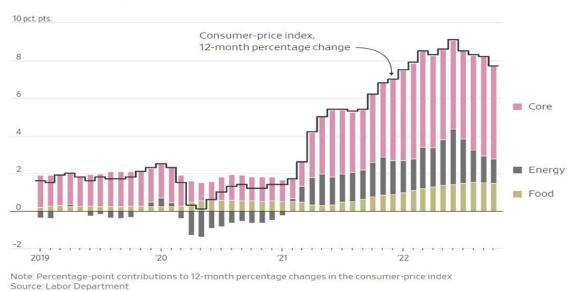
November 10, 2022

The headline inflation number for the month of October was released this morning and the majority of stock market participants are loudly cheering the annualized rate of inflation at 7.7% (lower than last month's 8.2% and well off of June's high of 9.1%). The "core" rate of inflation, subtracting the highly volatile yet essential food and energy costs, came in slightly better than projections at 6.3%. Investor enthusiasm comes from the slight difference in expectations for the October data (0.2% each for the monthly readings), but a look deeper into the data might temper some of today's euphoria.

The primary reason for the robust stock market reaction to this data is the belief that not only will the lower inflation trend (from June) likely cause the FOMC to temper their aggressive interest rate hiking regime (four consecutive 0.75% rate hikes), but it might also indicate that the end result, known as the "Terminal Rate" for the Federal Funds Rate, might turn out to be lower than was expected before this morning. The futures market that predicts these things is betting the Terminal Rate will now be lower by 0.20%, taking that rate below 5%. For perspective, the current Fed Funds Rate is between 3.75% and 4%.

The *Wall Street Journal* today published the chart below:



Contributions to inflation

Notice the correlation between the Energy component move beginning in June and the total CPI at its peak in June. Perhaps there are other meaningful correlation in the underlying data as well.

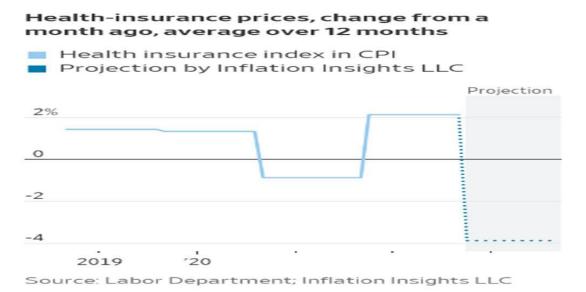
A look at the data comprising the Consumer Price Index

While the recent cost of fuel has come down over the last several months, energy prices are still up 17.6%% from a year ago. Food prices rose slightly and have moderated

lately, but they are still up 11% from last year. Services rose last month after hitting a 40-year high in September and the cost of housing as measured by an arcane method known as Owner's Equivalent Rent (OER) also rose 0.6% in October. Other data inputs to the CPI such as hotel costs, auto insurance, auto maintenance costs and used car prices, to name a few, were all higher in October. So, what was the primary contributor to the headline drop in "inflation?"

It turns out that Health Insurance prices fell a whopping 4% last month while overall Medical Care costs dropped 0,5% as well, likely accounting for some of the substantial decline in the CPI from 8.2% just a month ago. Unsurprisingly, there is a "quirk" in the way the Labor Department calculates (estimates) the price of the health care component in the CPI. It depends in large part on health insurer <u>profits</u> which are reported with a 10-month lag. So, some of the October data that impacted the CPI calculation are based on something that happened nearly a year ago. The "why" behind this drop is basically the fact that consumers caught up with post-Covid elective and preventive care in a big way in 2021 and that ate into the profits of most health care insurers.

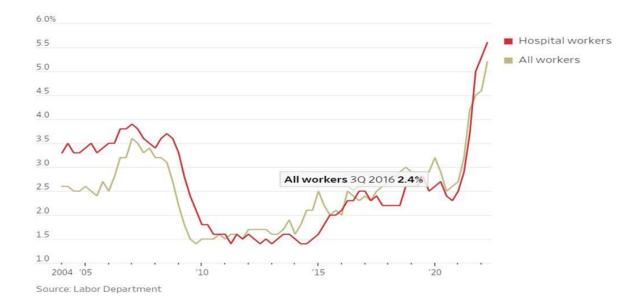
The graph below shows the projected impact to the CPI for the next 12 months or so.



If the chart above is accurate, the health care cost contribution to the CPI will go from adding around 0.4% to the overall number to subtracting about the same amount monthly for the next year.

It should also be noted that The Federal Reserve bases its official 2% inflation target on the Commerce Department's separate Personal Consumption Expenditure (PCE) index which is intended to capture a wider range of price inputs than the CPI. For example, the PCE includes data from the Producer Price Index as well as expenditures by various government agencies such as Medicare and Medicaid, Consequently, heath-oriented services have a bigger weight in the PCE index. Not to get too far into the weeds, but

Medical Care contributes around 20% to the PCE and less than one-tenth of the CPI while the housing component is about 20% of the PCE and a large 40% of the CPI. One other substantial difference is the PCE uses a formula that takes into account changes in consumer behavior known as the "substitution effect." As prices change, consumers tend to buy less on an expensive thing and more of what might be a cheaper substitute.



As the chart below indicates, wages for All Workers and Hospital workers are booming.

As the acceleration in wage growth works its way into the inflation calculation (a key factor in the data for the CPI and PCE) it is possible that today's drop in the headline inflation indicator could be a short-term phenomenon. One data point does not make a trend, so today's extraordinary stock market reaction to the October CPI announcement could be "transitory."