

<https://www.investopedia.com/terms/m/multiplier.asp#:~:text=In%20terms%20of%20gross%20domestic,spending%20and%20total%20national%20income.>

# Multiplier: What It Means in Finance and Economics

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## What Is a Multiplier?

In economics, a multiplier broadly refers to an economic factor that, when increased or changed, causes increases or changes in many other related economic variables. In terms of [gross domestic product](#), the [multiplier effect](#) causes gains in total output to be greater than the change in spending that caused it.

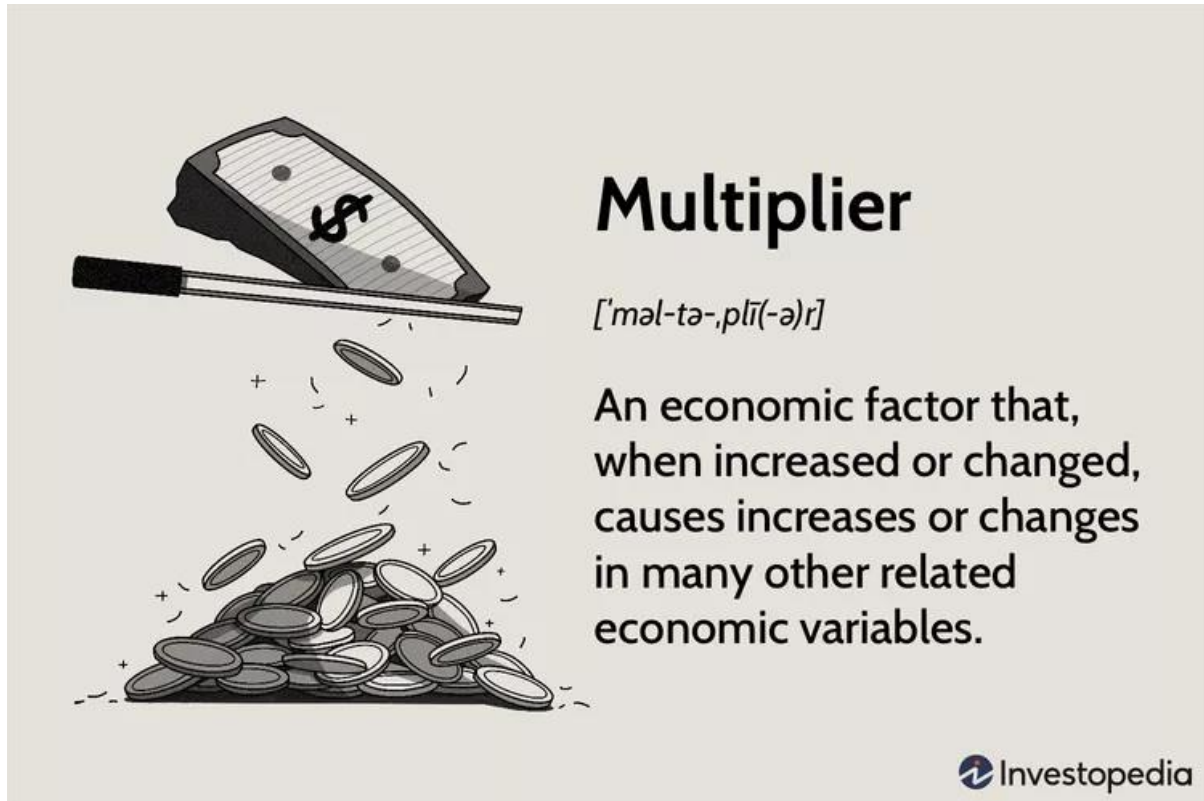
The term multiplier is usually used in reference to the relationship between government spending and total national income. Multipliers are also used in explaining fractional reserve banking, known as the [deposit multiplier](#).

### KEY TAKEAWAYS

- A multiplier refers to an economic factor that, when applied, amplifies the effect of some other outcome.
- A multiplier value of 2x would therefore have the result of doubling some effect; 3x would triple it.

- Many examples of multipliers exist, such as the use of margin in trading or the money multiplier in fractional reserve banking.

## What's a Multiplier?



## Explaining Multipliers

A multiplier is simply a factor that amplifies or increase the base value of something else. A multiplier of 2x, for instance, would double the base figure. A multiplier of 0.5x, on the other hand, would actually reduce the base figure by half. Many different multipliers exist in finance and economics.

### The Fiscal Multiplier

The [fiscal multiplier](#) is the ratio of a country's additional national income to the initial boost in spending or reduction in taxes that led to that extra income. For example, say that a national government enacts a \$1 billion fiscal stimulus and that its consumers' marginal propensity to consume (MPC) is 0.75. Consumers who receive the initial \$1 billion will save \$250 million and spend \$750 million, effectively initiating another, smaller round of

stimulus. The recipients of that \$750 million will spend \$562.5 million, and so on.

### The Investment Multiplier

An [investment multiplier](#) similarly refers to the concept that any increase in public or private investment has a more than proportionate positive impact on aggregate income and the general economy. The multiplier attempts to quantify the additional effects of a policy beyond those immediately measurable. The larger an investment's multiplier, the more efficient it is at creating and distributing wealth throughout an economy.

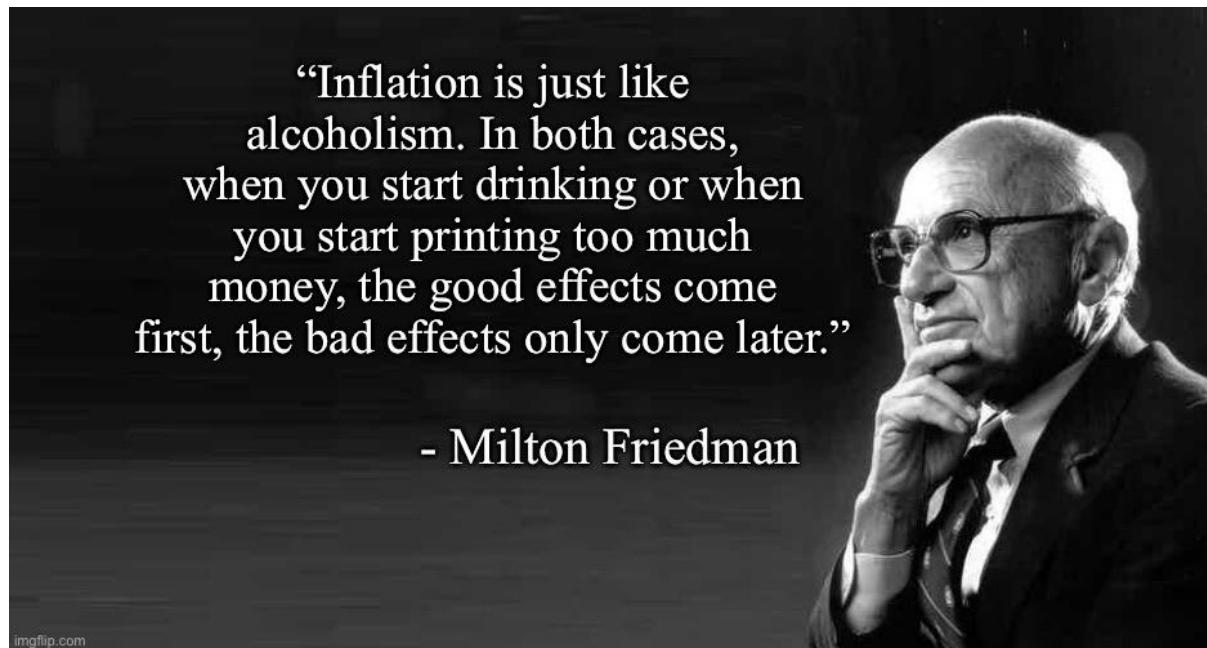
### The Earnings Multiplier

The [earnings multiplier](#) frames a company's current stock price in terms of the company's [earnings per share](#) (EPS) of stock. It presents the stock's market value as a function of the company's earnings and is computed as price per share/earnings per share (commonly called the earnings multiple).

### The Equity Multiplier

The [equity multiplier](#) is a commonly used financial ratio calculated by dividing a company's total asset value by total net equity. It is a measure of financial leverage. Companies finance their operations with equity or debt, so a higher equity multiplier indicates that a larger portion of asset financing is attributed to debt. The equity multiplier is thus a variation of the debt ratio, in which the definition of debt financing includes all liabilities.

## Milton Friedman on Inflation



## The Keynesian Multiplier Theory

One popular multiplier theory and its equations were created by British economist [John Maynard Keynes](#). Keynes believed that any injection of government spending created a proportional increase in overall income for the population, since the extra spending would carry through the economy. In his 1936 book, "The General Theory of Employment, Interest, and Money," Keynes wrote the following equation to describe the relationship between income (Y), consumption (C) and investment (I):

$Y=C+I$  where: Y=income C=consumption I=investment

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The equation states that for any level of income, people spend a fraction and save/invest the remainder. He further defined the marginal propensity to save and the marginal propensity to consume (MPC), using these theories to determine the amount of a given income that is invested. Keynes also showed that any amount used for investment would be consumed or reinvested many times over by different members of society.

## The Fractional Reserve Money Multiplier

Assume a saver invests \$100,000 in a savings account at his or her bank. Because the bank is only required to maintain a portion of that money on hand to cover deposits, it can loan out the remainder of the deposit to another party. Assume the bank loans out \$75,000 of the initial deposit to a small construction company, which uses it to build a warehouse. Over time, if the bank continues to lend up to its required reserve ratio  $R=25\%$ , the amount of additional demand deposits or "money" created by the initial deposit will be  $1/R$  or  $1/.25 = 4$  times, which is typically called the Money Multiplier.

The funds spent by the construction company go to pay electricians, plumbers, roofers, and various other parties to build it. These parties then go on to spend the funds they receive according to their own interests. The \$100,000 has earned a return for the investor, the bank, the construction company, and the contractors that built the warehouse. Since Keynes' theory showed that investment was multiplied, increasing incomes for many parties, Keynes coined the term "multiplier" to describe the effect.

The deposit multiplier is frequently confused or thought to be synonymous with the money multiplier. However, although the two terms are closely related, they are not interchangeable. If banks loaned out all available capital beyond their required reserves, and if borrowers spent every dollar borrowed from banks, then the deposit multiplier and the money multiplier would be essentially the same.

In actual practice, the money multiplier, which designates the actual multiplied change in a nation's money supply created by loan capital beyond bank's reserves, is always less than the deposit multiplier, which can be seen as the maximum potential money creation through the multiplied effect of bank lending.