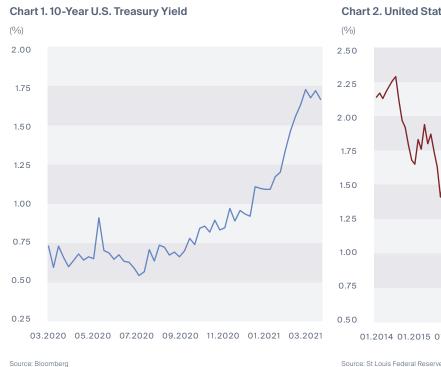


Gathering Clouds of Inflation

Investors appear increasingly fearful of the possibility of rising inflation. The economy is on a rapid path to normalization fueled by rounds of fiscal stimulus and the return to zero-interest policies of the post-financial crisis period. However, the most important change to the investment environment for 2021 and possibly beyond may be the broad rollout of COVID-19 vaccines. With much of the U.S. population already inoculated or possessing antibodies, pent-up demand appears ready to drive a full-throttled recovery. Analysts have raised their estimates for 2021 GDP growth to over 6.5%, which would be the fastest U.S. expansion in over 30 years and the second fastest in over a half-century. Periods of rapid growth historically have sown seeds of inflation. Do investors have good reason for concern?

These fears are reflected in several market indicators, as shown in Chart 1. The yield on the 10-year Treasury has risen from a summer 2020 low of roughly 0.50% to a recent high of 1.70%, marking a new post-pandemic high from which many analysts believe yields could continue to rise. More importantly, the 10-year break-even inflation rate, as shown in Chart 2, now stands at 2.3%, a half point above its level at the start of November and near its highest level since 2014. This breakeven rate, which is the difference between the yield on the 10-year Treasury note and the 10-year Treasury inflation-protected note, is often looked at as the bond market's judgment of where inflation is headed.







Most traditional inflation measures remain relatively muted, but that is about to change. Year-over-year comparisons are about to come up against the low bar set during the early stages of the COVID-19 crisis, when prices fell significantly. We can already see pricing pressure building in the earlier stages of the economic valuechain, as shown in Chart 3 by producer prices where commodity price pressures are beginning to swell input prices.

Similarly, inflation expectations are beginning to creep above the Federal Reserve's target of 2%. Are these inflation expectations just a short-term blip fueled by government stimulus, cheap money and the pent-up demand about to be unleashed by post-COVID consumption, or should investors be concerned about longer-term structural considerations that would lead to consistently higher inflation in the future?

What is Inflation and Why Fear it?

At its core, inflation is a simple idea, measuring the rate at which prices are increasing and the corresponding rate at which the purchasing power of assets are declining. If it feels like your dollar doesn't go as far today as it used to, you aren't imagining it. While inflation rates have been benign over the last 40 years, even these modest levels of inflation can have a powerfully corrosive effect over longer periods. While simple in concept, inflation's causes are varied and often difficult to predict. Even so, one can generalize that the root cause is too much money chasing too few goods.

Though it can be frustrating to think that the real value of your savings is declining as prices rise, most economists consider a small amount of inflation a sign of a healthy economy. It encourages consumption, rather than "stuffing money in your mattress" and watching its value diminish. It also keeps the economy moving forward. Inflation can also decrease the value of outstanding debt in real terms and improve the ability

YoY% 8.0 - PPI Final Demand Goods YoY% PPI Final Demand Services YoY% 6.0 4.0 2.0 0.0 -2.0 -4.0 -6.0 912016 3 1 2017 9 1 2017 3 1 2018 9 1 2018 3 1 2019 9 1 2019 312020 912020 3 1 2021

Chart 3. Price Producer Index (PPI) Final Demand: Goods vs. Services

Source: Bloomberg, Census Bureau

of large debtors, such as the U.S. government and many state and local governments, to repay their obligations more easily. However, inflation can be a crippling force if allowed to rise unchecked, creating hyperinflation or stagflation.

In a rare hyperinflationary environment, the local currency declines at a rate so rapid that investors lose confidence in the entire economy, creating a flight of capital from the country. Post-World War I Germany provides a vivid example of hyperinflation. As the government abandoned its currency peg to gold and was required to pay war reparations, the currency printing presses ran. The exchange rate to the dollar rose from four marks per dollar to over one trillion marks, and stories were told that wheelbarrows full of money were required to purchase a newspaper. Menu prices at restaurants changed mid-meal. Hyperinflation is also not a vestige of history; Venezuela's inflation rate was 1,000,000% per month as recently as 2018.

More common is stagflation, where inflation creates a dampening effect on growth and employment, causing consumer income and demand to decline while prices continue to rise. We don't need to look far for examples, as the U.S. experienced stagflation during the 1970s in what famed economist Jeremy Siegel described as "the greatest failure of American macroeconomic policy in the postwar period."

During this period in U.S. history, President Johnson's Great Society legislation created major spending programs when deficits and debt were already straining U.S. fiscal conditions. The Fed remained highly accommodative to achieve the full-employment element of the recently enacted Humprey-Hawkins Act. These programs fostered a massive expansion in the money supply, which despite the unprecedented peacetime implementation of price controls, led to an increase in overall prices and started a wage-price spiral that eventually weighed on employment and stagnated economic growth.

The parallels to today are noticeable: large fiscal spending programs with more on the way, expanded deficit and debt challenges and accommodative Fed policy with an accompanying emphasis on relaxing inflation targets to foster fuller employment. It's not a surprise that inflationary concerns are increasing.

Fed Policy Changes and the Path to Normalization

Recently, the Fed tweaked its monetary policy framework, shifting from a simple price stability mandate (i.e., inflation) to an emphasis on full employment while measuring prices using an average target rather than a ceiling. This latter element, while seemingly nuanced, signals that the Fed will allow, or even encourage, inflation to overshoot its 2% target and is dropping its long-standing practice of preemptively lifting rates to head off higher inflation. Some analysts believe this is simply an appropriate response to a decade of policy misses on the low side, while other analysts have become increasingly concerned that this opens to door the unacceptably high inflation. At this point, both answers are speculative, but the landscape has clearly shifted so that the risk of inflation is now to the upside.

A few weeks ago, Fed Chairman Powell emphasized that he would be looking at where inflation is rather than worrying about where it is forecast to be. Further, Powell

stated that he does not expect the one-time \$1.9 trillion stimulus package to lead to unwelcome increases in inflation. To calm fears, he also emphasized that the Fed has the tools and remains committed to keeping the public's expectation for future inflation under control.

During that speech, Fed Chairman Powell also committed to no interest rate hikes until the country is at full employment and inflation is sustainably at the Fed's target. The U.S. is not far enough along the road in either employment or inflation for the Fed to begin considering policy normalization. But the progress is substantial enough for investors to begin to wonder how long the Fed will wait. Unemployment is now projected to reach 4.5% by year-end, down from 5% just a few months ago. It is unlikely that 4.5% unemployment alone will compel the Fed to raise rates, as it might have in the past, without a clear and sustained rise in actual inflation above the 2% target. The most likely scenario is that we should expect a few more years of near-zero interest rate policy.

Near-Term Inflation is Very Likely

Will inflation continue to rise? The easy part of the answer is that we are confident that measures of inflation will spike higher in the short term for several reasons, the simplest of which is a baseline effect. Inflation is measured as a year-over-year change in price, and the baseline year for current calculations includes the sharp price declines during the COVID-related lockdowns that suppressed economic activity. With these price declines in the baseline, the Fed's preferred PCE price index recently rose at an annualized rate of 1.5% as shown in Chart 4. We expect this year-over-year effect to become increasingly visible in broad-based inflation measures, which are likely to further escalate investors' concerns about inflation.

Chart 4. Personal Consumption Expenditures





Chart 5. Unlike Past Recessions, the Covid Slump has not hurt Wage Growth

Median nominal U.S. wage growth, 3 mo. moving avg, weekly (%)



Source: Gavekal Research, Macrobond

Source: U.S. Bureau of Economic Analysis

Additionally, even if we set aside short-term measurement effects, we expect inflationary pressure to continue in the intermediate future, possibly into 2022. The sheer size of the fiscal stimulus programs in 2020 and 2021 has left consumers with ample savings, which is quite unusual for post-recessionary periods. During the COVID-recession, most consumers stayed at home and saved while receiving stimulus payments from the government. Relatedly, wage growth did not decline as it did in the three prior recessions as shown above in Chart 5. Wallets are full and consumers are anxious to spend.

Perhaps there is a silver lining for budding inflation concerns. Many analysts expect the coming growth surge to strain and possibly break some elements of the global supply chain, leading to shortages and price surges like what we saw during the pandemic with items like toilet paper and hand sanitizer. However, putting aside the short-term effects of the recent blockage of the Suez Canal, which does serve to illustrate the fragility of our global supply chain, increasing employment may, ironically, ease runaway inflationary concerns in the short run. According to BCA Research, under the various stimulus measures, about 40% of jobless workers will receive more income from extended unemployment benefits than they did from working, effectively shrinking the labor pool. Normally, tightening labor markets are supposed to lead to higher wages and higher inflation. But in the months ahead, the faster the job market recovers the more workers will get pulled from the sidelines and expand the capacity of the global supply chain.

Many of the factors contributing to the current fears of rising inflation can be viewed as one-time, non-recurring events. Baseline effects will fade. It's unlikely, despite political desires, that stimulus programs can continue at these levels. Excess savings and pent-up demand will eventually be spent. As a result, headlines will shout about shortages and increasing prices over the coming quarters, but most analysts agree with Chairman Powell that these effects are likely temporary and the Fed has the necessary tools to combat these near-term concerns.

Longer-Term Inflation is Less Certain

The more important and difficult question is whether longer-term structural elements of the economy are changing in a manner that will increase inflationary pressure. As shown in Chart 6, over the last 40 years, investors have benefitted greatly from a disinflationary environment in which the rate of inflation has consistently declined and reimagined at low levels since Fed Chairman Paul Volker and the WIN (Whip Inflation Now) programs painfully squeezed inflation from the U.S. economy.

Over this period, several deflationary forces suppressed prices and created abundance rather than shortage across many facets of the global economy. Globalization and free trade have allowed bigger and less expensive labor pools to join the global economy. Technological innovation has boosted productivity and allowed manufacturers to produce better goods at cheaper prices. But perhaps the largest paradigm shift lies in the change in the very nature of our economy itself. Increasingly we live in a knowledge-based economy, which is fueling innovation and connectivity in an unprecedented manner. The question is whether these well-known deflationary forces are going to get stronger or weaker.

Globalization

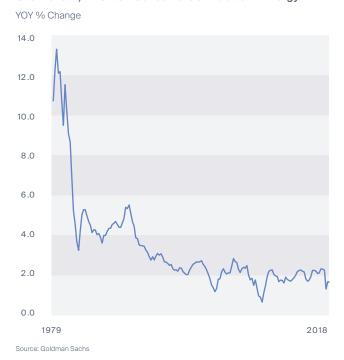
Free trade and globalization have historically followed a pendulum pattern. The period from roughly 1850 to 1915 was an era of modern globalization. International trade and the free flow of goods and ideas fostered an era of prosperity. However, the benefits of these eras are not shared equally, giving rise to pockets of nationalism and protectionism. Eventually, nationalistic parties and autocratic leaders take power as they did at the end of the period. The next 30 years until the end of World War II could best be described as one of deglobalization and protecting regional interests. From 1945 until the Great Financial Crisis in 2008, we experienced a new wave of globalization featuring multilateral trade agreements such as GATT and NAFTA and the rise of the WTO that once again created global prosperity. Since that time, we have witnessed increasing nationalism and protectionist policies that would suggest the pendulum is once again swinging back.

Free trade headwinds are not likely to abate with the change in U.S. administration. While President Biden is certainly more diplomatic than his predecessor, he appears reluctant to reverse President Trump's tough approach to China. Moreover, the integration of China's workforce into the global economy has already happened. Wages in China have risen and no other economy is likely to reproduce its 30-year burst of high-quality, export-led growth. All in all, the deflationary force of global trade, while still present, is likely waning.

Technological Innovation

The technological advances of the last few decades are mind boggling when viewed over a longer period. In a relatively short period of time, we have evolved from mainframe computers, to personal computers, to laptops, to devices that you can hold in your hand that have more power and connectivity than devices that filled entire buildings just a few decades earlier. Today, this open, innovative environment appears to be

Chart 6. CPI, All Urban Consumers ex Food and Energy



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Consumers have enjoyed four decades of declining inflation.

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under threat. Rising geo-political tensions between China and the U.S. have created a race to secure supply chains and bring key manufacturing sectors back home as a matter of national security.

We don't intend these comments to be alarmist, but simply an honest assessment of the growing global fractures between the U.S. and China and even India. These fractures are causing the technology universe to increasingly fragment into two or even three discrete blocks - the western world tech built on a progressive and innovative private sector, an emerging market tech world built by Chinese state-supported behemoths, and increasingly an Indian-based technology world is emerging partly in response to Chinese policies and partly in response to the nationalist policies of Narendra Modi's government. While innovation will continue in these fragmented ecosystems, it is increasingly unlikely that knowledge will be shared as freely as in the past, eliminating a key driver of our past disinflationary boom.

Other Inflationary Changes

There are several other societal movements that could lead to inflation concerns. Growing support for raising the minimum wage will create increased wage pressure across the economy. The job markets of today are much more flexible than in the past, making a wage price spiral that we witnessed in the 1970s much less likely. However, before the pandemic, we were already beginning to see upward pressure across the entire wage spectrum, with the highest percentage increases coming at the lower end, a good sign that the economic recovery was finally beginning to broaden. It is simply a matter of time before we see wage increases again, whether through a federal mandate or market forces.

The pursuit of renewable energy at the expense of relatively cheaper carbon-based sources will be inflationary. While one can have different views on the importance or urgency of this transition, the costs will be unequivocally higher. The good news is that innovations in this area continue to drive costs down, some already to the point of market competitiveness.

Conclusion

U.S. inflation is coming back, albeit slowly. Investors should not fear the near-term, baseline effect, stimulus-induced inflation that we will see in the coming quarters, but rather the reversal of structural deflationary forces that could lead to a slower, more persistent increase in prices over time. The number of factors that lead to inflation is becoming increasingly uncomfortable.

The silver lining for investors is that we live in a knowledge-based economy with incredible flexibility. Unlike other resources, knowledge is neither scarce nor does it get depleted as it is used. Quite to the contrary if you share knowledge, even if not in the same global scale, you don't end up with less, but you may well end up with more. So while we expect inflationary forces to increase, we don't expect this to become a severe challenge for investors.

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