FIRST QUADRANT

MARKET INSIGHT

The Multiple Personalities of Inflation, Part 1: Concepts

November 2021

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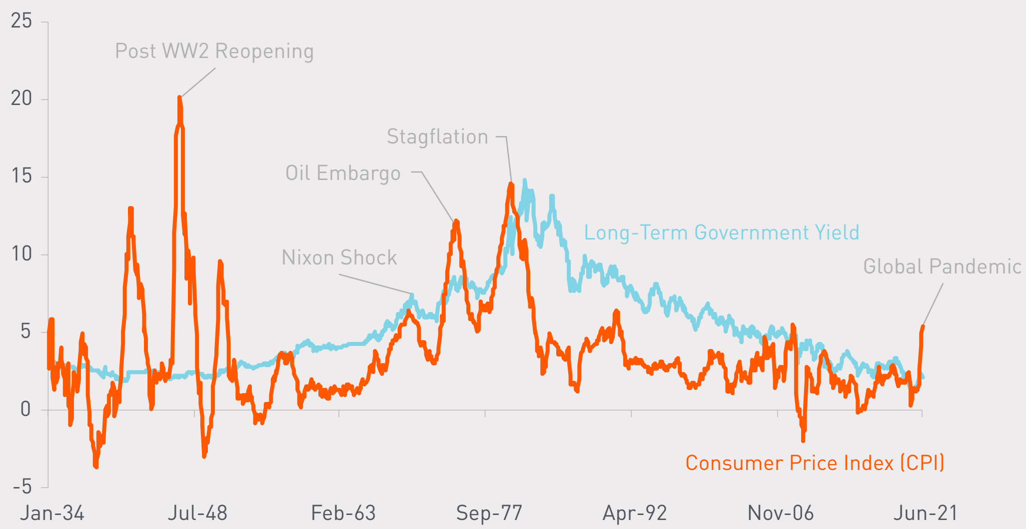
The COVID-19 pandemic has revived inflation fears. Measures of expected inflation began rising in early 2021, followed by measures of realized inflation. This is a striking departure from recent history. Inflation has been mostly dormant since the Global Financial Crisis (GFC) of 2008 and hasn't been significant since inflation peaked in 1983.

FIGURE 01 - ANNUAL RATE OF INFLATION AND LONG-TERM BOND YIELDS (JANUARY 1934 - JUNE 2021)



Sources: First Quadrant, LLC, Ibbotson Associates, Datastream

Past performance is no guarantee of future results. Potential for profit is accompanied by possibility of loss.

Investors have begun turning their attention to inflation hedging. Yet, after 38 years of declining or stagnant inflation, real inflation risk has not been an issue for a generation. As a result, the underlying causes of inflation have become reduced to a few simplistic ideas.

In this paper, we will discuss the three main types of inflation. Each type has its own underlying cause. It is only through understanding the causes of inflation that we can determine an effective investment strategy. It is similar to diagnosing a medical condition like heart disease. It's not enough to say a person has heart disease, so they should cut down on their salt to reduce their blood pressure. Heart disease can be caused by other things like smoking tobacco or too many fatty foods. Giving a simple remedy without knowing the underlying cause is likely to be disastrous. So it is with inflation, which has fallen prey to simplistic solutions in the media. For instance, many recent articles look at past inflationary episodes and treat them all in an identical manner, despite the differences in their underlying causes.

In subsequent papers, we will examine historical episodes of the different types of inflation. This will lead to a discussion of appropriate inflation hedging methods. But we will also find that it is very difficult to predict when a particular type of inflation is arriving, so we believe the optimal strategy is to prepare hedges for all of them.

Three Types of Inflation

The literature on inflation emphasizes three causes of inflation: (1) increased demand, (2) decreased supply, and (3) growth in the money supply. To hedge current inflation, we believe it is important to understand the underlying cause(s), since policy-makers and markets have historically responded differently to each. The inflation we've experienced since 1983 has typically been demand-related inflation. This time, decreased supply of goods and growth in the money supply are additional concerns. So, what has worked in the recent past might not work as well in the current environment. But in order to hedge all three types of inflation risk, it is important to understand their underlying causes, as well as their effects.

"Demand Shocks"

Positive demand shocks cause price inflation. Interestingly, though, a positive demand shock often starts as a *negative* demand shock, caused by some outside event (e.g. war, natural disaster, market crash). In a negative demand shock, a fall in total demand for goods and services leads to a fall in employment and prices. This, in turn, leads to reduced economic activity. Policy-makers typically stimulate demand through cutting interest rates and/or taxes. A decline in interest rates encourages a shift from savings to spending, increasing consumer demand.

As demand increases, employment recovers and prices increase back to previous levels. It is possible, however, for stimulus to overshoot and for inflation to continue rising even after the economy reaches full employment. In this case, policy-makers can rein in inflation by reversing policy, raising interest rates and/or taxes to slow economic activity.

This should sound familiar, since we have experienced this scenario multiple times since the 1983 peak in inflation. In recent history, both the Tech Bubble and the Great Financial Crisis ("GFC") were demand-side events. In each instance, the global economy experienced a large negative shock to demand, and central banks used loose monetary policy to stabilize prices and employment. Eventually, demand recovered and began to exceed prior levels, at which point central banks began to taper and ultimately tighten.

But there were other times when inflation had very different origins. The OPEC oil embargo of 1973 and the subsequent shock to oil supply is one example. The post-World War II environment in the US could be another. Finally, it is possible that the disruption to the global supply chain of 2021 is another. Inflation at these times appears quite different.

"Supply Shocks"

Historically, there have been many instances where inflation is caused by issues with the supply of goods and services. Supply is determined by capital, labor, and technology. When available capital and labor fall, production slows. An economy could see an increase in available labor following an influx from immigration, or a reduction due to pandemics or war.

Some goods, such as oil, play a particularly large role in production processes. Supply shocks for these assets can rapidly transmit through the broader economy. For example, in 2014, fracking in the US increased the supply of oil after many years of conservation efforts to reduce demand for fossil fuels. Increased supply led to significantly lower prices. In contrast, the 1990 Gulf War resulted in a disruption of the supply of Middle East oil, and in turn, a substantial rise in prices.

The challenge in addressing supply shocks is that policy-makers have far less control over supply than demand, at least in most modern developed economies. In addition, if the supply shock is due to a shortage of raw materials used in the production process, then companies may lay off workers, increasing unemployment and hurting economic growth. Policy-makers can still address rising prices by raising rates and/or taxes, reducing demand to match the fall in supply. However, they may not want to do so if the economy is already on shaky footing, since raising interest rates also tends to cool the economy and raise unemployment.

If the shock to supply is large enough, the only solution to supply-side inflation is to induce a recession through a sharp increase in interest rates and/or taxes. Usually there is little political will to impose such pain on the economy and its citizens. So supply shocks are often left to the private sector to solve.

"Monetary" Inflation

In the mid-twentieth century, many economists bristled at calling rising prices "inflation." Inflation originally referred to inflating the stock of money. Too much money chasing too few goods caused a devaluation of the currency and a subsequent rise in prices.

Currency in circulation had been priced in gold since at least the Roman Empire. When the currency itself was gold (or some other metal), the stock of "money" was constrained by the stock of the metal. Mining and minting metallic coinage takes a lot of time and resources. As a result, the stock of gold – and in turn, money -- typically grew slowly.

Over the last couple of centuries, many economies introduced paper currency. Initially, the value of the paper currency was tied to a fixed amount of gold (the so-called "gold standard"). This approach was intended to keep governments disciplined and the value of paper currency stable. However, with the advent of paper money came valuation crises. Since the stock of paper money was backed by a fixed amount of gold, more currency in circulation backed by the same amount of gold devalued the currency. This happened during the US Civil War, particularly in the South. Confederate money wasn't worthless just because the Confederacy lost, but mostly because they had too little gold to back their paper money.

After 1971, most economies officially converted to "fiat currency," which is a currency backed by the promise of the government rather than a physical commodity. Since then, governments have created money virtually through deficit spending, backed by increased borrowing. This shift gave rise to the theory that inflation is a monetary phenomenon brought on by excessive government spending and borrowing that inflates the stock of money.

We have indeed seen that excessive borrowing and spending generate inflation when a currency is fixed to another asset (now typically the US dollar), or when faith is lost in the ability of the country to repay its debt. On the other hand, large developed economies like the US and Japan have implemented massive debt and experienced what many consider too *little* inflation. This would seem to contradict the monetarist belief that excessive borrowing and spending cause inflation.

Even so, there still remains a risk that the large amount of fiscal and monetary stimulus enacted recently to combat the economic effects of the global pandemic could lead to monetary inflation. Such a large increase in expenditure and debt has not been incurred in the era of fiat money, so the ultimate impact remains unknown.

Summary

In summary, we have three types of inflation, each with its own underlying cause. In retrospect, we can often classify an inflationary episode as falling into one causal camp or another, but knowing the type while it is happening is another story. Even after the fact, it can be difficult to classify. We can also have different types of inflation occurring at the same time, or one type of inflationary crisis, if handled poorly, can lead to another.

In the next paper, we will evaluate historical inflationary episodes to glean some wisdom for future episodes, and move closer to our ultimate goal of developing an ongoing inflation-hedging strategy.

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