Management of Fixed Income Securities
Prof. Jitendra Mahakud
Department of Humanities and Social Sciences
Indian Institute of Technology, Kharagpur

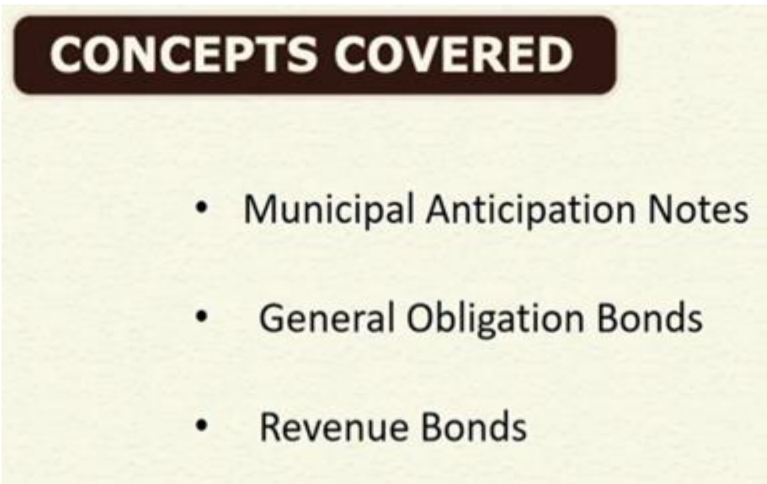
Module No # 07
Lecture No # 32
Municipal Bonds – I

Welcome back!

So, in the previous session we discussed about the issuance and trading mechanism of corporate in both India and the US market. So, another most important type of bond or highly popular bond that we always look at that is called the municipal bonds. The municipal bonds are not that much prominent in the Indian market but that is quite prominent in the developed market like the US.

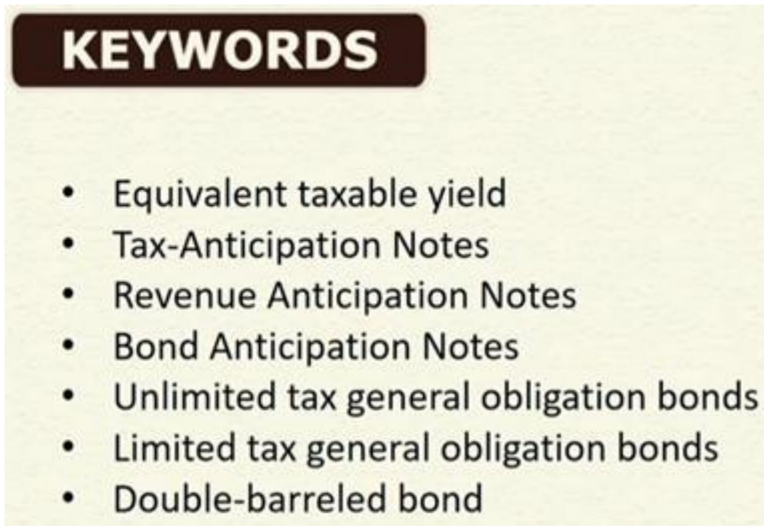
So, let us discuss certain kind of characteristics or the features of the municipal bonds and what is the advantages and uses of municipal bonds? And why those bonds are quite popular in those type of market and what is the use of that? So those things are basically what we are going to do in today's session.

(Refer Slide Time: 01:16)



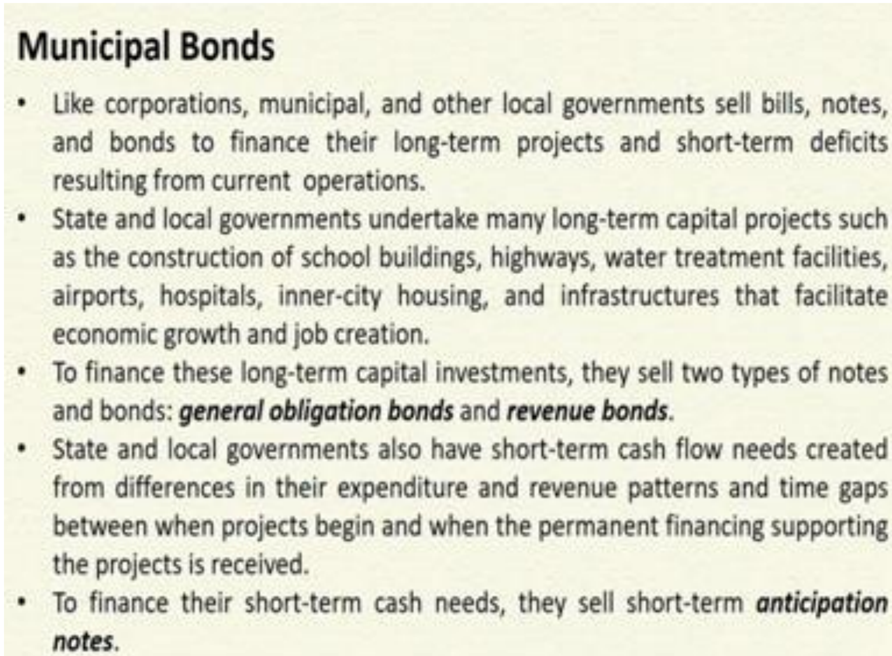
So here in today's session we will be covering instruments like municipal anticipation notes. These are the different types of bonds which the municipalities or the different entities in the US market generally issue. We have the general obligation bonds and the revenue Bonds. These are the major types of bonds which are issued in the US market like in the form of the municipal bonds.

(Refer Slide Time: 01:51)



So, we will come across many keywords. Some of the keywords are highlighted here. We have equivalent taxable yield, tax-anticipation notes, revenue anticipation notes, Bond anticipation notes, unlimited tax general obligation bonds, limited tax general obligation bonds, double-barreled bonds. So, there are different types of bonds what basically we come across whenever we discuss the issue with respect to the municipal bonds.

(Refer Slide Time: 02:25)



So, what do mean by a municipal bond? What is the meaning of that? Because you see government issues the bond, we call it the government securities or the government bond or treasury securities. The corporate sector issues the bonds, we call them the corporate bonds. So, like that the municipal and other local governments also sell the bills, notes that mean the long-term bonds to finance their long-term projects and the short-term deficits resulting from their current operations.

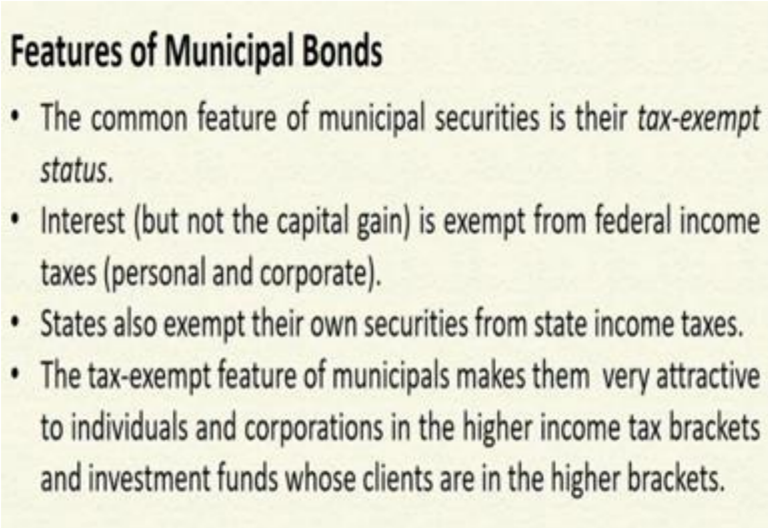
The issuance of the municipal bonds has certain objectives. They have typical and clear-cut objectives that why these particular bonds are issued. State and local governments, if you look at, they undertake many long-term capital projects that is the basic job of this kind of entity. They go for constructing the school buildings, highways, water treatment facilities, airports, hospitals, the inner-city housing and infrastructures.

All kinds of things which are basically very much required for the economic growth and creation of the job like employment opportunities. So how basically those kinds of projects financed? So, the financing of all those projects can be carried out through the issuance of the municipal bonds. So, to finance the long-term investments generally these kinds of institutions sell 2 types of notes or the bonds. That is called the general obligation bonds and the revenue bond.

And the state and local government also have short-term cash flow needs which are created from the differences in their expenditure and revenue what they are generating or the time gap between the projects begin when the permanent financing supporting from the project is set. For example, if somebody has constructed a road; the road will generate certain revenue through toll tax. But once the particular project is started immediately this particular revenue cannot be expected.

Once the project is completed then this kind of revenue generation will be possible. So that's why there is a gap. So, because of this they finance some of these kinds of activities through this issuance of the anticipation notes. They are called the short-term anticipation notes. There are certain capitals there is certain money through that. So, what we have understood that municipal bonds have a clear-cut objective that why the particular bonds are issued with some long-run and short-term objectives.

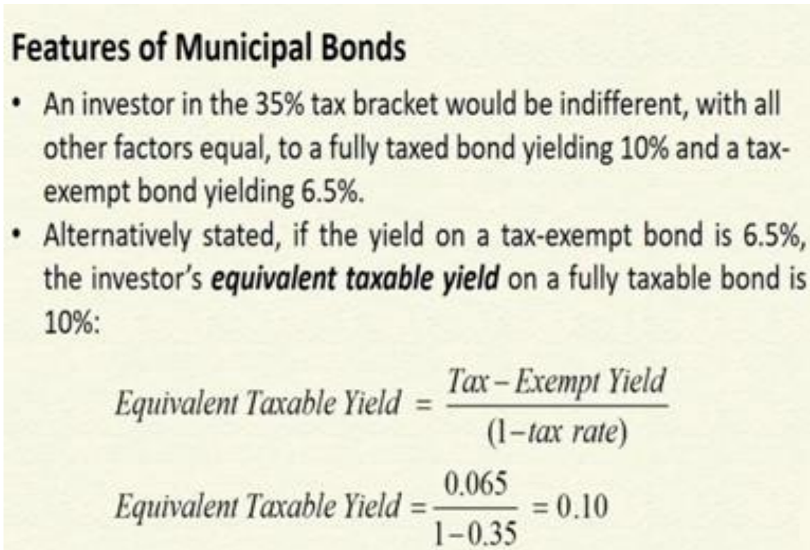
(Refer Slide Time: 05:57)



Then if you look at the features of the municipal bonds that is very interesting. The major importance of the benefits or the advantages of the municipal bond is the tax-exempt status. Interest but not the capital gain is exempted from the federal income taxes. Right whatever interest payment you are receiving periodically from these bonds they are basically exempted from the tax. The states also exempt their own securities from state income taxes.

So that’s why the municipal bonds are very attractive to the individuals and corporations in higher income tax brackets and the investment funds whose clients are in the higher brackets. Because they get a tax rebate and the tax-exempt status is involved with respect to that. This market is one of the biggest markets in the US and quite a prominent market in the US.

(Refer Slide Time: 07:17)

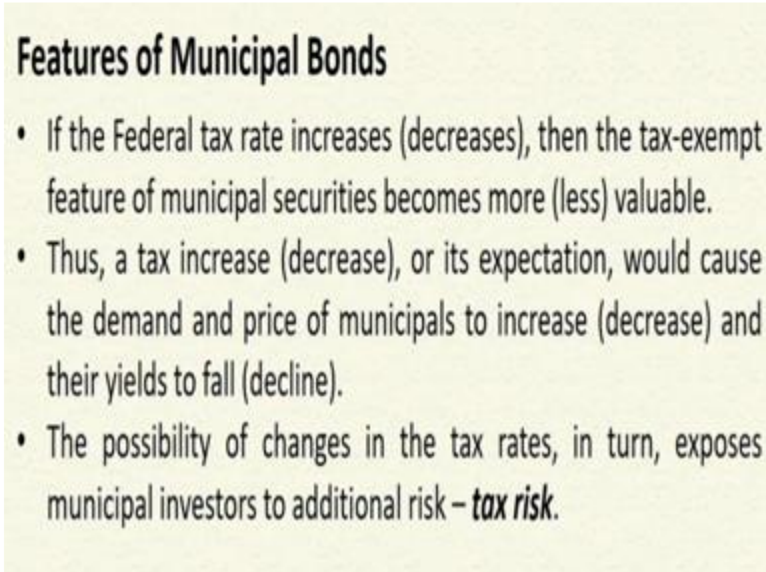


So, in these cases what basically we have seen how these taxes are going to affect the return from that particular bond? Let an investor is in the 35% tax bracket so that person would be indifferent with other factors that remain the same are equal to a fully taxed bond yielding 10% and tax-exempt bond yielding 6.5%. Alternatively, you can say if the yield on a tax-exempt bond is 6.5% then the investor’s equivalent taxable yield on a fully taxable bond is 10%.

$$\text{Equivalent Taxable Yield} = \frac{\text{Tax Exempt Yield}}{(1 - \text{Tax rate})}$$
$$= \frac{0.065}{1 - 0.35} = 0.10$$

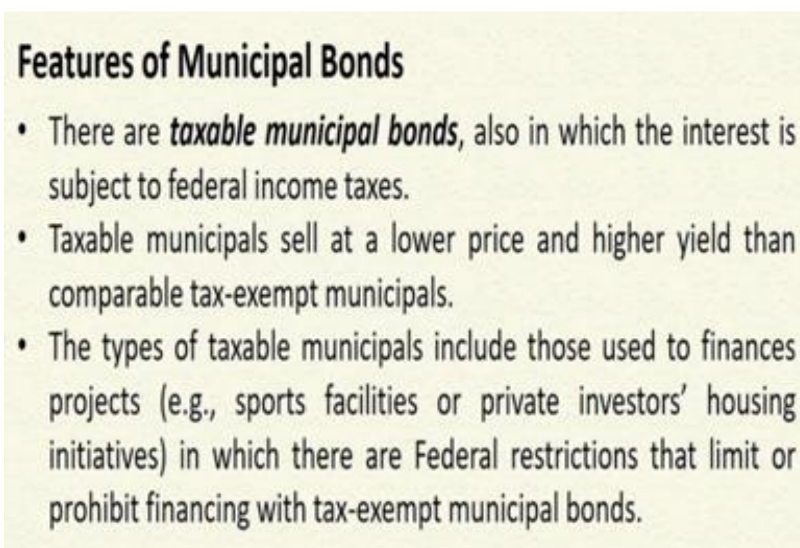
So how can we calculate the equivalent taxable yield that is tax exempt yield divided by 1 minus tax rate. So here we have taken the tax-exempt yield to 6.5% and tax rate is 35% then your equivalent taxable yield is 10%. That is 65% divided by 1 - 35%. That will give you 10%. So that is the biggest advantage that we get the tax rebate against these interest payments that we are receiving against these municipal bonds.

(Refer Slide Time: 08:47)



So, if the federal tax rate increases, then the tax-except feature of the municipal securities becomes more valuable. So, a tax increase or decrease would cause the demand and price of the municipal bonds to increase and the yield to fall. If the tax face increases then the demand and price of the municipal bond will increase and the yields are going to fall. So, the possibility of changes in the tax rate, in turn, exposes the municipal investors to the additional risk that is called the tax risk.

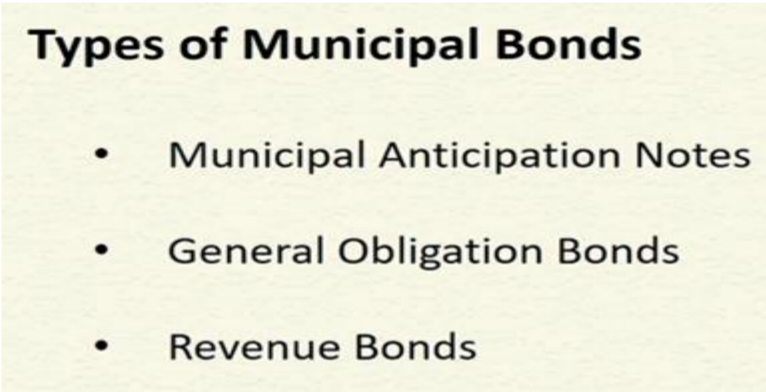
(Refer Slide Time: 09:46)



So, there are some taxable municipal bonds also. There are some taxable municipal bonds, in which the interest is subject to federal income taxes. Federal income taxes and these taxable municipals or the municipal bonds in short, we use it as the municipals they sell at a lower price and higher yield than the comparable tax-exempt municipals. What kind of bonds are and what is the objective of issuing that type of the bond?

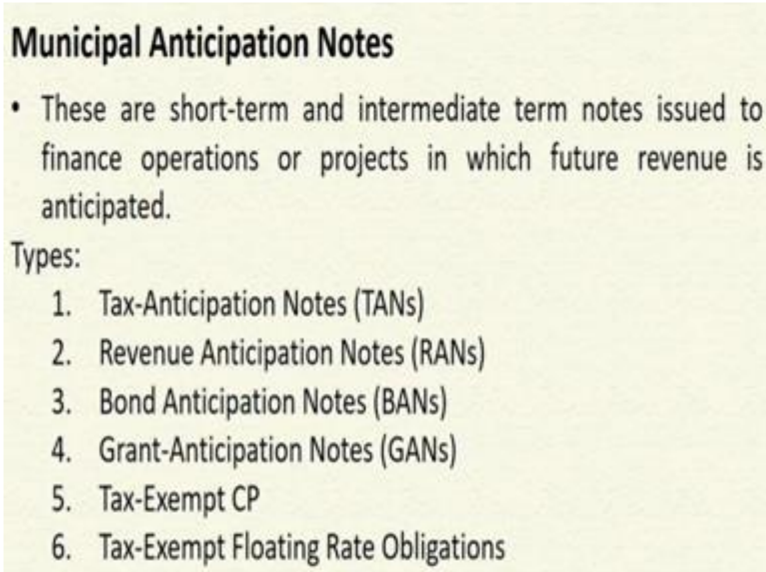
Generally, the types of taxable municipalities include those which are used to finance certain projects like the sport facilities or private investors housing initiatives. In which there are federal restrictions which limit or prohibit financing with tax-exempt municipal bonds. So, there are certain kinds of activities what the particular municipalities or local governments carry out? So, against that particular kind of project whatever bonds are issued they are basically taxable. So, like your sports facilities and private investors and housing initiatives.

(Refer Slide Time: 11:26)



Already I told you there are major 3 types of municipal bonds. The municipal anticipation notes are short-term and the general obligation bonds and the revenue bonds are the long-term.

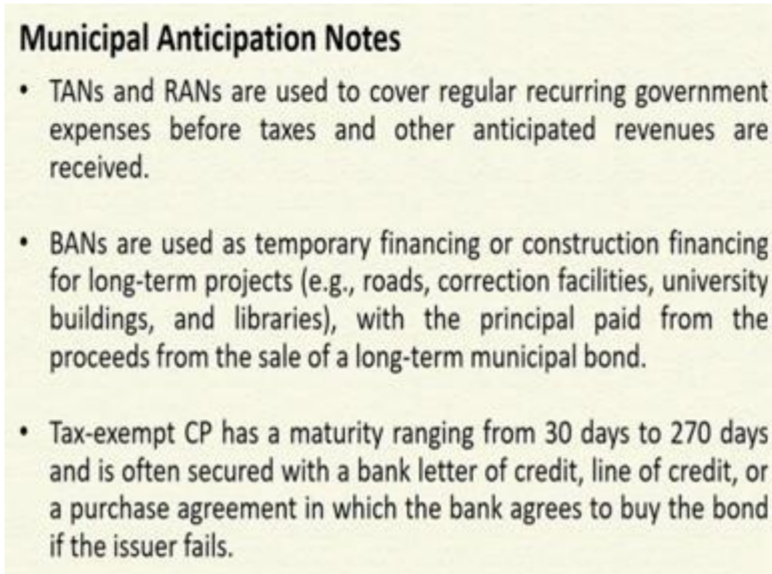
(Refer Slide Time: 11:45)



And there are different types of municipal anticipation notes. So, these short-term or intermediate notes or the bonds are issued to finance their operations or the projects in which the future revenue is anticipated. In which the future revenue is expected or anticipated. What are those types? We have a tax-anticipation notes short we call it the TANs you have a revenue anticipation notes or RANs, bond anticipation notes, grant-anticipation notes. tax-exempt commercial paper, tax-exempt floating rate obligations.

So, these are the short-term notes which are issued by the municipals and the state bodies local bodies to fulfill certain financing requirements.

(Refer Slide Time: 12:47)



So, what we mean by these tax anticipation notes or revenue anticipation notes. These are generally used to cover the regular recurring government expenses before taxes and other anticipated revenues are received. And the BANs are used as temporary financing or construction financing for the long-term projects. Like roads, university buildings and libraries and all these things, with the principal paid from the proceeds from the sale of a long-term municipal bond.

The tax-exempt CP has a maturity which is ranging from 30 days to 270 days. And generally, it is secured with a bank letter of credit or line of credit or a purchase agreement in which the bank basically agrees to buy the bond if the issuer fails. That was called LOC which was given by the bank. It is the agreement in which there is assurance, if there is a failure of a repayment then the particular bank is going to fulfill that particular requirement. That is basically we call it the tax-exempt CP and it is backed by a certain kind of bank letter of credit.

(Refer Slide Time: 14:40)

General Obligation Bonds

- ***General Obligation Bonds (GOs)*** are long-term and intermediate-term bonds that are secured by the issuing government's general taxing power.
- The GOs issued by states and large municipal governments that have a number of tax revenue sources and unlimited tax power are referred to as ***unlimited tax GO***s. They are considered backed by the ***full faith and credit of the issuer.***
- The GOs issued by smaller municipalities or authorities whose revenues are limited to only one or two sources (e.g., property tax), or who have statutory limits on the tax rate that the issuer may levy to finance the debt are known as ***limited-tax GO bonds***.

So, the general obligation bonds if you talk about already, we told that; this is the long-term instrument or long-term bond which is issued by the municipalities or the local bodies. So, these are long-term and intermediate term bonds generally they are secured by the issuing governments general taxing power. So how are these particular bonds being; secured? They are secured by the government's tax power.

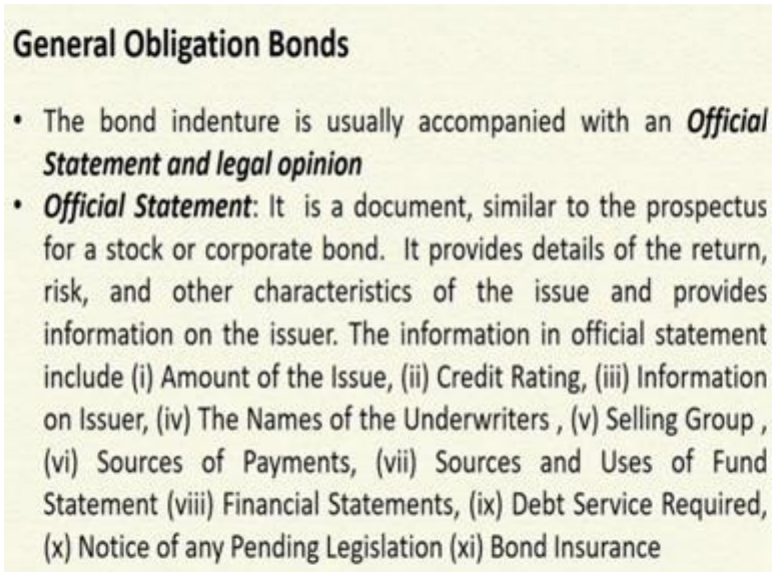
If the general obligation bonds issued by the state and large municipal governments have a number of tax revenue sources and unlimited tax power, they are referred to as unlimited tax general obligation bonds. Generally, if the particular entity has a lot of tax revenue sources and they have unlimited tax power then if those entities are issuing the bonds, then we call it the unlimited tax general obligation bonds.

And generally, they are backed by full faith and credit of this issuer. Because these issuer's credit worthiness is quite high and they generally the public have the full faith or the investors have the full faith on these particular bodies. Because of their volume, because of their size and as well as because of their taxing power and they have also the number of tax revenue sources. So there, it is generally backed by the full faith and the credit of the issuer.

But if the general obligation bonds which are issued by the smaller municipalities whose revenues are limited like property tax or who have the statutory limits on the tax rate that the issuer may always levy to finance the debt are known as the limited tax going obligation bonds.

Because those organizations, those entities have not that much ability to raise the revenue in terms of the tax. And they do not have that much power also which can increase their tax revenue at the time of requirements. So, these are called the limited tax general obligation bonds.

(Refer Slide Time: 17:59)

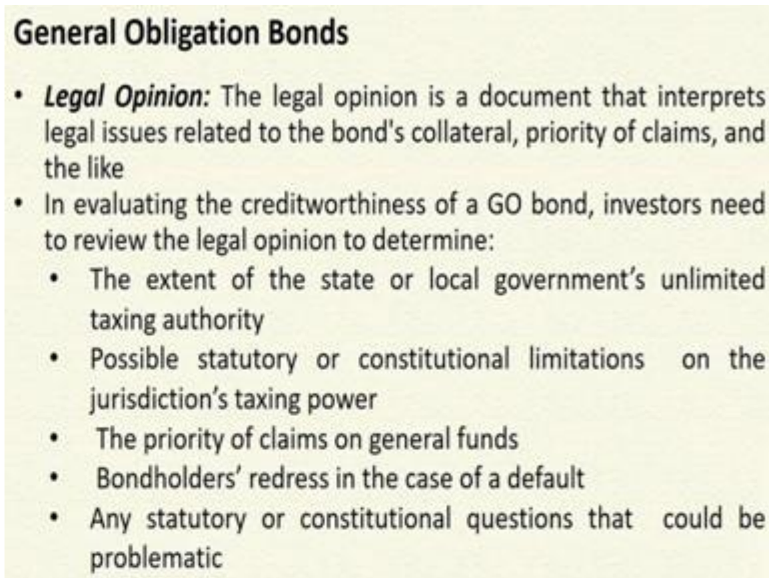


So, whenever we talk about the general obligation bonds the bonds agreement or the indenture is generally accompanied by 2 things. One is your official statement and the other one is the legal opinion. What is the official statement? Official statement is basically a document that is more or less similar to the prospectus for a stock or a corporate bond just in the previous class we discussed about this public issuance of the corporate bonds.

So, it is almost similar in that. It will generally provide the return risk and the other characteristics of the issue and also provides the information about these words. What are those information which are there in the official statement? This information are generally the amount of the issue, credit rating, the names of the underwriters, who are the selling group, sources of the payments, sources and uses of the fund statement, financial statements, debt service and notice of any pending legislation and the bond insurance.

All kinds of details about the issuer and about that particular issue will be mentioned in the official statement and that official statement is nothing but it is a similar instrument or similar document like the prospectors.

(Refer Slide Time: 19:58)

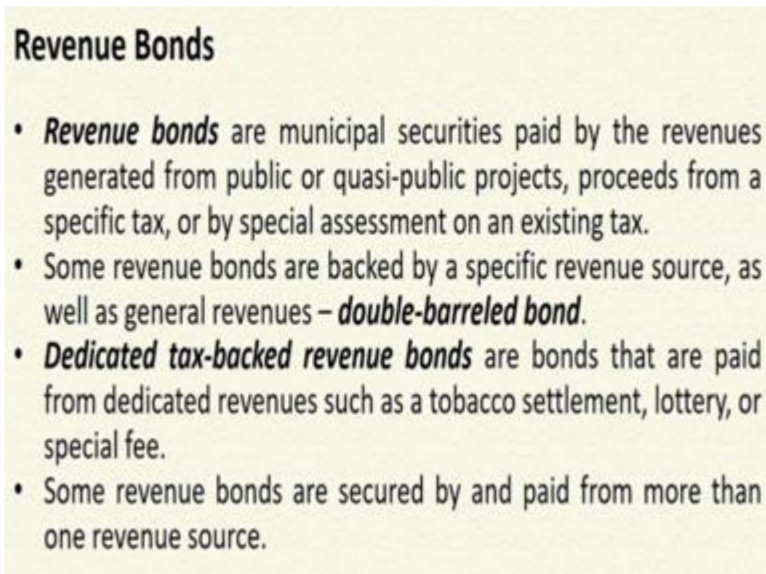


The other one is the legal opinion and what is the legal opinion? This is another document that generally will provide the legal issues related to the bonds collateral. What is the security this particular organization has used for these ones of the bond? And what is the legal aspects or legal issues related to that collateral, priority of the claims? All kinds of things basically they will get from the legal opinion document.

So, whenever we evaluate the credit worthiness of the general obligation bond. The investors need to review the legal opinion to determine certain things. What were they were trying to determine from the legal opinion? The extent of the state or local governments unlimited taxing power, how much power they have in terms of levying the tax, possible statutory or the constitutional limitations on the judiciary the taxing power, whether they are under the control of this particular taxing power or not it is under their control or not whether they want to increase or decrease the tax. That jurisdiction is very much important from that perspective. The priority of the claims on the general bonds, the bondholder's redress in case of a default, any statutory or the constitutional questions that could be problematic.

So, all kinds of things have to be checked upon or can be determined from this legal document. So, if you look at these particular entities who are issuing this bond, they have a lot of power or they are kind of under their jurisdiction this tax and all these things can be changed. Then what will happen is that the investor will have more confidence in that particular type of issuer.

(Refer Slide Time: 22:37)

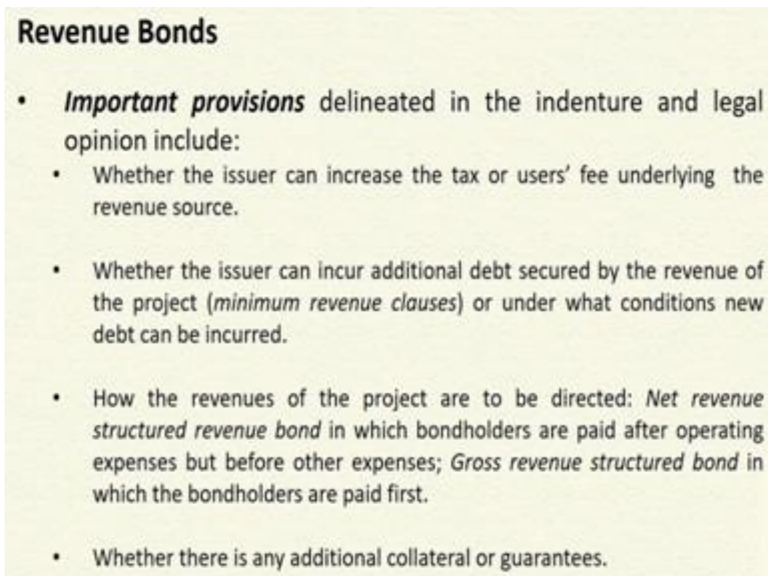


Then we have the revenue bonds. So, what are those revenue bonds? Revenue bonds are generally the municipal securities paid by the revenues generated from the public or quasi-public projects. Proceeds from a specific tax or by specific assessment on an existing tax. Some revenue bonds are backed by the specific revenue sources as well as the general revenues. They are called the double-barreled bonds. They are called the double-barreled bonds and there are certain bonds which are basically dedicated tax brackets or dedicated tax backed revenue bonds.

So, these bonds generally are paid from the dedicated revenues like your tobacco settlement, lottery or specific fee from which the particular money will be paid or the payment of those bonds should be possible only from specific sources. So, some revenue bonds are secured by and paid from more than one revenue source not necessary that every bond has a single revenue source. Some revenue bonds are secured and paid from more than one revenue sources that also we can observe certain times.

So that's why this is little bit different from the general obligation bonds and both are issued for the long-term project financing but not necessary that the objective of these bonds or issuance of these bonds are the same. So, the revenue bonds are generally issued with some specific objective and they are backed by certain specific revenue sources. But the general obligation bonds may not always be backed by some specific revenue source. So that is the difference what basically, you can observe between these 2.

(Refer Slide Time: 25:26)



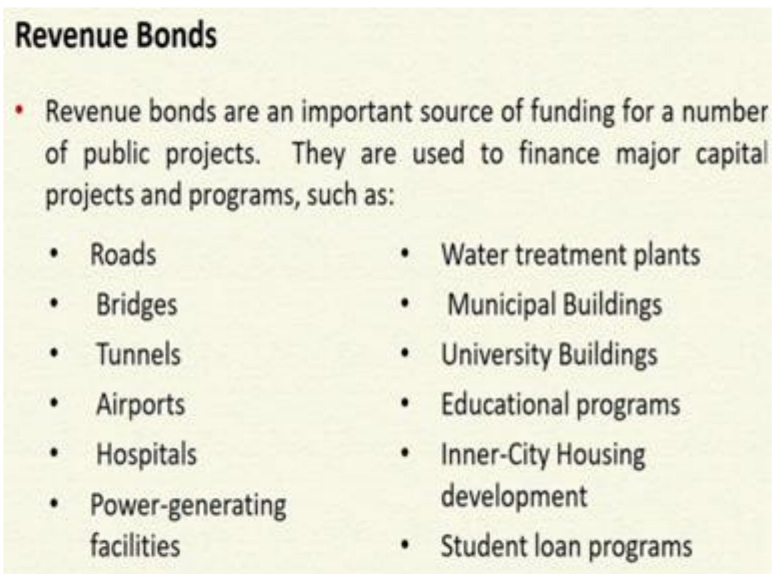
So, the question here is that about the revenue bonds whenever we discuss the revenue bonds if you look at the important provisions that are delineated in the indenture and the legal opinion. Which include what are those whether the issuer can increase the tax or users free underlying the revenue source. Whoever is issuing the bond whether they have the power to increase the tax or they can increase the fee.

Whether the issuer can incur additional debts secured by the revenue of the project or under what conditions the new debt can be incurred. How the revenues of the project are to be directed like net revenue, structured revenue bond in which the bond holders are paid after operating expenses but before other expenses. And gross revenue structured bonds in which the bondholders are paid first.

So, the net revenue structured revenue bond and the gross revenue structure bond these are the difference in terms of when the payment will be made. So, in the first case or in case of net revenue structured revenue bond the bond holders are paid after operating expenses but before the other expenses. But whenever you talk about the gross revenue structure bond there the bond holders are paid first in comparison to the other stakeholders.

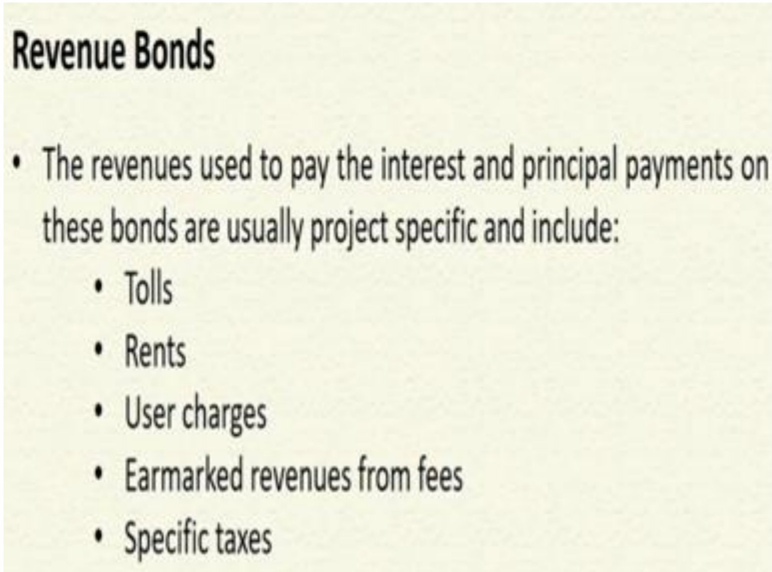
Another thing also they look at whether there is any additional collateral or guarantees which are linked to that particular bond. Whether the particular bonds are insured or is there any other guarantor of that particular bond. That also can be looked upon whenever we discuss about this revenue bonds.

(Refer Slide Time: 27:42)



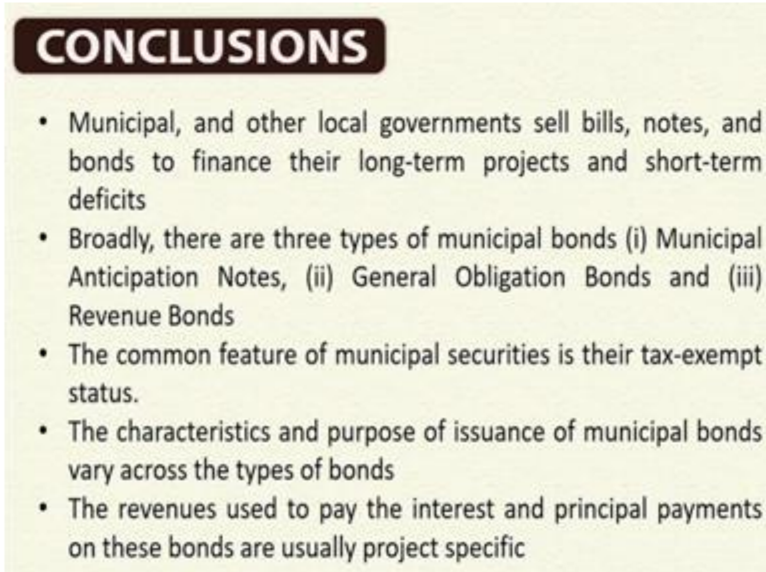
Then the next question is that revenue bonds are important sources of funding for a number of public projects. And those projects are basically roads, breeze tunnels, airports, hospitals, power generating facilities, water treatment plants, municipal buildings, university buildings, educational programs, inner-city housing development and student loan programs. So, all types of funding are done through the issuance of these revenue bonds; so, this has quite relevance, quite important in the US market in terms of financing this kind of activity.

(Refer Slide Time: 28:30)



So now the question is that from where the money comes to pay the interest and the principals. If you look at the revenue bonds the revenues which are or which has to be generated to pay the interest and the principal, these are basically usually project specific. These are project specific and what are those kinds or types of the income or the revenue; what they are generating; what are those; they can be in terms of tolls, they can be in terms of rent, user charges, the Earmarked revenues from the fees, specific taxes. All kinds of things are basically the sources of revenue for payment of the interest and the principal. And there are many types of revenue bonds. There are n numbers of revenue bonds which are traded in the market. That we will discuss further. But these are the major sources of revenue. What the municipality basically uses to pay their interest and the principal payments.

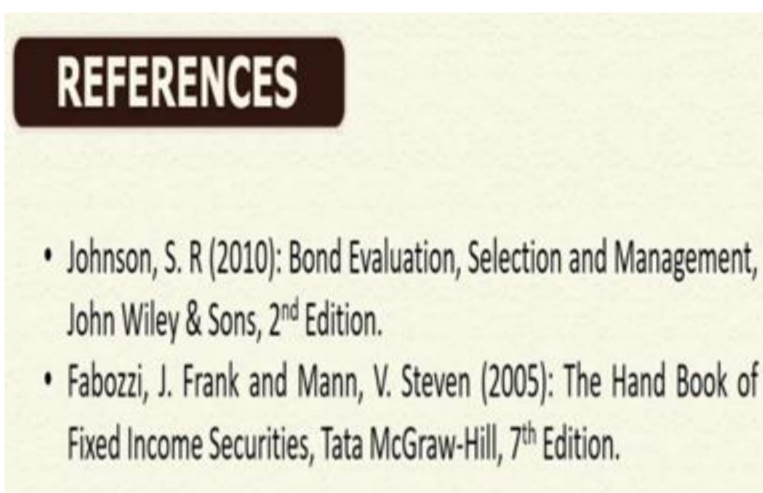
(Refer Slide Time: 29:57)



So, what basically we discussed today, the municipals and other local governments sell the bills, notes and bonds to finance their long term and short-term projects. So, there are 3 types of municipal bonds: - municipal anticipation notes, general obligation bonds and revenue bonds. And the common feature of the municipal securities is their tax-exempt status. The characteristics and the purpose of issuance of the municipal bond vary across the types of the bonds.

The revenues used to pay the interest and principal payments on those bonds are usually project specific. So, these are the things what we have discussed in today's session.

(Refer Slide Time: 30:49)



So, you can go through these references for the detailed discussion on this.

Thank you.