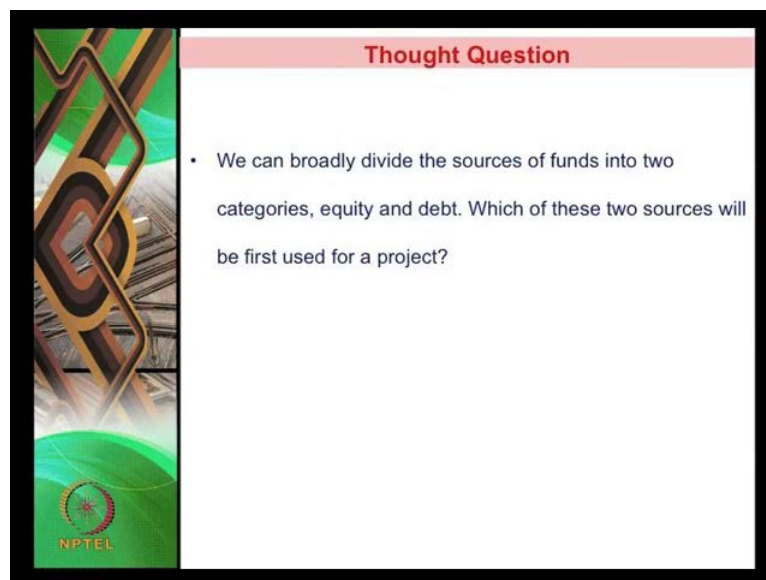


Infrastructure Finance
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Lecture - 20
Project Finance Markets

Welcome back to this course on Infrastructure Finance. So, this is lecture 20, and we will be touching up on the topic of Project Finance Markets in this lecture as well. So, in the previous lectures, we have looked at some of the major sources of funds that actually are used in terms of financing projects, and we will look at some of the other source of funds today.

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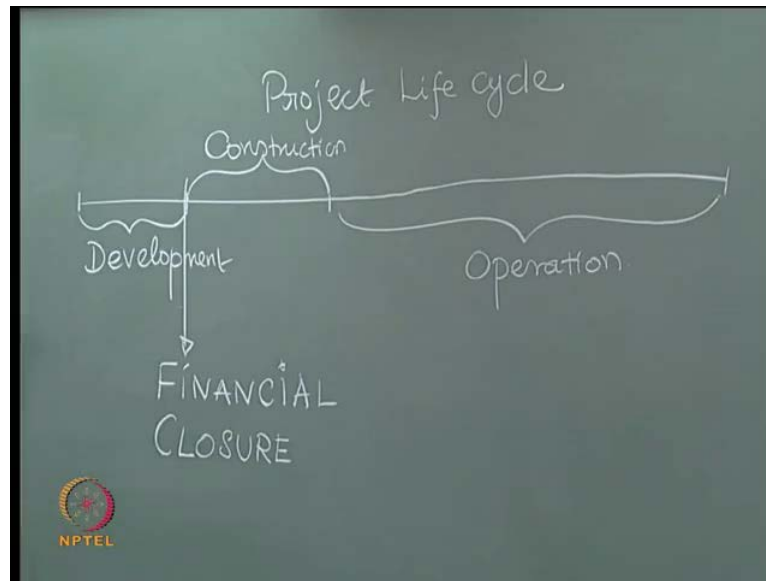
The slide features a decorative vertical banner on the left with a green and gold geometric pattern and the NPTEL logo at the bottom. The main content area has a red header with the text 'Thought Question' and a single bullet point.

Thought Question

- We can broadly divide the sources of funds into two categories, equity and debt. Which of these two sources will be first used for a project?

Before that we kind of look at some time on thought question that we looked at in the previous lecture which is, we can broadly divide the sources of funds into two categories equity and debt, which of those two sources will be first used for a project. So, what do you think will be the answer for this, before that let us kind of understand, when actually in the project life cycle, does major investments starts happening.

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So, if you look at the project life cycle, so let us assume this is your project life cycle, so the initial part is called as your development phase and then you have construction and then you have operations. So, when you actually look at when the investment starts happening, much of the investment when the project starts happening during the construction phase. So, in the project development phase, the sponsors of the project undertake various studies to determine the project feasibility, they look at trying to see, whether there will be possible to obtain clearances from the government.

In essence, there is a lot of ground work that is done to ensure that, whether the project is viable, whether the project can be developed, whether the government approvals can be obtained and so on and so forth. So, there is certain amount of initial investment that is needed in doing all these studies, in all these effort that is needed and as a percentage of the total project cost, that is not going to be very high. So, the initial expenses that are actually to be incurred in the development phase are largely contributed by the project sponsors.

But nevertheless, the bulk of the investments starts actually happening from the construction phase, so towards the end of the development phase, we have what is called a financial closure. So, let us assume that, there is a financial closure that occurs at this point, so what is this financial closure, so financial closure indicates that, for all the

capital that is needed for the purpose of this project, commitments has been received from all the investors.

So, financial closure indicates that, how the project is going to be funded, who are going to be the contributors of the project and all the conditions related to the particular financing has been completely tied up. So, the investors have committed to invest in the project and the project sponsors can actually draw upon the funds as and when it is needed. So, at financial closure to reemphasize, the investors commit to invest in a project.

But, they may not be actually providing all the funds at financial closures, simply because the money is not needed at that point in time, the entire money is not needed at that point in time. The money is needed through the construction phase, so therefore as and when there is requirement of capital, the investors will contribute to the project. So, when we say that, there is financial closure, we have identified all the people, who are willing to contribute to the project.

So, financial closure actually happens after a lot of other events have happened, so for example, it happens at towards the end of, what is called as a development phase when the project viability is established, when there are clearances that needs to be obtained from the government or obtained and so on. So, in essence, the people who are willing to contribute to the project would like to know, whether the project would be viable, whether the project has got the licenses for it to operate, whether there will be customers.

Whether there will be other contractual arrangements like the power purchase agreement, the fuel supply agreement, the engineering procurement and construction agreement, they are all been finalized so that, we know for sure, what is the total capital that is needed for the particular project. So, remember, unless until all the contractual agreements are finalized, we do not know what is the total capital, that is needed for the particular project.

You need to know, what is the cost of equipment, you need to know what is the price at which you will be able to sell the power, you need to know how much it is going to cost to construct, you need to know how much it is going to cost for developing the engineering designs and so on. And all of that is possible only if, we have a contractual

agreements that have been signed with the respective parties, who are going to provide the services.

So, when we actually have, when a project achieves financial closure that indicates that, all these agreements are reasonably in place and these agreements indicate, what is likely to be the project cost. And then the investors in the project would then consider this project cause before arriving at their financial commitments. So, essentially the investment that is needed during the development phase is largely provided by the sponsors. But then bulk of the investment will start happening only after the financial closure has been achieved.

So, once the financial closure has been achieved, we would be able to know what percentage of the commitment is by way of equity, what percentage of the commitment is by way of debt. So, the question is, after achieving financial closure, which of those will come in first, will the equity investors come in first or will the debt investors put in their money first. So, let us look at situation one, situation one let us say, if the equity investors had invested first, as we have seen earlier, most of the investments are in this infrastructure projects or in assets that have very, very specific use.

So, once you actually start making an investment then the assets that have been created has very little alternatives. So therefore, an investor who has made the first investment in the project will not be able to have so much of bargaining power after the investment has been made. In essence, what you actually find is, if the equity holder has made it is investment then he does not really have adequate bargaining power after his full investment has been made.

Same goes with the debt investor, when the debt investor makes the first investment and if all the debt investments is actually come into the project before the equity investments has fallen in then the debt investors will actually lose considerable amount of their strength negotiating capabilities in the project. Simply because of the fact that, they have contributed their capital and after that, they do not really have much hold in the project, they are left with the of mercy of, let us say the equity investors.

If the equity investors do not contribute for some reason then the entire investment that are made by the lenders is actually lost. Because, these assets cannot be liquidated, they have very little alternatives and for that particular reason, the debt holders will not be

able to recover much of their investment, if there is some kind of default in the part of the equity investors.

Same goes for the case of equity investors as well, if the equity investors make the first investment then there is any default on the part of the lenders. Then the equity investors will be finding it difficult to recover their investment from the project. So, for this particular reason, you actually have a scenario, where the both equity holders and debt holders have proportional contribution of the capital.

So, if there is 20 percent of the capital that is needed, now for the purpose of meeting the expenses then part of it will be contributed by the equity, part of it will be contributed by debt in the same proportion, that we have debt and equity in the capital structure. So, let us assume that, the need for capital now is, let us say 10 crores and if in the capital structure you have equity debt ratio of 20 80 that is, 80 percent is debt and 20 percent is equity.

So, in the 10 crore of requirement, you will actually find 2 crores will be contributed by the equity investors and 8 crores will be contributed by debt investors. So, the capital will actually flow in proportion, in the proportion of equity to debt in the capital structure and both the investors will invest together, it is not that the equity will come in first or debt will come in first. And that will actually preserve the integrity of the financial structure, it will ensure that, there is equal commitment on both the kinds of financial investors for the success of the project.

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Fixed Rate Debt Market

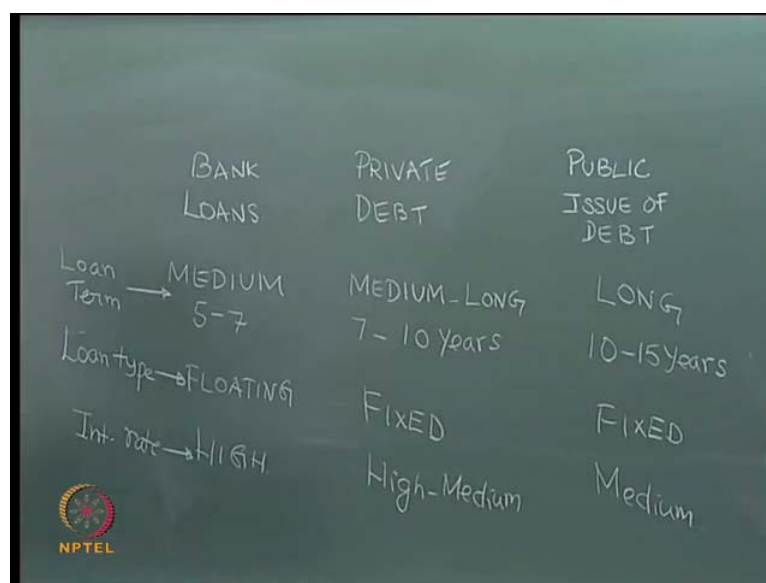
- In some cases also referred to as the private placement of debt
- Dominated by insurance firms
- They are able to provide long term loans as compared to the bank market
- However there might be limitations on innovative structuring to meet the project requirements
- Banks provide a lot of other services – advisory, underwriting, etc.

Now, let us get back to some more sources of finance, so we also need to, we looked at in the previous lecture the bank loan market in little bit of detail. And we will start with what is called as your fixed rate debt market in this lecture, so fixed rate debt market is also referred to as the private placement of debt. So, largely we are trying to look at a difference between, what is called as commercial bank lending as well as lending by other institutions.

So, if you really look at a private placement of debt, so private placements of debt is different from public debt, where we are able to issue debt in public and it is also different from to certain extent from the bank loans. In the private placement of debt, it is actually dominated by insurance firms, say there are other categories of investors as well. For example, there are pension funds, there are university endowments, there are some other high net worth individuals, who try and make an investment for projects that they find attractive.

But, by enlarge, the entire private placement debt market, it is dominated by the insurance firms, because they are largest and they have a reasonably long term source of funds by way of insurance, policy premiums and so on. And because of the way, in which they are able to source their capital, there are prevail to provide long term loans as compared to the bank markets.

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	BANK LOANS	PRIVATE DEBT	PUBLIC ISSUE OF DEBT
Loan Term →	MEDIUM 5-7	MEDIUM-LONG 7-10 years	LONG 10-15 years
Loan type →	FLOATING	FIXED	FIXED
Int. rate →	HIGH	High-Medium	Medium

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So, if you actually look at the entire debt market as a spectrum, on the one hand you have bank loans and then you have private debt then you have public issue of debt, so this is a kind of a spectrum that we see. So, in the case of a bank loan, we actually are able to get a loan that are medium term loans, let us say on an average of about 5 to 7 years. So, banks would probably unwilling to lend more than 7 year duration, but if you are looking at a private debt such as insurance firms, you are able to get up to medium to long term.

So, let us say about 7 to 10 years and then public issue of debt is actually a long term, so this will be 10 to 15 years. So, depending on the kind of capital and the tenure of capital that we need, we are able to actually raise money from a different sources. So, despite the fact that, there are some advantages, so what are the other advantages of the private debt. So, private debt actually have what is called as your fixed interest rates, whereas the bank loans, they by enlarge have what is called as a floating interest rates and public issue of debt, they also have a fixed interest rate.

So, we are able to know, what is the interest cost of a loan if you are able to get it from the insurance market, because if it is fixed and in terms of interest rate, it is going to be the highest as far as the bank loans are concerned. So, interest rates, this is loan type, this is loan term, so interest rate would be the highest for a bank loan and for a private debt, it is high to medium and whereas, for the public issue of debt... So, there is a specific kind of a feature for each of these different sources.

There are some advantages that we have seen for private placement of debt, your interest costs are lower, you are able to get loans for a longer term, you are able to get loans at fixed interest rate. But then there are some of the limitations as well that we have to be aware of for example, there are limitations in terms of, how innovatively this private placements of debt can be structured, in terms of providing loans that are meeting the unique requirements of the project.

So, banks are able to structure loan products that are far more innovative than many of those insurance companies in general. Obviously, there are exceptions that exists, but in terms of innovativeness, I think the banks are able to provide products that are lot more innovatively and closely structured to meet the requirements of the project. And we also need to understand that, banks are able to provide a lot more other services, so for example, banks actually provide advisory services.

So, advisory services would certain extent involve providing various services such as, doing viability studies, looking at evaluating what could be the demand. If it is a road project, they can help us to estimate what could be the transaction. The banks can also provide in terms of advisory services, in terms of what should be the capital structure, how much of debt and how much of the equity can actually be raised, from which of the markets can be actually raised the loans and what it should be the tentative interest rate for such a loan, so these are all several advisory services, which the banks can actually provide.

In some cases, they also provide under aiding services, so that is, they actually undertake the responsibility of raising capital on behalf of the project company. So, project company can actually mandate a bank to underwrite the loan, that they actually need to be from the banks. So, the banks actually charge a fee for providing the services but nevertheless, these are services that only the banks can provide, you may not be able to find this kinds of services from other investors like the insurance firms. So, depending on what is the need, depending on what kind of finance we need, we need to actually approach a particular source for meeting the project financing requirements.

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International Capital Markets

- Market for medium term and long term securities that functions outside the national capital markets
- Generically referred to as the Euromarkets
- Economic viability of the project should be established beyond a reasonable doubt
- Borrowing entities should be well known, established, credit-worthy
- Can raise debt of maturities that are present in their domestic markets

Next let us look at, the international capital markets, so where should we actually start raising money from, should we actually raise money from the domestic market, should we actually raise money from the international markets. So, there are a lot of advantages in raising money from international markets, but at the same time, international markets is not everybody's cup of tea, it is not easy to actually approach international capital markets.

So, let us try and spend some time trying to understand, what are the international capital markets for. So, generally if you look at it, one of the major reasons why private sector has been involved in the infrastructure sector is that, there is a lack of capital in the developing countries and they need to actually augment financing sources. So, one way of augmenting financing sources is to actually get international investors to invest in developing countries.

And therefore, international capital markets needs to be approached from the perspective of raising additional capital, which may not be possible in the domestic markets. So, it is more of a necessity that, sometimes one has to approach the international capital markets. So, what are these international capital markets, so international capital markets are the market for the medium term and long term securities, that functions outside the national capital markets.

So, for example, if there is an Indian project developer and he wants to take a loan, he can actually take the loan from lenders in India or he can actually take the loan from lenders outside. He can take money from equity investors in India or he can actually take money from equity investors outside. So, generally you can actually access capital markets that are outside the national boundaries as well. So, these international capital markets, specifically when you are looking at international debt, they are referred to as euro markets.

So, for example, if you want to take euro dollar loan, so that essentially means that, you are actually trying to raise dollar capital from outside the country. So, if you are talking about euro pound loan, you are trying to raise pound loan that is outside of your home country. If you are talking about euro yen loan, you are trying to raise yen loan that is outside your domestic country. So, when you try and approach international capital markets, what is the minimum that is expected by the international investor.

So, international investors, because of the fact that, they may not be as aware of the domestic conditions, as probably a domestic investors would be, generally speaking if you look at international investors might not be very familiar with the way the developing country work. And therefore, they would probably expect a lot more comfort in the investment as compared to what a domestic investor would be. Domestic investor inherently because of the familiarity with the ground realities, will be willing to undertake a lot more risk as compared to an international investor.

So, when you approach an international investor, the first thing is the economic viability of the project should be established beyond a reasonable doubt. So, how do we actually establish economic viability, so we probably will have to ensure that, does the project actually have a license to operate, so as the concession agreement been provided by the government to the project company for it to offer the services. So, does a concession revenue that the project will be able to earn, out of the concession agreement, adequate enough to meet the expenses and then service the return requirements of the investors.

So, is the concession agreement valid, how long is the concession agreement for, is the duration of the concession agreement adequate enough for the project to give returns to the investors. Does the concession agreement provide some kind of benefit from shielding competition that is, does the concession agreement provide for the fact that,

there will be no competing facility, there will be no competing service provider so that, there is certain reasonable level of assurance for the investors in the project.

So, these are all various measures that can help us to estimate the economic viability of the project. Second, international markets cannot be approached by a smaller players, borrowing entities should be well known, they should be established and they should be a creditworthy. So, international investors, you should remember have alternatives for investing anywhere in the world. So, they have a choice of investing a large number of projects, so therefore they will probably choose projects depending on, how good the borrower is.

Does a borrower have a track record, is a borrower familiar with the markets in developed countries, is a borrower established. Established in the sense that, does he actually have a large size, is he able to have good linkages with the banking world and so on. Is a borrower creditworthy, is a borrower's credit rating investable grade and so on and so forth. So, only those projects that are able to meet these broad criteria will be able to successfully enter the international capital markets and raise money.

So, what kind of capital can be actually raised in the international capital markets, in international capital markets, one can actually raise debt of maturities that are present in their domestic markets. See for example, if we actually find only a maturities of up to 7 years in a foreign market, it is not possible to actually go and raise tenure loans so easily in that markets. So, by enlarge, you would be able to raise capital of a particular duration, that is prevalent in their existing domestic markets. It is not possible to raise something that is having a very longer duration as compared to, what is there in their existing markets.

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There are also some of the other factors that the lender looks into, one is the attractiveness of the borrower country currency. So, whenever a lender provides capital to a project that is different from his own, see obviously, takes certain amount of currency risk, because the project inflows are going to be in home currency and the loan that has to be serviced is in a different currency. So, the lender will probably look at, how strong the currency of the borrowing country is going to be.

If the borrowing country's currency is going to weaken as compared to the lenders home country then there are several issues that come into place. See for example, the value of the investment that is actually been provided by the lender considerably diminishes in value, because of the deterioration of the home country currency. So therefore, lenders will be worried, should the country of the borrowing country deteriorate or depreciate over a period of time.

So, people would like to see, how strong the currency of the borrowing country is before they can actually make an investment decision. The second is, they are also concerned about the inflation rates, because they would not like to have very, very high inflation rates in the borrowing country. Because, high inflation rates again reduces the purchasing power apparently in some sense of the country that is lending.

The third is a political and economic stability of the country, which is very important, will there be continuance in the way, in which the country is being governed, will there


be any political risk for the investment. Let us say for example, if there is a change in the government because of the elections, will the government that is coming next is going to honor the contract or is it going to scrap the contract. So, there is a lot of political risk associated, whenever there are changes in the government and the investors will likely to see, whether there is going to be a political and economical stability.

So, economical stability could mean, will the country be open to foreign investment, will the country be continuing with current economic policies or will the country be closing doors to private sector investment and so on and so forth. An advantage of international capital markets as I have mentioned earlier is, one can borrow very large amounts or international capital markets have a lot more depth than domestic markets in emerging countries.

So therefore, it is possible to raise a lot of capital, it is also possible to raise capital of a longer tenure, because international investors have been familiar with investing in long term debt, as compared to what domestic investors have been doing. So, there are several advantages of raising money international capital markets, obviously it is going to take a longer time. But then a major advantage is, we could probably raise capital at a much lower rates, as compared to what we could probably raised in domestic market itself.

At least, let us say in case of India, the domestic interest rates can vary anything between 10 percent to 15 percent, because we actually have inflation rates that are a way higher. So, the interest rate regime in India is very high as compared to an interest rate regime, that we actually see elsewhere in developed countries like the US or Japan or Europe. So, whenever we are able to raise capital from the international capital markets then we pay actually an interest rate that is lower than what we actually pay to investors in domestic country. So therefore, one is able to actually raise capital at lower interest rates, but at the same time, one is also exposed to currency fluctuations, one is exposed to currency risk, but that is a trade off, that needs to be carefully managed.

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Supplier Credits

- They help to finance the purchase of equipment
- It can take the form of a loan, lease of equipment, or a guarantee of bank financing
- Vendor may have a better understanding of the technical risks of the project than a commercial lender
- Such financing is sometimes offered by the vendor as part of a bid to secure a contract
- Vendor finance can be re-financed in due course to relieve pressure on the balance sheet

Another source of finance that is commonly available is what is called as supplier credits. So, supplier credits, what do we actually mean by supplier credits, many times we actually have an equipment provider. In addition to providing the equipment, the equipment supplier also provides financing for purchasing the equipment. So, either the equipment is provided by the supplier without return for any capitals are, in which case it indicates that, there is an indirect loan.

In some cases, we have a financing arm of the equipment supplier, which provides the capital needed for purchasing the equipment. So, there are several ways, in which the transaction can happen for example, it can actually take the form of a loan. The equipment supplier can also provide a loan, which will then be used to purchase the equipment or it can provide, it can lease the equipment, in which case they just provide the equipment, but they will not provide any specific finance.

The company that is using the equipment can actually repay the cost of the equipment by way of lease rentals. So, what is this leasing, how does it work, we will probably discuss more about it in one of the subsequent lectures, but this is one of the ways, in which we could probably get supplies credits. And in some cases, there could actually also provide a guarantee to bank financing, so what happens. So, a banker who is willing to actually lend money to the project company for purchase of the equipment, but the vendor is willing to provide a guarantee on the functioning of the equipment to the bank.

So, in case, the bank is not able to recover the loan from the project company then the vendor guarantee ensures that, the vendor is paying the loans of the bank, if the project company is not able to. So, in essence, what actually happens is, the vendor takes the risk of investment and not the bank. So, why does it happen, does it help at all, yes sometimes it actually helps, why because vendor may sometimes have a better understanding of the technical resource of the project as compared to a commercial lender.

So, let us say for example, in the case of power generation, the power generation let us assume that, a vendor like general electric, which actually manufactures turbines and other equipment related to power generation. They have come out with a new turbine model, which actually ensures much higher efficiency, which probably are able to generate power a lot more economically than the previous versions of the product. But then because it is new, the product is not tested in the market and there is no track record in terms of, how the product is going to perform.

So, because of this absence of a track record, the bank source might actually have a very different view of the risk of this kind of product and they may find it very difficult to provide a loan for purchase of this equipment, simply because of the fact that, the technology is not fully proven in the market place. The technology might have been proven in the internal testing done by the equipment manufacturer itself, but it is not been proven in the actual operating conditions.

So therefore, the bankers might actually look at this as the higher risk, whereas the vendor because of the fact that, he has tested it, he has manufactured it and he has found it to be fully meeting the operating requirements, might actually not being seeing this as the higher risk. So therefore, because of this better understanding of the technical risk, the vendor will be able to provide funding at lot more economical way as compared to the bankers themselves.

So therefore, getting the financing from the vendor will be a lot cheaper, it will be a lot faster and for the vendor, this is also beneficial, because the vendor helps to get entry into new marketplaces. If the vendor financing is not available then the project company would probably willing to take bank finance and then go ahead and purchase a product, which is been already tested and proven in the operating conditions. But, the vendor

would have lost a potential market opportunity of selling his equipment to this particular project.

So therefore, this kind of financing is also provided by the vendor, in order to secure as part of the bid to secure a contract. See for example, we have seen earlier, all this kinds of equipment and vendor arrangements are done much before the achievement of financial closure. So, the vendor as a part of this equipment supply contract, can also propose financing for the equipment in a bid to secure the equipment contract. So, most of this time, this actually happens much before the financial closure so that, we know the exact amount of capital that is needed at the time of financing closure.

So, by offering finance, vendors can actually make their offering a lot more competitive, they help to get adjust to new marketplaces, they help to actually introduce new products in the marketplaces, which do not actually have an operating track record and so on. But, how does a vendor meet his demand for capital, because some of the assets can be fairly long term, it could be about 5 years, it could be about 7 years and the vendor is actually not a banker and it will be very difficult for him to provide loans for such a long duration.

So, what does a vendor do, so normally the vendor refinances the loans after the equipment begins operations through any of the commercial banks. So, the vendor initially has a loan on his balance sheet, by way of providing this support to the project company. And once a project begins operations, the vendor refinances the loan by selling this to any of the financial institutions or the bank. So, they are able to retain the loan for a shorter duration on their books of accounts and by able to refinance, they are able to relieve the pressure on the balance sheet.

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Public Sector Finance

- Public sector debt is sometimes provided as a subsidy, often as a sub-ordinated basis to that provided by commercial financial markets
- Such public sector assistance can help to improve project viability
- Example: Viability gap funding for highway projects
- Public sector support can also be in the form of providing guarantees

So, the next source of finance is a public sector finance, so though we also talk about private infrastructure projects, immediately we find certain amount of public sector contribution in many of this projects. So, the reason is, now if the project is being implemented entirely by a private sector capital, it can actually become very unviable. Why, because the private sector capital is much costlier and therefore, to meet the return expectations, the tariffs or the services would have to be priced at much higher.

And at higher prices, there may not be adequate demand to meet the revenue requirements that is needed to service the return of the investors. So therefore, in many cases, we actually find public sector support and the support can be provided as a subsidy, subsidy could be, let us say low interest loans or it could be provided as a grant, whereby the project is not obliged to return the investment by the public sector back.

So, whenever it is provided as the subsidy or whenever it is provided as a low interest loan, it is often provided as subordinated basis to that of commercial financial markets. So, that is, the money is obtained from the public sector, would be repaid after the loans have been repaid to the other commercial investors, so this is called as subordinated. Only if the senior lenders that is, the lenders such as commercial banks and other financial institutions have been repaid, will the public sectors loan will be repaid.

So, this is called as subordination, the public sector loans are subordinated to the loans made by the senior lenders. So, essentially this public sector assistance is provided to improve what is called as your project viability, as I was mentioning, the project is funded entirely by private capital then the kind of crisis that needs to be charged would be very high. And if the prices charge is very high then the project may not be able to sell adequately and therefore, it can actually affect the revenues.

So, we have seen several ways, where you can actually have this kind of public sectors assistance. Let us take the case of highway construction in several projects in India and several projects in India, we determine what will be the cost of developing this highway. And whenever it is felt that, if the entirely developing of private sector will make the project unviable, that is something called as a viability gap funding by the public sector. The public sector provides a certain amount of capital so that, it restricts the amount of private capital is needed.

And this in turn, reduces the returns that needs to be generated from the project and therefore, one is able to keep the tariff at the manageable level. If the tariff is very high then there can be a lot of political backlash, it will make it very unpopular among the users and consequently, people might avoid using the road. And when people start avoid using the road then it defeats a very purpose of developing the infrastructure project. So, viability gap funding, that we actually see in highway projects is one example of using public sector finance.

In many instances, you find public sector support is not just in the form of finance, but in the form of providing other non financial support such as issuing guarantees. So, we have seen country guarantees being given to initial investors in a private power sector development in India, so this is called as your sovereign guarantee. So, for the initial power project that were developed in India such as Enron, the government of India gave a guarantee that, if the investors are not been able to meet the return expectations, which at that time was 16 percent.

Then, the government will ensure that, they are able to get their returns from the project, so this is a guarantee, this is not any direct support by the government to the project. But, it essentially gives a guarantee which ensures that, if there is a shortfall in project then the government will be able to compensate from the resources that it has. So, there is

another popular source of financing called as your export credit financing. In addition to commercial banks, we also have what is called as your export import banks, so this is in short form denoted as EXIM bank.

So, many countries have actually set up such EXIM banks to promote the exports of goods and equipment manufacture within that country. So, when you actually trying to import an equipment from a particular country then you can also get a loan funding from the EXIM bank of that particular country. So, for example, if you are trying to buy an equipment from a US manufacturer, it is also possible to get a loan from the US EXIM bank to part finance the purchase of that equipment.

So obviously, there is an interest on the EXIM bank of a particular country to promote the export of goods and products that are manufactured in that particular country. So therefore, they are willing to support, facilitate this export by providing a loan to the buyer of the equipment. In most instances, you will actually find EXIM bank financing be lot more competitive as compared to a commercial bank lending, because there is there is a certain amount of broader objectives of promoting exports from a particular country in such investments made by the EXIM bank, it is not only purely commercial.

So therefore, they are able to provide financing that is competitive, as compared to other commercial bank loans. But, it needs to be understood that, they do not provide loans for 100 percent of the value of the equipment.

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Export credit financing

- Export – import banks have been set up to promote the export of equipment manufactured within that country
- For example, when buying an equipment from a US manufacturer, it is possible to get a loan from the US EXIM Bank to part finance the purchase of that equipment
- Usually they do not provide loans for 100% of the value of the equipment

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By enlarge, it is about 50 to 55 percent, in some cases it can go as high as about 85 percent, but EXIM banks may not be able to provide for 100 percent of the value of the equipment. So, whenever we have, we are actually procuring equipment from other countries then EXIM bank can be a potential source of capital for project companies.

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Multilateral agencies

- Multilateral agencies: World Bank, ADB, AfDB, IADB, etc.
- Loans from multilateral agencies are intended to promote economic development rather than commercial development
- Long term, concessional interest rate loans are provided
- Multilateral agencies are seen as a deterrent against political risk and can help to attract additional capital from other commercial sources

And then you have what is called as your multilateral agencies, what are multilateral agencies, multilateral agencies these are also called as super national corporation. So, that is, they are corporations where you have many countries responsible for their monitoring, for their operations, for their governance and so on. So, the most common multilateral agencies are the World Bank, we have several arms of World Bank like the IFC then you have IMF and so on.

Then, you have ADB Asian Development Bank, AfDB, which is the African Development Bank, then you have IADB Inter American Development Bank and so on, so these are all multilateral agencies. So, loans from multilateral agencies are also provided to infrastructure projects, so many times the objective of these multilateral agencies is to provide for economic development, rather than only commercial development.

So therefore, the loan decisions, the investments that are provided by this multilateral agencies are very often not on strictly commercial terms, they are able to provide capital at much lower rates of interest as compared to commercial capital. Because, they feel

that, there could be substantial economic development that can happen, because of the development of these projects. So, whenever let us say, there is a development of an infrastructure project, there is a lot of construction activity that happens.

So, that creates a lot of employment and by creating employment, it provides a scope for increase in economic activity. It is said that, let us say for example, in an airport project, for every 1 million passengers that actually come to the airport it is said that, roughly that 10000 jobs that are being created. So, when there is multilateral investment in this projects, it helps to actually create jobs, it helps to actually promote economic growth, it helps to actually enhance the socio economic development in that particular region and so on.

So therefore, in addition to commercial interest, there is whole lot of other economic objectives that are achieved by such multilateral lending. So, because of this reason, they are able to provide capital at much lower rates, as compared to commercial capital. For a very long time, such multilateral agencies lending was largely seen only for public sector projects. There were very few lending, very few investments made in private sector projects, but that trend is gradually changing as of now.

Today, you also have World Bank support for projects in the public private partnership sector, not only in the government sector. A major benefit of this public sector, these multilateral agencies is that, loans by these multilateral agencies are seen as a deterrent against political risk. So, whenever there is support or loan from the World Bank, people feel that, the government would hesitate to cancel the project, government will hesitate to revoke the concession agreement that is given to the project.

So, it is seen as a deterrent for political risk, World Bank is supposed to be a lot more powerful in convincing the government on against doing these kinds of cancellations, renegotiations after the initial agreement has been signed. And it also helps to attract additional capital from other commercial sources for example, banks will be a lot more comfortable in lending to a project that also has World Bank support. Simply because World Bank support reduces a political risk much lower, as compared to projects that do not have such funding. So therefore, even a small amount of capital, even very limited amount of capital from these multilateral agencies can help to attract additional capital from other commercial borrowers.

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Rated agency is a bilateral lending agencies, it is very similar to multilateral agencies in the sense that, they also promote economic development along with commercial development. The difference is, in a multilateral agencies there are several governments, which actually provide capital, whereas in a bilateral agency, is actually a capital is provided by the country, to which the agency belongs to. So, for example, you have the Australian agency for international development, in this case the investment is made by the government of Australia.

In the case of DFID, which is the Department of International Development, the money is actually been provided by the government of UK, the UK's of US aid, the investment is made by the government of US. So, these are bilateral agencies, they also invest in a variety of developing countries, but the difference between a bilateral agency funding and a multilateral agency funding is that, whenever there is an investment by a bilateral agency, it is accompanied by a clause that involves procurement of expertise or services from the country that is providing the assistance.

Say for example, if there is an investment made by DFID or if there is an investment made by JBIC, which is Japanese Bilateral agency then the expectation is that, certain amount of procurement of equipment or services would be actually obtained either from Australia or Japan and so on. So, there is a certain amount of conditionality, because the

bilateral agency also has a vested interest of developing the economy of their own country by exporting goods, services and so on.

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Thought Question

- There is an argument that public infrastructure projects should be funded with private sector equity but public sector debt. What is your view on that argument?

So, we have now broadly covered some of the major sources of funding for projects, now let us end this with a very thought question, it is a very good thought question. So, for example, there is an argument that, whenever we fund infrastructure projects, it should be funded with a private sector equity, but public sector debt. So, I would like to get your views on this argument, so the argument is that, we should actually have both private sector capital and public sector capital. Public sector should provide the debt and private sector should provide the equity, and let us see what your views are for this argument.