Investing Basics: Compound Interest

The original “Seven Wonders of the World” includes The Colossus of Rhodes, The Great Pyramid of Giza, The Hanging Gardens of Babylon, The Lighthouse of Alexandria, The Mausoleum at Halicarnassus, The Statue of Zeus at Olympia, and The Temple of Artemis at Ephesus. Albert Einstein famously said, “Compound interest is the eighth wonder of the world. He who understands it, earns it - he who doesn't, pays it.” This is a rather bold statement from one of the world’s greatest minds, so it is worth looking at compound interest and understand why it is important for long-term investors to take advantage of compound interest.

Compound interest is when return on your monies comes from both the principal amount invested and the previously earned growth. Put another way, interest accumulates on the principal amount as well as previously earned interest. The term “simple interest” is used when growth on your monies only accumulates on principal and NOT previously earned growth. The more frequently interest is compounded; the quicker your portfolio is grows.

With compound interest, if an original $10,000 investment earns 5% every year, it would earn $500 the first year ($10,000 x 5% = $500). The value of that investment is now worth $10,500 at the end of the first period, assuming growth is calculated annually. In the second year, that same investment earning the same 5% would actually earn $525 since the ending value at the end of the first year is $10,500 ($10,500 x 5% = $525). In this example, if compounding continues to occur at 5% for ten years, the value of that account is $16,288\*. If the same $10,000 investment only has earnings on the original principal (simple interest), the value of the account would only be worth $15,000 at the end of ten years.

The Rule of 72 is a mathematical formula to help determine how many years it would take for your monies to double in value at a given compounded growth rate. The formula is: 72 / Growth Rate. For example: At a 3% compound rate of growth, it would take 24 years for your monies to double in value (72 / 3 = 24). At an 8% compound growth rate, your monies compounds and doubles in value every 9 years (72 / 8 = 9). The Rule of 72 shows that the rate earned is very important for investors. The rule of 72 is a mathematical concept and does not guarantee investments results nor functions as a predictor of how an investment will perform. It is an approximation of the impact of a targeted rate of return. Investments are subject to fluctuating returns and there is no assurance that any investment will double in value.

Einstein pointed out that compound interest is a powerful tool that should not be ignored by investors.

*\*This is a hypothetical example and is not representative of any specific investment. The hypothetical rates of return used do not reflect the deduction of fees and charges inherent to investing.*

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