Evaluation Methodology for Private Equity Funds in Africa

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ABSTRACT

In the last two decades, investments in private equity have become attractive to investors seeking higher returns than those traditional markets can offer. Private equity funds are primarily designed for financing new or expanding firms. Many regions in Africa have considerable scope for developing diversified sectors with potentially high returns. It is important for investors to be able to assess the value of the investments over the long-term and the real rates of return on these investments. As a result, the appropriate methodology for evaluating private equity funds is essential for assessing the risk and the potential return on such investments.

Evaluation of private equity funds is done based on qualitative and quantitative analysis that is not as precise as the analysis done for many other types of financial investments. Evaluation in this area is not easy due to the lack of a track record of the firms being invested in and the unpredictable risks over the long term life of the investment.

The African Development Bank is an important financial institution dedicated to the development of the region. It needs to undertake evaluations of such private equity funds based on a variety of criteria that is done in different stages to identify the most suitable funds whose operations are positively related with the Bank's interests. In order to estimate the amount of return on investment, an appraisal and a sensitivity analysis is done to evaluate such funds in normal and risky situations. It plays an active role in attracting capital from other countries for investing in the private equity industry in Africa that is important in developing economic and social factors in Africa. This thesis studies the various techniques for the appraisal of equity funds and evaluates their application to private equity funds in Africa.

Keywords: Private Equity; General Partner; Limited Partner

ÖZ

Son yirmi yılda Özel sermaye yatırımları, yüksek getiri arayışında olan yatırımcılar için cazip hale gelmiştir. Özel sermaye fonları yeni firma finansmanı ve genişletme finansmanı için tasarlanmıştır. Afrika'da birçok bölgede yüksek getirisi olan çeşitlendirilmiş gelişmekte olan sektörler vardır. Yatırımcılar için uzun vadeli yatırımların değerini ve getirilerinin gerçek oranını belirlemek önemlidir. Bu nedenle özel sermaye fonlarının riskini ölçmek ve potansiyel getirilerini değerlendirmek için kullanılan uygun bir yöntem gereklidir.

Özel sermaye fonlarının değerlendirmesi kalitatif ve kantitatif analizlere dayanır. Bu yatırımların değerlendirmesi, uzun dönemli risklerin tahmin edilemediğinden kolay değildir. Önemli bir finans kurumu olan Afrika Kalkınma Bankası bu bölgenin gelişimine vurgu yaptı. Çeşitli kriterlere dayalı Bankalar için en uygun özel sermaye fonlarının değerlendirmesini gerçekleştirmeye başlaması gerekmektedir. Yatırımın getiri miktarını tahmin etmek için bu tür yatırımlara normal ve riskli durumlar göz önünde bulundurularak değerlendirme ve duyarlılık analizleri yapılmaktadır. Afrika'daki özel sermaye sektörü diğer ülkelerden yatırımcı çekmekte büyük rol oynamaktadır bud a Afrika'daki ekonomik ve sosyal gelişim için önemlidir. Bu tez özsermaye fonlarının değerlendirilmesi için kullanılan çeşitli teknikleri ve bunların özel sermaye fonlarında uygulanmasını incelemektedir.

Anahtar Kelimeler: Özel Sermaye, Genel Ortak, Sınırlı Sorumlu Ortak

To My Lovely Mother

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LIST OF ABBREVIATIONS

ADB	African Development Bank
AfDB	African Development Bank Group
AGF	African Guarantee Fund
CPI	Consumer Price Index
DDQ	Due Diligence Questionnaire
DMT	Departmental Management Team
DPI	Distributed Paid in
GDP	Gross Domestic Product
GEF	Global Environment Fund
GP	General Partner
IFC	International Finance Corporation
IPO	Initial Public Offering
IRR	Internal Rate of Return
LP	Limited Partner
MBI	Management Buyout-In
MBO	Management Buyout-Out
NAV	Net Asset Value
NPV	Net Present Value
OPSM	Department of Private Sector Operations
PAR	Project Appraisal Report
PCN	Project Concept Note
PE	Private Equity

PEN	Project Exploratory Note
RMC	Regional Member Countries
RVPI	Residual Value Paid in
SMEs	small and medium-sized enterprises
TVPI	Total Value Paid in
VC	Venture Capital

Chapter 1

INTRODUCTION

Development of private equity funds (PE) began in the late 70's, due to regulatory changes in the US and the UK. Low inflation rate in the 90's and increases in telecommunication in the world lead to the rapid growth in private equity investments. The growth of private equity investments continued to rise from approximately $18 billion in 1987 to over $500 billion in 2007. In the last two decades, interest has risen significantly among all types of investors in the private equity market (Ryan, 2008). PE is an attractive option for investors because of the high potential source of returns in comparison to the public equity market. The Table below compares the returns on investment of private equity versus the public market equity.

Table 1: Comparison of the Private Equity vs Public Market

Performance Through 12/31/05

Fund Type	1-Year	3-Year	5-Year	10-Year	20-Year
All Venture	14.1%	7.7%	-6.7%	23.7%	16.5%
All Buyouts	28.9%	16.7%	5.4%	9.4%	13.4%
All Private Equity	**21.4%**	**13.5%**	**1.6%**	**12.4%**	**14.3%**
S&P 500	**4.9%**	**14.4%**	**0.5%**	**9.1%**	**11.9%**

Source: Venture Economics; pooled returns

Africa has become a very attractive location for private equity investors within the past few years. A huge amount of capital has been invested in diversified sectors and different regions in order to develop new industries in Africa by local institutions and international investors. The increasing interest in investing in PE funds is due to the remarkable economic growth in Africa. If Africa's growth GDP is compared with the world's GDP over the past decade, it becomes apparent that the average GDP growth in Africa is 5%, and the growth average in the world is only 4%. The prediction of growth for Africa is 7% over the period of 2011 until 2015. Moreover, new statistics of population shows a tendency towards a variety of manufacturing and other services that is creating a new demand in the economy and creating a further stimulus for economic growth. Improvements in regulations and political issues have also increased opportunities for investors in order to contribute in infrastructure projects. In addition, the lack of competitors in the African market has made a variety of opportunities for investors to develop different industries that create significant benefits for them (Private Sector Development, 2012).

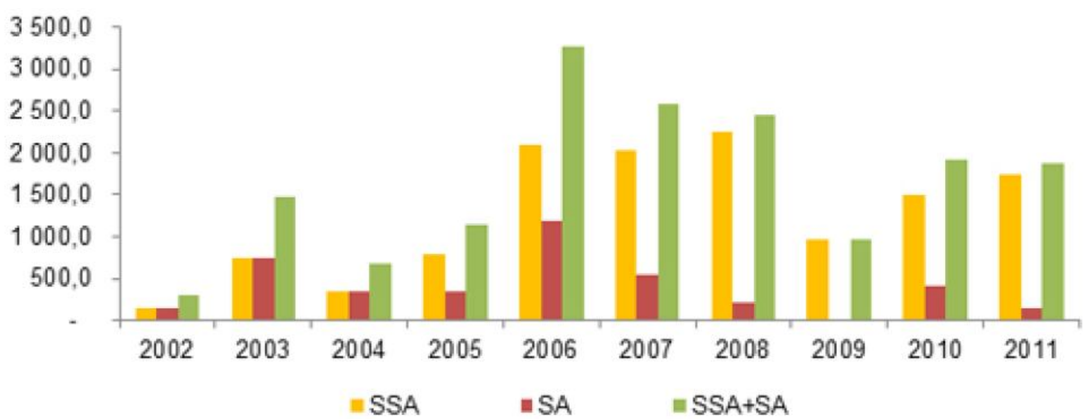

Figure 1: Private Equity flows in Sub Saharan Africa (SSA) and South Africa (SA) (USD million)

Source : EMPEA industry statistics (2012)

In order to develop Africa both economically and socially, the African Development Bank for several years has played an active role in the private equity industry. The African development bank invests in different industries as either by direct investments or via indirect investments to increase benefits. By the year 2011, the African development bank was committed to 37 private equity funds with a portfolio of US$ 1.09 billion. The Bank attracts $5 local and international capital by investing $1 in the private equity industry, which is a significant asset for the economic growth in Africa (AVCANET, 2012).

The focus of this study is to develop a methodology to evaluate the private equity funds in Africa where the African Development Bank is a participant. In order to achieve the goal, this research is divided into 5 chapters. The next chapter contains an explanation of the concept of private equity funds and the related issues that is essential for understanding the rest of this study. Chapter three highlights the process of investment in the African Development Bank, the evaluation methods of the funds. In chapter four, the approved PE funds by AfDB are presented along with a practical sample of an evaluation is presented and all the explanations in the previous chapters are considered. The last chapter highlights the results of the research.

Chapter 2

PRIVATE EQUITY ENVIRONMENT

2.1 PE Definition

Private equity is equity that is not traded on the public stock exchange. A private equity fund is an illiquid asset and a long-term investment where the rate of return is not clear until the second half of the 10-12 year investment cycle. PE firms that are not willing or not able to finance their investment through a loan or a public equity market, instead, resort to pooling capital from institutions such as pension funds, funds-of-funds, banks, insurance companies or angle investors for investing in targeted companies. Investee companies are not registered in the public exchange and they are usually new companies or companies that are in need of more capital for further improvement. Private equity performance is directly dependent on the ability of the managers to raise money and the obligation of the investors' commitment for a capital call (Shanahan, Marshall, & Shtekhaman, 2010).

A private equity fund manager is responsible for finding investment opportunities. Investors commit to providing a capital at "capital call". Capital call is a legal right of fund manager to demand a certain amount of committed capital from each investor for investing in target companies. Investors have to pay a certain amount in a limited time; otherwise, heavy penalties are applied for any amount of delay. The first 5 years of the investment duration usually has little to no earnings or benefits. After 5 years, the investment begins generating distributions. A J-curve pattern usually demonstrates this phenomenon. Some factors like the economic conditions, the level of "capital call" may change the time of these stages so it is not fixed for all investment types. Figure 2 illustrates the J-Curve (Shanahan, Marshall, & Shtekhaman, 2010).

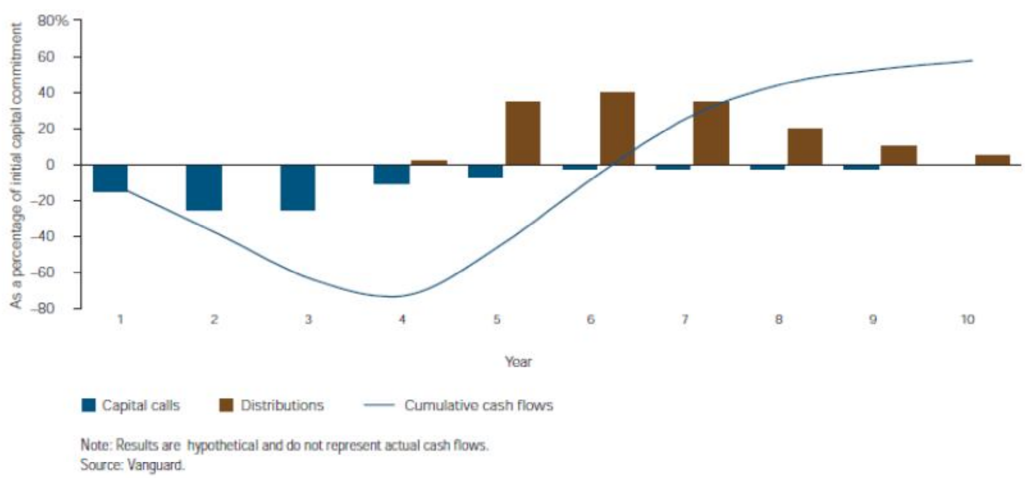

Figure 2: Standard J-Curve

Private equity investment may be done in different categories; the most important types are venture capital and corporate buyouts.

Venture Capital (VC) is the investment in new companies or in enterprises that are expanding. These kinds of companies do not have access to bank loans so VC can be a good source of financing. It is for building up the non-existent technology or developing new innovations so the firm can formulate a strategic plan, and a management team can be established. There is little to no cash flow or profit, which creates a difficult position for the evaluation of the company. Although such an investment has the potential for high returns, it is a risky one nevertheless.

A buyout is the investment in mature companies that require a larger amount of capital for expanding. Buyout financing helps transform the strategy of the company or the management of firms in order to increase profits. There is cash flow, steady profit and tangible assets that can be evaluated. The risk of this kind of investment in comparison with VC investment is lower. Figure 3 shows returns for VC and Buyout investments (Meyer & Mathonet, 2005).

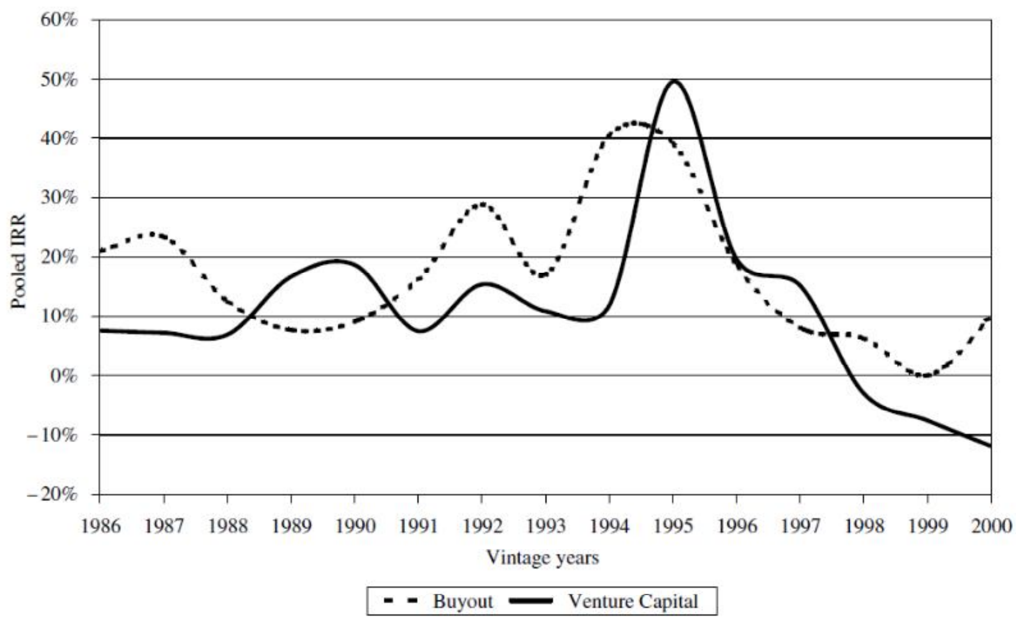

Figure 3: European funds-pooled IRR by focus and by vintage year
Source : Thomson Venture Economics (VentureXpert database)

2.2 Structure of PE Fund

A PE fund is a financial vehicle organized as a limited partnership based on a legal agreement for the limited time. It is made up of a series of limited partners (LPs) and one general partner (GP). All relationship and liability for each party are defined by their legal agreement (Ryan, 2008; Meyer & Mathonet, 2005).

A limited partner (LP) is someone who invests a certain amount of capital that will be paid at the time of the capital calls. The amount of capital invested and the time of its drawdown may be different for each LP. LP's are responsible for their on time contribution of capital for investment otherwise they will have to pay a penalty. LPs have limited liability and they do not participate in management decisions. They will receive the return of their capital (if the PE does not make a loss) after the liquidation of the investment as well any profit associated with their PE investment (Meyer & Mathonet, 2005).

The general partner (GP) acts as the operator of the investment fund with unlimited liability for the obligations and debt of limited partnership. The GP is responsible for fundraising at the appropriate time, finding investment opportunities in the target markets, collecting capital from the investors, monitoring the portfolio of companies and selling the investments. The LPs must therefore, pay a management fee to the GP. Management fees are a certain percentage of the whole capital commitment. In addition, the GP receives a carried interest that encourages a better performance from managers. For investments, the LPs define a hurdle rate of return, if the rate of return earned by the PE is more than this rate the profit is then shared between LPs and the manager. GPs are usually required to invest about 1% of the total funds in the PE in order to become more motivated to increase the PE's profits. In this case, the increase or the decrease of the investment value would directly affect the asset worth of the managers (Meyer & Mathonet, 2005). Figure 4 shows the dealing of parties.

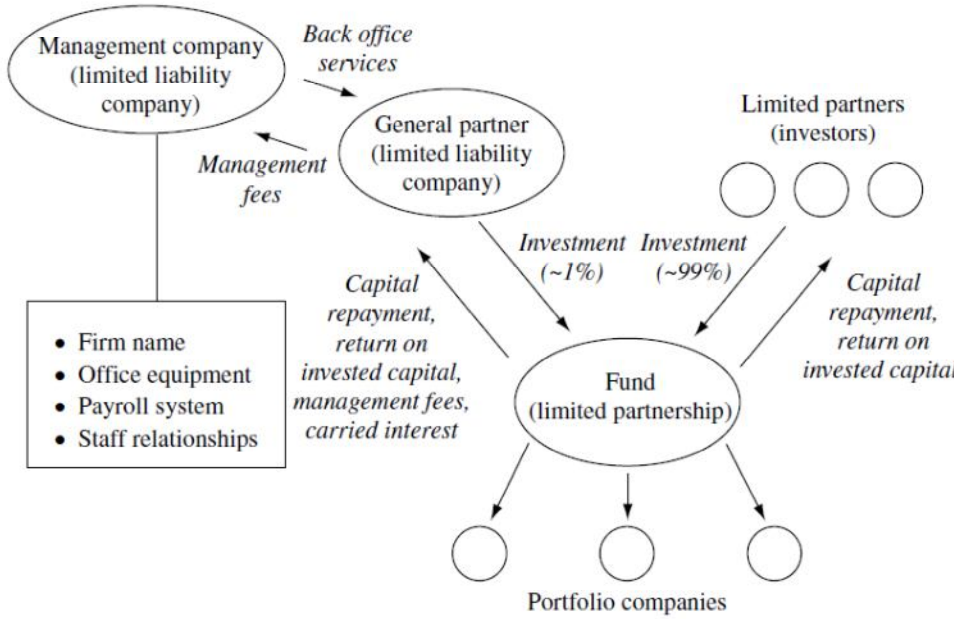

Figure 4: Limited Partnership Structure
Source: (Meyer & Mathonet, 2005)

Table 2 is an example of the amount of money each party has to pay and the share of each one in investment.

Table 2: the share of each party of paid capital

Fund size	€100,000,000
Management fee pa	2%
Management fees drawn	€14,000,000
Total capital actually deployed	€80,000,000
Hurdle rate	6%
Value of fund at end	€200,000,000
Average period of funds committed/yrs	4
Year from start to liquidation	7
Carry calculation:	
Value of fund	€200,000,000
Value as multiple of capital deployed	2.5
Capital returned to LPs	€80,000,000
Management fees offset	€14,000,000
Preferred return to LPs	€22,560,000
"Catch up" preferred return to GP	€5,640,000
Profit to be distributed	€77,800,000
LPs 80%	€62,240,000.0
GP 20%	€15,560,000.0
Total payout to LPs	€178,800,000.0
Total payout to GP	€21,200,000.0

Source:(Ryan, 2008)

Investors can purchase private equity either directly or indirectly. When investors know the target market and have skilled managers in the relevant areas of investment, they enter the market directly in such case they are not required to pay a management fee or carried interest over to another party (Ryan, 2008).

Indirect investment occurs when an investment is channeled through PE funds or Funds of Funds. If the investors do not have access to the public market or do not know the investment opportunities, they might consider investing through a PE fund. A PE fund refers to an entity whose function is to find attractive investment opportunities in the market and manage a portfolio of such investments; this means that the investors must pay a management fee to the fund manager.

Funds of funds are another way of an indirect investment that requires double layer of management fees.

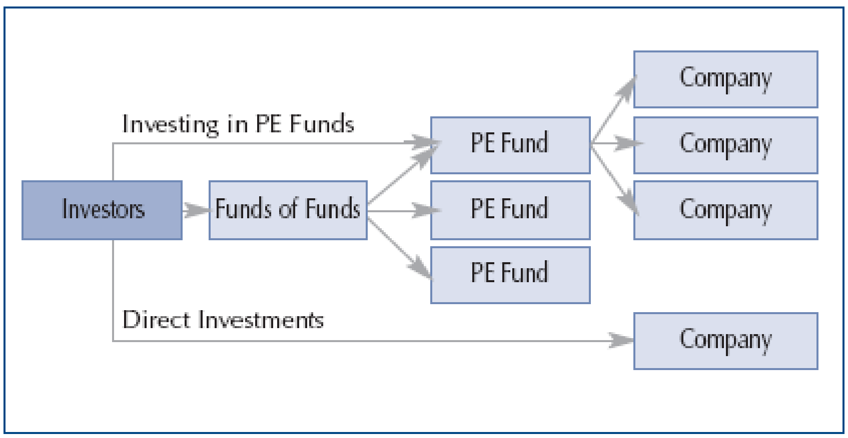

Figure 5: Direct and Indirect investment
Source:(Ryan, 2008)

2.3 Lifecycle of a PE Fund

Fundraising is the first crucial step towards a successful investment. It usually takes 1.5-2 years and after the end of this stage, no one else is allowed to invest. It is crucial for managers to recognize the best time for the closing of the fund to addition of increases in capital.

The next stage involves finding investment opportunities in a target country or market. Managers with more deals in progress (pipeline of progress) are more likely to be successful due to their vast number of connections and practical knowledge.

In the next stage, investment in the equity of firm will commence and the LPs will become responsible for making their capital contributions at the times of the capital calls. This particular stage usually carries on for around 5 to 6 years and during this period the investments may generate little or no distributions. The role of the managers in this step is crucial as skilled managers are necessary to make decisions at what investment to makes, how to manage the risks and when to sell.

The final step is the exit or selling of the equity that was indirectly purchased. By successful exiting, the investment will be liquidated and the exit value will be cleared. Exit value is the amount of money exchange in market to sell the investment. Hence, the real rate of return will be calculated and the capital of investors plus the share of profit for each investor will be returned.

Presenting the clear exit strategy is required by the GP. There are different exit strategies that should be considered carefully according to the countries investment done in. The investment might liquidate through selling the company, instituting an IPO or any practical strategy.

2.4 Risk of Private Equity

The characteristics of an investment are based on risk and expected return. Private Equity investment is no exception and in addition to this, there are other risks involved due to the long-term nature of the investment and the lack of information that is available within the public market. Economic risks, political risks and financial risks affect the return on investment.

2.5 Evaluation Methods

The LPs want to know the fair value of the portfolio they have participated in. They prefer to know the current value of the companies they invested in rather than the expected value of the investment in order to manage their own portfolio for attracting new investors. There is a bottom-up technique that determines the value of assets for each individual investor. NAV (net asset value) is an accounting approach and it is based on the balance sheet of the companies. NAV is the value of assets less all liabilities and the value that is traded at market value. By dividing the targeted companies NAV by the number of investors 'shares, the asset value will be obtained for each investor. This value is based on the book value, which is not the aim of the investors. Economic value of funds or the net present value (NPV) is the value that investors demand. For these purposes, NAV should be equal to NPV. While private equity investment usually follows a J-curve pattern, NAV is not a suitable method due to the unrealistic values presented in the early years of the investment (Meyer & Mathonet, 2005).

The internal rate of return (IRR) is a common method for the valuation of Private Equity funds because of this rate, the NPV (discounted cash flow of investment) is equal to zero (Meyer & Mathonet, 2005).

$$\sum_{n=1}^{n=L} \frac{C_{Fn}}{(1+IRR)^{t_n}} = 0$$

The formula shows the summation of C_{Fn} (cash flow in time $t_{n)}$ at the rate of IRR that should be zero (Meyer & Mathonet, 2005).

$$\sum_{i=0}^{n} \frac{CF_i}{(1+IRR_n)^i} + \frac{NAV_n}{(1+IRR_n)^n} = 0$$

The first part of the formula shows the discounted cash flow that is paid into the PE fund as dividends from the funds and the second part of the formula shows the final value of the investment.

Another performance measurement is the cash on cash returns which is demonstrated as follows:

- Multiple or Total value to paid-in ratio (TVPI)

$$Multiple_n = \frac{\sum_{i=0}^{n} CIF_i + NAV_n}{\sum_{i=0}^{n} COF_i}$$

Where CIF_i is the cash inflow distributed, NAV_n is the final value of asset or residual value of asset and COF_i is the cash outflow that is invested or expenses of fund.

- The distribution to paid-in ratio or DPI

$$DPI_n = \frac{\sum_{i=0}^{n} CIF_i}{\sum_{i=0}^{n} COF_i}$$

Where CIF_i is cumulative investment and COF_i is the capital invested.

- The residual value to paid-in (RVPI) is the measurement of the value added for the total investment.

$$RVPI_n = \frac{NAV_n}{\sum_{i=0}^{n} COF_i}$$

TVPI = DPI + RVPI

Since these mentioned ratios do not consider the time value of money, the manager must calculate the value of assets (Meyer & Mathonet, 2005).

Chapter 3

PRIVATE EQUITY EVALUATION METHODOLOGY IN AFDB

3.1 Introduction

“The African Development Bank Group (AfDB) is a multilateral development finance institution established to contribute to the economic development and social progress of African countries. The AfDB was founded in 1964 and comprises three entities: The African Development Bank, the African Development Fund and the Nigeria Trust Fund. The AfDB’s mission is to fight poverty and improve living conditions on the continent through promoting the investment of public and private capital in projects and programs that are likely to contribute to the economic and social development of the region. The AfDB is a financial provider to African governments and private companies investing in the regional member countries (RMC)” (Wikipedia).

The shareholders of the AfDB are 53% from African countries (RMC) and 25% from non-African countries (African Development Bank Group, 2011).

Table 3: Top 10 Shareholders

9.3%	Nigeria	**4.2%**	Algeria
6.6%	USA	**4.1%**	Germany
5.5%	Japan	**4.0%**	Libya
5.4%	Egypt	**3.7%**	Canada
4.8%	South Africa	**3.7%**	France

Source: (African Development Bank Group, 2011)

This chapter summarizes the methodology used by the African Development Bank in its appraisal of private equity funds. It is indication of the best practice methodology used by such organization worldwide. In chapter 4 the methodology is applied to an actual case to show how it is made operational.

3.2 The Process of Investment in AfDB

For approving the appropriate funds, the investment opportunities should be correlated with the bank policies and benefits, AfDB has to do an efficient evaluation in order to select attractive funds amongst a lot of proposals received. The process of investment in AfDB is as follows:

- Screening
- Due Diligence
- Negotiation
- Approval and Commitment
- Monitoring

3.2.1. Screening

AfDB receives different proposals for PE fund investments. All proposals will be recorded in a database for review and ranking by the investment team. An overall review is completed and attractive funds are selected for a further evaluation. A draft written for selected proposals are based on the experience in the related area, the track record of managers and individual team workers as well as the benefit and value that they are able to add to investment. The provided draft is sent to the committee for more discussion. It is also important that the benefit of the bank is considered as a priority.

As the role of a manager in a PE investment is significant as the assessments are focused on the track record and the experience of the manager and the manager's team. The investment team in the AfDB hold meetings with the general partner team in order to know more about the strategy of the investment from different point of views. The value added to the past funds demonstrates their ability in raising the value of the current investment. With all the collected information in meetings and the claim within the proposal, AfDB does an initial assessment by considering some crucial subjects such as funds, investment strategies, track records, team and terms.

After ranking the funds according to the information above, the investment team is willing to get more information from high scored funds for next stage. Candidates are required to answer the questions contained in the legal due diligence questionnaire (DDQ) sent by the bank.

3.2.2. Due Diligence

A quantitative and a qualitative analysis is done to carry out the appraisal investment based on the information in the proposal, the meeting and the DDQ questionnaire. The bank evaluates the investment by considering five factors: size and focus of fund, investment strategy, track record, team and terms. In addition, the process of making a decision for an investment, the stability of the management team in this fund and having a financial benefit must correlate with LPs' interest, which is vital from the banks point of view.

Quantitative analysis: fair value of existing funds is essential to be evaluated in order to measure the performance of the portfolio. Moreover, the bank does an attribute analysis according to stage of development, industry and its geography. As a final point to the quantitative analysis, the IRR is an important factor; the rate of return in the previous investment that is provided by general partner shows the success or the failure of the GP.

Qualitative analysis: the bank evaluates the record of the manager by contacting the related references in the portfolio to better understand the GPs performance and the role of the GPs in other private equities and how this role is close to the characteristics of the proposed fund. The goal of this survey is to understand if the managers of firms are successful and how they can overcome their mistakes. In addition, the bank will have a meeting with the team members to get further information.

All investigations are performed in order to know how the manager and the team can increase the value of the shareholders and what deal flow they expect to generate in the future with investment strategies in buyout or distressed companies. For greenfield companies or venture capital, qualitative estimation is performed due to being new and for the fact that there is no information or cash flows. What is important in this case, is the key role of managers and team workers. If the rate of return of the GP is acceptable from the bank's point of view, the next step will be considered and approved for negotiation.

Due diligence has been explained for different sorts of investments in detail in next part ”3.3 Appraisal methodology”.

3.2.3. Negotiation and Commitment

If all related documents and evaluations of GP is acceptable; the bank will make an agreement on the amount of investment funds to be made over the duration of ten to twelve years.

3.2.4. Monitoring

Since private equity fund is a long-term investment, the effective monitoring of the performance of the portfolio is essential. The bank, for this purpose has an agreement with other partnerships in order to control the process of investment. The bank also checks the general partner’s performance and compares it to what is stated in their proposal including all approved terms and their commitment. The general partner is responsible for reporting any problems as soon as they arrive otherwise solving the matters may cause difficulty with a late announcement.

3.3 Appraisal Methodology

The bank can contribute in a PE fund investment directly or indirectly. The terms of investment, investment risk and commitment are different in each individual investment that creates different methods of appraisal for the funds. The bank has a limited financial resources for each investment, hence some important factors will be considered such as capacity, skills, size of investment and the knowledge required in investing in the local market.

3.3.1 Indirect PE Investment Appraisal

Investment is done through a PE fund, fund-of-fund or other intermediaries. In this case, the bank usually does not have enough information or connections with the target market and wants to use the satisfaction pipeline of a general partner. The key factor for the appraisal is the manager and the members of the team so their current and past track records should be reviewed. Their experience should be related to the relevant industry and the target market. For each target market, a local manager is preferable. It is also very important to consider the returns generated for shareholders in previous funds. A general partner is responsible to invest no less than 1% of the total funds.

AfDB should consider some issues that are based on the bank's guidelines for investments:

- Bank can invest a maximum of %25 for any fund
- Agreement for funds should be for a limited time with a two year extension period as well as a practical exit route
- The funds are not allowed to be borrowed or issued a guarantee beyond excess for the defined level of loan.
- The stronger investors should have the right to terminating the manager contract legally.
- A veto right is what the bank should attempt to obtain. It is also important for a bank to obtain the rights to add a new co-investor into the fund.
- The number of key persons in the funds and the term of termination is an import issue for a bank

- Management should invest 1% or greater of the total commitment from his own assets into the fund
- Bank prefers not to be the sole investor and having co-investors is important
- Distribution should be based on the total funds, and carried interest should be payable to the manager after paying the capital and preferred returns to investors.
- Investment should be done based on upgraded defined standards of the bank.

The important factors for the appraisal is: management team, industry and the target market, investment strategy in the current deal, exit route and the returns of investment.

Management team: In order to become successful in the investment, selecting a suitable manager is the key element. Track record and the experience of each member of the team manager should be evaluated individually. In which country and sector the manager has been active is an important issue that decreases the risk of investment. Manager should have a portfolio management experience as well. The bank evaluates the time of the working members of the team and the probability of keeping the key members in the fund. All key members should be highlighted in the contract.

Industries and target market: Bank assesses the potential of the target market for the growth of the investee companies by paying attention to the investment size and its type as well as the type of the sector and its geography. General partner also should provide the concern strategy and the bank appraisal on if the fund with the mentioned features and the investment strategy can be successful or not. Bank therefore considers the managers ability to operate in this market.

Investment strategy for current deals: bank evaluates the manager according to the number and the quality of potential deals or closed deals they have achieved in the target market. The more deals made, the more connections that the manager will have which will help them explore better opportunities within the target market. It is also important for the size of deals that they have worked with to be around the same size as the proposed funds. Bank pays attention to the investment strategy that the mangers define.

Execution and Exit strategy: how a manager is successful in executing the proposed investment at the right price and with the right investment strategy is considered for the appraisal. The ability to manage a portfolio in order to increase profits for shareholders is an important factor for the appraisal of funds. The evaluation completed is based on the track record of mangers, the number of deals and the returns they generated in the previous funds for investors. Moreover, it is important for mangers to have a clear exit strategy whether IPO is chosen as an exit strategy or selling the company is the aim.

Target Return: the expected returns vary in different sectors. The target net IRR between 15% and 25% annually is acceptable by the AfDB. Since the investments are in different countries, AfDB takes currency devaluation into account. For private equity, 18% as net IRR or CPI+6% is acceptable as a benchmark for returns according to the defined target country and its GDP growth.

Cost of investment: Management fees and carried interest are the cost of investment. Management fees are calculated at between 1.5%-2.5% of capital committed for each limited partner. General partner pays the charges of operating investments and costs associated with establishment from the management fees. The management fees usually decrease gradually after the investment period.

Carried interest: The percentage of profit that the investment generates is the value added to the company which depends on the growth of the company. Investors and the general partner agree on the hurdle rate that varies according to each fund. If the growth rate of the investment is higher than the hurdle rate, the benefits will be distributed amongst investors and the manger according to the percentage they agreed upon. The hurdle rate is usually between 5% and 8%, and 80:20 split is observed as carried interest between the LPs and the GP.

3.3.2 Direct PE Investment Appraisal

Companies are attractive for investing in as long as they have strong qualitative and quantitative estimations as well as a good potential of generating outcome based on the bank's strategic priorities. Bank also prefers investee companies that have a high potential of co-investments with other strong financial investors. Moreover, the bank should have enough experience for monitoring investee companies or the ability to control the companies in a regulated environment. With such an investment, there should be an exit route such as an IPO, put option or a trade sale. Bank invests in companies that have the common interest with other investors.

With a direct investment, bank is the partial owner of the company and all benefits and losses of the company is shared. It is different from loan financing where the bank solely focuses on how much cash is generated in order to repay the money. In this case, there will be no extra benefits when company is upside.

For direct investments, the bank should value the company, which can be very difficult. For established companies that need to be developed, there is financial information in the market that makes it possible to analyze and compare it with other companies that are around the same size. On the other hand, in this case, for new investments, the bank based on the share of existing shareholders, should consider their expectation of the rate of return.

The goal of companies is to increase the value of shareholder stakes. The country's GDP growth is another factor that affects the company's value. In new markets or markets with low-level competition, growth is easier. By changing the strategy of companies in a successful way, the growth of the company can be accelerated significantly. On the other hand, the bank can increase capital which develops the company further.

For the appraisal of direct investments, the following issues should be considered;

- Deal Structuring
- Valuation
- Stage of development
- Qualitative factors

- Quantitative factors
- Valuation methods
- Funding requirements
- Financial instruments
- Board representation
- Veto rights
- Annual budget
- Control over the exit process
- Management requirement
- Negotiation process

Deal structuring: It is a legal agreement between all parties who invest in companies and share the risk and the return ratio. The structure of transaction refers to the taxation and the laws of the country the investee company is situated in.

Valuation: There is no specific way to estimate the value of a company because a lot of important items affect the value of the company such as the stock market, the economic growth of the country, the capacity of the developing companies in a market, the stage of the development of the company that makes it very hard to evaluate.

Stage of development: for a management buyout, the company is mature and the bank can analyze the history of the company and its management records. The instruments that will be used to evaluate the company include debt, equity and tax planning.

Established companies may be in a financial crisis so the bank seeks these kinds of companies out as new investments.

For companies in the Greenfield or in their early stages, there is no information to analyze and estimate the value of the company thus, for such cases; the bank estimates the market and the existing potential of the company in the particular market.

Apart from which stage of development the company is, the bank considers qualitative and quantitative factors for evaluating the investment.

Qualitative factors: Intangible assets such as patents, capacity of competition in the market, the size of the market covered by the production of the company or each asset that determines the value of the company.

The bank should have an estimation of the further capital needed which may be required for generating the cash flow of a plan and to determine if the management's assumption is practical in the real market.

Investors demand to know the length of investment so overall estimation is essential such as the exit valuation and the exit strategy.

Quantitative factors: the bank, as the owner of the company as well as other existing investors needs to determine their expected returns or the benchmark. Determining the particular rate of return is not clear and depends on the sort of risks that the company is involved in, the number of competitors in the related area or the company's portfolio. Bank has to define a specific rate of return for investors that are directly related to the development stage of the company. The early stage companies have more returns due to the higher risks associated with the investment. The rate of returns in bank is as follows:

Seed or start-up investment:	60% per annum or more
Early stage investment:	more than 50% per annum
Development capital investment	25-40% per annum
MBO/MBI	more than 20% per annum

Valuation methods: It depends on the stage of the development of a company; for established companies, due to the availability of a track record in the public market, the common method is Price-Earning and P/E ratio. The expectation of the ratio for mature companies is between 6 to10 while the ratio for companies whose growth is faster, the ratio should be over 20 or 30.

For younger companies or companies in a particular industry, the method of valuation is different. Companies are valued based on the multiple of sales or the price per subscriber for the industries that are highly growth technology related. A net asset is another method of valuation for companies in other industries. Replacement value is more suited for some old companies with expensive machinery.

Bank uses the internal rate of return (IRR) by discounting the cash flows during the period of investment to measure the return of investment.

Funding requirement*:* For determining the funding requirements of a company, the manager of the company provides a business plan that includes the information about the company's present situation and its visions for the future. It states the sort of investment done, the strategy of the company, the reason for the success of the company, the members of the team with their track record, their resume and the history of their education. Competition for attracting investors provides some information that is not compatible with the real market so the best way is to estimate how much cash requirement will be needed to achieve the goals. Investors should do accurate due diligence because by estimating the wrong cash required, the business will no longer be operational. Therefore, all risky factors that may affect the estimation of the required cash should be defined and should measure how important each risky key is by performing a sensitivity analysis or Monte Carlo. Of course, some factors are not predictable such as political issues or weather.

Required cash for each business is varies which depends on the stage of the development. For early stages, due to the uncertainty in costs and the required cash, it is better the agreement is divided into different stages to prevent the underestimation of the investment. After a successful exit from each stage, the funds will be accepted.

Financial instruments: After determining the amount of cash required for a business, the financial structure should be defined. African Development Bank participates in the investment through instruments such as equity, quasi-equity and debt. The way the bank invests the final value of the investment will be affected and it should be based on the regulations within Africa.

By investing through equities; the bank becomes the owner of the company; it is the most risky investment due to the nature of the equity. Equity can be invested in the form of common stocks, preference stocks, options and warrants.

Board representation: bank determines whether they want to have an executive or a non-executive position in the company. As usual, individual investors are ever so keen on having a managerial role in the company but institutions do not have the same thoughts. In this stage, the schedule of meetings and the final date of accounts are defined.

Veto Rights: Management is responsible for running the business as the owner of the company no matter what percentage of the share they posses. Bank takes veto rights to control the matters that impact the value of the bank's benefit.

Annual Budget: for the Bank to gain the confidence that the manager performance is correlated to bank's strategy and interest, the bank approves the budget of the business annually. In such circumstances, management must explain any variations of the plan at the meetings. Banks also require the management to pursue the approved strategy to have a successful exit plan.

Control over the exit process: Exit at a defined time is essential for the benefit of the bank in order to liquidate assets for the bank and other investors so they need to ensure the management performance. If the manger wants to protect the position for a longer period of time, it makes it difficult for the bank and other investors. The management plan should be presented to the bank that determines the specific exit time.

Management requirements: management is fond of knowing how their annual incentive or exit incentive is payable; is it cash or by means of additional shares? It is also important to know that if they leave the company, what would happen for their shares. Moreover, they are willing to know about their employment terms.

Negotiation process: it covers management issues during the investment. Management may use advisors; it can be possible, but the bank only refers to the management for any negotiations. Management is also responsible to report any difficulties faced in the early stages, which should be solved between the bank and other parties.

Chapter 4

APPROVED PE FUND AND APPRAISAL SAMPLE IN AFDB

4.1 PE Fund Approved by AfDB

By the 31st of March 2012, AfDB has invested $1.09 billion in the Private equity industry, which included $253 million in direct investments and $836 million in indirect investments or equity commitments. The AfDB has invested in 37 funds that in turn are invested in 294 companies in a wide range of sectors (AVCANET, 2012).

For every $1 invested in PE funds by the AfDB, other institutions invest $5 in the industry. This shows the significant role of the African Development bank in attracting international capital into this new market. Investors have been interested to invest in Africa due to a good track of return (AVCANET, 2012).

Table 4: PE Fund Approved by AfDB from 2005 to 2010

	Name of Fund	Date	Investment ($ million)
Generalist Funds			
1	Emerging Capital Partners (ECP II)	2005	50
2	Atlantic Coast Regional Fund (ACRF)	2007	15
3	Emerging Capital Partners III(ECP III)	2008	50
4	Maghreb Fund II (MPEF II)	2008	26
5	Pan African Investment Partners II	2009	50
6	AfricInvest II	2009	26
7	Aureos Africa Fund	2009	30
8	Citadel Africa Joint Investment Fund	2009	20
9	West African Emerging Market Fund	2009	10
10	& miles	2010	50
11	HELIOS II	2010	30
12	Catalyst	2010	15
13	Maghreb Fund III (MPEF III)	2011	26
14	Vantage II (Vantage)	2011	25
15	Cauris Croissance II (Cauris)	2011	7
16	Carlyle Sub Saharan Africa Fund (Carlyle)	2012	50
Small Businesses			
17	Acacia Fund	1996	2
18	Zambia Venture Capital Fund	1998	2
19	Indian Ocean Regional Fund	2000	2
20	Grofin Africa Fund (Grofin)	2008	20
Financial Intermediation			
21	Africa Capitalization Fund	2010	50
22	Africa Guarantee Fund	2010	10
23	Summit Development Group (SDG)	2010	15
Renewable Energy			

24	Evolution I	2009	6
Agribusiness			
25	Agri-Vie	2009	15
26	Africa Agriculture Fund	2010	40
Mining			
27	New Africa Mining Fund II	2010	25
Forestry			
28	Global Environment Fund (GEF) Africa Sustainable Forestry Fund	2010	20
Health			
29	Aureos Health Care Fund	2008	12
30	Investment Fund for Health in Africa (IFHA)	2009	13
Infrastructure			
31	South Africa Infrastructure Fund (SAIF)	1997	14
32	Emerging Capital Partners I (ECP I)	1998	50
33	Pan African Infrastructure Development Fund (PAIDF)	2007	50
34	Raising Africa Infrastructure Fund	2008	30
35	African Energy Infrastructure Fund	2008	25
36	African Infrastructure Investment Fund II	2009	30
37	Argan Infrastructure Fund	2010	20
	TOTAL APPROVED		941

Source : (AVCANET, 2012)

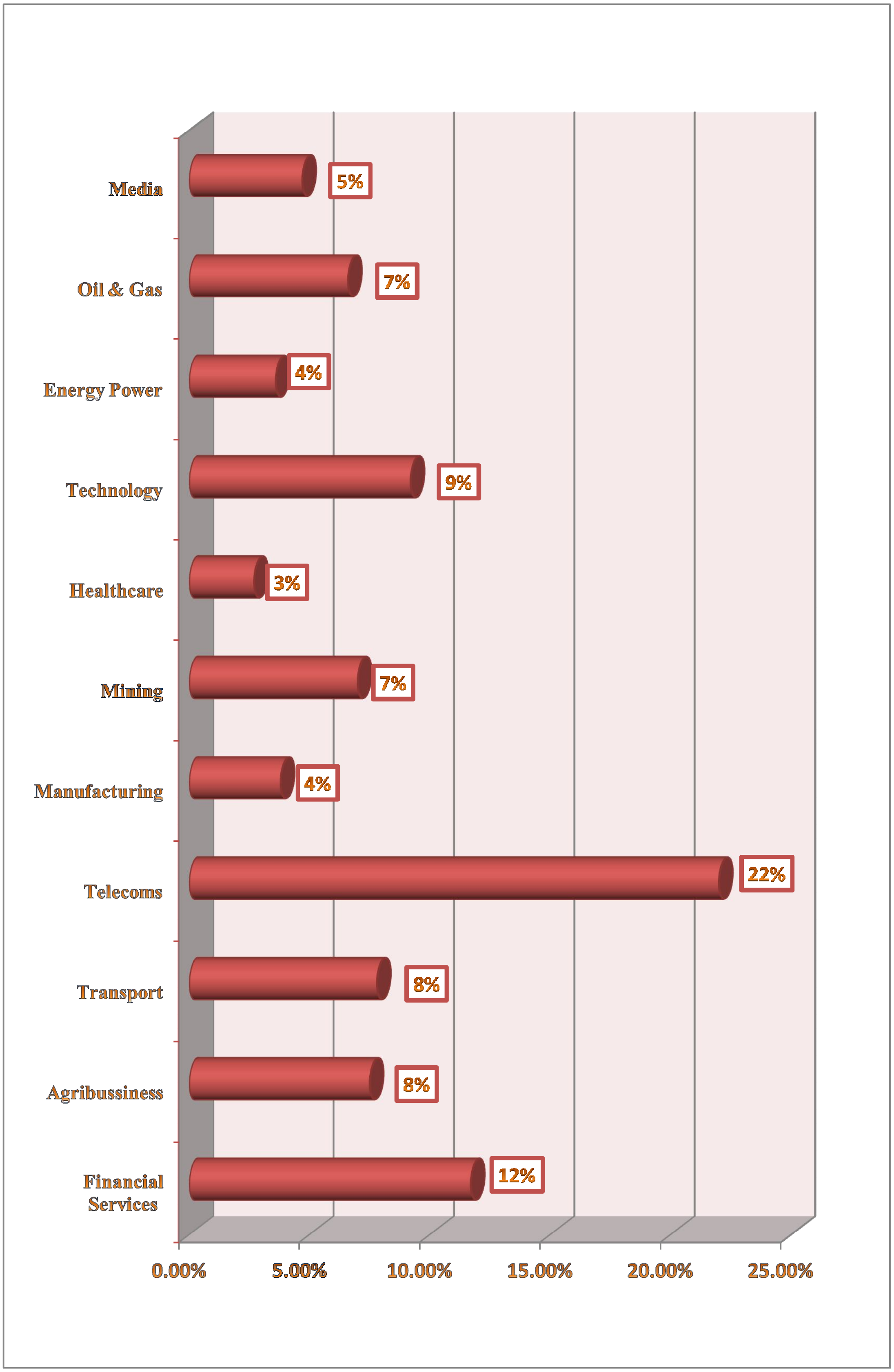

Figure 6: Approved PE fund by sectors
Source : (AVCANET, 2012)

4.2 Sample of Indirect Investment(GEF)

Global Environment Fund (GEF) in forestry industry is an example of fund appraisal in AfDB. The equity commitment of AfDB in GEF is $20 million with fund size of $150 million that is invested by other investors. For reducing the risk of investment, GEF has been invested in diversified investments. This fund has been invested in 7 companies: 3 firms in the existing plantation, 2 firms in Greenfield and 2 investments in natural forest management companies. The name of the companies is as follows: (GEF, 2012)

Existing Plantation1: Cape Pine Investment Holdings (CPIH), South Africa, 118000 hectares

Existing Plantation2: Kilombero Valley Teak Company Limited (KVTC), Southern Tanzania, 28,000 hectares

Existing Plantation3: Peak Timbers, Swaziland, 30,000 hectares

Greenfield1: Afram Plantation Limited (APL), Ghana, 136860 hectares

Greenfield2: Hijauan Bengkoka Group of Companies, Malaysia, 25,000 hectares

Natural Forest Management1: Monte Alto Forestal, Chile, 55,539 hectares

Natural Forest Management2: Pemba Sun, Mozambique, 156,000 hectares

The African Development Bank has evaluated the proposed fund based on different factors such as "development impact, regional diversification, business principles, legal compliance, commercial viability and risk". Therefore internal documents like project exploratory note (PEN), project concept note (PCN), project appraisal report (PAR) are provided in screening, due diligence and appraisal stages for more discussion and approval by responsible committee including the departmental management team(DMT), the department of private sector operations (OPSM) and the Board. (AfDB, 2011)

4.2.1 Screening

As mentioned in the previous chapter, the first step for fund evaluation is the screen stage, the bank provides a draft as PEN sending to the committee for approval, all information is from the proposal and documents that general partner has sent to the bank. The below table is a sample of a PEN approved for GEF. The PEN will be modified in the next steps based on new information obtained from due diligence questionnaires (DDQ) or meeting with general partner manager team.

Table 5: PEN-Initial Assessment of GEF Fund

Description of Projects:	GEF Fund is the second generation Fund that is for investing in forestry industry in Africa for existing plantations and startup companies. This fund is for 12 years.
Client:	Sponsor of this fund is an experienced and successful Private Equity firm; Global Environment Fund (GEF) that managed about USD 1 billion assets until June 2009 the number of investment between 1998 and 2009 was 38 with amount of USD 562 m in different industries with gross IRR of 26.2%. Net IRR is not clear that in the next step it should be mention.
Structure of Cost and Financing Plan:	The fund size is USD 150 m that USD 100 m of these amounts is expected to be raised in the first closing and USD 50 m in One year later. ADB USD 20 m, DEG USD 20 m , IFC USD 20 m and Finnfund USD 10 m are investors in the first closing of fund and CDC Group Plc participates as anchor investor with amount of USD 50 m.
Role of Bank:	For being investment according to country strategies, social and environmental issues bank has a key role working with other investors with equity investment of USD 20 m.
Arrangements for Implementation:	An Advisory committee governs the fund in terms of all interest and conflicts and guidance. This committee is responsible to approve investments and their exits.
Market:	Due to vast connection of GEF with those are responsible to make decision for market or having the key role in market and those invest regionally are able to provide better marked based on the previous performance in this area.
Strategic Alignment	The fund is compatible with other country strategy of bank in order to improve the forestry, natural resource and agriculture segments. It is also have positive effect on SMEs for developing.
Commercial Viability:	Economic and Financial team of bank will review the financial model. The expected rate of return is more than 20% IRR based on track record of GEF and the kind of investment.
Outcomes:	Climate change, increasing the level of income, decreasing the rate of poverty and creation of the number of job opportunity is the result of investment in forestry sector by GEF.
Additionality and Complementarity:	The role of ADB is important for GEF to cover the gap in market in developing natural resource and forest sector in Africa through equity providing.

Source: Document of AfDB

4.2.2 Due Diligence

After approving the PEN by DMT and ranking the proposed fund; DDQ will be sent to top ranked candidates for getting further information in order to be started the process in next step that is due diligence. In addition of the modified PEN, the bank provides the further document as PCN in this stage. In general, in this step, early assessment done and the bank try making the project description and scope of the project more clear for better understanding of bank authorities. Moreover, investment team defines important matters that should be considered in the appraisal stage or other stage of the project evaluation.

In this stage, management team will be evaluated by interviewing, meeting, checking their references and analyzing their resume. It is also important to know the previous experience of the general partner on the target market by looking at the past performance and their pipeline.

Records of GEF express that GEF is an experienced general partner contributed to 38 investments with about $562 million from 1998-2009 and Gross IRR is 26.2%.

Records of GEF also show its experience in forestry field and its knowledge of this target market is well that it can be a good point for scoring GEF. GEF has 6 investments with total amount of $178 million in Africa, South America and Asia from 2001-2009 that Gross IRR is 23.2%.

“Global Forest Products” one of investments of the GP in South Africa exited in 2007 with exit value of 183.1 that gross multiple is 3.2x. Therefore GEF has a successful exit fund.

The record also shows that two existing investments are in Africa (Swaziland and Mozambique). Again it can be a good point for general partner since the aim of fund is investing in Africa.

After the bank reviewed the project issues, the bank will estimate the fund from the different point of view to make decision whether this fund is beneficial or not? So the bank analyzes the following issues:

Strategic Alignment to realize the priorities of each party such as ADB, Private Sector Operation, Country, Region

Commercial Viability to estimate fees, Return, Legal Compliance, Management Quality, Exposure Limits, Commercial Risks and Mitigates

Development Outcomes to measure the impact of the project on Economic Performance Environment, Gender and Social, Climate Change, Carbon Footprint, Private Sector Development and Demonstration, Infrastructure, Governments, Macroeconomic Resilience

At the end by consideration of all information, the result of this investigation will be prepared as a project concept note (PCN). In the document of the PCN is also pointed out the recommendation points that are essential to be considered in the next step or the issues should be more transparent for the appraisal stage. The positive and the negative effects of this project on economic and society will be mentioned as well.

The prepaid PCN (internal document) and the modified PEN according to new information in this stage are sent to OPSM for approval. The sample of the PCN format is as follows:

INTRODUCTION
THE PROJECT

- Description of Project
- The Sponsor
- Structure of Cost and Financing Plan
- The Role of Bank
- Implementation Arrangements
- The Market

JUSTIFICATIONS FOR THE BANK'S INVOLVEMENT

- Analysis of Strategic Alignment
- Analysis of Commercial Viability
- Analysis of Development Outcomes
- Analysis of Additionality and Complementarity

CONCLUSIONS AND RECOMMENDATIONS

Source: Document of AfDB

If OPSM approved the above PCN and the modified PAN, GEF would be processed in the next step that is "Appraisal stage".

4.2.3 Appraisal Stage

The size of the GEF fund is USD 150 million with management fee of 2% over 5 years; it will be decreased to 1.5% until 2016 and 1% in 2017 that company should be in the next step for profitability. GP is responsible to investment by 2% of total commitment in investment. Expense for each new deal is USD 200,000, the formation cost is USD 750,000 and operating expense (opex) for each year is USD 250,000. Hurdle rate is 7% that is the minimum expected rate of return on investment.

Sensitivity parameters express the impact of some factors such as dividends and expense on the final value of investment that will determine the rate of return on investment. In this case, for companies in greenfield stage of development, there is no dividend for 5 years.

Project			**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2024**
Existing plantation + manufacturing 1	Equity		-25.000.000	-5.000.000					
		Est. Revenues		*32.000.000*	*35.000.000*	*38.000.000*	*39.000.000*	*40.000.000*	
		Est. Local Taxes		*1.920.000*	*2.100.000*	*2.280.000*	*2.340.000*	*2.400.000*	
		Repatriated Profits	0	0	0	2.000.000	4.000.000	5.000.000	
19,6%	IRR	Total	-25.000.000	-5.000.000	0	2.000.000	4.000.000	5.000.000	
		invested capital	*-25.000.000*	*-30.000.000*	*-30.000.000*	*-30.000.000*	*-30.000.000*	*-30.000.000*	*0*
Existing plantation + manufacturing 2	Equity		0	-3.000.000	(2.000.000)	(3.000.000)	(5.000.000)	(4.000.000)	
		Est. Revenues		*0*	*0*	*0*	*0*	*2.000.000*	
		Est. Local Taxes		*0*	*0*	*0*	*0*	*120.000*	
		Repatriated Profits	0	0	0	0	0	0	
18,5%	IRR	Total	0	-3.000.000	-2.000.000	-3.000.000	-5.000.000	-4.000.000	
		invested capital	*0*	*-3.000.000*	*-5.000.000*	*-8.000.000*	*-13.000.000*	*-17.000.000*	*0*
Existing plantation + manufacturing 3	Equity				-4.000.000	-3.000.000	-8.000.000	-6.000.000	
		Est. Revenues		*0*	*0*	*0*	*0*	*2.500.000*	
		Est. Local Taxes		*0*	*0*	*0*	*0*	*150.000*	
		Repatriated Profits			0	0	0	0	
18,9%	IRR				-4.000.000	-3.000.000	-8.000.000	-6.000.000	
		invested capital	*0*	*0*	*-4.000.000*	*-7.000.000*	*-15.000.000*	*-21.000.000*	*0*
19,2%	Blended Existing Plantation Gross IRR		-25.000.000	-8.000.000	-6.000.000	-4.000.000	-9.000.000	-5.000.000	

Greenfield 1			Equity		-1.000.000	-2.000.000	-2.500.000	-2.000.000	-2.500.000	
			Est. Revenues		*0*	*0*	*0*	*0*	*0*	*14.000.000*
			Est. Local Taxes		*0*	*0*	*0*	*0*	*0*	*280.000*
			Repatriated Profits		0	0	0	0	0	62.000.000
	14,8%	IRR	Total		-1.000.000	-2.000.000	-2.500.000	-2.000.000	-2.500.000	62.000.000
			invested capital	*0*	*-1.000.000*	*-3.000.000*	*-5.500.000*	*-7.500.000*	*-10.000.000*	*0*
Greenfield 2			Equity		-500.000	-1.000.000	-1.500.000	-3.000.000	-2.500.000	
			Est. Revenues		*0*	*0*	*0*	*0*	*0*	
			Est. Local Taxes		*0*	*0*	*0*	*0*	*0*	
			Repatriated Profits		0	0	0	0	0	
	14,9%	IRR	Total		-500.000	-1.000.000	-1.500.000	-3.000.000	-2.500.000	
			invested capital	*0*	*-500.000*	*-1.500.000*	*-3.000.000*	*-6.000.000*	*-8.500.000*	*0*
	14,8%	Blended Greenfield Gross IRR			-1.500.000	-3.000.000	-4.000.000	-5.000.000	-5.000.000	62.000.000
Natural Forest Management 1		Equity		-2.500.000	-3.000.000	-4.000.000				
			Est. Revenues		*0*	*500.000*	*2.000.000*	*5.000.000*	*5.000.000*	
			Est. Local Taxes		*0*	*35.000*	*140.000*	*350.000*	*350.000*	
			Repatriated Profits	0	0	0	0	1.000.000	1.000.000	
	12,2%	IRR	Total	-2.500.000	-3.000.000	-4.000.000	0	1.000.000	1.000.000	
			invested capital	*-2.500.000*	*-5.500.000*	*-9.500.000*	*-9.500.000*	*-9.500.000*	*-9.500.000*	*0*
Natural Forest Management 2		Equity		0	-10.000.000	-3.000.000				
			Est. Revenues		*0*	*500.000*	*3.000.000*	*7.500.000*	*12.500.000*	

		Est. Local Taxes		*0*	*35.000*	*210.000*	*525.000*	*875.000*		
		Repatriated Profits				0	1.500.000	2.500.000		
13,7%	IRR	Total	0	-10.000.000	-3.000.000	0	1.500.000	2.500.000		
		invested capital	*0*	*-10.000.000*	*-13.000.000*	*-13.000.000*	*-13.000.000*	*-13.000.000*	*0*	
13,1%	Blended Natural Forest Gross IRR		-2.500.000	-13.000.000	-7.000.000	0	2.500.000	3.500.000		
		Total Equity	-27.500.000	-22.500.000	-16.000.000	-10.000.000	-18.000.000	-15.000.000	0	
		Tot. Profits	0	0	0	2.000.000	6.500.000	8.500.000	62.000.000	328.250.000
17,3%	**Fund Real Gross IRR**	**Cumulative CF**	**-27.500.000**	**-22.500.000**	**-16.000.000**	**-8.000.000**	**-11.500.000**	**-6.500.000**	**62.000.000**	
		Total Equity in Existing		-68.000.000	55%					
		Total Equity in GF		-34.000.000	27%					
		Total Equity in NFM		-22.500.000	18%					
		Total		-124.500.000						
FEES, EXPENSES, and CARRIED INTEREST										
		Invested Capital	*-27.500.000*	*-50.000.000*	*-66.000.000*	*-76.000.000*	*-94.000.000*	*-109.000.000*	*0*	
		Fund Formation	-750.000							
		Operating Expenses	-650.000	-1.050.000	-450.000	-250.000	-250.000	-250.000		
		Management Fees	-3.000.000	-3.000.000	-3.000.000	-3.000.000	-3.000.000	-2.250.000		
		Total fees & exp.	-4.400.000	-4.050.000	-3.450.000	-3.250.000	-3.250.000	-2.500.000	0	
14,5%	Post Fee IRR	**Post fee CF**	-31.900.000	-26.550.000	-19.450.000	-11.250.000	-14.750.000	-9.000.000	62.000.000	

real		**Drawdown**	-31.900.000	-26.550.000	-19.450.000	-11.250.000	-14.750.000	-9.000.000	0	-112.900.000
		Distribution	0	0	0	0	0	0	62.000.000	410.600.000
		Waterfall								**checks**
		Return of capital		0	0	0	0	0	0	OK
		preferred hurdle	0	2.233.000	6.324.500	11.777.500	18.018.000	25.291.000	0	
	7%	preferred return		0	0	0	0	0	0	54.300.050
		GP catchup			0	0	0	0	0	
		LP share			0	0	0	0	49.600.000	183.859.950
		GP share			0	0	0	0	12.400.000	59.540.000
12,9%	**Fund Net IRR**	**NET LP Cash Flow**	-31.900.000	-26.550.000	-19.450.000	-11.250.000	-14.750.000	-9.000.000	49.600.000	OK
	5,4%		-31.900.000	-26.550.000	-19.450.000	-11.250.000	-14.750.000	-9.000.000	0	
Nominal Calculations			2010	2011	2012	2013	2014	2015	2024	
		Annual inflation	0,0%	1,0%	1,0%	2,0%	2,0%	2,0%	2,0%	
		Inflation factor	1,00	1,01	1,02	1,04	1,06	1,08	1,29	
		Equity	(27.500.000)	(22.500.000)	(16.000.000)	(10.000.000)	(18.000.000)	(15.000.000)	-	
		Nom. Profits	-	-	-	2.081.004	6.898.528	9.201.575	80.211.474	
19,9%	**Fund Nominal Gross IRR**	**Cumulative CF**	(27.500.000)	(22.500.000)	(16.000.000)	(7.918.996)	(11.101.472)	(5.798.425)	80.211.474	

Source: Document of AfDB

As discussed in the previous chapters the way of appraisal depends on the stage of development of the companies. In this case, there are three sorts of investments: Existing plantation, Greenfield and Management. Appraisal of the fund will be according to financial model of GP. The plan of capital investment is different for each company that is in different stage of development; and the expected revenue is not the same in each year. Companies in different stage of development have its own characteristics in the need of capital for investing and the amount of revenue generated by companies. Table 6 shows the way of calculation IRR for one of the company in Existing plantation

Table 6: Calculation of IRR for Existing Plantation+manufacturing

			2010	2011	2012	2013
1	Equity		25,000,000	5,000,000		
2		Est.Revenue		32,000,000	35,000,000	38,000,000
3		Est.Local Taxes		1,920,000	2,100,000	2,280,000
4		Repatriated Profits		0	0	2,000,000
5	IRR	Total	25,000,000	5,000,000	0	2,000,000
6		Invested Capital	25,000,000	30,000,000	30,000,000	30,000,000

This investment is done in existing plantation so there is a steady cash flow from company. This company needs more capital to increase the profit of company. Increasing the amount of capital has been done by increasing the capital in 2010 with 25,000,000 of capital and 2011 with 5,000,000 of capital.

Est.Revenue shows the expected revenue from the company in each year.

Est.Local Taxes is defined percentage of profit or Est.Revenue of company and depends on the taxation rule of the country that investment is done in. For this investment, this percentage is 6% of revenue.

Repatriated Profit is the percentage of dividend that should be paid to investors.

Total is (Capital - Repatriated Profits) that IRR will be calculated based on total amount.

Invested Capital shows the cumulated capital that is invested.

For each company IRR will be calculated as above sample. At the end, the Gross IRR will be calculated based on summation of total amount for companies in Existing Plantation, Greenfield and Natural Forest Management. What is different is the plan of invested capital and the time of revenue from each company. The result of this calculation is in Table 7.

Table 7: GEF Fund Performance(2010-2024)

No.	Investment	Equity Invested (USD M)	Fair Market/Exit Value (USD M)	Exit Date	Multiple (times)	Gross Real IRR
1	Existing plantation + manufacturing 1	30,0	90,0	2019	3,0	19,6%
2	Existing plantation + manufacturing 2	17,0	55,0	2023	3,2	18,5%
3	Existing plantation + manufacturing 3	21,0	62,0	2023	3,0	18,9%
4	Greenfield 1	18,5	62,0	2024	3,4	14,8%
5	Greenfield 2	15,5	40,0	2022	2,6	14,9%
6	Natural Forest Management 1	9,5	12,5	2022	1,3	12,2%
7	Natural Forest Management 2	13,0	18,0	2021	1,4	13,7%
7	**Total**	**124,5**	**339,5**		**2,5**	**17,3%**

Source: Document of AfDB

The real Gross IRR of the fund is 17.3% that is higher than hurdle rate (7%). The real Gross IRR is the total rate of return before subtracting expenses, management fees and carried interest. Table 8 shows the way of calculation of expenses.

Table 8: Total Expenses of the Investment

Row			2010	2011	2012	2013
1		Invested Capital	27,500,000	50,000,000	66,000,000	
2		Fund formation	750,000			
3		Operating expenses	650,000	1,050,000	450,000	250,000
4		Management fees	3,000,000	3,000,000	3,000,000	3,000,000
5		Total fees & Exp	4,400,000	4,050,000	3,450,000	3,250,000
6	Post	Post fee CF	31,900,000	26,550,000	19,450,000	11,250,000

Invested capital is the cumulated investment of capital for fund including Exiting plantation, Greenfield and management.

Fund formation is defined at the first of appraisal

Operating expenses is calculated based on the operating expenses per year, expenses per new deal and the number of deals

Management fees is 2% of total fund size (150,000,000) that should be paid to manager of fund annually.

Total fees and exp. is summation of formation operating + operating expenses + management fees.

Post fee CF is cumulated CF (invested equity- profit of investment) + total fees and exp.

The IRR is calculated based on Post fee CF that is 14.45% after subtracting expenses but IRR should be calculated according to the share of limited partners. As stated, 2% of the capital investment is share of the GP so after subtracting this amount of the capital from the total capital, IRR for investors is 12.92%.

A sensitivity analyzing is essential based on all critical items such as delaying, changes in expenses, and changes in capital investment.

Table 9: Sensitivity Analysis

		Fund Gross Real IRR	**Investor Net Real IRR**
Base Case		**17,3%**	**12,9%**
Delay	1 Year	17,0%	12,7%
Opex	10%	17,3%	12,9%
	20%	17,3%	12,8%
Repatriated profits	-10%	16,7%	12,4%
	-20%	16,2%	11,9%
Exit values	-10%	16,3%	12,0%
	-20%	15,3%	11,0%
Combined Down side: (Delay 1 year, Opex +10%, Repatriated profits -10%, Exit values -20%)		14,4%	10,2%

Source: Document of AfDB

After doing appraisal and sensitivity analyzing, project appraisal report (PAR) a document for appraisal stage will be ready as following format.

CREDIT ASSESSMENT
- Background
- Investment Strategy and Objectives
- Historical Performance
- Projected performance

OBLIGOR ADJUSTMENT FACTORS
- Quality
- Management and corporate governance
- Industry outlook
- Key risks and concerns
    - Physical risks
    - Concentration risk
    - Foreign exchange risk
    - Liquidity and exit risks
    - Market/competition risk
    - Operational risk
    - Country risk

FACILITY ADJUSTMENT FACTORS
- Facility structure
- Guarantees
- Tenor
- Security
- Compliance with exposure limits

CREDIT RECOMMENDATION
- Strengths
- Weaknesses

Source: Document of AfDB

After 3 stages, screening, due diligence and appraisal, the bank can score this fund and will explain the reasons for this scoring. The strengths and the weaknesses points of the investment are also expressed. All these documents will be sent to the board for approval.

After approving fund the negotiation between the general partner and the bank will be done. The bank will commit the certain amount of capital.

4.2.4 Negotiation

For monitoring, each three months appraisal should be done and investors can announce their ideas officially about the way of appraisal based on critical items that are important for the bank.

Chapter 5

CONCLUSION

From the review of the literature and actual experience of investing in private equity funds by the AfDB in Africa a number of conclusions and comments can be made.

A private equity fund is evaluated based on qualitative and quantitative analysis methods. Although PE has a high potential of returns, it is also a high-risk investment activity. Evaluations of such funds are done through a series of questions and interviews that refer to historical performance, and the sectors and industries of potential investment. This is not an entirely precise methodology.

Private equity investments are for primarily made in new industries and new ideas so there is no track record of fund managers in the related industry. Evaluation has to be done based on the managers' past history or the current deals that they are involved in. The previous investment features or their size are the main concerns and the challenges of the evaluation methods of these investments. The number of successful exit strategies is important because the PE industry is relatively new in Africa the performance as measured by the real rate of return is often not clear.

Unsuccessful investments may reflect negatively on a manager, hence, an accurate investigation should be done in order to find the main reason for the failures. By considering the nature of each investment or its geographic area, the types of risks vary and as a result, the expected returns cannot be compared. The compatibility of the proposed business plan of a general partner or their strategy of investment with the sort of risk is another issue.

By approving a fund, the process of investment is not yet finalized, but merely enters the first critical step. The time of capital call is unknown in advance; hence, this might be a problem for investors. A further question is whether the general partner's performance will be consistent with initial proposal or the approved strategy? Does the manager use the capital sources in an efficient way in order to decrease the cost of the investment? In addition, how much do the parties have in common when solving problems in the appropriate time? All these issues could be a big problem during the investment stages, which highlights the importance of an effective evaluation before approving a fund.

Moreover, due to the long-term nature of the investment, the capital of investors is threatened by political risks, environmental risks, economic risks, fund risks and other unpredictable risks. The real rate of return is not clear until a successful exiting is implemented. The role of an efficient manger can decrease the aforementioned risks greatly. In fact, the success of each investment almost depends on the ability and knowledge of the manager of a private equity investment. For high return investments, the manager needs to be aware of an optimal time for fundraising, efficient target market, the practical existing strategy and risk management. Each sort of investment has its own nature of risk but it does not matter mostly because an experienced manager knows how to do risk management in each situation and how to deal with unpredictable issues. A preferable manager in a PE investment should ideally be a local who knows the culture of that country well. The availability of a good manager is another issue in Africa.

On the other hand, the success of a private equity depends on the regulations of the country that increases the investor's confidence of the success of their capital return after a long-term investment is completed. Fortunately, Africa has had some positive changes in legal protection and laws that has attracted a lot of foreign investors but there are still negative factors that affect Africa.

Africa for economic growth needs to attract the global investors more and more. For reaching the purpose, at first, the transparency of the evaluation should be increased according to a standard and upgraded framework which makes it comprehensible for all investors. As PE investment is a long-term investment, it is necessary to keep the standard levels of the evaluation during this time. By increasing the number of PE funds in Africa there will need to be more experienced managers in the private equity funds that are so important for developing private equity industry in Africa.

Development has started in Africa and the current investments will have a significant impact on people's life. Private sector development increases the standards of living as well as changes the way people think. It creates new trends in different industries. It would make developing in other countries of Africa easier. At present, investment in private equity is not possible in some countries of Africa because there is no opportunity for exiting or selling investment development of these countries will create further potential for investment in this area.

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