UNIT 6 COST OF FUNDS

Objectives

After studying this unit, you should be able to:

- understand various sources of funds and their cost structure,
- identify cheaper source of funds,
- appreciate the relevance of cost of funds, and
- explain the importance of spread.

Structure

6.1 INTRODUCTION

"Interest is reward for parting with liquidity of money. Saving very often is not influenced by the rate of interest. Similarly, investment very often is not influenced by the rate of return. Income rather than interest is the equilibrating force behind the equality between saving and investment".

— J.M. Keyens

In any economy, bankers act as intermediaries between those who save from their earnings and those who use these savings. Bankers earn their bread and butter primarily through the difference in the interest they pay on the deposits and the interest they charge on loans given to borrowers. In a controlled economy, the story of interest remains simple. However, it gets complicated once there is deregulation; and market-driven interest rates start ruling banking business. Bankers who enjoyed fat spreads, suddenly find their slice of bread thinning, income dwindling, yet cannot afford to remain mute spectators if they want to remain in business. Besides tightening their belts, they are trying to decipher the market forces that control interest rates in a free market economy. Indian banking is at such a crossroads at present.

Interest payment is a cost for use of funds over a period of time and the amount of interest paid for unit of time as a percentage of the principal is called Rate of Interest (RoI). As a reward for accumulation of financial assets and postponement of current consumption, RoI influences the willingness to save currently earned income.

Therefore, effective management of interest rate, aimed at low inflation-driven growth and a stable exchange rate remains the corner stone of policy of all monetary authorities.

The role of RoI in development process has been extensively studied in recent years. Following the work of Mckinnon (1973), there have been a number of theoretical and empirical studies examining the relationship between economic development and the effect of changes in RoI on savings. What seems to have emerged from empirical research is that RoI has a definitive impact on the growth of financial assets. Hence, appropriate level of RoI has come to be seen as a major issue in connection with stabilization of structural adjustment programmes undertaken by developing countries. Many such countries have acknowledged the dangers of administered and controlled RoI and as a result, have begun to introduce various degrees of flexibility into their interest rate management.

India is no exception. During the last decade or so, Indian banking industry witnessed a gradual deregulation of RoI on domestic term deposits. While interest over two years period was deregulated from October 1995, which of above one year period was freed from 02-07-96. With effect from 22-10-97, in order to provide greater flexibility to banks for effective liability management, RoI on domestic time deposits was totally deregulated. The Monetary and Credit Policy announced on 29-04-98 has further reduced the minimum period of maturity of domestic term deposits from 30 to 15 days and now it was reduced from 15 days to 7 days, besides introducing differential RoI for single fixed deposit of Rs.15 lacs and above. RoI on savings bank continues to be regulated and is at 3.5%p.a. from 1/3/2003. Deregulation of RoI has changed the environment of protection and governmental patronage. Table 6.1 presents a comparison of the status of commercial banks, in the pre reforms era and the current status, in relation to owernership, competition, lending rates, and deposit rates. In this unit we shall study the cost of inflow of funds for banks.

Table 6.1: Pre-reform and Current Status of commercial banks

Characteristic/Activity	*Pre-reform*	*Current Status*
Ownership	Nationalised banks were fully owned by the Government, State Bank of India by the RBI and the associates of SBI by SBI.	After amendments to relevant statutes, Public Sector Banks have diversified ownership, not by disinvestment but by expansion in equity. In nationalised banks, government will have a minimum of 51 per cent equity; in SBI, RBI will have 55 per cent equity; and in SBI's subsidiaries, SBI will have 55 per cent equity. So far 8 public sector banks have diversified ownership, viz., State Bank of India, State Bank of Bikaner and Jaipur, Oriental Bank of Commerce, Dena Bank, Bank of Baroda, Bank of India, Corporation Bank and State Bank of Travancore.
Competition	i) No new private sector commercial bank licensed since 1972.	Reserve Bank of India issued guidelines in January 1993 for establishment of banks in the private sector. So far nine new private sector banks have been set up, viz., IndusInd Bank Ltd., Global Trust Bank Ltd., UTI Bank Ltd., ICICI Banking Corporation Ltd., HDFC Bank Ltd., Times Bank Ltd., Bank of Punjab Ltd., Centurian Bank Ltd. and IDBI Bank Ltd.
	ii) Entry of foreign banks restrictive.	A number of foreign banks have been allowed entry into the Indian banking sector. The number of foreign banks

		operating in India increased from 21 in 1990 to 43 in 1998. Existing foreign banks were allowed 36 additional branches.
	iii) Restrictive branch licensing policy.	In terms of provisions of the new licensing policy announced in 1992, inter alia, permission was given to banks to shift their existing branches within same locality, open certain specialised branches and convert non-viable rural branches into satellite offices.
Lending rates	Lending rate structure consisted of six categories based on the size of advances.	i) Interest rates on advances above Rs.2, 00,000 to be linked to Prime Lending Rate (PLR) of each bank. ii) Advances up to Rs.2, 00,000 and the advances against the security of fixed deposits not to exceed PLR. iii) Spreads over PLR to be announced. iv) Export credit rates regulated by RBI, currently at concessional rate.
Deposit rates	Administered interest rates structure was in force on all deposits including term deposits of various maturities.	All deposit rates have been freed barring interest rate on savings bank deposits and NRI deposits.

6.2 COST OF FUNDS

As discussed earlier the main business of banks is pooling surplus funds from individual, Corporates, and other bodies and making it available to needy people and other bodies at a cost. When banks lent money, they charge some interest for sparing the funds. Similarly they have to pay some interest to the people from who they collected the funds. Naturally, the interest charged will be more than the rate paid. This difference of interest rate is called the Spread. Banks carry on their activities for this spread only. From this spread banks meet their operational expenses. The surplus spread after meeting the bank's expenses is the profit for the banks.

Banks have the freedom to fix interest rates on term deposits, with flexibility in offering interest rates as approved by their Boards. The only regulated rate is on savings deposit accounts with cheque facility. The reduction in administered interest rates on small savings announced in the Union Budget 2003-04 and moderate inflation enabled a 50 basis point reduction in the savings deposit rate to 3.5 per cent per annum from March 1, 2003.

Given the reductions in the policy rates and the significant softening of money market rates and gilt yields, banks were encouraged to popularise flexible deposit rate schemes for new deposits. In order to facilitate the conversion of fixed rate deposits into variable rate schemes, banks were advised to pay depositors at the contracted rate for the period of deposit already run and waive the penalty for premature withdrawal if the same deposit was renewed at the variable rate.

The downward rigidity in lending rates is reflected in spreads over the prime lending rates (PLRs). Unconscionably wide spreads are unwarranted in a period of low inflation. Moreover, they adversely impact the overall credit portfolio of banks and obscure the appropriate pricing of loans. In this context, banks were required to announce the maximum spread over the PLR for all advances except consumer credit. Information on maximum and minimum rates charged to borrowers is also required to be provided.

From the table 6.2, it can be seen that the prudent resource management within a sound asset-liability management framework has lowered the cost of funds across bank groups (Table III.20). Falling interest rates have meant that both the return on advances and investments have come down across bank groups. For new private sector banks, the interest paid on both deposits and borrowings have been higher reflecting, *inter alia*, the lagged effect of the inclusion of a new private bank with high borrowings, as also the inclusion of a new scheduled bank operational since March 2003. These factors, consequently, led to a rise in the cost of funds for this bank group.

Table 6.2: Bank Group-Wise Cost of Funds and Returns

(per cent)

Variable/ Bank Group	*Public Sector Banks*		*Old Private Sector Banks*		*New Private Sector Banks*		*Foreign Banks*	
	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03
1	2	3	4	5	6	7	8	9
Cost of Funds	6.8	6.1	7.6	6.6	3.8	4.4	6.2	5.3
Return on Advances	9.6	9.0	10.9	9.7	4.7	10.3	11.0	10.3
Return on Investments	10.2	9.2	10.5	9.2	5.8	8.2	10.5	7.7

Notes : 1. Cost of funds = (Interest Paid on Deposits + Interest Paid on Borrowings)/ (Deposits+Borrowings).
2. Return on Advances = Interest Earned on Advances / Advances.
3. Return on Investments = Income on Investment / Investment.

Source: www.rbi.org.in

The spread of SCBs increased by 19.5 per cent in 2002-03. Most bank groups recorded a double-digit increase in spread arising largely from the containment in interest expenditure in a softer interest regime. Spreads of foreign banks are typically higher than their public sector and private counterparts, owing to their lower interest costs on deposits. The substantial increase in spreads meant that the spread to total assets ratio increased significantly for most bank groups. However, the ratio of spread to total assets has continually been shrinking for most bank groups as yields on assets have declined more than proportionately *vis-à-vis* the cost of liabilities.

Elasticity of demand or supply refers to the degree of responsiveness of demand or supply respectively to changes in price. For the study, we have to analyze the degree of responsiveness of the growth of deposits (supply) to changes in RoI (price) to arrive at the degree of elasticity. We furnish below the following linear theoretical postulates.

- If a given percentage of change in RoI on deposits results in a proportionate change in the growth of deposits (1% hike in RoI results in exactly 1% growth in total deposits) the elasticity is considered to be perfect and is measured as equal to unity.
- If a given percentage of change in RoI on deposits results in a more than proportionate change in the growth of deposits (1% hike in RoI results in more than 1% growth in total deposits) the behaviour is considered to be highly elastic and elasticity is measured as more than unity.
- If a given percentage of change in RoI on deposits results in less than proportionate change in the growth of deposits (1% hike in RoI results in less than 1% growth in total deposits) the behaviour is considered inelastic.
- If in spite of a given percentage of change in RoI on deposits, no statistical correlation of measurement can be established with the rate of growth in deposits even over a longer period of time, the behaviour is considered highly inelastic.

It is probably true that the higher the RoI on deposits, the greater the amount that will be saved. This is so because; a low RoI discourages savings and encourages spending. But, in times of persistent inflation, unless real RoI is kept high, falling value of money will generally tend to discourage saving as money spent in the present for consumer or capital goods would have greater value than money saved to be spent in future. A moderate inflation coupled with a high RoI would have the reverse virtuous effect. Although, by and large, this assumption may be true, the extent to which RoI affects savings will depend upon a host of macro and micro factors.

6.3 FACTORS AFFECTING COST OF FUNDS

There are many factors, which are fundamental in determining interest rates. Let us now list out these factors and discuss them in brief:

1) **Government Policy:** The most common cause for change in institutional short-term interest rates is government directives and actions. By institutional rates, we mean the rates that influence other interest rates in the economy. In India, Bank rate or Repo rates of RBI are such rates. The Government or the Central Bank sets this rate. Governments or Central Banks may choose to move interest rates for a number of reasons. Interest rate is one of the monetary tools to regulate the economy. The interest rate influences other interest rates in the market. When RBI changes the 'repo rate', interbank rates are affected. If a bank can get funds at the repo rate from RBI, by lodging Govt. securities for a specified period, interbank rate for the period can not be far different from the repo rate.

2) **Inflation:** Inflation too has a bearing on the interest rate. If the inflation rate is high, interest rates tend to go up. If interest rates do not move up with inflation, inflation would eat away the capital. Conversely, interest rate is used as one of the tools to combat inflation. In India, you would observe that the rates of interest which banks pay to their depositors are generally above the rate of inflation. As results, the depositor resultantly gets some net surplus on his deposit. In the reverse situation, his cumulative deposit value (principal plus interest) would erode over a period.

3) **Balance of Payments:** Excess demand in the economy causes a surge in imports. If exports do not increase sufficiently, there would be a shortfall, causing imbalance in payments. This in turn may cause interest rates to firm up. If exports were more than imports, this would cause additional supply in local currency. This may lead to reduction in interest rates.

4) **Exchange Rates:** If the local currency shows a weakening trend, there would generally be a tendency to acquire foreign currency. This creates a bigger supply of local currency, weakening the interest rates. In an attempt to avoid these, monetary authorities would raise interest rates, thereby making the currency more attractive to investors. This in turn may lead to a relative strengthening of exchange rates or may at least stop the fall in exchange rates. Conversely, interest rates can be lowered to make the currency less attractive and thereby reduce the exchange rate.

5) **Demand:** Demand for funds puts pressure on interest rates. In a robust and growing economy, there is always an increasing pressure on the demand for funds. This would lead to a rise in the interest rate, if all other things remain the same.

6) **Interest Rates of Other Currencies:** If interest rates of other currencies move far out of line, such currencies may attract additional funds and thereby put pressure on the local currency. To maintain a balance, the interest rates of the local currency also may move up. In the current situation, no country can

remain in isolation. Economies of other countries affect the local economy and influence interest rates.

7) **Maturity period:** Interest rate has a direct relationship with maturity period. All other things being equal, instruments with different maturities would have different interest rates. Normally, interest tends to rise as the maturity increases. Longer the term of maturity, the lender has to sacrifice more on liquidity. The lender, therefore, expects higher returns and so, the interest rate tends to be higher.

You have thus seen that there are numerous factors that cause movements in interest rates. One may attempt to forecast the movements. However, there have been several occasions when the market was taken by surprise by movements in interest rates. Therefore, it is necessary to manage finance in such a way that the effect of interest rate movements does not prove disastrous to the institution.

6.4 REASONS FOR HIGH RATES OF INTEREST IN INDIA

Economists, academicians, entrepreneurs and bankers are not unanimous on this issue. Some of them are of the opinion that the rates of interest in India are very high, while some others are of the view that when we compare the prevailing rates of interest with those prevailing during the year 1990-91, the rates of interest in our country today are low. However, when we compare rates of interest in India vis-à-vis those prevailing in some other countries, some reasons emerge as being responsible for high rates of interest in our country. They are furnished hereunder:

1) With a view to avoiding pressure on the Rupee, rates of interest in our country are kept high.

2) Banks in our country are loaded with large non-performing assets and their cost of deposits is also higher. Therefore, they cannot bring down their lending rates, as it will affect their bottom lines. This has resulted in high rates of interest scenario in our country.

3) Rates of interest on small savings and provident funds are still administered and are pegged high. Banks, therefore, are forced to maintain higher rates of interest on deposits, as any reduction in rate of interest may result in flight of funds from banks to Post Office, UTI, NBFCs etc. Capital always flows into those areas where the rates of interest are high.

4) With a view to supporting the budget deficits, the Central and State Governments, in our country, accept small deposits mobilized through post offices, etc. During the very recent past, the demand for funds from the Government has increased manifold. As high rates of interest attract more money from the public, the government has kept rates of interest on these deposits on higher side. However, this mechanism has ultimately resulted in high fiscal deficit.

5) There is a fear in some corners that if the existing rates of interest in India are reduced; it may lead to exodus of foreign capital resulting in the depletion of forex reserves. This phobia has created unfavourable conditions for any further reduction in rate of interest in our country. As it is evident, international capital, particularly short-term capital, moves to the destination where returns are high.

Effects of Low Rates of Interest

Now let us see some of the effects of low rates of interest:

1. Low rates of interest stimulate private investment and investments in stock markets because investors get higher returns by directly investing in the securities offered by various corporates. In this scenario, the role of banks as intermediaries may come under threat.

2) Low rates of interest may prompt depositors to increase their spending on consumer goods. This may ultimately boost the economic growth. Recently, Japanese authorities had reduced rates of interest with the expectation that people will increase their spending. But this theory did not work in Japan because reduction in interest income led to more savings in the Japanese public, as people wanted to save even more against a rainy day than they had done in the past. In fact, Asians have the mentality of keeping high savings with low consumption. This psychology is a little bit different from that prevailing in Europe and America. So, whether this approach will be effective in every situation is difficult to say.

3) Low rates of interest regime may induce government to borrow more from the market.

6.5 INTEREST RATE SPREAD

Spread is measured as the difference between interest receipts and interest payments and is expressed as a percentage of total assets. An increase in spread, *ceteris paribus*, leads to rise in profits. In the face of increasing competition from entry of new banks and deregulated interest rates, the interest spread has shown a steady decline from 3.13 per cent in 1995-96 to 2.72 per cent in 1999-2000. Among the different bank group, foreign banks enjoyed the highest spread, which ranged from 3.47 per cent in 1998-99 to 4.13 per cent in 1996-97. Spread was generally lower in the case of new private sector banks and old private sector banks. The decline in spread was found to be more pronounced in the case of new private sector banks. Between 1995-96 and 1999-2000 interest spread declined by as much as 0.97 percentage point in the case of new private banks, followed by old private sector banks (0.81 percentage point) and public sector banks (0.38 percentage point).

Table 6.3 presents the spread of commercial Banks as a percentage of Total assets from the years 1997-98 to 2002-03.

Table 6.3: Net Interest Income (Spread) as Percentage of Total Assets - Public Sector Banks

(Per cent)

Sl. No.	Name of the Bank	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
1	2	3	4	5	6	7	8
1	Allahabad Bank	2.88	2.82	2.86	3.10	2.95	3.24
2	Andhra Bank	3.37	2.91	2.68	2.45	2.75	3.05
3	Bank of Baroda	2.91	3.01	2.85	3.06	2.65	2.75
4	Bank of India	2.77	2.61	2.33	2.78	2.62	2.66
5	Bank of Maharashtra	3.50	3.29	3.07	2.93	2.73	2.71
6	Canara Bank	2.49	3.17	2.64	2.83	2.52	2.72
7	Central Bank of India	3.11	2.97	2.96	3.07	2.92	3.32
8	Corporation Bank	3.46	2.49	2.73	2.95	2.65	3.02
9	Dena Bank	3.48	2.97	2.46	2.51	2.35	2.82
10	Indian Bank	0.57	0.92	1.61	1.86	1.75	2.32
11	Indian Overseas Bank	2.31	2.31	2.46	2.91	2.74	2.97
12	Oriental Bank of Commerce	3.38	3.10	2.90	2.92	3.02	3.54
13	Punjab & Sind Bank	2.63	2.38	2.35	2.51	2.30	2.67

14	Punjab National Bank	3.25	3.57	2.99	3.21	3.15	3.62
15	Syndicate Bank	2.85	2.94	3.04	3.87	3.49	3.51
16	UCO Bank	1.89	2.15	2.35	2.42	2.33	2.53
17	Union Bank of India	3.17	2.66	2.73	3.13	3.01	2.93
18	United Bank of India	2.74	2.00	2.10	2.39	2.64	2.97
19	Vijaya Bank	2.76	2.86	3.03	3.23	3.01	3.37
	Nationalised Banks	**2.78**	**2.77**	**2.66**	**2.90**	**2.74**	**2.99**
20	State Bank of India	3.01	2.72	2.65	2.66	2.61	2.65
21	State Bank of Bikaner & Jaipur	3.68	3.23	3.00	3.28	3.16	3.06
22	State Bank of Hyderabad	3.61	3.53	3.35	3.32	2.94	2.86
23	State Bank of Indore	3.86	3.92	2.99	2.84	2.97	3.23
24	State Bank of Mysore	3.94	3.58	3.39	3.33	3.04	3.41
25	State Bank of Patiala	3.64	3.53	3.78	4.22	3.78	3.71
26	State Bank of Saurashtra	3.63	3.49	3.20	2.93	2.99	2.94
27	State Bank of Travancore	2.94	2.20	2.27	2.73	2.57	2.75
	State Bank Group	**3.14**	**2.85**	**2.76**	**2.79**	**2.71**	**2.77**
	Public Sector Banks	**2.91**	**2.80**	**2.70**	**2.86**	**2.73**	**2.91**

Source: *www.rbi.org.in*

6.6 COST OF CAPITAL

The term "Cost of Capital" means the cost of long-term funds of a company. It is the multiple of "Capital Employed" and Weighted Average Rate of Cost of Debt Capital, Cost of Equity Capital and Cost of Preference Share Capital. This is why cost of capital is known as Weighted Average Cost of Capital (WACC). WACC is post tax. Capital Employed represents the total of Debt Capital, Equity Capital and Preference Share Capital. For Economic Value Addition, Equity capital and reserves and surplus are to be adjusted to reflect the conversion of accounting base to economic base. The mix of Debt and Equity Capital has a vital role in the cost of capital. Equity Capital is, generally, costlier than Debt Capital. Use of Debt Capital increases interest payment risk, reduces WACC and increases Shareholders' return. Optimum Debt Equity mix should always be aimed at considering the trade-off in between risk and return.

Cost of capital has two dimensions; one is management perspective and other one is shareholders' perspective. Management perspective refers to the actual cost incurred for capital. The cost of capital discussed above is based on shareholders' perspective. It is known as opportunity cost of capital. As opportunity cost does not involve cash outgo, many people are reluctant to apply this concept. Management is a fiduciary to the shareholders. Most of the managements of Indian Corporates have been oblivious to this role, so far. As a result, management perspective has been emboldened over Shareholders perspective in various issues of the Indian Corporate. Hence, shareholders perspective requires to be rejuvenated and opportunity cost of capital (not actual cost of capital) need to be considered for taking all managerial decisions.

In case of Banking Companies, total of Core Capital (Tier I) and Supplementary Capital (Tier II) is considered as capital employed for calculating capital charge for the entire banking operation. The capital employed should be taken as an average of year beginning and year closing figures. For calculating Economic Value Addition (EVA) for a specific business unit/product, capital charge is required to be calculated for the economic capital notionally allocated as per relative risks associated with the business unit/product.

Cost of Equity Capital

Cost of Equity Capital is the market expected rate of return. Equity capital and accumulated reserves and surpluses, which are free to equity shareholders, carry the same cost. Because the reserves and surplus are created out of appropriation of profit, that is, by retention of profit attributable to equity shareholders. As it is shareholders money, the expectation of the shareholders to have value appreciation on this money will be same as in case of equity share capital. Hence, it bears the same cost as the cost of equity share capital. In case of banking companies, entire Core Capital (i.e., Tier I Capital) is to be costed at the rate of cost of equity.

Cost of Debt Capital

Cost of Debt Capital is the discount rate that equates the present value of after-tax-interest-payment-cash-outflows to the current market value of the Debt Capital. Due to the tax-benefit on interest payment on debt capital, cost of Debt is, generally, lower than cost of Equity Capital, which is why, many companies go for capital gearing through Debt Capital in order to increase the earnings of their equity shareholders. In case of banking companies Subordinated Debt is considered as debt capital but not deposits. Because even though deposits may be contractual, unlike subordinated debt, they are repayable on demand. Hence, debts raised for funding capital requirement should only be considered as debt capital. Debts/Bonds/Time deposits raised by financial institutions for funding their day to day lending and investment operations cannot be considered as debt capital.

Term Deposit vs. Bonds/Debenture

Long term deposits with public sector banks enjoy a high degree of customer confidence since they provide high safety, liquidity and assured returns. For payment of interest, various options are available viz. monthly, quarterly, yearly and also a cumulative option where compound interest is paid along with principal at the time of payment. Buyers can avail loan facilities against these instruments. Further, they are transferable from one branch to another anywhere in the country, which is not the case with Bonds.

Bonds score over bank deposits, as the return on them is usually more, though by a small margin. But the disadvantage with them is that they are not as liquid as bank deposits and are usually locked up for a certain minimum period and a majority of them do not have an exit option. Though debentures also give assured return on par with bonds, the money invested in them is as good as locked up for the entire period as there is no active secondary market for them. Further, debentures and bonds are certainly not as safe as bank deposits.

As Bankers have always talked about core working capital being funded from long term resources, it is necessary for each bank to workout core component of its deposits. The core component should be fixed taking into account all aspects relating to risks / spreads. The average growth in the deposit base of banks is around 15 per cent per annum and this contributes to a certain extent to the core component. The gap between the core component and long term funding requirements should be arrived at regular intervals.

EVA For Banking Company

EVA is excess of Net Operating Profit After Tax (NOPAT) over capital charge. That is, the activities wherein no capital is required, NOPAT of those activities are their EVA. Hence, in case of banks, more and more efforts should be given on those activities, which do not require any capital. Activities requiring capital have to earn

over and above their operational cost and capital charge. The following steps may be followed for calculating EVA for a bank.

a) Apply Activity Based Costing to find out operational cost of each business unit/ product.

b) Implement a fair transfer pricing mechanism to compensate for inter and intra unit activities.

c) Calculate monthly or quarterly NOPAT of each business unit/product for three to five years.

d) Calculate volatility of NOPATs as mentioned in (c).

e) Calculate risk capital of each business unit/product by taking two to three standard deviations of NOPAT volatility.

f) Calculate WACC.

g) Calculate EVA of each business unit/product.

h) Sum up EVAs of all the business units/products.

i) Sum up all the risk capital of all business units/products.

j) To get whole bank EVA, make adjustment for the capital charge to the EVA as mentioned in (h) according to the difference in the average total capital and total of risk capital as mentioned in (i).

The above steps will only help to calculate EVA but it will not help the objectives to be derived from EVA. In order to achieve the objectives of EVA, a bank has to adopt target costing after implementing ABC. The activities which fail to bring positive net revenue after implementing target costing should be abandoned. EVA of the activities, which are required to be carried out for socio-economic considerations as per the directions of the regulatory authority, should be reported separately to help the outsiders in assessing the real value of the bank.

Earnings Appraisal

Banks need to be profitable in order to add to their capital and support business or asset growth. Prior to the enforcement of Capital Adequacy standards (in India, since 1992) the main objective of banks and financial institutions was growth and, consequently the size of the balance sheet (in India, mainly through deposit growth). This objective has been – or needs to be – replaced by profitability, with the imposition of mandatory ratio requirements on the capital position of banks. Under the discipline of capital adequacy standard, growth has to be matched, and is constrained by increase of capital.

Most new capital comes from internal capital generation i.e., retained earnings added to Reserve Capital or it can come also from outside sources i.e., fresh capital injections (usually) raised by issues on the capital market. Capital of all kinds must be serviced, in the form of either dividends or interest and the cost of capital affects the pricing of bank services, thus helping to determine competitiveness with (a) other banks and (b) the capital markets. Profitability is thus a sine qua non for adding to reserves and keeping the cost of capital as low as possible.

Two key ratios are employed as measures of profitability, viz.

a) Return on Assets (ROA)

b) Return on Equity (ROE)

Two different approaches are in vogue in defining Return - i.e., either as pre-tax or post-tax earnings/income. In a system like ours, where corporate income taxes are high, the tax element makes a significant difference to the way the Return (numerator) is defined. It is desirable to indicate the measures both on pre-tax and after tax basis.

6.7 COST OF FUNDS AND SOME RELEVANT RATES

Bank Rate

In order to supply and regulate the flow of credit to the trade and commerce by banks, the Reserve Bank of India, from time to time declares the standard interest rate, i.e., Bank Rate at which RBI will be prepared to buy or discount bills of exchange or other eligible commercial papers and advance money to the banks, banking companies, and other financial institutions. This is the most important tool in the hands of RBI through which it controls the credit flow. The Bank Rate of the RBI is a pace-settler to the other market rates of interest, both for short-term and long-term credit. If the RBI raises the bank rate, the banks and other institutions have to borrow by paying a higher rate of interest. However, the credit in the market becomes costly, as the interest rate on advances to the customers of banks and financial institutions are linked to the RBI's bank rate. The rise in Bank Rate directly affects all rates of lending through making money dearer. The result is opposite, i.e., if the bank rate is lowered by the RBI, the credit will expand and the rate of interest on advances and discounting of bills will tend to fall and more money, i.e., credit, will be available in the money market.

In terms of Section 49 of the Reserve Bank of India Act, RBI is required to make public, from time to time, the standard rate at which it is prepared to buy or rediscount bills of exchange or other commercial paper eligible for purchase under the Act. This rate is known as the Bank Rate. By altering this rate, the Reserve Bank can influence the cost of credit. The main significance of the change in Bank Rate lies in the fact that other rates including those charged by banks for their advances deposit rates and other market rates very often move in sympathy with the bank rate. An increase in the Bank Rate also affects the business psychology because it is viewed as a harbinger of contractionary economic policy designed to bring about a fall in the price level. This psychological effect is very important since it induces the traders and producers to reduce stocks and curtail credit generally.

The credit policy for the first half of 1997-98 provides for the new signaling mechanism for monitoring the interest rates in the economy. This has been made possible by waking up bank rate from slumber and linking it to refinance and minimum deposit rates. This will fill a gap in the financial services sector by introducing an effective benchmark rate.

In the earlier Annual Reports on Currency and Finance of RBI, the bank rate was described as "The standard rate at which the Reserve Bank of India is prepared to buy or rediscount bills of exchange or other commercial paper eligible for purchase under the Reserve Bank of India Act". The bank rate was characterised by experts as an instrument, which had only vedantic significance. First-class commercial bills eligible for re-discounting by the RBI simply did not seem to have existed. The bank rate, then, became primarily a yardstick to which some other rates had been linked.

Since 1997, the Bank Rate has been reactivated as the principal signaling device of the monetary policy stance across the interest rate structure in consonance with inflationary expectations and the liquidity situation. The Bank Rate was reduced in stages to 6.25 per cent in October 2002, the lowest rate since May 1973, and by a further 25 basis points in April 2003. The Bank Rate has been reduced by 500 basis points in the last five years. This is the sharpest reduction in the Bank Rate since Independence (Table 6.4).

Table 6.4 : Adjustments in Bank Rate

(Per cent)

	Effective Date	Rate
1		2
January	17, 1998	11.0
March	19, 1998	10.5
April	3, 1998	10.0
April	29, 1998	9.0
March	2, 1999	8.0
April	2, 2000	7.0
July	22, 2000	8.0
February	17, 2001	7.5
March	2, 2001	7.0
October	23, 2001	6.5
October	29, 2002	6.25
April	29, 2003	6.0

Source: *www.rbi.org in.*

Refinance Rates

The Development Banks like IDBI/NABARD/EXIM/SIDBI is providing refinance facility to banks in order to improve the liquidity position of the banks. Refinance facility is being provided against the loans and advances provided by the banks. These facilities are available at rates cheaper than the bank's actual lending rates. Therefore, in effect, banks are able to make profits without deployment of their funds. Further, rediscounting/refinance facilities are resorted to with a view to have faster recycling of funds which augments bank's profitability. It also provides an opportunity for commercial banks to subject their lending activity to critical examination by the experts in NABARD/IDBI/RBI and to receive their valuable suggestions for improvement of bank's schemes.

Call Money Market Rates

Money at call and short notice is the second most liquid asset of a banker and is called the Second Line of Defence. It often happens that on a particular day some banks have surplus funds while others are in need of funds for overnight or for a very short period because of adverse clearing and similar other short-term factors. The inter-bank call money market provides a means of making the surpluses of some banks available to other banks, which are in deficit. The system of inter-bank call loans enables banks with excess liquidity to lend to those, which are in need of funds. Such loans are repayable on call or at a short notice. The rate of interest on call and short notice loans varies from time to time according to the liquidity to lend to those, which are in need of funds. Such loans are repayable on call or at a short notice. The rate of interest on call and short notice loans varies from time to time according to the liquidity position of banks, on which depends the supply of and demand for funds. The Indian Banks Association had fixed a ceiling of 10% p.a. on the interest rate on inter-bank call money transactions. The ceiling rate has been abolished by Reserve Bank of India with effect from May 1, 1989. As the commercial banks lend their surplus funds only in the Call Money Market, the quantum of such funds forms a very insignificant portion of their total resources. However, the call money market is the most sensitive sector of the money market. The State Bank of India is the main lender in the call money market and other banks obtain loans and advances from the State Bank. The two financial institutions - Life Insurance Corporation of India and Unit

Trust of India also have been placing their surplus funds in the call money market for the past few years. To widen the call and short notice money market, the number of participants has been progressively increased. With effect from May 2, 1990, three other institutions, General Insurance Corporation of India (GIC), Industrial Development Bank of India (IDBI) and National Bank for Agriculture and Rural Development (NABARD), became participants in the market but only as lenders.

The rate of interest is calculated on a daily basis; but the rate quoted in the market is an annualized one. Once the deal is struck, the funds are immediately available to the borrowing bank and are returned with interest the next day. The funds are lent and paid back through a banker's pay order, which is cleared by the special high value banker's clearing cell in the RBI. The RBI is the market regulator and cannot lend or borrow funds in the call market. However, as a regulator, it can intervene in the market when rates go through the roof. It intervenes in the market through two market intermediaries - the Securities Trading Corporation of India (STCI) and Discount Finance House of India (DFHI). The STCI lends funds against the government securities that a bank holds with an offer to sell back the security (called repurchases or repos), while the DFHI lends funds that it received from the central bank against repos of certain securities specified as eligible for them. The RBI also allows banks to rediscount proceeds of export bills of exchange.

The rates fluctuate in the market depending on the demand and supply of money in the market. High rates indicate a tightness of liquidity in the financial system. Low rates indicate an easy liquidity position. In India, rates in the call market are prone to fluctuations and are without any direction. This is due to the fact that it has a limited number of players whose needs are similar.

Liquidity Adjustment Facility (LAF)

We were used to playing in a system where every thing had been fixed for a long time but this situation is fast changing. The playground is the financial market with fixed interest rates at which market players borrow or lend funds.

The RBI aims at doing away with fixed rate refinance offered to the banks and primary dealers (PDs) to meet the shortfall in their daily liquidity requirements. This is now being replaced with a new system called liquidity adjustment facility (LAF) with implications for the money market, banks and for all investors having fixed income.

Banks and PDs will be provided liquidity support at market related rates. Conditions will be created for orderly movement of interest rate in the overnight call markets - which banks access to meet their short-term funding requirements. Stability in this market will also reduce the volatility in the government securities market as banks typically sell off gilts to generate cash, which leads to wild fluctuations in interest rates. This will in turn make gilts funds more attractive to investors due to volatility in gilts market. With a solid reference rate, to go by, banks can ultimately price all loans and deposits on a floating basis.

Under the proposed LAF, RBI will fund the temporary mismatches in the liquidity at market related rate without any cap on the amount. Banks will have to bid for money from RBI indicating the interest rate. The lending will be through a repo and reverse repo; the difference in prices being the interest on funds. RBI will employ its discretion on how much to lend and at what rate and whether to lend at all. At times of sudden short fall in the system, RBI can pump in additional liquidity. Market related refinance rates are desirable. Several mutual funds including US-64 which assured fixed rates got into problems when the system could not earn enough returns to meet the assured rates.

At present, the banks and primary dealers avail refinance at two levels - the first is the interim LAF, available at bank rate. The second stage is where funds are available against collateral of govt. securities at bank rate plus 2%. The second stage of support has been replaced by variable rate repo auctions. At a later stage, the first level of refinance would also be replaced by the 'LAF'.

All SCBs (excluding RRBs) and PDs having current account and SGL account with RBI, Mumbai would be eligible to participate in the repo and reverse repo auctions with minimum amount of tender being Rs.10 crore and in multiples of Rs.5 crore. Tender of all transferable dated GOI securities and treasury bills (except 14 days treasury bills) will be eligible under repos and reverse repos: bid for Rs.100 accepted by RBI will entail delivery of security of face value of Rs.105. Settlement in the auction would take place on the same day. The securities held by RBI will be counted for SLR purpose.

With the institution of the Liquidity Adjustment Facility (LAF), the repo rate has functioned as an informal floor for money market rates, providing a powerful signal to the market about the policy preference on interest rates. Ample liquidity conditions drove down money market rates frequently below the repo rate during 2002-03 prompting a 25 basis point reduction in the repo rate in June 2002, followed by another 25 basis point paring in October 2002 and a 50 basis point cut in March 2003. The repo rate has been adjusted downwards from 8.0 per cent in March 1999 to 5.0 per cent in March 2003. Repo and reverse repo rates are decided through daily auctions conducted without any pre-announced rate and bids are accepted on a multiple price basis. Since the institution of the LAF, repo rates have anchored money market rates during periods of ample liquidity with the reverse repo rate as anchor in periods of tightness (Table 6.5).

Table 6.5 : Movement in LAF Rates

(Per cent)

Month	2002-03			2001-02			2000-01		
	Repo Rate	Reverse Repo	Spread @	Repo Rate	Reverse Repo	Spread @	Repo Rate	Reverse Repo	Spread @
1	2	3	4	5	6	7	8	9	10
April	6.0	-	0.58	6.75-7.0	8.75-9.00	0.50			
May	6.0	8.0	0.90	6.5-6.75	8.75	1.40			
June	5.75 (June 27)	-	0.29	6.5	8.5	0.74	-	9.0- 14.0	6.08
July	5.75	-	0	6.5	8.5	0.69	7.0-8.0	9.0-10.0	0.02
August	5.75	-	-0.03	6.5	-	0.44	8.0-15.0	15.0-16.0	-0.15
September	5.75	-	0	6.5	8.5	0.80	10.0-13.0	13.5	-0.09
October	5.50 (Oct. 30)	-	-0.02	6.5	8.5	0.90	8.0-9.75	10.25	0.49
November	5.50	7.5 (Nov. 12)	-0.05	6.5	8.5	0.47	8.0	10.0	1.28
December	5.50	-	0.08	6.5	8.5	0.58	8.0	10.0	0.76
January	5.50	7.5	0.16	6.5	-	0.13	-	10.0	2.04
February	5.50	7.5	0.21	6.5	8.5	0.23	7.5-8.0	10.0	1.47
March	5.0 (March 3)	7.0	0.86	6.0 (March 5)	8.0	0.97	7.0-7.5	9.0	0.74

- No repo/reverse repos

@ Spread is calculated as the difference between monthly average call rate and repo rate in percentage points.
LAF was introduced with effect from June 5, 2000.

Source: www.rbi.org.in

6.8 COST OF FUNDS AND ITS TRENDS

Table 6.6 below presents how Rs. 100 of income of selected banks was distributed between various expenses and profit. The following are some of observations one can make from this Table:

Table 6.6: Cost per Rs. 100 Earnings of Sample of Indian and Foreign Banks

Bank	*Interest*	*Salary & other Cost*	*Other Expenses*	*Provision & Losses*	*Depreciation*	*Tax*	*Pat*
Indusind Bank	64.50	1.57	8.44	24.01	2.84	0.81	-2.17
Centurion Bank	71.40	2.13	9.12	5.20	8.31	1.84	2.00
GTB	62.42	2.23	7.86	12.18	5.16	4.97	5.18
Bank Of Punjab	61.72	2.53	12.58	7.26	4.63	2.78	8.50
U T I Bank	68.64	2.70	6.73	7.02	2.00	4.85	8.06
I D B I Bank	69.86	2.96	8.47	1.37	1.74	3.64	11.96
I C I C I Bank	64.20	3.47	8.80	7.20	2.47	2.58	11.28
Citibank N A.	45.16	5.66	18.25	4.64	2.80	12.34	11.15
H D F C Bank	46.48	6.03	11.98	8.75	3.29	9.29	14.18
HSBC	52.29	8.19	13.42	3.19	2.58	11.95	8.38
OBC	65.49	8.68	5.82	6.29	1.56	2.25	9.91
J&K Bank	61.94	9.30	6.09	7.00	1.12	5.95	8.60
Corporation Bank	62.43	9.66	5.72	6.47	1.19	5.74	8.79
Vysya Bank	67.85	9.66	5.89	7.55	5.44	0.02	3.59
Grindlays Bank	46.89	11.44	8.73	5.64	1.64	14.38	11.28
SB of Hyderabad	56.26	14.49	6.23	9.28	0.94	7.03	5.77
Bank of Baroda	61.17	15.64	6.18	6.36	0.91	4.19	5.55
SB of Patiala	52.06	15.82	5.07	9.33	0.78	8.44	8.50
Andhra Bank	63.80	16.05	5.17	4.92	0.83	4.98	4.25
SB of Travancore	65.81	16.45	4.59	7.17	0.82	2.16	3.00
Dena Bank	66.43	16.45	5.66	9.52	0.98	1.39	-0.43
UBI	66.16	17.17	5.84	7.79	1.16	0.60	1.28
Canara Bank	62.49	17.41	5.92	10.36	1.38	2.21	0.23
SBI	59.54	17.46	5.66	5.57	1.39	4.44	5.94
Allahabad Bank	60.94	17.46	7.18	11.18	0.85	1.29	1.10
SB of Saurashtra	56.26	17.64	5.38	6.30	0.82	3.07	10.53
Bank of India	64.83	18.81	6.06	8.97	1.43	1.45	-1.55
SB of Indore	54.59	19.57	6.94	8.93	1.75	3.74	4.48
PNB	60.84	20.11	5.05	4.95	0.73	2.11	6.21
IOB	66.52	21.03	5.56	4.68	0.96	0.90	0.35
Vijaya Bank	63.15	21.27	6.92	6.67	1.50	0.30	0.19
UBI	71.73	21.55	4.11	4.16	0.30	0.00	-1.85
SB of Mysore	54.64	23.49	5.48	8.82	0.79	4.08	2.70
UCO Bank	66.48	23.62	4.89	7.02	0.63	0.72	-3.36
CBI	60.55	23.79	5.28	5.99	0.76	1.16	2.47
Syndicate Bank	61.37	25.07	5.15	2.08	0.68	0.97	4.68

1) Most of banks are spending about 10% of their income on the payment of interest for depositors. For most of the foreign banks, this expense was about 50%. This is mainly because of access to cheaper funds from abroad.

2) Salary and other expenses of some of the banks were between 5% as against the 15 % - 20% of some of the banks. The reason for this variation is that banks which are using technology are spending less on the salaries of the employees.

These are mostly foreign banks and new private banks. Most of the Public Sector Banks are spending around 20% of their income for salaries and other related expenses.

3) The proportion other expenses is more in case of foreign banks and new private sector banks when compared to the public sector banks.

4) About 100% of the income is allocated to the provisions and losses by most of the banks.

5) Depreciation expenses of most of the banks were in the range 1%-3%.

6) Most of the foreign banks and new private sector banks are showing more than 10% of their income as profit after tax.

Activity 1

Collect the following data for any 5 Banks:

Cost of Funds	.....	.....	.....	.....	.....
Income	.....	.....	.....	.....	.....
Spread	.....	.....	.....	.....	.....

6.9 SUMMARY

Banks deal in funds. The inflows and outflows of Banks are funds. Banks mobilize surplus funds from different sources and distribute them to the people who need more funds. In this process banks get some income and also incur some expenditure. The surplus of income over expenditure is called the spread. Banks utilize this spread to meet expenses like employee costs, depreciation, provisions, etc. The surplus of spread after meeting all these expenses is the profit for the banks. If the banks have access to cheaper sources of money, the size of the spread will be more and consequently profit also will be more. Many of the foreign banks operating in India have cheaper sources of funds. Some of the other factors which affect the cost of funds are: Government policy, inflation, balance of payments, exchange rate, interest rates of other currencies, etc. Some of the rates like Bank Rate, Refinance Rate, Call Money Rate, have a direct bearing on the cost of funds.

6.10 KEY WORDS

Cost of Debt Capital: Cost of Debt Capital is the discount rate that equates the present value of after tax interest payment cash outflows to the current market value of the Debt Capital.

Prime Lending Rate: Bank Rate is a tool in the hands of the Reserve Bank of India to be used for giving signal to banks for changing their Prime Lending Rates. Taking cues from the changes effected in the Bank Rate, Banks are increasing/decreasing their PLRs.

Interest Rate Spread: Spread is measured as the difference between interest receipts and interest payments as percentage of total assets. An increase in spread, *ceteris paribus*, leads to rise in profits.

Cost of Capital: The term "Cost of Capital" means the cost of long-term funds of a company. It is the multiple of "Capital Employed" and Weighted Average Rate of Cost of Debt Capital, Cost of Equity Capital, and Cost of Preference Share Capital. This is why cost of capital is known as Weighted Average Cost of Capital (WACC). WACC is post tax.

Bank Rate: In order to supply and regulate the flow of credit to the trade and commerce by banks, the Reserve Bank of India, from time to time declares the standard interest rate, i.e., Bank Rate at which RBI will be prepared to buy or discount Bills of Exchange or other eligible commercial papers and advance money to the Banks, Banking Companies and other Financial Institutions.

Refinance Rates: Refinance facility is being provided by the Development Banks like IDBI/NABARD/EXIM/SIDBI to banks in order to improve the liquidity position of the banks. Refinance facility is being provided against the loans and advances provided by the banks. These facilities are available at rates cheaper than the bank's actual lending rates. Therefore, in effect, banks are able to make profits without deployment of their funds.

Call Money Market Rates: The money market where investments are made in the form of money at call (call money) is called the call money market. The rate of interest on call and short notice loans varies from time to time according to the liquidity position of banks, on which depends the supply of and demand for funds.

Liquidity Adjustment Facility: The RBI aims at doing away with fixed rate refinance, offered to the banks and Primary Dealers (PDs) to meet the shortfall in their daily liquidity requirements. This is now being replaced with a new system called liquidity adjustment facility (LAF) with implications for the money market, banks and for all investors having fixed income.

6.11 SELF-ASSESSMENT QUESTIONS

1. What is international and multinational banking? Define its conceptual framework?
2. Discuss the factors affecting interest rates?
3. Discuss the important ratios used in assessing Cost of Capital of Commercial Banks.
4. Before declaring dividends, what are statutory provisions required to be complied with?
5. How does Bank Rate differ from Call Money Rate? Discuss.
6. What is LAF? Why has it been introduced in India?

6.12 FURTHER READINGS

RBI's Monetary and Credit Policy - 2003

RBI Annual Reports

Trends and Progress of Banking in India, RBI Publication.

www.rbi.org.in

Appendix-6.1: Effect of Interest Rate Changes on Banks' Income

The changes in interest rates affect bank earnings through the net interest income and the level of other interest-sensitive income and operating expenses. This impacts the underlying value of the bank's assets, liabilities and off-balance sheet instruments because the present value of future cash flows (and in some cases, the cash flows themselves) change when interest rates change. Interest rate risk arises out of the exposure of a bank to adverse movements in interest rates. While accepting this risk is a normal part of banking and can be an important source of profitability and shareholder value, excessive interest rate risk-taking can pose a significant threat to a bank's earnings and capital base. The primary form of the interest rate risk arises from timing differences in the maturity (for fixed rate) and repricing (for floating rate) of bank assets, liabilities and off-balance-sheet (OBS) positions. Thus, effective risk management to maintain interest rate risk within prudent levels is essential to the safety and soundness of banks.

A number of techniques are available for measuring the interest rate risk exposure of both earnings and economic value. Their complexity ranges from simple calculations to static simulations using current holdings to highly sophisticated dynamic modelling techniques that reflect potential future business and business decisions. The gap method for measuring a bank's interest rate risk exposure generates simple indicators of the interest rate risk sensitivity of both earnings and economic value to changing interest rates. This essentially measures the gap between interest-sensitive assets and liabilities (including OBS positions) in the specific time bands in which these interest sensitive assets and liabilities are located. The gap is positive (negative) when maturing/re-pricing assets are more (less) than the liabilities. After calculating the net gap by adding the gaps within each time band, adjusted for hedging, the impact on earnings is estimated by computing the likely losses or gains in the event of a change in the interest rate, in terms of the net interest income (NII) earned by the banks. The net interest income takes into account both the interest earned as well as interest paid on interest bearing liabilities and risk arising out of interest rate movement would directly affect the NII earned by the banks (BIS, 2003).

A preliminary internal exercise within the Reserve Bank using the gap method to calculate the impact of interest rate changes on banks' net interest income carried out with reference to banks' asset-liability profile as on March 31, 2003 as reported through their offsite statement, suggests the following:

- The banking system as a whole is likely to have a positive impact of 4.9 per cent on net interest income in the event of a rise in interest rates by 200 basis points.
- Among the bank groups, the positive impact of a rise in interest rates by 200 basis points would be largest in case of public sector bank group.
- On the other hand, in the event of a fall in interest rates by 200 basis points, new private banks and old private banks would have positive impact on their net interest income.
- The foreign bank group would have the least impact on net interest income in a rising or falling interest rate regime.

It needs to be recognised that estimates of this nature are essentially indicative. For instance, the study focuses only on interest earnings and is subject to usual limitations associated with the gap method. Furthermore, banks' interest rate risk positions are dynamic in nature. The analysis does not incorporate the appreciation/depreciation of banks' securities portfolio consequent to these interest rate changes. Under current regulations, banks are required to follow a conservative accounting practice in respect of unrealised capital gains on their investment portfolio and therefore have latent reserves to serve as a cushion in the event of an interest rate shock.

Reference:

Bank for International Settlements (2003), Principles for the Management and Supervision of Interest Rate Risk, Basel.

Source: www.rbi.org.in