

UNDERSTANDING THE VALUE OF MONEY



TIME VALUE OF MONEY

Imagine that you are offered a sum of money and asked to choose whether you want the money now or one year later. Better yet think about this, what could RM1 buy you in 1990, what could it buy you today and what would it be able to buy you in the future? Now would you choose the money now or money later?

You can see that it is really not that tough of a question. Anyone and everyone would surely choose to have the money now. Instinctively, you would know that money you have now, i.e. at the present time, is worth more than the same amount in the future.

This is a key principle of economics that states as long as money can earn interest, any amount of money is worth more the sooner it is received. This concept illustrates the time value of money, also known as 'present discounted value'.

Now let us understand this idea. Say you deposit money into an interest bearing savings account at a 5% interest rate, RM1,000 saved today will be worth RM1,050 in one year ($RM1,000 \times 1.05$). On the other hand, RM1,000 received one year from now is only worth RM952.38 today ($RM1,000$ divided by 1.05). Here multiplication is used when the ringgit amount

is deposited in an interest bearing account. This is because from now to a given time in future it would continually yield interest.

Division is used to represent the losses that arise during the period that a ringgit amount is not in an interest bearing account. It is that simple!

From this illustration you can observe that money has a time value. All things being equal, the present value of money is greater than the value of the same amount of money at any given time in the future.

THE POWER OF COMPOUND INTEREST

How important is it to begin putting aside money for savings right now, instead of sometime later?

Example of three individuals investing money – Ahmad, Siti and Zainal. Each of them consistently invests the same amount of money, i.e. RM3,000, which earns the same interest return of 10% per year. But they start investing at different ages – Ahmad at age 18, Siti at age 22 and Zainal at age 30.

When all three retire at age 55, Ahmad has more money than Siti and Zainal. He has RM467,913, whereas Siti has RM449,773 and

Zainal has RM360,300.

Ahmad has not only more money at age 55, he has also invested the least amount of money, i.e. RM15,000, compared to Siti who invested RM24,000 and Zainal who invested RM75,000.

The outcome in the example above is due to the effect of compound interest. It is the additional interest earned on top of the original saving amount plus the interest received.

The power of compound interest is that with compound interest, the earlier you start saving, the greater the interest accumulated on your original investment. This simply means the more money you keep aside now- the faster you can fulfill your dreams. When is the best time to start saving? Well NOW of course!

HOW COMPOUND INTEREST WORKS – ANNUALLY AND MONTHLY

If you put RM10,000 in the bank that draws 5% interest per annum, you will have RM10,500 at the end of the year. If you leave the entire amount in the bank for another year, you will then have RM11,025. In the second year, not only will you get interest on the original investment, you

also receive interest on the interest you earned the prior year. This is called compounded interest, i.e. interest applied to interest.

Compound interest is important to investors who are able to leave their investment to grow over long periods of time. The RM10,000 investment mentioned above, when invested for 10 years at 5% per annum, will be worth RM16,289! Can you believe that?!

If the interest rate of 5% is compounded on a monthly basis, the monthly interest rate is 0.42% (5% per year divided by 12 months). If the same amount of RM10,000 is invested based on 0.42% per month and invested for 10 years, it will be worth RM16,401, which is RM112 more than if invested at a yearly rate of 5%. Therefore, you will gain more if you invest in an investment that pays interest on a monthly instead of yearly compounded basis.

Compound interest can be what we call a double-edged sword. It can work both to your advantage and disadvantage. It can help give you more return on your investment as the benefit of compounding interest means you will earn more interest income the longer you keep your money invested. In contrast, if you have a loan or credit card debt, you can end up paying more interest if these debts are calculated on a compounded interest rate. This is because if you delay your loan or credit card repayment or a longer time, you will be charged more interest, eventually making it increasingly difficult for you to settle your loan or credit card debt.

IN A NUTSHELL

- Financial planning is important to provide you with peace of mind, security for your future and a better quality of life
- Financial planning is essential in achieving your life's dreams and goals
- Provided that money can earn interest, money you have at the present time is worth more than the same amount in the future.
- It is important to begin saving your money NOW. The sooner you start to save, the greater the benefit of compounded interest
- You will earn more interest if your investment pays interest on a monthly instead of yearly compounded basis
- Compound interest is a double edged sword. If you delay payment on a loan or credit card debt, you will end up paying more interest

Article by Credit Counselling and Debt Management Agency

