

Time value of money

Remember our three friends - **Saver**, **Borrower** and **Investor** and their tryst with Inflation?

Inflation is detrimental to **Saver** but favourable to **Borrower** and **Investor**.

But this lop-sided scenario can't last forever. **Saver** can't always be the 'poor guy'. And **Borrower** and **Investor** can't benefit endlessly at his expense.

We surely know why. If things continue as they are, then all of us would want to be borrowers and investors! And nobody would bother to save!

So, the stage is set for a new character, who would balance the disequilibrium. Enter Interest, the great balancer.

Interest tilts the balance in favour of our friend **Saver**, thereby levelling the playing field for our three friends. But how does he do that? **Saver** demands interest for postponing his consumption while **Borrower** and **Investor** have to pay up Interest for using **Saver's** surplus.

Hence, what **Saver** loses owing to Inflation, he gains through Interest. Now that we have seen how Interest restores the balance, it is time for us to move on...

Assume that your friend calls and offers you Rs1000. He says that you can have it either now or tomorrow. What would you choose?

Pretty simple, eh? Your voice is loud and clear as you say, "I want now."

Just in case you choose to have the dough tomorrow, do let us know at school@sharekhan.com

So, why did you choose to have the Rs1000 NOW?

You obviously are thinking of the many things that you can do with that money. You can buy a couple CDs or a pair of new jeans or even the pair of shoes teasingly displayed at the shoe shop on the way home. After much deliberation, you decide to go for the pair of shoes. With the cash in your pocket, all you need to do now is go to the shop and buy.

However, your friend is too busy and is unable to give you the money today, but he promises that you will get it a month later. You are sorely disappointed. All your plans of buying that pair of shoes lie shattered.

"Or what if somebody else buys those pair of shoes, which may well be the last such pair on earth?"

"Or what if your friend delays his gift by another month?"

'If' - the root of all uncertainties! What we commonly term as 'Risk' and what can ruin all your well laid plans...

Hence, if you have a choice, you would rather go to see this friend at his office and collect your money today.

Why would you do that?

This brings us to a fundamental truth: Time has value.

We all know that the value of a rupee does not stay the same across time horizons. Due to Risk and Inflation, a rupee today is worth more than a rupee tomorrow on the time line.

In simpler words, we are saying that the value of the same rupee differs at different points of time. This difference in value arises due to the passage of time. Hence, it is called the 'Time Value of Money'.

Expressing this in numbers, if you believe that you can buy the same pair of shoes with Rs1100 a month later, then the time value of money for you is Rs100 for a month.

Twist in the tale

Now, let us assume that your friend actually turns up and gives you Rs1000. But while on the way to the shoe shop you meet your old classmate who badly needs Rs1000. In that case, will you part with the money?

You would, provided he promises to return at least Rs1100 a month down the line, so that you can buy the same pair of shoes. (We know that, in real life, you would not take a penny more than what you have lent to your classmate, but just for academic purposes!)

So, what do you call this extra payment that you demand over and above the amount you have lent?

If the answer is 'Interest', you are right. But then what is Interest? And why is it charged?

Let me explain. When you are lending the money to your friend, you forego an opportunity to buy the shoes and use them when you wanted. Hence, you would charge the cost of losing this opportunity, commonly termed as 'Opportunity Cost', to your friend in the form of Interest.

One last exercise before we bid goodbye to 'Time Value of money' and 'Opportunity Cost' for now.

What is the Opportunity Cost for our friends, **Saver**, **Borrower** and **Investor**?

Saver:

Saver is a lot like you. He needs to get compensated for the erosion in his purchasing power with time as also the risk associated with postponing consumption.

Borrower:

Now that **Saver** has an ace up his sleeves in the form of Interest, **Borrower** needs to evaluate his decision to borrow and consume now. Why? Now there is interest to contend with.

Lost? If your classmate is borrowing Rs1000 from you today to meet his needs and is repaying Rs1100 a month later. Then, he is better off fulfilling a need of his that will be worth at least Rs100 more a month later.

Investor:

Our most enigmatic friend, **Investor** has several opportunities knocking at his door. He can set up a beer factory or open a restaurant among other things. We could actually exhaust this page writing about the options that he has staring at him. As we all know, our clever friend hopes to maximise his profits and minimise his risks.

In case he decides to set up a beer factory, the profits he would have earned by setting up a restaurant are considered as his 'Opportunity Cost'!

He also has a very basic 'Opportunity Cost'. He can opt to lend his money to **Borrower** in return for Interest payment. Thus his investment needs to fetch him enough profits to compensate for all this.

Hence, **Investor** needs to know the value of his future profits in today's terms for all the investment opportunities. Only then can he make the best choice. This brings us to another vital concept: 'Present Value'.

But we will discuss that next time. Watch this space. Till then, take care.