The Price Is Right…Sometimes

If the Consumer Price Index (CPI) or its cousin the Producer Price Index (PPI) did not exist, would we need to invent them? This is something of a trick question. If this were sixty years ago, the answer would have been no, because neither index existed. But today the answer is a strong and definitive yes. Labor contracts, government programs such as Social Security and the growing class of inflation-protected securities (TIPS) all require a monthly CPI reading. Incredibly, property rights and real dollars are connected with this number, and if that does not send at least a small shiver up your spine, it should.

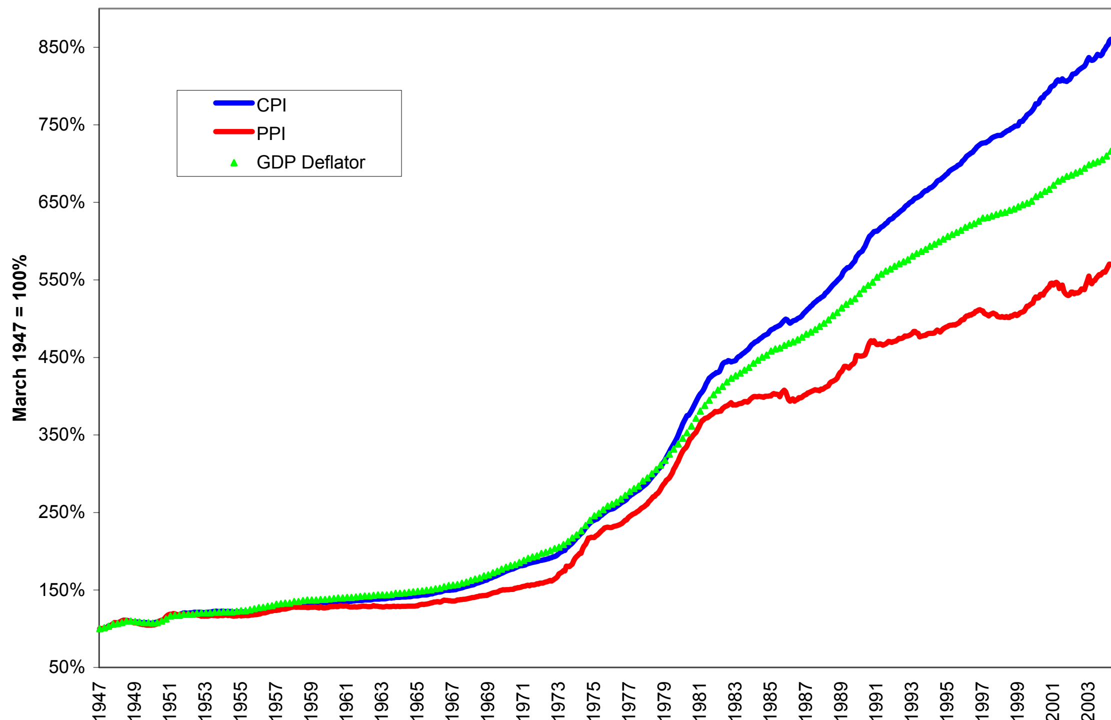
In this first of a series of articles on key government economic indicators, let's take a look at the CPI and PPI and how they affect the future course of financial markets. We will forego entering the never-ending debate about the quality of the numbers, or whether the so-called hedonic adjustments made by the Bureau of Labor Statistics amount to nothing more than pencil-pushing. Anyone with trading experience is aware that when numbers are released, markets shoot first and ask questions later.

What Is Measured Inflation?

The very concept of measuring inflation rapidly devolves into a metaphysical exercise of what is a standard market basket and how consumers and producers adjust their behavior in response to price changes and to technological improvements (see "Can The CPI Catch Your Eye?," April 2004). The headline CPI number released every month includes detailed weightings for how much of your budget is devoted to food at home, broken down into how much you spend on cereals, dairy products and non-alcoholic beverages. The PPI drills down into similar levels of detail. How do they know, you ask? They do not know, they estimate. As in any statistical exercise, the central trend in the mean is what counts, the devil lies in the details of the error band surrounding this mean, and all you can try to do is be consistent in how you generate those errors.

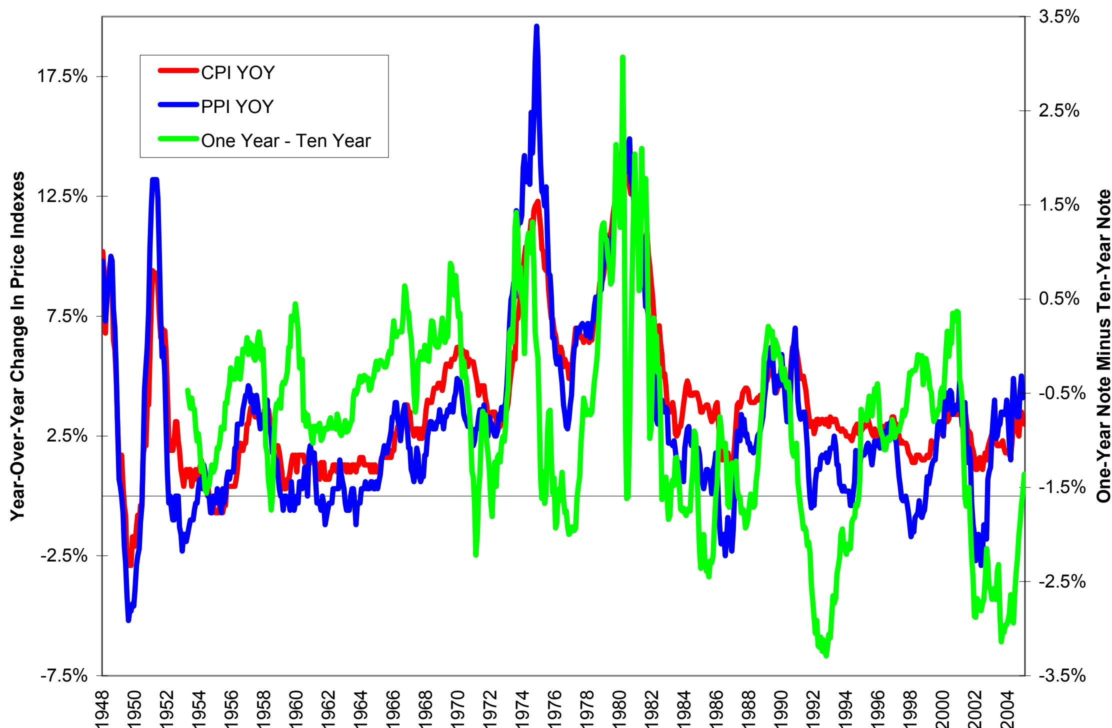
The end result of all these gyrations is a horrendous record of inflation since the end of World War II. The past two decades have been regarded as disinflationary, and by the standards of the 1970s, this is true. But with the CPI indexed to 1982-1984 = 100, the current level at the time of this writing of 191.3 means the purchasing power of the dollar has dwindled by close to 48%. Consumer inflation has exceeded producer inflation over this period as global competition has held down the prices of manufactured goods. Consumer prices include housing, tuition and health care services, none of which have faced global competition yet. The GDP deflator, which adjusts price increases for the final quantity of goods and services produced, lies between the CPI and PPI.

The Value Of A Dollar



Impact On Yield Changes

One of the problems associated with inflation measures is they are inherently backward-looking while markets are forward-looking. If markets are operating efficiently, they should have discounted the underlying developments in inflation with the exception of the shock term, or the unexpected changes in the rate at which inflation is changing. Yet this relationship is hard to dissect from the data at a monthly frequency. If we compare the year-over-year changes in the CPI and PPI to the spread between one-year and ten-year Treasury notes, an odd relationship emerges. We might expect the yield spread to lead reported inflation, or at least we should expect the changes to be more or less coincident. But it is the changes in reported inflation that appear, more often than not, to move in advance of the yield curve. As inflation trends higher, the yield curve flattens. In other words, the spread between the one-year and the ten-year becomes more positive or less negative in response to, not in anticipation of, higher inflation. The very positively sloped yield curve of 2001-2004, for example, flattened only after inflation rose. This says both the Federal Reserve and the bond market react to events, rhetoric about “getting ahead of the curve notwithstanding.



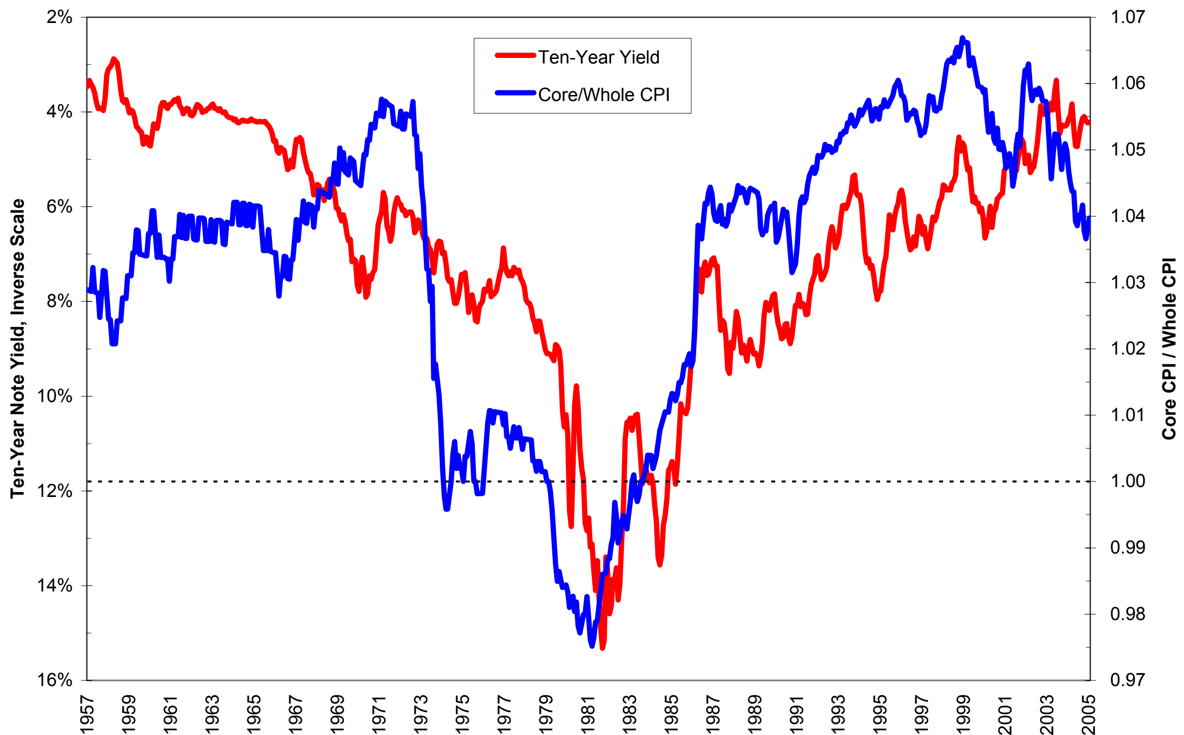
This demonstrable lagging relationship between monetary policy as represented by the yield curve is one reason why the concept of inflation targeting, raised in 2004 by then Federal Reserve Bank of Richmond Governor Alfred Broaddus, should be rejected out of hand. Past experience with other target practices by the Federal Reserve indicate a willingness to move the target to accommodate the marksman. If changes in inflation lag previous changes in economic variables, and monetary policy itself operates with long and variable lags - always a fancy way of saying we do not know what will happen or when - then inflation targeting will be nothing more than an erratic attempt to rectify events in the past at some time in the future.

It also would serve to produce exaggerated responses to each month's inflation reports. Anytime an economic datum is imbued with importance, such as was the case with the merchandise trade report in the 1980s, the employment reports during the 2000-2002 bear market or the weekly petroleum inventory numbers of late, markets overreact. This may appeal to the gamblers among us, but it is a poor way of fulfilling the real value of futures markets, price discovery and risk management.

Does Core Matter More?

The parsing of inflation data includes debates whether we should be examining the whole number, or the "core" number, whole inflation less food and energy prices. Food and energy together account for 21.463% of the CPI; food and energy together account of 35.571% of the finished goods PPI measure. Ignoring the effects of these two categories is difficult to justify; after all, the money you spend at the gasoline pump or at the grocery store is money you do not have to spend or invest elsewhere. Moreover, a significant percentage of both food and energy costs are imported, and the dollars spent on those imports contribute to the U.S. trade deficit and therefore to overall GDP.

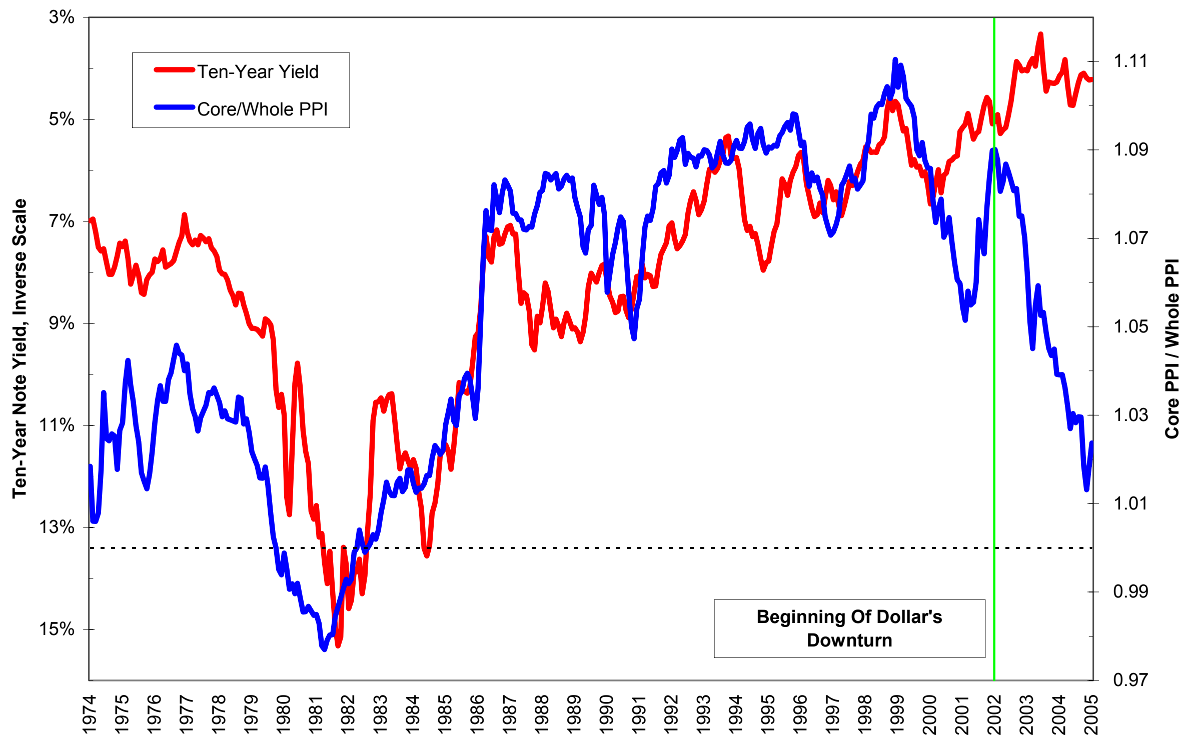
An even better reason for not paying attention to the apologists who say, "yes, but the core rate was only…" is the bond market pays more attention to the whole rate than to the core rate. Let's construct a simple ratio of the core rate to the whole rate for each of the inflation measures and compare it to the nominal yield of the ten-year Treasury note. Please note the core CPI series begins in 1957 and the core PPI series does not begin until 1974.



The core/whole ratio fell sharply during the commodity price inflation of the 1970s, particularly during the oil shock induced recession of the mid-1970s. It rose in the mid-1980s as commodity prices in general and oil prices in particular fell. It has resumed falling since oil prices began their long bull market in 1999. In each and every case, note yields, presented inversely to resemble a bond price, followed the changes of the core/whole ratio. In other words, the focus on core inflation is not only disingenuous, it is completely wrong.

Low-Cost Production

The story is different for the relationship of core PPI to whole PPI. Prior to the dollar's present downturn began in 2002, the relationship between note yields and the core/whole PPI ratio was the same as it was for the CPI. Once energy prices turned higher, the ratio fell sharply, but this time note yields did not rise.



The divergence begins with the dollar's downturn in 2002. The Federal Reserve's rate-cutting campaign had several intended side-effects. These included a shifting of future consumption into the present - recall all those 0% auto loans? - and a weakening of the dollar. While the weaker dollar would serve to increase the prices of imported goods from those countries whose currency appreciated, it had no effect on the prices of imported goods from countries whose currencies are pegged to the dollar. Chief among these, of course, is China. The price competition from Chinese imports served to dampen the core PPI rate and makes the core/whole PPI rate look unnaturally weak. Viewed in this light, the low yields on ten-year notes are not as anomalous as they may appear given their past actions in a falling core/whole PPI environment.

Rising inflation is always a negative for financial markets. Some sectors, as the recent strength in oil issues attest, can benefit over the short-term, but inflation always demands a policy response from central banks. That will lead to higher short-term interest rates, lower stock valuations and ultimately to slower economic growth. That is the signal, ignore the noise you will here about "it is not so bad, " or "the core rate." And think about the time when a movie ticket was less than $10 or a family of four could go to a baseball game for less than $100.