

The sooner the better

Issue 106: May 2024

Big numbers may baffle you. Consider the following figures such as a million, billion or a trillion. How big are these numbers really? For example: A thousand seconds are roughly 30 minutes, but a million seconds are about 12 days. However, a billion seconds are 31.7 years. Yes, someone who turns 95 has lived 3 billion seconds and slept a 1/3 of that! Now a trillion seconds are 31 688 years! These very large numbers may become ludicrous.

We casually mention these numbers, but few of us can really grasp its sheer size. Our body (different for each person) consists of approximately 36 trillion cells. That is 36 000 000 000 000 (36 with 12 zeros, or 3.6×10^{12}). Astronomers have used the modern [James Webb Space Telescope](#) to spot the most distant galaxy cluster ever found, located nearly 30 billion light years away. A light year is the distance travelled by light in one year. Now the speed of light is 299 792 458 metres per second which equates to 9.46 trillion kilometres per year!

Compounding numbers and doubling

Compounding happens when our investments grow – a return on the return (hopefully). It happens with cell division or when inflation runs rampant (just ask the people of Zimbabwe, Venezuela or Turkey). That is how goods and services get expensive over time. **However, compounding can be like magic when you allow your money to work for you over time.** No wonder Einstein said: *“Compound interest is the 8th wonder of the world. He who understands it, earns it, but he who doesn’t, pays for it.”*

Imagine you have some savings of a R100. You invest it with interest, or returns. [Compounding](#) means that not only do you earn interest on your initial R100, but you also earn interest on the interest you have already gained. So, let’s say you have a rate of 15% per annum. After the first year, you’ll have R115. But in the second year, you won’t just earn 15% on your original R100, you will earn 15% on R115, which is R17.25. So, after the second year, you’ll have R132.25 and so forth. Over time, this process repeats itself, and your money starts to grow faster and faster. The longer you leave your money to compound, the more impressive the growth becomes. Charlie Munger famously said: *“The first rule of compounding is to never interrupt it unnecessarily”.*

Now when numbers double, it gets interesting. A 1 becomes 2, or a R100 becomes R200 over time. Let’s take a chess board of 64 blocks (8x8). Start in a corner with a 1 and double the 1, which becomes 2 in the 2nd block. The 2 becomes 4 (the 3rd block), the 4 becomes 8 and so on... for only 64 blocks. The final number amounts to 1.8447×10^{19} ! Let’s make our numbers more practical and assume a reasonable return would be 3% above South African inflation. That equates to roughly 9% per annum. This means that we could double an investment roughly every 8 years (for those who might be curious, look up the [“rule of 72”](#)). Assume we start to work at age 25 and decide to leave employment at age 65, we would have worked 40 years and could potentially double an investment 5 times (40 Years/ 8). In other words, we have perhaps 5 “doubling opportunities” if we stick with a consistent investment strategy. That is going from R100 to R200, R400, R800, R1 600 and to R3 200. Also, keep in mind most of us start with zero and keep contributing to the original investment.

Some trillion-dollar companies and Microsoft

Today, Microsoft is one of the only five trillion US dollar companies. The others are *Apple*, *Alphabet* (the parent

company of Google), *Amazon*, *META* (the parent company of Facebook, Instagram etc.) and *Nvidia*. Basically, all of them are driving the information and technology revolution. Microsoft’s market capitalisation is currently 2.894 trillion dollars (the share price of about \$393 times the outstanding shares). To put this into perspective, the size of the entire South African economy is barely 15% in USD-terms of Microsoft.

We used Microsoft as an example since most of us have heard of Bill Gates and have used the software. [During 1986](#), Microsoft was regarded as the “the IPO of the year” by many analysts with an [Initial Public Offering](#) with the value of \$61 million on the stock exchange. That was 38 years ago. Hard to believe, but doubling in size approximately every 2.2 years.

Hindsight is obviously a perfect science! No one would have predicted the outcome, nor invested all their savings in a single company (also unknown at that time). The point is not the omission, but simply the power of compounding over long periods.

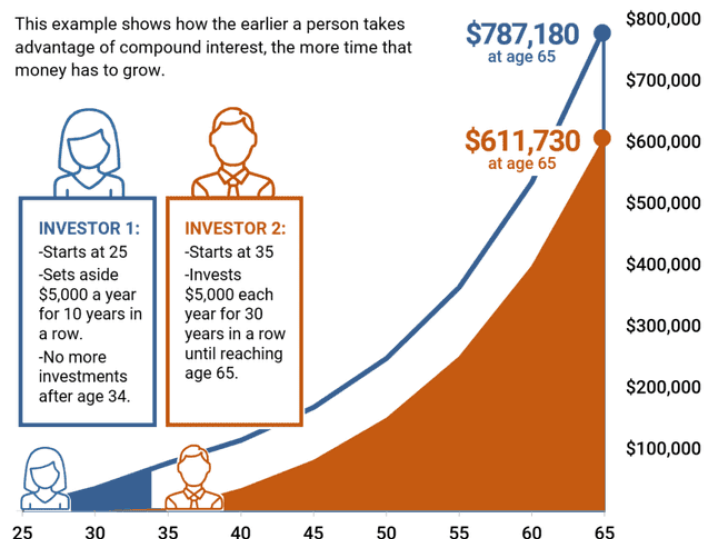
Lesser-known facts about Mr Buffett’s wealth

At 90 years old, Mr Warren Buffett had a net worth of more than \$81 billion. Now that is a lot of dough! The bulk of that, however, was accumulated [after his 65th birthday](#). That said, those who attach all of his success to investing acumen miss an important point. The real key to his success is that he’s been a **phenomenal investor for three quarters of a century (that is more than 75 years)**. If he started investing in his 30s and retired at age 60, few people would have ever heard of him. Warren Buffett began seriously investing when he was only 10 years old. By the time he was 30, he had a net worth of \$1 million, or \$9.3 million adjusted for inflation.

What is the key takeaway?

There are plenty of books on investments, economic cycles, trading strategies etc. and less on investor behaviour. However, the most powerful and important book should be called “Keep quiet and wait.” Start saving and investing as early as possible, and let compounding work its magic over time.

The longer someone waits, the less time money has to compound and the harder it gets to accumulate enough. Below is an instructive and valuable illustration.



NOTES: Assumes an 8 percent interest rate, compounded annually. Balances shown are approximate.