Spotlight

Harnessing the power of compounding

Albert Einstein referred to compounding as the eighth wonder of the world, and while many Canadians understand there are benefits to compounding their assets to reach their long-term financial goals, they may not appreciate quite how 'wonderful' it is. This spotlight will make it easier to understand the effects of compounding and how to harness it to help grow your assets.

Do you want to build a snowman?

To visualize the power of compounding think about how snowballs are made. They start off small, but as you roll them through the snow, the surface area gets bigger. The more surface area on the snowball, the more snow it picks up. While the snowball grows slowly at first, it then becomes larger more quickly and eventually you've got one big enough to build a snowman!

How does compounding work?

Compounding is the process by which an asset's value increases as the earnings (which can include capital gains, dividends and/or interest) increase over time. This increase is exponential over time because earnings grow on not only the principal but also on the total growth of the investment – as well as the growth on that growth, and the growth on that growth, and so on.

To understand how compound interest is different from simple interest, take for example an initial hypothetical investment of $1,000 earning 5% annually for 30 years. With simple interest, the $1,000 earns $50 each year, so the total earnings over 30 years would be $1,500. With compound interest, however, the $50 earned in the first year is added to the original investment in the second year. Thus the interest earned in the second year is $1,050 times 5%, or $52.50. This is then added to $1,050 for the third year, and so on. By the end of the 30th year total earnings are $3,322 – which is $1,822 more compared to the simple interest calculation. While it may seem like magic, it's simply mathematical law.

A bird in the hand is worth two in the bush

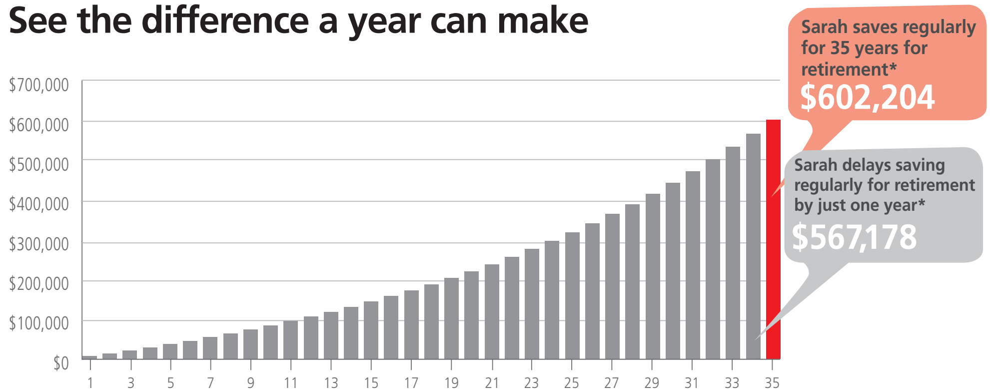
Compounding also lies at the heart of a core principle of finance – the time value of money. This principle states that money available today is worth more than the same amount in the future, because of the potential earnings capacity – thanks to compounding.

Time is on your side

When investors are asked "what is the one piece of advice you would give your younger self", a common reply is "I wish I knew to start saving earlier." In fact, a 2011 Scotiabank study found that if Canadians could begin investment planning again, almost 40% said they would begin investing at a much earlier age. Time is arguably the most important ingredient in the formula for successful investing.

Consider the example of an average investor – Sarah. Saving for retirement is Sarah's top priority. She is 30 years old and wants to retire at age 65. This gives her 35 years in which to save

See the difference a year can make



The examples are hypothetical and are for illustrative purposes only. Assumes $250 biweekly savings and a 5% annual compound rate of return. The rate of return is hypothetical and does not reflect actual results or the future returns or future value of a mutual fund or any other investment. Assumes reinvestment of all income and no transaction costs or taxes.

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Sitting on the sidelines can cost you

The impact of missing the best performing days from November 2006 to 2016 on a $10,000 investment

enough to last her another 25 years or more into retirement. Sarah's financial plan shows that she needs to save approximately $600,000 by the time she is ready to retire.

Assuming her investment earns 5% compounded annually, she can achieve this by starting today and setting aside $250 bi-weekly for the next 35 years. This means she will invest a total of $227,500. Compounding over time will do its work and Sarah will grow her investment by an additional $374,704, to reach a total of $602,204 by retirement.

If Sarah delays her savings plan by just one year, her total nest egg falls to $567,178. The cost of procrastination amounting to a drop of more than $35,000!

Instead, by sticking to the strategies of investing early and investing regularly through a Pre-Authorized Contribution Plan, Sarah can stay on track to reaching her retirement goals.

Stay invested, stay the course

With all the noise we tend to hear during volatile markets, it can be easy to lose sight of the big picture. But the impact of missing just the best 10, 20 or 30 days over a 10-year period can have a significant impact, as the illustration shows. By staying invested and letting time do its work, investors can stay on track to meeting their long-term goals.

Final thoughts

When it comes to investing, these principles can help you harness the power of compounding to accelerate the growth of your portfolio.

1. **Invest early**
2. **Invest regularly through a Pre-Authorized Contribution**
3. **Stay invested**

Meet with a Scotiabank Advisor today to start investing on a regular basis to help you build your savings easily and automatically. ■

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