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The Premier Association for Financial Practitioners (Singapore)®

# #60

TUESDAY TIMES

# THE 1 FINANCIAL CALCULATION THAT EVERYONE MUST KNOW

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# THE 1 FINANCIAL CALCULATION THAT EVERYONE MUST KNOW

Money is a means to an end. Besides meeting basic necessities of life, when in the hands of an astute individual, its purposefulness can never be understated. It can carve out a greater sense of material wellbeing for self and loved ones, or in the pursuit of dreams and aspirations, bring them to fruition and that way, shape one's desired destiny. For what the mind can conceive and believe, it can achieve.

**When purpose meets the potency of money**

Thus, when purpose meets the potency of money, it hits a thousand vaults. Seeing the vast array of opportunities and possibilities such an amazing connection presents, money management skills are imperative, or a necessity in this process. The good news is, these skills can be learned and developed. Actually, growing or building wealth isn't complicated at all. This may appear surprising or simplistic to suggest, however, it helps to take the lid off and uncover the science to it, so we can get a good grip of how this works and what those financial effects are. Are you ready?

**FV = PV x (1+r)n**

As you can see, there are only 4 components to this formula. Let us first understand what all these alphabets mean.

FV is the future value of money. This is what matters to you - the end goal, or result.
PV is the present value of money. How much do you own currently?
r is the interest rate or rate of returns. This is where the ***power of compounding resides.***
n is time. How long are you willing to let your money grow?

Now, let us apply this formula. There are no shortcuts to this. To increase the future value of money (FV), you will need to put in these 3 essential ingredients.

# 3 ESSENTIAL INGREDIENTS

## INGREDIENT 1: MONEY (PV)

This is the most important ingredient. Without this, your money can't grow. There is no way you can cook (FV) without the presence of fire (PV).

In the mathematics world, if you multiply something with zero, you will get zero. Therefore, the key here is ***disciplined consistent saving***. The sooner you start saving (regularly and often), the faster you start to build your wealth

## INGREDIENT 2: RATE OF RETURNS

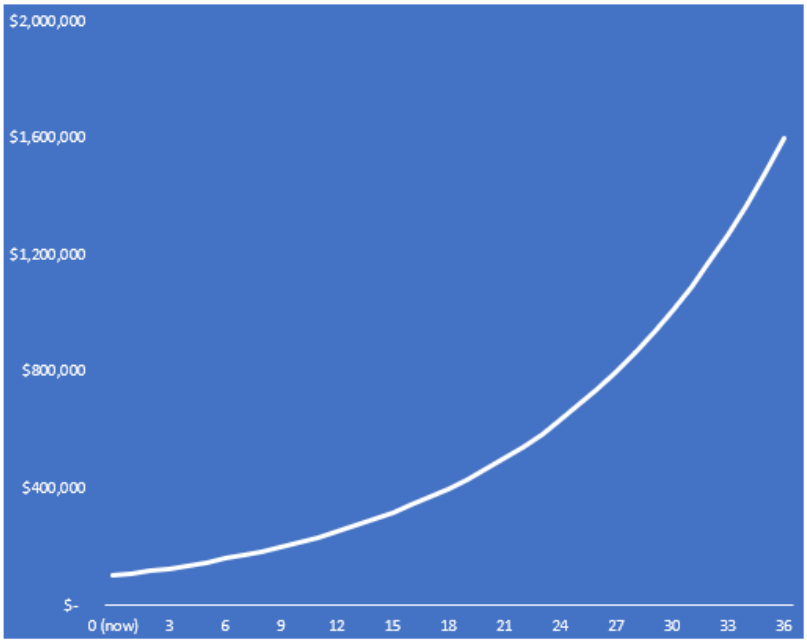
Suppose you landed a windfall, received a bequest or perhaps just won the Toto prize money of $1m *(just for illustration purpose only!!)* and you are given the following 2 options :

Option 1: Take $1m in a lump sum
Option 2: Given $100,000 now and can only withdraw 3 years later. During the period of these 3 years, the money will compound monthly at 8%.

Which option will you choose?
Which option is the better choice?

From the table below, it is essentially from month 30 onwards, then the amount in option 2 exceeds $1m. And at the end of 3 years, you mat get back $600k or more!

| Month | Option 1 | Option 2 | | |
|---|---|---|---|---|
| | | Beginning | Add Interests | End |
| 0 (now) | $ 1,000,000 | $ 100,000 | $ - | $ 100,000 |
| 1 | | $ 100,000 | $ 8,000 | $ 108,000 |
| 2 | | $ 108,000 | $ 8,640 | $ 116,640 |
| 3 | | $ 116,640 | $ 9,331 | $ 125,971 |
| 4 | | $ 125,971 | $ 10,078 | $ 136,049 |
| 5 | | $ 136,049 | $ 10,884 | $ 146,933 |
| 6 | | $ 146,933 | $ 11,755 | $ 158,687 |
| 7 | | $ 158,687 | $ 12,695 | $ 171,382 |
| 8 | | $ 171,382 | $ 13,711 | $ 185,093 |
| 9 | | $ 185,093 | $ 14,807 | $ 199,900 |
| 10 | | $ 199,900 | $ 15,992 | $ 215,892 |
| 11 | | $ 215,892 | $ 17,271 | $ 233,164 |
| 12 | | $ 233,164 | $ 18,653 | $ 251,817 |
| 13 | | $ 251,817 | $ 20,145 | $ 271,962 |
| 14 | | $ 271,962 | $ 21,757 | $ 293,719 |
| 15 | | $ 293,719 | $ 23,498 | $ 317,217 |
| 16 | | $ 317,217 | $ 25,377 | $ 342,594 |
| 17 | | $ 342,594 | $ 27,408 | $ 370,002 |
| 18 | | $ 370,002 | $ 29,600 | $ 399,602 |
| 19 | | $ 399,602 | $ 31,968 | $ 431,570 |
| 20 | | $ 431,570 | $ 34,526 | $ 466,096 |
| 21 | | $ 466,096 | $ 37,288 | $ 503,383 |
| 22 | | $ 503,383 | $ 40,271 | $ 543,654 |
| 23 | | $ 543,654 | $ 43,492 | $ 587,146 |
| 24 | | $ 587,146 | $ 46,972 | $ 634,118 |
| 25 | | $ 634,118 | $ 50,729 | $ 684,848 |
| 26 | | $ 684,848 | $ 54,788 | $ 739,635 |
| 27 | | $ 739,635 | $ 59,171 | $ 798,806 |
| 28 | | $ 798,806 | $ 63,904 | $ 862,711 |
| 29 | | $ 862,711 | $ 69,017 | $ 931,727 |
| 30 | | $ 931,727 | $ 74,538 | **$ 1,006,266** |
| 31 | | $ 1,006,266 | $ 80,501 | **$ 1,086,767** |
| 32 | | $ 1,086,767 | $ 86,941 | **$ 1,173,708** |
| 33 | | $ 1,173,708 | $ 93,897 | **$ 1,267,605** |
| 34 | | $ 1,267,605 | $ 101,408 | **$ 1,369,013** |
| 35 | | $ 1,369,013 | $ 109,521 | **$ 1,478,534** |
| 36 | | $ 1,478,534 | $ 118,283 | **$ 1,596,817** |




The key here is by adding the rate of returns, the process of wealth building enhances. This is akin to adding a booster. Of course, the above example may not be realistic, growing at 8% per month. How about if we convert that into years? With $100,000 now, compounding at 8% per annum, at the end of the 36 years, the money grows to about $1.6m! That's 16x growth over a period of 36 years.

## INGREDIENT 3: TIME

The final ingredient is time. And in almost everything, you need to time in order for you to see the effect. If we plot the numbers into a chart (see below), you would notice there isn't much growth in the initial phase. However, at a certain point, the degree of steepness starts to accelerate, this is where the exponential growth is.

The next crucial key here is to wait for the moment of exponential growth. This also explains the reason why, the earlier a person embarks on this wealth-building journey, the higher the probability of success, of reaching it.

## TWO PAIRS

Wealth building isn't cryptic nor is it an intricate process, however, it does help to communicate with a qualified financial practitioner, so your journey may be better navigated in a less predictable world of geopolitical changes or economic storms or even when markets unravel almost overnight as a result of a tweet and so on. Thus, its noteworthy to highlight assumptions of constant returns in those imperfect situations may not hold and hence, for the long haul, to help mitigate the unforeseen, it may be better to thread that path with two pairs of footprints instead of one, on the sands of time.

## A SPARK AND A HIGH VOLTAGE

In summary, it essentially needs a consistent and conscientious effort and overtime, with those pieces of the jigsaw put together, it should help yield the desired effects and in good season, present the picture in reality, the way this was first conceived then. Whilst assuming calculated risks for calculated returns may not be everyone's cup of tea, its worth bearing in mind anyone can be wired into this channel with the applied science to it.

Particularly, where its couched with purpose and fused with money's potency, it is reasonable to conjecture this should produce a spark (adding calculated returns), then hit a high voltage (moment of exponential growth) and the rest, is destiny. Start saving early (PV), by putting this into the correct instrument (r), and over a period of time (n), let the numbers go to work for you (FV).


### ABOUT THE AUTHOR

Mr. Patric Sum is an active member of IFPAS and is currently serving in the IFPAS Education & Training Working Committee. He holds the CFP, ChFC, CLU, IBFA, AEPP designations.