Infrastructure Finance
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Lecture - 32
Risk Management-Country / Political risks

Risk, which is out project specific risk and then we had a market risk, and then we have country political risks. So, we have more or less completed the discussion on project specific risk, as well as the market risks, so what remains is to spend some time on the country and political risks. So, that is what we will do from now on, but before we actually do that let us try and discuss first the questions that we had at the end of the previous lecture.

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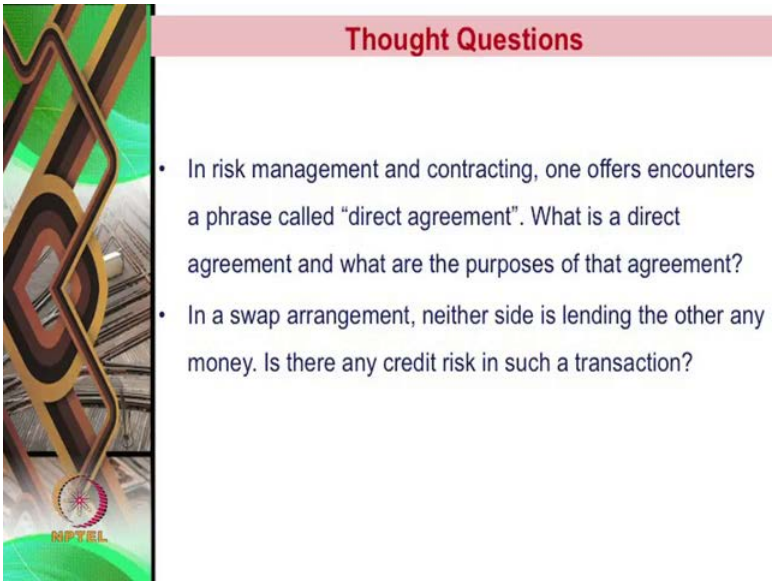

So, we had two questions at the end of the previous lecture, the first question was in risk management and contracting one often encounters a phrase called a direct agreement. So, what is a direct agreement and what are the purposes of that agreement; so generally we have a very strong contractual framework in a project finance structure right. So, you have several different types of contracts, let us look at some of them.

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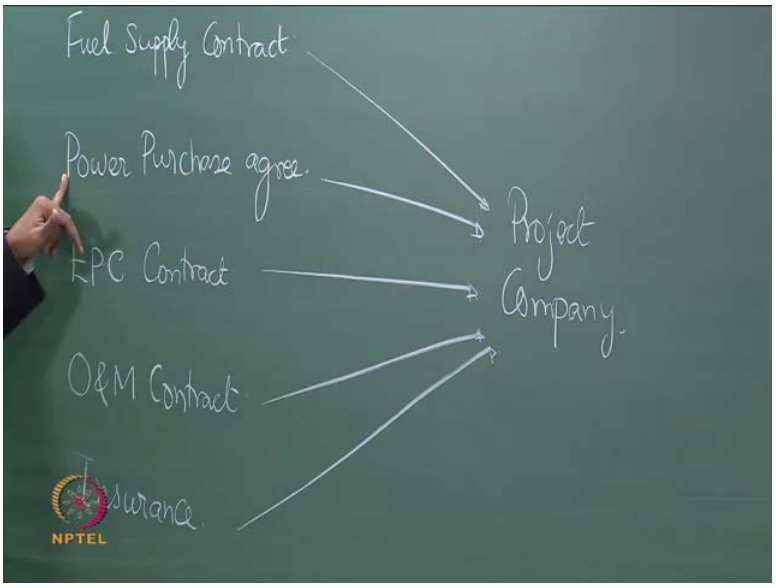

So, you have let us say fuel supply contract, and then you have power purchase agreement, then you have your EPC contract, then we have your O and M contract. And then we also talked about insurance, which essentially is not a contract, but nevertheless it is a very important part of a project finance security structure. So, in each of this case we have different contracting parties, so in a fuel supply contract, the contracting party is fuel supplier.

In a power purchase agreement it is a power purchaser, the EPC contract it is a construction and other people who are involved in constructing the project, in the O and M contract it is basically the party who is going to do the operations and maintenance after construction. And then you have insurance where, contract is with the insurance company. So, what you actually notice, all of them will actually sign a contract with the project company. So, this contract is a very, very important part of the project security for lenders.

Because, the project as it is, does not really have any collateral or asset, let say if it is for toll row project there is no ownership of the assets on the project company. But, the contractual agreement, the concession agreement gives the right for the project to collect tools and the ability to collect tools is a big asset right. So, that is why main source of security that is a main source of comfort for the lenders.

So; obviously, if there is any default on the project company in honoring any of this contractual commitments, then the lenders are going to be affected. So, let us say for example, in the case of a power purchase agreement, if the project company is not in a position to supply power as written in the power purchase agreement. Then there is what is called as a contractual failure right, then there is an inability of the project company to generate revenues or it may even have to pay penalties.

So, whenever such situations occur it will actually affect the lenders as well, because more than anyone else the lenders have invested a lot of capital in the project. So, the lenders would want to secure their interest in the project, the lenders would want to in addition to insuring that there are various contracts to mitigate the risk. The lenders would want to actually have some kind of direct over side, in terms of how the company has been meeting the various contractual obligations.

So, in all this contacts by enlarge there would be you know direct agreement with the lender as well. So, for example, you know in a fuel supply contract between the fuel supplier and the project company, there will be a clause which will indicate the participation of lender, if the project company is not in the position to honor the obligations. So, that is a direct agreement right the agreement where the lender also comes into picture in any of the contracts that the project company has signed.

So, now, let us get into a little bit more detail as to why do we actually have this kinds of direct arrangement.

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So, as we have seen just now the security interest of the lenders is acknowledged by having these kinds of direct agreement. So, now, the contractors know that the lenders actually have, you know lenders actually have investment in the project and for that investment they actually need security, and then the contractual payments is actually a form of security to the lenders. So, the security interest of the lenders will be acknowledged to this direct agreement.

So, whenever we have direct agreements there are several provisions that come along with it. So, for example, any contractual payments that come into the project have to be made in a specific bank account as notified by the lenders, let us say for example, there is tool revenue there is revenues from sale of power, whatever it may be all of those revenues should be actually made into specific designated bank accounts, as mentioned by the lenders. So, when you actually do, so when there is an agreement to the effect between the power purchaser and the lender and the project company.

So, the direct agreement will simply say that all the payments from the power purchase agreement, will be made to a specific bank account as mentioned by the lender. So, that is a direct agreement right, so when you have this kind of direct agreement, the lenders are able to monitor the cash flows to that account in a lot more effective way. So, the lenders do not need to get information from the project company, the lenders can simply

monitor the specific bank account to ensure that the moneys are coming to into the account properly.

Because, the moneys are coming into the account properly; that means, that the company is generating power and does the power purchaser whose is buying it, and then he is making the payments on time. So, this also you know this direct agreements helps a lender to monitor their investments in a lot more effectively because bank information you know being a lot more credible than any information that can actually directly come project company gives a lot more comfort to the lenders.

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The other advantage of a direct agreement is whenever there is a default on the part of the project lenders are notified. Sometimes, project company you know would probably not reveal all the information to the lenders or to the investors, you know for various reasons. But, lenders would like to know if there are any potential you know problem areas there are any defaults in the project company has made because any contractual default can actually trigger you know several reactions.

For example, there could be you know threat bankruptcy, there could threat of cancellation of contract leading to loss of revenues and so on and so forth. So, if you would any such event occur it will adversely affect the lenders investment in the project, so the lenders would like to know that the project is functioning properly or if the project is in default, then the lenders should be aware of it. So, that they can take some

corrective action, so direct agreement will help the lenders know about any potential default.

So, in addition to telling the project company all this counter parties to the contract will also indicate the potential you know default to the lenders. And lenders are given cure periods to remedy the company's default before the contract is terminated, so there are several reasons why the contract could be terminated. For example, the project company has not been very sincere, there has been too much of delays, and there is a lack of interest, so whatever it maybe there are several examples.

Let say for example, in a road project the concession agreement will clearly specify, the concession the you know the construction time frame and so on. But, if the project company is not been able to complete the project within agreed time schedule, then; obviously, the government can step in and then they can cancel the concession agreement. So, when they cancel the concession agreement then the lenders are going to be adversely affected because they have actually made an investment in the project.

And if a concession agreement is cancelled, then it may be very difficult for them to recover their investment. So, whenever there are such potential termination that could arise, then the direct agreement you know has a provision for what is called as a cure period that is the lenders have kind of indicated to give them a chance, lender should be given a chance. So, that they can actually rectify any potential shortcomings that the project company has you know faced.

So, if there is a delay in project completion, then lenders can ask for additional time, so that the lenders will be able to rectify those issues, and then project can begin. So, this actually ensures that the lenders investment is safe guarded, that the lenders are not entirely dependent on the project. In a way they are entirely dependent on the project company, but you know if there is any problem they are given a chance to set it right, so that it can you know help them to recover their investment.

There are also other rights that are normally included as a part of this direct agreement, one is called as a step in rights and the other is substitution rights. So, a step in rights essentially indicates that, if the project company is not being able to manage the project properly. Then the lenders can step in the lenders can remove the existing management

of the project company, and they can actually take over the management of the project company, so that is called as your step in rights.

And the substitution right is very similar instead of lenders coming in and taking over the operation of the project company, the lenders can substitute a project company to another company who will take care of the operations. So, in more in both these cases we are essentially talking about a situation, where the existing project management of the project company is replaced by another. So, in the case of a concession agreement the existing concessioner might be replaced with another concessioner to take over the operations of the project.

So, people might actually question and if we promoters of the project, you know not been able to succeed in implementing the project, lenders who are only financial investors what is the probability of them being successful in rectifying the default. So, chances are slim because the promoters who have a lot of experience in operating the project. If they have not been successful, how can a financial investors like a banks can cure the default.

But, the objective of this step in rights and substitution rights is not to actually test the management capability of the lenders. But, it just a clause which indicated that you know if there is such an occasion in the future, then the lenders will be given a choice to rectify the default you know the lenders agreement, you know is clearly specifies these kinds of rights is essentially to kind of give some safeguard for the investment made by the lenders.

So, if such direct agreement is not there then you know it is might have very difficult, you know for some of this safeguards to have been incorporated.

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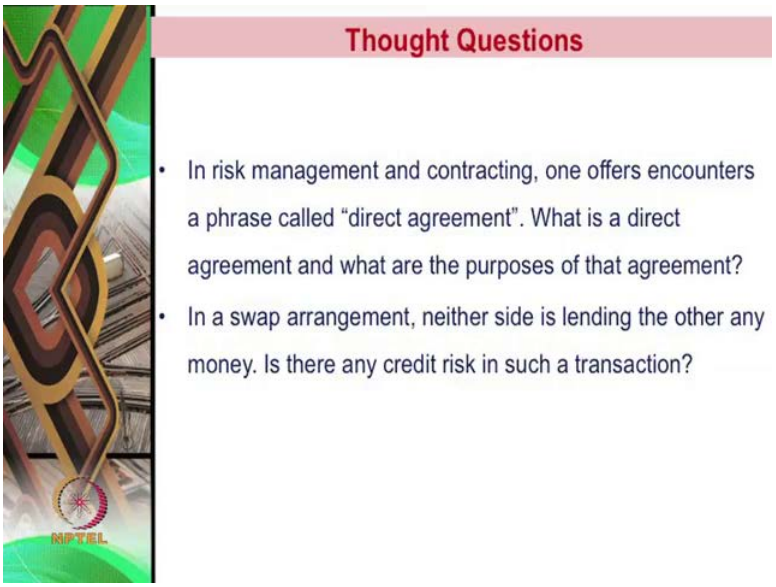

Now, let us go to the second question, the second question that we talked about was in a swap arrangement neither side is lending the other any money, in that a case there is any credit risk in such a transaction. So, essentially we looked at you know interest rate risk and in interest rate risk we said that there are several ways in which people manage the interest rate risk, and one such common way in which people manage interest rate risk is to actually have a swap contract.

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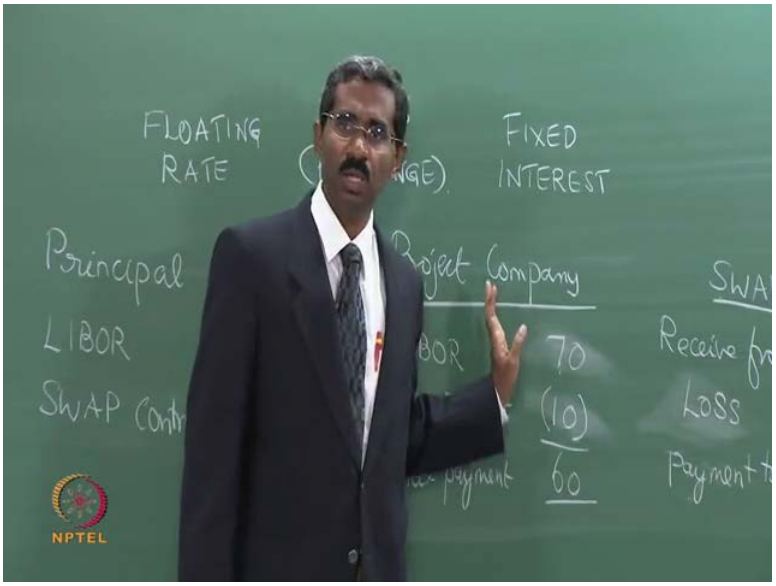

So, what is actually swap, swap is essentially in simple English language it is nothing but your exchange. So, we are exchanging something for and other thing, so what are exchanging in the case of interest rate risk management. So, we are exchanging what is called as a floating rate, interest with a fixed rate of interest, floating rate of interest with a fixed rate of interest. So, normally financial institutions do not provide loans on fixed interest mode.

And they always benchmark to some particular you know index rate, but at the same time if the interest rate is completely made, you know floating rate it creates a lot of interest rate risk for the lenders. For example, if the benchmark rate increases then the coverage ratio reduces, and this reduction coverage ratio might not be acceptable to the lenders. So, therefore, they will insist on some kind of heading mechanisms to overcome the interest rate risk.

So, one common heading mechanism is a swap, so in a swap what happens a project company which actually borrowed at a floating rate of interest, the signs of swap contract with a swap provider which makes it to exchange it is floating rate of interest loan with a fixed rate of interest loan, let us see how it actually works. So, let us say the situation is something like this, so there is a loan which has a you know principle outstanding of let us say 1000 right.

And assuming that the interest is paid on a six monthly basis, and the interest structured on a floating rate. Let us say for example, the LIBOR rate is used to calculate the interest rate for the loans. And then in addition to that the project company has entered into a swap contract, at a fixed rate of interest right this is swap contract at a fixed rate of interest. So, thus the fixed rate of interest for a swap contract is let us say 6 percent right, and then the interest rate for LIBOR is let us say 4 percent.

So, I am talking about this interest on a 6 monthly basis, so for example, 4 percent interest rate for 6 month so; that means, the annual LIBOR rate will be 8 percent. And similarly the swap contract is 6 percent for 6 month, the annual swap contract will be 12 percent that is a fixed rate. So, now if the LIBOR rate is 4 percent, the swap contract rate is 6 percent, and if the project company has signed this kind of a swap contract, how do the payments work.

So, let us look at first the first company project, so the project company will have to pay let us say, if it is a LIBOR rate they will have to interest of 40 right. And then in addition to that, there is a swap payment because there is a fixed interest rate 6 percent that has been signed, the difference will have to paid to the swap providers. So, the difference is 2 percent. So, the swap payment will be 20, so the total payment to the swap provider is 60.

So, this is your 6 percent rate of interest to the project company, now the counter party to the swap contract is swap provider it is a swap provider. So, let us look at how the payments for the swap provider work out to be, so for the swap provider they receive from the project company 60 right. But, the actual LIBOR interest rate is only 40 right, so they actually make gain of 20 right, the project company makes a gain of 20 and then the payment to the lender is 40, so this is your 4 percent LIBOR rate.

So, the project company for them because of this swap contract the effective interest rate works out to be 6 percent, for the swap provider the effective interest rate works out to be what the LIBOR is which is 40. Now, this is the case where the LIBOR rate is lesser than the swap LIBOR rate is lesser than the swap rate of 6 percent, but what happens over a period of time the interest rate changes, and then the LIBOR rate increases more than the swap contract.

So, let us say for a particular period the LIBOR rate is 7 percent and the company has a swap contract at 6 percent. So, the project company will have to pay LIBOR interest rate of 70, but because they have actually signed a contract for swap at 6 percent, and since the benchmark rate is more than the swap contract rate. The swap provider will make a payment right to the project company which is 10, this is the difference between the interest rates of LIBOR and the swap contract.

And therefore, the effective payment for the project company is 60 right, the project company still pays 6 percent rate of interest as signed in the swap contract, the difference is actually the payment that it has received from the swap provider. So, now what happens in the case of a swap provider, they receive 60 from the project company, but since the LIBOR rates are more there is no longer a gain to the swap provider. So, there is essentially what is called as a loss, and this loss is nothing but 10 and then the payment to the lender is 70.

So, the swap provider essentially observes the risk of interest rate fluctuation right, so that is what we actually see. Now, who is a swap provider normally a swap provider is a bank, so the question that you might actually have is why should the project company actually take loan from a bank on a floating rate basis, and then go for a swap contract with another bank to make the interest rate more or less fixed. So, the question is why cannot the project company directly go for a fixed rate loan.

Because, in both the case either in terms of taking a loan or in terms of taking a swap account act, in the both the cases its actually the bank that is involved. So, the response to that is whenever the project company is actually taking a loan, which is specifically long term the bank might not be in a position to take the interest risks. For example, if there are any major changes in the interest rates, then if it is a fixed rate loan. Then the bank will actually have to observe this interest rate risk, which the bank is not willing to do.

So, therefore, the lending is in terms of floating rate basis, in the case of a swap provider, swap provider has probably much better access to short term funding to take care of this interest rate risk. Let us say for example, the interest rate keeps changing from one year to the other year, so any changes in the interest rates in terms of incurring a loss and all of those things can be mitigated, if the swap provider has good access to short term funds. So, it is not really the long term fund in the case of a swap provider because the interest rate keeps changing at short notices.

Since, these are two different entities in most you may actually find as swap provider maybe a different as compared to the lender right. And the swings of this banks are also different, if it is a same bank then it will all essentially to different divisions right, the strength of one division if different from the strength of the other division. So, because of this reasons we actually find you know two separate contracts for loans, as well as for swaps.

Now, the question is there a credit risk is there a credit risk in this case of a swap contract because in this case of a swap provider it does not provide any to the project company. He, just provides a guarantee of fixed rate of interest as for the project company is concerned. So, if you really look at is there a credit risk for this swap provider to a certain extent, we may say yes there is, so let us look at transaction of a swap contract.

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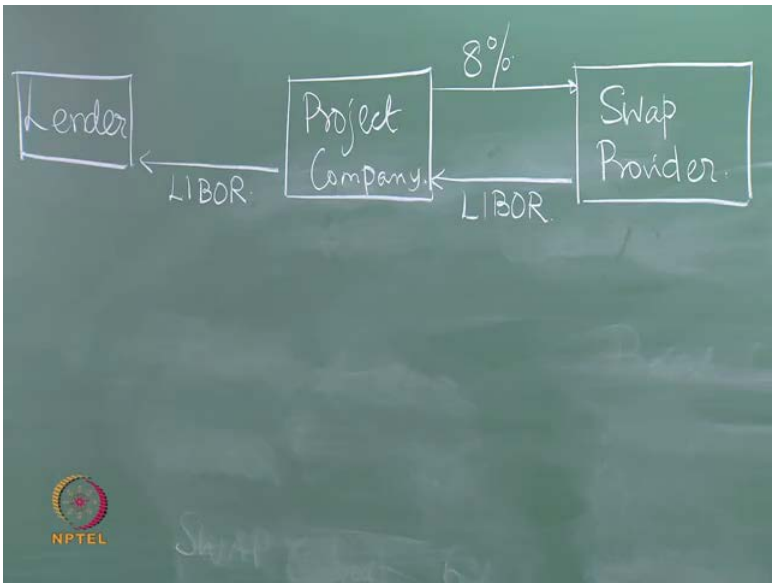

So, here is a project company on this side there is a lender, and on this side there is a swap provider. So, the project company will have to you know pay the lender on let us say on floating rate of interest let us say in this case it is your LIBOR right, so they actually pay interest rate at let say in case of LIBOR. And the project company actually has an arrangement with the swap provider at let us say fixed rate of interest, let us say for example, this is 8 percent right. And the swap provider in turn provides the LIBOR rate of interest right, which it actually passes on to the lender.

So, when a project company enters in a swap contract with a swap provider, the swap provider is; obviously, exposed to certain level of interest rate risk. And he will have to make other arrangements to take care of you know the position he has taken by signing this swap contract, right if he actually signed a swap contract in exchange for a floating rate and a fixed rate loan. Then, in some case you might have to unwind this position by signing another contract or you should have make some arrangements to ensure that he is able to satisfactorily honor, the swap contract you know during the loan period, if the project company defaults on the loan, and it does not make any payments to the lender.

Then obviously, this swap contract becomes what right, the swap contracts comes into the picture only if there is a valid loan between a project company and the lender. So, if the project company defaults on it is loan and it; obviously, does not pay the fixed rate of interest to the swap provider, then the position that the swap provider has taken is going

to be unbalanced. Because, the swap provider is already signed another contract to take care of this position that he has sold to the project company.

If default of the project company happens, then this swap provider is going to be left high and dry, he will actually be holding a swap contract without any counteracting contract. So, to that extent the swap provider is actually taking a credit risk on the project company, the credit risk here is that the project company will be able to satisfactorily operate. And will be able to you know continue servicing the loan of the lenders, there will be no defaults made by the project company.

So, if the project company defaults then the swap provider will have to find another project company to actually take care of this, the unbalanced position that it has signed. So, that is going to incur additional cost for the swap provider let us say for example, in the mean while, if the LIBOR rate has reduced right if the LIBOR rate has reduced, as compared to the time when the swap contract was signed on. Then any new company will not be in a position to sign a fixed rate at 8 percent rate of interest they may actually want to sign a swap contract at a much lower rate of interest.

So, breaking these kinds of swaps when the interest rate has gone down is going to incur additional cost for the swap provider. So, even though there is no money transaction involved between the project company and the swap provider because of the fact that there could be a potential breakage cost. If the project company is not able to honor, if the project company defaults on the payments to lender, the swap provider also you know assume some kind of a credit risk of the project company.

It may not be very large, but there is certain level of credit risk that is assumed by the swap provider. Even when there are no you know lending involved, when there is no money involved in a swap contract I am in actually the swap contract, and some of the heading contract are topics by itself and could be quite complicated. But, I am just trying to give you a flavor of what is actually possible to such heading instruments, when if you like to know more about these kinds of techniques.

Then there are any a lot more advanced varying material that is available, and I would encourage you to look at those readings to know a lot more about, let us say a forward contract or the swap contract. And any other type of heading strategies used in the case

of infrastructure sector, now let us get back to the third type of risk that we had talked about which is your country risk or political risk.

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Now, if you really look at it most of the infrastructure projects are very large projects right. So, it supposed to actually you know have significant impact on society significant impact on development, and it calls for a lot of investment and it also provides lot of other developmental benefits in terms of generating employment and so on and so forth right.

So, give us because of the fact that this projects are very large have long term investments, there is a need for sustained political will and support right without this political will and support, this projects cannot actually take off or even if it is taking off it is going to be purely on a temporary basis.

When it is very practically it is not possible to implement major projects, no without any structured political backing right, for everything we need a lot of political support. So, I can talk about an example right, so this was an example that we saw in the early part of 1990's that was the time when India was actually through process of liberation and performance for one. So, first sector that was actually to be you know reformed in a major way was a power sector right.

So, earlier the power sector was vertically integrated structure, so you have generation, transmission, distribution in single entity. And then because of various reasons adequate investment was not happening in the you know power sector. So, the lot of shortages of power and so on and so forth, so what the government decided was to actually unbundle the power sector. So; that means, instead of having as a single entity you have three different entities, managing, generation, transmission and distribution.

And to ensure that their sector function properly and efficiently, there was also regulatory, authority that was created. So, this entire process of power sector reform was actually you know started in the beginning of 1990's, so there were several state government which actually reformed their power sector and so on. So, the earliest power sector reform, actually happened in the state of Orissa, so Orissa over the years was power surplus state because it had lot of hydral resources, it probably had a lot of coal resources as well.

But, over a period of time because of lack of investment this state was actually experiencing power shortage. And because of the fact that Orissa was not as developed as rest of the other states, you know it was finding it difficult to actually attract investment. Remember, those were the days when power sector was not thrown open to private sector in a major way, all the investment will actually have to come from the government, and the state government was not in a position to actually make any further investment in the power sector.

So, that was also the period when people started looking at private sector investment and infrastructure, where can you actually create appropriate structures that will actually facilitate private investment in the power sector. So, but for private investment to happen the sector will have to first reformed, so that you can actually you know enable to receive a private sector investment. So, the first step was that actually happened in this power sector reform was to what is known as unbundle the vertically integrated structure, there were separate companies created for generation, transmission and distribution.

So, this was a very major decision that was done by the state government, and you know it needed a lot of political support and backing. The reason behind it was during this reform was also the due to the conditionality of the world bank, world bank at that time said that we will be prepared to assist the power sector in Orissa. But, in the current way

in which the sector functions, and the world bank then said that if the government is willing to reform the power sector by unbundling and by facilitating private sector investment.

Then the world bank can actually make an investment in the power sector in Orissa, so it was a conditionality of the world bank which kind of you know, push the Orissa government to what is implementing the form. But, nevertheless when the world bank decided to support the Orissa power sector, it first gazed the support and the commitment of the government to implement the reform because once an investment is made and the government backtracks, it is going to be very difficult for anybody to recover their investment right.

So, before any investment is made; obviously, there is a lot of cheques and balances people actually look at validating the commitment, validating the seriousness of the government in implementing some of this reform programs. So, specifically the world bank mentions that a communication from the chief minister's office, highlighting the strong support from the government to power sector reform, was a significant factor in ensuring the support of the world bank. So, world bank provided substantial financial support to strengthen the Orissa power sector.

But, then that support would not have come, without a strong showing of commitment on the part of the state government. So, just as we check for commercial viability for any project, it is also important to check the political viability is the government willing to actually make some tough decisions, is the government willing to actually give autonomy to the private sector, rather that interfering in the private sector. So, these are all broadly classified under what is called as your political risks.

Now, I can tell you another example of how critical is the support of the government, so let us say we have a water supply services, and this water supply services is actually being privatized. And the private contractor is responsible for all the activities related to water supply, so; that means, supply of water, and then generating bills distributing bills to the different customers, and then collecting the payments for the water that is being supplied.

Now, if the consumers after consuming water supply water do not actually pay for the services, then the private sector will actually have to take some actions. So, they can

actually do two things, one is they can actually make the customer pay for the support that they have received. And on it is own the private operator might find it very difficult to enforce the customer, so it will actually have to have the support of law, it will actually have to have the support of police, to enforce payment on the part of the non paying customer right.

So, this support from the police, this support from the law is not going to come unless until there is a political support. So, this political support is very critical for private sector infrastructure projects specifically, so whenever there is a change in the political attitude, whenever there is a change in the political support, it can actually impact the viability of the project, it can actually impact the functioning of the project.

So, any anything that will impact the functioning of the project anything that will impact the viability of the project, which can be attributed to political action is called as political risk. So, the question is what creates political risk, a major debate that is actually seen in the infrastructure sector is, when investors when private investors demand higher return is it because they fear political risk or when the project start getting higher returns, are they getting more exposed towards political risk.

So, the traditional finance says that when the risk is higher, the investors would expect to get higher return. The investors would demand, higher returns to compensate for the high level of risk, but there are studies specifically in the infrastructure sector, which indicates that when the project start getting higher returns right. The investors in the project start getting higher returns, this is not seen as politically acceptable right.

Because, the government would always want the investors to earn moderate returns, and then pass on the benefit of lower returns in terms of lower prices to the consumers. Now, when consumers are paying a high price, and this in turn increases the returns for the project investors then the government feel that it is not a politically good situation, water supply, electricity, sewage services, roads, transportation. So, these are all very important topics that can actually impact day to day economic activity.

And any perceptions that private investors are actually making too much profit, will not be politically acceptable for the government. So, the thinking is whenever projects are earning higher returns, then they actually are susceptible for higher degree of political risk. So, the political risk can actually happen by many types which we will see shortly,

but ultimately the argument is little reversed in the case of political risk, when projects are seen as earning moderate returns to low returns, there is very little interference from the political side. But, the moment that the project is seen as earning excessive returns, then it is not acceptable and it also increases the political risk that the project is exposed to…

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How does political risk affect the project, when does it affect the project and how can it be mitigated. So, these are the three broad questions we will try and address, like we have been doing in the previous research category the risk categories as well. So, how does it affect the project, when a project is exposed to political risk, sometimes the license can be cancelled, the concession agreement can be terminated, there could be opposition by the citizenry it is very, very difficult to actually identify clearly, whether it is politically motivated or whether it is because of some other reason.

But, ultimately political risk affects the project in term of a by way of it is ability to function as expected, could be problems in terms of revenue that could be damages to the project and so on and so forth. So, it affects the project in a fairly significant way, and when does it affect the project, so generally you actually find the governments are very keen to actually get investments right. So, most of the time the political risk is seen, after the projects begins operation, because before the project begins operations the investment is still flowing into the project.

In some sense it is creating some kind of a benefit by generating employment to investment in flow and so on and so forth. But, only when the project start getting earning revenues, only when the returns are seen as excessive, the political risks the shadow of political risks become higher. So, dominantly it actually affects the project in the operations face, more than the construction face.

And how it is mitigated, it is mitigated like we have seen the various contractual mechanisms, there are specific in which people try and mitigate the political risks. So, we will see some of the ways in which people mitigate political risk in case of infrastructure projects.

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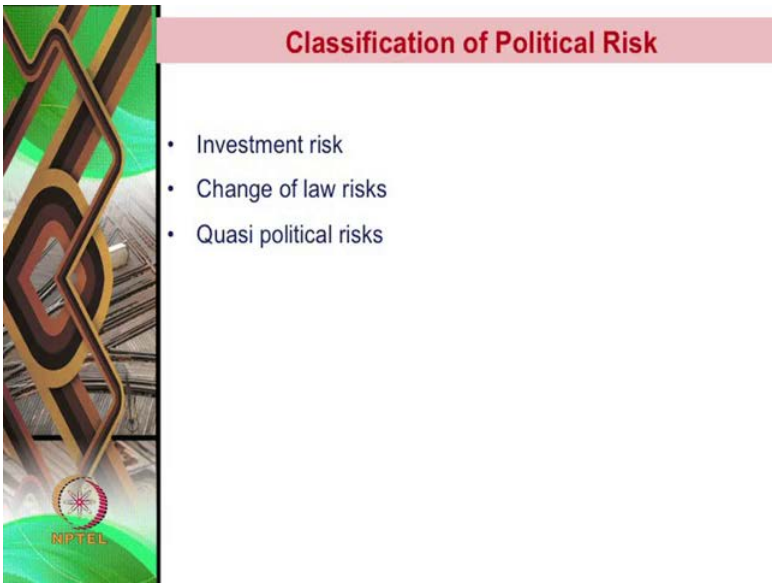

Political risk can be broadly classified into three categories, talk about investment risk, talk about change of law risks, and then talk about the quasi political risks. So, each of them can be attributed to or it manifests in a particular fashion, and mitigating them is also done by a variety of means right. So, we actually use a different type of road to mitigate investment risk, and we also use probably a different kind of strategy to mitigate change of law risk and so on right.

So, what we will try and do is we will try and understand, the features of some of these risks in more detail. And how we are actually able to mitigate this risk, what is a common approaches that private investors do to mitigate this risk in the next lecture, but before we actually do I have two questions for this lecture.

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The first question is, when we talk about political risk is it a concern only when we actually have a foreign investor right. Let us say for example, there project is being developed entirely by domestic investors, there is no foreign capital involved, in this case do we really have a political risk. The second question is, political risk a feature only seen in developing countries or is it something that is progressive worldwide that is do we also see political risk in developed countries. So, think about it and we will discuss it in the next lecture.