

**Infrastructure Finance**  
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**Lecture - 15**  
**Overview and Introduction to Project Finance**

Welcome back to this course on Infrastructure Finance, so far we have looked at some of the basic concepts related to a financing of projects. We have not specifically discussed much in terms of, what are the specific trends that we actually see in financing of infrastructure projects, what we have broadly seen is some of the basic simple concepts related to financing of projects. We have looked at the time value of money, the cost of capital, and we also look at some examples of capital budgeting.

And in the capital budgeting, we have actually looked at an example of an infrastructure project as well, but when you talk about infrastructure finance that is something very specific that is normally meant, about what do we mean by infrastructure finance. And in this lecture and in the following few lectures, we will specifically talk about some of the basic techniques, that is used in financing of infrastructure projects. Again now you like to reemphasize that when me talking about infrastructure finance in this course, we are specifically talking about private financing of infrastructure projects.

So, infrastructure projects that are normally funded by the public sector is not going to be form a major part of the discussion of this course, and we will restrict our focus to largely private financing of infrastructure projects. And when we talking about private infrastructure financing projects, broadly we can look at financing into to two categories; the first is corporate finance, and second would be project finance. And in this lecture, we will specifically talk about trying to understand, the major features of these two modes of financing.

And the differences between the two modes of financing, and we will spend substantial part of the time and discussing project finance. Because project finance is the format, the structure or the technique that is used in financing of infrastructure projects in a very, very common manner. Let us get down, let us quickly do roundup of corporate finance, if you really look at corporate finance that is a essentially how do companies make their


financial management decisions. So, corporate finance is nothing but how do companies make their financial management decisions.

If you really look at there are broadly two sources of funds, equity and debt, equity is the capital contribution by the owners and debt is a capital contribution by the lenders. So, in most circumstances the owners would not be able to make the entire contribution of that the investment needs. And therefore, they will put part of their contribution as sponsors capital and then remaining that borrowed will be the debt capital.

So, consequently we also have two kinds of investors in a company, the shareholders and the debt holders; in the investors who are invested in the equity are called as shareholders, and the investors who are provided debt they are called as debt holders. And it is very important in the world of finance to really look at how the different investors get returns. See for example, an investor would expect a return for investing in the project, and we will also expect the return of capital that is actually invested in the project.

So, the profit in a sense some the investment is a return that the investor makes, and it is very important that we understand this sources of return for both the types of investors. So, if you look at debt holders, debt holders will actually get interest on their investment, so in that sense the interest that the debt holders get is the return on their investment. And at the end of the loan term the company would also give, in the repayment of principal, so that is there is repatriation of their original invested capital. So, debt holders will get interest on their interest will get return on investment on the interest, and the capital will be by way of principal repayments.

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**Corporate Finance**

- Broadly sources of funds – Equity and Debt
- Two kinds of investors – Shareholders and Debt holders
- Debt holders get returns by interest payments
- Shareholders get returns through dividends and share price appreciation
- Debt holders have seniority in getting returns
- When a firm goes into bankruptcy, shareholders are eligible only for residual payments

Now, if you look at shareholders, how do the shareholders get their returns because, shareholders did not get any interest, but shareholders get what is called as share in the companies profits. So, there is companies profits largely are distributed to the shareholders by way of dividends, so the return to the shareholders are by way of dividends. And whenever, the shareholders get to sell their share to another investor or back to the company, they get return of their capital.

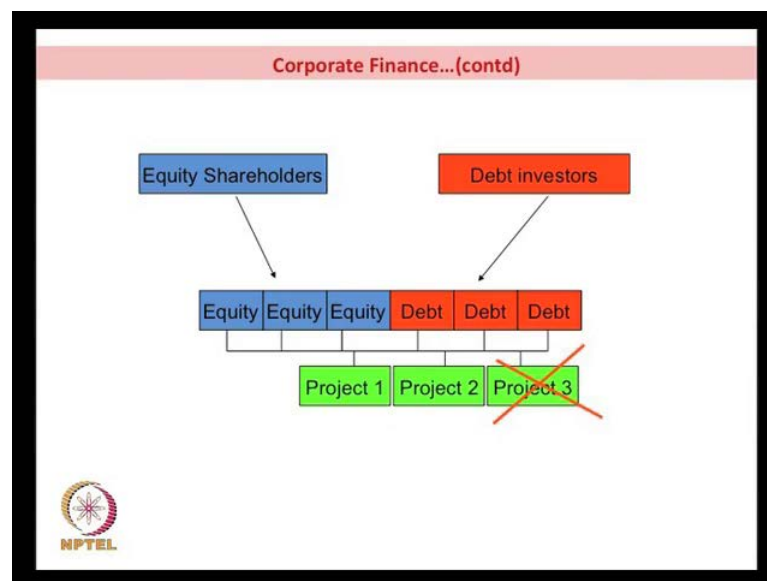
So, the way in which the return comes to both the investors are very different, in the case of interest, the interest is contractually guaranteed by the company when it borrows. But, as far as dividends are concerned, dividends are paid only when the company makes profits. So, therefore, dividends cannot be contractually guaranteed, and dividends are paid only after all the other obligations of the company has been service, so to that extent the shareholders get only residual payments.

So, there is also difference in terms of when do the investors get returns, debt holders get seniority in getting returns, so for example, debt holders are paid first before the equity holders can be paid. So, therefore, they have what is called as in the sequence of payments that actually happened to different investors, they have seniority as compared to the equity holders. The shareholders as we have just mentioned before, the shareholders get only the residual payments after all the other obligations of the firm has been met.

And for some unforeseen reason, if the firm gets into bankruptcy, then have the shareholders are eligible only for the residual payments, after the lenders and other investors in the company has been paid; so this is largely what is called as your corporate finance. Now, let us look at it in a listed way, so what happens when a firm actually identifies a project, the firm as actually identify a project, let us call it project 1. And this project 1 is funded by a mixture of equity and debt.

And how much of it is debt and how much of it is going to be equity, it depends on several things, it depends on the project, it depends on the industry, it depends upon the kind of the revenues, the certainty in the revenues that we actually see in the project, but never the less we can assume that each and every project let say get funded by a mixture of debt and equity.

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Now, if the company is been able to identify another project, let us call it as project 2 and obviously, when the company needs to make an additional investment, it needs more capital. So, therefore, the company expands it is existing base of capital, so what happens is the company rises additional equity, the company rises additional debt to meet the investment requirement of the second project. So, what do you actually see here is you have project 1, you have project 2 and the company is implementing both in the same structure.

The capital bases expanded, but then it is not really separated in terms of capital structure as two different entities. Now, let us say for example, there is another project we call it project 3, and if the company wants to implement this project, then the company needs to further enhance expand its capital base. So, that means, the company would actually raise an additional equity or additional debt, so this is a fairly simple way of looking at funding a project. So, many times what happens is the project 1, project 2 or project 3 need not always involve issuing of fresh capital.

See for example, if a project 1 is profitable, then the company need not pay the profit in terms of by way of dividends but in turn they can retain all the profits and then you use it as an equity investment in project 2. Similarly, for project 3 if the first 2 projects have been generating profits, then the company can retain the profits within the company not distributed as dividends. And then use the retained profit to meet the investment requirement of project 3.

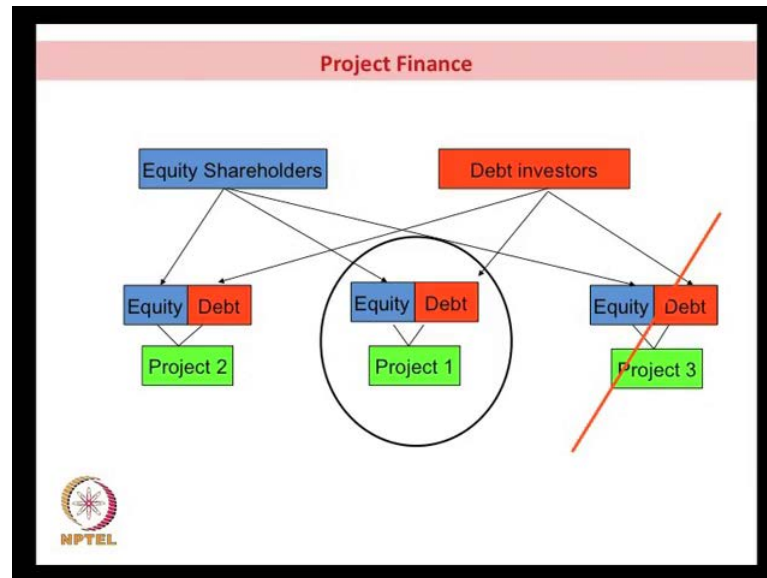
So, not always any new investment would involve raising of a fresh capital from outside investors. So, when I say outside investors, investors who are not part of the existing of firm, and you will have to probably bring in new investors, so that is what we own by outside investors. So, now, let us take this get it a situation that, unfortunately you have let us say for some unforeseen reason, there is a one of the project fail, let us say for example, project 3 as failed.

So, and there is project 1 and there is project 2 they are doing very well, but if there is a failure of project 3, then the company who has raised certain amount of capital for the purpose of investing in project 3. Then those investors who have particularly, those investors the debt investors who are invested for the purpose of project 3, they will have to be repaid from the cash flows of project 1 and project 2. So, just because, of particular project has failed, the investors in that project need not necessarily suffer, so this is essentially the principle of corporate finance.

So, if you really look at it even if there is a failure of a particular project, the cash flows from the other projects, other profitable projects of the company would be used to service the investors of the company. Because, essentially if you look at it the company might have actually raised money for a particular project, but then the investors are not looking at only the project to service their investment.

The investors are looking at the cash flows of the company for servicing their investment. So, therefore, even if the particular project fails, the cash flows from the other project are expected to service the return requirements of the investors.

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Now, let us look at project finance, how is project finance different as compared to corporate finance, so in a project finance like we have in corporate finance there is a project, and then the project actually has certain amount of equity and debt. And then the equity investors are the equity shareholders, and then we have debt investors, so this is a project that is being implemented. Now, there is another project and in the company is actually found the project 2 which is profitable.

And so far financing this project 2, the company would actually raise an additional amount of equity and debt. And they could be from equity shareholders, the same shareholders or it could be different shareholders, but necessarily this project 2 involve, separate class of equity and debt being issue. So, for example, if you have another project 3, then this project 3 is being funded by equity and debt, which again involves another set of equity shares, and debt being issued.

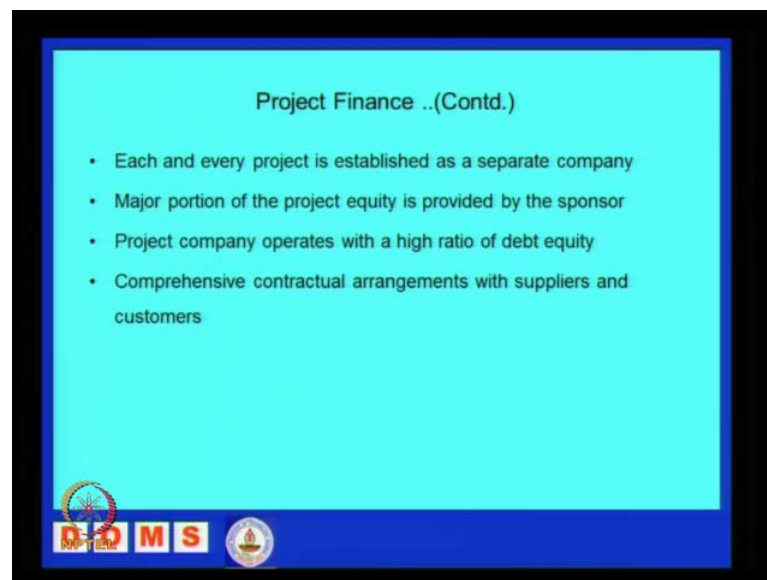
So, in essence if you look at it all three projects are there all separate entities, they are not part of the same corporate structure. So, an investor who is actually invested in project 1, is looking at only the cash flows from project 1 to service their return

requirements. An investor invested in project 2 this is looking that only the cash flows from project 2 to service their return requirements and so on.

So, therefore, when we have a situation that if one of the project fails, let us say for example, if project 3 fails then the investors who have invested in project 3 will not be able to get a return or recover their capital that they have invested in this project. Simply because, of the fact that project 3 is actually incorporated as a separate entity, and the lenders or the investors in the project will look at, only the cash flows from the project 3 to service their requirements.

And project 1 is the separate company, project 2 is a separate company these are all individual ring fringes entities, they are not part of the same corporate structure. So, the project financing nothing but financing of individual projects, and since this individual projects by themselves or individual companies. Then the investors in this project will have recourse to only the cash flows of the project, and not cash flows to the corporate structure or to the cash flows of other projects under the same corporation.

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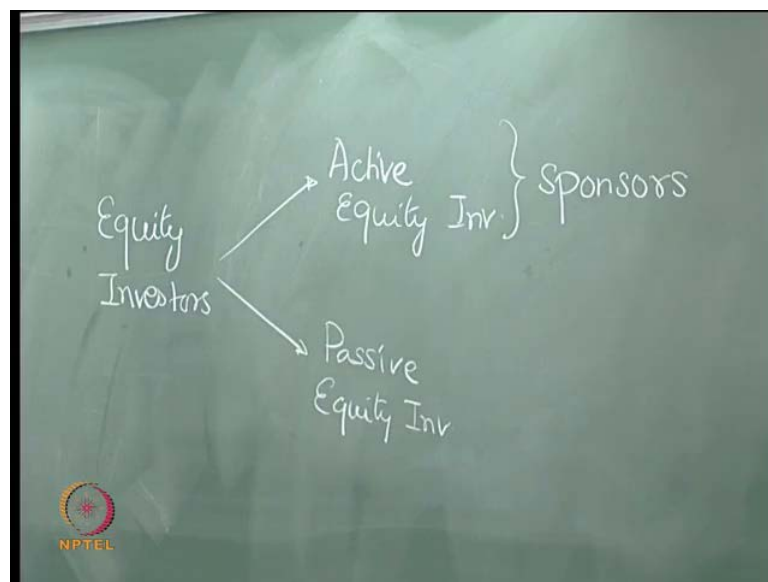


So, let us identify some of the major features of project finance company, point number one each and every project is established as a separate company. So, each and every project would when we actually look at a separate company, each and every project what have it is own financial statements, it have it is own set of shares being issued, it have its own set of lenders and so on. So, we actually have a company whose objective is clearly

defined, which is to actually operate and develop only the particular project for which it has been setup.

So, now if you have let us say for example, an additional project and a additional investment opportunity that emerges, then how do we actually do it. So, then what happens is the parent company or the holding company will actually have to setup, and another company and this specific purpose of a new company would be to implement the new project, develop and the operate new project. So, a major characteristic of project finance is each and every project is established as a separate company. Point number two major portion of the project equity is provided by the sponsor.

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See for example, if you look at it equity investors can be broadly classified into two categories, we have what is called as your active equity investors. And then you have what is called as you are a passive equity investors, so active equity investors are those who actually take major decisions, with respective of particular company. For example, in the case of power project, it could be like in what should be the capacity of a planned, what kind of technology should be used in setting up of the plant, what kind of fuel should be used, and what type of equipment should be actually use. So, essentially the set of a decisions, in major decisions pertaining to the operation of the company, are done by the active equity investors. So, active equity investors are those that are actually promoting the project, and so they are also called what is called as your sponsors.

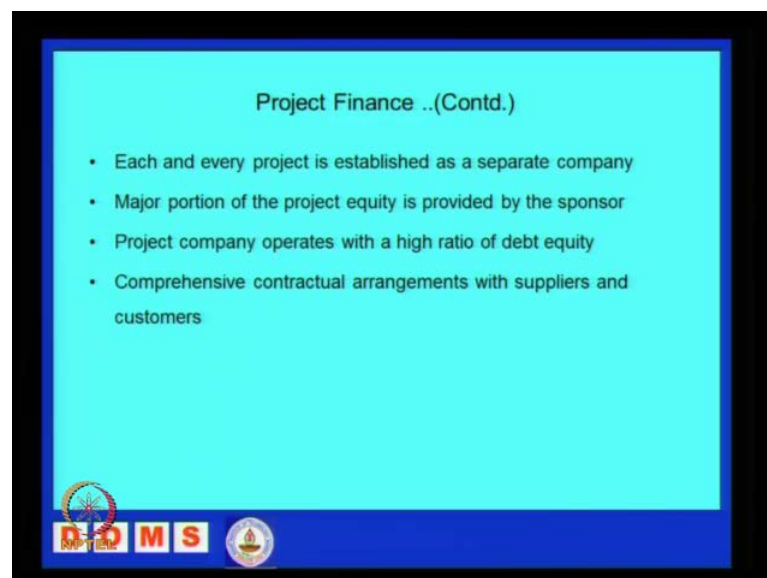


So, a major feature that you actually see in an project finance company is major portion of the equity is provided by this sponsor. So, part of the entire amount of equity capital that we actually see in the company, majority of them is actually provided by the sponsor; so passive equity investors are actually providing only minor part of the capital. The third feature that you actually see in a project finance company is, the project finance company operates with the high ratio of debt equity.

So, that means, we are saying that the leverage of on the firm is going to be very high, so when you really look at it on an average, if you look at all the companies in this universe and find out on the contribution of debt equity ratio, then you actually get a figure something like one third. So, or of the entire amount of capital invested in all the business one third of it is by way of debt, the remaining two thirds of it is by way of equity.

But, if you really look at companies which are using project finance structure, at a very, very broad level you find two thirds of the entire capital is by way of debt and the remaining one third by equity. So, you generally find in a project finance company substantial amount of capital is by way of debt, rather than equity investment.

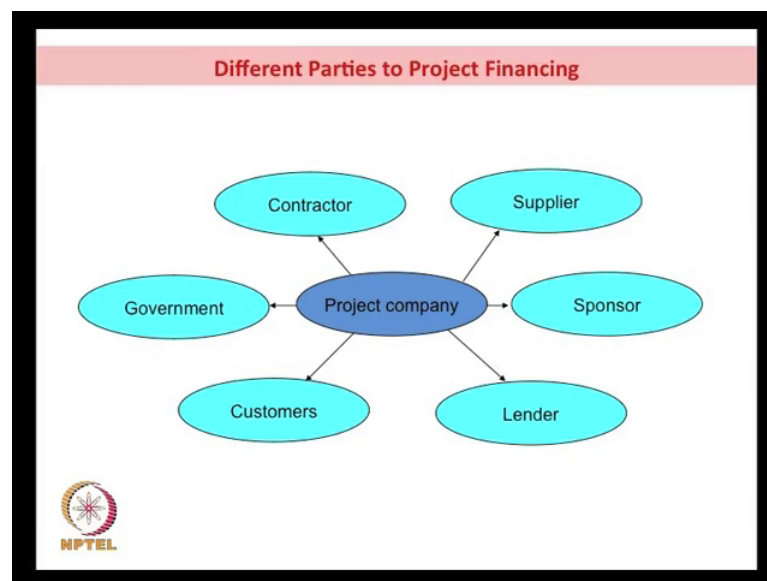
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So, this is a third important feature you will rarely find a project finance structure, and there are sound reasons as to why it should be the case, which will also see later towards the course. That project finance you rarely find a project finance company, which is

funded entirely by equity, as substantial part of in the company investment by way of equity, most of the investment is by way of debt. And the fourth major characteristics that you will find this, there is a comprehensive contractual arrangements with various stakeholders of a project. Now, it could be suppliers, it could be customers, it could be the government and so on and so forth. So, the contractual agreement is a very, very important feature and plays a very prominent role in the case of project finance company.

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So, let us look at some of the contractual arrangements that you will see in a typical project finance company. So, this is illustrative slide, so you have what is called as your project company, so project company it also denoted by several other means, see for example, very common clature project company is also called as special purpose vehicle. And we also tend to use this fairly interchangeably project company or Special Purpose Vehicle or SPV.

So, project company is also known as non recourse financing or limited recourse of financing. So, this terms that we actually see we will be using it fairly interchangeably, so there are very, very small ones some between let us say limited recourse, and nonrecourse which will understand as we go along. But, bind large these are used normally it denote what is private finance company, so in a project finance company let say for example, the most common contractual arrangements are, let say the there is a contractual arrangement with the customer.

So, in a power plant there is a power purchase agreement, so power purchase agreement is a contractual arrangement with the customer, which kinds of specifies. Like for example, what will be the price at which the power will be purchased by the customer, how much of power will be purchased, and for how long will this agreement be valued, and the power purchase agreement will also specify other conditions. Like what will be the number of days in which the plant will undergo maintenance in a particular year and so on and so forth.

So, there is very strong contractual arrangement with the customer, and then you have what is called as your lenders. So, lenders arranged the agreement between the lenders and the project company is called as the lenders agreement, so the lenders agreement will specify among several things, the conditions that are associated with a loan. What are the kind of compliances and cognates that the project company will have to meet during the term of the loan and so on and so forth.

And then you have an arrangement with the sponsors, so thus the rearrangement with the sponsor, and with the company is called as your shareholders agreement. And this actually specifies, the various features related to shareholding investment by the different sponsors in the project company, and then you have what is called as your suppliers. So, there are and there could be various suppliers, who will actually play a very important role in uninterrupted functioning, let us say of a power plant.

So, in a power plant if you look at it, you need to actually have an un interrupt supply of fuel for plan to operate. So, the project company will have to sign what is called as fuel supply agreement that is an efface, with the fuel supplier, so the fuel supplier, the fuel supply agreement with the fuel supplier will clearly mention what will be the amount of fuel that will be supplied. And what will be the kind of price, estimated price of this fuel supply, it will also mention the quality of the fuel that will be supplied and so on and so far.

So, unless until there is this kind of an agreement, the power plant is going to be exposed to a lot of uncertainty in terms of the availability of the fuel. And then we have an arrangement with the contractors, so there are for example, various types of contractual firms, who may be providing service to the project company. So, there could be the

maintenance, equipment maintenance and so on, so for example, most of the time there can be periodic maintenance done for the power plant.

So, since these are all not regular activities, most of those activities can be outsourced. So, there will be contractors and there will be agreement of this contract, who will provide such outsourced services, maintenance. And many times we actually also find situations where, the operations the regular operations are also being outsourced, it could be to other firms that are specializing in such operations. So, when you have this kind of outsourced services, you actually have an operating agreement and so on.

And during the project development phase there are also other related activities for example, you will have engineering which is to really do the designing, and development, and all of those things. So, those kinds of contractual services there is an agreement, and then there is procurement, procurement of materials procurement equipment time, you are testing. And all of those services, which again is kind of an agreement and then you have construction many times you will have to actually have substantially, a lot of construction activity involved in this kind of projects.

So, it is done by specialized construction firms, so you have what is called as your construction agreement, most of the time you decide all bundled together engineering procurement and construction, they are called as EPC contracts. So, EPC is a very, very important part of the contractual agreement that exists between, project finance company and a contractor. A similarly you also have, let us say in addition to fuel supply you also have an equipment supplier.

An equipment supplier is supposed to supply equipment of an appropriate standard, and quality to meet the engineering and design requirements. So, that is again you have an agreement with the equipment suppliers and finally, you have some kind of contractual arrangement with the government. So, in many cases infrastructure projects are actually how involving, so many other actors such as environment, such as roads and land on all of things.

So, these are all domains they normally come under the government, so the government usually gives, license, the government gives the concession for the project to operate. So, this is the an agreement that we actually have with the government, so for example, today if you really look at it, government gives license for on the telecom company is to

operate. And so the an agreement between the government and the project company, the government gives a concession agreement to the private airports, in the concession agreement clearly specifies or how long can the private operators operate the airport.

So, that is the concession agreement, so sometimes the concession agreement is of a permanent nature, but sometimes this actually have a fixed lifetime. So, in the case of toll road, the concession agreement also has a fixed lifetime, but there are a several other cases, where the concession agreement is more of a permanent nature. So, this licensing or concession agreement is the contract between the government and the special purpose vehicle.

So, if you really look at it you will find project company is associated with very, very strong contractual agreements, arrangements with various stakeholders. So, the questions that you have is, why is this contractual agreement an important part, it is an important part of any project finance company. Because, unlike you have within a corporate finance structure, here the lenders on the investors to the projects are only dependent on the project cash flows.

And only if the cash flows occur from the project, they will be able to get returns and repatriation of the investment. So, it is very important for a cash flows to be reliable, it is very important for the investors, the cash flows are certain and for that to actually happen the various stakeholders that are involve in insuring that certainty has to be, more or less kept in place. So, you have this kind of what at tied contractual arrangements, this ensures or reduces the uncertainty that are associated otherwise.

So, you have this kinds of extensive contractual arrangements simply because, of the fact that the investors in the project would like to assure or reduce the uncertainty of the cash flows. And this contractual arrangements is way of mitigating some of the uncertainties that might exist otherwise, so now, let us look at a situation where, let us say in the company does not have any agreement with the customers.

So; that means, in the case of a power plant, there is no power purchase agreement, so when there is no power purchase agreement, we are not very sure as investors how the project is going to get it is revenues. The revenues could be there, and the occurrence of this revenues depends on, so many other factors. But, if you have a power purchase agreement there is very, very clearly available contractual relationship, with the

purchaser which indicates that, so much of power generator will be purchased by the customer at such and such price.

So, this reduces what is called as your demand risk this reduces what is called as a market risk of particular project, and having a power purchase agreement will give a lot of comfort for the lenders, as well as the other equity investors in the project. So, the reliance only on the project cash flows, this a major reason why we have such extensive form of contractual arrangements, in the case of a project finance company. And it is very important for us to realize the fact that, unless until we have this contractual arrangements in place, we may not really have successful project financing closure simply because, the investors will not make an investment without this kinds of extensive contractual arrangements.

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**Development of Project Finance**

- Project finance was one of the widely used financing methods even as early as the 13<sup>th</sup> century
- The growth of project finance over the last 20 years has been driven mainly by the worldwide process of deregulation of utilities and privatization of public sector capital investment
  - Occurred both in developed and developing countries
  - Internationalization of investment in major projects
- Private finance for public infrastructure projects have happened even in the 18<sup>th</sup> and 19<sup>th</sup> century
  - Railway, water, gas, electricity, and telephone industries were developed around the world in the 19<sup>th</sup> century mainly with private sector investment

Now, let us really look at this project finance really a new thing or how has it evolved over a period of time and so on. See for example, if you really look at it, project finance is not something that is not suit of modern management practice, in fact it is there are evidences that this method of financing has been used, even as early as 13th century.

But, it might not have been known by the name of project finance, but essentially the principle of using cash flows from the investment to service the requirements of the project lenders, was something that was prevalent known for long even centuries ago. But, the dominants of project finance is been largely attributed to let us say from the

1990's onwards because, it is only during this time, there has been substantial amount of private sector capital of flowing in sectors like infrastructure.

The most of the time before that prominently world over the funding has been largely by the government for infrastructure. And such government funding for infrastructure does not really put in place, any major requirements of sound financing structures is only when we actually involved private sector financing, there is need for much more robust analysis of having sound robust analysis and the need for having sound financial structures.

So, consequently the development the growth of project finance happened from in the 1990's when there is been the worldwide trend of, let us say deregulation, of privatization, liberalization and opening up of infrastructure to the private sector. And it is the phenomena of that we see in a particular group of countries, and not necessarily we actually see project finance or privatization of infrastructure happening in both developed and developing countries.

So, you have today among developing countries, countries like India, you have substantial among of Latin America, are all attracting private sector capital, and they are dominating project finance in developing countries. Same you also find private sector investment in infrastructure in some other develop countries, not ably you find UK, you find Australia, where you actually have a private sector investment happening in infrastructure.


The second major reason for the growth of project finance is what do we call as internalization of investment in major projects. Earlier most of the investments used to be by way of domestic capital whatever investment used happen it play, international investment used to happen it will be list largely from them multi lateral agencies as for as developing countries are concerned. But, today in a private investors are willing to invest in a infrastructure projects in developing countries.

So, no longer are we dependent only on private sector capital and that to private sector domestic capital for financing this infrastructure projects. So, you find broadly there is substantial internalization, there is a lot of global investment happening in developing countries project as well. And when such global investment happens, we need to really have structure that can actually support, this kind of international investment. And

project finance is seen as one such mechanism, which can actually support this kind of international investment in infrastructure projects.

So, therefore, the growth in project finance is can be attributed to two things, one is there is from the supply side, there is a lot of now oversees of capital that are interested in investing in project developing countries. And then there is a demand side, there is a lot of private sector capital needed for developing infrastructure project, particularly in developing countries. And these two trends were major reason why we see project finance being implemented very, very dominant way of the last 20 years or so.

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**Development of Project Finance...(2)**

- Private sector project finance loan commitments totaled \$133 billion in 2001 as compared to \$47 billion in 1996
- Significant beneficiaries have been the power (48%, 38%) and the telecommunications sector (19%, 28%)
- Successive trends in project finance
  - Finance for natural resources projects (mining, oil, and gas), which occurred during the 1930-70's
  - Finance for IPP's initially in the US (after the Public Utility Regulatory Policies Act, 1978) and the subsequent worldwide process of electricity privatization and deregulation
  - Finance for public infrastructure (roads, transport, public buildings, etc.) developed through UK's PFI and PPP's
  - Finance for the explosive worldwide growth in mobile telephone networks developed in the late 1990's

So, there are various numbers that actually are being indicated, in terms of seeing how much we have seen private sector investment in project finance, and how much of it nearby way of project finance and so on. So, if you really look at it there are estimates see for example, as earliest 2001, there is about 133 billion of project finance loan commitments, and that has happened, and in the 5 years appeared to that, so 1996 the commitment as only 47 billion that in 2001 the commitment was 133 billion.

So, in his a span of 5 years the commitment of increased about 3, 4. So, this indicate substantial amount of growth that we actually see, in a project finance. And you also see that most of these targeted towards infrastructure sectors, so for example, if you look at it a power sector and telecom sectors has been major beneficiaries of on this growth and project finance. Most of a project in these two sectors, are actually implemented by a




project finance structure, so over a period of time there is been non trends that are actually expanded the front year of project finance.

So, if you really look at it in the thirties to the seventies of in the project finance largely seen, for natural resource projects such as mining, oil and gas. Now, those were investments that involve substantial amount of risk, and whenever there were private sector investment in this kinds of project. Most of it is actually on the basis of project finance, where the cash flows on the project where the only recourse that the lenders had.

So, that the they could returns on their investment, but as more and more infrastructure projects sectors, were being through upon for private sector investment. Then we actually saw such project financing structures being used in other sectors, as well for example, in the power sector when we had the concept of independent power producers emerging. The independent power producers, were actually funding their plans using project finance structure.

So, we are started with natural resource, than we started power and then subsequently we also looked that other public infrastructure, like roads, public buildings, transport. As more and more infrastructure sectors, were being through upon for the private sector, project finance sectors were being used in this sectors. So, in 1990's when there is been literally revolution in the telecom industry with the emergence of mobile telephony, we also seen many of this mobile telephone be actually done on a project finance basis.

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**Key Features of Project Finance**

- It is provided for a ring fenced project
  - One which is legally and economically self contained
  - Project is through a special purpose legal entity (company)
  - Only business is the project
- Usually raised for a new project rather than an established business
- High ratio of debt to equity: project finance debt may cover 70-90% of the cost of a project
- No guarantees from the investors in the project company (non-recourse finance) or only limited guarantees ("limited recourse" finance) for project finance debt
- Lenders rely on the future cash flow projected to be generated by the project for interest and debt repayment, rather than the value of its assets or analysis of historical financial results

So, to quickly kind of some of what are the key features of a project finance, it is provided for ring fringe project, when you say ring fringe project their only purpose of the project is to operate that particular asset. That operate that particular project, for which it has been set up for it is separate both by legally, as well as by other means from the other projects that the parent company or the holding company might be incorporating. So, the project is through a special purpose legal entity, so it is not a division within a company.

So, for example, if you really look at many large companies have divisions, so one division will actually be let us say for example, for particular line of business, another division for different line of business and so on. So, today you have let us say I knew of company called a imperial chemical industry, so imperial chemical industries had different businesses. So, it had business for paying, it had a business for rubber chemicals, it had several such businesses.

So, each of these businesses is where considered as separate divisions that there were all under the same company, the divisions were not separate legal entities. But, in the case of infrastructure projects, this divisions are not just entities within the larger company, but these divisions are separate legal entities. So, today if you really look at let say company like GVK or GMR, which are some of the leading private sector companies in infrastructure in India today, you will find several different companies under each of them.

So, for each and every project that they are implementing, there is a special purpose vehicle that has been created, and this special purpose vehicle is legally separate entity. So, for each and every project is not created as division, as a parent company, but it is created as a separate company with a separate legal entity, and the only business of this special purpose vehicle is a project. They cannot go head an acquire business, they cannot go head an expand to related business, they cannot actually go head and expand the capacity of the existing business, unless until that has been were originally mandated and so on. So, the only business is to operate, develop or the project for which it has been set up for, so usually it is project finance is created for is a new project rather than for an established business. You do not really find, when somebody wants to acquire an existing business that is established, you do not find deployment of a project finance and structure.

But, when you actually studying up a new project it is that time when, you use setup as a project finance structure. And we have also seen that, this project finance future by a high ratio of debt equity, sometimes debt make our as much as 90 percent of the cost of the project. And we also talked about two concepts, limited recourse and the non recourse, so nonrecourse essentially indicates at on the lenders to the project do not have recourse to the cash flows of the sponsors.

So, for example, if that is sponsoring company like GMR and it is created a special purpose vehicle, for let us say implementing 12 road project. The investors in the toll road project do not have recourse to the cash flows of parent company like GMR, so that is called as your limited recourse financing lenders, recourse is limited to the cash flows of the project at which they are investing, so that is a limited recourse. And a related term is called as nonrecourse, big a part nonrecourse is what we have just mentioned the lenders, do not really actually have of recourse to the cash flows or the parent company.

What is limited recourse, limited recourse is lenders have recourse to the sponsors cash flows, for a limited duration. So, what is this limited duration, when the project is being constructed project is being developed, till that time the project starts earning it is cash flows. Then the lenders will actually have recourse to the cash flows of these sponsoring company, but the moment the project, commences, operations then the lenders do not have recourse to the cash flows of this sponsoring company.

So, therefore, there is a time till which the lenders have limit lenders of rights to the project cash flows of these sponsoring companies. This is called as your limited, recourse limited in terms of time, limited till the time the project, commences operations remember the project can actually fail for even issues pertaining to the construction fails, the project development fails and so on.

So, at the time the lenders make an investment in the project on the basis that the sponsors have the capacity to actually develop and construct the project, so that it can begin operation. But, if these developers or the sponsors are not able to meet that, then now they will have to satisfy or ensure that the lenders get their capital back. So, till that time project begins operations, the lenders are making an investment on the basis of the sponsors strength.

So, therefore, they are able to get recourse to the sponsors cash flows should anything happen to the project. And we also see that, in traditionally lenders have recourse to what is called as the assets of the project, should anything happen to the project the lenders can see the assets, liquidate them and then recover their capital. So, the value of the underlying assets or the collateral security that the lenders expect to get, plays a very important role in the lending decisions.

But, as far as infrastructure projects are concerned the market value of the assets in plays or not substantially high, in the sense at the lenders cannot easily liquidate the assets. First is there are several restrictions by which they may not be able to see the assets and liquidate them, and second the assets are very specific in nature and there are very few uses, very few alternative users. And therefore, the lenders will not be able to realize much, they are going to liquidate the assets towards interest and that repayment.

So, therefore, more than the value of the assets in plays, the value of the project is dependent on the strong contractual arrangements, as well as the future cash flows that such contractual arrangements bring in. So, lenders mostly look at the future cash flows, rather than the existing asset, normally lenders also look at historical performance of the company. But, since we actually have project finance, only for new entities you do not really have historical financial performance. So, the common things that lenders look at historical financial results, as well as assets in plays may not be such a great feature in the case of project finance, what actually is going to be valued in project finance is the strength of their future cash flows, so will stop here.