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## Lecture - 45 Bond Market in India

So, after the discussion on the different conceptual or the major issues related to the instruments like bond, in this session we will be discussing certain things with respect to the Bond Market in India.

These are the different fundamental things you have to always keep in the mind whenever you are investing in the bond market or you are trying to understand something related to the bond. These are the prerequisites to invest in the bond market; prerequisites to understand the bond market. But today we will be discussing certain things which are available with respect to the bond market in India.

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So, whenever you talk about the bond market in India, the majorly there are three types of markets are available with respect to the bond; if you are talking about the Indian market. What are those? One is your government securities market. Already if you remember we have discussed about the treasury bills market, then we discussed about the some other market with respect to the government securities.

Remember these are very short term security which is maturity period is maximum up to 1 year. But now whenever we are talking about the government dated securities, there the government securities market is relatively a long term market. So, that is why we have a prominent market in India that is related to the government dated securities which are long term in nature. Then we have another market called the corporate bond market, then we have the public sector unit bonds: the bonds are issued by the public sector units PSU points which are popularly known as.

So, these are three types of market which exist in Indian financial system. So, what is basically our job today? We have to understand the structure of that particular markets who are those participants; that means, in terms of investment point of view, in terms of the insurance point of view, who are the regulators of this market, what is the process through which the bonds are invested in the market or bonds are issued in the market. So, these are the different questions always comes to our mind whenever we talk about the bond markets in India. So, that is why we have to discuss certain issues related to the operation of bond market in the Indian context.

So, if you see from the beginning I can tell you that whenever you talk about bond market in India, the bond market in India is highly dominated by the government securities.

The corporate bond market is not very strong if you talk about and there is a market for PSU bonds, but it is also not that much developed if you think from the Indian prospective. But if you think about the bond market, then typically our mind always goes to the government securities market governments dated securities market which deals with the long term securities. So, what basically we are going to do? First of all let us discuss certain things which related to government dated securities which is the most prominent developed market in terms of the bond which are operating in the Indian context. Then we can see certain things related to the corporate bond and the PSU bonds.

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So, whenever you talk about government securities market already you know what government securities is. This dated securities are longer term securities already I told you and they carry a fixed or floating coupon. Some of the government securities also carry the floating coupon.

The coupon rate may change after a typical period of time. It is not that the coupon may be fixed and the coupon maybe floating. In the beginning it is mentioned that at what point of time how the coupon is going to the sense that is already defined. So, in that context what you have we can say that the government bonds either they have fixed coupon or they have a floating coupon and they are always paid on the face value that already you know. Because the coupons are paid on the basis of the face value or the par value or we can say that the value which is already mentioned in the bond indenture.

And payable at fixed time period that already you know and mostly the government bonds coupons are paid half yearly. That means, the coupons for the government dated securities are paid half yearly; that means, every 6 months or the total frequency of the coupon payments for the government dated securities are 2 every year two times the coupons are paid.

Another beauty of that particular type of bond is very long term bonds are available in the market. The term to maturity for the government dated security can go up to 30 years which is not in the case of the other type of bonds which are issued in the market who basically always deals with the government securities market? In RBI in the Reserve Bank of India, there is a Public Debt Office which always manages the government dated securities and RBI basically acts as the registry the Public Debt Office of RBI basically acts as the registry or the depository of the Government dated securities. And it deals with all kind of thing like how the government security will be issued, when the interest will be paid and how the principal will be paid at the maturity. All kind of issues related to the government dated securities always dealt by the Public Debt Office of the Reserve Bank of India.

So, they are basically the custodian, they are basically the prime agency who basically facilitate the operations of the government dated securities market in the context of India.

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Then will see that how the government security market is playing a very significant role in the financial system. What are those uniqueness of the government securities market has which is not available with the other markets.

You see already all of us you know that the government securities market is a market which is a highly liquid and it basically sets a benchmark for the rest of the market. Any debt market whenever the pricings are done; the yields are calculated, so everybody looks at the what is the price available in the government dated securities because it is basically highly liquid market. And another thing is if you see the probability or the risk probability of default is basically 0. Now there is no credit risk involved in that. So, that

is why the yield from the government dated securities can be consider as a risk free rate of return.

We take it as a proxy for the risk free rate of return. To us it is a risk free rate of return or there is no such kind of credit risk called default risk involved in that particular kind of securities, then it can be consider as a benchmark for all the rest of the markets. So, whenever we calculate the return from other markets, the risk free rate can be benchmark or if you are going to take more risk than how much extra premium we want or extra return you want that kind of idea you can get it whenever you have the return from the government securities market. So, that is why it is a benchmark for the pricing of the corporate securities of the varying maturities because the government bonds also available in the different maturity. It can be also used as a benchmark for pricing of the corporate securities available in the market.

Another major important thing is basically what it plays a significant role for the monetary policy because if you remember, we were discussing about open market operations. What do you mean by the open market operations? The open market operation is basically a process through which government buys and sells the securities to increase or decrease the money supply in the market. If the government wants to increase the money supply, then what they will do? They will buy the securities or sell the security? That means, they will provide the security to the public and if they will provide the security or the government of the public and get the money from them then; obviously, they are reducing the money supply.

But if they are selling the security to the public that means, what? Basically they are declining the money supply, but whenever they are buying securities from the public through the auction process, there is increasing the money supply.

So, open market operations which is a measure instrument of the monetary policy that is basically always done through the government dated securities market. So, increasing and decreasing on a supply through the open market operation, the major instrument is the government dated securities. If they want to if they will buy the securities from the public, then they will inject the money to the economy, then the money supply will increase. And whenever they are selling the security to the public; that means, they are taking out the money from the public, then they reducing the money supply in the

economy. In that process it is very much essential and the effectiveness of the government securities market is quite important.

Obviously, from the beginning I told you, this is a risk free instrument which provide the risk free return. There is no default risk or the credit risk and this government securities market also facilitates the public borrowing at reasonably cost which avoid the automatic monetization of the government deficit. Before 1997, there was a process for the automatic monetization of financing the government deficit that thing has been removed because of the development of the government securities market.

Because as the government securities market is quite efficient quite liquid at the time of requirement government is able to raise the money through Reserve Bank of India by the issuance of the government dated securities to the public. That is basically the thing what we can observe or we can always see whenever we talk about the government securities market.

Then another thing is it provides the flexibility to the authorities in their task of the debt management. Because already I told you the GSM basically is a kind of instrument or it is a kind of market which provides that kind of instrument which facilitates all type of operations of the bond market or operations of any kind of debt management in the system. So, that is why it provides the flexibility to the authorities in their task of the debt management.

And as it plays a significant role in the open market operation process, it plays a very crucial role in the monetary policy transmission mechanism. What do you mean by transmission mechanism? Transmission mechanism basically a process you can use the instrument, the instrument will affect the intermediate target or a intermediate variables. And once the intermediate variables will be affected, then automatically the final outcome variable also will be affected. So, in that process if you see, this particular market is very important in terms of policy, it also important in terms of the bench marking of the other type prising benchmarking for the pricing of the other kind of securities available in this segment, then it also helps in the debt management of the government.

So, this is the importance of the government securities market that is why people are much more concerned about the development of the government securities market in India.

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Then if you see the structure of the government securities market in India. How the structure looks like? Who are those major players in the government securities market? They are; obviously, reserve bank of India is the APEX who issues this, then you have the commercial banks who are the participants, who are the investors.

Then you have the primary dealers some of the banks are primary dealers and already we have discussed about the primary dealers who are not from the bank, but they are the standalone primary dealers. And also the insurance companies; institutional investors and the insurance companies like insurance companies. They are basically the bigger investors who also invest in the government securities market in India.

Foreign Institutional Investors FIIs also allowed to participate in the government securities market with a quantitative limits; when the limit always subject to change with the approval or with the suggestion of the reserve bank of India. Corporates also buy or sell the government securities to manage their overall portfolio risk. So, these are the major players who always play the role in the government securities market in the context of India.

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So, in this context, the investors who are available in this market we have divided into three categories. Those are divided into three categories on the basis of their status. So, we have a wholesale market, we have a middle market or middle segment market, then we have a retail segment market. Whenever we talk about the wholesale market, the wholesale market comprises the players like commercial banks, financial institutions, insurance companies, primary dealers, mutual funds.

So, those are basically the bigger investors and they basically are considered as a part of the wholesale market. What are those players, who are those players were basically a part of the middle segment? In the middle segment, we have the provident funds, corporates, NBFCs; Non-Banking Financial Companies and the cooperative banks. Cooperative banks are relatively smaller in size; so because of that the middle segment, they come under the middle segment.

But whenever we are taking about the commercial banks, they come under the wholesale market segment. And retail segment if you see these are basically individuals and some of the non-institutional investors. Mostly the retail segment is comprised of the individuals and the non-institutional investors. So, this is the way the players in the GSM market or government securities market are divided or are categorised.

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See the structure of these in terms of this. The particular holder or the investor in the GSM market or Government Securities Market always hold their securities in the demerit dematerialised form; It was there in the physical form also was there before, but now it has been removed. So, all those kind of investments which are carried out in the government securities market, they has to be in the demat form. That is basically the mandatory thing which is working in the context of India.

So, if there is a d mart funds which are there is a process of dematerialisation in terms of the investment in government securities market, then how it is done? So, it can be done by two ways. According to reserve bank of India guidelines, it can be done by two ways. So, every commercial bank who are investing in the government securities, they can do it through SGL account or they can do it through the gilt account. Any investor can invest through SGL account or the gilt account.

We will explain that what you mean by the SGL account and the gilt account. The RBI offers this subsidiary general ledger account which is called SGL account that facility to select in entities who can maintain their securities and SGL accounts maintained with the Public Debt Offices of the Reserve Bank of India.

So, if you see in terms of the SGL account the securities or to get this kind of licence to have the SGL account, there are certain criteria. And all those investors cannot fulfil those criteria because the criteria are very stringent and the amount of money transaction

through that particular kind of account also is quite large. So, because of that generally what happens? Mostly the commercial banks and some bigger investors insurance companies and all this things they have this SGL account with RBI and other kind of entities cannot open the account through the SGL account.

Mostly the commercial banks open the SGL account with the reserve bank of India. So, they can directly invest in the dated securities market through this SGL account. But whenever we talk about because we have large group of investors who are interested to invest in the government securities market.

So, anybody cannot open this SGL account; if they cannot open the SGL account, then how they can invest? So, they can invest through this Gilt account. So, RBI has made the provision that the particular entities who have not this SGL account or they are not eligible for to open the SGL account with reserve bank of India, they can invest through this Gilt account. So, what exactly the gilt account is? The gilt account is basically what? You can open this gilt account with a bank or primary dealer who can or who has the SGL account with RBI. So, you go and open this gilt account gilt account means this is again the gilt means government.

The government securities account you can open it with this kind of commercial banks or primary dealers and they have the licence or they are eligible. They are eligible to open the subsidiary ledger journal ledger account with RBI and through that gilt account whatever transactions you want to do through the for the government securities market investment, you can do it through this gilt account and from the gilt account it can go to the SGL account of this particular commercial bank. Through that the transactions or the trading of that particular securities can take place. So, this is the way the investor can participate or can go for investing the money in the government securities market.

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Then already you know there are two types of market in every segment. We have a primary market, we have a secondary market. First time whenever the securities are issued they are called the primary market segment or again the say first time it comes to the market or a newly it comes to the market. And another part is this secondary segment this securities who have already come to the market. They are traded in the market it goes from one hand to another hand. Depending upon the demand and supply of that particular security, the price basically changes that already we have discussed.

So, whenever you talk about the issuance of the primary market rated securities. They are basically issued through the auction process; I have explain this auction process to you whenever we are discussing about the treasury bills. The same auction process works for the dated securities. The whatever auction process works for the treasury bills market, the same auction process works for the dated securities market only some differences in terms of the timing and the settlement period.

Here one example what if you see. Already I told you there are two types of auction; one is yield based auction, then another one the price based auction. And yield based auction is always used whenever you are going for a new security you are going to issue a new security.

So, for example, there is a bond there is a dated securities. The maturity date is 6th August 2024. The coupon is determined in the auction where we will find out how the

coupon was determined here. The auction date is 5th August 2014, auction settlement date is 6th August 2014 a notified amount is 1000 crore right. The settlement is done on 6th August 2014 under T plus 1 cycle. If the settlement date is the holiday under T plus 1 cycle, then the next working day will be consider as the settlement day that is the regulatory rule or the RBI norms whatever they have decided.

So, if you see let already I have explained you that whenever this particular information were available, then accordingly what will happen this investors have gone for the bidding.

So, here it is already arranged in the ascending order. So, this is the bid yield what they have basically bided. Bank number 18.19 percent, 28.20, 38.40, 48.12 and 8.22, then 8.22, then 7 is 8.23, 8 is 8.24. This is a hypothetical example that these are the bidding which have bids which Reserve Bank of India has received. Then bank 1 has bided for 300 crore. Bank 2 has bided for 200 crore, then it is 250, 150, 100, 100, 150, 100 like that. Then if you find out the cumulative values 300 300 plus 200 500 750 900 1000 you see that 1000 is over here right. If the 1000 is over here, then further this particular bids will be considered or not. If you observed here the bank number 5 has bided for 100 crore there itself the biding got over the amount got over.

But the bank number 6 also has bided for 8.22 percent as ask 400 crore. Then in that particular point of time, what will happen? They can go they should go up to bid 5, but since the bid number 6 is also at the same yield, then both bit number 5.6 get the allotment in the pro data bases. That means, after the 900 crore whatever 100 crore will remain the 50; 50 crore will be given to bid number 5 and 50 crore will be given to bid number 6 and the cut of yield was 8.22. The cut off yield basically will be 8.22 that will be decided. Say under the cut off rate you can find out also price already the yield and price calculation you know that if you know the price I can calculate the yield from that.

If it is a price based auction with the same kind of security, it can be arranged in the descending order. Then accordingly if there is a same kind of demand or same kind of price, they have coated then it can also be divided into pro data basis. That is also there for both the yield based auction and the price based auction. This is the hypothetical example you can see that one.

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How the trading takes place? There are three ways that trading can take place in the secondary market. Once this has gone into the secondary market, this can be traded either by OTC market through the telephone. Then whatever court negotiations have taken place through the telephones between the different banks or different primary dealers and other people those information should go to the negotiated dealing system platform within 15 minutes after the dealing.

Then we have a negotiated dealing system which is an electronic platform was started in February 2002. Then all the bids are submitted electronically and finally, this auction will take place or the pricing will take place on that trading platform only finally, the allotment will be made or the securities are also traded in the stock exchanges both BSE and NSE. NSE has a segment call wholesale debt market segment where the government dated securities are traded.

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Then we have another segment corporate bond market very dormant not very developed. There are so many committees were established like Patil committee, Raghuram Rajan committee. There are different communities which were establish to which this committee have recommended for the development, but still that market is not that developed in India.

One thing you have to see here, there is no mortgage available whenever the bonds are issued by the corporate. It is only depends upon the future cash flow what the company can generate. In some cases companies physical asset may be used as collateral, but generally it is not the case mostly it is based upon the expected cash flow what that company can generate.

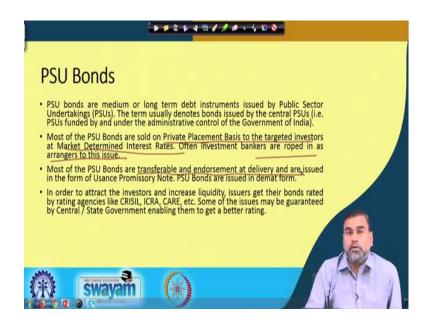
On that basis the corporate bonds are issued. They are relatively higher risk than the government securities and because of that the interest rate or the yield from that part type of bonds are higher than the government dated securities. With the same maturity, you will observe the yield from the corporate bonds are always higher than the yield of the government dated securities.

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So, these are the classification of corporate bonds which are available in India issued by corporate you have the zero coupon bonds; no coupons are paid. There are short term bonds also the corporation always issue like maturity period less than 1 year. There are some medium term and there are some fixed coupon and there are some floating coupon. So, these are the different type of bonds which are issued in the corporate bond market. All type of bonds are issued, but already I told you the market is not that developed like the government dated securities market in India.

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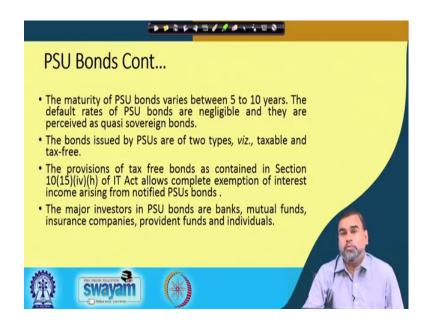


We have the PSU bonds which are issued by the public sector units. You see those bonds are mostly sold in the private placement basis to the targeted investors as a market determine interest rates. You remember these are basically sold on private privately placed specific type of investors always invest in this and there invest rate on the market determine interest rates. Investment bankers basically are roped in as the arrangers to this issue. They can arrange that who can invest in this securities which are issued by the PSUs. So, this is not that way very highly available publicly. Mostly it is always issued or the investment is always made in the private placement basis.

PSU bonds are transferable and endorsement at delivery and are issued in terms of issuance promissory note and they are also issued in the demat form. And to create a certain kind of demand in the market what is happening that the PSU bonds also get the rating. They are rated by the CRISIL, ICRA, CARE and all this agencies there basically always give the rating because they can attract more investor to participate in that particular trading process. So, because they can go and invest in that particular security because of that they always try to get some weights or get some kind of rating from this rating agencies.

And some cases it may be guaranteed by the central and state government enabling them to get a better rating. Whenever the rating agencies give the rating to them, it is always sometimes it is observed. This is also they also get a better rating because it is guaranteed by the government either by the state government or by the central government, but this is a privately placed market mostly which is common public or common retail investors are trading in the public sector units bonds, but mostly the PSU bonds are basically privately placed.

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So, this is about the PSU bonds. The bonds maturity period varies from 5 to 10 years default rates are negligible. PSU bonds are two types taxable and tax free. The interest payments on this PSU bonds are get some tax free for the tax free bonds; they get the exemption of interest income you do not have to pay the tax for that. And the major investors in the PSU bonds are banks mutual funds insurance companies' provident fund and the individuals.

They are the major players and there are two types of bonds, they issue either tax free bonds or taxable bonds and tax free bonds means they get the investor get the tax rebate against the interest payments. This is what basically the PSU bonds are all about and we have also enough PSUs are investing or issuing the PSU bonds, but that market is not that developed like the government securities market.

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Please go through this particular references for this particular session. This is about the bond markets in India.

Thank you.