

Good essay on future value present value

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Future Value:

Future Value refers to the amount which a current deposit will grow over time when it is placed in an account paying compound interest. The application of future value is of common view in the real life. The formula for calculating Future Value is:

$$FV = PV(1 + I/Y)^n$$

Here;

FV= Future Value

PV= Present Value

I/Y= Rate of return per compounding period

N= total number of compounding period

Below provide is the illustration that will suitably explain the concept of future value:

$$FV = PV(1 + I/Y)^n$$

$$FV = 10000(1.08)^5$$

$$FV = \$14693.28$$

Thus, by the end of 5 years, he will receive \$14693.28.

Present Value:

Present value is the current value of a cash flow that is to be received at some point in the future. In other words, it is the amount of money that must be invested today at a given rate of return over a period of time. The formula for calculating the present value is as follows:

$$PV = FV / (1 + I/Y)^n$$

Below provided is the real life illustration explaining the concept of present value:

In this case, the present deposit required to accumulate \$300000 in 25 years will be the present value of the amount:

$$PV = FV / (1 + I/Y)^n$$

$$PV = 300000 / (1.125)^{25}$$

$$PV = 300000 / 19.003$$

$$PV = \$15787.31$$

Thus, he should deposit \$15787 in his retirement fund account to earn \$300000 in 25 years from now @12.5% rate of return.

** Important to note that either in future value or present value, the compounding period carries great significance as more the compounding greater will be the effect on present or future value. For Instance, if in Case I, had the amount deposited been compounded semi-annually, in such case, the future value will be:

$$FV = PV (1 + I/Y)^n$$

$$FV = 10000 (1 + (.08/2))^{5*2}$$

$$FV = 10000 (1.04)^{10}$$

$$FV = \$14802.44$$

Works Cited

Investopedia. (n. d.). Future Value - FV. Retrieved May 31, 2014, from Investopedia: <http://www.investopedia.com/terms/f/futurevalue.asp>