertical unbundling of its energy sector.
- By law, the Energy Regulatory Commission (ERC) operates independently from political influence.
- Kenya Power is partially-owned by private investors and is one of the continent's most financially viable distribution & supply companies. Kenya Power operates profitably, provides transparent financial reporting, and has not been late on an energy payment for six years.
- Kenya Power's financial stability and access to capital markets allows investors to invest without reliance on sovereign guarantees, although IPPs require a letter of comfort from the government that covers political risk in order to obtain financing for projects.
- Kenya's track record of completing ten commercially viable Independent Power Producers (IPP) projects validates the ease and attractiveness of the business environment.

Finally, there is also an electricity sector investment framework that gives protections and fiscal incentives to investors:

- The FIT for Renewable energy projects guarantees a FIT (US\$/kWh) that eliminates pricing risk.
- A priority purchase obligation by Kenya Power and guaranteed access to the national grid.
- A 20-year FIT, providing an amortization period sufficient to raise long-term project financing.
- An obligation upon Kenya Power to enter into a Power Purchase Agreement

with the project company upon meeting the criteria required under the FiT program.

- An auction expected to be introduced in 2016 to replace the FiT program.

In addition to protections provided under the FIT policy, fiscal incentives and protections to investors that derived from the structure of tariffs include:

- Exclusion from payment of customs duties on equipment used in electricity generation stations.
- Exemptions from the payment of VAT on equipment used in electricity generation stations.
- No capital gains taxes and low rates of taxes on dividends.
- The denomination of tariffs in US dollars, thus eliminating exchange rate risk for foreign investors.
- Indexing of the operations and maintenance component of the FIT tariff using the US CPI.
- Indexation of end-user tariffs to fuel costs to ensure fuel costs pass-through.

Also in this case problems are not missing: in particular, bad administration of taxation that leads to delays in refunds, security is a concern, corruption, high costs of doing business, technology transfer risks and trends of peace instability.

5.4.3 Tanzania

Tanzania has experienced real annual GDP growth rates of 3% - 7% since the 1990s. In 2012, Tanzania's real annual GDP grew by 6.4%²⁸. Moreover, Tanzania passed the Millennium Challenge Corporation's (MCC) annual scorecard of country performance in 2013 and was selected in December, 2013 as eligible for a second MCC compact²⁹.

²⁸ World Bank, 2014.

²⁹ The Millennium Challenge Corporation (MCC) is a bilateral United States foreign aid agency established by the U.S. Congress in 2004, applying a new philosophy toward foreign aid. MCC signs either a compact or a threshold agreement with a partner country. A compact is awarded if the country scores highly on the selection criteria indicators.

Despite these positive developments, underinvestment and weak financial performance in Tanzania's energy sector continue to be significant barriers to continued economic growth. Currently, Tanzania has an installed generation capacity of only about 1,500MW, or 0.033 kW per capita. On the other hand, electricity demand in the country is increasing rapidly mainly due to accelerated productive investments, increasing population, and increasing access to electricity. Hence, the government is encouraging investments to increase available generation, further expand electricity access, reform the distribution system, and develop new indigenous sources of energy. In 2013, nearly 40% of electricity generation resources were renewable energy sources, primarily hydropower, while the remaining sources were natural gas and other fossil fuels.

The Tanzania Development Vision 2025 (Vision 2025) published by the Planning Commission in 1999 is still the main strategy document in outlining the general development for Tanzania. Vision 2025 has been made more concrete in the Tanzania Long-Term Perspective Plan, published in June 2012, which outlines a roadmap to a middle income country. Within Vision 2025, the Big Results Now (BRN) initiative aims to speed up project completion in six priority sectors. As a priority sector, Energy BRN focuses on finalizing 29 key projects and structural changes before mid-2016. Energy BRN proposes several steps to increase natural gas generation, improve electricity access, strengthen the financial capacity of the public utility, Tanzania Electric Supply Company (TANESCO), and develop mini- and off-grid renewable opportunities. TANESCO is a vertically-integrated utility owned by the Government of Tanzania and is the country's principal electricity generator, transmitter, and distributor. Currently, it provides the vast majority of the effective generating capacity to the national grid, and is responsible for transmission and distribution, serving customers on the main grid and in 20 isolated grids. In Tanzania four different price levels exist:

- Domestic Low Usage Tariff (DI): applies to customers using on average less than 50 kWh per year, is subsidised and includes services.
- General Usage Tariff (T1): applies to consumption above 283kWh per year, voltage is 230V in monophase and 400V in triphase.
- Low Voltage Usage Tariff (T2): applies to consumers with a consumption of 400V and a more than 7.500kWh, but less than 500KVA.

- High Voltage Usage Tariff (T3): applies to consumers using 11KV and above.

In January 2011 a 18,5% price hike took effect in Tanzania, where TANESCO actually had proposed for 34,6% to move towards more cost recovering incomes. At current (after the price hike), TANESCO's recovering rate is about 80% of its costs. If the EPP is implemented however, this rate will drop considerably³⁰. Moreover, in 2013 transmission and distribution losses accounted for the 20%³¹ of the total production.

Tanzania recognizes the importance of creating a sustainable environment conducive to inward Foreign Direct Investment and has developed an enabling framework, including:

- The One Stop Investment Center, an investment facilitation mechanism that brings all relevant governmental agencies in one location to streamline the provision of services to investors.
- Any investor is guaranteed the free importation and convertibility of foreign exchange.
- Any investor is guaranteed the unconditional transferability of funds through any authorized dealers.
- Investments in Tanzania are guaranteed against nationalization and expropriation.
- Tanzania is a member of the Multilateral Investment Guarantee Agency and International Centre for Settlement of Investment Disputes.
- To date, none of the major rating agencies has given Tanzania a sovereign credit rating.

Tanzania is developing a market-based economy, where the role of the government is to act as regulator of competitive markets rather than to act as a participant in those markets. Tanzania is open to both private sector investments from local sources as well

³⁰ Final report on joint energy sector review for 2010/2011. MEM, Dar es Salaam, September 2011.

³¹ IEA statistics © OECD/IEA 2014

as from foreign sources of capital, and has developed a number of policies aimed at attracting foreign capital. According to the United Nations Conference on Trade and Investment's World Investment Report, 2012, Tanzania attracted a record US\$1.1 billion in foreign investments, exceeding inbound investments in other regional countries such as Kenya. The government of Tanzania is looking to the private sector to deliver a substantial portion of required electricity infrastructure investments and earlier created the Small Power Producer program, a feed-in tariff for small renewable energy projects. The Public Private Partnership (PPP) Act of 2010 and the Private Partnership Regulations passed in 2011 were enacted to support private sector investment under PPP.

5.4.4 Congo Dem. Rep.

The Democratic Republic of Congo has one of the lowest rates of electrification in all of Africa. 16% of the population has access to electricity (25% in urban areas, and 5% in rural areas). The energy supply of the DRC is heavily dependent on traditional biomass (firewood, charcoal, and waste), which represented 95% of total energy consumption in 2009. Electricity accounted for only 2% of the energy supply of the DRC, while oil products, mainly gasoline, diesel, gas, and kerosene, accounted for 3%. Large urban areas are responsible for most of the charcoal consumption while firewood and waste biomass are used primarily in rural and suburban zones.

The DRC has the largest hydroelectric capacity in Africa, with the potential to generate 100GW of power. To date, however, only about 2% of this potential has been realized. As of 2009, the DRC had a total production capacity of 2,589MW of which 95% was hydroelectric.

The electricity sector is dominated by the Société nationale d'électricité (SNEL), a government owned company responsible for 95% of all electricity production.

One of the major developments in the energy sector is the Electricity Code policy project, which passed in 2009. This project has facilitated important changes in DRC's energy sector, including the creation of the Electricity Regulation Authority (ARE), the National Electrification Fund (FONEL), and the National Electrification Agency

(AGENA). Transmission and distribution losses accounted, in 2013, for the 7%³² of the total production.

The DRC has made progress to attract investment. The economy remains stable with average economic growth estimated at 7.5% over the past six years. The inflation rate remains low and the economic outlook for the medium term remains generally positive. The DRC rebounded remarkably well from the global financial crisis thanks to improved fiscal, monetary and exchange rate policies as well as the largest debt forgiveness in history. Tangible institutional, structural, and regulatory reforms are continuing to improve the business climate. The new government of national cohesion appointed in December 2014 has confirmed that improving the investment climate is a top priority.

At the same time, businesses in the DRC face numerous challenges, including little functional infrastructure, endemic corruption at all levels of government, dysfunctional institutions, predatory tax agencies, limited access to financing, shortage of skilled labor, unenforceable contracts, high crime rates, an unpredictable security environment, and ongoing armed conflicts in the eastern part of the country. Economic governance, administration, and the judiciary system remain very weak.

As part of broad economic reforms starting in 2001, the DRC adopted a free-floating exchange rate policy. International transfers of funds take place freely when sent through local commercial banks. On average, bank declaration requirements and payments for international transfers take less than one week to complete.

Therefore, the energy sector investment climate in DRC is full of opportunities, but it is still in course of improvement, in particular regarding policies and investment incentives.

5.4.5 Sierra Leone

The energy sector in Sierra Leone is very underdeveloped: in 2012 the installed capacity was 81000kW divided between hydro power (66.67%) and fossil fuels (33.33%), and

³² IEA statistics © OECD/IEA 2014

only the 14.2% of the population has access to electricity³³.

Efficiency and access are constrained by high technical losses on the T&D Network, which are further compounded by low voltage quality due to overburdening of infrastructure by illicit users. The stock of energy efficient appliances and equipment also remains low. Further, the development and use of Renewable Energy from Hydro, Solar, Biomass and other facilities has been a slow process. Nevertheless, Sierra Leone has great potential in energy resources and opportunities for the productive use of energy and development of energy facilities. Some of these opportunities include: the presence of strong political will, a stable political and security situation, a tropical climate conducive for solar, high levels of rainfall for hydro, the development of the West Africa Power Pool (WAPP), a large landscape of green vegetation for biomass, good working relationships between government and development partners and a good environment of doing business. Sierra Leone requires huge investment support in the energy sector to meet the SEFA goals by 2030. Successful execution relative to the goals would mean increasing access to electricity to about 100%, increasing energy efficiency to a level of 12-15% and increasing renewable energy level to about 7,000 ktoe. Importantly, these stated objectives of the Government of Sierra Leone (GoSL) align completely with the goals of the Sustainable Energy for All (SEFA) Initiative.

To reach the SEFA goals and improve the country's energy sector by 2030, it is estimated that Sierra Leone will require investment and/or financial support of approximately \$7.8 billion over 18 years. Improving the country's energy sector is one of the Government's foremost objectives. This critical priority was articulated in the Government's Agenda for Change, which was unveiled in 2007. Beyond political support, the Government intends to devote financial resources to improving the sector because of the clear positive impacts on social and economic development. The Government is committed to working with the private sector, International Energy Development Programmes and the donor community to achieve these essential improvements.

Sierra Leone continues to face challenges in improving its investment climate. The

³³ U.S. Energy Information Administration, 2015. International Energy Statistics.

World Bank ranked Sierra Leone 140th among 183 countries in its 2014 "Doing Business" report. Yet, among the subcategories in the report, Sierra Leone ranks 57th globally in protecting investors, 91st in ease of starting a business, and 151st in ease of getting credit. The World Bank reported that Sierra Leone requires on average six independent procedures and 12 days starting a business, somewhat above the average in Sub-Saharan Africa.

Among the incentives available to investors there are:

- Three years exemption on import duty for plant, machinery and equipment.
- Reduced duty rate of 3% on the import of raw materials.
- Corporate tax rate of 30%.
- Goods and services tax rate of 15%.
- Income tax of 15 to 30% depending on income.
- Social security contribution of 15% of gross salary.
- 100% tax loss carry forward can be utilized in any year.
- 125% tax deduction on R&D and training spending.
- 125% tax deduction on expenses for export promotion activities.
- Three years income tax exemption for skilled expatriate staff, where bilateral treaties permit.

Therefore, we can conclude that the situation in Sierra Leone is good considering the amount of opportunities and the openness of the Government towards foreign investors, but there are still relevant problems related with the high degree of backwardness of the country.

Conclusions

After the completion of this work, it is possible to confirm the positive momentum for private investments in SSA countries. Considering the limited development of energy infrastructures, and the rapid increase in population there are many investment opportunities.

A considerable number of investors has already tested the market, obtaining, in the majority of cases, high rates of returns, especially if compared with the ones of the developed world. This can be considered as a further incentive to the collection of new capital and the entry of new players.

Moreover, SSA countries are characterized by a generally high level of openness towards foreign investors in terms of policies and incentives. This is a plus in respect to comparable developing areas of the world, as Latin America and Caribbean.

Considering the energy infrastructures, given the expected increasing energy demand in these countries, and, on the other side, the general low access to electricity and the unreliability of the installed capacity, it is, at the moment, one of the most interesting sector. For this reason, the majority of SSA countries can be considered attractive by investors.

However, the investment climate is still risky in the majority of the cases, and investors should be aware of the main problems as political instability, unreliability of the financial sector and uncertainty about future profitability of investments.

Considering all these factors, it is possible to identify, with a first-level analysis, five countries as the most interesting at the moment: Uganda, Kenya, Tanzania, Dem. Rep of Congo and Sierra Leone. Following a more in depth analysis we can summarize that Uganda, Kenya and Tanzania are, for sure, the most advanced in terms of policies, incentives and development campaigns aimed to attract foreign investors and to create a favorable environment for investments.

Therefore, you can notice that, apart from the peculiar characteristics of the country, the

behavior of the governments in terms of stability, openness, policies and effort to attract foreign investors is fundamental for the effective attraction of capitals in the economy.

This work should be considered also a starting point for further analysis: in particular, it would be interesting to study new ways that investors can use in order to minimize the risks related to investments in these countries. For example, given the characteristics of investments in the energy sector, that are suitable to be extended in more than one country, investors could begin to spread their investments among neighboring countries so as to minimize the risk related to one single market player.

The definition of new investment approaches aimed to minimize the risks, flanked by the continuous improvement of the investment climate will lead to the consolidation of SSA Africa as one of the top investment destinations in the next future.

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