Investment strategy

Investment Strategy For each of the values, I would use the compound interest formula. The purpose of the compound interest formula is to find out the future value of a principal amount plus accumulated interest (Investopedia, 2012). With this formula, monthly interest can be calculated by dividing the interest rate by 12.

The compound interest formula for future values is as follows (Moneychimp, n. d.):

FV = P (1 + r) Y

FV stands for future value or the amount of money to be received in the future, P stands for the principal or starting amount, r stands for the interest rate and is expressed as a decimal (i. e. in this case it would be . 05), and Y stands for the number of years.

For the case of interest being compounded monthly, as it is in this case, the formula would slightly change (Moneychimp, n. d.):

FV = P (1 + r / n) Yn

For this formula, the n refers to the number of times per year that interest is compounded. This will be the formula that will be used in this case because the interest needs to be compounded monthly.

$100, 000 payment

$750 monthly payments

10 years

$164, 700. 95

$116, 946. 97

20 years

$271, 264. 03

$309, 559. 73

30 years

$446, 774. 43

$626, 794. 78

The option that I would choose would entirely depend on how I planned to spend it. If I was looking only at the short term, then I would be better to go with the one-off payment of $100, 000. However, if my goals were set towards the long term, then I would be far better off to go with the monthly payments of $750 per month. In the figures above, it can be seen that considerably more money is gained through the one-off payment after 10 years, but that the monthly payments accumulate much more at 20 and 30 years respectively. To find where the change occurs precisely, take a look at the following:

$100, 000 payment

$750 monthly payments

16 Years

$222, 184. 50

$220, 848. 49

17 Years

$233, 551. 88

$241, 395. 03

The table above shows that while the $100, 000 one-off payment is worth more than the $750 monthly payments after year 16, it only takes one more year, year 17, for the monthly payments of $750 to be worth more.

The benefits to each option are obvious. If someone is after quick money and does not have any long-term plans for the future, then they should take the one-off payment of $100, 000. However, if they want to make long-term

plans that will hopefully benefit future generations, then the best option is to take the $750 monthly installments. The age that someone has a choice to make obviously would affect their decision. As I am a student, I would likely take the monthly payment option because I would benefit from it later on in life. However, someone that was close to old age would want to take the $100, 000 one-off payment because they would likely not be around much longer. If they were to take the monthly payments and then suddenly pass away, they would not get much use out of the money.

References

Investopedia. (2012). Compound Interest. Retrieved from http://www. investopedia. com/terms/c/compoundinterest. asp#axzz1qlva0Vyy

Moneychimp. (n. d.). Compound Interest (Future Value). Retrieved from http://www. moneychimp. com/articles/finworks/fmfutval. htm