Management of Commercial Banking
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Lecture 17
Commercial Bank Risk - II

In the previous section we discussed about the, the integrated risk management process what the commercial banks used. Where we discussed about the vertical and the horizontal processes which includes the top down and bottom up processes and as well as the transversal processes.

And there we see basically three things, one is we target the limit, we target the benchmark and as well as we try to take the decisions. And periodically the decisions has to be monitored. And if there is any kind of changes are required, then corrective actions have to be taken. Then the commercial banks again go back to again recycling that particular process.

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In today's session so, we will be discussing about what are those different types of risk and out of the different types of risk what the commercial banks face. The major type of risk is the credit risk, and today's discussion is mostly we will focus on the credit risk and the sources of the credit risk. Where the credit risk comes and what are those, how to define the credit risk from the banking perspective. So, these are the major things what we are going to discuss in this particular session.

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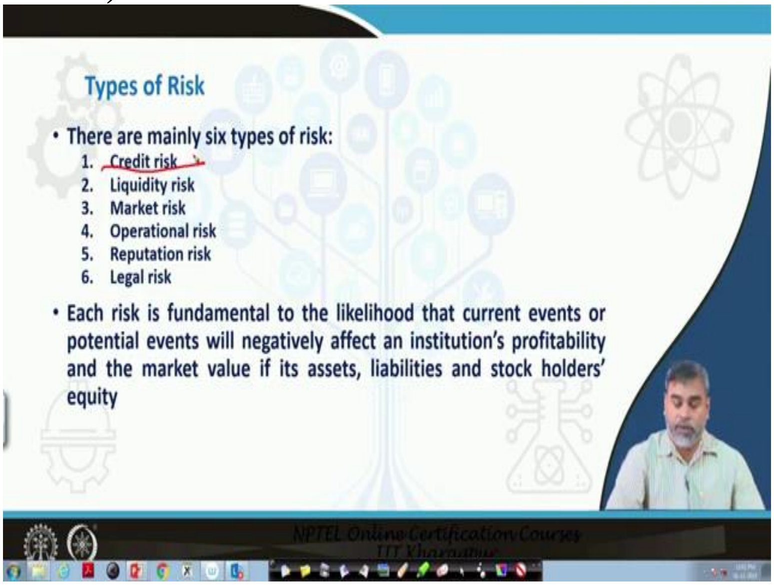

You see whenever we talk about the banking, if you go by the Basel norms what we will be discussing further or in the future. So, there are many types of risks the commercial banks face. Another a typical risk the commercial banks face that may not be applicable to other business units in the particular system.

Then what are those different types of risks the commercial banks faces. The major risk the commercial bank face is the credit risk. The reason is they provides the loans. Then they also face liquidity risk because liquidity is very important to fulfil the requirement of the customers, to cater the demands for the deposit withdrawal, and all these things.

Then we have another problem is market risk. Every organisation in the financial system persist the market risk because if there are any changes in the economy, then your balance sheet and profit loss account value gets affected. So, because of that the market risk is another issue what basically always we should consider. And Basel also has considered this market risk from the beginning.

And today's context operational risk is quite natural. It is because of many reasons because of technological failures, because of inefficiency of the employees and all these things. The operational risk is basically quite important in today's context. Even if other risk are to some extent quantifiable or visible. The operational risk is relatively very qualitative in nature. But still we try to see that how the operational risk is basically really important from the banking perspective. Not only banking it is also a very important risk from the financial institutions or any organisational perspective.

Reputational risk, sometimes we lose the reputation because of certain thing, and then customers or the clients of that particular organisation lose the confidence on the organisation, and because of that it affects adversely the business. If business is adversely affected then obviously the profit and other objectives of the organisation also gets affected. So, because of that the reputation risk is quite important.

Then we have legal risk, sometimes the expenditure on the legal aspects are quite huge which adversely affect. There are many court cases, many kind of legal formalities the banks have to always follow or always face. Because of that the cost also increases and once the cost increases that also creates the problem in terms of the enhancement of the performance in the portfolio and as well as the other balance sheet aspects.

So, whenever you define this what exactly the risk is. The risk basically is fundamental to the likelihood that current events or potential events will negatively affect an institution profitability and the market value is it assets, liabilities and stockholder’s equity. It is a very broader definition.

But in general sense, what is the risk? The risk is basically what, this is the probability of not getting something. What is the probability that I may incur a loss of this much? But I know some historical distribution of that data, by looking at the past events and all. Then I try to measure that what is the probability that this particular objective will not be realised.

So, that basically is the general definition of the risk. But whenever you talk about uncertainty, the uncertainty is basically not predicted. But the risk to some extent can be predicted because there is a probability distribution of the risk which is existing. But whenever you talk about the uncertainty that is not possible.

But what definition here we are talking about that there is some probability that my balance sheet my stockholder equity. The value of my assets may be affected because of certain kind of changes which are happening in the external market. And as well as within the particular system.

Some of the things are endogenous, some of the things are exogenous. So, in that context we have to see how those things are going to affect the profitability and as well as the other objectives of the commercial bank. So, this is the way we are defining the risk in this particular context.

So today's discussion will be mostly focusing on the, the first one, that is basically your credit risk. Because credit risk is most important aspect of the commercial bank, then we have to see that how really the credit risk is measured. And what you mean by the credit risk and what are those different sources of credit risk. So this is basically today's discussion and in this particular session’s discussion.

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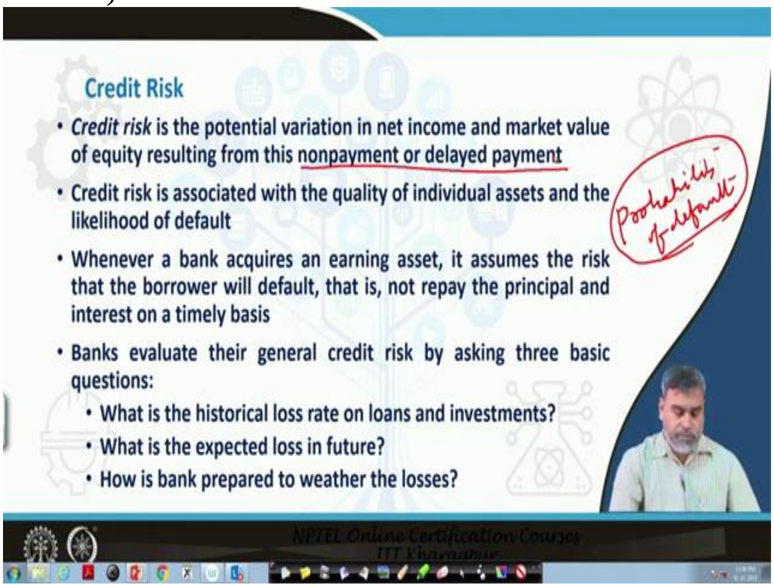

What do you mean by the credit risk? If you ask yourself, the credit risk is nothing but it is the potential variation in net income and market value of equity resulting from the non-payment or delayed payment. You see whenever we talk about the credit risk in the actual sense, how you define.

Credit risk is nothing but we say that credit risk arises because there is a probability of default. So, probability of default is the major thing which we will discuss these things in detail whenever you go for the measurement part. But from there from the banking perspective when we can say that credit risk is basically affecting the market value of the equity or the net income of the bank, then we can say that the bank is basically getting affected due to the non-payment or the delayed payment of the obligations whatever the customers have.

A bank has given the loan, and the customer has to repay the loan periodically. If the customer is not able to repay the loan periodically, then obviously the commercial bank is facing the credit risk. How much is the risk? That actually is a matter of calculations or the technical part that we will discuss further.

But this is the way the credit risk of the bank is defined. So, this is basically associated with the quality of the individual asset. And the likelihood of default. That already I told you that whenever we are providing the loan to whom we are giving the loan, whether that person's worthiness is there to repay the loan periodically or not. And what did the probability of default or likelihood of default against that particular loan. That basically is highly linked to the measurement of the credit risk.

Whenever a bank basically acquires the earning asset, it assumes that the bank basically always knows that there is a risk involved in that. Because there is a probability that borrower may default or they are not able to repay the principal or the interest on the timely basis.

If a particular time period the interest or principal is not repaid then we can say that there is some kind of default against that particular asset. But when the bank knows that they are basically prone to this kind of risk, they are also exposed to this kind of risks. But still bank has to give the loan because that is the asset of the bank, and as well as the profit generation can be made only through that. So, knowingly banks basically do that, but they go by a calculation that how much is the probability.

So, whenever the banks basically evaluate the credit risk, they basically ask three basic questions they keep in their mind. One is, what is the historical loss rate on the loans and investments? Historically what is the loss rate the bank is incurring? What is the expected loss in the future?

By looking the past they can predict that, what is the expected loss in the future they can have. Then how the bank is prepared to overcome that losses. So this is what basically three things bank consider whenever they evaluate the credit risk for that particular organisation or any bank can consider these three questions.

What is the historical loss? What is the expected loss? And whether or how the bank is prepared for that particular losses or not. If they are prepared for that loss at any chance, the particular banks will not be liquidated. The larger interests have to be taken care. If larger interest has to be taken care then we have to see that how the bank is prepared basically to overcome that particular losses. So, if these three things are answered then the proper credit risk or credit policy can be prepared for the commercial bank.

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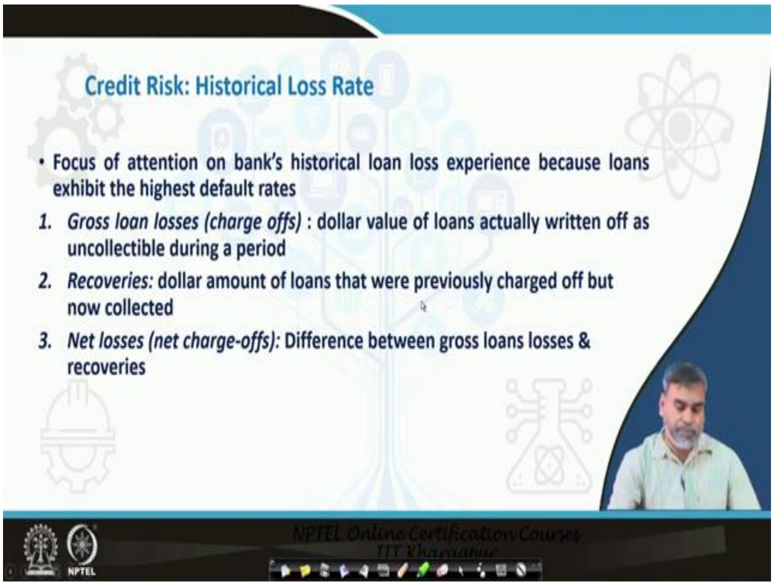

Then in this context if you see that always already we told that there are three things always the bank consider. The attention on the bank's historical loan loss experience, bank basically always see. Then how basically they see that one or they consider that one. One is gross loan losses which is basically called as the charge offs.

That means the dollar value of loans actually written off as uncollectible during a period. Because some of the assets cannot be written off and some of the assets can be written off. So, the loan losses what the banks are basically trying to calculate, what the loan is basically actually written off as an uncollectible loan during a period.

So that historical data the banks have. And from the historical experience or historical data, the bank basically always try to calculate the default rates. The first component of that thing is gross loan losses. They have to first find out the charge offs.

Then recoveries, the recovery is basically what the dollar amount of loans that were previously charged off but now collected. Once in a while that bank has thought the loan will not be recovered. But all of sudden, there is a chance that somebody has started paying. That possibility is there because of certain problem any customer was not paying the interest or the principal.

But now they started paying that. If they started paying that now then, we can say that there is recoveries. They have written off before or charged off before. But now what is happening we are able to collect certain money against that. Then we have the net losses, which is nothing but the difference between the gross loan losses and the recoveries.

The bank basically should consider the net losses instead of only talking about the gross loan losses. So, historically they have to consider they have to calculate the net loan losses for that particular bank. Then accordingly they can see that how much basically loss they have incurred over a period of time, then keeping that thing in the mind they also can predict that how much loss they will have in the future. So, that is why the net losses is very important from that perspective.

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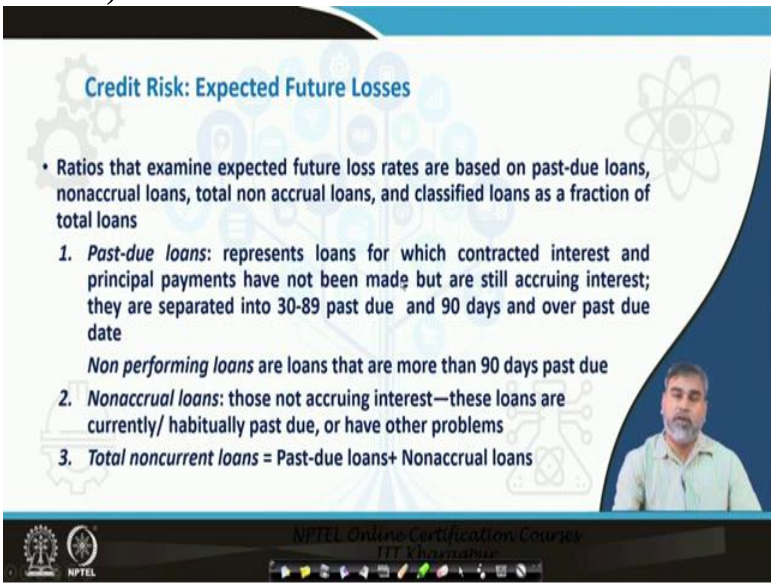

So, then expected future losses. This is another component. How basically they try to find out that one. The expected future loss is basically measured in this way. The ratios that examine the expected future losses are based on the past due loans, nonaccrual loans, total nonaccrual loans and it is always consider as the fraction of the total loans. It is the ratio of all those loans to the total loans. These are considered basically for calculating the expected future losses.

So, how do you define a past due loans? The past due loans basically represents the loans for which the contracted interest and principal payments have not been made but still accruing interest. So, they are basically separated into 30 to 89 past due and 90 days and over past due date. So, if anything is not paid for 30 days to 89 days, we say that it is a past due date. But if it is up to 90 days, we considered that. But if it is exceeding 90 days then that asset become a non performing asset.

So, second one is the nonaccrual loans, where those are not accruing interest. And these loans are currently or maybe over the period of time become the past due or having some problems.

So, loan is not basically or the interest on that particular loan is not basically the bank is able to collect.

So, these are basically the nonaccrual loans. Then the total noncurrent loans, if you talk about this is the past due loans plus the nonaccrual loans. So, this is the way, basically this data if you see then you can predict that how much loss you can going to incur in the future.

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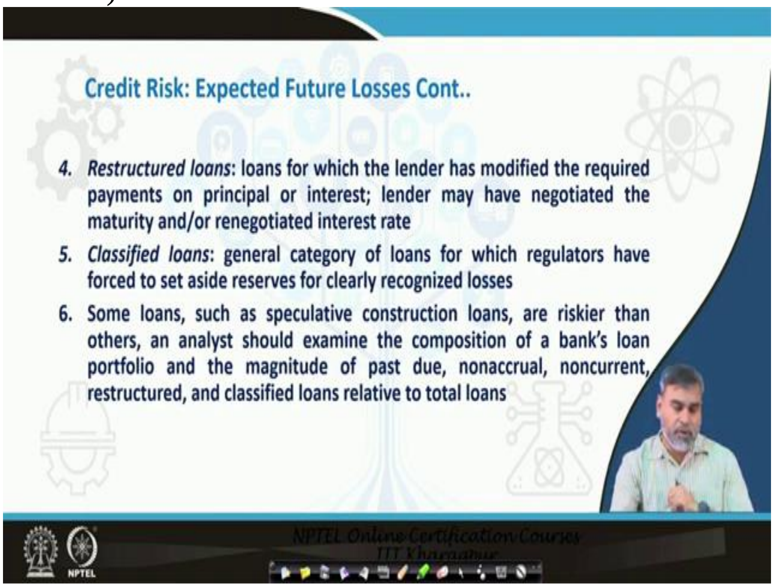

Then we have another thing is the restructured loans. What do you mean by the restructured loans? Sometimes, the loans can be restructure in terms of maturity the loans also can be restructured in terms of payment of the principal. And loan also can be restructured with respect to repayment of the interest. For example, somebody has taken a 20 years loan, with a interest rate of 9 percent. Then this particular customer wants to restructure that loan, either they can reduce the maturity, or they can always say that, now the market interest rate has gone down. I am not going to pay 9 percent, it should reduce to 8 percent. Because other banks are paying the 8 percent interest.

So, depending upon the credit worthiness of that particular customer, the bank can restructure that loan. Or you say that I am going to I have taken a loan of 20 lakhs and I will pay, the 20 lakhs principal I can pay 10 lakhs immediately and I want to remain with only this 10 lakhs principal. Then also your EMI will be changed, your interest rate will be changed, your period will be changed. There are different ways either the loan can be restructured in terms of the principal payment, in terms of interest payment, in terms of maturity. So, either of these ways this particular thing can be changed.

So, that also we will have the impact on the expected future losses. Then we have a classified loans. The general categories of loans for which the regulators have forced to set aside reserves for a clearly recognised losses. The loan provisions are made against this classified loans, where the regulator or the bank is already have calculated that what is the probability of loss or probability of default against that particular loan. So, because of that they want to keep certain provisions against that. So, if there is a loss then these provisions will be utilised to overcome that particular losses for that particular bank.

Some loans like the constructional loans which are highly speculative which are riskier than others. So, generally we should examine the composition of the bank's loan portfolio and the magnitude of the past due, non-current, nonaccrual, restructured and classified loans relative to the total loans.

Whenever we are predicting that how much future losses we are going to incur. Because the composition also quite important. Out of the 100 percent loans whatever you have, maybe there out of them 50 percent is highly risky or 70 percent are highly risky. These loans are giving to a particular sectors, particular industries where this industry is itself risky.

All the return is reasonably high or in comparison to the returns from the other sectors are in this sector the returns are high. But still there is a higher level of risk also involved that. So, if because of there is high risk involved in that so we have to always think of that how much probability is there that this particular loan will be into the non performing category. Or there is a default against that particular recovery. So, in that sense we can assign the more weights to that particular loan while considering this future losses for that particular commercial bank.

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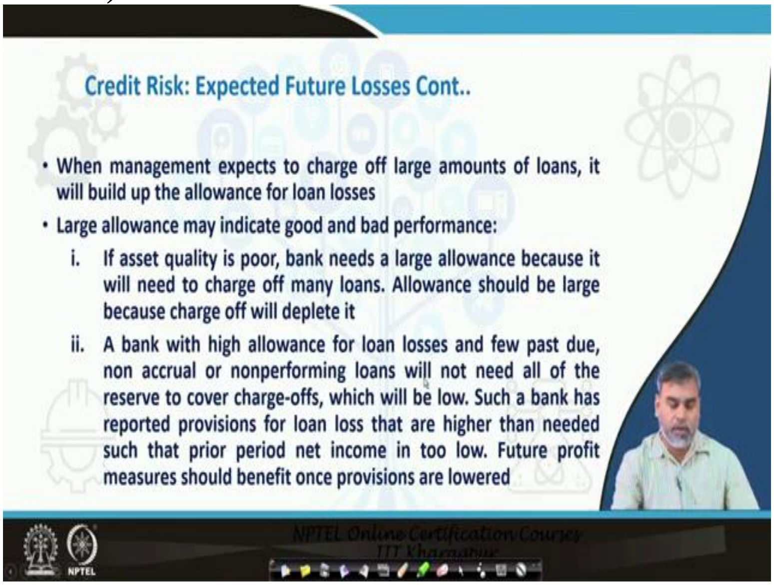

Then we have another thing is regarding the write off or the charge of the things. When the management expects to charge up the large amounts of loans, before that it will build up the allowance for loan losses. The provisions are also made because the losses are huge. So, the large allowances if they want to keep, if when they will keep that one? If the asset quality is poor.

Bank always keep more allowances more provisions and allowance should be large because charge off will deplete it. And bank with high allowances for loan losses and few past due, nonaccrual or non-performing loans will not need all of the reserve to cover the charge offs which will be low. Such banks has reported provisions for the loan loss that are higher than they needed, such that prior period net income is too low. Future profit measure should benefit once provisions are lowered.

You see the provisions can be kept because that is your high losses. Sometimes, also what we do? The provisions also are made but the provisions are not really required. So whenever the provisions are already there, so that can be used against this reserves whenever the bank needs.

So, in that particular point of time, the bank is in a good condition, because the reserves again further can be utilised to enhance certain kind of returns. So, because of that the indication keeping the high loan reserves as to which can be interpreted, it may be a good signal or it may be a bad signal. But mostly the allowances are kept or the provisions are kept on the basis of the losses. The provisions are not kept to recover basically to make the balance sheet stronger in the practical sense.

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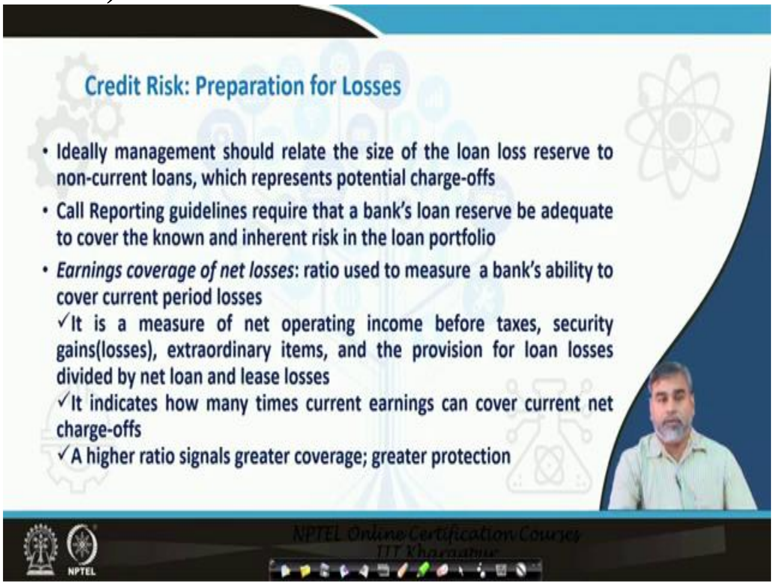

Then another thing is that the preparation for the losses. How if there is a probability of risk, there is a credit risk. How we prepare ourselves for the bank prepares themselves for the losses. So ideally, what the management basically should do, they should relate the size of the loan loss reserve to the non-current loans, which represents the potential charge offs. So, there are certain guidelines which help us to do that thing, like reporting guidelines basically required that banks loan reserve to the adequate, to cover the known and inherent risk in the loan portfolio.

Any bank cannot say that we cannot keep that much reserve. Because that is bound for them to keep that reserve. If historically we know that there is some kind of loss which is going to happen to that particular commercial bank, or the commercial banks are exposed to the credit risk. So, how we can basically do that or measure that, one is earnings coverage of the net loan losses.

That is basically nothing but the ratio which is used to measure the banks ability to cover the current period losses. How much earnings basically are there or we can generate which can cover the losses of that particular period. So, it is a measure of net operating income before taxes. The security gains or the losses, extra ordinary items and the provisions for the loan losses divided by net loan or the lease losses.

So, it indicates how many times the current earnings can cover the current net charge offs. So, if the current earnings are really able to cover off the charge offs. Then we are not that much exposed to any kind of credit risk or the losses in the future. The higher ratio signals greater coverage that means the banks is the particular bank is highly protected against any kind of losses. So, the probability of credit risk for that particular bank is relatively lesser than the other banks whenever this earnings coverage ratio is relatively higher.

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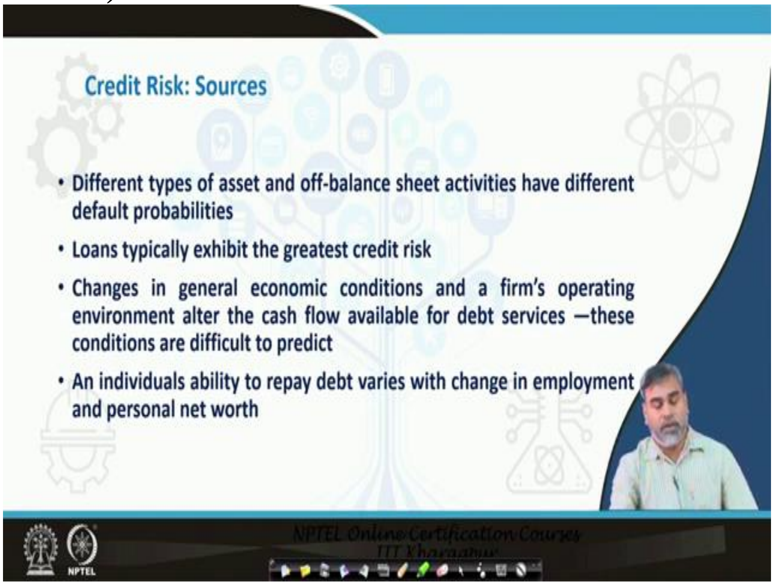

Then we have the sources of the credit risk. What are those different sources, basically are there which creates the credit risk for this particular system? So, there are different types of assets and off balance sheet activities of the different kind of default probabilities. We know what do you mean by off balance sheet items.

Off balance sheet items includes the guarantees, the letter of credit then you have the consulting services, then you have the mortgage services, leasing, there are different ways the off balance sheet items are defined or the investments in the derivatives instruments and all. So, whenever we talk about this, what basically we are trying to see that how or which are the sources, or which are those kind of activities which basically create more credit risk for that particular system.

Historically it is observed that the loans, which is the major asset of the commercial banks they exhibit the greatest credit risk. The credit risk is huge, the credit risk is the highest whenever you talk about the loans activities. And another thing also sometimes it may not be predicted, but if there is a change in the economic conditions or the firms operating environment, that also affect the debt paying capacity of the other organisation in the system who has taken this particular loans from the commercial bank. If the economic condition change then the profit and the other things get affected for the other organisations, other industries, other companies who have taken the loans from the bank.

And that particular point of time it may not be possible for them to repay the loan. So, because of that what happens, that the credit risk increases for the commercial bank which is difficult to predict. As we know that prediction of macroeconomic conditions, particularly the interest rate fluctuations and all is relatively difficult.

But all of certain if there is some kind of changes are happened in their market, the conditions got deteriorated. Then that will have the adverse impact on the debt payment capacity of that particular organisation and obviously the bank will be exposed to more credit risk. And individual's loans if somebody has taken, that individual's ability to repay the debt basically varies with the change in employment and personal net worth.

And obviously economic conditions also affect the individual loans. The job opportunity, the growth opportunity in the system, that also play a very significant role whenever we are talking about the repayment of the loans whatever the individuals have taken from the bank. That also exposed to more credit risks in the particular system.

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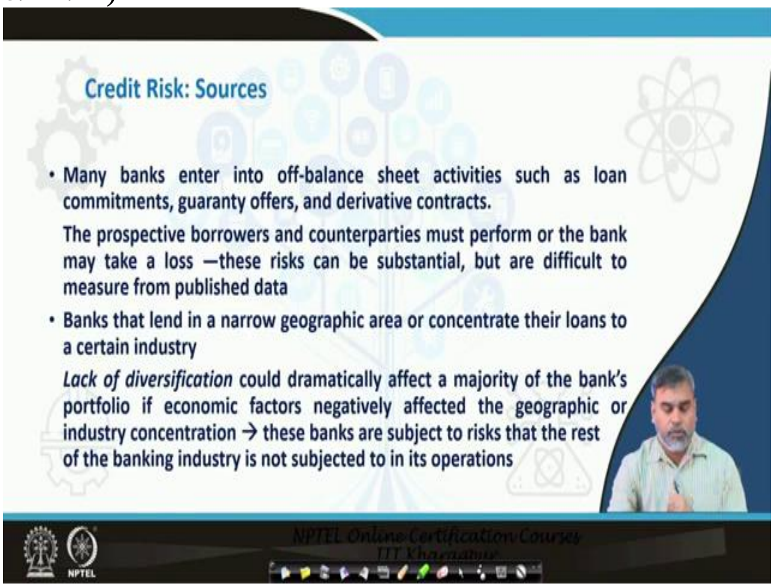

Then another major sources is the off balance sheet items, that already I told you. The off balance sheet items includes the loan commitments, the guarantee, and as well as derivatives contracts. And derivatives contracts are one of the riskiest instruments which are used in the financial system to hits the risk.

But sometimes also we face the problem because of certain complexities which is involved in that. So, the prospective borrower and the counter parties must perform or the bank may take a loss. Then that time what basically will happen that it is very difficult that how we can collect those data. Those kind of data may not be available.

So, whenever this kind of data is not available, then what happens that whatever assessments the banks do for providing the loan commitments or guarantees, so then the bank will be in the trouble. So, because of the information asymmetry, there is a clear gap between the different stakeholders, sometimes also the bank provides this off balance sheet services, but still there is a probability that we may incur losses against that. So, that cannot be predicted also beforehand.

And another thing is that the geographic concentration of the loan, the particular industry, if the banks are providing the loan to a particular industry largely, and there is something goes wrong with that particular industry. Then also banks are exposed to more credit risk. Because the particular industries are not diversified while providing the loans to the industrial sector.

So, that is why the lack of diversification which affect the majority of the bank's portfolio. And this banks are subjected to risk that are based on the banking industry is not subjected to in its operations. So, diversification is very important that whenever you talk about the diversification we mean that the loans which are disbursed, that has to be disbursed to all type of industry which are operating in the system that should not be concentrated only on a particular segment.

By that if there is something goes wrong in one industry then at least the recovery can be made in another industry or the returns can be realised from the another industry. So, the concentration should be avoided, while providing the loan.

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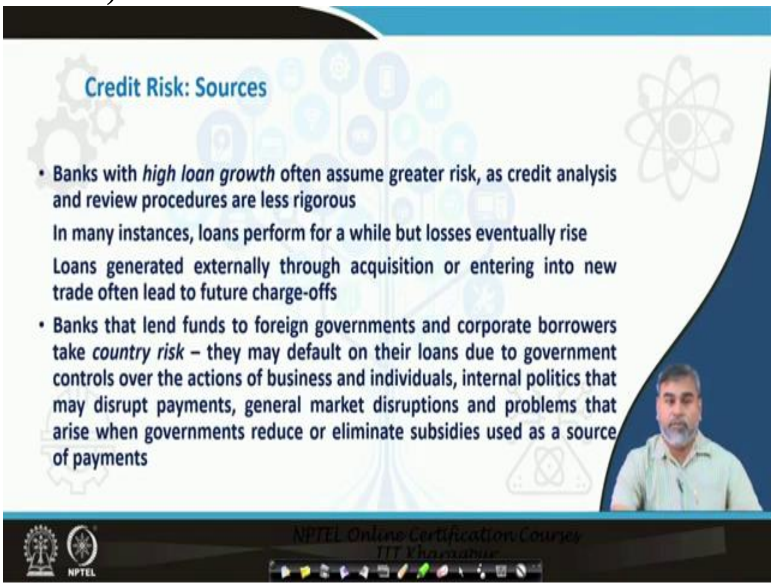

Then also we can say that sometimes the bank lend to the foreign government and there is some kind of corporate borrowers who have the exposure to the external market, so in that time also if there is something goes wrong in the internal scenario they are also suffering from any kind or they are expose to more credit risk.

Due to the government controls over the actions, internal politics. So, these are the part of the contraries what we call it. If there is any kind of political instability, general market disruptions. Or anything can happen which is happening all over the world and because there is a globalised economy and we are living in a particular state which are highly integrated, the markets are integrated, then we are exposed to more credit risk in that particular sense.

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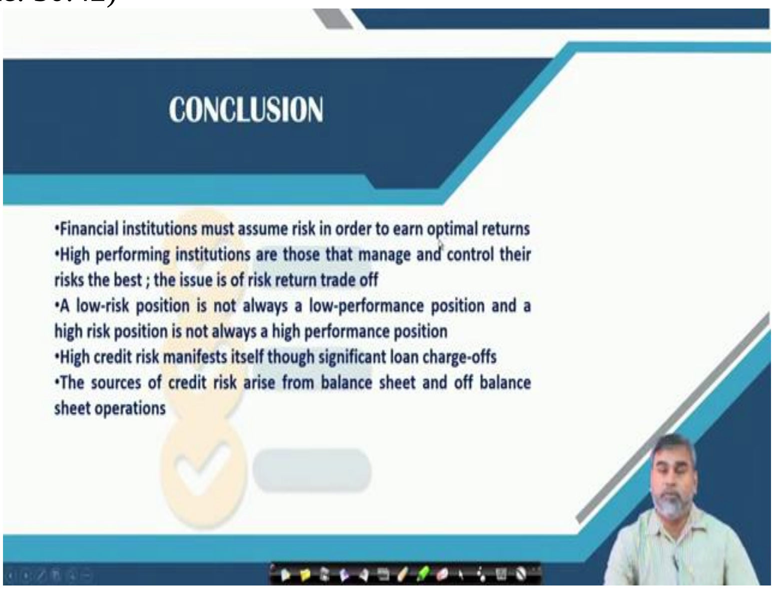

So, this is the discussion on the credit risk. So, financial institutions must assume risk in order to earn optimal returns, that already we know. High performing Institutions are those that manage and control their risks the best, the issue is of risk return trade off. A low risk position is not always low performance position and highest risk position is not always a high performance position.

High risk credit risk manifests itself through significant loan charge offs. The sources of credit risk arise from both balance sheet and off balance sheet operations of the commercial banks. So these are the major things what we have discussed in today's session.

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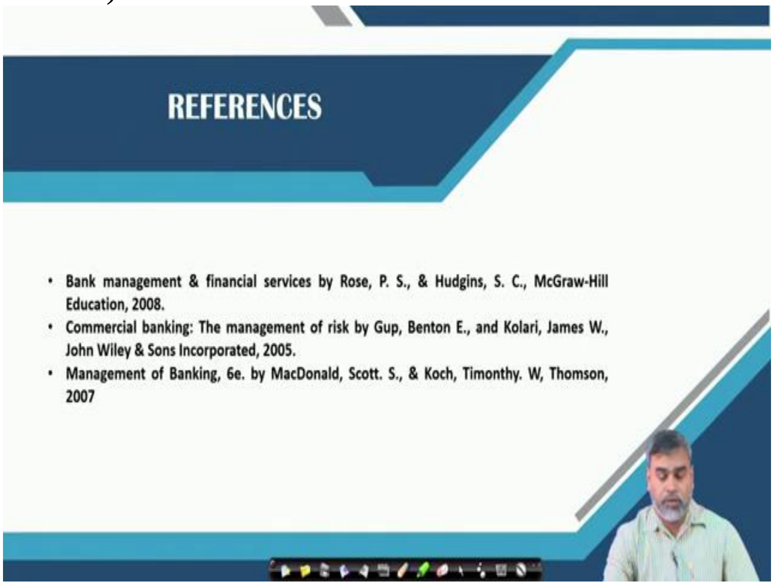

These are the references what you can go through for the detailed analysis. Thank you.