



## on my mind by Barr & Kantor



# Busting the compound returns myth

**T**here's a saying attributed to Albert Einstein: "Compound interest is the eighth wonder of the world. He who understands it, earns it ... he who doesn't ... pays it." And in Warren Buffett's view, "compound interest is an investor's best friend".

The seemingly magical status assigned to compound interest is, when scrutinised, something of a curiosity. It may even be highly misleading.

Any special qualities assigned to the concept of compound interest might persuade investors that investments that accrue interest or returns on a compound basis are necessarily a good thing, independent of the magnitude of that return. Which might not be the case. One percent per year interest, compounding continuously, growing exponentially, earning interest on interest will double your money after ... 72 years. Not exactly an exhilarating prospect.

The point is that exponential growth can be rapid or really slow, even negative, depending on the underlying rate of growth, or rate of return.

In the natural world, compounding growth is the norm. A pine tree might start as a sapling of 0.5m in height and grow to 1.2m over a year. Further growth in subsequent years is determined not only by that provided by the original sapling, but also from the new growth that occurs each year. This growth from the new and old growth of the sapling is the compounding effect, and the heights, when plotted on a graph, will give an exponential shape.

The weight of a child, measured from birth, will demonstrate the same growth-on-growth effect and the weight of the child will also follow an exponential rather than a constant (linear) slope. The growth of the tree, or the child, slows down after a few years and reaches a maximum at some point (after 25 years in a pine tree and at about 16 years in a child).

The growth of a business is similarly "organic" as, with ideal conditions, the business will grow at a compounded rate

as more capital is invested in the enterprise, resulting in a larger business (generally measured by turnover, profits or overall market value) which generates further growth and further value.

This growth on growth of a successful business is the compounding effect. However, it only makes sense to reinvest the cash generated by a business back into the business if the growth generated by any new projects is greater than the opportunity cost of the extra capital invested. In other words, when taking risk into account, the return on new projects should exceed the returns expected from similarly risky opportunities available in the marketplace. Again, at each step, the growth calculation will always be done on a compounded growth-on-growth basis.

### See the wood for the trees

Firms will often pay out dividends to shareholders from the profits and cash flow realised. Yet if the company is confidently capable of achieving returns that can exceed the cost of capital by reinvesting profit to fund a growing business, it is not clear that the firm should declare a dividend at all.

If the capital is kept by the firm and invested in appropriate projects that exceed the cost of capital, the shareholder can simply sell some shares to "take" the quantum of dividend of their choosing. But, again, it is the quantum of return on those future projects that is key, not whether the value-generation process is compounded, which will occur whether dividends are paid or not.

Paying dividends is simply analogous to chopping bits off a tree at each dividend-paying point in time; the tree will still grow at a compound rate whether you chop bits off it every year or six months. It will just

grow more slowly.

In short, Buffett didn't get rich because of the magic of compound interest. He got rich because of his extraordinary, unnatural ability to invest in particular businesses that proved to be very successful in the future, over the long run. Other potential investors did not predict that these businesses would be as successful as they turned out to be, which allowed Buffett the bargains he picked up.

If Buffett had invested in Venezuela or Argentina over the long term, he would have lost much of the money invested there. The central point is that it was his skill for identifying undervalued shares that made the difference, rather than any compounding effect.

So what does this all say about the magic of compound interest?

Any reinvestments into a business will always grow at the same rate as the original capital – this is the natural compounding effect.

But, notwithstanding this compound effect, if you are able to invest in a fast-growing, value-creating business, whose rate of growth in profits and market value consistently exceeds expectations, then hold on for a wonderful ride.

PS: You might do well investing in a growing forest of pine trees; depending, of course, on how much you paid for them in the first place. ✕

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Warren Buffett: Has a knack for identifying undervalued shares

Reuters/Anthony P Bolante