Inflation post #5: The coming recession and the real economy pain index. Date 2022-08-6

The latest CPI release by the Bureau of Labor Statistics on the 13th of July showed that prices increased by 9.1% from a year ago, which is the largest yearly rise since November 1981.

In my previous post on inflation (post #4) I've explained why I believe supply-chain disruptions are not the main cause of high inflation but that in fact the underlying cause is much simpler: Current inflation is a monetary phenomenon which is formulated by the equation of exchange that states that Nominal GDP is the quantity of Money (M) multiplied by the velocity at which it circulates (V). The 37% increase in the money supply in 2020 and 2021, coupled with the pandemic post-lockdown and post-vaccination economic recovery are the main culprits for rising prices, with supply-chain disruptions adding to the problem.

We are currently at a turning point in both the economy and inflation, so this post is dedicated to explaining the current economic context and where I believe things are going next.

The current economic context:

The economic recovery that started mid-2020 saw the unemployment rate drop from a record 15% to less than 4% by late 2021 (see Figure 1). Economic activity started to ebb away by late 2021 and by early 2022 the economy was faced with stagnant growth and rapidly increasing prices (inflation). These are clear symptoms of a stagflation environment.

Figure 1 - US historical unemployment rate

By late 2021, the U.S. economy was already starting to naturally decelerate from its unprecedented post-pandemic recovery as full employment was reached. With inflation picking up, the central bank promised (and has delivered) aggressive rate hikes and the contraction of its balance sheet in the following months to rein in inflation. The last rate hike of 0.75% occurred at the July 27th Fed meeting (raising the discount window to a 2.25%-2.50% range) and the Fed also signalled two more rate rises of 0.5% each in September and October. The current Fed policy target is too aggressive because, as we'll see below, the economy is already tipping from stagnation into a full-blown recession in the coming quarters.

The first two quarters of 2022 showed that the US economy real GDP contracted slightly in both quarters leading to calls that the economy has been in recession since early 2022[1]. However, the unemployment rate

[1] Technically an economic recession if defined as two consecutive quarters of economic contraction. However, the NBER, that declares official recession period for the US economy analyses several economic variables when making

continued dropping during that period, and the economy is currently at very low unemployment levels[2] (as shown in Figure 1). Furthermore, with inflation at high levels, there is bound to be high uncertainty in the calculation of real GDP as small changes to the assumed price deflator could easily transform the small drop in real GDP in Q1 and Q2 of 2022, to a small **rise** in real GDP. Table 1 illustrates this point[3].

	GDP		Fed Deflator		Quarterly GDP Change		Annualized GDP	
	Nominal $, Bn	Real $, Bn	Yearly %	Quarterly %	Nominal %	Real %	Nominal %	Real %
Q4-2021	24,002	19,806	7.1	1.775				
Q1-2022	24,386	19,727	8.3	2.075	**1.60**	**-0.40**	**6.40**	**-1.60**
Q2-2022	24,851	19,681	8.9	2.225	**1.91**	**-0.23**	**7.63**	**-0.93**

Table 1 - Nominal GDP, Real GDP and Price Deflator.

We can observe that the Fed deflator for Q1 and Q2 of 2022 looks very steep (relative to Core CPI, for example) which brought down Real GDP to negative values. We can observe that in Q1 2022 the economy registered an annualised growth of 6.4% in Nominal GDP, but a negative 1.60% real GDP.

The growth in Nominal GDP and small drop in real GDP mean that we are likely to observe corporations increasing their revenue, even though they could experience an overall drop in the number of goods and services sold. This would provide strength to the corporate sector, over time. These characteristics of the US economy in Q1-2022 and Q2-2022 therefore point more towards a stagflation environment. With unemployment near historical lows and inflation still at high levels, I believe the Fed will have no excuses not to follow its rate rising path at the September meeting of the FOMC.

The coming economic recession:

For the past 11 months, I have been producing reports that seek to predict changes in the economic outlook in the US, and consequently other markets linked to the US, through the use of my proprietary Economic Cycle Indicators (ECI). These allow my clients to be able to plan for turning points in the future economy, both positive and negative.

At the start of 2020 the world was faced with a new deadly virus SARS-Cov2 that led to panic-stricken populations and government authorities to implement citizen lockdowns, grounding of airline fleets, wearing of face masks, closing of parks, beaches, gyms, and more, which led to an unprecedented deep recession from March to May of 2020. The subsequent economic recovery which started in earnest by late 2020 led to our ECI to reach very high values above 2.0[4], indicating a very strong economic recovery, as shown in Figure 2. The economy started petering out by late 2021, and by early 2022 our ECIs were pointing

its pronouncement of US recession start, bottom and end dates. A clear example was the very deep but sharp recession that occurred in March-April 2020 which lasted only one quarter but led to an unprecedented fall in real GDP and rise in the unemployment rate.

[2] The unemployment rate has been at 3.6% since March 2022.

[3] Sources:
1 - U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GDP, August 4, 2022.
2 - U.S. Bureau of Economic Analysis, Real Gross Domestic Product [GDPC1], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GDPC1, August 4, 2022.
3 - U.S. Bureau of Economic Analysis, Gross Domestic Product: Implicit Price Deflator [A191RI1Q225SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/A191RI1Q225SBEA, August 4, 2022.

[4] The ECI is a normalized indicator ranging from about -3 to +3 referring to the standard deviations below (or above) average.

to economic stagnation ahead, but still a resilient economy. In the last couple of months our ECIs took a nosedive, in both July and August, reaching a current value of -0.76, which indicates that the economic stagnation observed in Q1-2022 and Q2-2022 is likely morph into a deeper recession in the coming months.

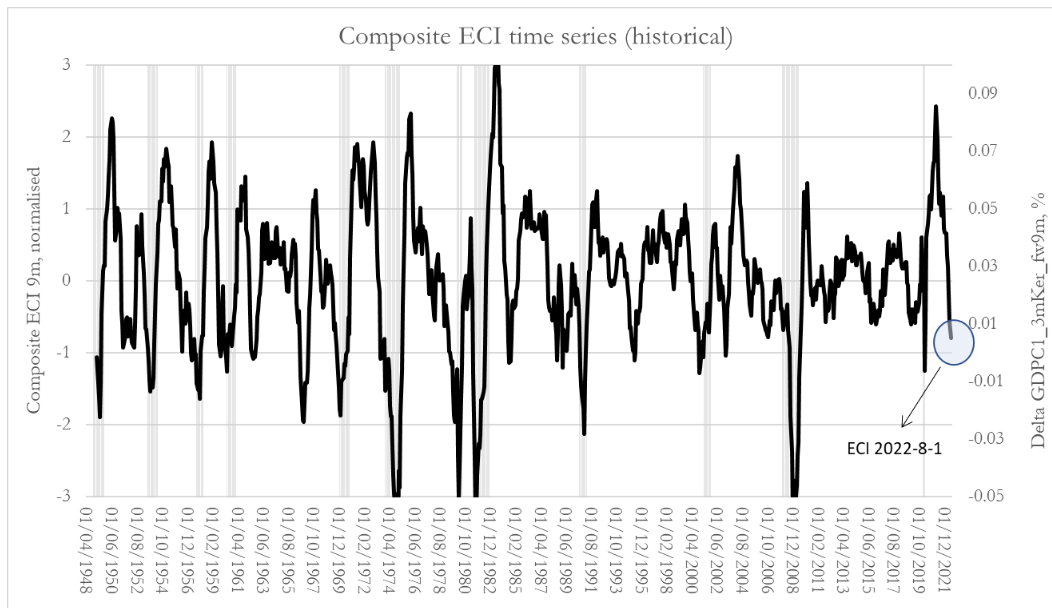

Figure 2 - Historical 9-month forward ECI indicator for the US economy. The grey bars refer to US recessions.

I believe that the sudden dive in the ECI will continue, and it is still uncertain where the drop will stop, which will determine how painful the coming recession will be. I believe that the two main sources of risk for estimating the depth of the recession are the magnitude of the policy mistake by the Fed (in sticking to its rate-rising plan), a debt crisis in China (with spillovers to Asia) as well as geo-political tensions in Asia.

I believe our ECIs will capture the policy effects of the Fed as well as external impacts to the US economy, providing a forewarning to our readers.

The Real economy pain index and Stagflation:

What will the coming recession feel like?

In the 1980s economists followed a now forgotten economic index called "the economic pain index". It was an attempt to capture the economic pain felt by working class individuals in the stagflation environment of that time.

The main differences between then and now are that the population then was much younger (with the post-WWII baby boomers in their 30s), and unemployment was high, together with inflation. Currently, we have older populations, and very low unemployment rates but high inflation.

Figure 3 show the "pain" index for the US economy. The pain index usually sits below 10%. We can observe that in the 1970s and 1980s the pain index reached its maximum of about 20%. The pain index rose above 10% in the aftermath of the 2008 Great Recession and then sat at about 5% from 2015 to 2019, close to its all-time minimum. In April 2020, the pain index shot up above 15% due to the rise in unemployment caused by the SARS-CoV-2 government lockdowns. Subsequently, the pain index dropped below 10% as the economy started its recovery but then shot up again from mid-2021 due to the rise in inflation. It is now hovering around 12%.

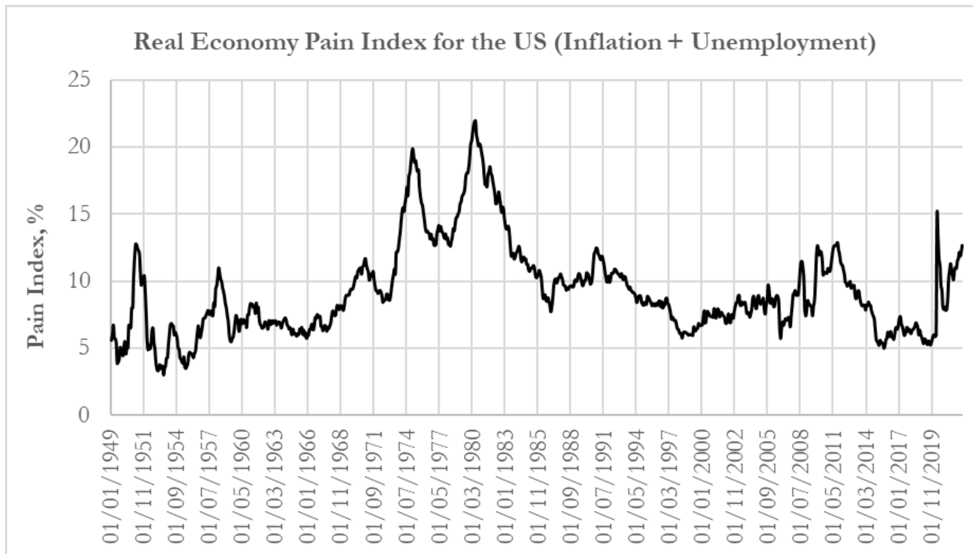

Figure 3 - Historical "pain" index for the US economy. Period: 1/1949 – 7/2022

At this point it is important to remember the equation of exchange which states:

Nominal GDP[5] = M x V

The approaching recession will lead to a stalling in the velocity of money and I believe the quantity of money will remain unchanged. I think that this recession is different from others in the past, in that the drop in the velocity of money will come from reduced inflation or even a drop in prices as retailers cut prices, and to a smaller amount by a decline in real GDP (caused by modest increases in the unemployment rate). With the information I currently have, I do not anticipate that the unemployment rate will rise much above 5%-6%, unless we have a extreme policy error by the Fed, or China's debt crisis spirals out of control.

Therefore, we could have a recession where the pain index actually declines from current levels to below 10%. However, once the recession is over, I believe that inflation will come back with a vengeance, and so will the pain index. As a sidenote, I do not believe the pain index is an accurate measure of the economic pain felt by working individuals in the current environment, but it is a useful proxy, nonetheless.

Thank you for reading. I hope this post helped clear up the noise instead of adding to it.

[5] M is the quantity of money and V is the velocity of money.