# THE WEALTH-BUILDING FORMULA: MASTERING COMPOUNDING

'The big money is not in the buying and selling, but in the waiting'

*By:*

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**What's the secret of building long term wealth?** People will offer different answers, and you probably have your own views, but I'm sure there will be a common thread to most replies i.e., 'compounding'.

Financial compounding is the process by which an investment's returns, from capital gains or income or both, are reinvested to generate additional returns over time. It's like a snowball being rolled down a hill: it starts off small with not much extra snow added, but the bigger it gets, the more snow it gathers. The further the snowball goes, the more powerful the effect, which is why time plays such a big factor in compounding. The effect is unimpressive at first but can turn into something spectacular as the years progress.

Einstein is said to have called 'compounding' the eighth wonder of the world.

## Compound Interest Success Stories

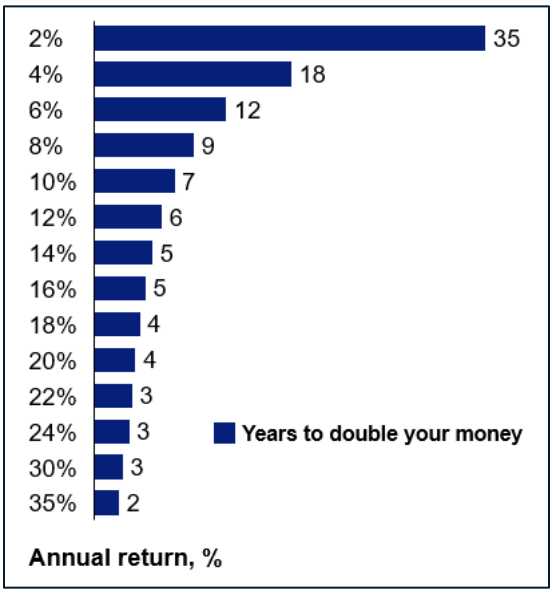
The world's most successful investors attribute much of their success to the power of compounding. Most famous of all is Warren Buffett who once stated, *"My life has been a product of compound interest."* Buffett is 92 years old, so he has been in the game a long time, and this has been more important to his wealth creation than his renowned stock picking. Amazingly, he has amassed ~90% of his wealth since he turned 65.

Very importantly, Buffett has also largely avoided the traps many investors fall into, being patient with his purchases, and buying assets with a 'margin of safety'. For him, that's meant owning reliable businesses with hard-to-copy business models and significant deep-rooted value – think Coca-Cola or Apple. By buying at a fair price he has limited his long-term losses, and this is very important for the compounding process. Anything that interrupts it, such as stopping investing or suffering a heavy loss that can't be rebuilt, undermines it. The snowball stops in its tracks.

While the power of compounding is such an important concept to understand when building wealth for the long term, relatively few people grasp its true power. The human brain has few problems with linear trends but finds exponential ones much harder. As Mark Zuckerberg put it, *"Humans don't understand exponential growth. If you fold a paper 50 times, it goes to the moon and back more than ten times."* A counter-intuitive result, and purely theoretical as it can't physically be done, but the point is valid.

The same logic can apply to investing. Folding a piece of paper results in a doubling in thickness each time. Doubling your money in an investment can be done but it's not easy. Not if you want to do it quickly, anyway. Below are some annual returns and the length of time it would take to double your money.

**How Long Does It Take to Double Your Money?**

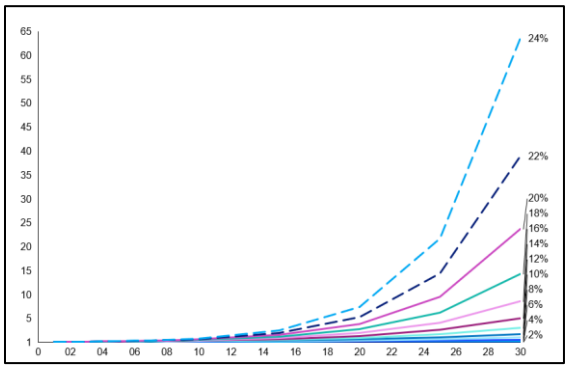



However, there is a catch. If you reach too far for higher returns you can come unstuck. Doubling your money in a year would probably involve taking a very high level of risk, most probably casino-like. However, doubling your money over ten years is much more attainable. You need a return of just over 7% a year. And at 20 years? Well, you would be very disappointed if you hadn't achieved it.

What's striking with the compounding effect is how patiently accruing modest returns can lead to excellent long-term results. The chart below illustrates how time can do a lot of the heavy lifting for investors even if, year to year, the gains they experience are unspectacular. And by earning

pretty good returns consistently you'll stand to achieve good results without taking too much risk.

Examples of ₹1 lac invested over thirty years with different annual percentage compound returns (for illustrative purposes only)




The level of returns you aim for comes down to how much risk you are comfortable with, the timeframe you are investing over, and your objectives. Risk is always a balance, a compromise. Take too little risk and compounding won't really work its magic. Take too much and you could sustain a large loss that is hard, if not impossible, to recover from.

## How to Invest with Compound Interest

How then can you apply the powers of compounding to your own investment journey? For some, it will mean aspiring to the basic Buffett principles of buying quality businesses compounding their own cash flows to grow while enjoying a 'wide moat' that protects them from competition and disruption.

It can also mean employing sensible diversification, spreading your money across many different businesses and perhaps asset classes, too. That way when you are a victim of volatility or misfortune – which is inevitable at some point – in sporting terms, you stay in the game rather than striking out.

More broadly, it means batting for easy singles rather than swinging for a six and getting bowled out. And in cricket, rather like investment, the right balance of conservatism and aggression is what is needed to keep the scoreboard ticking over without a catastrophic collapse of wickets.

The reason why many investors aim to hit it out of the stadium on their very first try. They are drawn to more speculative assets such as high-risk shares in a single company or cryptocurrencies. Often there is an appealing story around them, but for the slow and reliable process of compounding they are no use. If there is a high chance of a total loss, or close to it, then the compounding process ends and you are back to square one. Once again Buffett provides the perfect quote: "Over the years, a number of very smart people have learned the hard way that a long stream of impressive numbers multiplied by a single zero always equals zero." The goal is to stay in the game long enough to see your money work for you.

## Compound Interest vs Inflation – Who's the Winner?

The risk dilemma is never an easy one to resolve. Eking out small returns won't consistently beat rising prices and your wealth won't grow in real terms – unfortunately, inflation has a nasty habit of compounding too! Parking your money in the bank, which is always more appropriate for shorter-term needs, usually means you're just losing money very safely even though the interest rate you receive can compound. To beat inflation consistently you tend to need to use a spread of investments that pay a higher long-term return without taking on excessive risks. That won't mean losses are eliminated, but it should limit them and allow a slow, steady approach to work given enough time.

Also bear in mind the ugly side to compounding, which is especially relevant in the current environment. When you borrow money, compound interest can work against you. In particular, it can increase the amount of debt charged on a loan when interest builds up. On student loans and mortgages, for example, if you don't make payments within the specified time frame they can be "capitalized," or added to the original debt. After that interest will be charged on the new, higher loan sum.

This is why we generally recommend tackling high-interest "bad debt" (particularly credit cards) before thinking of investing. For more on this, check out my article on financial priorities during a cost-of-living squeeze.

## How to Work Out Compound Interest

Imagine two people each invest ₹1,00,000 and get a return of 7% (FD returns) a year. This is just by way of an illustration to keep things simple.

The first person takes the 7% they made out each year and spends it, leaving just the ₹1,00,000 invested, the other keeps everything invested – their original money and all their gains. The table below shows what happens to their overall returns over time.

| Year | Investor A (withdraws profit each year) | Investor B (reinvests profits) |
|---|---|---|
| **Start** | ₹ 100,000 | ₹ 100,000 |
| 1 | ₹ 107,000 | ₹ 107,000 |
| 2 | ₹ 114,490 | ₹ 114,490 |
| 3 | ₹ 121,980 | ₹ 122,504 |
| 4 | ₹ 129,470 | ₹ 131,080 |
| 5 | ₹ 136,960 | ₹ 140,255 |
| 10 | ₹ 174,410 | ₹ 196,715 |
| 20 | ₹ 249,310 | ₹ 386,968 |
| 30 | ₹ 324,210 | ₹ 761,226 |
| 50 | ₹ 474,010 | ₹ 2,945,703 |

In the early years, there was not much difference in how much the investors made. Yet over longer periods the power of compounding kicks in and the gains become larger and larger the longer the money is left alone.

**Wondering how to work out compound interest?**

Simply use the below formula to calculate your projected returns:

$$FV = PV \times (1+r)^{n}$$

where:

FV = Future Value

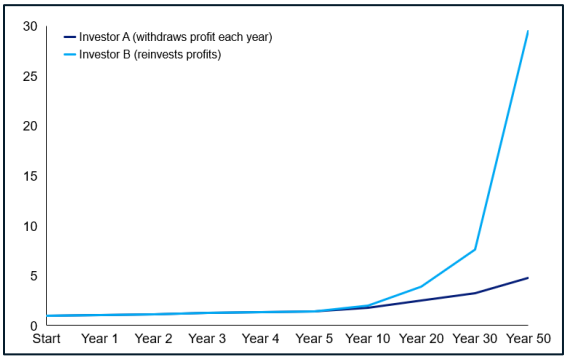
PV = Present Value

r = annual interest rate

n = number of periods

Compounding in Action - Chart

This so-called 'miracle of compounding' is just straightforward math, but its remarkable effect reputedly led Albert Einstein to refer to it as the 'eighth wonder of the world'. Here's how the growth in returns looks on a chart:




Compounding is also responsible for the success of many businesses that invest for growth, as well as the large sums accumulated by famous investors such as Warren Buffett.

Buffett figured out the power of compounding at an early age when he bought a pinball machine and cut a deal with a local barber to install it in his shop. It was an instant hit, but rather than resting on his laurels, he used his share of the money people spent on the first machine to buy another. He was then earning twice as much money and was able to buy a third and a fourth machine even quicker. Soon enough, he had dozens of pinball machines in barbers' shops all over town.

You don't need a business mind or a smart investment strategy to benefit from compounding, though. Investors harnessing returns in the form of capital gains and dividends benefit too. The essential ingredients are time and patience.

## Compound Interest Tips and Tricks

Start early. The longer the period you invest, the more powerful compounding becomes. Take two investors, both investing for retirement in 40 years' time. One starts investing ₹10,000 per month right away, the other does nothing for 20 years, but then invests ₹30,000 per month. The investments are chosen to grow by 5% per year after charges. At retirement, the first investor will have spent ₹48,00,000 on their monthly

contributions and the second investor ₹72,00,000. Yet despite having spent much less, the first investor's retirement pot would be worth ₹1.5 crores compared to the second investor's ₹1.2 crores.

Don't take too little risk. The greater the return, the greater the effect. Earning next to nothing on interest cash in the bank isn't going to make compounding work for you to a significant degree.

Avoid taking excessive risk and sustaining large losses. Making a profit consistently is easier said than done, but a really big loss can be hard, if not impossible, to recover from. This is why taking a sensible amount of risk through a diversified approach is so important. That won't mean losses are eliminated, but it should limit the downside and allow a slow and steady approach to keep working given enough time.

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