The Rule of 72 is a handy way to determine how long an investment will take to double at a fixed annual rate of interest. Dividing 72 by the rate of return gives investors a rough estimate of how many years it will take for an initial investment to double.

The formula is as follows:

$72 \div x = y$

where x = interest rate and y = years

If we plug in 6% as the interest rate, then $72 \div 6 = 12$. In other words, at a 6% compound average annual return, money doubles in a dozen years.

The Rule of 72 can also be used in reverse to calculate the rate of return needed to double one's money over a specified period of time.

$72 \div 12 \text{ Years} = 6\%$

While the Rule of 72 is not an exact measurement, the value is a convenient choice because it has many divisors (2, 3, 4, 6, 8, 9, 12, 18, 36) that result in whole numbers. In addition, these single-digit numbers are commonly used interest rates or yields for many investments.

The Rule of 72 can be expanded to the Rule of 114 or 144 to estimate the time it would take to *triple* or *quadruple* one's money. For example, at a 6% annual rate of return, money doubles in approximately 12 years, triples in 19 years, and quadruples in 24 years.

Importantly, the Rule of 72 does not include the effect of taxes. As a result, this rule works well for tax-deferred investments. At 6% per year, a 46-year old could quadruple his/her retirement fund (401k or IRA) by the age of 70 without adding any new money. To illustrate, $50,000 grows to $200,000, $100,000 turns into $400,000, and $250,000 becomes $1,000,000 in the above case.

The Rule of 72 can be applied in many other real-world situations. If college tuition increases at an average rate of 4%, then the cost will double in 18 years; that is, a private university that currently charges $50,000 per year may cost $100,000 annually by the time a baby born today heads off to college. For parents, grandparents, and great grandparents wishing to fund a newborn's education, we recommend getting started now.

At an 18% interest rate, credit card debt will double in four years if the principal is not paid down along the way. Words of advice: Pay off any debt that is at a higher rate than the return on your investments. A 3% or 4% or 5% mortgage is reasonable but any debt at a rate in the double digits or even high-single digits is not.

Lastly, if applied to inflation, one can also use the Rule of 72 to determine how long it takes for money to be halved. At a 3% inflation rate, the value of money is halved in 24 years.

The Rule of 72 is both magical and practical. We hope you find this tool helpful.

The Rule of 72 — Years to Double Money

Source: Lederer & Associates