Infrastructure Finance
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Lecture - 24
Project Finance Markets - Loan Refinancing

Hi, welcome back to this course on Infrastructure Finance, this is lecture 24. In this lecture, we will talk continue our discussion on Project Finance Market. And specifically focus on a particular topic, which is called as Loan Refinancing.

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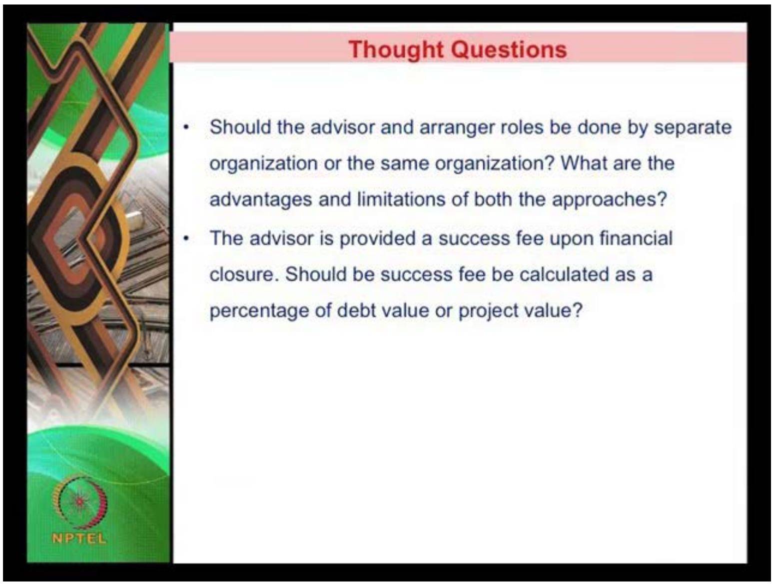

But before we actually go on to the topic of this lecture, we will try and discuss the thought questions that we actually put forward in the previous lecture. So, the question number one was should the advisor and arranger roles be done, by the separate organization or the same organization. And what are the advantages and limitations of both the approaches. So, when we really looked at project financing transactions in terms of raising money from the lenders, we looked at various parties who will be involved in the transaction.

And then when we looked at the different parties we came across, if you go back to the previous lecture, we looked at the different roles called the advisor and the arranger. So, an advisor is somebody who actually advises the borrower, in terms of going ahead and structure with the particular transaction. And arranger is somebody who actually interacts and negotiates with the different lenders, in terms of arranging the money for the project. Now, the question is should the advisor and the arranger be one and the same or if he have that kind of an arrangement what are the advantages and limitations.

So, there are two ways to really look at it, one is we actually have one person doing both the advisor and the arranger role, and then we have two different entities doing the advisor and arranger role. Let us try and look at what are the advantages and limitations of both the approaches.

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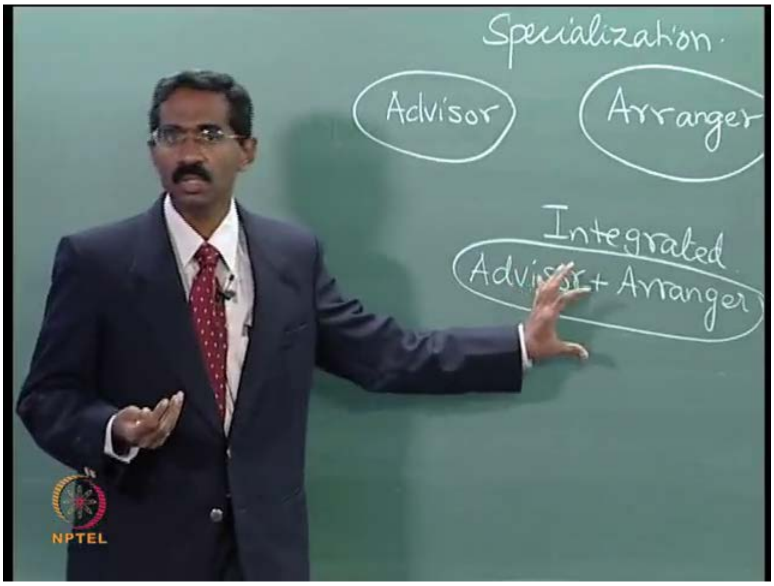

Let us look at the first approach where you have the advisor is separate and the arranger is separate. So, in this case we will have a situation where you know the project finance company or the borrower will have to interact with two different parties, so dealing and coordination with these two different parties is actually going to be, you know a little bit of difficulty right. So, that needs to be taken care of and then when we actually have an advisor who is not actually going to make, any financial investment in the project.

Then obviously, it gives it actually sends a signal to the arranger that there is no commitment on the part of the advisor to actually put a financial investment in the project. So, therefore, you know the arrangers might actually feel that is it possible that the advisors are actually pushing ahead a very risky project, because if you look at it an advisor to the borrower will probably have a lot more information about the project, as compared to what the information that they are prepared to give it to the potential borrowers that is the arrangers.

So, therefore, if these are two separate entities then obviously, you know the arrangers might feel that, you know that could be potentially risky projects which advisors are pushing it to the arrangers to fund, which might not be really you know good from a long term perspective. So, therefore, you know the arrangers might feel you know little you know little concerned if the advisors do not really have a financial commitment or investment in the project.

Second, the second issue could be the advisors are paid in terms of you know the ability to find arranger. So, advisors are paid a success fee if they are able to find an arranger, who is prepared to raise money for the project, so therefore, the advisor might actually then put forward conditions, which can be very you know beneficial for the lenders, but might not be very beneficial for the borrowers. So, therefore, the advisors in order to make transaction successful, might actually try to fall in favor of putting a structure that favors the arrangers.

Because the success fee is paid only if the arrangement you know, if the arranger deal is concluded. So, therefore, this can potentially lead to a conflict where the advisor, who essentially will have to work in the interest of the borrower, might actually end up putting in a deal which is more favorable to the arranger. So, this is basically you know point of conflict, so this method where you have both of them separate is called as you know specialization, you know there are specialized roles for you know each of the participants this specialization model.

And these are some of the you know limitations of this, now what are the advantages of having this as separate. So, when you want to really look at advantages of having this as a separate we go to the next model, which is where the advisor and the arranger is performed by the same party. What are the limitation of advisor and arranger being together, so one of the limitation of you know they being together is you know they actually want to try and put forward a financial structure, which might not be you know which might not be cost effective for the borrowers, so the advisor who essentially has the interest of the borrower.

And if the advisor and the arranger are the same in the essence, if the arranging banks continue to provide advisory services as well, then there is an interest on the side of the arranging banks, to put forward financial structure that favors the arrangers more as compared to the borrowers themselves. So, when you actually an integrated model like this, so this is an integrated model, again there are possibilities where the arrangers might try to put forward a structure that favors them more because the advisor also happens to be the arrangers.

So, therefore, an advantage of keeping them specialized is and having different parties do separately an advisor and arranger transaction, it helps to bring in a certain you know certain amount of checks and balances in to the system. It helps to ensure that there is somebody, who can actually in some sense take the interest of the borrowers and not only the lenders. The second question is you know the advisor is provided a success fee upon financial closer, so should the success fee be calculated as the percentage of debt value of project value.

So, as we have seen earlier you know the advisor is provided a fee upon successful conclusion of the transaction, which is by way of achieving the financial closure. So, when such a success fee is calculated, should it be calculated as the percentage of the debt value or should it be calculated as a percentage of the project value. So, the answer is the success fee should be calculated as the percentage of debt value, why because of the two simple reasons.

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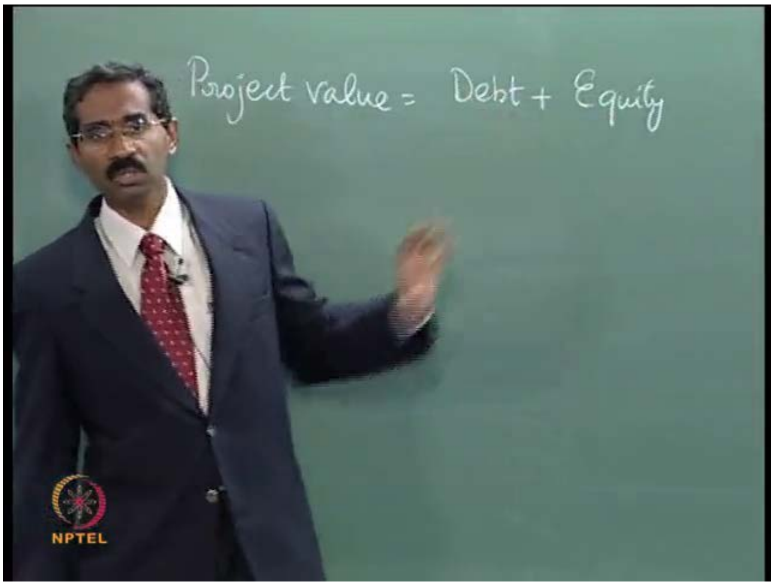

First is if you look at the project value, project value is nothing but value of debt plus the sponsors contribution which is your equity. Now, the sponsors are going to bring in money in terms of equity, and the advisor does not play any role in the sponsors contribution, the advisor plays role in terms of getting in money from the lenders. Now, if you actually calculate the success fee based on a project value; that means, we are also considering the value of equity as a part of it.

So, the question is why should the advisor get a fee that includes the equity contribution also, for which it has not played any role the raising equity the advisor does not play any role in raising equity. So, why should he get a compensation that is reason number one, so reason number two is; obviously, the advisor will may be motivated to raise, to get more advisory fees for him. And that would actually be, you know possible if the amount of debt involved in the transaction is high, so the more amount of debt means higher will the success fee for the advisor.

So, therefore, if the success fee is calculated as a percentage of debt value, then the advisor will be in a position to have a gearing ratio, than has the highest amount of debt. Because, this fees depends on the amount of debt that is being used to fund the project, and as we have seen earlier when the project has, the most optimal amount of debt it benefits the shareholders in terms of higher equity return. So, by calculating success fee as a percentage of debt, we are able to achieve both these objectives.

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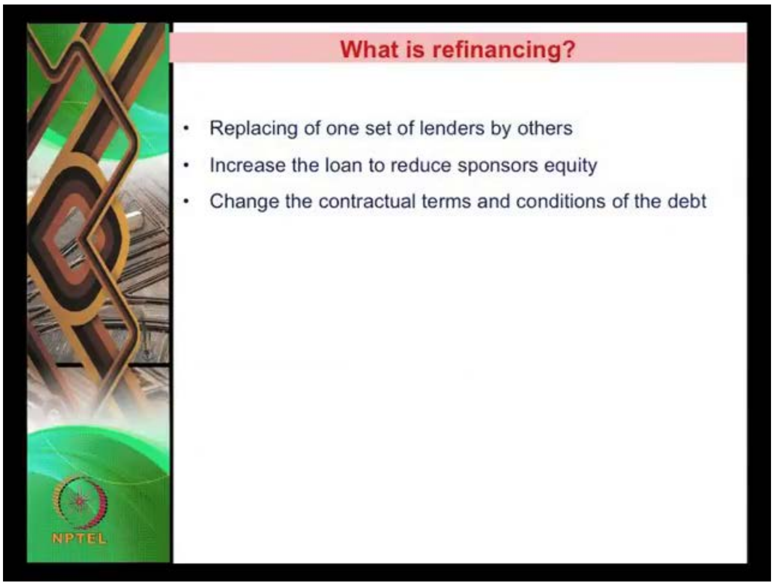

Now, let us look at the topic of today's lecture which is all about refinancing, the first question is what is refinancing. Let us understand this concept a little better, and then we get into the details of the different forms of refinancing, so broadly speaking refinancing is nothing but replacing of one set of lenders by others. Now, the question that you might have is, why should we actually replace one set of lenders by others, what could be the various reasons. And there are various circumstances which can arise, which will you know which will necessitate to replace one set of lenders by the others.

Say for example, the project has a very long life, but then the lenders might not be willing to actually stay investors in the project for such a long life, the lenders being banks, banks might not really have access to very long term funds. So, therefore, they may want to stay investor in the project for a certain amount of time, and then at the end of it they would like to be, you know they would like their loans to be repaid back.

Now, the project at the point in time when the banks wants to get out of it, might not be in a position to actually repay the loan because the banks the project might not have accumulated adequate cash flows, to repay the principal and the interest of the lenders. So, therefore, what will the bank do what will the project do, the project will actually have to obtain loan from other set of lenders, and use that to actually you know replace the bank. So, therefore, we are replacing one set of lenders by others.

So, one simple reason is the tenure of the project is too long, and the existing set of lenders are not willing to stay invested they are not willing to put money into the project for such a long duration. And the second objective of refinancing is, when you actually take a loan at the beginning the project is in the development phase the project is in the construction phase. And at that phase project has relatively higher levels of risk, and therefore, the debt equity ratio or the gearing ratio will be comparatively lower.

But, then when the project begins operations and the construction process is completed, the risk levels of the projects becomes comparatively lesser. And therefore, the project is in a position to take a higher levels of debt, lenders will be more comfortable after the end of the construction phase, to actually have a higher amount of debt. So, therefore, you actually have certain amount of refinancing, to reduce the sponsors equity. So, the sponsors can actually take back some of their equity and thereby increasing gearing ratio of the project.

And when that happens the sponsors cash flow that is stuck in the project is released, and more importantly the return of equity of the sponsors also increases because of the higher amount of debt. So, this is the second instance of a refinancing, you know third is all about not really replacing one set of lenders to the other or increasing the gearing ratio or something like that. But, essentially we change the contractual term and condition of the debt, let say for example, we change the tenure of the debt from let say 10 year loan, we change to 15 year loan.

So, that is also considered as a form of refinancing, so essentially if you look at it broadly refinancing is a follows, you replace one set of lenders by the others or you actually have new lenders coming in to replace some of the sponsors equity or you change the contractual terms and conditions of the existing debt.

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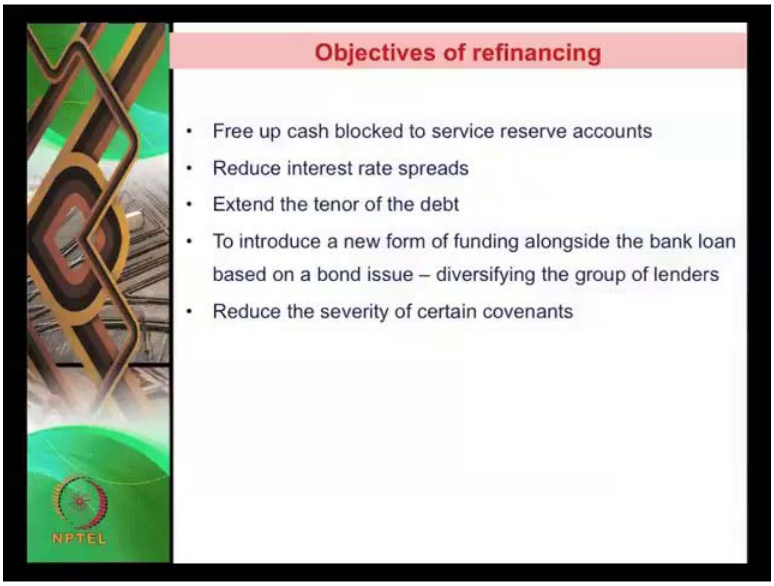

What could be the objective of refinancing, let us look at some of the main objectives one by one, the first objective is to free up cash blocked to service reserve accounts. So, let say for example, when the debt service is going to be much larger let say for example, you have about a loan, which has to be paid in let say 7 years time. So, therefore, the amount of debt repayment is going to be higher for 7 year loan, as compared to let us say a 15 year loan.

And when you actually have a repayment being larger, so you also need to have debt reserve account see for example, you need to have an interest reserve account, you need to have a principal reserve account, you have to have a debt service reserve account. So, the amount of cash that is blocked in this reserve account is also going to be higher, and now this cash is not available for use for other productive purposes or for any other operation use, when you actually refinance a loan, which actually has a longer duration.

So, in that case your debt repayment are going to be lesser as compared to a short term loan and therefore, the amount of cash that needs to be blocked in the reserve account is going to be lesser, and the additional cash that gets released can be used for other purposes. So, objective number one is to free up the cash blocked to service reserve accounts is one of the benefit of refinancing, and second is to reduce interest rate spreads why would the interest rate spread reduce.

Because, as we have seen earlier interest rate is a function of a project risk, and if you actually see the project as it proceeds from the development phase, to the construction phase, to the operation phase the risk of the project reduces as the project move from the construction phase to the operation phase. And when the project moves from the construction phase to the operation phase, it is then possible to actually finance it at a much lower interest rate because of the reduced interest rate.

So, therefore, you finance the existing construction loan with new loan that actually takes care of the project operations, and by doing that you are able to reduce the interest rate on the loan. So, that is the second objective of a refinance, the third is to extend the tenure of the debt, as we talked about it little bit earlier, and the project for various reason need to actually have cash flows, to support debt repayments. And you know short duration debt involves large cash outflows, but if you extend the tenure of the debt it is going to be helpful for the project in terms of conserving the cash flows.

And the fourth the objective is to introduce a new setup of lenders for example, if you actually refinance a bank loan with a bond, then you are actually getting in a new set of lenders. And what we are actually doing is we are diversifying the group of lenders, earlier in a bank loan the lenders are very concentrated, but if you really looking at you know a bond, you know as an example of refinancing. Then we actually have a very diversified group of lenders.

And fifth are we talked about reducing some of the contractual terms, so essentially some of the covenants associated with the loan can be slightly severe during the construction phase. But, you know if you kind of negotiate the contractual terms at the end of the construction phase, it is possible to reduce the severity of some of this covenants, so this is another example of this is an another objective of refinancing.

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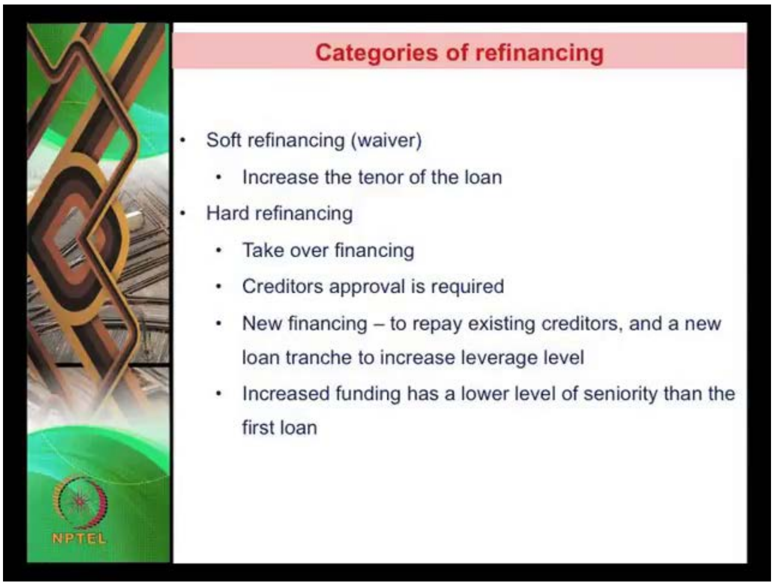

Let us now look at the different categories of refinancing, broadly you look at two types one is called as your soft refinancing. Soft refinancing is nothing but there is no major change it is essentially in many instances called as a waiver, and what we are trying to do in a soft refinancing is to actually increase the tenure of the loan. Earlier it was the 10 year loan, now it has become 15 year loan after the refinancing.

So, you do not really have let say a new loan being a new loan being introduced or you do not really have a new set of lenders coming in, it is basically the existing set of lenders, but the loan conditions are revised, the loan repayment period is revised. So, that is basically what is called as your soft loan, the other aspect which is called as a real refinancing, it is called as the hard refinancing.

Hard refinancing again consists of a several types, the first is what is called as your take over financing. So, in a takeover financing what happens is you know the existing set of the borrower would actually want to exit from the project, so therefore, there is a new set of the lenders they actually come in, and take over the amount provided by the existing lenders. So, this actually is called as your take over, so take over it is called as take over because there is a new set of lenders taking over the debt of the existing set of lenders.

Now, whenever we actually have these kinds of take over financing, an important process that needs to be followed is the creditors will have to approve. That means, the syndicated loan actually has let us say about 20 institutions participating, then all the 20 institutions will actually have to approve this takeover financing. Because, unless and until each of them is approving of the exit, approving of the loan being bought over by another institution the takeover might be difficult to achieve.

The second type of hard financing is called as your new financing, so in a new financing new again it actually consists of two types, one is new financing is done to repay existing creditors. And in addition to that, you also take a you know a new loan trinket to increase the leverage level, so if the existing leverage ratio is let say you know 70 30, and you take an additional loan you repay the existing creditors. But, in addition to that you also take extra loan, and you increase the leverage level, so that it becomes from 70 30, it becomes 80 20, 80 debt and 20 equity.

So, the additional debt that is being raised can be used to repay sponsors equity, thereby increasing the gearing ratio. So, this is taking over existing debtors and bringing in new capital, so this is called as your new financing, and whenever we are talking about new financing, the increased funding the we actually trying to increase the leverage ratio. So, the increase funding will have a lower level of seniority as compared to the first loan, so this is the traditionally accepted practice that you see in the industry.

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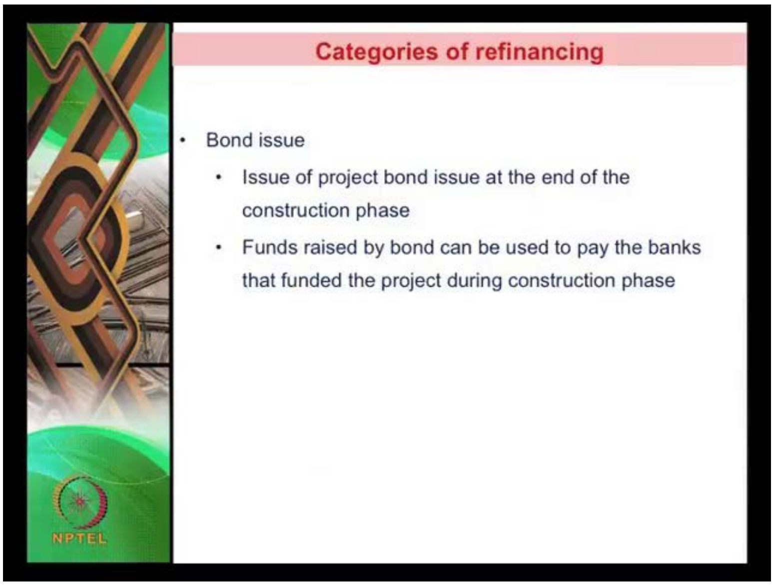

So, then we have what is called as your bond issue, so the difference between takeover and new financing in the sense that in both the cases, the new set of lenders are essentially a group of you know syndication of lenders. So, in a takeover financing one syndication is probably replaced by another syndication, in a new financing one set is replaced by another set of syndicates. And in addition the new set of lenders bring in more capital than the existing set of lenders.

So, this is basically major issue, but another big difference between takeover and new financing in a sense that in a takeover financing, the approval of the existing creditors are required. But, in a new financing the such an approval where you actually need all the existing creditors approval for bringing in capital is not needed right, the new lenders can actually, the new financing actually happens through the sponsors right. The new set of lenders provide capital through the sponsors, which the sponsors actually use to repay the existing set of lenders.

And in addition to that you actually provide additional capital to increase the leverage ratio. So, in essence in both the takeover and new financing, we actually have one set of lenders replacing the other, but in the takeover financing generally speaking there is very limited interaction between the project company and the new set of lenders. So, one set of lenders interact with another set of lenders, and then they conclude the transaction.

But, in the new financing a new set of lenders first discuss with the project company, and then the project company buys out the existing set of lenders, using the capital provided by the new set of lenders. And therefore, there is no elaborate approval of all the creditors that are required, as we see in the case of a takeover financing because at any point in time the borrower can repay the loan from any other source. So, normally this flexibility exists in loan transaction.

So, therefore, the borrower by taking money from the new set of lenders is prepaying the loan at an earlier period. And therefore, he is able to you know he basically avoids the elaborate approvals that are needed in a takeover finance, now the third category of the financing is called as the bond issue, you know the difference between bond issue and other previous ways of refinancing is that, in a bond issue you know we do not really have a syndicated group of lenders. We will as we see in the case of takeout or new financing.

So, in a bond issue in many cases the bond issues can actually be invested by retail investors or even if we actually have a bond issue in which we have institutional investors. The institutional investors does not comprise only of banks, as we see in the case of a syndicated loan, in syndicated loan normally we actually have only banks, but in a bond issue even though it might actually be, you know preplaced with institutional investors. You actually end up placing the bond with a wide variety of investors.

So, it could be other institutions such as pension funds, it could be insurance companies, it could be entities like the university enrollments, it could be like the mutual funds that invest in the infrastructure sector and so on. So, you do not really see only banks participating in a bond issue, you also see whole lot of other investors, so that is a big difference between a bond issue and other forms of a takeout financing. So, when you actually issue a bond the funds that you raise by bond issue can be used to pay the banks, who have invested previously during the construction phase.

Now, I think you might have been hearing different terminologies like syndicated bank loan and bonds and so on. I think it right time for us to actually understand the key differences between the bank loan and other bonds, so let us spend some time to understand the differences between a bank loan and a bond.

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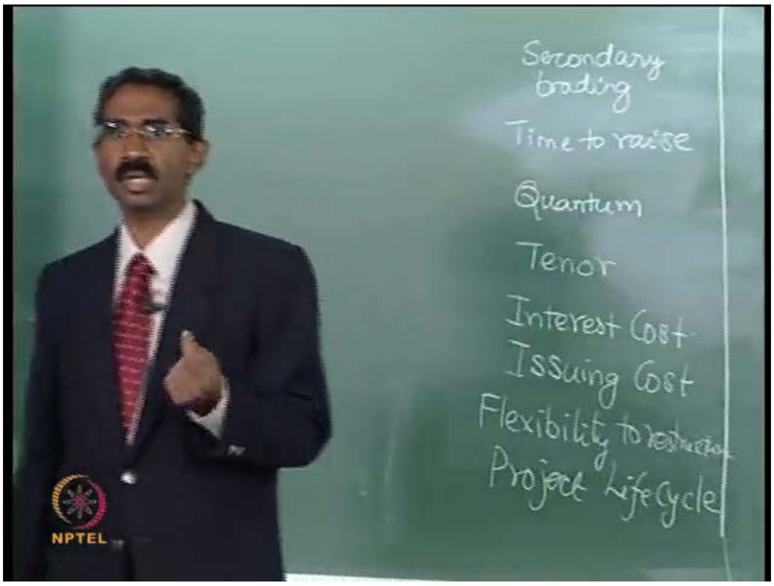

So, I am going to let say compare let say bank loans and bonds on various parameters, let us first talk about what is a bank loan what is a bond loans. So, bonds are actually provided by a larger group of investors, it can actually retail investors in addition to banks and other financial institutions whereas, in a syndicated bank loan we have only banks participating.

So, what actually happens in a bank loan, so the secondary trading that is one bank in a syndicate selling it to another bank in the syndicate is fairly limited or one bank in the syndicate, giving out its loan to a different bank which is not in the syndicate such that is actually very limited does not really happen very often.

So, the secondary trading between you know in a bank loan is very limited or very rare is limited or rare whereas, in the case of a bond an investor who purchase a bond originally is free to sell the bond to any other investor, who actually expresses an interest in buying the bond. And whenever we have retail investors, the bonds are listed in the exchanges, and the bonds become freely trader. So, the bonds are lot more tradable, they are lot more active in the secondary market as compared to the bank loan.

So, secondary trading the bonds are com active as compared to loans, so next we will look at how much time it would take to raise. So, bank loans can actually be raised a lot more faster, as compared to a bond because the banks are in a much better position to actually appraise the project banks have a lot more exposure, they are knowledgeable investors. And given the fact that you know it is actually a private transaction, there is no retail investor involved.

The kind of regulations and compliance requirements are lot lower, in a bank loan as compared to a bond. So, the time to raise a bank loan can be let say and as slow as 1 to 3 months, whereas, the you know raising the bond may not be possible, so faster sometimes it may it may need planning of up to 3 to 6 months to raise a bond issue. Because, the kind of compliances and other regulatory requirements in a bond issue are much more stricter, much more tighter as compared to a bank loan. So, we need to have a lot of planning done in terms of raising the bond issue.

Now, let us look at a quantum, which is a bigger market can we actually raise large amounts of capital in a syndicated loan market or can we raise large amounts of capital in a bond market. So, bond markets are much more deeper are bond markets are much bigger, as compared to the syndicated loan market, so one is able to raise large sums of capital in a bond market, as compared to the bank loan market. So, quantum of finance in a bond market is higher as compared to bank market, as compared to, next we will look at that tenure.

So, these are by in large some of the main you know characteristics of loan listen it, you need to actually know how long is the loan, we need to know how much time it takes to actually raise the loan. And we also need to know, how much can you actually raise and we also talk about the cost, we will come to the cost later now, we will talk about the tenure that is period of the loan which actually offers a longer 10 year, the bond market actually offers a longer 10 year as compared to the bond market.

Because, the institutions that are actually investing in bonds are very different, who are actually looking for long term investment opportunities. So, for example, if you have pension funds, insurance funds, university endorsements, you know and sub cases you know mutual funds they are all looking for fairly long term investment opportunities as compared to banks. Because, banks do not have access to long term funds, banks actually have majority of the banks funds are from the retail investors.

And retail investors do not really provide a long term fund to the bank, so therefore, the tenure of the loan is higher as compared to bank in the bond market, the tenure is higher for bonds. So, this is lower and next we talk about interest cost, which of them will actually give a lower interest, so if you really look at it, bank loans will probably have higher interest rate, as compared to bonds.

Because, bank actually give you a lot more flexibility in terms of raising, there are advantages the able to able to raise capital a very quickly, there are advantages in terms of scheduling, the capital draw down in the way it meets the project requirements and so on right. So, therefore, the interest portion of bank loan is generally going to be higher as compared to bonds, where the interest cost is lower, but interest is was one cost, there are lot of other costs involved when you actually try and raise the loans.

The other cost which can be which we can all clog together and call it as issuing cost that is when you actually issue take a loan or issue a bond, you need to actually provide you know arrange for various you know expertise. For example, you need to arrange for advisory services, you need there are you need arrange for arranger services there is a lot of transaction cost involved in all of this.

So, which of this will have a let say a higher transaction cost, so the issuing cost is going to be higher in the case of a bonds because of the fact the process is, so elaborate as compared to bank loan. So, the issuing cost for a bond is going to be higher and it is lower or for the banks.

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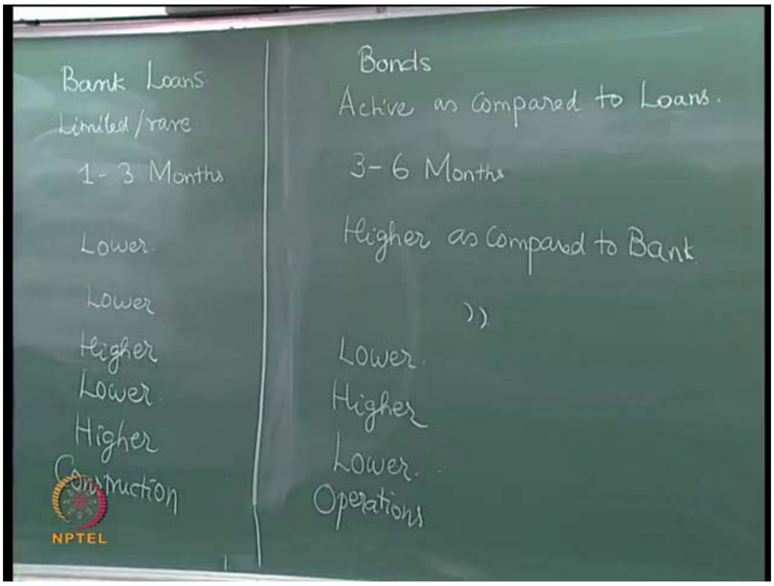

And then flexibility to restructure, so because of some reasons the project is not doing well or for any other reason, you want to restructure the loan and which offers a better flexibility the bank loan or is a bond. And if you actually look at it the flexibility to restructure is much better in a bank loan because of the fact that the number of counter parties to the loan that is the number of banks, who actually provides us the loan are very few. And you can actually individually negotiate with the banks and agree for a restructure.

But, in the case of a bond sometimes if the bonds can have several retail investors, and it is going to be practically impossible to actually get in touch with the instructors. And make them agree on restructuring plan right, the flexibility to restructure is much higher for a bank loan as compared to a bond loan, what else. Another important you know aspect of that we need to be aware of is the fact that, when do we actually use what source.

So, we actually see both bank loans and bonds being used in financing of infrastructure projects, there are various costs and benefits of each of these sources. So, is there any we can we determine more which will be more appropriate right, so project we look at the project life cycle. So, when you look at the project life cycle, bank loans are primarily used during the construction phase right, because during the construction phase you actually need capital not at one go, but you need capital in different trinkets. So, you can actually withdraw capital as and when you need during the construction phase from a bank loan. So, therefore, the construction phase invariably people actually go ahead and secure a bank loan.

But, when the project begins operation phase then people actually go ahead and use a bond loan to refinance the bank loan. Because, you know the operating construction is complete, then you the entire project has been financed, but then the project has been financed with source of capital that actually has a higher interest cost. So, therefore, you may want to actually refinance it using bonds which has a lower interest cost, and you do not really need capital in multiple trinkets, you need the capital entire capital up front.

So, therefore, you are able to finance using bonds and the need for capital is also for a longer duration and so therefore, the strategy is to actually refinance a bank loan using bonds, once a project reaches the operations stage. The question that you may have is why do not we actually use bonds for construction stage, the reason is a what is called as a the thing of the reverse arbitrage.

So, what is this reverse arbitrage, so as we have seen earlier during construction phase the entire money is not needed up front, as the construction progresses you need money in different trinkets now the withdrawal happens over a period of time. In a bank loan you actually start paying interest, only when you withdraw the amounts, the loan has been sanctioned. But, if you do not actually withdraw you do not actually pay any interest you actually pay a small commitment fee, but that is not very large amount.

If start paying interest which is a larger amount, only when you actually start withdrawing. When you actually issue a bond, the entire capital comes to the borrower up front, the borrower does not really have the flexibility to withdraw capital as and when he needs. So, when the borrower gets access to the entire capital for which the bonds has been issued, then the bond holder will need to be serviced, the interest needs to be paid as soon as the bond holder subscribes to the bond issue or as soon as the capital is given to the borrower.

So, the borrower therefore, a borrower; obviously, in a construction phase does not need the entire capital up front he needs it over many stages. So, when he gets capital more than what he needs; obviously, he is going to invest in some very safe avenues, so that that capital starts getting some returns. But, then the surplus capital that is reinvested in other safe instruments, will not be adequate to meet the returns expected by the bond holders. The bond holders will actually need a higher interest rate, and the returns that the safe instruments give is not going to be very high.

So, therefore, the project start paying interest on the surplus funds which is more than returns that the surplus funds gives. So, this is basically your reverse arbitrage, so because of this occurrence of reverse arbitrage or negative arbitrage, we do not normally use bonds for the construction phase. So, there is second question that you might actually have is why do we actually have to issue bond for the entire amount, why can not we actually issue bonds only for the amount that we need. And why cannot we actually make multiple issues of the bonds.

Now, that is a fair question, but then as I mentioned here the issuing cost for a bond issue is going to be high. So, each and every time you make a fresh issue of a bond you are going to incur a higher issuance cost, so therefore, you may actually when you start issuing bonds in multiple trinkets, the issuing cost will also going to be very high. And that may actually damage the economics of the project. So, therefore to balance out the cost involved it is normally, it is the most common strategy is to actually fund it using bank loans during the construction phase, and the take out and refinance bank loans using bonds in the operation phase.

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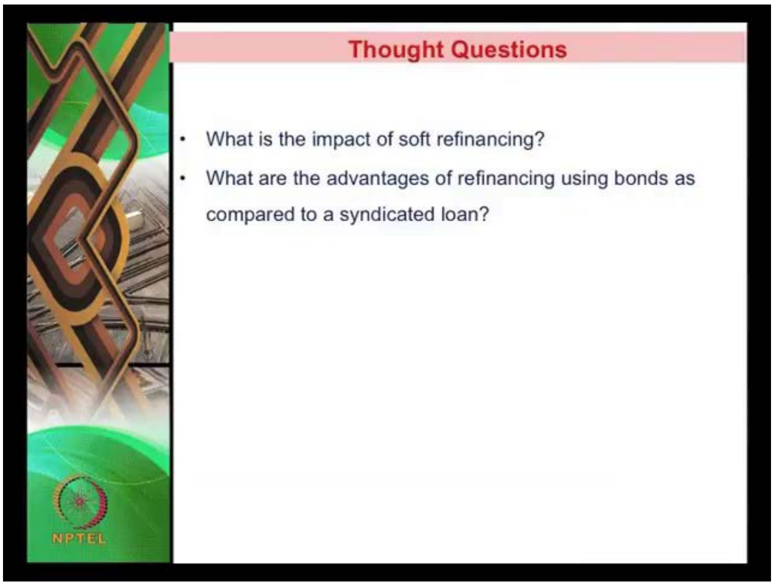

So, now, we will actually you know put forward some thought questions pertaining to this topic, question number one is what is the impact of soft refinancing, we actually talked about soft refinancing is nothing but change in the loan tenure. And whenever there is a change in the loan tenure, what is the impact of that, where do we actually see it being manifested.

Question number two is you know there are two ways, if you can actually refinance, you can refinance using a syndicated loan or you can refinance using a bond loan. Now, what are the advantages of refinancing using bonds, as compared to syndicated loan, so try and take a an example of hypothetical project, and see the benefits of using refinancing as well as a bond issue. So, we will discuss these questions in the beginning of the next lecture.