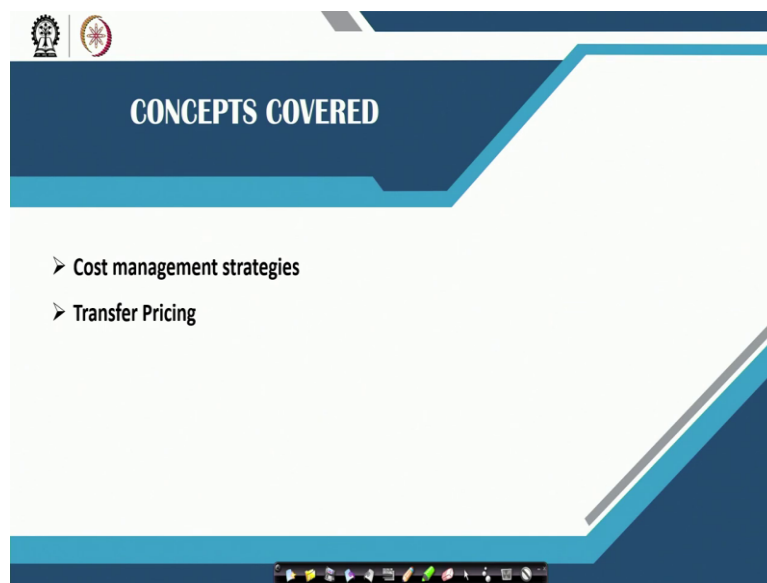


**Management of Commercial Banking**  
**Professor Jitendra Mahakud**  
**Department of Humanities and Social Sciences**  
**Indian Institute of Technology, Kharagpur**  
**Lecture 10**  
**Bank Performance Measures 5**

Good morning, in the previous class we discussed about certain performance measures related to the non-interest in common non-interest expenses and as well as the productivity of the employees, particularly the full time employees which are working in the organization or who are basically contributing this growth process of the commercial banks for a fixed period of time or may be over the time they are contributing in terms of various operational activities of the commercial banking system.

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So, in today's discussion we will be discussing about 2 things, one thing is that the banks are basically facing different type of costs or the expenses are basically many or the sources of expenses are largely affecting the total profit of the commercial banks. So, whenever the commercial banks do the operations in the various activities, they regularly face certain kind of cost or there are many cost involved in the different aspects.

Then what are those different ways or different methods or different strategy the commercial banks can adopt to manage that cost? And more particularly to minimize that cost? So that is the first objective of today's discussion. And second thing is there is a concept called the

Transfer Pricing, which is basically nothing but internal rate of return of the commercial banks for the deposit and lending activities, that how that transfer pricing is defined and what are those different methods which are available to calculate that transfer pricing that also we will be discussing today.

So, let us first discuss about the cost management strategies, what the commercial bank adopt to minimize the cost what they incur for the day to day regular operations, then after that we can discuss about the transfer pricing.

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**Cost Management Strategies**

- Expense reduction
- Operating efficiencies
- Revenue enhancement
- Contribution growth

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Whenever we talk about the cost management strategies, the strategies can be made in various ways with a different objectives. With different objectives, the cost management strategies can vary. How basically this particular concept works? The cost can be managed for reducing the expenses, there are various sources of expenses, the commercial bank can minimize that particular expenses by using or following certain kind of strategy.

They can also minimize the cost by increasing their operating efficiency, may be that if it is not possible to reduce the expenses because of certain issues, then the commercial banks can also reduce the cost by increasing their operational efficiency or they can also follow certain kind of strategy which will help them to maximize the revenue or the income enhancement can be made.

And the third thing is they can also follow certain process through which the contribution from the various sources or the growth process which is happening due to the contribution of

the different sources that also can be managed properly. So, there are 4 ways the commercial banks can manage their cost.

So, one by one, if you see that what are those different ways the reduction of expenses can take place? What are those different way the operating efficiency can be maximized? And what are the different ways the revenue can be enhanced? And how the contribution growth also can play a significant role in the cost management?

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**Expense Reduction**

- Reduction of non-profit generating branch and medical benefits of employees
- Outsourcing the data processing services
- Use of temporary or contractual workers
- Elimination of redundant tasks
- Digitalization of the system

*Unit banking*  
*Branch banking*

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IT-23

So, first of all if you see that the expense reduction. In the expense reduction, how basically the commercial banks can do this or how they can reduce their expenses? If you observe the expenses can be reduce by many ways, first of all you see any commercial banks because it is a branch banking system you have unit banking or verses the branch banking.

So, whenever we talk about the branch banking system, in the branch banking system what happens that the banks operates with multiple branches which are spread across the different geographical regions. But you will find there are certain branches which are profit making or really they are generating or contributing the total revenue of this particular bank, but there are certain branches which are non-profit making.

So, the first of all what the commercial banks do, if really this some of the branches are not able to generate the adequate amount of the profit then the commercial bank can reduce those type of branches which are not contributing with the growth process. And also the other benefits what the commercial banks give to the employees, for the example medical benefits

and all, they can also follow a different strategy or they can reduce that particular cost in many ways, may be through this insurances policies and all this things.

They can also reduce the benefits what there given to their employees. So, this is the example only, this is the way the first, the commercial banks can minimize their expenses. On each reduce the number of non-profit generating branch, reduce the medical benefits and other benefits by the different other ways which can help them to reduce their cost in the beginning of the stages.

Other one is you see that the basic job of any organization including commercial banks the accusation of the data and the analysis of this data. So, whenever we are going by this data processing, if the regular employees of the organization will go for the data processing, sometimes it may be costlier for the banks, because either the commercial banks employees may not be that competent enough to process the data in efficient manner or the commercial banks have to establish a huge fix step up or have to acquire different type of fixed infrastructure for analysing this data, as well as they have to employee the expert people or the people who have the competency for processing this data.

So, instead of that what the commercial banks can do? They can outsource this data processing services, wherever the banking knowledge is not required to analyse this data only the numerical data are required for certain kind of analysis, so for those kind of services they can outsource the data from the different agencies who have the expertise for analysing the data, by that also they can reduce certain cost.

Because they do not have to step up a fixed kind of infrastructure which really contributes to processing the data within the organization including the commercial bank. So, outsourcing the data also helps the commercial banks for reductions of the expenses. So, instead of employing many levellers who are employees the fulltime employees of the organization, if a particular point of time for any specific region the man power is required to analysis or to process the data, then it is always better to have more temporary or contractual workers.

So in that what basically the banks basically is not obliged to do, they may not be obliged for their other pensions benefits and the other fixed benefits what they provide to the regular employees. So, only on day to day basis the salaries and wages will incur for this kind of workers, so through that process also they can reduce the cost. Then elimination of the

redundant tasks, there are some kind of tasks, there are some kind of assignments what the commercial banks employees do which are not required or which is not important.

So, whenever they busy or they engage themselves for this kind of work that basically takes time and if you consider the time value of money then basically you can observe there is huge amount of cost the bank incurs. So, if the commercial banks can identify which are those redundant tasks already available within the organization and they can reduce that particular task and they can identify those task fast and after that they will try to reduce those kind of task in this particular step up.

And another most important thing in todays context is digitalization. So whenever we are making the system digitalized or we are making the system more efficient in terms of technology or in terms of the use of software and all these things for analysing all those information then that also reduce this employment cost as well as the cost which are incur in terms of the different kinds of benefits.

And as well as the efficiency also can increase through this particular system, so that is also another way through which the expense reduction can be taken place. So, this are the different ways, there are many other ways but these are the methods or measure ways through which the expense reduction of the commercial banks can take place or can happen.

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The slide features a background with a stylized tree of icons representing various business and technology concepts. The title 'Operating Efficiencies' is at the top left. Below it, a bulleted list contains three items. In the bottom right corner, there is a small video inset showing a man with a beard and glasses speaking. At the bottom of the slide, there are logos for NPTEL and IIT Madras, along with a navigation bar.

**Operating Efficiencies**

- Reduction of costs but maintaining the existing level of products and services
- Increasing the level of output but maintaining the level of current expenses
- Improvement of workflow

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Then next thing is if you see that other one is operating efficiencies, either they can go for the strategies which are able to or which are helpful for them to reduce this expenses or they can

also increase the operating efficiencies. How this operating efficiency can be achieved? First one is they can reduce the cost but maintain the level of products and services. So, how it is possible?

The cost can be reduce whenever the total output what the commercial banks are getting today the same output level will be maintained but the cost will be reduced. So, that basically can be done by increasing this operating efficiency, for utilizing this information which are available to the commercial banks in an effective manner.

So, that basically can happen to find out the alternatives where they can generate certain kind of income or the income level can increase, in comparison to the existing income level but the level of current expenses will remain same. So, if they can look for certain opportunities or certain kind of alternatives which are available in this particular market and if they will invest the money in those kind of assets, so those kind of investments may be income level will go up, but the whatever expenses they are incurring now the expenses may be remain same, or may be remain fixed.

So, in that context also the operating efficiency can be increased. Then also another thing is improvement of the workflow, they can also improve their workflow to increase the operating efficiency within this particular organization. So these are the different ways the operating efficiency of the commercial banks can increase to increase their profitability and as well as also to decrease this cost what they are incurring.

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**Mechanism of Attaining Operating Efficiency**

- Reducing workforce
- Increasing work requirements
- Economies of Scale: It is said to exist when a bank's average cost decreases as output increases
- Economies of Scope: How the joint cost of providing several products change as new products are added and existing output is enhanced. The argument is that joint costs will grow by much less than the costs allocated with producing products or providing services independently

Handwritten notes on the slide include:  
-  $100 \div 100 = 1$   
-  $150 \div 20 = 7.5$   
-  $190 \div 30 = 6.33$   
- A diagram showing a circle with '100' and '20' inside, and another circle with '80' and '30' inside, connected by arrows.  
- A presenter in a light blue shirt is visible in the bottom right corner of the slide.

Then the next thing is that how this operating efficiency can be attained? First of all the operating efficiency can be attained by reducing the work force, particularly we are talking about the disguised unemployment, there are many a times we have observed that many employees work in the organization who are not productive or without them also the total productivity or total products of the particular organizations may not be effected or may not be declined.

So because of that, identify those workforce and try to reduce those workforce who are not required exactly to maximize the return or the profit of the commercial banks and another thing also increasing the work requirements.

The requirements whatever assignments this particular employees are doing, they can increase this work requirements and once the complexity or the work requirements will increase, that will also help the employees to enhanced there expertise and as well as that indirectly or directly will contribute the cost minimization and the profit maximization.

And already this economies of scale and economies of scope that already we have discussed in the beginning, what do mean by this economies of scale? Economies of scale exists when the banks average cost decreases as the output increases, what how basically it exactly means? For example if the bank is producing or any organization is producing the 20 amounts of the product.

And now they have started producing 30 amounts of the products and for the producing 20 amounts of the products what they are basically doing? They are, basically let incurring the fixed cost of 100 rupees and variable cost of 50 rupees, or variable cost of 80 rupees. So in that case per unit cost is around  $(100+80)/20$ , let 9 rupees, so they are incurring 9 rupees.

But if they will increase their capacity or there is still a chance of capacity utilization, what they can do? They can increase their amount of product total quantity to 30. If they will increase the total quantity to 30 but for that they have not added any extra fixed cost, let the fixed cost remain same. If the fixed cost remain same because already fixed cost means it is the machines, land, the fixed capitals which are existing to the organization.

So those are a part of the fixed cost. The fixed cost is same only we have to employee more labour for or may be some variable cost has to be increased to increase this output. So, in that sense let in the previous case the total variable cost was 80, so this is your fixed cost, this is

your fixed cost and this is your variable cost, so if the fixed cost remain same and the variable cost rate has increased by another 10 units.

So then the total variable cost become 90, so now what is happening but you have increased the total output up to 30. So now if you see that it is nothing but that  $190/30$ , the 190 divided by 30 we are making obviously it will be less than the 9 rupees. Which were the unit cost what we are making or the bank is incurring whenever they were producing 20 units of the products.

So, in that case then that time what we can say that there is an economy of scale which is happening, because the average cost is declining, because the fixed cost remains same and only the variable cost is changing. So that is why the commercial bank can increase the varieties of the products or may be the same product they can try to produce more or they can offer more, by that what basically will happen that they can minimize this average cost.

Economies of scope, already we have defined. Here what is happening we can increase the number of product varieties of the products in the same line of business. Because commercial bank is a financial institution, they provide the financial products, so instead of confining themselves to a single or may be very few amount of or few types of the product, they can increase that particular varieties of the product by that what basically they can do using the same logic they are not incurring much cost in terms of the fixed cost, only the variable cost will change, so because of that the unit cost also will decline in that regard.

So, therefore there how the joint cost providing several product change, as new products are added and the existing output is enhanced. So, the argument here is the joint cost will grow by much less than the costs associated with producing the products or providing the services independently. So, whenever we are jointing or may be increasing more number of product into that where the line of business is same in the same logic the unit cost also will go down in that senses. So, in that case also we can say the operating efficiency can be achieved.

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**Revenue Enhancement**

- Changing the price of specific products and services with high volume of business
- Identification of products and services that exhibit price inelastic demand
- Increase in price reduces the demand of the product
- Proportionate decrease in demand is less than the proportionate increase in price
- Expansion of volume keeping price constant
- Enlarging the base of the consumers by increasing product quality

The slide features a background with various icons including gears, a lightbulb, a smartphone, and a chemical flask. A video inset in the bottom right corner shows a man in a light blue shirt speaking. The NPTEL logo is visible in the bottom left corner, and the text 'NPTEL Online Certification Courses' is at the bottom center.

Then we have the revenue enhancement strategies, what are those revenue enhancement strategies? Changing the price of the specific product and services with high volume of business. The commercial banks have to identify that which are the different products which are highly demanded in the market, where more number of customer or the stakeholders are really going to invest or going to buy in that kind of product or they want to put their position in that product.

So, here what they can do by analysing those thing they can increase or decrease the price on the bases of the elasticity of the demand of that particular product in the market. So, that is why they can change the price basically we are talking about the price elasticity, if you change the price of the specific product which are really demanded or not demanded, accordingly also the revenue can be enhanced, or can be increased.

So, therefore identify the products and services that exhibit price inelastic demand. So, if you get that then it will have a clear cut idea, if you change the price whether the particular product will be demanded in the open market or not, increase in price reduces the demand for the product, but the proportionate decrease in the demand is less than the proportionate increase in the price.

And the expansion of the volume keeping the price constant this is another strategy, so keep your price constant if you find that if you change the price it will change the behaviour of the clients or the consumers for that particular product. So, to avoid that thing what basically you can do, you can keep your price remain constant, because you are not going to play with this

investors mind or the stakeholders mind then you can expand the volume of this particular product what have already you are producing or what basically services you are offering.

Then you can enlarge the base of the consumers by increasing the product quality. Only one way in the competitive world you can attract more customers, more consumers or client, whenever the quality of the product enhances. So, in that sense what is happening that if the product quality is enhanced so the consumer will be more incline to use that product or will demand that product.

So, if they will go for demanding more product then that also will have the impact on the unit cost of producing that product or unit cost of providing services with respect to that kind of business. So, in that sense so these are the different ways or different strategies what the commercial banks can adopt to maximize their revenue. And obviously if the revenue maximization will be done then even if the cost remain same still the profits of the particular organization or particular commercial bank will increase.

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**Contributing Growth**

- Allocation of resources to improve the overall long-term profitability
- Increase in expenditure should be associated with increase in associated revenues

Example: Investment in new technology, digitalization of the system etc.

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TIT 23

Then the next one is Contributing Growth, so here what basically the commercial banks have to do? They have to allocate the resources to improve the overall long-term profitability. So, the resource allocations should be done in such way that in very short period of time may be this return is not realized and there are certain kind of problems the commercial bank can face in terms of generating profit.

But once this particular business will reach the breakeven point you can observe that it will have a long run sustainability, or the growth, or the profit of the company, or profit of the bank can be increased in the long run or in the long period of time. So, in the short run you may not realize that particular return, but in the long run the return will be obviously realized in that sense.

Then increase in expenditure should be associated with increase in associated revenue, you see for any kind of changes for the sake of changes we should not change certain things within this particular system. So, whenever we are going to incur certain kind of cost we are going to increase the expenditure we have to see that the proportionate increase in the expenditure should be less than the proportionate increase in the revenues.

So, the cost what we were incurring for the new line of business or expansion of the business and all this things, obviously the cost should be lesser then the revenue what we are generating for this. So, in that case you have to be very much careful whenever you are adopting or investing money in the new technology digitalization of the system and all this things.

So, in that particular point of time basically it requires a huge expenditure, whenever we are going for certain kind of majors to enhance the profitability in the long run. But thorough analysis has to be made whether really this investment what we are making whether really it is going to helpful or going to help the commercial banks in the long run to generate a sustainable amount of the profits. So, this is the way another type of strategy can work in this particular system.

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**Transfer Price**

- It is an internal rate of interest used to calculate transfer income or cost due to an internal flow of funds in a bank
- There is a transfer cost for each loan and transfer income for each deposit
- The difference between interest rate and transfer price is called interest margin which allows to calculate the internal interest profit on a transaction

Handwritten annotations: 500, 300, 100

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Then another thing already I told you in the beginning, there is a concept called transfer price, what exactly the transfer price is? I can start this example in this case what exactly the transfer price is? Let in one particular bank there are two step ups, one is in a market there are a particular bank who has 500 branches, if there are 500 branches, out of the 500 branches for example the total branches are 500 and out of that the 300 branches or 400 branches are generating profit, their income level is more than the cost.

But another 100 branches are there who are basically is not able generate the revenue in that ever, in that way where they can maximize their profit or they can minimise their cost. So, in that case or if there is a certain kind of scarcity for them to run their business. But there is surplus for this 400 banks, then the surplus amount in this 400 banks can be transmitted to the 100 bank which are in the deficits.

So, in that particular point of time the deficits banks will provide certain kind of return to the surplus unit to get back that particular fund or to get that fund, so that is basically nothing but the internal flow of the funds within this particular system. So, that is why the rate of interest which is charged to get that particular fund that is nothing but the transfer price.

So, it is an internal rate of interest used to calculate the transfer income or the cost due to an internal flow funds of a bank. It can happen between the different branches, it can also happen between lenders and the borrowers within the banking system. So, it is basically internal cash flow which is happening and we are trying to price that particular asset in the particular system.

So, there is transfer cost for each loan and there is a transfer income for each deposit, because it is an internal flow which is happening within this particular system. And the difference between the interest rate and the transfer price whatever interest rate you are charging in general and the transfer price is basically called the interest margin which allows to calculate the internal interest profit on a transaction.

So, how much income you are generating and how much income, how much interest basically you are bearing that differences will basically will give you the idea about the interest margin. So this what the definition of the transfer price.

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**Methodologies of Transfer Price**

- **Single Pool Method:** Same one and only transfer price rate is assigned to all loans and deposits. There is no difference in pricing products with various repricing and maturity characteristics.

In this method the transfer price is the weighted average rate of interest of all assets and liabilities of the bank

- **Double Pool Method (Split Pools):** Average loan rate is used as transfer price for loans and mean deposit rate is used as transfer price for deposits

The slide features a background with gears and a molecular structure. A video inset in the bottom right shows a man in a light blue shirt speaking. The NPTEL logo is in the bottom left, and the text 'NPTEL Online Certification Course' and 'IIT Madras' is at the bottom center.

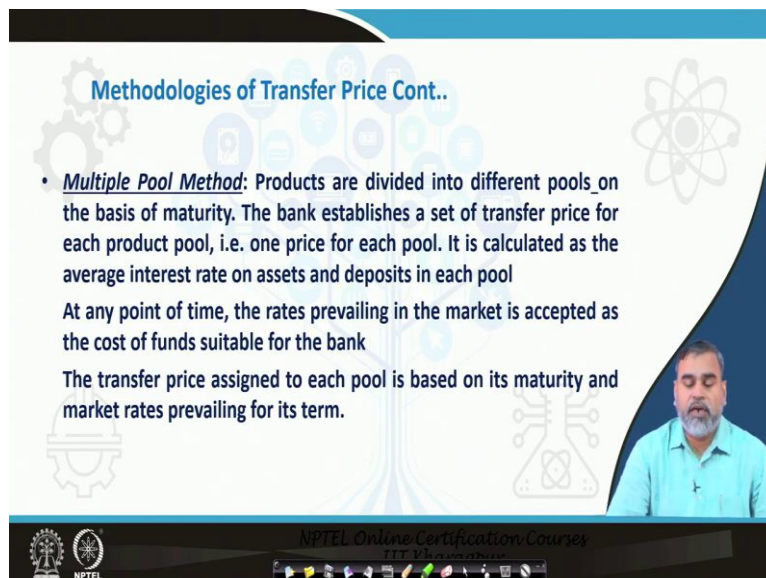
There are many methods to calculate the transfer price. What are those methods? There is a single pool method, in the single pool method same one and only transfer price rate is assigned to all loans and deposits. Irrespective of their maturity, irrespective of the other characteristics of the loans, for the deposit we are lending, we are using one single interest rate, whenever there is an internal flow which is happening within this particular system.

So, there is no difference in price on the product with various re-pricing and maturity characteristics. So, that is the way basically the single pool method works in the system. And how this interest rate is calculated? The interest rate is basically this transfer price is calculated as a weighted average rate of interest of all asset and liabilities of the commercial bank.

But there are certain demerits because all the loans are not same, all the deposits are not same, because of that the single pool method may not be practically applicable whenever we are going for the transfer pricing. Then we have another one the double pool method or the split pool method. Here the average loan rate is used as a transfer price for loans and the average deposit rate is used as transfer price for the deposit.

So, in the beginning in the single pool method we are using a single transfer rate for loans and as well as deposits but whenever we are going for a double pool method we are basically averaging out the loan rate, we are finding a transfer price for the loans and we are averaging out the deposit rates to find out the transfer price of the deposits. So, that is the difference between the single pool and the split pool methods or the double pool methods.

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The slide is titled "Methodologies of Transfer Price Cont.." and features a light blue background with decorative icons of gears, a network diagram, and a molecular structure. A small video inset of a man in a light blue shirt is visible in the bottom right corner. The text on the slide describes the Multiple Pool Method as follows:

- **Multiple Pool Method:** Products are divided into different pools on the basis of maturity. The bank establishes a set of transfer price for each product pool, i.e. one price for each pool. It is calculated as the average interest rate on assets and deposits in each pool

At any point of time, the rates prevailing in the market is accepted as the cost of funds suitable for the bank

The transfer price assigned to each pool is based on its maturity and market rates prevailing for its term.

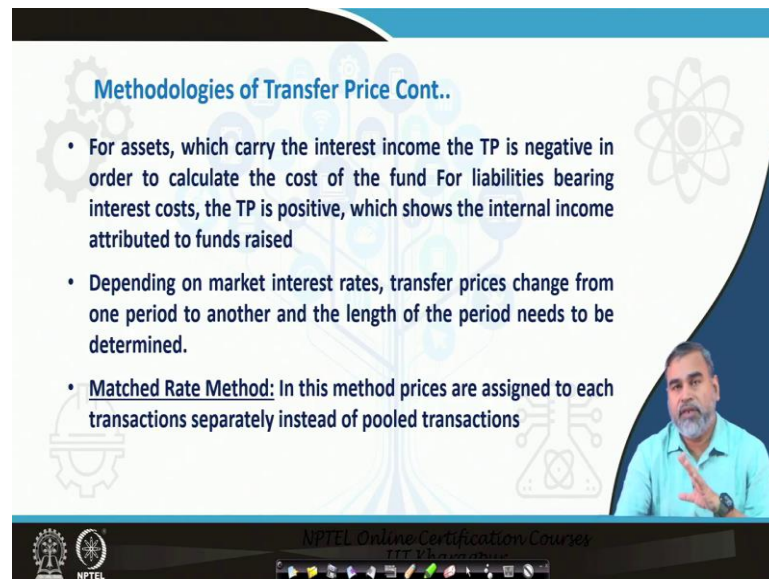
At the bottom of the slide, there is a footer with the NPTEL logo and the text "NPTEL Online Certification Courses" and "TIT VLSI".

Then we have a multiple method also. So, in the multiple methods the products are divided into different pools on the basis of the maturity. So, the bank basically establishes a set of transfer price for each product pool, one price for each pool. And it is again calculated as the average interest rate on assets and deposits in each pool.

With the same maturity whatever assets and liabilities are there or whatever deposits and loan are there, that basically they will consider one rate for them, with a different maturity there is different rate, so like that across the maturity in the different group of the maturity the rates are calculated.

At any point of time, the rates prevailing in the market is accepted as cost of the funds which is suitable for the banks. And there transfer price assign to each pool is based on its maturity and the market rates prevailing for again that particular assets on that particular point of time with respect to that maturity.

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**Methodologies of Transfer Price Cont..**

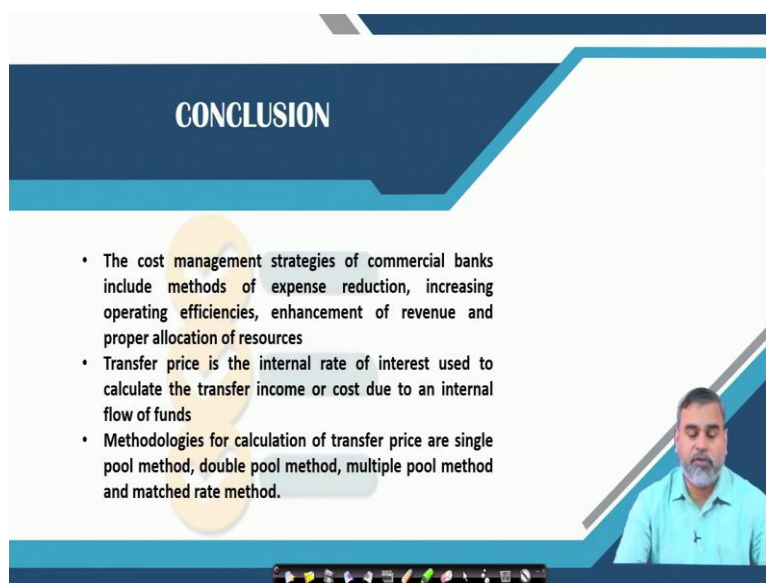
- For assets, which carry the interest income the TP is negative in order to calculate the cost of the fund For liabilities bearing interest costs, the TP is positive, which shows the internal income attributed to funds raised
- Depending on market interest rates, transfer prices change from one period to another and the length of the period needs to be determined.
- Matched Rate Method: In this method prices are assigned to each transactions separately instead of pooled transactions

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For assets, which carry the interest income, the transfer price is negative in order to calculate the cost of the funds, for liabilities bearing interest cost the transfer price is positive, which shows the internal income attributed to the funds raised. So the transfer price basically change from one period to another period depending upon the market interest rate.

And because of that the length of the period needs to be also determined. In what frequency the interest rate is changing. Then we have another method, we have called the Matched Rate Method, in this method the prices are assigned to each transaction separately instead of the pool transactions, for each asset or each transaction the prices are different which is more complex in nature. So, these are the different methods which are used for the transfer pricing.

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The slide features a dark blue header with the word 'CONCLUSION' in white. Below the header, there is a list of three bullet points. In the bottom right corner, there is a small video inset showing a man with a beard and glasses, wearing a light blue shirt, speaking. At the bottom of the slide, there is a navigation bar with various icons.

## CONCLUSION

- The cost management strategies of commercial banks include methods of expense reduction, increasing operating efficiencies, enhancement of revenue and proper allocation of resources
- Transfer price is the internal rate of interest used to calculate the transfer income or cost due to an internal flow of funds
- Methodologies for calculation of transfer price are single pool method, double pool method, multiple pool method and matched rate method.

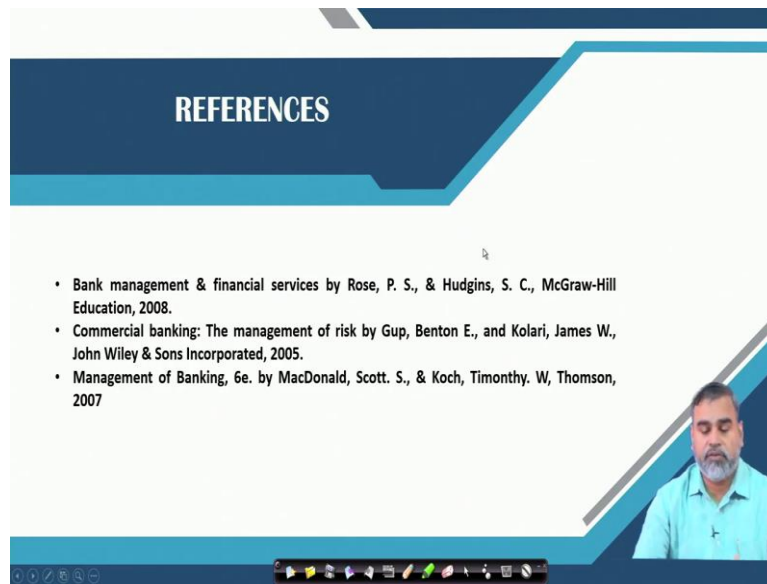
So, coming back to the conclusion the cost management strategies for commercial banks include method of different methods of expense reduction, increasing operating efficiencies, enhancement of revenue and proper allocation of the resource. Then the transfer price is nothing but internal rate of interest, which is used to calculate the transfer income or the cost due to an internal flow.

And there are methodologies which are used to calculate the transfer price, this are basically your single pool method, double pool method, multiple pool method or the matched rate method. So, these are the different ways or different methods we use for measuring the transfer price for a particular commercial bank.

So, this is about the oral idea about the performance measures then we can move to the values and all this thing in the forthcoming sessions, evaluation of the stocks and evaluation of the different fixed income securities which are the different securities which are associate with the commercial banks that will be discussing in the forthcoming sessions.



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- Management of Banking, 6e. by MacDonald, Scott. S., & Koch, Timothy. W, Thomson, 2007

The slide features a dark blue header with the word 'REFERENCES' in white. Below the header is a white area containing a bulleted list of three references. In the bottom right corner, there is a small video inset showing a man with a beard and glasses, wearing a light blue shirt. At the very bottom of the slide, there is a thin blue bar containing several small, colorful icons.

These are the references what you can go through for this particular session. Thank you.