

Investment Analysis & Investment Tracker - A Statistical Prespective

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“Money that doesn’t grow at least at the pace of inflation is silently losing its worth. Beating inflation is not luck—it is a skill. Sustaining it through time is the art of investing, and compounding is the power that turns patience into wealth.”

Inflation

what is inflation?

Inflation is a macroeconomic phenomenon that represents the persistent and general increase in the price level of goods and services in an economy over time. It reduces the purchasing power of money, meaning that consumers need to spend more money to purchase the same quantity of goods and services compared to an earlier period.

Inflation is commonly measured by using the Consumer Price Index (CPI).

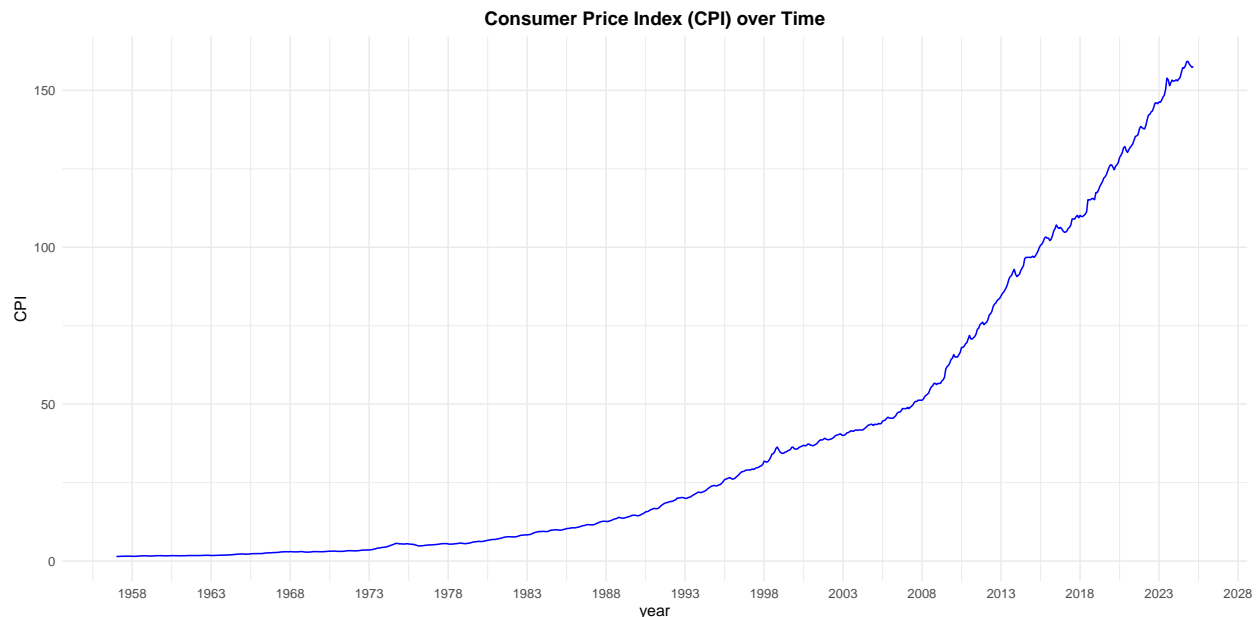
CPI

The Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them.

The CPI is used to measure inflation by tracking changes in the price level of a market basket of consumer goods and services over time. When the CPI rises, it indicates that the average price level of goods and services has increased, which is a sign of inflation. Conversely, when the CPI falls, it indicates deflation.

CPI values are often reported on a monthly basis, and the percentage change in CPI from one period to another is used to calculate the inflation rate.

CPI Over Time



Inflation Rate Calculation

The inflation rate is calculated using the formula:

$$\text{Inflation Rate (\%)} = \frac{\text{CPI}_t - \text{CPI}_{t-1}}{\text{CPI}_{t-1}} \times 100$$

Where:

- **CPI_t** is the Consumer Price Index at the current time period.
- **CPI_{t-1}** is the Consumer Price Index at the previous time period.

Month on Month (MoM) Inflation Rate Calculation:

$$\text{MoM Inflation (\%)} = \frac{\text{CPI}_t - \text{CPI}_{t-1}}{\text{CPI}_{t-1}} \times 100$$

Year on Year (YoY) Inflation Rate Calculation:

$$\text{YoY Inflation (\%)} = \frac{\text{CPI}_t - \text{CPI}_{t-12}}{\text{CPI}_{t-12}} \times 100$$

Monthly and yearly Inflation Rate

Inflation growth rate													Inflation growth rate												
	Month													yearly growth value											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Yearly											
1957	0%	0%	0%	2%	0.7%	1.9%	0%	0.9%	0.7%	-0.7%	0.7%	-0.7%	1957	0%											
1958	-1.5%	-1%	0%	1%	1.9%	2.6%	2.5%	0.9%	0.9%	1.5%	-0.6%	-2.6%	1958	3.7%											
1959	-1.6%	0.9%	-0.9%	0%	1.6%	1.8%	2.4%	0.9%	-0.8%	1.7%	0%	-1.7%	1959	5.5%											
1960	-1.5%	0%	-0.9%	0.9%	0.7%	0.9%	1.7%	0%	-0.8%	0%	-0.8%	0%	1960	4.3%											
1961	-0.9%	0%	0.9%	0%	0%	0.9%	1.7%	0.6%	0%	0%	0%	0%	1961	0.7%											
1962	-0.6%	0%	0%	0.6%	0.8%	0.8%	1.4%	0.8%	0%	0.8%	-0.8%	-1.4%	1962	3.4%											
1963	-0.8%	-0.8%	0.8%	0.8%	0.6%	1.6%	0.8%	0.8%	0.6%	0.8%	0%	1.5%	1963	2.3%											
1964	0%	1.3%	0.7%	0.7%	2%	2%	2.8%	1.2%	1.9%	2.7%	0%	0.5%	1964	7.7%											
1965	0.6%	-1.8%	-2%	0.7%	0.7%	1.3%	2.9%	1.3%	1.2%	0%	0.5%	0%	1965	17.8%											
1966	0%	0.6%	0%	0.6%	3.3%	2.3%	1.6%	1%	0.6%	0.6%	1.1%	1.5%	1966	4.8%											
1967	0%	0.5%	0.9%	1.1%	2%	2.4%	0.9%	1%	-0.5%	1.4%	-0.4%	-1%	1967	13.9%											
1968	2.8%	-1.4%	-1.8%	0.5%	-0.9%	0.9%	-0.5%	2.2%	0.6%	0.5%	-2.2%	-2.8%	1968	11.7%											
1969	-0.6%	-0.5%	0.5%	0.6%	1.1%	2.9%	0.6%	0%	0%	-0.6%	-0.5%	0%	1969	-5.5%											
1970	0%	0%	1.1%	1.1%	1.1%	1.2%	0.5%	0.6%	0.5%	0.6%	0%	-1.6%	1970	4.2%											
1971	-1%	0%	0%	0%	0%	1.6%	1.6%	2.1%	1%	0%	0.6%	-1%	1971	3.9%											
1972	-0.6%	-0.6%	0.6%	0.6%	0.4%	2.5%	2%	1%	0.5%	0.4%	0.5%	0%	1972	5.4%											
1973	0%	1.4%	1.4%	2.3%	3.1%	2.2%	4.3%	1.7%	0.4%	2.4%	2%	0.4%	1973	8.3%											
1974	1.5%	1.1%	3%	2.9%	3.9%	2.4%	3.4%	3.2%	4%	0.3%	-1.2%	-1.5%	1974	25.7%											
1975	0%	-0.3%	-1.2%	0.6%	1.2%	0.3%	-1.2%	-0.9%	-0.6%	-0.9%	-0.3%	-2.9%	1975	23.5%											
1976	-2.5%	-2.7%	-1.4%	1.1%	0.4%	0.3%	2.1%	0.4%	1.3%	0.6%	0.6%	0%	1976	-8.6%											
1977	0.4%	1%	0.6%	0.3%	1.6%	0.6%	1.6%	0.6%	1.3%	-0.3%	0%	0%	1977	3%											
1978	-1.5%	-1.5%	0.3%	0.3%	0.3%	1.2%	0.9%	0.3%	1.5%	1.2%	0%	-1.5%	1978	5.9%											
1979	-0.8%	-0.9%	0.9%	1.5%	0.6%	1.8%	2.3%	2%	0.8%	0.5%	0.8%	1.6%	1979	2.2%											
1980	-0.8%	-0.6%	1.1%	0.5%	1.9%	1%	2.1%	0.8%	1.3%	1%	1.2%	-0.7%	1980	11.7%											
1981	0%	1.7%	0.5%	1.6%	1.4%	1.4%	1.8%	1.5%	0.4%	0.9%	0.4%	-0.4%	1981	10.7%											
1982	-0.2%	-0.2%	-0.2%	0.4%	0.7%	1.7%	1.7%	2.1%	0.2%	0.4%	1%	0.2%	1982	11.7%											
1983	-0.4%	1%	0.4%	1.2%	2.6%	2.3%	1.5%	1.5%	0.9%	0.7%	0.5%	-0.3%	1983	7.8%											
1984	0.7%	-0.4%	-0.5%	0.2%	0.5%	2.1%	1.9%	0.2%	0.5%	0.5%	0.5%	-1.2%	1984	13.8%											
1985	0%	-0.5%	0.2%	1.4%	1%	1%	1.5%	0.5%	0.1%	1%	0.8%	0%	1985	4.4%											
1986	-0.2%	0.7%	0.8%	0.8%	1.2%	1.1%	1.5%	0.6%	0.6%	1.3%	1%	-0.6%	1986	6%											
1987	0%	-0.3%	0%	0.7%	1.7%	1.7%	1.2%	1.7%	1.2%	0.7%	0.7%	-0.4%	1987	9.4%											
1988	0.1%	-0.5%	0.5%	1.3%	1%	1.4%	1.7%	0.6%	0.8%	2.1%	0.6%	-1.2%	1988	9.4%											
1989	-0.6%	0%	0.6%	0.6%	1.2%	0.6%	1.2%	1.2%	1.1%	0%	0%	-0.6%	1989	8%											
1990	-0.6%	0.6%	1.1%	1.7%	1.1%	1.6%	2.2%	0.5%	0.5%	2.1%	1.5%	0.5%	1990	5.5%											
1991	1.5%	0%	-0.5%	0.5%	1%	2.5%	2.4%	1.4%	1.8%	0.9%	0.9%	0%	1991	16.1%											
1992	1.3%	0.4%	0%	0.9%	1.3%	0.9%	2.5%	0%	0.4%	0.4%	0%	-0.4%	1992	12.9%											
1993	-0.8%	0%	0.8%	0.8%	0.4%	1.6%	1.2%	1.2%	1.2%	1.1%	-0.4%	-0.4%	1993	5.7%											
1994	-0.4%	0.8%	0.8%	0.7%	1.1%	1.8%	1.4%	1.1%	1.4%	0.3%	0.7%	-0.7%	1994	9.1%											
1995	0%	0.7%	0.7%	0.7%	1.7%	2%	2.3%	0.6%	0.6%	0.6%	0.6%	-1.2%	1995	9.9%											
1996	-0.6%	0.3%	0.9%	1.6%	1.2%	1.5%	1.8%	1.2%	0.3%	0.6%	0.9%	0.3%	1996	9%											
1997	0%	0%	0.3%	0.9%	-0.6%	0.9%	0.8%	0.3%	0.6%	1.1%	0.3%	1.6%	1997	11.1%											
1998	3.2%	-0.5%	-0.5%	0.8%	1.6%	2.6%	3%	0.5%	1.7%	3.1%	1.2%	-2.1%	1998	9.7%											
1999	-2.1%	-1.2%	-0.2%	0.2%	1%	0.2%	1%	0.5%	0.7%	1.9%	0.2%	-1.6%	1999	9.4%											
2000	0%	-0.2%	0.9%	0.9%	0.5%	0.5%	0.7%	-0.4%	0.2%	1.1%	0.2%	-0.9%	2000	8.6%											
2001	-0.2%	-0.4%	0.5%	0.7%	0.7%	1.3%	1.3%	0.6%	-0.2%	0.6%	0.9%	-0.6%	2001	3.2%											
2002	-0.4%	-0.2%	0.4%	0.2%	0.6%	0.8%	1.1%	0.6%	0.2%	0.4%	0.4%	-1%	2002	4.9%											
2003	-0.2%	0.2%	0.6%	1.2%	0.2%	0.6%	0.8%	-0.4%	0%	0.8%	0.2%	-0.4%	2003	3.4%											
2004	0.4%	0%	0%	0%	0.8%	0.8%	1%	1%	0.2%	0.6%	-0.2%	-0.8%	2004	4.3%											
2005	1%	-0.2%	0%	0.8%	-0.4%	0.4%	1.7%	0.4%	0.4%	1.1%	0.9%	-0.5%	2005	4.4%											
2006	-0.2%	0%	0%	0.8%	0.8%	1.7%	0.8%	0%	0.8%	1.6%	0%	0%	2006	4.4%											
2007	0%	0.8%	-0.8%	0.8%	0.8%	0.8%	1.5%	0.8%	0%	0.8%	0%	0%	2007	6.7%											
2008	0%	0.7%	1.5%	0.7%	0.7%	0.7%	2.1%	1.4%	0.7%	1.4%	0%	-0.7%	2008	5.5%											
2009	0.7%	0%	0%	1.4%	0.7%	1.3%	3.6%	1.3%	0.6%	1.2%	1.8%	0.6%	2009	10.4%											
2010	1.8%	-1.2%	0%	0%	1.2%	1.2%	2.3%	0%	0.6%	1.1%	0.6%	1.6%	2010	16.2%											
2011	1.6%	-1.6%	0%	0.5%	0.5%	1.1%	2.1%	0.5%	1.5%	0.5%	0.5%	-1%	2011	9.3%											
2012	0.5%	0.5%	1%	2%	0.5%	1%	1.9%	0.9%	0.5%	0.9%	0.5%	0.5%	2012	5.3%											
2013	0.9%	0.9%	0.4%	0.9%	0.9%	1.3%	1.7%	0.9%	0.4%	1.3%	0.8%	-1.6%	2013	11.6%											
2014	-0.8%	0.4%	0.4%	1.3%	0.8%	0.8%	2.4%	0.4%	0%	0%	0%	0%	2014	7.2%											
2015	0.4%	-0.4%	0.4%	0.8%	0.8%	1.2%	0.8%	0.4%	0.8%	1.1%	0.4%	-0.4%	2015	7.2%											
2016	0%	-0.7%	0.4%	1.1%	1.5%	0.7%	1.1%	-0.7%	-0.4%	0.4%	-0.4%	-0.7%	2016	5.9%											
2017	-0.4%	0%	0.4%	0.7%	0.4%	0.7%	1.8%	0%	0%	0.7%	0.3%	-0.7%	2017	1.9%											
2018	0.7%	-0.3%	0%	0.3%	0.3%	0.7%	3.4%	0%	0%	0.3%	0%	-0.3%	2018	5.1%											
2019	2%	0%	0.7%	1%	0.6%	0.6%	0.9%	0.3%	0.6%	0.9%	0.9%	0.6%	2019	6.6%											
2020	0%	-0.6%	-0.6%	0.9%	0.3%	0.6%	1.2%	0.6%	0.6%	1.2%	0.3%	-0.9%	2020	7.5%											
2021	-0.5%	0.7%	0.5%	0.4%	0.4%	0.9%	0.9%	0.2%	0.2%	1.3%	0.6%	-0.2%	2021	3.2%											
2022	-0.2%	-0.1%	0.8%	1.3%	1%	0.2%	0.5%	0.2%	0.8%	0.9%	0%	-0.2%	2022	5.8%											
2023	0.4%	-0.1%	0.5%	0.7%	0.4%	1.3%	2.4%	-0.4%	-1.2%	0.7%	0.5%	-0.2%	2023	6.2%											
2024	0.1%	0.2%	-0.2%	0.4%	0.4%	1.1%	0.9%	-0.1%	0.5%	0.8%	0%	-0.6%	2024	4.6%											
2025	-0.3%	-0.3%	0.1%										2025	3.1%											