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Project Finance: Challenges and Trends

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Project Finance is usually defined as the financing of long-term infrastructure, industrial projects and public services based upon a non-recourse or limited recourse financial structure where project debt and equity used to finance the project are paid back from the cash flow generated by the project. In this context, it represents a financing technique which generally allows a company to raise funds to set up a project based on the feasibility of such a project and its ability to generate revenues at a level sufficient to cover construction and operational costs, as well as debt service and a return for the investor.

The viability of the Project Finance model, in short, is based on the consistency and efficiency of its network of agreements. Such documents must be structured and negotiated in a consistent manner with the respective legislation applicable in the jurisdictions involved, and be constructed in such a way as to allow full implementation of their respective terms and conditions, notwithstanding the natural complexity of the same, in a form which will satisfactorily identify, mitigate, allocate and allow the adequate management of the various risks involved in the Project Finance.

Project Finance - Brazil - Infrastructure - Financing - Contracts

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1 INTRODUCTION

1.1 Concept

Project Finance is usually defined as the financing of long-term infrastructure, industrial projects and public services based upon a non-recourse or limited recourse financial structure where project debt and equity used to finance the project are paid back from the cash flow generated by the project. In this context, it represents a financing technique which generally allows a company to raise funds to set up a project based on the feasibility of such a project and its ability to generate revenues at a level sufficient to cover construction and operational costs, as well as debt service and a return for the investor.

According to Basel II, Project finance is “a method of funding in which the lender looks primarily to the revenues generated by a single project, both as the source of repayment and as security for the exposure. This type of financing is usually for large, complex and expensive installations that might include, for example, power plants, chemical processing plants, mines, transportation infrastructure, environment, and telecommunications infrastructure. Project finance may take the form of financing of the construction of a new capital installation, or refinancing of an existing installation, with or without improvements. In such transactions, the lender is usually paid solely or almost exclusively out of the money generated by the contracts for the facility’s output, such as the electricity sold by a power plant. The borrower is usually an SPE (Special Purpose Entity) that is not permitted to perform any function other than developing, owning, and operating the installation. The consequence is that repayment depends primarily on the project’s cash flow and on the collateral value of the project’s assets.”¹

Projects like power plants, toll roads or airports share a number of characteristics that make their financing particularly challenging. Large-scale projects might be too big for any single company to finance on its own. On the other hand, widely fragmented equity or debt financing in the capital markets would help to diversify risks among a larger investors’ base, but might make it difficult to control managerial discretion in the allocation of free cash flows, avoiding wasteful expenditures. Project Finance is then used to strike a balance between the need for sharing the risk of sizeable investments among multiple investors and, at the same time, the importance of effectively monitoring managerial actions and ensuring a coordinated effort by all project-related parties.

1.2 Historical background

There is early evidence of project financing techniques being actively used during Roman times and earlier still. According to the historians, sea voyages on the Mediterranean ocean were extremely dangerous adventures in Greek and Roman times, mostly on account of the dual perils of storms and pirates. As a result of these nautical perils, some risk averse merchants would take out a *fenus nauticum* (sea loan) with a local lender with a view to sharing with that lender the

¹ BASEL COMMITTEE ON BANKING SUPERVISION. *International Convergence of Capital Measurement and Capital Standards - Basel II*. Nov 2005, www.bis.org/publ/bcbs118.pdf.

risk of a particular voyage. The *fenus nauticum* worked on the basis that the loan was advanced to the merchant for the purpose of purchasing goods on the outward voyage, which loan would be repayable out of the proceeds of the sale of these goods (or more likely other goods bought overseas with these proceeds). If the ship did not arrive safely at the home port with the cargo in question on board then, according to the terms of the *fenus nauticum*, the loan was not repayable. At the time this was viewed essentially as a form of marine insurance, but it can just as easily be classified as an early form of limited recourse lending, with the lender assuming the risk of the high seas and the perils that accompanied her. History also recounts that, in order to protect their interests, these brave lenders would often send one of their slaves on the voyage to ensure that the merchant was not tempted to cheat on the lender.

In modern times too there is plenty of evidence of project financing techniques being used by lenders to finance projects around the world. In the 19th century lenders in the City of London were financing numerous railway and other projects in South America and India and investing in other overseas ventures having many features of modern day limited recourse lending. In most cases these loans were not specifically structured as limited recourse loans as we know them today, but the commercial reality was that this is exactly what they were.

However, limited recourse lending in the United Kingdom really took off in the early 1970s when lenders in the United Kingdom started making Project Finance available for the development of some of the early oil and gas fields in the United Kingdom Continental Shelf. The early projects that were financed on this basis were relatively few and far between as there was a relatively small pool of lenders prepared to finance projects on this basis. It would also be true to say that the treasurers of many of the companies operating in the United Kingdom Continental Shelf at this time took some time to appreciate the advantages of financing projects in this way. The first major financing in the North Sea was in the early 1970s. This was British Petroleum's Forties Field, which raised about £1 billion by way of a forward purchase agreement. Shortly after this transaction two loans were raised by licence holders in the Piper Field (Occidental Petroleum Corporation and the International Thompson Organisation). Other financings of North Sea hydrocarbon assets followed and by the late 1970s and early 1980s what had started as a modest number of transactions had turned into a significant volume of project financings related to oil and gas fields, first in the United Kingdom Continental Shelf and then the Danish and Norwegian Continental Shelves.

Much of the documentation and many of the techniques for these early oil and gas transactions were borrowed from practice in the United States where adventurous bankers had been lending against oil and gas assets for many years. The significant difference in the context of the North Sea, however, was that bankers were in reality taking significantly more risks in lending against oil and gas assets in the North Sea. Not only were these brave bankers lending against offshore oil and gas assets where the risks were considerably greater (especially in the early days, given the new technology being developed and utilised), but they were also, in some cases, assuming all or part of the development/completion risk. Traditionally, in the early days of project financing in the United States, loans were against producing onshore assets, which carried a far lesser degree of risk. The North Sea was, however, an altogether more hostile and hazardous environment.

The 1980s in the United Kingdom saw perhaps the greatest growth spurt in project financing with power projects, infrastructure projects, transportation projects and, at the end of that decade, telecommunications projects leading the way. This was continued throughout the 1990s which saw a huge growth in project financing, not only in Europe and the United States but also

throughout South-East Asia and farther afield. There is no evidence that the appetite of sponsors and bankers for this activity is waning and, certainly the concept of Private Finance Initiative (PPPs or PFIs) shows clear signs that the boom will continue well into this century.

1.3 The Brazilian context

With the loss of capability of investment by the public sector, there was a global tendency in 80's and 90's to diminish the role of the State, with the privatization and concession of public services to the private sector. In Brazil, The Brazilian Privatization Program – PND, was instituted under the Law No. 8,031, of 04/12/1990, when the concept of privatization became an integral part of the economic reforms initiated by the Federal Government. At that time, all effort was concentrated on the sale of productive state owned companies, tied to strategic sectors, which allowed the inclusion of steel manufacturers, petrochemical and fertilizer companies in the PND.

Between 1990 and 1994, the Brazilian Federal Government privatized 33 companies, 18 of which were controlled companies and 15 minority shareholder participations of Petroquisa and Petrofertil. Other eight auctions of minority shareholdings were held under Decree No. 1,068. Through these operations the Government obtained receipts of US\$ 8.6 billion that, along with the US\$ 3.3 billion in debt transferred to the private sector, brought the total to US\$ 11.9 billion.

Due to the large amount of funds needed for the viability of infrastructure projects, private companies were incapable of compromising their budgets during the long course of maturation of such projects. The transfer of part of the infrastructure to private initiative, demanding substantial investments in its planning, development and operation, began to be financed by other agents and other sources, due to the integration of the partners in the respective projects.

Commercial banks, multilateral agencies, export credit institutions, pension funds, insurance companies and participants in international capital markets became important financiers of infrastructure projects in Brazil through Project Finance. As a financial model which adapts itself to the need of funds for projects developed by the private sector, Project Finance represents an important instrument to make investments in infrastructure viable in developing countries viable.

2 STRUCTURING THE PROJECT FINANCE

2.1 Why choose a Project Finance structure?

It is worth asking why sponsors choose Project Finance to fund their projects. Project finance is invariably more expensive than raising corporate funding. Also, and importantly, it takes considerably more time to organise and involves a considerable dedication of management time and expertise in implementing, monitoring and administering the loan during the life of the project.

There must, therefore, be compelling reasons for sponsors to choose this route for financing a particular project. The following are some of the more obvious reasons why Project Finance might be chosen:

- a) The sponsors may want to insulate themselves from both the project debt and the risk of any failure of the project;
- b) A desire on the part of sponsors not to have to consolidate the project's debt on to their own balance sheets. This will, of course, depend on the particular accounting and/or legal requirements applicable to each sponsor. However, with the trend these days in many countries for a company's balance sheet to reflect substance over form, this is likely to become less of a reason for sponsors to select Project Finance;
- c) There may be a genuine desire on the part of the sponsors to share some of the risk in a large project with others. It may be that in the case of some smaller companies their balance sheets are simply not strong enough to raise the necessary finance to invest in a project on their own and the only way in which they can raise the necessary finance is on a project financing basis;
- d) A sponsor may be constrained in its ability to borrow the necessary funds for the project, either through financial covenants in its corporate loan documentation or borrowing restrictions in its statutes;
- e) Where a sponsor is investing in a project with others on a joint venture basis, it can be extremely difficult to agree a risk-sharing basis for investment acceptable to all the co-sponsors. In such a case, investing through a special purpose vehicle on a limited recourse basis can have significant attractions;
- f) There may be tax advantages (e.g. in the form of tax holidays or other tax concessions) in a particular jurisdiction that make financing a project in a particular way very attractive to the sponsors; and
- g) Legislation in particular jurisdictions may indirectly force the sponsors to follow the Project Finance route (e.g. where a locally incorporated vehicle must be set up to own the project's assets).

This is not an exhaustive list, but it is likely that one or more of these reasons will feature in the minds of sponsors who have elected to finance a project on limited recourse terms.

Project Finance, therefore, has many attractions for sponsors. It also has attractions for the host government. These might include the following:

- a) Attraction of foreign investment;
- b) Acquisition of foreign skills and know-how;
- c) Reduction of public sector borrowing requirement by relying on foreign or private funding of projects;
- d) Possibility of developing what might otherwise be non-priority projects; and
- e) Education and training for local workforce.

2.2 The project vehicle

One of the first, and most important, issues that the project sponsors will face in deciding how to finance a particular project will be how to invest in, and fund, the project. There are a number of different structures available to sponsors for this purpose. The most common structures used are:

- a) A joint venture or other similar unincorporated association;
- b) A partnership;
- c) A limited partnership; and
- d) An incorporated body, such as a limited company (probably the most common).

Of these structures the joint venture and limited company structure are the most universally used.

A joint venture is a purely contractual arrangement pursuant to which a number of entities pursue a joint business activity. Each party will bring to the project not only its particular expertise but will be responsible for funding its own share of project costs, whether from its own revenues or an outside source. Practical difficulties may arise as there is no single project entity to acquire or own assets or employ personnel, but this is usually overcome by appointing one of the parties as operator or manager, with a greater degree of overall responsibility for the management and operation of the project.

Partnerships are, like joint ventures, relatively simple to create and operate but in many jurisdictions partnership legislation imposes additional duties on the partners, some of which (such as the duty to act in the utmost good faith) cannot be excluded by agreement. Liability is unlimited other than for the limited partners in a limited partnership, but these are essentially “sleeping” partners who provide project capital and are excluded from involvement in the project on behalf of the firm.

In many cases it will not be convenient (or may not be possible) for the project assets to be held directly (whether by an operator or the individual sponsors) and in these cases it may be appropriate to establish a company or other vehicle which will hold the project assets and become the borrowing vehicle for the project. The sponsors will hold the shares in this company or other vehicle in agreed proportions. In most cases where this route is followed, the company or other vehicle would be a special purpose vehicle established exclusively for the purposes of the project and the use of the special purpose vehicle for any purposes unconnected with the project in question will be prohibited. In addition to the constitutional documents establishing the vehicle, the terms on which it is to be owned and operated will be set out in a sponsors’ or shareholders’ agreement.

2.3 A detailed financial structure

In Project Finance, several long-term contracts such as construction, supply, off-take and concession agreements, along with a variety of joint-ownership structures, are used to align incentives and deter opportunistic behaviour by any party involved in the project. The definition

of the advantages and limits of a Project Finance structure requires a detailed analysis of the various aspects must be made by those interested, involving, amongst others:

- a) A study of the structure that comprises Project Finance, detailing the advantages, the disadvantages and limits of each model;
- b) The criteria of evaluation and requirements established by the agents in charge of classification of credit and the respective impact on the composition of the interest rate of the financing;
- c) Identification, allocation and development and implementation of the criteria and methods to manage the risks involved;
- d) Formulation of an accurate economic-finance model to obtain the resources on the international market;
- e) Techniques and implications of the necessary due diligence; and
- f) Monitoring the project during its building and operational phases and respective management of financial documents, also contemplating the securitization of the receivables.

In Project Finance equity is held by a small number of sponsors and debt is usually provided by a syndicate of a limited number of banks. Concentrated debt and equity ownership enhances project monitoring by capital providers and makes it easier to enforce project specific governance rules for the purpose of avoiding conflicts of interest or suboptimal investments.

The use of non-recourse debt in Project Finance further contributes to limiting managerial discretion by tying project revenues to large debt repayments, which reduces the amount of free cash flows. Moreover, non-recourse debt and separate incorporation of the project company make it possible to achieve much higher leverage ratios than sponsors could otherwise sustain on their own balance sheets.

Nonrecourse debt can generally be deconsolidated, and therefore does not increase the sponsors' on-balance sheet leverage or cost of funding. From the perspective of the sponsors, non-recourse debt can also reduce the potential for risk contamination. In fact, even if the project were to fail, this would not jeopardise the financial integrity of the sponsors' core businesses.

One drawback of non-recourse debt, however, is that it exposes lenders to project-specific risks that are difficult to diversify. In order to cope with the asset specificity of credit risk in Project Finance, lenders are making increasing use of innovative risk-sharing structures, alternative sources of credit protection and new capital market instruments to broaden the investors' base.

Hybrid structures between project and corporate finance are being developed, where lenders do not have recourse to the sponsors, but the idiosyncratic risks specific to individual projects are diversified away by financing a portfolio of assets as opposed to single ventures. Public-private partnerships are becoming more and more common as hybrid structures, with private financiers taking on construction and operating risks while host governments cover market risks.

There is also increasing interest in various forms of credit protection. These include explicit or implicit political risk guarantees, credit derivatives and new insurance products against

macroeconomic risks such as currency devaluations. Likewise, the use of real options in Project Finance has been growing across various industries. Examples include: refineries changing the mix of outputs among heating oil, diesel, unleaded gasoline and petrochemicals depending on their individual sale prices; real estate developers focusing on multipurpose buildings that can be easily reconfigured to benefit from changes in real estate prices.

Finally, in order to share the risk of project financing among a larger pool of participants, banks have recently started to securitize project loans, thereby creating a new asset class for institutional investors. Collateralised debt obligations as well as open-ended funds have been launched to attract higher liquidity to Project Finance.

3 TALKING ABOUT RISKS

3.1 Identification and allocation of risks

The essence of any project financing is the identification of all key risks associated with the project and the apportionment of those risks among the various parties participating in the project. Without a detailed analysis of these project risks at the outset the parties would not have a clear understanding of what obligations and liabilities they may be assuming in connection with the project and, therefore, will not be in a position to consider appropriate risk mitigation exercises at the appropriate time. Considerable delays can occur and expense be incurred, should problems arise when the project is under way and arguments ensue as to who is responsible.

Thus, from the sponsor's point of view, they will be particularly concerned to ensure that they have identified and understood all risks that they will be assuming in connection with the project. They will want to be certain that they are able to manage and monitor these risks effectively and, where they are not able to do so, either to pass them on to another party involved in the project who is better able to manage any particular risks (perhaps a supplier, contractor or purchaser of products) or, where this is not possible for any reason, perhaps to find some other way of managing the risk such as by taking out insurance or, more radically, altering the structure of the project to extinguish the risk or at least reduce it.

From the lenders' perspective, they will have similar concerns. Additionally, they will have the following concerns:

- a) in assuming any risks associated with a particular project, they will need to be satisfied that there are no regulatory constraints imposed on them by any of the authorities that regulate their activities or pursuant to laws applicable to them;
- b) they may have to report non-credit risks assumed by them in connection with their activities to their regulatory authorities; and
- c) generally speaking, the more risk that a lender is expected to assume in connection with a project, the greater the reward in terms of interest and fees they will expect to receive from the project.

The task of identifying and analysing risks in any project is not one that can be left to any one party or its advisers. Rather, it is likely to involve the project parties themselves, accountants, lawyers, engineers and other experts who will all need to give their input and advice on the risks involved and how they might be managed. Only once the risks have been identified can the principal parties (the sponsors and the banks) decide who should bear which risks and on what terms and at what price.

3.2 Ground rules

There are some ground rules that should be observed by the parties involved in a project when determining which party should assume a particular risk:

- a) a detailed risk analysis should be undertaken at an early stage;
- b) risk allocation should be undertaken prior to detailed work on the project documentation;
- c) as a general rule, a particular risk should be assumed by the party best able to manage and control that risk (e.g. the risk of cost overruns or delay on a construction project is best managed by the main contractor; in a power project, the power purchaser (if a state entity) is in a better position than others to assume the risks associated with a grid failure and consequent electricity supply problems for any reason); and
- d) risks should not be “parked” with the project company, especially where the project company is a special purpose vehicle (The point here is that, where there is a disagreement between say, the fuel supplier and a power purchaser in a power project over who should assume a particular risk, there may be a temptation to park the risk in question with the project company. However, this is simply storing up problems for the future as the project company will rarely be in a position to manage or control that risk, let alone pay for it).

3.3 Categories of project risks

The following is a list of some of the key project risks encountered in different types of projects. Of course, not all of these risks will necessarily be encountered in each project, but it is likely that most participants in projects will need to consider one or more of these risks and decide by whom these risks are to be assumed and how. It has already been seen in section 3 that, once these risks have been identified, it is through the various contractual arrangements between the parties, and insurance, that these risks are, for the most part, apportioned and assumed.

- a) construction/completion risk;
- b) counterparty risk;
- c) legal and structural risks;
- d) market risk;
- e) operating risk;

- f) political risk; and
- g) reserve/production risk.

3.4 What do you know about political risks?

In any cross-border financing, banks take a “political” risk in the sense that a collapse of the existing political order in the borrower’s country or the imposition of new taxes, exchange transfer restrictions, nationalisation or other laws may jeopardise the prospects of repayment and recovery.

In project financing, the political risks are more acute for many reasons, including:

- a) the project itself may require governmental concessions, licences or permits to be in place and maintained, particularly where the project is for power generation, transport, infrastructure or the exploitation of the country’s natural resources - oil, gas and minerals; and
- b) the project may be crucial to the country’s infrastructure or security and accordingly be more vulnerable to the threat of expropriation or requisition - power projects, airports, seaports, roads, railways, bridges and tunnels are obvious examples.

The term political risk is widely used in relation to Project Finance and can conveniently be defined to mean both the danger of political and financial instability within a given country and the danger that government action (or inaction) will have a negative impact either on the continued existence of the project or on the cash flow generating capacity of a project. Different projects and different project structures will obviously encounter different types of political risk. However, examples of events that might be classified as political risks are set out below:

- a) expropriation or nationalisation of project assets (including the shares of a project company);
- b) failure of a government department to grant a consent or permit necessary for starting, completing, commissioning and/or operating a project or any part of it;
- c) imposition of increased taxes and tariffs in connection with the project, including products generated by the project, or, perhaps, the withdrawal of valuable tax holidays and/or concessions;
- d) imposition of exchange controls restricting transfer of funds outside of the host country or availability of foreign exchange;
- e) changes in law having the effect of increasing the borrower’s or any other relevant party’s obligations with respect to the project, e.g. imposing new safety, health or environmental standards or other changes in law that result in changes being necessary to the design of any equipment or process;
- f) politically motivated strikes; and
- g) terrorism.

There is no single way in which a lender can eliminate all project risks in connection with a particular project. One of the most effective ways of managing and reducing political risks, however, is to lend through, or in conjunction with, multilateral agencies such as the World Bank, the European Bank for Reconstruction and Development and other regional development banks such as the African Development Bank and the Asian Development Bank.

There is a view that, where one or more of these agencies is involved in a project, then the risk of interference from the host government or its agencies is reduced on the basis that the host government is unlikely to want to offend any of these agencies for fear of cutting off a valuable source of credits in the future. This is a persuasive argument and certainly one that has some historical basis. For example, when countries such as Mexico, Argentina and Brazil were defaulting on their external loans in the early 1980s, they went to some lengths to avoid defaulting on their multilateral debts, whether project-related or not.

Other ways of mitigating against political risks include:

- a) private market insurance - although this can be expensive and subject to exclusions. Further, the term that such insurance is available for will rarely be long enough;
- b) obtaining assurances from the relevant government departments in the host country, especially as regards the availability of consents and permits;
- c) the Central Bank of the host government may be persuaded to guarantee the availability of hard currency for export in connection with the project;
- d) as a last resort, but an exercise which should be undertaken in any event, by a thorough review of the legal and regulatory regime in the country where the project is to be located to ensure that all laws and regulations are strictly complied with and all the correct procedures are followed with a view to reducing the scope for challenge at a future date.

In some countries, particularly developing countries, which are keen to attract foreign investment, host governments (or their agencies) may be prepared to provide firm assurances on some of the above matters to foreign investors and their lenders. Obviously such assurances are still subject to a performance risk on the host government concerned, but at a minimum they can make it very difficult, as well as embarrassing, for a government to walk away from an assurance given earlier in connection with a specific project and on the basis of which foreign investors and banks have participated in a project.

4 TRENDS OF PROJECT FINANCE STRUCTURES IN BRAZIL

4.1 Partnering Construction Contractual Structure

Within time and the more use of Project Finance structures, parties have evolved to the use of Engineering Procurement Construction (EPC) – the favourite contract model for the lenders – and Engineering Procurement Construction Management (EPCM).

Nevertheless, because the EPC contract approach shifts all the risk of project completion cost and performance onto the contractor's shoulders, it tends to trigger an adversarial project team relationship, potentially leading to a breeding ground for conflict, contractual disputes and major claims that undermine the project's financials and its ultimate successful outcome. Therefore, the challenge in Project Finance has been the adoption of the Alliance contracting as a viable, proven alternative to adversarial business-as-usual contracts.

Alliance contracting offers a unique system of project delivery whereby risks are shared between owner and contractor. They are incentive-based relationship contracts in which the parties agree to work together as one integrated team in a relationship that is based on the principles of equity trust, respect, openness, no dispute and no blame. Alliance contracting can relieve the pressure of the short-term demands on the industry and set the foundation for longer term structural improvement in the way the industry works.

Also, significantly reduces, the risk of claims and disputation between the parties through the use of inclusive and collaborative legal and commercial arrangements. These arrangements enable the parties to work together in an open and generative manner and to strive to achieve the business goals of everyone in the relationship and can provide a bankable project delivery method even for project financing.

4.2 Submission to the Equator Principles

Project Finance transactions may encounter social and environmental issues that are both complex and challenging, particularly with respect to projects in the emerging markets. Large industrial and infrastructure projects, such as for power generation, are becoming increasingly conditioned to social and environmental risk assessments in order to be approved. In this context, Brazil is following the international trend to adopt the Equator Principles for Project Finance transactions.

Equator Principles represent a set of socioenvironmental guidelines adopted by 61 banks worldwide for financing projects amounting to US\$10 million or more and are intended to serve as a common baseline and framework for the implementation by each lender of its own internal social and environmental policies, procedures and standards related to its project financing activities.

Today, 7 banks are signatories of the Equator Principles in Brazil. They work to ensure that the projects they finance are developed in a manner that is socially responsible and reflect sound environmental management practices. By doing so, negative impact on project-affected ecosystems and communities should be avoided where possible, and if this impact is unavoidable, it should be reduced, mitigated or compensated for, or both, appropriately.

Brazil is following the international trend to adopt the Equator Principles for Project Finance transactions and today important Brazilian banks are signatories of the Equator Principles. They work to ensure that the projects they finance are developed in a manner that is socially responsible and reflect sound environmental management practices. By doing so, negative impact on project-affected ecosystems and communities should be avoided where possible, and if this impact is unavoidable, it should be reduced, mitigated or compensated for, or both, appropriately.

Equator Principles expressly incorporate a number of the policies and guidelines of the International Finance Corporation (IFC) of the World Bank Group. The Equator Principles apply to all project finance transactions with total project costs of US\$10 million or more, regardless of the country and the sector. The revised Equator Principles address the following environmental and social standards:

- a) Principle 1: Review and Categorisation;
- b) Principle 2: Social and Environmental Assessment;
- c) Principle 3: Applicable Social and Environmental Assessment;
- d) Principle 4: Action Plan and Management System;
- e) Principle 5: Consultation and Disclosure;
- f) Principle 6: Grievance Mechanism;
- g) Principle 7: Independent Review;
- h) Principle 8: Covenants;
- i) Principle 9: Independent Monitoring and Reporting; and
- j) Principle 10: Equator Principles Financial Institutions Reporting.

4.3 The role of BNDES

Brazil faces today infrastructure bottlenecks, especially in the electric energy, highways and railways sectors. In the energy area, the Decennial Plan for Electric Energy Expansion 2006/2015, the main planning instrument of the Brazilian sector, forecasts a generation offer of 41 thousand megawatts until 2015.

The Brazilian Development Bank (BNDES - Banco Nacional de Desenvolvimento Econômico e Social) is a federal state-owned entity under the umbrella of the Ministry of Development, Industry, and Foreign Trade. Its stated goal is to provide long-term financing aimed at enhancing Brazil's development, increasing the competitiveness of the country's economy and improving the standard of living of its population.

In 2009, BNDES's total assets amounted to R\$386.6 billion. Its participation in the supply of credit to Brazil's economy climbed from 7% in 2008 to 20% in 2009. Disbursements at year end exceeded R\$137 billion, an increase of 49% when compared to 2008. As the country's main source for long-term credit, BNDES has played a central role in the Brazilian government's effort to heighten investment levels and thus mitigate the effects of the recent international financial crisis on Brazil's economy.

Infrastructure has been the primary focus of BNDES in the recent past. In 2009, infrastructure projects were responsible for 36% of BNDES's total disbursements (R\$48.7 billion),

representing a 38.6% increase over 2008. The main areas of investment were energy and highway transportation. Despite huge investments in 2009, there is market consensus that Brazil still demands massive investments in infrastructure to secure long-term growth.

The board of approved in 2006 new rules that allow the BNDES to operate with project finance. The aim of this initiative was to continue to promote the expansion of the private sector interest in infrastructure projects, meeting the increasing demand for investments, especially in hydro energy, thermal energy, ports and railways.

Historically, the infrastructure sector is responsible for the most part of the BNDES disbursements and has had a fundamental participation in the structure of some of the most important energy projects (e.g. Madeira River and Jirau River). BNDES is now examining the conditions for finance of the Belo Monte Power Plant, a major infrastructure project in the hydro energy sector in Brazil, as well as the plans of the Soccer World Cup 2014 and the Olympic Games in 2016, both to be hosted by Brazil.

When that is the case, BNDES maximum exposure in a Project Finance operation will be 75% of total beneficiary assets projected. For its approval by BNDES, the classification of risk bears the following factors in mind, besides those normally considered:

- a) The risk classification of the beneficiary controllers, according to the project's dependency and dependency of financing in relation to those controllers;
- b) The risk of implementing the project and respective mitigators;
- c) The beneficiary's degree of leverage;
- d) The sufficiency, foreseeability and stability of cash flows of the project;
- e) The operational risk of the project and respective mitigators; and
- f) The value, liquidity and safety of guarantees offered by the beneficiary.

The Project Finance operations must also comply with the following requirements in order to be approved by BNDES:

- a) The Debt Service Coverage ("ICSD") forecasted for each of the project's operational phases must be at least 1.3. The minimum ICSD may be 1.2 given that the project presents a minimum Internal Rate of Return ("TIR") of 8% per year in real terms;
- b) The stockholder's own capital must be at least 20% of total investment of the project, excluding, for the purposes of this calculation, eventual BNDESPAR stock participation. The BNDES criterion, the generation of project cash may be considered as part of the stockholder's own capital; and
- c) The contracts of the operation have to prohibit the concession of loans to shareholders from the beneficiary, and furthermore, establish conditions and restrictions for all other payments performed by the beneficiary to his partners at any title.

5 CONCLUSION

Project finance, also known as limited- or non- recourse finance, is a method of funding projects in which repayment of debt (such as loans or bonds) is based on the revenue generated by that project. If the project fails to be viable, creditors do not have recourse to the sponsors' own funds for repayment of debt, and sponsors are not expected to spend extra money to cover shortfalls in revenue.

This method of financing is mostly used for new construction projects such as hydroelectric dams, oil and gas pipelines, and telecommunications infrastructure, as well as for large industrial complexes, such as (petro)chemical plants, electricity plants and pulp & paper mills. It became very popular in the middle and late 1990s as method of development finance that attracted private investment into viable projects in emerging and developing countries. Governments liked project finance because it allowed private money to fund particular development needs; corporations preferred it because it allowed them to finance projects off their balance sheets. Bankers and investors found the project finance structure appealing because it allowed them to diversify their portfolios while sharing risks between many participants. Finally, NGOs became interested in project finance because it was a common financing method for many controversial development projects.

The cycle for project finance is often quite long; sometimes it takes years to consummate a project-financed deal. Therefore, there are several financial phases in a project: first may be a *pre-investment* period, where governments and/or potential investors perform feasibility studies. If a project is deemed to be feasible, a tender period typically follows; a project is *in tender* when the government authority has issued bidding or tender specifications, but has not yet awarded the contract to a sponsor. When the project is a private initiative, the tender phase is replaced by a phase in which the sponsor needs to obtain necessary governments permits, concessions, etc. Once a contract is awarded or all permits obtained, the sponsor then mandates a bank to put together a financial package that will allow the sponsor to draw down money from debt facilities such as loans or bonds. During this period, a project is considered to be *in finance*.

Two key steps during the financing phase are when the project reaches financial close, and when the project is signed. Transactions are *closed* when loan agreements between the borrower and the top-tier banks are finalized. After this, the top-tier banks will try to distribute part of the debt they have taken upon them to lower-tier banks. A deal is *signed* when all debt facilities, including those provided by lower-tier participating banks have been finalized and money is available for drawdown. As a result, during the financing cycle a deal can be closed but not yet signed.

Project Finance transactions require joint efforts from lenders, investors, suppliers, off takers and sponsors of the project in order to make feasible the implementation of a project, dealing with special challenges, such as:

- a) They require large indivisible investments in a single-purpose asset: Project Finance than deals have contemplated the creation of a special purpose vehicle with bankruptcy remoteness features, as a ring fencing technique, which usually results in credit enhancement for financiers and cost reductions for sponsors, although the creation of a project company is not necessarily a rule inherent to Project Finance;

- b) Projects usually undergo two main phases (construction and operation) characterised by quite different risks and cash flow patterns: Construction primarily involves technological and environmental risks, whereas operation is exposed to market risk (fluctuations in the prices of inputs or outputs) and political risk, among other factors. Most of the capital expenditures are concentrated in the initial construction phase, with revenues instead starting to accrue only after the project has begun operation; and
- c) The success of large projects depends on the joint effort of several related parties so that coordination failures, conflicts of interest and free-riding of any project participant can have significant costs: From the construction company to the input supplier, from the host government to the off-taker, all parties have substantial discretion in allocating the usually large free cash flows generated by the project operation, which can potentially lead to opportunistic behaviour and inefficient investments.

The success in the financing of an infrastructure project, by means of Project Finance, depends on all the parties involved satisfactorily complying with their various contractual obligations under the Project Finance Documentation. Lenders, as well as the other participants, in accordance with the level of risk being assumed and in proportion to the benefits received from the implementation of the project, will undertake the due diligence needed to adequately measure the risks involved.

The viability of the Project Finance model, in short, is based on the consistency and efficiency of its network of agreements. Such documents must be structured and negotiated in a consistent manner with the respective legislation applicable in the jurisdictions involved, and be constructed in such a way as to allow full implementation of their respective terms and conditions, notwithstanding the natural complexity of the same, in a form which will satisfactorily identify, mitigate, allocate and allow the adequate management of the various risks involved in the Project Finance.

6 REFERENCE:

BASEL COMMITTEE ON BANKING SUPERVISION. *International Convergence of Capital Measurement and Capital Standards - Basel II*. Nov 2005, www.bis.org/publ/bcbs118.pdf.

BONOMI, Claudio Augusto. *Project finance no Brasil: Fundamentos e estudos de casos*. São Paulo, Brazil: Atlas, 2002.

DELMON, Jeffrey. *Private sector investment in infrastructure : Project Finance, PPP projects and risk*. Austin-TX, USA: Wolters Kluwer, 2009.

FINNERTY, John D. *Project Financing: Asset-Based Financial Engineering*. London, UK: John Wiley and Sons, 2007.

GATTI, Stefano. *Project finance in theory and practice : designing, structuring, and financing private and public projects*. Burlington-MA, USA: Academic Press, 2008.

HOFFMAN, Scott L. *The law and business of international Project Finance*. Ardsley-NY, USA: The Hague Kluwer Law International, 2001.

LOPES ENEI, José Virgílio. *Project Finance financiamento com foco em empreendimento*. São Paulo, Brazil: Saraiva, 2007.

PRETORIUS, Frederik. *Project finance for construction & infrastructure : principles & case studies*. Oxford, UK: Blackwell Pub., 2008.

ROCHA LIMA JUNIOR, João da. *Análises em Project Financea escolha da moeda de referência*. São Paulo, Brazil: LARES, 1999.

YESCOMBE, E. R. *Principles of Project Finance*. Boston-MA, USA: Amsterdam Academic Press, 2002.