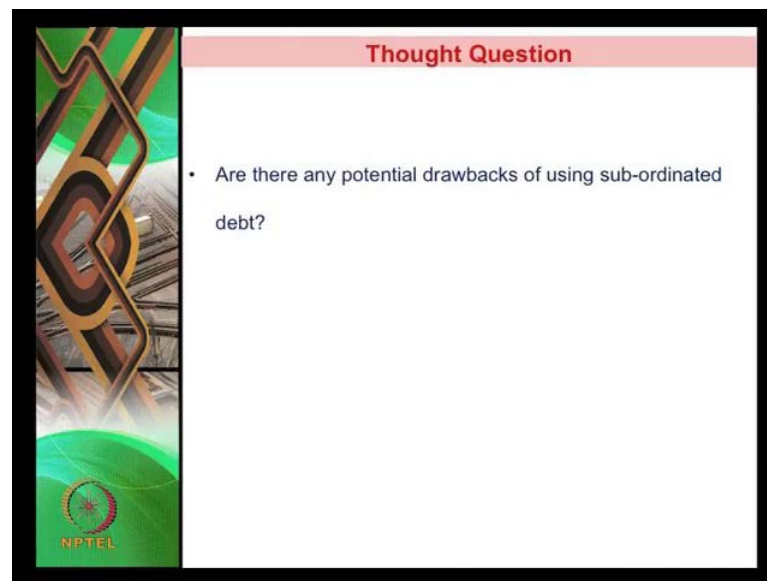


Infrastructure Finance
Prof. A. Thillai Rajan
Department of Management Studies
Indian Institute of Technology, Madras

Lecture - 22
Project Finance Markets - Type of Debt and Leasing

Welcome back to this course on Infrastructure Finance, this is lecture 22. So, what we will try and do, in this lecture is to try and understand little bit more about, some other elements of project finance markets. Essentially what will we look at doing in this lecture is to understand the different Types of Debt, and we also look at another commonly used way of mobilizing capital for project finance, which is Leasing. But before we do that, let us try and discuss on question that, we forwarded the previous lecture.

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So, what we read in the previous lecture is we looked at specific form of debt, which is called as mezzanine debt or subordinate debt, and within the question was are there any potential drawbacks of using subordinate debt. So, if you record, we will look at ways advantage of using subordinate debt, the main advantages are if you try in, if you subordinate debt, it increases the rate of return for the equity owners. Now, to actually summarize equity owners provides a part of capital straight equity and part of subordinate debt. So, then we looked at various reasons, how it can actually benefit.

So, when they actually do that, it actually potential increases the internal rate of return for the sponsors and second it also reduces the cost of capital, because the cost of subordinate dept is going lower than, the cost of equity. And then we also formed, using an example of that, it helps to avoid a potential dividend trap, because the features associated with subordinate dept. Then the initial years company's would be finding difficult to declare a dividend, though they have positive cash flows, because the fact that, they will be making losses.

But, when you actually have subordinate dept, they interest payments on subordinate dept will help to avoid, the dividend trap that might otherwise arise. So, these are the sum the advantages that we have actually seen, the use of mezzanine and subordinate dept, but the question is are there any potential drawbacks of using subordinate dept. So, to answer this, let us go back to the example that we discussed again.

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	0	1	2	3	4	5	6	7	8	9
Depreciation %	20%	20%	20%	10%	10%	10%	10%	10%	10%	0%
Depreciation	800	800	800	400	400	400	400	400	400	0
Accumulated Dep	800	1600	2400	2800	3200	3600	4000	4000	4000	4000
Residual book value	3200	2400	1600	1200	800	400	0	0	0	0
Principal repayment %	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Principal repayment	320	320	320	320	320	320	320	320	320	320
Loan outstanding	3200	2880	2560	2240	1920	1600	1280	960	640	320
Interest expenses	256	230.4	204.8	179.2	153.6	128	102.4	76.8	51.2	25.6
Subordinated repayment	0	0	0	0	0	0	0	0	0	0
Subordinated interest	75	75	75	75	75	75	75	75	75	75
Total interest payment	331	305.4	279.8	254.2	228.6	203	177.4	151.8	126.2	100.6

So, this was the example that we discussed previously, where the total investment was 4000 and it was actually financed by dept and the equity portion is coming in two forms, as subordinate dept and equity. So, we actually looked at the various cash flows associated with this project, and how the returns or actually going to the investors.

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	A	B	C	D	E	F	G	H	I	J	K
Cash Flows											
EBIT		150	200	250	265	280	290	310	720	750	
Taxes		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	170.2	
Depreciation		800.0	800.0	800.0	400.0	400.0	400.0	400.0	0.0	0.0	
Free cash flow		950.0	1000.0	1050.0	665.0	680.0	690.0	710.0	720.0	579.8	
Interest expenses		331	305.4	279.8	254.2	228.6	203	177.4	151.8	126.2	
Principal repayment		320	320	320	320	320	320	320	320	320	
Cash flow to equity		299.0	374.6	450.2	90.8	131.4	167.0	212.6	248.2	133.6	
Sponsors payoff if senior and sub-ord debt is used											
Begin year equity		300	119.0	13.6	-16.2	-15.7	-13.1	-8.7	-2.1	26.3	
Net income / loss		-181.0	-105.4	-29.8	10.8	51.4	87.0	132.6	568.2	453.6	
5% reserve		0	0	0.0	0.5	2.6	4.4	6.6	28.4	22.7	
Dividends		0	0	0.0	10.3	48.8	82.7	126.0	539.8	431.0	
End year equity		119.0	13.6	-16.2	-15.7	-13.1	-8.7	-2.1	26.3	49.0	
Payoff subord + Div		-800	75.0	75.0	75.0	85.3	123.8	157.7	201.0	614.8	506.0
IRR dividends			17%								

I am actually go to the section, which talks about, the sponsors payoff, when we actually have senior and subordinate dept. So, when you look at the internal rate of returns, it is 17 percent, when we actually have senior and subordinate dept, but when we actually, use only senior dept was substantially lower. But, now the question is if you look at the beginning year equity in these years, it is actually negative.

So, what can this actually mean, so when the company is having negative equity technically, it cannot function, when a company which having negative equity then it should be resolved and then the proceed will have to be dipartiated to the investors. So, when a part of the equity holders investment comes as subordinate dept then the actual level of equity in the company is much lesser, as compared to a equation where the entire investment by the sponsor comes in as equity.

And when the number of the amount of the equity is lesser then the beginning year equity can actually, become negative very fast as compared to a situation, where the entire investment by the sponsors equity. And this is a situation, if it occurs for the company to sustain the operations additionally equity is to be formed then so that the negative equity turns to be positive. Now, this is a further drain on the investment requirements of the sponsors and it needs to be taken care of, in some countries regulations do not permit a company to operate with a negative equity.

And such regimes needs to be understood properly, before we can consider using actively subordinate dept to financial project. So, this is a drawback of using subordinate dept, which is the possibility of equity being erodent is real and additional sums needs to be obtain, if the company needs to function. Now, let us go back to the topic of lecture, first we will talk about type of dept, but we really look at dept, we consider dept in a very full holistic fashion so far, but then there are different types of dept.

So, what are we going to look at today's lecture is, broadly the difference types of dept, we have what is called as a base facility. And then we will talk about the working capital facility then also we have something called as a standby facility. Then there are some associated characteristics of a loan, which is loan remuneration and loan currency, so first let us look at a base facility.

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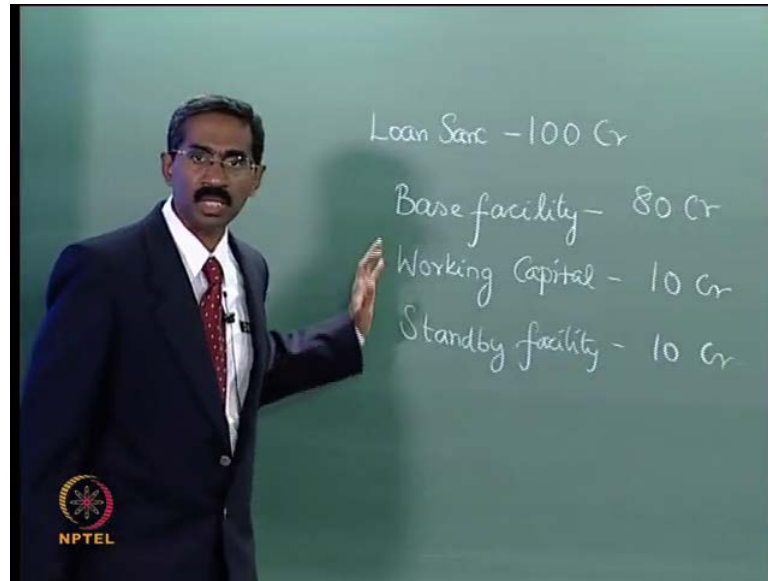


Base facility

- Constitutes the majority of the financing
- Used to finance construction and will be repaid from cash flows generated in the operating phase
- Tight loan utilization clauses, very little discretion to the SPV on how the loan can be utilized
- Repayment of loan reduces the loan outstanding and the base facility is not a revolving credit

The technically speaking, let us say for example, the company gets a loan function of about, let us say 100 corers.

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So, this is a loan that has been sanctioned, now this loan sanction can actually be dividend to various categories, let us say for example, there is a base facility, which is about, let us say 80 corers. And then there is working capital facility, which could be about, 10 corers and then there could be what is standby facility? So, these are all illustrative values just to show you an example, so when we really look at the different types of facilities, there are diff conditions attach to each of the facility.

For example when we can actually use a facility, the kind of interest rate, for each of this facility, what are the that covenant that needs to be followed for enjoying each of this facility could be very different. So, though the entire loan value is 100 crores, it is further split into different types of facilities. So, now let us look at a base facilities to start with, so essentially, if we look at the total loan amount, the base facility construed the majority of the financing.

So, this is financing that is use to finance construction and it will repaid from the cash flow generated in the operating phase. So, essentially this is a phase that actually use to finance construction, development that, because of the fact that, when the project is being constructed or when the project is being developed, there are no enforce to the project, the project does not generate any revenues. So, therefore, the base facility will be repaid when, the form starts generating revenues or the form starts to be in operation.

So, though the basic facility is being utilized, during the construction phase, they actual repayment starts happening only, during the operation. So, whenever a base facility is being sanctioned, the base facility is clearly specifies for the purposes that, which it can be use for example, is it for construction, is it for purchase for equipment, is it for some of the other arrangements like, design engineering and so on.

So, there is a very, very clear specification in terms of what the loan can actually be used for and there is very little description on the part, if SPV. So, for example, if the equipment cost is actually lower than, what is been estimated can the balance be actually use for some other line item. So, that is something that is going to be very difficult may actually need to go back to the lenders for the approval, before such a appropriations can be done from one hand to the other.

So, the loan is very, very clearly specified for, what it has been used for, so whenever the loan is repaid, it actually reduces the total outstanding of the base facility, so it is not a revolving credit. So, for example, you have actually taken 80 corers base facility loan and when you actually repay 10 corers then the total amount of loan gets reduced to 70 corers. So, it is not something that, when you actually repay, you actually continue to enjoy revolving credit, you will have to we will have to take fresh section of the base facility, as when you need it. So, in some terms, this is different as compared to what is a working capital facility, now what is a working capital facility.

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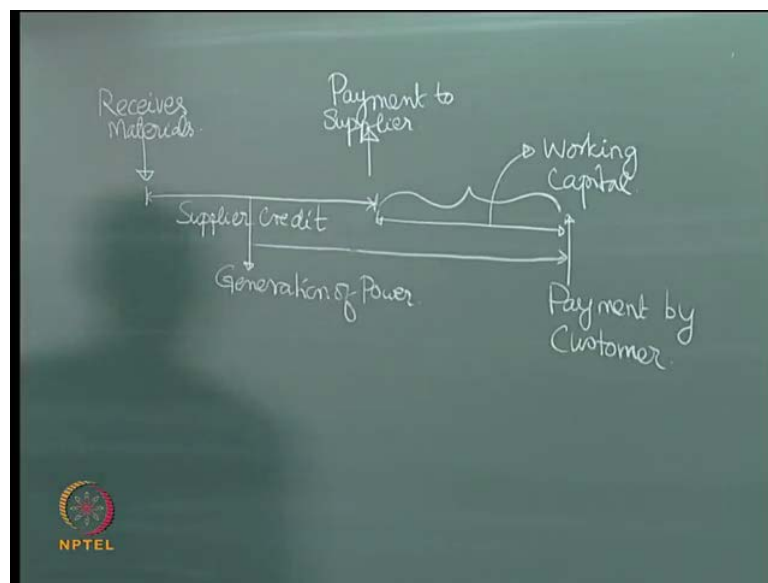
Working capital facility

- This facility is intended to finance any cash deficit arising as a result of the cash collection cycle
- This is usually a revolving credit
- Working capital facility can be utilized only after the project begins operation

So, working capital facility is a loan, which is intended to finance cash deficit, arising as a result of the cash collection cycle. So, while major difference that, you see working capital facility as compared to a base facilities, working capital facility is largely used, when the project begins operations, whereas the base facility is use during the construction and development phase. So, when the plan begins operations, it needs cash for variety of purposes, for example, you know it need a purchase raw material, you need to hold it for inventory for certain amount of time.

And then when you actually sell the product or the service, it takes some times for the customer to pay. So, that is something called as, account receive will period, before we can actually start revenues. So, there are several ways, in which the company needs to company needs cash and the working capital facility is essentially loan arrangement, which helps accompany to un to meet the good cash deficit that can arise, because of a differences of the cash collection cycle. So, let us kind of look at, what could be a cash collection cycle.

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So, to start with a let us say the company receives materials, the company receives materials, so when the case of let us say power planed, the power plan, let us say needs to purchase fuel like coal, so what. So, there are some raw material that are needed, so when plan receives a material and after some time planed pays the suppliers, there is a

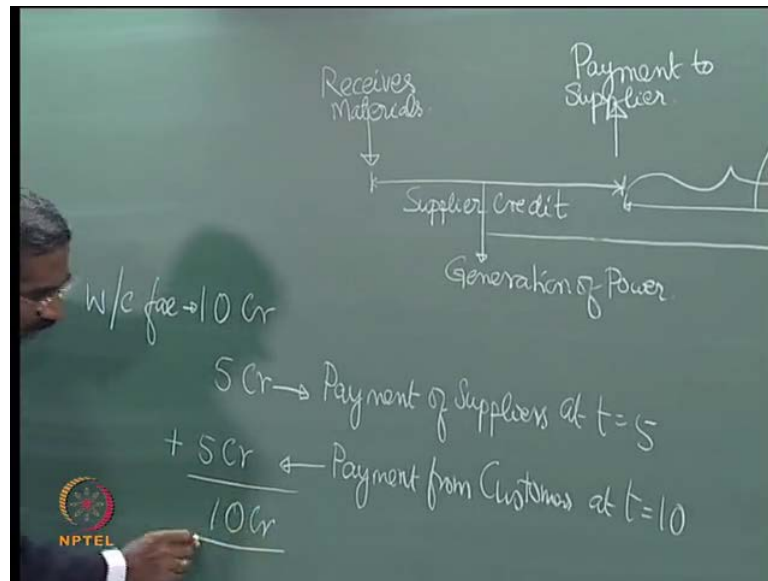
payment of suppliers, payment to suppliers. So, this is what is called as your, supplier credit right, this is your supplier credit.

The supplier is not paid the same time the company procures raw material, but it actually has a credit payer and then it pays supplier that end of, lets for example, using these raw material, let us say the company generates power and it sells a power generator, to let us say the distribution company. So, say I the company generated power of this point in times, so generation of power and for the power that is been generated, the company receives payment at this point, so this is when payment is made by the customer.

So, what you actually see is you need certain amount of cash, to pay the supplier, because there is a delay, it is going to take a lot more time for to get the payment by the customer. So, this is what is called as gap, in the cash collection cycle, for example, you are collecting cash at this point in time, but cash needs to be paid to supplier at this point in time. So, this gap needs to be bridged at somehow and usually, this gap is bridged by what is called as a working capital facility.

So, working capital facility is essentially, used to meet, this gap in the cash collection cycle. So, normally this cash collection cycle occurs, only on the plan starts to begin operations and that is when, we actually use the working capital loan. And the second important feature of the working capital facility is, this is usually a revolving credit, so a revolving credit is the sense that, you are actually given a credit for a certain amount of time and till that, particular amount of time, you can continue to use, the credit facility and as soon as you reparation, let us say for example.

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The working capital facility is sanctioned as 10 corers working capital facility sanctioned as 10 corers, now let us say for example, you have used 5 corers out of it is to pay the suppliers payment of suppliers at time t is equal to let us say 5. Now, you are receiving payment, from the customers at time t is equal to 10 and when, you receive the payment, you are actually able to replenish payment from customers at t is equal to 10.

So, you are able to replenish, the working capital facility, using the payment that has been received by the customers, then at the end of it you actually have, a total facility outstanding as a total facility is available to be placed as 10 corers. You have taken 5 corers and you replenish it and then replenish that is available, after the replenishment is 10 corers. Now, you can again continue to utilize 10 corers, whenever there is a cash short fall in the cash collection cycle, you do not have to actually take fresh approvals, for each and every time that you need to utilize the working capital credit.

So, if the credit is sanctioned, for let us say 3 years, so you during the 3 year period, you can continue to use any time to the extent that, your credit has been sanctioned. Now, if your requirement the credit facility that has been sanctioned, there in the case, you will have to go back to the lenders and ask for an increase in the facilities that has been sanctioned. So, for example, when your synced limit is 10 corers, you are not make a payment to supplier out of this credit to the extent of 15 corers, because that is above the limit of the sanctioned at any point in time.

The total facility outstanding can only be sanctioned. and you have actually start paying interest only to the extent that, you have utilized and for the time that, which you have utilized. So, if you have working capital facility sanctioned, but you have no utilized it at all, then you do not have to pay any interest on the other hand, if you actually utilize working capital facility of 10 corers, but you utilize only 5 corers. Then you actually pay interest only for the 5 corers that, you have utilize and for the period that, you have utilized.

So, in this case for example, you have taken a 5 corers credit of this working capital facility at t is equal to 5, but you replenished it, at t is equal to 10. So, you will have to pay interest only for this 5 time periods right, you do not have to pay the interest rate for that entire of entire and so on. So, this is about working capital facility, it is a revolving credit, in some sense it actually functions very much like the credit card that, we actually use.

So, you have a sanctioned credit limit, you actually start purchasing against sanctioned credit limit and whenever you actually get, a bill using credit card bill in a monthly billing cycle, once you pay the bill then you continue to enjoy the credit amount that, you originally have. So, this is a very similar revolving credit, I good example of revolving credit is a credit card basically that, most of us use and then as I mentioned before our working capital facility can be utilize only after the project begins operations.

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Stand-by facility

- Additional debt made available to cover contingencies arising during the projects' life cycle
- Broadly two types:
 - Only utilizable to cover additional costs to those estimated in the budget
 - Utilizable to cover additional costs after the base facility has been utilized
- Several measures are put in place to ensure prudence in withdrawal of stand-by facility

Next we look at as a standby facility, a standby facility is a facility, that is as a name suggest is only available for exigencies and for un whenever, there are circumstances that has not been predicted. This is an additional dept made available to cover contingencies that can arise during the projects life cycle, so for example, suddenly, there has been increase in the equipment cost for various reasons.

Suddenly, there has been increase in construction cost, so this were not estimated, before during the budgeting, during the project budgeting and in such circumstance, whenever this kind of event occur, then standby facility can be utilized. So, if we look at the standby facility, they are broadly classified in 2 types, one is they are only utilizable to cover the additional cost to those estimated in the budget. So, whenever there is a increase, let us say there is a equipment increase then you can utilize the standby facility.

The other category is they are only utilizable, after the base facility has been completely utilize, see for example, though there could be specific increases in let us say equipment cost or construction cost. But, if they are actually a compensated by reductions and some other items, then a the standby facility is not utilized standby facility is utilized, only after the base facility has been completely exhausted. So, the example that, we talked about, let us say for example, out of the total loan sanctioned of 100 corers, the standby facility is let us say 10 corers.

If the project is executed as per, what is been budget at then the standby facility will not get utilize at all, because the project is been able to use the budgeted cost for the equipment, construction, design, engineering and so on. So, this will never get utilize, this is that emergency purpose and to insure that, whenever there is a cost increase the project company does not go back to the bankers again in search for funds, which can actually delay the project.

So, to insure that, the standby facility is been used with prudence, normally the visual of standby facility, there are lot of restriction in post on it, for example, there has to be a special approval taken by the lenders for utilization of the standby facility. The committee of lenders is usually formulated and the project sponsors will have actually make a presentation as to why, they will have to use standby facility and what are the reasons, why the project cost has exceeded budgeted amount and so on.

So, there are restrictions, which are imposed on the project company to insure that, the standby facility is not misused. So, let us talk about loan remuneration now. So, loan remuneration is nothing but the interest that paid on a loan, so as we have seen earlier the congests, if 2 parts one is your bench mark rate and the other is your spread. So, bench mark rate is a bench mark that is normally, used ah to price a loan. So, it could be a interbank operate, so in the case of international the interbank is commonly used as LBO London bank operate.

So, in the case of let us say Indian markets people sometime use, what is called as a Mumbai interbank cooperate called MIBO, sometimes the bench mark rate is also in a march to a specific lending rate something called as a prime landing. So, you have what is called as a bench mark rate, so the bench mark rate keeps changing depending on a various conditions in the economy.

So, sometimes because of RBI inter bench mark rate, the bench mark rates changing, sometimes because of other developments in the markets like inflation, the perceptions of risk and economic growth and all of this can actually have influence on. So, the bench mark rates keeps changing based on these changes the market base and then you actually have what is called as a spread, the spread is actually the premium to capture for the project risk.

So, if the project is consuetude to be more riskier than, the spread will be higher, if the project is consuetude to be less riskier than, the spread will be corresponding low. So, normally the loan interest consist of bench mark rate, you all we all know that, the bench mark rate is not constant, the bench mark rate can keep changing. But, what the question that, we have now is this spread, is a spread constant throughout the loan period or the spread also keeps changing. So, it can be both ways, the spread can be fixed over the entire loan term or the spread can also vary.

But, the most frequent is to actually, have an increasing spread of time that is the spread is not constant, for the entire loan term, the spread keeps changing. So, the normal trend that, we see is doing the construction phase, the spread is having is normally lower and it increases as a project gets into operations, for example that is always a step up, in the spread once a project bring operations and during a first few years of operation spreading increases slightly.

And then it increases further and reaches a definitive level of about 4 to 5 years of operations, so now, the question is why does a spread keep up increasing as a project begins operations. So, there are different ways to actually look at it, first is when you actually increase, when you actually, when as a loan term increases the cost of the loan also increases, the long term loan is actually, more costlier as compared to short term loans.

So therefore, the spread increases as you actually increase a loan term and that is one, second is a when banks are actually making loan, the banks actually want to encourage or the project company to pay back the loan faster than later. So, when you actually increase the spread that is actually giving a incentive for the project company to repay the loan at much earlier. For example, the project company can refinance a bank loan from some other sources and then settle the loan that by taking advantage of a lower cost or if they can avoid, they hire the cost that can occur, if they actually, repay the loan over a longer time.

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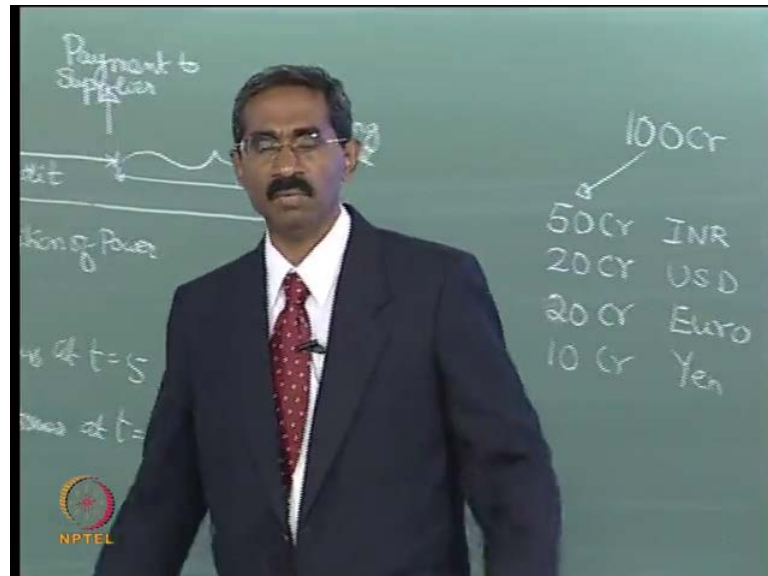
Loan currency

- Loans can be disbursed in the currency of the host country or in foreign currency
- When the loans are provided in more than one currency, it is known as multi currency arrangement
- General rule is to take loans in the home country currency to avoid exchange rate risk
- Currency decisions are made depending on interest cost
- When invoices are in foreign currency, projects take foreign currency loans
- It is very difficult to get hedging contracts for long duration

We also talk about a loan currency, so loans can be you know given in 1 currency, loans can be given in multiple currency and in most of the cases, what we see is loans are actually dispersed the currency of the most country, but they can always be differences. The loans can be distributed either in the currency of the host country or sometimes in

foreign currency as well, sometimes, what you actually have is the loans can be provided in multiple currencies, let us say for example, you have a loan of 100 corers.

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So, this 100 corers is dominate in the rupees, but then you can actually say 50 corers will be in Indian rupees the remaining 20 corers, let us say it could be in US dollars and the remaining 20 could be in Euro's and the remaining 10 corers could be in Japanese yen. So, we can actually have a situation where sanction loan amount can be dispersed in multiple currencies, now why would people want to take loan in this multiple currency that is a different that, we will come shortly.

But, you have to aware of the fact that, loans can actually distributed in multiple currencies, so whenever we have a loan where, its probability of more than one currency, it is known as a multicurrency arrangement. But, what is a general rule, the general rule is to take loans in a home country currency to avoid exchange rates, what is exchange rates risk, normally what happens is you actually start getting revenues in the home currency.

But, then when you actually have to repay the loan in a foreign currency, the home currency needs to be converted to a foreign currency and then repay. Now, the conversion rate is something that cannot be predicted of rend and the conversion rate keeps changing. So, whenever the conversion rate is not fixed and keeps changing, than the project then the company is exposed to what is known as the exchange rates risk. So,

to avoid the exchange rate risk, it is normally considered, to actually borrow only in the currency of the home country.

But, then there are several reasons, why people borrow in a currency, other than a home country, for example sometimes the cost of interest in a foreign currency can be lower than the cost of interest in a home currency. This is very typical of what, we see in India, if you actually borrow rupees, you actually end up paying much higher interest rate as compared, to when you actually borrow in US dollars, because the cost of borrow in dollars is lesser as compared to a cost of borrowing in rupees.

So, therefore, project companies find it appropriate to borrow in a foreign currency and whenever they borrow in a foreign currency, they actually do what is called is a they would not actually, need they would not need the investment in rupees, then they need to convert the foreign currency into Indian rupees. So, usually they have what is called as a swap contract, so there are banks, which are called as a swap contract, where the dollars are swap to rupees.

So, when you actually go for a swap contract, there is a cost in word for this contract, so you have to consider along with a lower interest cost, you will also have to consider the additional cost of this swap contract, when deciding to go for a foreign currency loan. And then there is what is called as your exchange rate risk, sometimes you can avoid the exchange rate risk by going in for zing contract, so that you can hedge and then you can fix currency conversion rate.

So, whenever you are going for this kinds of zing rates, there is a separate cost attached to this zing, so we should not only look at the lower interest rates, but which is also account for factor in the additional cost for swaps and additional cost for hedging, whenever you are desiring on the currency, which you are going to borrow. So, this additional cost is not needed, when you are actually borrowing in a home currency, you do not have to actually do a swapping, you do not actually have to hedge against conversion interest.

There are other reasons sometimes, why you actually take a loan in a foreign currency sometimes in the invoices or in a foreign currency, it is better to pay them, in a foreign currency. Let us say you are actually importing an equipment from the us and the invoice is the invoice made by supplier is US dollars, then if you can actually, pay the supplier

US dollars by borrowing abroad, it actually saves a lot of other cost. For example, if you actually have to pay in US dollars and you actually have rupees, then the rupees needs to be converted to dollars using a swap contract and then it has to be paid to the supplier.

So, there is an additional cost in world in the swap contract, so whenever, you have situations like this, then company sometime prefer to borrow in a foreign currency. It is also important for, remember in mind that, it is going to be very difficult to actually have a zing contract for a longer duration, a projects have a longer life. So, in many cases the loans the borrowings are also for, a longer duration, it could be a 5 year loan, 7 year loan and so on.

And if you want actually hedge the conversion risk, it is not possible actually to find a product for, such a longer duration or may possibly actually have hedging product available to mediate the conversion rates for up to about 18 months or up to 2 years. But, longer than that it is going to be very difficult to find a hedging contract today, so it has to be done on a rolling basis and whenever, it is done on a rolling basis, we are exposing our self risk of the conversion rate that exist in a point in time.

So, the bottom line in terms of deciding, on which currency to borrow, based on not just the interest cost, but it is also be considered the additional cost that are involved. For example, it will look at a swapping contact, you will look at the hedging contract account for all this cost, when deciding on, what kind of currency that we need to borrow.

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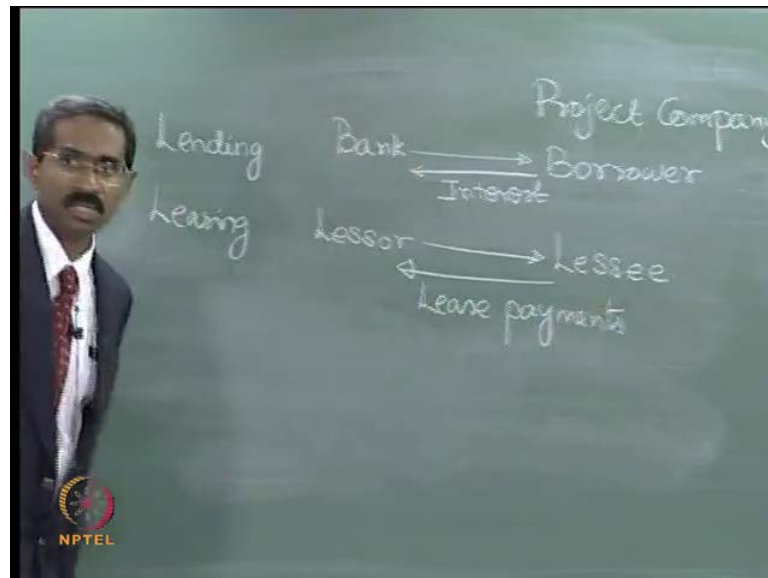


Leasing

- Lessor provides the asset to the lessee, who is compensated by lease payments
- Generally two types of leases: Financial leases and operating leases
- Lease structure: Leveraged lease and guaranteed lease
- Advantages of a lease:
 - Lower cost of finance – leasing company can get a lower interest rate as compared to the project company
 - SPV may not be in a position to claim all the tax benefits of depreciation in the initial years of operation

Next, we look at what is called as a leasing, so leasing is form of getting capital, but in a different, in a very different way. So, let us kind of quickly look at how, what is a leasing transaction.

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So, you have what is called as a project company, so let us start with lending transaction, in a lending transaction, there is let us say a bank, the bank provides a loan to a project company. So, the project company becomes the borrower and then in a leasing transaction, there is what is called as a loser and then the lesser losses the facility to the project company and then the project company is known as your lessee.

So, a project company becomes your lessee in a leasing transaction and then leaser is similar to a lender or a bank lending transaction, where leaser provides a facility for the project company. So, what exactly is leasing for example, when we actually, let us say go and lease a house, this is very similar, in the case of let us say projects as well, we can go ahead and lease an assets from a leaser and then the loser makes payments. And then the lessee makes a payments to the loser to compensate for to utilize the asset. So, in the case of lending borrower phase, let us say interest borrower pays an interest, for the loan taken and then the case of leasing transaction, the lessee pays, what is called as your lease payments to compensate or utilization of the asset. So, generally you have 2 types of leases, financing leases and operating leases.

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Leasing

- Lessor provides the asset to the lessee, who is compensated by lease payments
- Generally two types of leases: Financial leases and operating leases
- Lease structure: Leveraged lease and guaranteed lease
- Advantages of a lease:
 - Lower cost of finance – leasing company can get a lower interest rate as compared to the project company
 - SPV may not be in a position to claim all the tax benefits of depreciation in the initial years of operation

So, difference in a sense that in a financial lease, the lease cannot be cancelled midway where as in an operating lease, the lease can be cancelled. So, what actually is a leasing transaction, let us take for an example, you would not actually utilize an asset for example, it could be a simple case of car, you can take actually a car on a lease, instead of buying a car yourself.

And then as long as you are using the car, they will continue to pay a lease rental to the leaser and fund fine day your do not actually, need the asset any longer, you can cancel the lease and then you can transfer the asset back to the loser the car goes back to the loser. So, this arrangement is there in many industries today, let us take for an example take the aircraft industry, many of the airlines companies do not own all the aircraft that they operate, they take it on lease from airline lease aircraft leasing companies

And then when they no longer need the lease the aircraft is returned back to the loser, so for the period that, they actually utilize the aircraft, they have to start making lease rentals. So, we also see these kinds of arrangement in shipping companies, many shipping companies do not own the ships that they operate, they actually lease it from, leasing companies, so there are specialized companies that, actually provide leasing of these kinds of assets and when you no longer need the assets, you actually give it back.

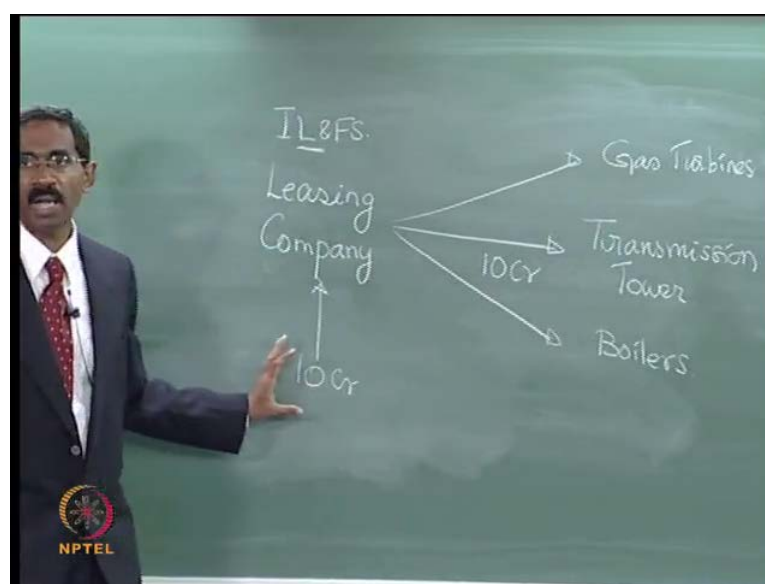
So, this are all mainly called operating leases, you can cancel the asset and you need not utilize the asset, for the entire life of the asset and then there is something called as a

financial leases. So, financial leases cannot be cancelled in a sense, because the loser in this case is not traditional company that actually is in the industry, but the loser in this case is actually financial company, which actually provides the asset to the lessee, but it actually provides the financing, for the assets on, it is balance sheet.

So, there is a difference, so whenever you are actually, let us take aircraft on lease and when you actually give it back, give back the aircraft to, the aircraft leasing company then the aircraft leasing company can lease these aircraft to another airline and it can start receiving lease rentals. But, in the case of financial lease, the lease the loser is not a company, which is having any relative for the asset, but it is a financial services company and the financial services company, let us say for example, does not have any utility for the asset that it has financed in leasing transaction.

A leasing transaction can be for anything, it can be let us say for example, for a transition power a project company can borrow to construct a transmission power or it can actually, lease a transmission tower, that has actually been financed by a financing leasing company. So, when you actually cancel, a financial lease midway, the asset does not have any use for the company that has providing the financial facility. So, therefore, financial leases cannot be cancelled midway, so there is another way to categorize leasing, which is called as a leverage lease or a guaranteed lease, let us see how does it works.

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So, you have a leasing company, finances the asset, for let us say for example, in this case the asset is a transmission tower, a leasing company can finance any kind of assets let us say for example, it can finance, let us say gas turbines. So, it can finance, let us say boilers, so essentially, leasing company is a financial institution, which provides a financing solution to a project company, but a financing solution is not a dept, but is actually a lease.

So, that is a difference in between a borrowing transaction and a lending transaction, now this leasing company is different from, let us say in a asset leasing company, such as aircraft leasing company. So, a aircraft leasing company can lease only aircrafts, it cannot be used for providing a financial solution for any other types of assets. So, there is a difference between a leasing company that, provides you know, a financial solution, which are a leasing company that leases a certain amount certain kind of assets.

So, there are many financial leasing companies that we have in India, so one example is that is a company called IL and FS. So, this is infrastructure leasing an financial solution, so this one is for leasing is one kind of financial service that companies provide. So, a leasing company provides a financial solution for let us say developing a transmission tower, so let us say if this transmission tower cost about, lets us 10 corers of to develop, then the leasing company finances the 10 corers, from it is own sources and also from borrowing from others institutions.

Let us say for example, the leasing company provides 2 corers, from own sources and the remaining 8 corers by borrowing from other sources. So, in their 10 corers is not provided by the leasing company or it is capital, but it actually borrows from other sources and together, it is able to provide, the 10 corer needed, to develop the transmission tower. So, this 10 corer is not a lending, but this 10 corer is in terms of a leasing, as long as the transmission tower is being used by the project company, the project company will actually start paying lease rentals to the leasing company.

But, in this case the leasing company has not financed asset entirely on it is own, but it is actually borrowed, so therefore, this is called as a leverage lease. The leasing company has borrowed to provide a financial solution to the project company, so therefore it is called as a leverage leasing. So, there is something called a guaranteed lease as well, so what is a guaranteed lease.

So, in the case of a guaranteed lease, so the leasing company provides, a financing of the asset, to the extent of let us say the whole value of the asset, but then the leasing company gets a guarantee from the bank that, if there is any difficulties in getting lease rentals. From the lessee then the bank will guarantee the return on investment made by the leaser, so that is a guarantee lease bank provides a guarantee to the leasing company. So, that there are any problems in the lease rental then the lease than the leasing company does not suffer a loss or have a problem.

So, what are the advantages of a lease, why do not people go for this kind of leasing transaction, the first is there is a possibility of you know getting a solution at a lower cost. A leasing company can many incents get financing at a lower interest paid as compared to a project company, a project company is a new entity, it is probably does not enjoy, as much credit risk or history as a leasing company. A leasing company could be you know a large company, it probably has attract record of probable operations and therefore, it is able to borrow, as much lower rate as compared to a project itself.

So, when we talk about a leasing company borrowing 8 corers and providing a financial solution, then the leasing company is probably in a position to borrow 8 corers at a lower rate of interest as compared to a project company itself. So, therefore, you know, it posses on some of the benefits of the lower cost to the project company and therefore, a project company is able to actually, enjoy is able to acquire asset at a lower cost to leasing as compared to borrowing.

Second is when you have a leasing transaction, the assets are not in the books of the borrower, but the books of the lessee, but the assets are actually books of the loser, because the leaser wants, the asset the lessee does not own the asset. But, the lessee plays a lease rental for using the asset, so when you actually own the asset, you are able to claim depreciation benefits and depreciation benefits gives you some tax shields. But then you will be able to utilize a tax shields only, if you are position to if you are paying the tax that is when company is making profits.

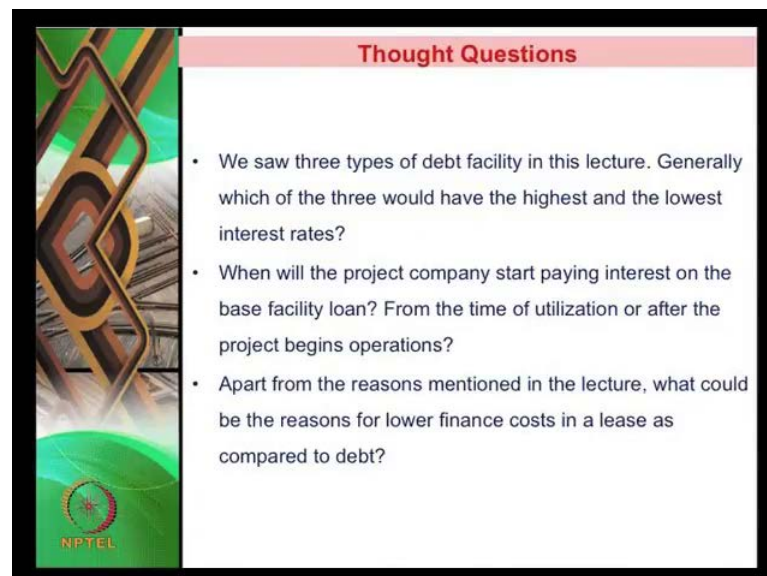
But, in most cases a project finance companies do not make profits, in the early years of operations and there is limitations in terms of how many years, you can actually carry forward the net operating losses or the tax losses, beyond a certain point of time, you cannot carry over the losses and they actually expire. So, therefore, project companies

are not in a position to claim the company benefits from depreciation tax shields, so to take advantage of the depreciation tax shields, companies are able to use the leasing transaction.

Because, a leasing company is a profitable company, it will be able to claim, the tax shields, the depreciation of the asset and it can cause of some of the benefits of these depreciation tax shields to project company as well. And this affectively reduces the cost of accruing the assets whenever, such depreciations tax shields, get postern to the company, on it is on the project company, because of the losses that are incurred initial years, may not be completely able to utilize that depreciation tax shields.

But by making it as a leasing transaction and by enjoying the depreciation tax shields by sharing the depreciation tax shields between a leasing company and the lessee one is able to acquire a lower cost of a lower cost of finance of acquiring assets. So, these are the, some of benefits of leasing, but you should also remember that, not all of the assets can be leased, leasing is not as common as borrowing, leasing can only be used whenever there is opportunity to utilize depreciation tax shields, whenever the leasing company is able to borrow at a lower rate as compared to the project finance companies.

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Thought Questions

- We saw three types of debt facility in this lecture. Generally which of the three would have the highest and the lowest interest rates?
- When will the project company start paying interest on the base facility loan? From the time of utilization or after the project begins operations?
- Apart from the reasons mentioned in the lecture, what could be the reasons for lower finance costs in a lease as compared to debt?

Now, we will go back go to some of the thought questions that, we can discuss on the next lecture, this questions patterning to the topics that, we discussed in today's lecture, let us say for example. The question number 1 is we have looked at 3 types of debt facility,

we looked at the base facility, we looked at the working capital facility, we looked at the standby facility. So, the question that, I have for you is generally, which of these 3 would have the highest interest rate and which of the three would have the lowest interest rate.

The question number 2, when will the project company start paying interest on the base facility loan, from a time of utilization, from the time of borrowing or after the project begins operations. Because, we talked that, the base facility will have to be repaid, out of the cash flows that project get from operations, if that being the case, when does the interest payment starts happening, from the time of borrowing or from the time of operations.

And question number 3 apart from the reasons mentioned in a lecture, what could be the reasons, for lower finance costs, in a lease transaction as compared to debt, we looked at two reasons in the lecture. The project company is able to the leasing company is been able to borrow at lower cost compared to the project company and 2, one is able to completely utilize the depreciation tax shields in a leasing transaction. In addition to this are there other reasons, which ensures a leasing transaction has a lower finance cost as compared to debt. So, think about these questions and we will discuss it in the next lecture.