Understanding Compound Returns and the Impact of Tax and Time:

APPLYING THE RULE OF 72 - IF YOU CAN DO THIS YOU ARE SMARTER THAN MOST NEW ZEALANDERS

Have you ever wondered if there is an easy way to calculate how long it takes to double your savings? There is a way, just divide the number 72 by the interest or growth rate.

Example:

The rule of 72 provides a very good estimate of how compound returns (interest on interest) works.

It is less accurate once the interest or growth rate exceeds 20%, but if you are promised a 20% interest rate or growth rate it is probably a scam.

A simple illustration of how tax and time can eat into your potential savings

Suppose your Grandmother gives you a $1000 investment bond earning 6% a year tax free as a 17th birthday present for you to cash in when you are 65. How much will you have at 65 (using the rule of 72)?

72 ÷ 6% = 12 years

So your money doubles every 12 years at 6% interest tax free:

$1000 becomes $2000 in 12 years
$2000 becomes $4000 in 24 years
$4000 becomes $8000 in 36 years
$8000 becomes $16000 in 48 years

After 48 years your $1000 would have grown to $16,000 by the time you get to 65, assuming you kept reinvesting all the interest each year and paid no tax on the interest earnings. So $1000 of savings has produced a $16,000 nest egg at retirement.

Now……

Imagine instead of it being tax free you were taxed at 50 cents in the dollar on any interest you earned. That is a 50% tax rate. That means that rather than 6% interest each year you are earning just 3% interest after tax.

72 ÷ 3% = 24 years

So your money only doubles every 24 years at 3%

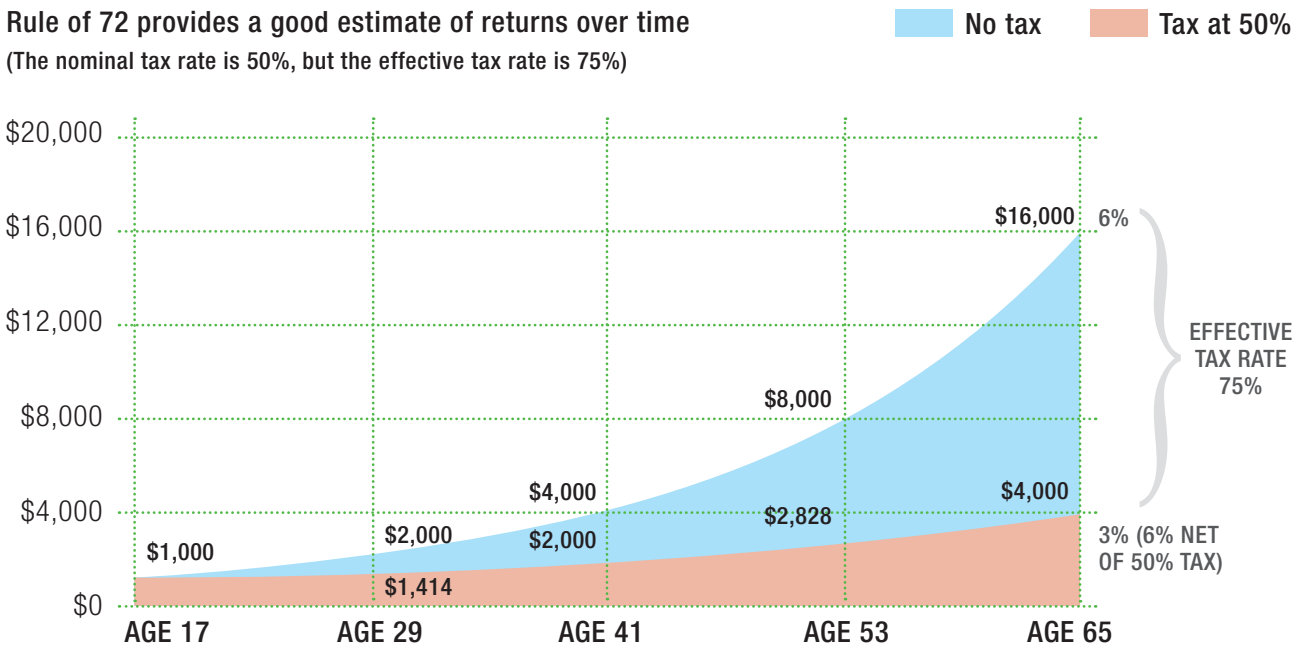
$1000 becomes $2000 in 24 years
$2000 becomes $4000 in 48 years

After 48 years your $1000 would have grown to only $4,000 when you get to 65 because of the impact of tax.

Ouch....

You can see the impact of the 50% tax rate on that initial $1000 investment, but what you can't see is that the effective tax rate is actually 75% over 48 years

Rule of 72 provides a good estimate of returns over time
(The nominal tax rate is 50%, but the effective tax rate is 75%)



Moving from 6% with no tax to 3% after tax does not halve your retirement nest egg it cuts it by three quarters. That's the difference between the marginal tax rate and the effective tax rate, when you earn compound returns over time .