

Inflation

Hello!

This month's newsletter highlights inflation, a topic that has been in the news, especially of late. Since the financial recovery started back in 2009, one of the main concerns of economists is the threat of the U.S. economy going into a period of high inflation. I thought it would be helpful to provide you with information as to how the inflation rate is determined, factors leading to inflation, and how it affects not just the economy but also the equity, fixed income, and commodity markets.

Definition

Inflation generally arises from a period of consistent price increases. In the past couple of years, we have experienced growth in our U.S. economy – the demand for some goods and services has been greater than the supply. In this case, producers can increase their prices which in turn, then drives the inflation rate higher. As spending outpaces the production of goods and services, the supply of dollars surpasses the amount needed for financial transactions. This results in the purchasing power of a dollar to decline. These factors lead to the calculation of the inflation rate, which is defined as the percentage change in a price index over a specific time period.

Measuring Inflation

In order to measure inflation, several goods that are representative of the economy are collectively placed into a "market basket", and the cost of this basket is compared over various time periods. The results generate a price index, which is the cost of the market

basket today as a percentage of the cost of that identical basket in the next 12 months. Generally, there are two main price indices used to determine the inflation rate:

- **Consumer Price Index (CPI)** – This computes price changes in consumer goods and services such as food, housing, transportation, and healthcare costs and measures the overall price change from the perspective of the consumer.
- **Producer Price Index (PPI)** - A group of indicators that measure the average change over time in selling prices by domestic producers of goods and services. About three quarters of the index measures prices of consumer goods, with the remaining amount being reflected by prices of capital goods. PPI measures it from the manufacturer's perspective and this figure is reported monthly.

Causes of Inflation

There are several potential causes for an economy to experience steadily higher prices. When commodity prices increase, it results in the costs of goods and services to also rise. For example, as the price of crude oil goes up, consumers experience higher prices at the gas pump.

This also results in the goods and services being transported by trucks, ships, or planes to also increase as these companies pass on their higher prices to the consumer. The purchasing power of both consumers and producers has declined due to the higher price levels.

Inflation can also arise when companies raise the prices of their services and goods in order to increase their profit margins. This is often referred to as “administered price inflation” or “pricing power inflation”.

In addition, a country’s currency can lead to inflation. As a currency depreciates against other currencies, it becomes more expensive to purchase imported goods which then leads to higher pressures on overall prices.

Over extended periods, those countries’ currencies with higher inflation rates tend to depreciate relative to those with lower rates. Since inflation erodes the purchasing power of ones’ investment, investors may move their monies to countries with lower inflation rates.

Hyperinflation, Stagflation, Disinflation, Deflation

- **Hyperinflation** – There is significant economic growth during hyperinflationary periods. This leads to demand of goods and services increasing rapidly and producers respond by continuously raising their prices which leads to an upward price spiral.
- **Stagflation** - This occurs when an economy has slow economic growth and a high unemployment rate but at the same time, seeing a rise in prices. The U.S. economy experienced stagflation back in the 1970s, when oil prices spiked, leading to a sharp increase in the inflation rate.
- **Disinflation** - Economic growth begins to contract, demand slows and the supply of goods increases, which results in a falling inflation rate.
- **Deflation** - Back in the late 1920s and 1930s (the Great Depression), the U.S. economy went through a period of deflation, where the demand for goods and services significantly declined, resulting in falling prices.

Inflation and Its Effects on Equities, Fixed Income Securities & Commodities

- **Equities** - Stocks have typically done well in inflationary periods as companies can increase their prices for their products and services as their costs increases. Higher prices can result in higher earnings, and therefore, an increase in the stock’s share price over the long-term.

However, over shorter time periods, companies’ stock share prices have often declined and have been adversely affected in periods of unexpected inflation. This leads to greater uncertainty about the economy, which results in companies reducing their earnings forecast and outlook, which then causes the stock share price to decline.

- **Fixed Income Securities** - For those that are invested in bonds and are financially dependent on the income that is generated from them, inflation can erode their purchasing power. First, the return on fixed income securities must keep up with the rate of inflation in order to increase one’s real purchasing power. Take for example a bond that has an annual coupon rate of 4%. If the inflation rate is currently 5%, the inflation-adjusted return for that bond is -1%.

For fixed interest rate bonds, even though the investor receives the same yield until maturity, the purchasing power of the interest payments declines as inflation rises. Due to the potential adverse impact inflation can have on fixed income securities, the interest rate can be viewed in two ways:

- *Nominal Interest Rate* – this is the interest rate on a bond without any adjustment for inflation and it reflects two factors: the rate of interest if inflation were zero and the expected rate of inflation, which reflects what investors expect to be paid for the loss of return due to inflation.

Most economists view nominal interest rates as a reflection of the market’s expectations for inflation – a rise in them

indicate that inflation is expected to increase while a decline in nominal interest rates indicates that inflation is expected to fall.

- **Real Interest Rate** – this is calculated as the nominal rate minus the rate of inflation and is useful in determining the increase in one's overall purchasing power. If a bond has a nominal interest rate of 5% and inflation is 3%, the real interest rate is 2%.

Inflation can also negatively affect fixed-income investments in another way. When the inflation rate increases, interest rates will also tend to rise due to market expectations of higher inflation or as a result of central banks (such as the Fed) increasing interest rates in an attempt to fight inflation. Interest rates and bond prices are negatively correlated – when interest rates go up, bond prices decline. As a result, inflation may create a decline in the prices of bonds, which can then reduce the total return on bonds.

- **Commodities** – Prices for commodities, including oil, agricultural products, and precious metals, have typically increased with inflation. Having exposure to commodity futures may benefit an investor if the prices of these are expected to go up in the future.

Conclusion

When a country is heading into or experiencing periods of inflation, it can lead to negative consequences for the overall health of its economy. The uncertainty about how high the inflation rate may go can lead to some investors remaining on the sidelines until there is more clarity. Also, if consumers start to believe that prices of goods and services will rapidly rise in the future, this can result in them making these purchases now and thereby, potentially causing a shortage in supply.

It is safe to say that inflation can pose some serious threats to a country's economy. The government must take proactive steps in helping to control inflation in order for an economy to maintain steady levels of growth.