

Velocity of Money Definition

By

What Is the Velocity of Money?

The velocity of money is a measurement of the rate at which money is exchanged in an economy. It is the number of times that money moves from one entity to another. It also refers to how much a unit of currency is used in a given period of time. Simply put, it's the rate at which consumers and businesses in an economy collectively spend money.

The velocity of money is usually measured as a ratio of [gross domestic product](#) (GDP) to a country's M1 or M2 [money supply](#).

Velocity of Money

Understanding the Velocity of Money

The velocity of money is important for measuring the rate at which money in circulation is being used for purchasing goods and services. It is used to help economists and investors gauge the health and vitality of an economy. High money velocity is usually associated with a healthy, expanding economy. Low money velocity is usually associated with recessions and contractions.

Velocity of money is a metric calculated by economists. It shows the rate at which money is being transacted for goods and services in an economy. While it is not necessarily a key economic indicator, it can be followed alongside other key indicators that help determine economic health like GDP, unemployment, and inflation. [GDP and the money supply](#) are the two components of the velocity of money formula.

[Economies](#) that exhibit a higher velocity of money relative to others tend to be more developed. The velocity of money is also known to fluctuate with business cycles. When an economy is in an expansion, consumers and businesses tend to more readily spend money causing the velocity of money to increase. When an economy is contracting, consumers and businesses are usually more reluctant to spend and the velocity of money is lower.

Since the velocity of money is typically correlated with business cycles, it can also be correlated with key indicators. Therefore, the velocity of money will usually rise with [GDP and inflation](#). Alternatively, it is usually expected to fall when key economic indicators like GDP and inflation are falling in a contracting economy.

Key Takeaways

- Velocity of money is a measurement of the rate at which money is exchanged in an economy.
- The velocity of money equation divides GDP by money supply.
- The velocity of money formula shows the rate at which one unit of money supply currency is being transacted for goods and services in an economy.
- The velocity of money is typically higher in expanding economies and lower in contracting

economies.

Example of Velocity of Money

Consider an economy consisting of two individuals, A and B, who each have \$100 of money in cash. Individual A buys a car from individual B for \$100. Now B has \$200 in cash money. Then B purchases a home from A for \$100 and B enlists A's help in adding new construction to their home and for their efforts, B pays another A \$100. Individual A now has \$200 in cash. Individual B then sells a car to A for \$100 and both A and B end up with \$100 in cash. Thus, both parties in the economy have made transactions worth \$400, even though they only possessed \$100 each.

In this economy, the velocity of money would be two (2) resulting from the \$400 in transactions divided by the \$200 in money supply. This multiplication in the value of goods and services exchanged is made possible through the velocity of money in an economy.

The Velocity of Money Formula

While the above provides a simplified example of the velocity of money, the velocity of money is used on a much larger scale as a measure of transactional activity for an entire country's population. In general, this measure can be thought of as the turnover of the money supply for an entire economy.

For this application, economists typically use GDP and either [M1](#) or [M2](#) for the money supply. Therefore, the velocity of money equation is written as GDP divided by money supply.

Velocity of Money = GDP ÷ Money Supply

GDP is usually used as the numerator in the velocity of money formula though gross national product (GNP) may also be used as well. GDP represents the total amount of goods and services in an economy that are available for purchase. In the denominator, economists will typically identify money velocity for both M1 and M2.

M1 is defined by the Federal Reserve as the sum of all currency held by the public and [transaction deposits](#) at depository institutions. M2 is a broader measure of money supply, adding in savings deposits, time deposits, and real money market mutual funds. As well, the St. Louis Federal Reserve tracks the [quarterly velocity of money](#) using both M1 and M2.

Velocity of Money and the Economy

There are differing views among economists as to whether the velocity of money is a useful indicator of the health of an economy or, more specifically, inflationary pressures. The "monetarists" who subscribe to the [quantity theory of money](#) argue that money velocity should be stable absent changing expectations, but a change in money supply can alter expectations and therefore money velocity and inflation.

For example, an increase in the money supply should theoretically lead to a commensurate increase in prices because there is more money chasing the same level of goods and services in the economy. The opposite should happen with a decrease in money supply. Critics, on the other hand, argue that in the [short term](#), the velocity of money is highly variable, and prices are resistant to change, resulting in a weak and indirect link between money supply and inflation.

Empirically, data suggests that the velocity of money is indeed variable. Moreover, the relationship between money velocity and inflation is also variable. For example, from 1959 through the end of 2007, the velocity of M2 money stock averaged approximately 1.9x with a maximum of 2.198x in 1997 and a minimum of 1.653x in 1964.

Source: Federal Reserve Bank of St. Louis.

Since 2007, the velocity of money has fallen dramatically as the Federal Reserve greatly expanded its balance sheet in an effort to combat the [global financial crisis](#) and deflationary pressures.

Money velocity appeared to have bottomed out at 1.435 in the second quarter of 2017 and was gradually rising until the global recession triggered by the COVID-19 pandemic spurred massive U.S. Federal economic stimulus. At the end of the second quarter 2020, the M2V was 1.104, the lowest reading of M2 money velocity in history.

Velocity of Money: My Favorite Financial Term