

Understanding Hidden Cost of Credit A Borrower's Perspective

Being smart about money is about fully understanding the financial choices one makes and seeing the entire picture - the true & total cost of borrowing. After all, buying credit is no different than buying goods and services.

Everybody who borrows money knows the EMI he is paying and the rate of interest being charged. But, nobody tries to figure out, whether it's the correct rate, or is there something amiss? Does the rate of interest we think we are paying is the true rate of interest? If not, then how much it actually costs to borrow? What is the true & total effective cost of borrowing?

Flat Interest Rates: Marketing Gimmick

Lenders (Banks, Credit card companies, Micro-Finance institutions, NBFC's etc.) often deceive unsuspecting borrowers by deliberately disguising the real interest rates

and quoting flat rates of interest so as to make the interest rates appear cheaper. The "flat interest rates" are not the interest rate per se but rather one of the marketing ploys to conceal the real interest rates. The flat rate never reflects the actual cost of the loan. For example 8% flat appears low-priced but is equivalent to 14.55% reducing balance rate in case of 3 year loan duration. Flat rates are computed based on original loan amount without deducting principal amount repaid, whereas in case of reducing balance interest is charged according to how much of the original amount remains in the borrower's hand, which shrinks as successive payments are made.





Vipin Kumar, CFP™
Proprietor, Kumar Financial Planners

Furthermore, there are many other anomalies which includes, charging processing fees and service tax; taking advance EMI's; and imposing prepayment penalty which don't get reflected in the rate of interest. Also, quoting monthly interest rates rather than annual rates.

How Much it Actually Costs to Borrow Money?

Effective cost of borrowing should take into account not just the interest rate on the loan but also other charges borrower has to pay, for example, upfront processing fees, service tax, prepayment penalties and other charges, if any. Effective interest rate is the rate the borrower actually pays based on the loan proceeds actually in his hands i.e., actual cash flows (inflows and outflows). Table 1 shows the reducing balance rate of interest for different duration of loans based on various flat rates.

Table 1

Reducing Balance Rate of Interest Based on Flat Rates				
Flat Rates	Reducing Balance Rates			
	2yrs	3 yrs	5 yrs	10 yrs
4%	7.50	7.51	7.42	7.11
6%	11.13	11.08	10.85	10.21
8%	14.68	14.55	14.13	13.12
10%	18.16	17.92	17.27	15.86
12%	21.57	21.20	20.31	18.49

It is a misconception that reducing balance rate is twice the flat rate. Based on Table 1, we can derive a thumb rule that for a 3 year loan with a flat rate of 10%, reducing balance rate (based on simple interest on monthly reducing balance) is about twice the flat rate less the factor of 2%. As either the flat rate or the duration increases this factor of 2% to be deducted also increases & vice versa. One should however, be careful while using this crude rule because as can be seen from table that within a flat rate range of 4 to 12% & period range from 2yrs to 10 yrs, this factor varies from 0.5% to 5.5%.

Further, let's examine the effect of service tax on interest (at the rate of 12.36%) which is not considered as part of EMI and is levied additionally on the interest portion of the EMI.

Table 2

Effective Rate of Interest Based on Flat Rates Plus Service Tax on Interest				
Flat Rates	Effective Rates			
	2yrs	3 yrs	5 yrs	10 yrs
4%	8.43	8.44	8.34	7.99
6%	12.51	12.45	12.19	11.47
8%	16.49	16.35	15.88	14.74
10%	20.40	20.13	19.40	17.82
12%	24.24	23.82	22.82	20.78

From Table 2, we can infer that, effect of service tax on effective interest rates is roughly in the range of 1 to 2.6% depending upon interest rates and loan duration. Greater the rate of interest higher the incidence, however, longer the duration, lower the incidence.

Table 3

Effective Rate of Interest Based on Flat Rates Plus Service Tax on Interest Plus Processing Fees of 2%				
Flat Rates	Effective Rates (IRR)			
	2yrs	3 yrs	5 yrs	10 yrs
4%	10.70	10.00	9.31	8.52
6%	14.82	14.05	13.21	12.04
8%	18.85	17.99	16.93	15.35
10%	22.80	21.82	20.50	18.47
12%	26.68	25.54	23.96	21.46

Let's also consider the effect of processing fees on effective interest rates. Since processing fees is collected upfront at the time of loan disbursements, it leaves the borrower with a net cash inflow of gross loan amount minus processing fees. For example, on a loan amount of Rs. 1,00,000 if the processing charges are 2% (2.2472% considering the impact of service tax), then we get a net amount of Rs. 97,752 only. It can be noticed from Table 3 that in case of 3 year loan tenure, processing fees of 2% results in average increase of approximately 1.60% in effective interest rate, whereas for 2 year duration the average increase is about 2.3% i.e. shorter the loan tenure higher the impact (because in case of longer duration loans its effect gets spread out over more payments).

Effective rate calculated based on reducing balance method after considering the impact of service tax on

interest and processing fees is nothing but Internal Rate of Return (IRR). But even this IRR does not measure the true & total cost of borrowing - effective annual rate of interest - as it ignores the effects of compounding. IRR does not give any consideration to the length of the period. It simply calculates the rate for whatever period is being used and therefore understates the true annual rate of interest. True effective rate (TER) - can also be called annual equivalent rates (AER) - can be computed from the IRR by applying the formula,

$$TER = [(1 + IRR)^n] - 1$$

Table 4

True Effective Rate of Interest Based on IRR as per Table 3				
Flat Rates	True Effective Rates (TER)			
	2yrs	3 yrs	5 yrs	10 yrs
4%	11.24	10.47	9.72	8.86
6%	15.87	14.99	14.04	12.73
8%	20.57	19.55	18.31	16.48
10%	25.34	24.14	22.54	20.12
12%	30.20	28.75	26.77	23.70

We can observe that IRR of 17.99% as per table 3 is equivalent to TER of 19.55%, as per table 4, which means that in case of 3 year loan, by charging 8% flat with 2% processing fees borrower is paying and lender is actually earning 19.55%. Therefore, true and total cost of borrowing for a three year tenure loan, with a flat rate of 8 percent comes to 19.55 percent i.e. about 2.5 times the flat rate.

Now, even this TER of 19.55% will hold true only if the loan lasts full term. However, in actual practice most of the loans don't last full term as generally the borrower exercises the option to prepay the loan before the expiry of full loan term. Supposing that borrower exercises the prepayment option midway in all the above cases - that is, in case of two year loan he decides to prepay after one year and in case of 10 year loan he decides to prepay after completion of 5 years - by paying a prepayment penalty of three percent (effective 3.3708% after considering the impact of service tax), let's see how it might impact the Internal Rate of Return & True Effective Rate.

Table 5

Revised IRR After Considering the Effect of Prepayment Penalty				
Flat Rates	Effective Rates (IRR)			
	2yrs	3 yrs	5 yrs	10 yrs
4%	13.58	11.91	10.44	9.05
6%	17.67	15.93	14.30	12.55
8%	21.68	19.84	17.99	15.82
10%	25.61	23.64	21.54	18.93
12%	29.46	27.34	24.97	21.89

Table 6

Revised TER Based on Revised IRR as Per Table 5				
Flat Rates	Revised TER			
	2yrs	3 yrs	5 yrs	10 yrs
4%	14.46	12.58	10.95	9.43
6%	19.18	17.15	15.27	13.30
8%	23.97	21.75	19.55	17.02
10%	28.83	26.38	23.80	20.66
12%	33.78	31.04	28.03	24.23

Table 5 indicates that due to mid-way prepayment IRR increases by average of about 2.83% in case of 2 year loans, to approximately 0.45% in case of 10 year loans. Similarly, Table 6 indicates that the effect on TER is in the range of 3.22% - 3.58% for 2 year and 0.53% - 0.57% for 10 year duration loan respectively. We can infer that effect of prepayment penalty on total cost of borrowing is too high for short duration loans but gets mitigated as the loan duration increases due to amortization over a longer period. Continuing the above example of 8% flat rate for 3 year duration loan, the TER increases from 19.55% to 21.75% i.e. by straight 2.2% due to prepayment of loan after one and half years.

Table 7

Conversion of Flat Rate of 8% Into True Effective Rate of 21.75% (For 3 Year Duration)		
	Impact	Total
Step 1 Flat Interest rate	8%	8%
Step 2 Conversion into reducing balance rate	6.55%	14.55%
Step 3 Impact of service tax (12.36%)	1.80%	16.35%
Step 4 Impact of Processing Charges (2%)	1.64%	17.99%
Step 5 Effect of Compounding	1.56%	19.55%
Step 6 Effect of Prepayment Penalty (3%)	2.20%	21.75%

Table 7 depicts the step by step flow of how the flat rate of 8% with 3 year loan duration gets converted into TER of 21.75% i.e. about 2.7 times the flat rate.

TER broadly reflects the return a lender gets on the investment they make by lending. In other words, if a lender charges 8 percent flat rate for a 3 year loan, it will earn, effectively, 19.55 percent on an annual basis and in case the borrower repays the full amount after 18 months, the rate of earning increases to 21.75%.per annum. Of course, this rate of return is inclusive of service tax which goes to the government treasury, so continuing the above example of 8% flat & 3 year loan duration, and excluding the service tax on all the components (interest, processing fees and

prepayment penalty) lender is still earning a rate of return of 17.20% (without prepayment) and 18.62% (in case mid way prepayment is made), the balance going to government coffers although borrower is incurring a cost inclusive of service tax as mentioned above.

So, finally what comes out of the above analysis is that total cost of credit is lot higher than twice the flat rate, but the borrowers are often in dark about this reality.

Legal Framework

In the U.S. 'The Truth in Lending Act' requires lenders to quote/disclose annual percentage rate (APR). This rate also does not consider the effect of compounding and therefore understates the true annual rate of interest; nevertheless, it takes into account the effect of one time fees and other charges and is a useful measure to make comparison among different lenders. In UK also, under 'Consumer Credit Act, 1974', APR is required to be published for all regulated loans and the UK APR even takes compounding into effect. In India, Reserve Bank of India has issued 'Guidelines on Fair Practices Code for Lenders' which unfortunately does not cover the manner of disclosure of interest rates or the total cost of credit. Therefore, sincere attempts should be made by Indian Government/RBI to regulate the manner in which interest rate is disclosed/advertised by the lenders, so that consumers are not duped and are provided greater protection against exploitation by lenders.

Conclusion

The widespread and dubious trend of quoting flat rates sounds appealing but in reality is an insidious practice that hides more than it reveals and therefore deceives unsuspecting borrowers, (who are otherwise educated but financially illiterate) so there's an urgent need for putting an end to this malpractice. Statutory regulations need to provide for greater transparency in the manner of disclosure of interest rates.

Furthermore, interest rate is not the only thing the borrower needs to consider when choosing credit. Other items not thought of as interest does affect the true cost of financing. Understanding the hidden costs can save our money and help us make wiser financial decisions. Therefore, before signing the loan contract, we should try to figure out the real cost of credit instead of getting carried away by the flat rate of interest.

kumar_vipin_2000@yahoo.com



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