Management of Fixed Income Securities
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Module No # 07
Lecture No # 33
Municipal Bonds – II

Welcome back!

So, in the previous class we started the discussion on the municipal bonds. There we have seen that municipal bonds are a kind of specific bonds which are issued for a specific purpose. And the revenues are generated through the different kinds of fees, taxes and as well as the tolls and all these things. And it has a lot of relevance in terms of the economic growth process and we have seen that there are 3 types of bonds.

So, one is your anticipation notes then we have the general obligation bonds; then we have the revenue bonds. And we have discussed about the general obligation bond and the anticipation notes and we started the discussion on the revenue bonds. Then will carry out our discussion with respect to the revenue bonds because the revenue bonds are generally issued for some specific reasons.

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So today will be discussing about; the types of revenue bonds. And there are some special types of municipal bonds also issued by the local bodies. What are those and also the different aspects of the municipal bond market. So, there are 3 concepts what we will be discussing in today's session.

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Let us see that what are those keyword's, there are many keywords will come across there are some words have been highlighted here. We have highway revenue bonds, water and Sewer revenue bonds, airport revenue bonds and industrial development bonds. Then there are certain specific types of or the special features like municipal floaters and there is a kind of serial municipal bonds which are also issued in that particular case.

That also you will come across in that particular case or context of the municipal bonds. Let us discuss one by one. What are those basic features of the different types of revenue bonds which are issued in the municipal bond market.

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Types of Revenue Bonds

- **Highway Revenue Bonds:** These revenue bonds are used to finance highway systems and their related infrastructures (bridges, tunnels, etc.) These are paid by toll charges, license fees, auto registration fees etc.
- **Water and Sewer Revenue Bonds:** These bonds are issued to finance the building of water treatment plants, pumping stations, and sewers. Local governments or special bond authorities usually issue them. The bonds are usually paid by user charges
- **Lease Rental Bonds:** These bonds are used to finance the construction of public office buildings, stadiums, university facilities, and the like, and for the purchase of computers and other types of capital equipment. The bonds are paid for by the rents generated from the users: rents, tuitions, earmarked revenues, annual appropriation of a general fund, or stadium receipts.

One is that if they call it the highway revenue bonds the name of the bond is the highway revenue bond. And these bonds or we can say that revenue bonds. These are used to finance the highway systems and their related infrastructures like bridges, tunnels and all these things. And there is a huge expenditure incurred in that particular context. And it is quite long term in nature. There is a long-term financing is required for these highway revenue bonds.

So, these are basically paid by the toll charges, license fees, auto registration fees and all these things which are the revenue sources from these projects. Once the projects are completed the revenue generation will start and the bondholders will be getting their coupons and as well as the other cash flows from this kind of source. So, these particular bonds are paid by the toll charges, license fees, auto registration fees etc. So, the major source of the revenue of this bond is these.

Then we have the water and sewer revenue bonds. Water and sewer revenue bonds basically what? They are basically issued to finance the building of water treatment plants, pumping stations and the sewers. The sewerage system also developed through this. Generally, the local governments or the special bond authorities who are involved in this kind of projects generally usually issue them.

These bonds are usually paid by the user charges because we are using the water for that we pay. We are using this other facility with respect to that water sewerage facility, in other facilities. For that these are certain fees and from these fees or the user charges, the interest and the principal of this particular bond are paid.

Then we have the type bond called lease rental bonds. What is the lease rental bond? These bonds are used to finance the construction of the public office buildings, stadiums, university facilities and the purchase of computers and other types of capital equipment. And how the particular bond is paid? How the bondholders are paid? They are generally paid by the rents generated from the users, tuition fees, annual appropriation of the general fund and the stadium receipts.

Because they have made the stadium if any kind of activities happen in the stadium for that they charge certain rent. And some other kind of receipts they also make day to day activities which generally carry out in that and from that the particular money will be paid to the bondholders. So that is called the lease rental bonds.

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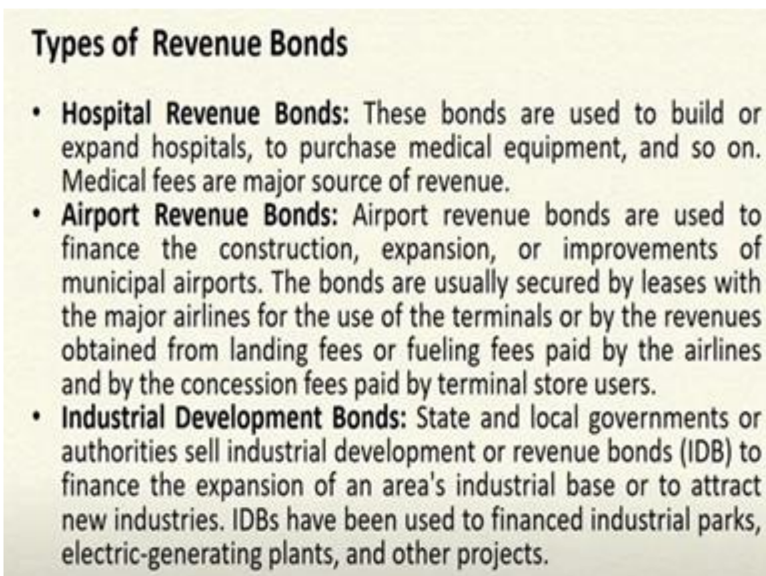

Then we have the hospital revenue bonds. You see in the US almost all types of infrastructure are financed through these kinds of bonds. So, these bonds are used to build or expand the hospitals, to purchase the medical equipment and so on which are related to the health sector. And the fees are the major source of the revenue. The medical expenses what these individuals make whenever they try to access this particular service from that money will be paid to bondholders.

There is a specific bond also in the US market they offer that is called the airport revenue bonds. And that airport revenue bond generally used the construction, expansion and improvement of the airports. And these bonds are secured by the lease with the major airlines for the use of terminals or by the revenues obtained from the landing fees and the fuel fees paid by the airlines and the concession fees paid by the terminal store users.

All types of activities which are linked to this airport business like the terminal fees; use of the terminals for that they pay, landing fees, fuel fees, terminal stores whenever the different airlines industry use those terminal stores. And also, the different kinds of commercial activities which happen in the airport and those particular kinds of activities also involve certain kinds of revenue generation. They give the rents from that generally money is paid to the bondholders.

Then we have the industrial development bonds. State and local governments also sell the industrial development or the revenue bonds to finance the expansion of the area's industrial base or to attract new industries. So, these bonds have been generally used to finance industrial parks, electric-generating plants like that. So basically, for the industrialization for the expansion of the industry the money which is raised through these bonds are basically used. That is called the industrial development bonds. So those bonds are generally used for making more industries within that particular area.

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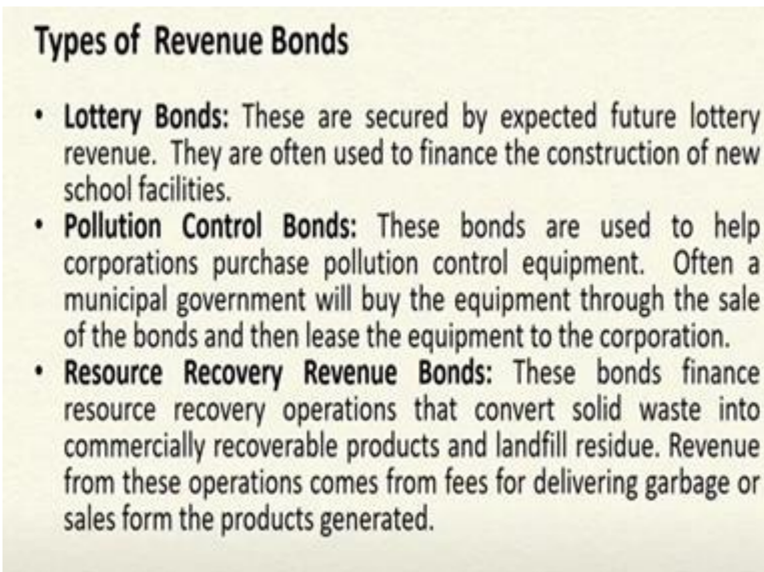

Then we have in the US they have called the lottery bonds. What is your lottery bonds? These are basically secured by expected future lottery revenue. Mostly they are used to finance the construction of new school facilities. These bonds are basically issued to construct the new school facilities in the US.

Then they have the pollution control bonds. These bonds are used to help the companies or the corporations to purchase the pollution control equipment. A municipal government will buy the equipment through the sale of these bonds and lease this equipment to the different companies. And from the leasing generally they raise the revenue and the money will be paid back to the bondholders or the investors. Because the corporations are not eligible to issue the municipal bonds and if they will issue, they will be considered as a corporate bond.

And they do not have any tax-exempt status. But if the government revenues or government entities are going to issue that particular bond then it will be considered as a municipal bond. And finally, some tax exemption this investor can get so that's why they can attract more investors with respect to that, so the equipment will be bought by the government or the local bodies. Then it will be given to the different companies who are involved in this kind of activity and finally they get some money from them.

Then they have resource recovery revenue bonds. These bonds are generally financing the resource recovery operations that convert their solid waste into commercially recoverable products and landfill residue. It is a very important bond because solid waste management is quite important because that problem is rising across the globe. So, to make a particular thing more viable or to remove that particular kind of problem they always were trying to use that solid waste to some commercially viable products.

And the revenue bonds basically help in that particular record. So, the revenues which are from these operations generally come from the fees for delivering the garbage or sales from the products which are generated. Once the products are generated, they will be sold in the market from that they will get certain revenue and also for delivering the garbage to a certain place they charge certain money and from that they try to pay to the bondholders. That is called the resource recovery revenue bonds.

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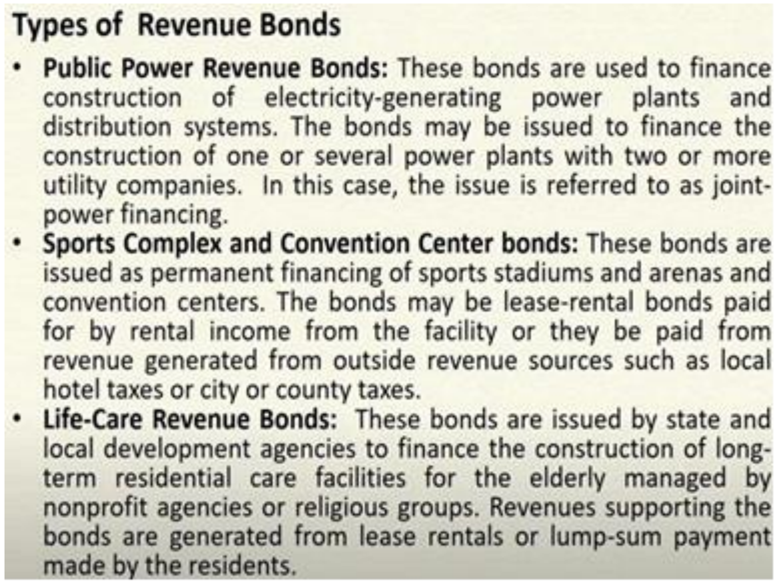

Then they have the public power revenue bonds. These bonds are generally used to finance the construction of electricity-generating power plants and the distribution systems. They may be issued to finance the construction of one or several power plants. So, in that case we call it joint power financing.

Sports Complex and Convention Center bonds, these bonds are issued as permanent financing of sports stadiums and convention centers. These bonds may be lease-rental bonds paid for by the rental income from the facility or they may be paid from the revenue generated from outside revenue sources like the local hotel taxes or city or the country taxes. So whatever rents and whatever kind of other sources; revenue sources they have through which the bond holders basically will be paid off.

Then they have life-care revenue bonds. These bonds are issued by the state and local development agencies to finance the construction of long-term residential care facilities for the elderly people. And these are generally managed by the non-profit agencies and the religious groups. And what is the revenue source? The revenues basically supporting these bonds are generated from the lease rentals and the lump-sum payment made by the residents.

That is called the life care revenue bonds. So, to provide a certain kind of social security and shelter to the elderly people and this kind of projects generally carried out by the non-profit organizations. And the revenues which are generated generally are generated through the lease and as well as the lump-sum payments which are made by the residents.

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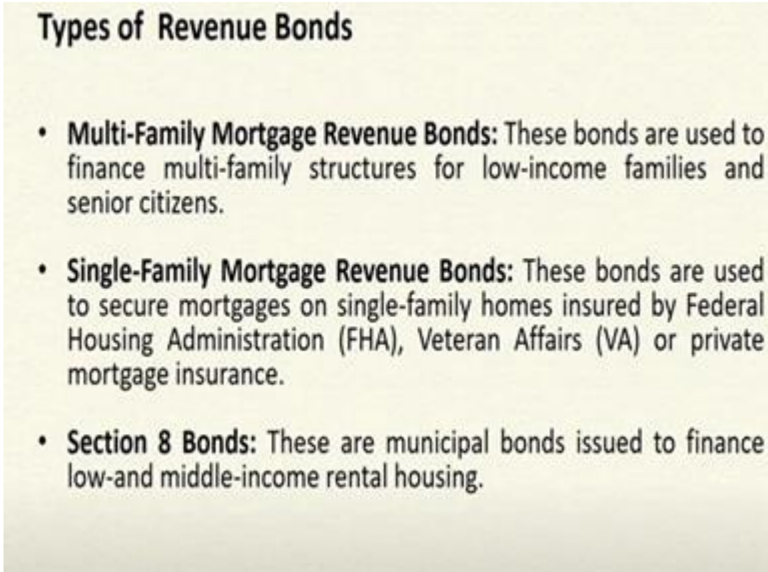

Then we have multi-family mortgage revenue bonds. There are many revenue bonds the U.S market always offers. So, in-case of the multi-family mortgage revenue bonds. These bonds are generally used to finance the multi-family structures for low-income families and the senior citizens. And they can have single family mortgage revenue bonds. These bonds are used to secure mortgages on single-family homes which are insured by the Federal Housing Administration, Veteran Affairs or private mortgage insurance.

Then they have a section 8 bond. These bonds are generally issued to finance the low- and middle-income rental housing. Some middle income or the low-income group want some houses on rent, and some of the local bodies try to build these kinds of buildings and the houses and they give on rent. And the particular bond will pay from the rents whatever they will raise from these group of the people who are staying in that particular house.

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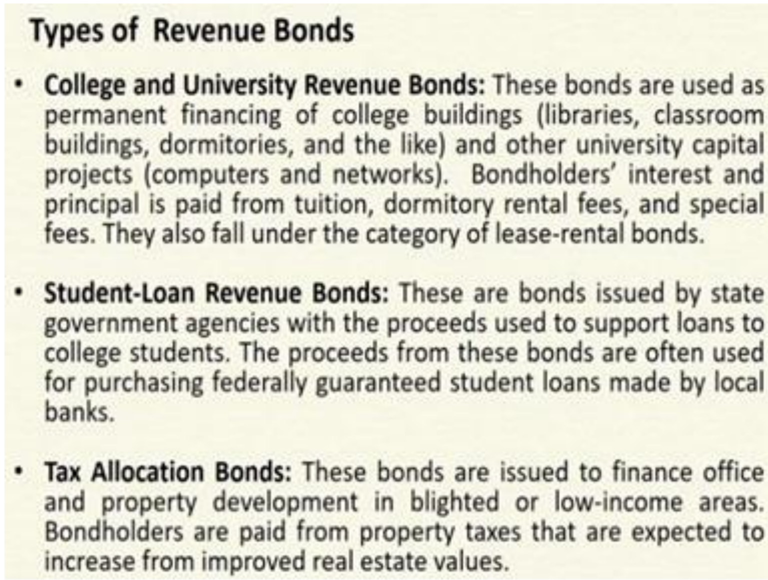

Then we have college and university revenue bonds. The Education bonds which are quite popular in the U.S. These bonds are used like a permanent financing of the college buildings, libraries, classroom buildings, dormitories, all these things. And other university capital projects like computers and networks and all these things. And from where the revenue is generated? The revenue is basically generated through the tuition fee and the rental fees and there is a special fee required.

So, these also sometimes fall under the lease-rental bonds what we have already discussed.

Then we have the student-loan revenue bonds. These are generally issued by state government agencies with the proceeds used to support the loan to the college students and how basically it will be paid and what is the source of revenue? These proceeds from these bonds generally are used to purchase the federally guaranteed student loan made by the local banks. And once the loan will be repaid then accordingly the bond holders will get their money in terms of the coupons and other types of cash flows.

Then they also issue a bond called the tax allocation bonds. So, these bonds generally are issued to finance the office and property development in low-income areas and the bond holders are paid from property taxes that are expected to increase from improved real estate values. That is called the tax allocation bonds.

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Then there are certain municipal bonds having the special feature. Already I told you that there are serial bonds, there is an insured bond, secured bonds, legally binding bonds, municipal floaters, municipal put options or put bonds, municipals with warrants, mini-bonds, and stripped municipals bonds. So, these are the different other types of bonds for the municipalities or other local bodies that can also issue for some specific reason or specific purpose.

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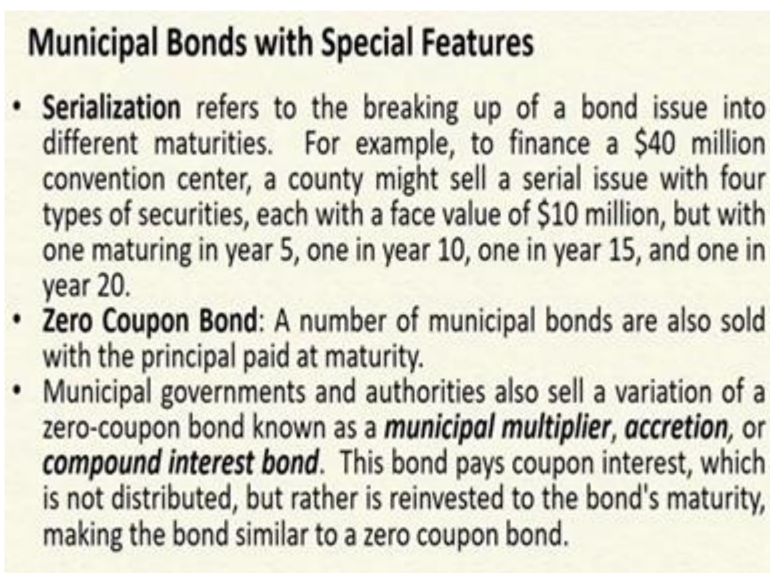

So, what do we mean by this? Whenever we talk about the serialization. What does it mean? This particular thing refers to the breaking up of bond issues into different maturities. For example, to finance a 40-million-dollar convention center, a particular government local government might sell a serial issue with 4 types of securities, each with a face value of 10 million, but with one maturity in 5 years, another one is 10 years, third one is 15 years and the other one is 20 years.

The maturity of the bonds has been divided that is called the serial issues. The municipalities also sell the zero-coupon bonds where the generally the particular bond will be matured at the end it will be issued at discount and redeemed at the bar. There are no periodic payments are involved in that particular case and it is also very convenient for them. Because they have a reasonable period of time to generate certain resources or revenues from the activities what they are going to carry out.

The municipal governments and authorities also sell a variation of a zero-coupon bond. That is known as the municipal multiplier or the compound interest bond accretion or the compound interest bond. These bonds pay the coupon interest which is not distributed. It is not given to the bondholder. But rather reinvested to the bond's maturity. Are you getting the point? The coupons are there and the cash flow is involved but it will not be given to the bondholder.

Instead of that this particular coupon amount will be reinvested in the market and whenever there is a maturity the total amount will be repaid to with the reinvestment of the coupons, the money will be paid to the bondholder. So that's why that particular characteristic makes this particular bond similar to a zero-coupon bond. That is called the municipal multiplier or the compound interest bond.

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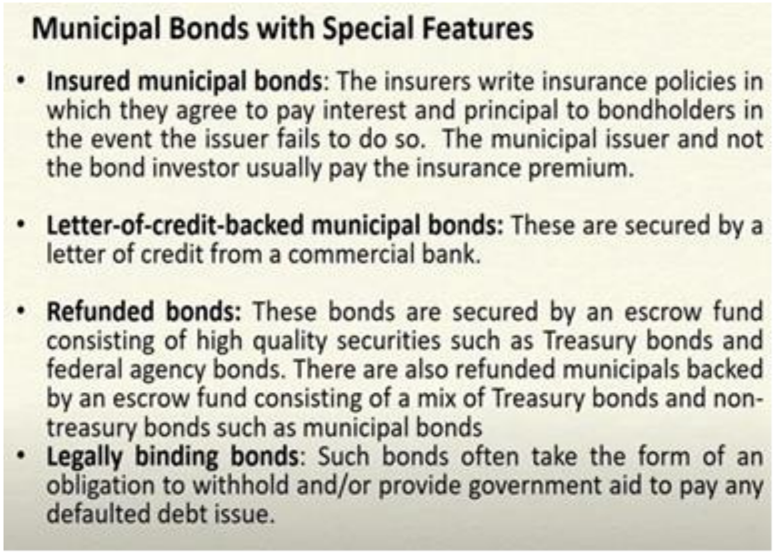

Then there are some municipal bonds are insured. The insurers basically write the insurance policies in which they agree to pay the interest and principal to the bondholders when the issuer fails to do so. That means the bond is insured and the municipalities is basically paying the insurance premium. It is not the bond holder who is going to pay the insurance premium. It is the bond issuer like the local bodies, local government who are going to basically pay this insurance premium.

So here it is more or less a kind of secured kind of instrument and here the security is the insurance and the letter of credit backed by the municipal bonds. These are secured by the letter of credit from the commercial bank. The commercial banks can give this kind of services kind of guarantee through this letter of credit. And if this issuer fails to pay the bond holder, then the bank is going to pay for that.

Then we have refunded bonds. These bonds are secured by an escrow fund. And what is the escrow fund? This basically consists of high-quality securities like treasury bonds, federal agency bonds and all these things. And there are also refunded municipal bonds backed by an escrow fund consisting of a mix of treasury bonds and non- treasury bonds such as the municipal bonds. Another municipal bond also can be a part of that particular escrow fund that is called the refunded bonds; these are backed by the high-quality funds.

Then the legally binding bonds. These types of bonds generally take the form of an obligation to withhold or provide the government aid to pay any defaulted debt issue. The government can help them out to pay the interest and other kinds of cash flows if there is any default. So that is called the legally binding bonds. That provision will be there in the indenture in the beginning and using that particular provision the government may be ready to pay that. That is called the legally binding bonds.

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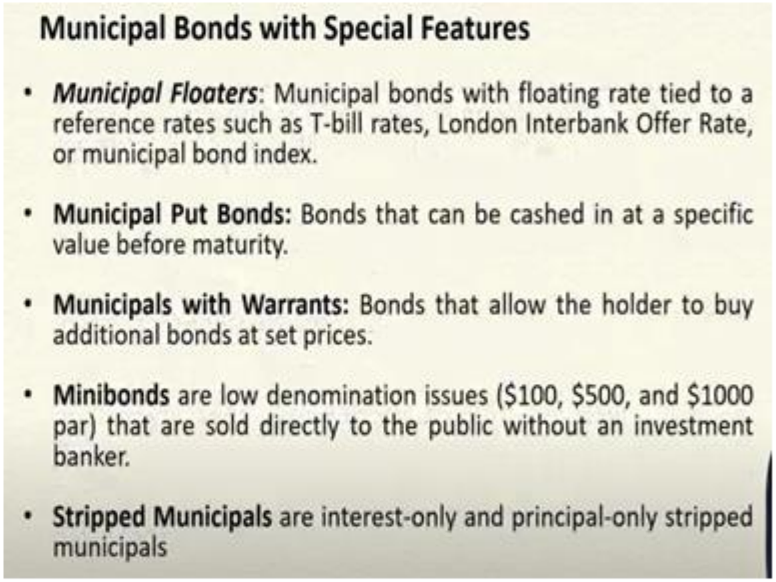

Then we have municipal floaters. Here the municipal bonds with floating rate. This is basically the coupons are not fixed, coupons are floating. And that floating rate is generally linked to a reference rate like the other corporate bonds and to whom they are linked. They are linked to the treasury bills rate or the libor rate (London Inter Bank Offer Rate) or also they can be linked to the return what we are getting from a municipal bond index which is traded in the market. So, the base rate or the reference rate can be linked to either Treasury bill rate or the libor or it is the municipal bond index.

Municipal bonds also can have a put feature that means that bonds can be cashed at a specific value before the maturity if the investor wants. Municipal bonds also can have the warrants that means that allows the holder to buy additional bonds at set prices.

Then they have mini bonds. They generally have low denomination issues like 100-dollar, 5,000 dollar and one thousand dollars like that per value that are sold directly to the public without the investment bankers' interference. Then we have the stripped municipals their interest only or principal only stripped municipals that part we have already discussed whenever we discuss about the corporate bonds and the government securities. The municipal bonds can also be stripped bonds.

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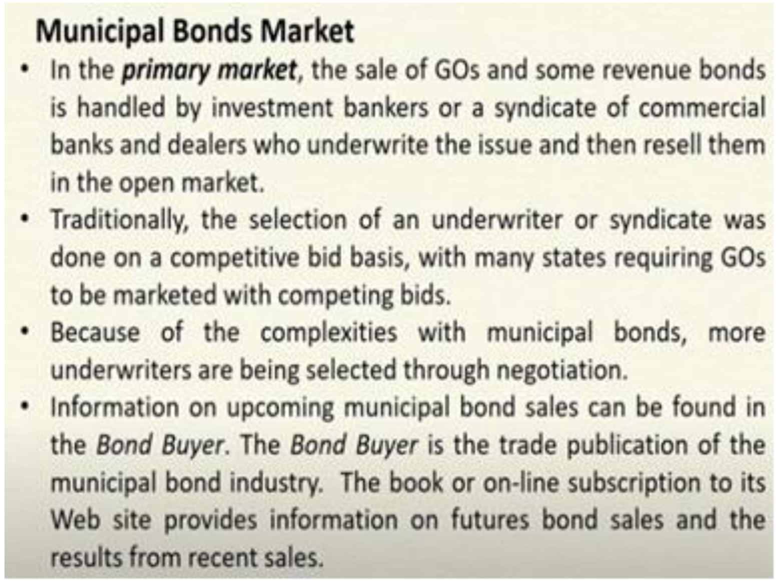

If you look at the market, in the primary market the sale of the general obligation bonds and revenue bonds are handled by the investment banker or a syndicate of commercial banks and dealers who can underwrite this issue and resell them in the open market. Traditionally, the selection of an underwriter or syndicate was done on a competitive bid basis, with many states requiring the general obligation bonds to be marketed with the competing bids.

Because of complexities with municipal bonds, more underwriters are being selected through the negotiation. And the information on upcoming municipal bond sales can be found in the bond buyer. And the bond buyer is basically a publication of the municipal bond industry. The book or online subscription to its website generally provides information about the future bond sales and the results from the recent sales.

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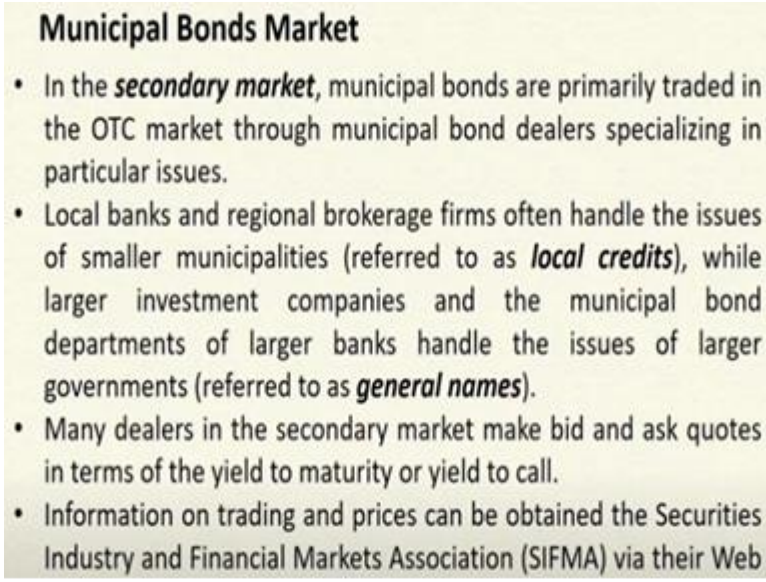

In the secondary market municipal bonds are primarily traded in the OTC market through the municipal bond dealers. And the local banks and regional brokerage firms often handle the issues of smaller municipalities generally call it the local credits. Why the larger investment companies and municipal bond departments of larger banks handle the issue of the larger governments that are called the general names.

Many dealers in the secondary market make bids and ask quotes in terms of the yield to maturity or yield to call. The information on trading and prices can be always obtained from the Securities Industry and Financial Market Association (SIFMA) via their website.

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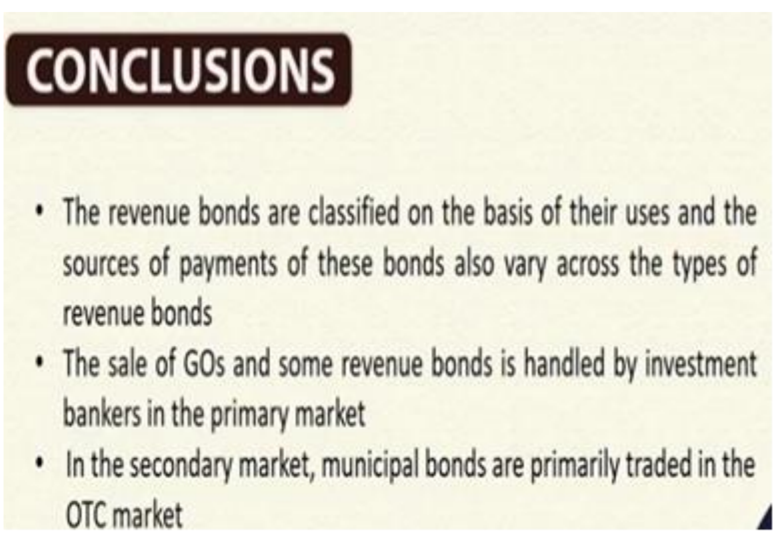

So, what basically we discussed that the revenue bonds are classified on the basis of their uses and the sources of payments of these bonds and they also vary across the types of the revenue bonds. The sale of the general obligation bonds and some revenue bonds are generally handled by the investment bankers in the primary market and in the secondary market the municipal bonds are primarily traded in the OTC market.

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So, these are the references you can go through.

Thank you.