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Measuring expected inflation with breakevens



Posted on December 2, 2021



CPI +3.2 % Chg. from Yr.
Ago on Feb 2024

Civ. Unemploy. Rate 3.9 % on Feb 2024

10-Yr. Treas. Rate 4.22 % on 2024-03-22

Real GDP +3.2 %, Comp.
Annual Rate of Chg.
on Q4 2023

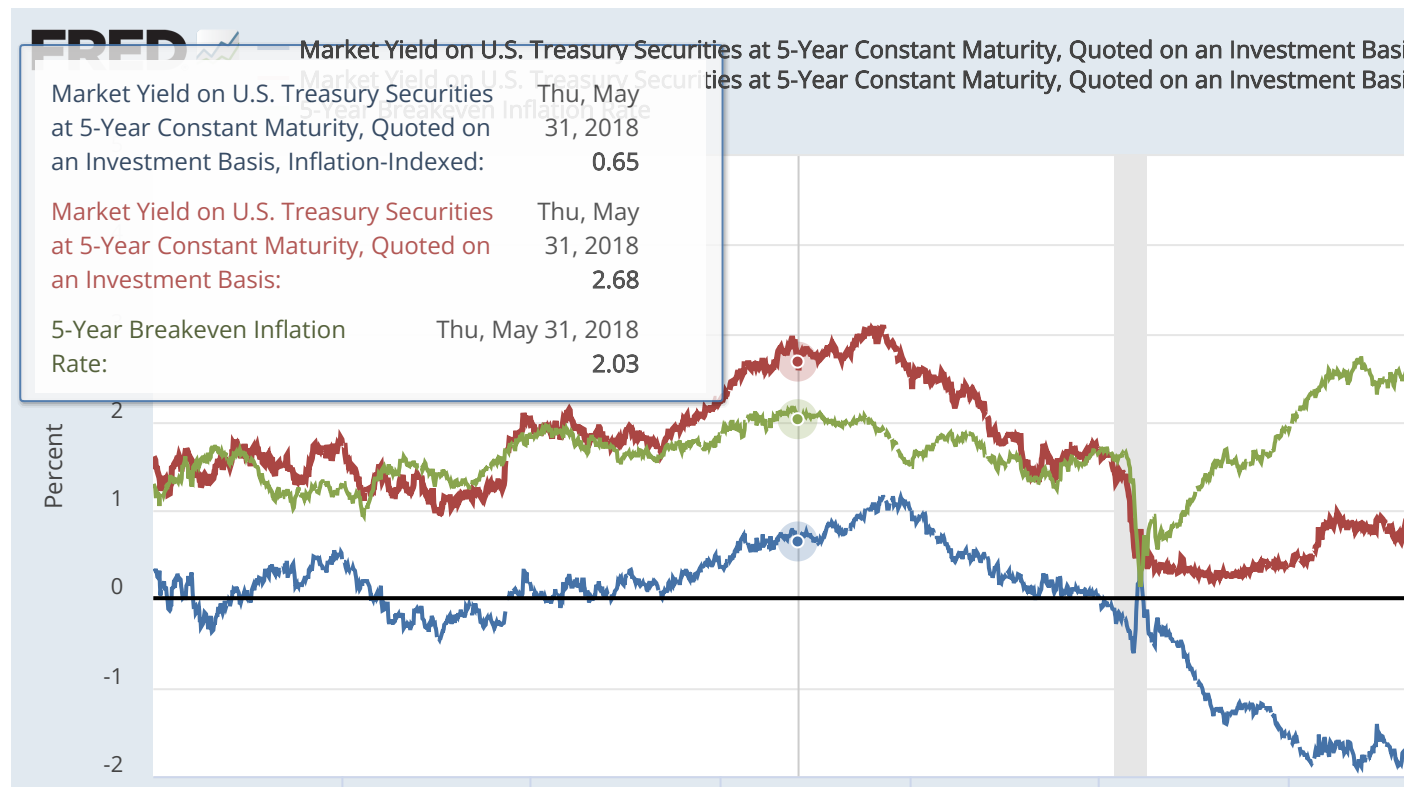
IP +0.1 % Chg.
on Feb 2024

Payroll Employment +275 Chg., Thous. of
Persons on Feb 2024

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A U.S. Treasury security typically promises to repay an investor a flow of coupon payments and then principal repayment once the security matures. These payments are made in U.S. dollars. A security that promises to deliver future dollars is called a nominal security. Most U.S. Treasury securities are nominal securities.

Nominal securities do not offer investors protection against unexpected inflation. The purchasing power of future dollars declines as the cost of living increases. In short, the same dollars buy fewer goods. To help protect investors against inflation risk, the U.S. Treasury also issues “real” securities—that is, securities that are indexed to the rate of inflation (or cost of living) as measured by changes in the consumer price index (CPI). These Treasury inflation-protected securities (TIPS) promise to deliver more dollars when the CPI is higher and fewer dollars when the CPI is lower.

These two types of securities can be used to infer bond market expectations of future inflation. The basic idea is simple: Consider a security that matures in, say, 5 years. FRED shows us that the annual yield on a 5-year TIPS is presently -1.65%. We can interpret this number as the real (inflation-

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adjusted) yield on a 5-year TIPS. FRED also shows us that the annual yield on a 5-year nominal Treasury security is 1.35%. If investors are indifferent between holding the two securities in their wealth portfolios, then they must be yielding something close to the same inflation-adjusted rate of return. This would be true if investors were expecting an average inflation rate over the next 5 years equal to $1.35\% - (-1.65\%) = 3\%$. To put things another way, for an investor to break even on a bet between a nominal and inflation-protected security, the expected rate of inflation would have to be 3%. For this reason, this market-based measure of inflation is called the breakeven inflation rate.

The FRED graph above shows that the 5-year breakeven inflation rate averaged close to 2% in the years leading up to the COVID-19 crisis. After an initial decline in early 2020, expected inflation over the next 5 years has risen steadily to about 3%. The reason behind this increase is hotly debated. The breakevens do not tell us the cause of inflation. They provide us only with a measure of inflation *expectations*.

How this graph was made: Search for and select “Market Yield on U.S. Treasury Securities at 5-Year Constant Maturity, Inflation-Indexed.” From the “Edit Graph” panel, use the “Add Line” tab to search for and add the remaining two series.

Suggested by [David Andolfatto](#) and [Joel Steinberg](#).
