**Chapter 9 part 1**

Comparing real vs nominal cash flows

Your team plans to construct a new airplane with free hobby club resources. The cash flow from leasing it out to businesses for surveillance is $ 4000 per year. The cash flow will increase by the rate of inflation every year, which is expected to grow at a rate of 3%. The discount rate is 10%. The life of this plane is 4 years.

If you consider the real rate of interest, then the discounting factor will be real too.

Real rate of interest = = ------- -1 = \_\_\_\_\_\_

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Method 1** | | |  | **Method 2** | |
| Year | CF\_i (real) | CF\_i (nominal/ Actual) | PV @ 10% |  | CFi (real) | PV@ rr% |
| 0 | 4000 |  |  |  | 4000 |  |
| 1 | 4000 |  |  |  | 4000 |  |
| 2 | 4000 |  |  |  | 4000 |  |
| 3 | 4000 |  |  |  | 4000 |  |

PVMethod1=\_\_\_\_\_\_\_\_, PVMethod2=\_\_\_\_\_\_\_\_.

You can do this activity in this document or on Excel file provided.

Following are instructions for Excel file:

1. Please enter real and nominal interest rates in cells B1 and B2
2. Please fill out CF\_i (nominal) in cells after accounting for inflation as:
   1. CF\_i, nominal at t=0 = 4000
   2. CF\_i, nominal at t=1… = CF\_(i-1) times (1+inflation rate)
3. Find out the present value of each cash flow
4. Add these together to find out the present value of all cash flows
5. Discount the real cash flows in column “E” using the real rate calculated in cell B2 to report the total present value.