

# Multinational corporation (mnc) now and then

[Science](#), [Mathematics](#)



Accumulated amount or Future value is the value of a loan or an investment made today, at a specified in the future. It essentially represents how much an asset will be worth in the future, at a specified date. It is calculated (as shown below in equation 1) by compounding the interest that the investment made today will earn over time.

$$FV = P (1 + i)^n \dots (1)$$

Where, FV = Future value of the investment

P = Principal amount of loan or investment made today

i = Interest rate per period

n = Number of compounding periods

The present value is the current worth of a future sum of money or stream of cash flows. It represents how much the future earnings of an investment are worth today. It is calculated by discounting the future sums of money to current worth by applying an appropriate discount rate. It is calculated (as shown below in equation 2) by discounting the future sum.

$$PV = F (1 + d)^n \dots (2)$$

Where, PV = Present value of the future sum

F = Future sum to be discounted

d = Discount rate per period (generally annual)

n = Number of compounding periods (generals years)

It may be seen from equations 1 and 2 that if the interest rate earned on investment in equation 1 is the same as the discount rate in equation 2, then  $F = FV$  and  $P = PV$ .

Example of Future Value:

If A and B invest \$10, 000 each in two investments with A getting a return of

5% per annum and B getting a return of 10% per annum, then the future value of this investment at the end of 5 years for both A and B is \$12, 762. 82 and \$ 16, 105. 10 respectively.

Example of Present Value:

In the above example, consider that both A and B want to have the same amount (\$ 16, 105. 10) after 5 years, but with his investment giving 5% and 10% return respectively. Then, while B must invest the same amount of \$10, 000 in his investment scheme, A must then invest \$ 12, 618. 77 in his investment scheme. Thus the present value of \$16, 105. 10 after 5 years according to their investment plans is \$ 12, 618. 77 and \$10, 000 for A and B respectively.

References

Jerome, F. E. (2004). Compound Interest: Future Value and Present Value. In Business Mathematics in Canada (pp. 286-304). McGraw Hill Ryerson.