

Example (Inflation) Suppose that inflation is 4%, the nominal interest rate is 10%, and we have a cash flow of real (or constant) dollars as shown in the second column of Table 2.5. (It is common to estimate cash flows in constant dollars, relative to the present, because “ordinary” price increases can then be neglected in a simple estimation of cash flows.) To determine the present value in real terms we must use the real rate of interest, which from (2.5) is $r_0 = (.10 - .04)/1.04 = 5.77\%$.

TABLE 2.5
Inflation

Year	Real cash flow	PV @5.77%	Nominal cash flow	PV @10%
0	-10,000	-10,000	-10,000	-10,000
1	5,000	4,727	5,200	4,727
2	5,000	4,469	5,408	4,469
3	5,000	4,226	5,624	4,226
4	3,000	2,397	3,510	2,397
Total		5,819		5,819

5000*1.04 5000*1.04²

Interest Rate Real Inflation-adjusted

Cash flow Estimate

Today's Dollars :) :(

Inflated :(:)

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Alternatively, we may convert the cash flow to actual (nominal) terms by inflating the figures using the appropriate inflation factors. Then we determine the present value using the nominal interest rate of 10%. Both methods produce the same result.