Management of Commercial Banking
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Lecture - 41
Management Investment Portfolios – I

So, after discussion on the lending activities of the commercial bank, we have another major activity what the commercial banks always do, or we should understand whenever we think about the management of the commercial banking. That is basically your management of the investment portfolios of the commercial bank.

How the commercial banks manage their investment portfolio, by that their total objectives of the profit maximizes on and as well as the liquidity management can be made in a adequate manner, or in a whatever objective they define to maintain a balance between liquidity and profitability that can be always managed through this investment management, proper investment management of the commercial banks.

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So, in this context in today's discussion we will discuss about the objectives of the investment portfolio management, why basically the, what are those different objectives the commercial banks always fix for the investment portfolio. And what are those different compositions of the investment portfolio?

That means what are those different alternatives or the assets which are used to construct this portfolio for the investments of the commercial banks. Whenever the commercial banks invest in the market, what are those assets they consider and what are those properties of those assets? That basically we have to see in today's class.

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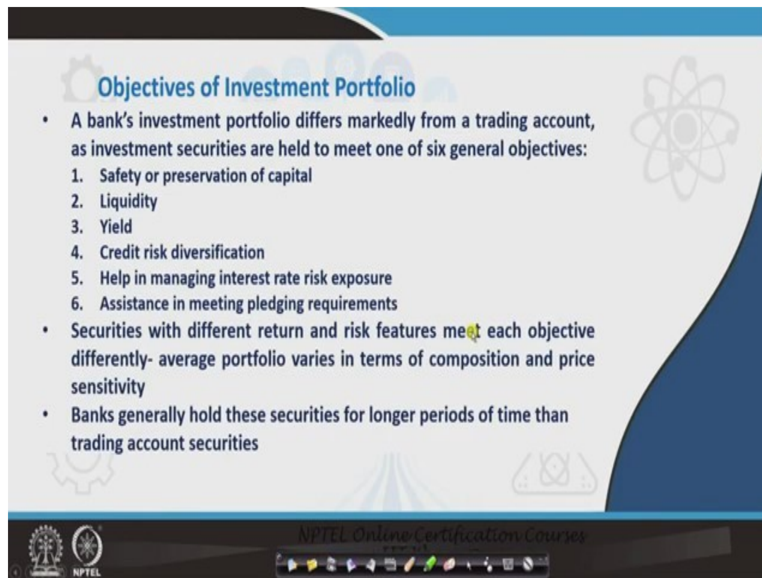

Whenever we talk about the objectives of the investment portfolio, the investment objectives are many. In general from the investment prospective if you see, the basic objective is to maximize the return with a given amount of risk or with a given amount of risk or minimization of the risk with a given amount of the return.

So, either of these ways this particular portfolio management works. So, whenever we go for the portfolio management, what basically we do? There are two things we keep in the mind. One is that what are those assets should we consider for our portfolio? Number one. And number two is how to allocate the funds to the different portfolio? By that our total return objective can be fulfilled.

So, there are two steps. One is, what are those assets should we consider? Number two, how the fund should be allocated to the different assets? So, these are the two course sense in general the portfolio management tries to answer. So, in this context, if you think about the broad objective of the commercial banks, the broad objective is, first of all the

safety, or the reservation of the capital. So, whatever capitals of equity, of the debt of the commercial banks have, how the capitals can be preserved in such a way, by that the stability or the safety of the commercial bank will be maintained. This is number one.

Number two, liquidity. Already I told you, because liquidity is very much inevitable from the commercial banking perspective to fulfillment of the requirement of the customers or the depositors. So, the liquidity has to be always maintained in a proper way because excess liquidity is also not required because liquidity and profitability do not go together.

So, a proper balance has to be made. So, if the proper balance has to be made, then how the proper balance can be made? The proper balance can be made whenever a perfect kind of investment strategy can be adapted or investment portfolio can be constructed, by that whatever deficits or any kind of losses the commercial banks are expected to incur, that can be compensated by the gain what they are making in terms of investment activities what the commercial banks undertake.

Then yield means return, they want to maximize the yield. They want to diversify the credit risk because the major risk what the commercial bank face for all type of activities that is the credit risk. So, how the credit risk can be diversified? What are those?

Because whenever they are providing the loan, the loans are always exposed to the credit risk; but whenever they invest, the credit risk exposure is not that much but still they are exposed to a certain amount of credit risk and to avoid those kind of aggregated credit risk then always this proper diversification of the credit risk should be done through this proper investment activities by the commercial banks.

They, through investment activities, proper investment portfolio they can also minimize the interest rate risk and they also, it can help for the assistance in meeting the pledging requirements whatever the commercial banks already have made. So, these are the broad objectives of the investment portfolio what the commercial banks always have.

So, the securities or the investment alternatives which are available with different return and risk features meets each objectives differently, because of that the average portfolio varies in terms of the composition and the price sensitivity. The average portfolio varies

in terms of the composition and price sensitivity and the banks basically generally hold these securities for a longer period of time than the trading account securities.

So, either the commercial bank can invest in the stock market and the commercial bank can invest in the bond market and the commercial bank can also go for a very higher level of, or the particular securities which are exposed to a much more risk like your securitized products and all these things. So, in such a way we have to see that how the balance can be made by that the total objective of the particular commercial banks can be maintained and the risk return portfolio will be balanced.

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Objectives of Investment Portfolio Cont..

Safety or preservation of Capital	• Banks assume considerable default risk in their commercial and consumer loan portfolios; balance this by accepting much lower default risk in their investment • Primary objective is to preserve capital by purchasing securities with a small risk of principal loss
Liquidity	• Commercial banks purchase debt securities to help meet liquidity requirements • As securities are more marketable than most commercial and consumer loans, banks often designate a portion of their investment portfolio as a liquidity reserve
Yield	• Investment securities must pay a reasonable return for the risks assumed • Bank managers must evaluate each security to determine whether its yield is attractive given its other features and the overall profile of the bank's portfolio • Portfolio managers who actively trade securities generally look at total return, not yield to maturity, when evaluating the risk and return trade-off.

So, because of that whenever we talk about the different objectives, whenever we talk about the safety or the preservation of the capital, the banks basically assume the considerable amount of default risk in their commercial and consumer loans. So, because of that they balance this by accepting much lower default risk in their investment.

So, whenever they go for the investment, they try to basically reduce the default risk because their default risk is quite high whenever they provide the loan. That already I have discussed with you. So, that is why their prime objective is to preserve the capital by purchasing the securities with a small risk or the principal loss. This is the number one.

Number two is liquidity. They want to maintain the liquidity. So, how the portfolio management should be made in such a way that the liquidity can be managed? The commercial banks purchase the debt securities to help or meet the liquidity requirements and as securities are more marketable than more, than commercial bank, commercial or consumer loans, banks basically generally designate a portion of their investment portfolio as a liquidity reserve.

So, in India, I can give the example. We have two types of investment, one is SLR and non-SLR. In SLR, investments are basically reserved for the liquidity. To maintain the liquidity the SLR investments are made and non-SLR investments are not basically the liquid investment alternatives but the SLR investments are the liquid investment alternatives.

Yield. The investment securities must pay a reasonable return for the risk which is taken for that, which is assumed for that. Then bank managers must evaluate each security to determine whether its yield is attractive or not given the portfolio profile, overall portfolio profile of this particular bank. So, whether this particular asset should be considered in the portfolio or not, that will be decided on the basis of the overall risk or overall performance of the portfolio what the commercial banks are and accordingly the yield can be calculated.

The portfolio managers who actively trade the securities generally look at the total return not yield to the maturity, because yield to maturity is the interest rate but total return is the beginning value whatever we have and we have the ending value. When ending value divide by the beginning value to the power 1 by n minus 1, n is the holding pillar here.

Then accordingly what basically we can say that we see that how much total return we are going to get from this and accordingly we decide that whether this particular investment is profitable or maybe attractive for the particular commercial bank or not. Then accordingly they evaluate the risk return trade-off of that particular security in the market.

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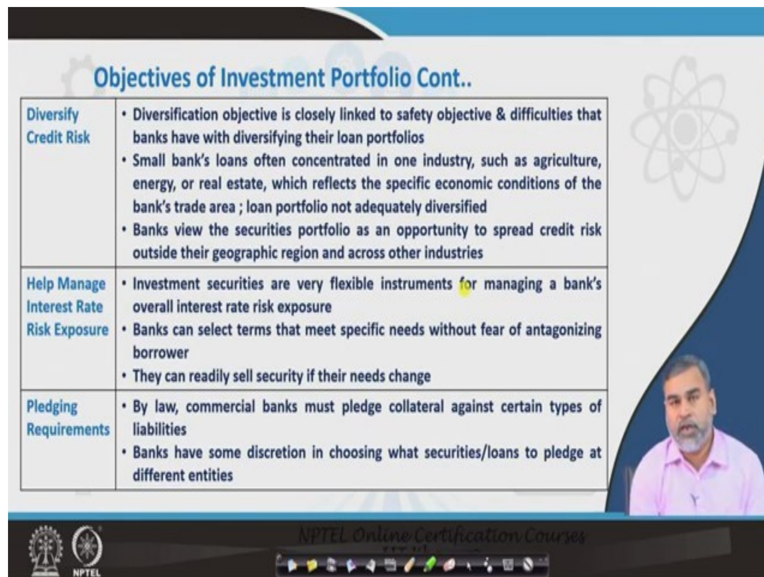

Then we have the diversification of the credit risk. It is closely linked to the safety objective and difficultly is that banks have with diversifying their loan portfolio. Smaller banks loans often concentrated on one industry such as agriculture, energy or the real estate which reflects the specific economy conditions of the bank's traded area. In that case the loan is not diversified or the portfolio is at the risk.

So, if anything goes wrong with that particular industry, then there is a problem in terms of repayment of the loans then automatically what happens that the commercial banks will be exposed towards more risk. The banks view the securities portfolio as an opportunities to spread the credit risk outside their geographical region and across the other industries.

By that if one industry does not do well then that particular loss what they are going to make in that industry, that can be compensated in the gain what they can make in other industries whose potential or which industries are basically have performed better. It also help the management of the interest rate exposure, how it is basically helping?

Investment securities are very flexible instruments for managing the banks' overall interest rate exposure. Banks can select those items which meet specific needs without fear of the borrower. They should not create any kind of problem or any kind of information. They should not create any kind of event.

By that the borrower will be unhappy for that, so accordingly they can take kind of investment positions which is totally depends upon their own decisions. By that interest rate exposure can be reduced. They can readily sell the securities if their needs change.

Then by pledging requirements if you see, by law the commercial banks must pledge collateral against certain types of liabilities. And banks have some discretion of choosing what securities or the loans to pledge at the different entities. So, overall if you see, the banks wants to maintain liquidity and as well as, to reduce the risk and as well as to maximize their return.

So, these are the three objectives, broader objectives. So, if the three objectives are fulfilled then automatically the banks become more stable and in that context the return also can be maximized. So, these are the objectives of the investment portfolio what the commercial banks always use.

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Accounting for Investment Securities

- Decisions regarding the types of securities that banks buy and the length of time they are held in portfolio are driven, in part, by market value accounting rules
- The Financial Accounting Standards Board's Statement 115 (FASB 115) requires banks to divide their securities holdings into three categories—Trading, HTM, and AFS
- Trading: Securities purchased with the intent to sell in the near term; carried at market value on the balance sheet with unrealized gains and losses included in income

There are some accounting rules the commercial banks has to follow. If you talk about the US market, the decision regarding the types of securities what the banks buy or sell and the length of the time of to what time they are held in this particular portfolio is partly driven by the accounting rules. So, if you go by the accounting standards, the

statement 115, which requires that banks to divide their securities holding into three categories, like trading, HTM and AFS.

Whenever we talk about the trading instruments, the basic objective of the trading instrument are why they are purchased? They are purchased with the intention to sell in the near term and carried at market value on the balance sheet with unrealized gains and losses including the income. We are investing in certain securities in the market or the security that traded in the market to realize certain kind of gains which is supposed to be realized in the near future.

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Accounting for Investment Securities

- Held-to-Maturity (HTM): Securities purchased with the intent to hold to final maturity; carried at amortized cost (historical cost adjusted for principal payments) on the balance sheet; unrealized gains and losses have no income statement impact
- Available-for-Sale (AFS): Securities that are not classified in either of the previous categories; carried at market value on the balance sheet with unrealized gains and losses included as a component of capital
- Distinction between motives is important because of accounting impact

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But whenever we talk about the HTM, which is held to maturity, mostly it is basically the fixed income securities. So, here the securities are purchased with the intention to hold the final maturity which is carried at the amortized cost, which is historical cost and as well as adjusted for the principal payment on the balance sheet.

And the unrealized gains and losses have no income statement impact that means mostly they come in dated securities and other securities which are coming under this category then we have to use those securities which specifically takes care of certain kind of aspects of this particular commercial bank.

Then we have another type of categories. We have available-for-sale. This securities are not classified in their, either of their previous categories, carried at market value and the balance sheet with unrealized gains or losses included as a component of the capital. So, all these distinctions is important because the motives are different for the different type of categories what the particular accounting rule has classified.

Then accordingly the bank has to maintain a balance among all the securities with a different objectives, by that the total objective cannot be destructed or maybe total objective can be fulfilled.

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Compositions of Investment Portfolio

Money market instruments: Banks hold significant amounts of government and corporate securities that mature within one year, labelled *money market instruments*	**Capital market instruments:** Banks own a larger amount of longer-term taxable securities, labelled *capital market instruments*
Example: Treasury bills Large negotiable CDs and Eurodollars Bankers acceptances Commercial paper Security Repos Tax and bond anticipation notes	**Example:** Long-term bonds Municipal bonds MBSs backed both by government and private guarantees Corporate bonds Foreign bonds Stocks Other asset-backed securities

Then if you talk about the different alternatives of the investment alternatives what the banks can use, there are two alternatives. We have divided it on the basis of the long-term and short-term instruments, but mostly some of the instruments are short term which is called the money market instruments. And some of the instruments are long term which are coming under the capital market instruments.

So, whenever we talk about the money market instruments, the banks hold significant amount of government and corporate securities that mature within one year. So the maturity period of the money market instrument is up to one year and the banks basically maintain this kind of securities for certain objectives which can be used for maintaining

their cash balances in such a way or they are investing value in such a way that the one year obligations can be fulfilled.

But whenever we talk about the capital market instruments, the capital market instruments they own a large amount of longer term taxable securities and generally the period is more than one year. So, in terms of money market instruments we have treasury bills, we have certificate of deposits, we have commercial papers, we have bankers acceptance, we have other kind of small notes which are issued in the bank, bank notes and all these things.

But whenever we talk about the capital market instruments, we have long-term bonds, we have municipal bonds, we have some of the bonds which are backed by the government and private guarantees, corporate bonds, we have the foreign bonds, we have the stocks, we have some other asset-backed securities like CBO, CDOs and all these things.

So, this is the way, basically the classifications are made on the basis of the time period of that particular security in the particular time period of that, maturity period of that particular security available in the market.

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On money if you see that, if you talk about the money market instrument, one instrument is a repurchase agreement. Then what is this repurchase agreement? It involves basically a loan between the two parties, within one party typically either a security dealer, or it is a commercial bank. So, the lender or the investor, they buys the securities from the borrower and simultaneously agrees to sell the securities back at a latter date, at an agreed upon price plus interest.

So, that is something happens in the monetary policy whenever Reserve Bank of India or central bank backs the money with the commercial bank with an agreement that on a latter date they will get back that particular money and against that they will pay the interest. It is just opposite to the repo rate.

The transaction basically represents a short-term loan, collateralized by securities because the borrower receives principal in the form of immediately available funds while the lender earns interest on the investment. If the borrower defaults, the lender gets title to this particular securities. So, this is a kind of investment what the commercial banks can make whenever they can park that particular fund with them and against that they get some interest in the periodical basis from this particular depositor.

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Then we have treasury bills which is much more popular across the globe. Treasury bill is basically a particular type of finance bill which is put out by the government on the country to meet the needs of supplementary short-term finance. Mostly these particular bills are issued by the central bank.

And on behalf of and the commercial banks basically invest in this particular securities and those particular security has both primary and secondary market where once this banks have invested in those security, this can be reinvested in the market by them and this can be issued to the different kind of consumers. So, the treasury bills are the zero coupon securities and they pay no interest against that and it is issued at discount and redeemed at par.

And banks are the significant investors in both short-term variables longer-term treasury notes and the bonds in the market across the globe, not only in India but also other developed countries and all, the treasury bills are quite popular in terms of their investments, in terms of the banks' investments.

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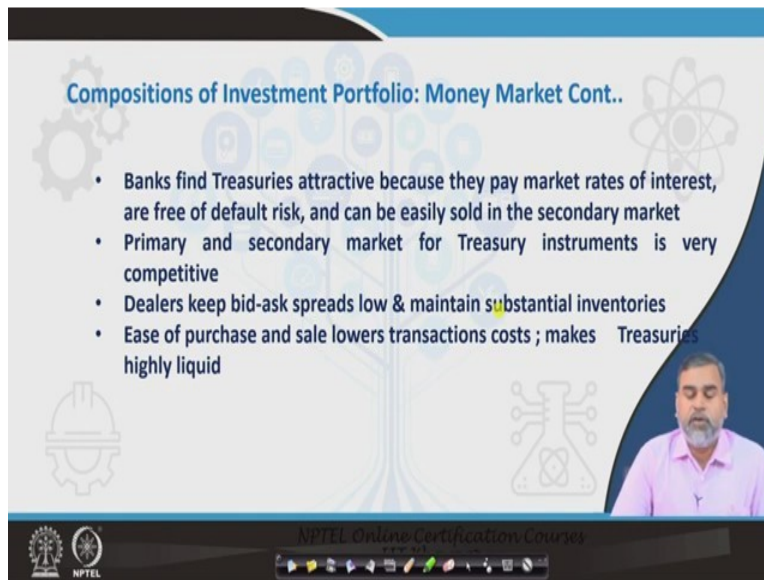

So, the banks find treasuries attractive because they pay market rates of interest, are free of default risk, can be sold easily in the secondary market because it is risk free in nature. There is no default risk against that, because of that the reinvestment in the secondary market is easier for the commercial banks if they invest in the treasury bills which is issued by the central bank.

The primary and secondary market for treasury instruments is very competitive because they demand for this particular kind of products are quite large in the system. The dealers keep bid-ask spread low and maintain the substantial inventories for this. Ease of purchase and sale of lower transaction cost makes the treasury bills highly liquid. So, the treasury bills are basically highly liquid, which are basically used as an investment alternative of the commercial banks in the market.

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Compositions of Investment Portfolio: Money Market Cont..

- Certificate of Deposit (CD)
  - A Particular type of Finance Bill or Promissory note put out by banks, thrift institutions and credit unions of the country to meet the needs of supplementary short-term Finance
  - Treasury bills are zero coupon securities and pay no interest.
  - Issued at discount and redeemed at par
  - Certificate of Deposits are attractive because they pay yields above Treasury bills and, if issued by a well-known bank, can be easily sold in the secondary market prior to maturity

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Then we have another instrument called the certificate of deposits.

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Compositions of Investment Portfolio: Money Market Cont..

- Banks have the freedom to issue CDs depending on their funding requirements.
- Minimum amount of a CD should be Rs.1 lakh, i.e., the minimum deposit that could be accepted from a single subscriber should not be less than Rs.1 lakh, and in multiples of Rs. 1 lakh thereafter.
- CDs can be issued to individuals, corporations, companies (including banks and PDs), trusts, funds, associations, etc. Non-Resident Indians (NRIs) may also subscribe to CDs
- The maturity period of CDs issued by banks should not be less than 7 days and not more than one year, from the date of issue.
- CDs may be issued at a discount on face value.

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So, the treasury, the certificate of deposits are issued by the commercial banks which specifically totally depends on their funding requirements and the minimum amount of certificate of deposits should be 1 lakh and the minimum deposit that could be accepted from a single subscriber should not be less than 1 lakh, and in multiple of 1 lakh thereafter.

CDs can be issued to individuals, corporations, companies, including the banks and the primary dealers which are existing in the system, trusts, funds, association, et cetera, even NRIs also can be subscribed to the CDs which are issued by the commercial banks. The maturity period of CDs issued by the banks should not be less than 7 days and not more than one year from the date of the issue.

So, this issue period which is the certificate of deposit issued period which is varies from 7 days to 1 year and it cannot be less than 1 year that is why it is considered as a short-term securities. And again CDs maybe issued at discount on a face value. That is basically the characteristics of the certificate of deposits what basically this should buy the commercial banks.

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Compositions of Investment Portfolio: Money Market Cont..

Eurodollars

- Eurodollars are dollar-denominated deposits issued by foreign branches of U.S. banks or by foreign banks outside the United States
  - ✓Because only the largest banks can tap this market, the secondary market deep
  - ✓The Eurodollar market is less regulated than the domestic market ;perceived riskiness is greater
- Eurodollar rates subsequently exceed domestic CD rates for comparable banks

Then you have the euro dollars. The euro dollars again is kind of instrument which is largely used by the commercial banks across the globe. These are the dollar dominated deposits issued by the foreign branches of US banks or by foreign banks outside the United States.

Because only the largest banks can top this market, the secondary market basically deep in this particular context and in this particular securities, and the euro dollar market is less

regulated than the domestic market. Because of that we can assume that this particular market is exposed to more risk than the domestic market whatever we have.

And the euro dollar rates subsequently basically exceed the domestic certificate of deposit rates for the comparable banks. That has been observed in US market mostly that the euro dollar rates subsequently exceed the domestic CD rates for the comparable banks.

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Compositions of Investment Portfolio: Money Market Cont..

Commercial Paper

- Refers to unsecured promissory notes issued by corporations that use the proceeds to finance short-term working capital needs
- Most CP is rated by different rating agencies to help investors gauge default risk
- CPs can be issued on discount to face value basis or on a fixed interest basis.
- CPs are unsecured, negotiable by endorsement and normally have a buy-back facility
- CPs as a source of short-term debt regarded as highly safe, simple, flexible, and quality liquid instrument

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Then we have another instrument which is called the commercial paper. Again, this is basically a kind of finance which is always used to finance the short-term working capital needs for the companies. And commercial papers are basically rated by the different rating agencies to help the investors that what kind of default risk it has.

And the commercial papers are issued in a discount to the face value basis or on a fixed interest rate basis. They are unsecured, means they are not backed by any kind of collateral, they are negotiable by endorsement and normally have the buyback facility. The commercial papers normally have a buyback facility. And the commercial papers as a short-term, as a source of short-term debt regarded as highly safe, simple, flexible and quality liquid instrument.

But one thing you remember that the commercial papers cannot be issued by all entities. There are certain kind of provisions, certain kind of requirements, all those kind of financial firms who are issuing the commercial papers they have to fulfill. And accordingly, it can be said that whether this particular money will be, or a particular bank or particular financial entity will be eligible to issue the commercial papers or not.

But the thing is that our investors, anybody can invest in that particular security like commercial banks and other financial entities can invest in that particular commercial paper. And the commercial papers are basically, is a one type of instrument which is not very old in the Indian context, but this particular market is not very quite development in terms of secondary and primary market point of view.

The reason is basically or many maybe, it is not acted as, we cannot say that the commercial banks who are investing in the security are the particular companies who are issuing this particular security, this still cannot be considered as a alternative short-term financing for them, or maybe from the commercial banking perspective it is not a part of the SLR investments or SLR securities.

So, because of that the importance or the development of this particular market is not quite large but still that alternative is available for this particular system which can be used as a kind of alternative investments for a financial system as a whole and mostly by the commercial banks.

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Compositions of Investment Portfolio: Money Market Cont..

- Issuers also typically obtain an irrevocable letter of credit from a bank that guarantees payment in case issuer defaults. This guarantee mitigates default risk and improves marketability
- Still, most investors hold commercial paper to maturity because secondary market is thin

So, these commercial papers are issued also, the issuers also typically obtain the irrevocable the letter of credit from the bank that guarantees the payment in case of issuer's default. And this guarantee mitigates the default risk and improves the marketability. Most investors hold commercial papers to the maturity because secondary market is very under developed in this particular segment.

That already we have discussed that the secondary market for the commercial papers is not very developed in the market, so because of that we can say that in the most of the cases the investors hold this particular commercial papers up to their maturity. But in Indian context also there something happens that the commercial papers are not largely used by the people, the financial entities for the investments and because of that the secondary market is now developed.

So, that is why the use of the commercial paper as an alternative investment opportunities are not largely explored by the financial entities which are operating in the Indian context. So, that is basically the properties or maybe use of the commercial papers in the system.

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Compositions of Investment Portfolio: Money Market Cont..

Bankers Acceptances

- Is a "draft or bill of exchange ... accepted by a bank or trust company, or a firm, company, or corporation engaged generally in the business of granting bankers acceptance credits."
- From an investor's perspective, a bankers acceptance is a short-term interest-bearing time draft created by a high-quality bank
- Because default risk is relatively low, the promised rate is only slightly above the rate on a comparable maturity T-bill.
- Exhibit low default risk, pay a premium over T-bills, and can be used as collateral against discount window borrowings.

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Then we have another instruments, short-term instrument, we have bankers acceptance. The bankers acceptance is a draft or bill of exchange which is accepted by a bank or the trust or a company or a firm or a corporation, which is engaged generally in the business of grating bankers acceptance credits. The bank basically provide a kind of guarantee to get the loan and against that they generate certain kind of revenue.

From the investor's perspective, a bankers acceptance is a short-term interest-bearing time draft created by the high-quality bank. Remember it is a short-term interest-bearing time draft. So, the bankers acceptance is a time draft which is created by high-quality bank which can be relied by the companies and a company can accept that particular acceptance to provide any kind of credits or any kind of loans or any kind of financing activities.

So, in this context, this particular instrument is basically carrying certain kind of interest and against that interest the bank can generate certain kind of revenue. And the default risk is very low, because it is issued by a high-quality bank and the promised rate is only the slightly above the rate on a comparable maturity T-bill.

So, if you see the bankers acceptance rate, the interest rate on this bankers acceptance is little bit higher than the T-bill rate and in the context that because it is risk of default is

almost nil or it is very low, then the T-bills we consider as a risk rate of return because there is no default risk against that. Then in that context what happens that, that we can say that the comparable wise if you observe that a little bit higher than the T-bills but still the rate is low.

So, it pay a premium over T-bill and can be used as a collateral against the discount window borrowings. So, because little bit risk is involved, although the default risk is very low but there are some risk is involved in this context. So, that is why still it can be used as a collateral against any kind of discount window borrowings what this particular customer wanted to make.

So, the commercial papers, bankers acceptance, certificate of deposits, T-bills, reverse repo, so these are the major type of instruments which are money market instruments or in general we can say the short-term instruments which are used by the commercial banks for the investments in the market.

So, whenever we talk about the capital market instruments, these are long-term in nature and these are the objective of the capital market investments are different than the objective of the shorter-term capital markets, shorter-term instruments which are available in the money markets.

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CONCLUSION

- The objectives of investment portfolio management are to maximize return and to make the bank safe and stable.
- Broadly the instruments used for investments include money market instruments and capital market instruments
- In India instruments are divided as SLR and non SLR investments

So, in the conclusion what we find that the objective of investment portfolio management are to maximize return and to make the bank safe and stable. Broadly the instruments used for investments include money market instruments and capital market instruments. In today's class we have discussed about the money market instruments.

And in India, the instruments are divided as SLR and non-SLR investments and SLR investments which are basically the liquid investments are the instruments which are highly liquid which main objective is to maintain the liquidity of the commercial banks. But whenever we talk about the non-SLR investments, the objective is to maximize a return from the market and mostly the non-SLR investments are long-term in nature and these are basically invested in the capital market largely. But the SLR investments are invested largely in the money markets only.

So, this is the way basically the investment alternatives are categorized in the market. In today's discussion we covered off the money market instruments and in the next session we will be discussing about the capital market instruments.

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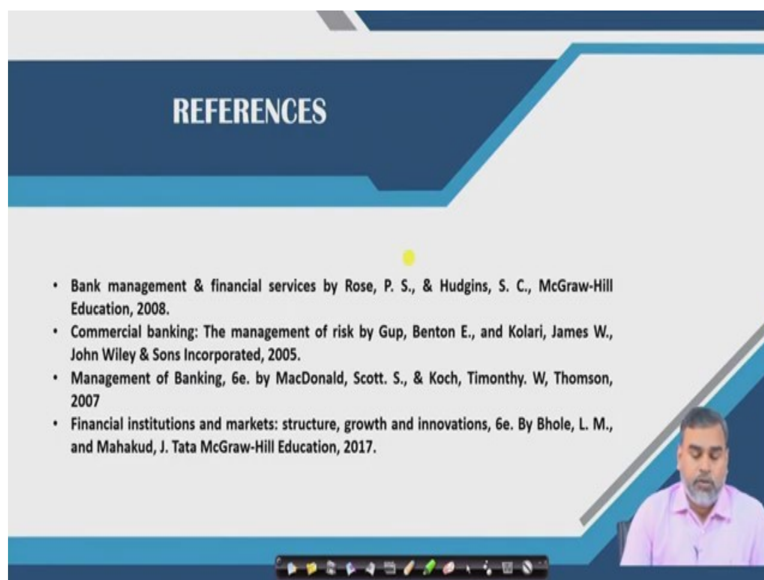

So, these are the references, you can go through about this particular session. For the detailed analysis you can get a larger idea if you go through these books. Thank you.