Friends Provident International

Compounding – Truly a Miracle

An excerpt from 'Golden Rules of Wealth'
by Noel Whittaker AM CPA CFP FTIA

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International bestselling author, finance and investment expert, radio broadcaster, newspaper columnist and public speaker – Noel Whittaker is a money management visionary.

Noel reaches over seven million readers a week through his columns in major Australian newspapers such as the Sydney Morning Herald, Perth Sunday Times and Brisbane Sunday Mail. He is a regular contributor to magazines and also broadcasts on over 50 radio stations.

Noel has written 17 bestselling books that have sold over two million copies around the world. His 'Making Money Made Simple' set sales records across the country and was recently named in 'The 100 Most Influential Books of the 20th Century'.

'Time is money'

Benjamin Franklin

Let's talk about a concept that is at the very heart of your wealth-building program – compound interest. It happens when you let the earnings on an investment build up instead of spending them. It's often called the Miracle of Compound Interest because its long-term effects seem truly magical.

> **Example:**
> You have **$10,000 invested** in an account and you earn **$1000 interest** for the year. You can choose to withdraw that **$1000** and spend it, but if you do, you will still have only **$10,000 invested**. You are treading water.

Or, you could decide to leave the $1000 where it is, attached to the original $10,000. Then you will have $11,000 working for you. Because you have increased your income earning capital, you will have $1100 interest at the end of the second year (if the rate stays at 10%). Choose to leave that $1100 with your new principal of $11,000 and you will have $12,100 invested at the end of the second year. You have increased your original capital by 21% in two years just by letting the interest compound instead of spending it. Notice this required no effort on your part. All you had to do was choose to leave the interest alone.

The dramatic effect of compound interest can be shown if you imagine you have an investment such as a quality share trust that starts off at $100,000 but grows by 10% per annum. At this rate it will double in value every seven years. The figures, rounded off, would be:

Starting investment	$100,000
End year 7	$200,000
End year 14	$400,000
End year 21	$800,000
End year 28	$1,600,000
End year 35	$3,200,000
End year 42	$6,400,000

Take note of one vital factor. The growth for the last period is always greater than the **total** growth in **all** the previous periods.

Between years 35 and 42 the growth was $3,200,000 Between years 14 and 21 it was $400,000. In the first 14 years it was just $300,000.

See how slow it is to get going... but look how the growth gets faster and faster as time goes by. Now here's the cruncher. If you were on a 42-year program and your friends were on a 28-year program (because they wasted 14 years getting around to starting), you would have finished up with four times the amount they had.
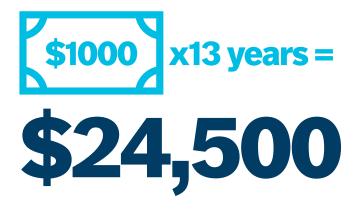
It's just not logical

Compound interest also gives results that don't look at all logical. Think about two young people who want to start investment programs. One starts at 18 years of age and faithfully invests just $1000 a year. At age 30 she stops this particular program so she can buy a house and start paying it off. She leaves the original investment to run along on its own with the earnings compounding.

The other investor dithers around until age 30 and then starts to invest too. However, to make up for lost time, he puts away $2000 a year till age 65. Who do you think would end up with the most money if they both averaged 10% per annum? Is it the woman who invested $1000 a year for 13 years and then let the balance compound for 35 years, or the man who invested $2000 a year for 35 years?

Amazing as it may seem, the woman would have $690,000 for a total investment of $13,000; the man would have $542,000 for a total investment of $70,000.

Can you see why it happens? Because after 13 years her $1000 a year has grown to $24,500 and the compound growth on that in the 14th-year alone is $2450 a year. That is almost 25% more than the man was contributing. Accordingly he can never catch her, only because she started first.

$1000 x13 years = $24,500

The Rule of 72

To really appreciate the power of compounding, learn to understand and use the Rule of 72. Have you ever tried to work out the effect of inflation on your savings? Use the Rule of 72. Do you wonder how long it will take for your home to double in value? Use the Rule of 72. Would you like to know an easy way to do compound interest calculations in your head? Yes, you've guessed it. Use the Rule of 72.

The best part is that you don't have to be a mathematician to use the Rule of 72. It's simple, but once you understand how to use it, you'll wonder how you got by without it. It goes like this...

Divide the number 72 by the expected rate of return, or by the expected rate of inflation. The answer is the number of years it will take for a given sum to double at the expected compound rate of return, or for your dollar to halve in value at your predicted rate of inflation. Here are some examples:

Your house is worth $100,000 today. You predict it will increase by 7% per annum. Divide 72 by 7% and the answer is close to 10. If your prediction is correct, your house will be worth around $200,000 in 10 years time.

You work out that your cost of living is $20,000 a year. You forecast inflation will be 5% per annum. Divide 72 by 5% and the answer is about 14. Therefore, you can expect your cost of living to double to $40,000 in 14 years.

You can also use the Rule of 72 as a simple compound interest calculator to check the validity of your forecasts. Let's suppose your home was worth $400,000 today and you guessed that it would appreciate at a steady rate of 6% per annum. Is that reasonable? Use the Rule of 72.

72 divided by 6% =
12

If your calculations are right the value will go like this:

Value today	**$400,000**
In 12 years	**$800,000**
In 24 years	**$1,600,000**
In 36 years	**$3,200,000**

Are the figures correct? Yes the figures are correct, but nobody knows if the house values will perform as you have just predicted. If that house is worth less than $1.6 million in 24 years time, the capital gain will have been less than 6% per annum.

Take the time to adopt the Rule of 72 as your friend. You'll find you'll be using it all the time once you get into the habit.

It might even enable you to win a few bets!

The views in this article are not necessarily shared by Friends Provident International.