Infrastructure Economics
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Module – 03
Lecture -11
Lack of Finance

We have seen that development of infrastructure requires finance and unavailability of finance is one of the major challenge.

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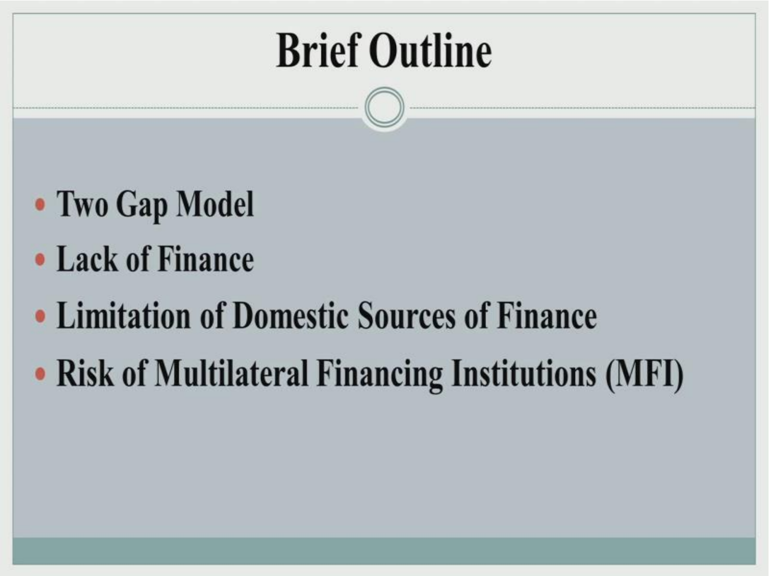

In the current discussion today I would like to discuss the two gap model first. After that I would also like to discuss that how lack of finance is creating problem for infrastructure projects. And we will also cover, that how domestic sources of finance has it own limitation and how multinational financial institutions or international bodies are also having certain risk in financing the infrastructure projects.

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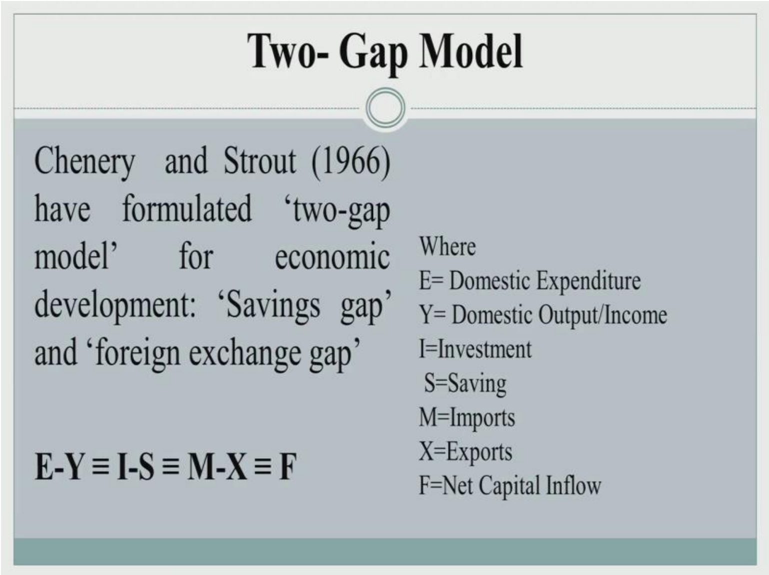

Let me begin with this Two-Gap model Chenery and Strout (1966) has developed Two-Gap model where they have argued that these economic development… especially the economic development is always facing saving gap and foreign exchange gap. Economic development process, if they have to really continue one cannot really ignore the saving gap and foreign exchange gap, where he has used the equation, $E-Y \equiv I-S \equiv M-X \equiv F$. In this equation, where E is the domestic expenditure, Y is the domestic output or the income, I is the investment, S is the saving, M is the import, X is the export and F is the net capital inflow in the economy.

So, if one can see in the diagram here, one can just see here that figure one illustrates that the case of two gap model, where I minus S investment minus saving is… it can be seen through the difference between the investment minus saving and import minus export. If the growing targets of economic development is supposed when we were at the OR position, if country needs… country's target growth is OR. What we need is… we need OD level of net foreign assistance.

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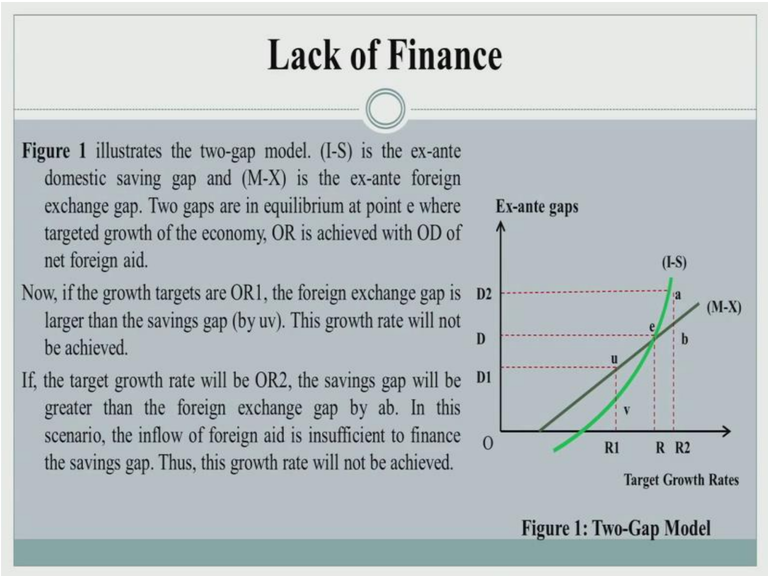

But, if we need to grow at the level of OR1 level, we need less assistance compared to the previous level in terms of foreign assistance and in that case we have to have OD level of foreign assistance. So, if the economics growth target is OD 1, the foreign exchange gap is larger than the saving gap by UV which is seen here. Because foreign exchange gap is X minus M, the black line curve while the green line curve is the saving gap.

So, the growth rate will not be… if one has to these growth rate will not be achieved, if the OR 1 growth targets are there in the economy. So, if the target growth rate will be OR 2, which is much higher than the OR 1 level, the saving gap will be greater than the foreign exchange gap by ab and in this scenario, the inflow of foreign assistance rate or assistance… will be insufficient to finance the saving gap. Thus the growth rate will not be achieved.

So, through these examples these two examples whether if the growth target is OR 1 and if the growth target is OR 2 in both cases we are finding that in first case when the growth target is OR 1, the foreign exchange gap is larger than the saving gap while in case of OR 2 we are finding here that saving gap will be greater than the foreign exchange gap. Both are two different gap possibilities in economic development.

So, the equilibrium in this case… in this example is basically at the E level, where the OD requirement of the foreign exchange and the possibilities of growth is at the OR level.

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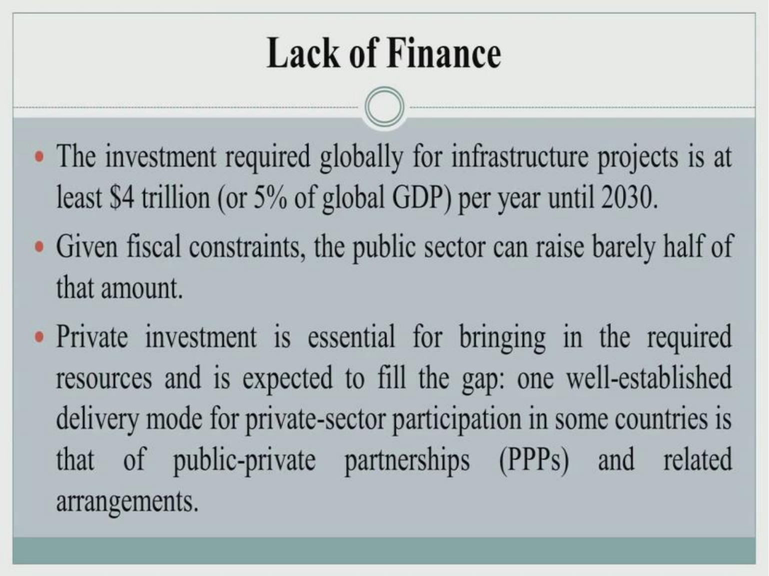

So, with this theoretical background if we see the current statistics of the world today we are finding… the current statistics of infrastructure gap in the world today. We are finding here, the investment required globally for infrastructure projects is at least 4 trillion dollar, which is equal to the 5 percent of the global GDP per year until 2030. So it is a big target to achieve. And this shows the lack of finance which may be under way or on the way. Given this physical constraint the public sector can raise hardly any amount, not even half of the amount which different international agencies are expecting.

At the same time private investment is essential for bringing in the required resources and it is also expected to fill the gap. One well established delivery mode for private sectors participation in some countries is that of the public-private partnership and related arrangements, which many developing countries and least-developed countries are following today. But ultimately the situation of international finance or one can say the investment gap is very high in case of infrastructure development and this is really one of the major challenge for the infrastructure projects today.

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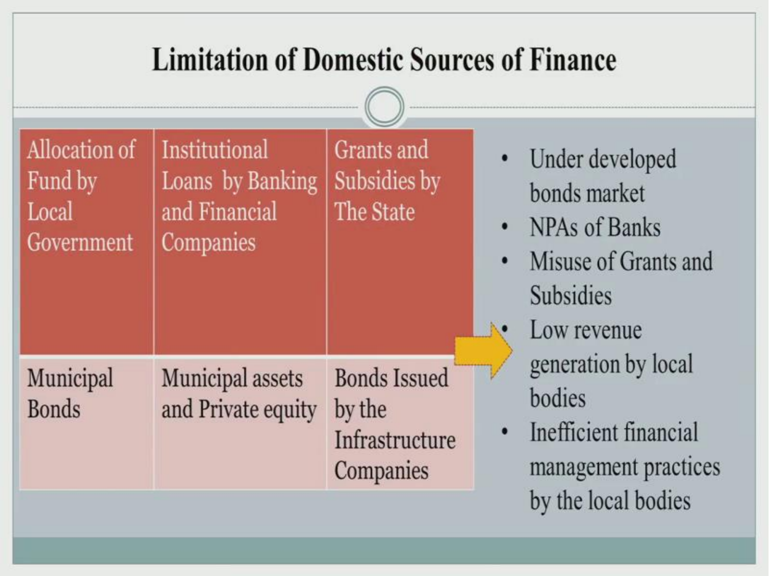

Here, in this slide we can see that there are limitations of domestic sources of finance. If we can just have a look on the different sources of domestic infrastructure finance, we have allocation of funds by the local government that includes the state government as well as some time the central government, institutional loans by banking and financial companies such as the nationalized banks, private banks and many other financial companies, which works within the country by the different banking and… banking regulations.

At the same time we have the grants and subsidiaries by this state government, which is basically for some time… basically well targeted for specific development of certain infrastructure. At local bodies, some time municipal corporations are having their bonds and the private equities and assets by the municipal corporations or authorities are also there. And we cannot really also ignore here the infrastructure companies bonds which is also issued to raise the funds.

But let me also link these domestic sources of finance with different limitations of these companies to financing the infrastructure. One of the first major important point to notice here is the underdeveloped bonds market. India and many developing and… least-developed countries are not having a very well develop bonds market like the developed country today.

So, when we say the municipal bonds… when we say the infra infrastructure companies bonds we are not like the developed countries, where people are really having interest in purchasing the bonds or having the interest in the bonds market. But, in a very underdeveloped bond markets we cannot really… and these sources of finance are not really as good as the sources of these finance in the develop countries.

At the same time if we are… we are looking the banking sector, a large amount of non-performing assets as when noticed by the nationalised bank and also by the some of the private banks in many developing and least-developed countries. So, when it comes to the financing of infrastructure funds banks are having… banks are really reluctant to best in such projects, because they are already having the history of non-performing assets. And in that case they are not having green signals from their balance of… their balance sheets. That is another issue which is one of the limitations of domestic sources of finance in many countries.

At the same time we have also seen that in the name of infrastructure lots of Grants and Subsidies, which is allotted by the state government, allotted by the central government is being misused in many developing and least-developed countries. That is the… that is one of the major tragic part of the infrastructure developing projects in country like India and many other developing country, where people do take the Grants and Subsidies in the name of infrastructure development especially in rural area.

And it is really misused for many social events, social purposes because these subsidies and Grants are taken very non-seriously in the least-developed and developing nations. At the same time, local bodies… one of the major problem local bodies are their sources of revenue. Their sources of revenues are not as rich as the sources of revenues by the central government and the state government. Tax collection is limited and they cannot have a major area of… major taxes collected.

So, that is one of the limitations for the local bodies, since they are not having huge revenue to collect. So they cannot really effort to build up a big infrastructure or very rich infrastructure without any support from other sources. One cannot really also ignore the fact that there are insufficient… inefficient financial management practices by the local bodies. Especially, local bodies are more involved in their local business, local practices.

And when it comes for their revenue generation there are many hidden interests, hidden agendas of these local bodies and they cannot really win those local issues within a year or within a short span of time because ultimately, if the representatives are being selected by the voters, the local bodies' representatives have to really listen to them. And at the same time they cannot really impose certain programs without consulting them. And that way we find here that there are limitations of domestic sources of finance for the infrastructure development in majority of the countries, which really required the infrastructure facility.

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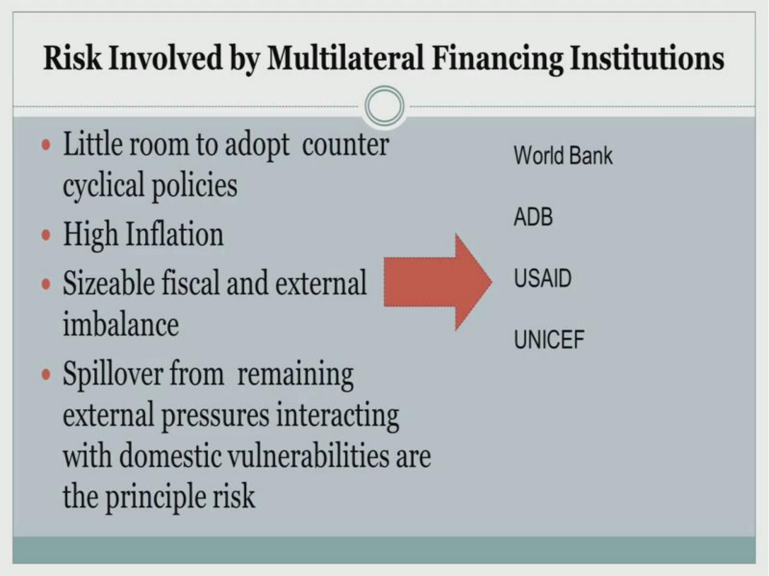

Apart from this, if we look at the risk involved by multilateral financing institutions such as World Bank, ADB, USAID, and UNICEF we find out that especially in majority of the countries, which are basically facing the transition and not able to reform the economy quickly, and which has a huge population dependent on the assistance and loan from the international agencies.

We find out that they are really in the need of getting the finance, but at the same time they do not have a very reformed economic policies… counter cyclical policies to adopt those… fund properly with a proper fair and competitiveness. So, this is one of the risk for the lending agencies as I was reading somewhere that there are majority of the projects cancelled by the World Bank, because the World Bank is finding that it is very difficult to support those projects.

Because the government policies are not really supporting the fair and competitive atmosphere to the investor and the grants are being or the assistance are being destroyed and eaten up by the local political parties and the decisions makers. At the same time, many projects do face… international agencies are very reluctant to finance in projects due to the high inflation pressure in many countries. Because whatever project cost is being calculated that is not going to be the final cost of the project.

So, there is a mismatch between the cost calculation of the projects at the time of the initiation of the project and at the same time the cost of the project at the completion of the project. So, that is another challenge for the multilateral investing agencies and various agencies are not really reluctant to continue with certain funds which is required to attract… to continue with the infrastructure projects.

At the same time, there are imbalances – external imbalances – balance of payment crisis, trading balances… at the same time within the country also the condition of fiscal deficit as part of the GDP is increasing and certain indicators are again very alarming for the international agencies. Because international agencies at the least wants those economies where these indicators are under control. We cannot really ignore the discussion on certain East-Asian countries, which were having a very fast economic growth because they have tried to get loan from the World Bank and other international agencies.

But at the same time those loans were really… having the short term loan and in 1997 the East-Asian crisis started because majority of the loans, which they have taken, there was a time to return it. The current crisis, which Greece is… the current crisis which is also seen is the Greece today. It also predict that when you have the short time loan you cannot really ignore the fact that you have to return it. And if the economic condition is not really conducive when you have physical imbalances and external imbalances how you will really attract the infrastructure projects to get in. It is indeed impossible to invite those international agencies to join your country because ultimately they all are looking for your macroeconomic indicators. What is basically the rate of inflation, what type of fiscal deficit you are having as a part of GDP, what type of trade balance you are having, what type of short term loan you are having, what type of long term loan you are having and that way there are risk involved in the financing those infrastructure projects in such countries.

So, at the same time we do find out that there are spillover from remaining external pressure, interacting with domestic vulnerabilities, are the principle risk, which cannot be ignored by the international agencies. To sum up, we can we can say here that there are so many financial institutions at the local level, also at the international level, there are partners in infrastructure development. But at the same time every financial institutions, whether it is local or international, domestic or international, they all are having their limitations in their finance.

Because there are certain risk involving in the finance those infrastructures. When we say municipal corporations they cannot really have huge expenditure because they have their limited resources. At the same time when we are saying that infrastructure development through the bonds… the bonds market are not really conducive in many developing and least-developed countries. When we say the international agencies should fund the infrastructure projects, we are also finding lots of pressure from IMF and other international agencies to have a very good structure of the economy, to have a good macroeconomic indicators in favor of the country. But majority of the indicators when we say have this high level of inflation and growing cost of production of the product… majority of the products, you cannot really say that we are in the position to have the infrastructure firms giving a very good environment. Apart from this, lack of finance is also due to the lots of nepotism and corruption involved in the implementation of those projects in the economy. Majority of the projects do come but at the same time they are being criticized on the ground that… from the day of start of the projects we have lots of controversies surrounded to that project.

And this shows that there are in interferences from the political sources, from the social resources, from the different financial companies and ultimately these experiences does not allow us to really say it confidently that infrastructure projects in developing country and least-developed countries are having lots of finance available. Ultimately... it may be a choice for these economies to find out that what level of regulatory and fair mechanism they are going to provide to the funding agencies and at the same time international partners. Based on those facilities and regulatory environment one can really think on getting the finance on time for infrastructure.

Thank you.