

What Is Important — and Not Important — about Inflation

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From early times investors have rightly worried about the instability of the price level. Inflations large enough to wipe out real returns from stocks and bonds are all too common. Does that require that the rate of inflation be a vital consideration in investment decisions? Not necessarily. It is not so much inflation itself, but its instability or unpredictability that hardest hits investment performance. Egged on by statisticians, the Federal Reserve, pundits and the press, investors spend scarce time and resources arguing about the degree of inflation. Yet the facts suggest much of the fuss is unnecessary.



Strictly, “inflation” is a general rise in the cost of living. But in recent years the behavior of different parts of the cost of living have diverged enormously. In the goods sector, thanks to globalization and technological advances, prices are mostly stable or falling, and quality is generally increasing. In the services sector these downward pressures on prices are much weaker. And the measurement of quantity and price is far more difficult in the case of services. It is so hard to define and measure price change it is a wonder that statisticians claim to accomplish it.

As economies develop and become more complex, the size of the goods sector declines relative to the services sector. As government grows, the size of the public and regulated services sectors grow at the expense of the competitive private market for services. For both reasons, inflation becomes less transparent and harder to define than in the past.

Does Inflation Lag or Lead Financial Markets? Inflation has major consequences for economic and investment performance. But the rate of inflation should not be a significant factor in determining investment strategy. That is because, however measured, inflation is a lagging indicator of movement in capital markets.¹ In other words changes in capital markets lead rather than follow inflation, as measured by changes in the “headline” Consumer Price Index (CPI) for urban consumers.

The figure confirms that, during times of volatility, annual changes in the CPI trail behind market movements in both Treasury bonds and commodities. In the figure, the last 45 years of highly variable inflation history are divided into three categories: years in which year-to-year inflation was highest, years in which it was lowest, and intermediate years. In each category the chart shows average *prior-year* data for long-term Treasury bond yields, total returns from T-bonds and commodity-market price performance.²

All three indicators reflect inflation in a consistent way a year before it was reported in the Consumer Price Index. Changes in the CPI are inversely

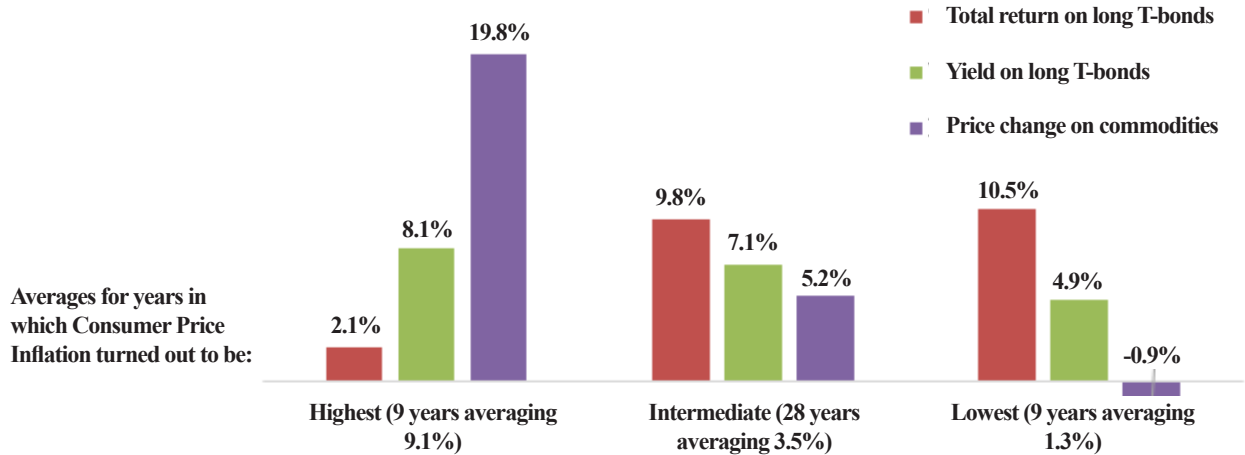
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CPI Inflation: A Lagging Indicator of the Financial Markets Calendar-year average data from 1969



Sources: Calendar-year averages of the monthly price index for all urban consumers (Bureau of Labor Statistics) and of monthly yields on Treasury bonds (Federal Reserve Board), month-end total return indices for long Treasuries (University of Chicago/Dimensional Fund Advisors), and an unweighted mix of month-end prices for four commodity groups: metals, foodstuffs, textiles and crude oil (Thomson Reuters Bridge Commodity Research Bureau/HCWE).

related to the total return from T-bonds one year earlier and positively to interest rates on long-term Treasury bonds and price changes in commodities one year earlier.

gold. The last 45 years of gold-price changes are divided into three categories: large increases (over 35 percent), smaller increases and declines.

Of course, for actionable input investors need leading, not lagging, indicators of inflation, including the value of the dollar in terms of foreign exchange or gold that enables an investment strategy to bypass many ambiguities about inflation. The price of gold is a market fact, while the inflation rate is a fuzzy and contested estimate of data that are hard to pin down.³

The table shows how movements in the value of the dollar in terms of gold are correlated with subsequent inflation, future interest rates and future asset returns. This table follows the same procedure as in the figure, except that it is based on the price of

In each category the table shows averages of

Gold: A Leading Indicator of Inflation, and Financial and Capital Markets Calendar-year average data from 1969

AVERAGES for years in which the price of gold:	following-year change in T-bill rate (basis points)	following-year return from T-bonds (%)	following-year return from S&P 500 (%)	following-year price change in commodities (%)	following three years' change in CPI (% annualized)
rose more than 35% (6 years averaging 61%)	90	0.7	6.9	21.7	7.2
changed intermediately (21 years averaging 14%)	22	6.9	10.7	9.7	3.9
fell (16 years averaging -10%)	-102	15.1	14.4	-1.9	3.5

Source: Same as for the figure, together with calendar-year averages of month-end three-month Treasury bill rates (Federal Reserve Board) and the month-end total return index for the S&P 500 companies (University of Chicago/Dimensional Fund Advisors).

subsequent performance for T-bill rates, T-bonds, stocks and commodities as well as the subsequent CPI inflation rate over a three-year period.

Clearly, gold is not only more predictive than inflation for bond-market performance, it is more explanatory as well. According to research by HCWE & Co., even perfect foreknowledge of the following year’s inflation rate is less explanatory of bond-price movements than the prior year’s gold-price change. Therefore, it should not be surprising to find that gold is a predictor of changes in real interest rates, and does not obey the popular theory that real interest rates control its price.⁴

Thus, it is not inflation itself that drives the bond market, but rather depreciation in the market value of the U.S. dollar. That, in turn, explains and predicts price changes in goods and services and in financial markets down the road. In the short run, investors do not need to know whether inflation is high or low in order to make bets in favor of or against the bond market.

Inflation, Quantitative Easing and Interest Rates: Their Common Explanatory Factor. Despite vast increases in the monetary base by the Federal Reserve’s \$3 trillion quantitative easing (QE), the inflation rate, as measured by the CPI, has gone down rather than up, contrary to monetarist doctrine. Also, the relationship between quantitative easing and the bond market has been unreliable. In 2014, for instance:

- While quantitative easing was grinding to a halt, T-bond yields continued to decline.
- The 20-year yield reached 2.47 percent at the end of the year, approaching the all-time lows of mid-2012.

Rather than QE, the price of gold is the common explanatory factor in inflation and interest rates. Inflation and bond yields have been going down despite the phase-out of QE because the price of gold has fallen substantially from its 2011 high.

There has always been a widely held belief in the United States that debt monetization is highly inflationary, but it was an open question that could not be addressed empirically until the dollar was detached from gold some 45 years ago. Empirical work by HCWE & Co. has found an inverse correlation between debt monetization — of which QE is an extreme example — and changes in the value of the dollar. However, the correlation

with consumer price inflation is flimsier and not at all comparable to the historical evidence connecting gold price movements and a variety of inflation and interest-rate variables.⁵

The absence of a consistent relationship between QE and a rising gold price in recent years has now delivered a contrary and more compelling verdict. Debt monetization is not always inflationary. This central tenet of “monetarism” has proved to be unsound.

It can be no accident that QE has also been ineffective as an economic stimulant. There are several reasons.

- First, QE mostly created excess reserves that to this day sit idle on the balance sheet of the banking system. However enormous in magnitude, these reserves are “money” only in name and not in fact. The controlling force is the demand for money, not its supply. Money has to be pulled into circulation, and it cannot be pushed. Idle reserves have little or no power to change the inflation rate.
- Second, the inflationary significance attributed historically to “fiat” money arose mainly from the fact that people always lacked confidence in money that was not backed by precious metal. The resulting inflation may or may not have been tied to the quantity of paper money printed. It is natural that the value of fiat money will change if confidence improves or deteriorates. That is not closely tied to whether the quantity in circulation grows or declines.
- Finally, it should be recognized that the Federal Reserve System is effectively just another agency of the federal government. Transferring debt from the balance sheet of one agency to another does not change anything fundamental.

Is the inflation rate worth the intense debate that has developed? In light of this evidence, conventional wisdom about inflation has failed us in several ways. One weak link is the CPI. Though legally embedded in the U.S. economic system, the index is built on shifting sand. It has been redesigned so many times — and suspiciously, always in the direction of reducing the reported inflation rate.

Tax-financed public services such as education, medical care and transportation are very large parts of the cost of living, but outside the scope of the CPI. In

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many public services, quality is on the decline even as the money spent rises. The cost of a high school diploma, for example, has risen dramatically, while on average its quality has declined. That implies a high, but completely hidden, inflation rate.

In sum, it is an open question whether the concept of the U.S. “cost of living” can any longer be defined clearly enough to permit precise measurement. The Bureau of Labor Statistics is right to make adjustments for changing quality in the markets for goods, especially durable goods. But the benefit is lost by its failure to make adjustments for changing quality in the (much larger) market for services where the situation is different and murkier.

Conclusion. Recognized leading indicators of inflation such as the prices of gold and foreign exchange have highly predictable consequences for asset prices. Whether the CPI or any other economic statistic is supportive or contradictory is contentious. Fortunately, it does not matter that much. Inflation, however measured, is predictable from financial markets rather than the reverse.

Much more significant than inflation itself is whether the rate is rising or declining. In the short term, inflation is rising if the price of gold has increased, and declining if the price of gold has fallen. Changes in the price of gold are highly predictive for asset returns, and there is no sign that this power has diminished. Since late 2011, gold prices in U.S. dollars have been depressed, and that has been a major source of strength to the U.S. economy and U.S.-based assets, including both stocks and bonds.

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Notes

1. See, for example, “What do stock (or bond) markets care about consumer prices?” *Equity-Market Outlook*, HCWE & Co., October 30, 2010.
2. Commodity index source is the Thomson Reuters Commodity Research Bureau. The author used an unweighted mix of monthly percentage changes in crude oil and three indices that cover industrial metals, foodstuffs and textiles.
3. “How ‘headline’ inflation has evolved toward meaninglessness,” *Interest-Rate Outlook*, HCWE & Co., November 21, 2012.
4. “Do real interest rates drive the price of gold? Or is it vice versa?” *Interest-Rate Outlook*, HCWE & Co., December 30, 2011.
5. “The historical facts about quantitative easing — Has the emperor any clothes?” *Interest-Rate Outlook*, HCWE & Co., December 30, 2010.