Weighing the Risks of Inflation and Recession

November 2023

1) Can the inflation be brought down to a stable level without sharply higher unemployment? 2) What is the risk of a recession caused by the current high interest rate environment? By observing what happened in the past, we believe that inflation will return to the long-run average for the last 20 years. With no further rate hikes and moderating inflationary pressure, there is a slim chance for a recession in the next 12 months.

By Cathay SITE

After the September FOMC meeting, fears of US recession next year were rising again.

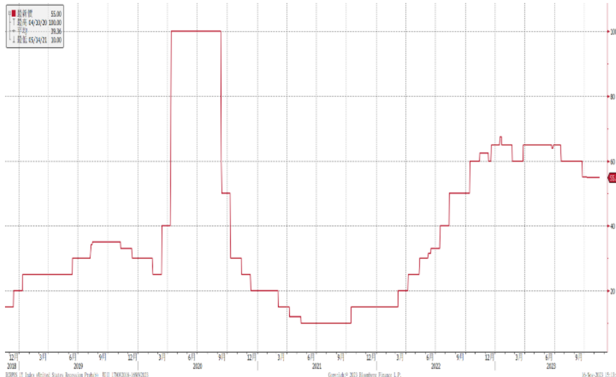
The last mile full of uncertainty and self-doubt

US economy contracted for two consecutive quarters over the first half of 2022, satisfying a widely accepted definition of recession. Adding to that were Fed's aggressive rate hikes and skyrocketing inflation, all convincing the market that the US economy already was in a recession, or was very likely to pay the price for defeating inflation with a recession sometime soon.

The annual inflation rate in the US slowed to 3.2% in October 2023 from high of 9.1% in June 2022. Unemployment rate was tied with decade low within the range of 3.4% to 4.0%. US GDP grew at a pace over 2% in the first three quarters of 2023, and so far since 2022 NBER hasn't declared that the US economy was officially in a recession. For reasons outlined above, heading into Q3 of 2023 the market started to doubt if a recession was still a sure thing.

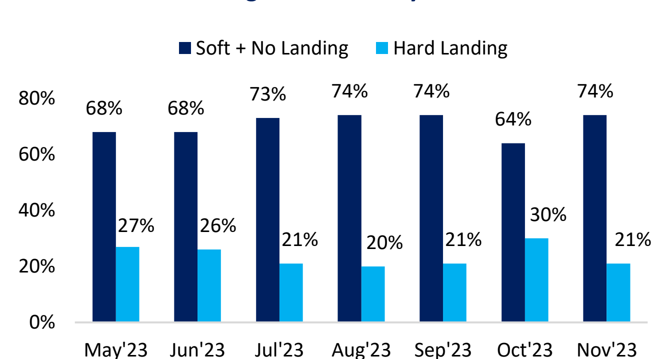
Against this backdrop, annual CPI inflation of 3.7% in September marked the third consecutive month of higher annual inflation v.s. 3.0% in June as a result of base effect and rising oil prices. The Fed's September dot plot signaled fewer rate cuts in 2024. Sticky inflation and Fed's higher for longer message made the market wonder whether the Fed itself wasn't confident of taming inflation. Is the Fed unlikely to be able to bring down inflation to 2% without causing sharply higher unemployment? Therefore, after the September FOMC meeting, the odds of the US entering a recession in the next 12 months have once again increased according to surveys.

Chance of US recession in the next 12 months



Source: Bloomberg's Survey of Economists

The outcome for the global economy in the next 12 months



Source: BofA Global Fund Manager Survey

To answer the above questions, we have to go into deep dive on the following two aspects: 1) Can the inflation be brought down to a stable level without sharply higher unemployment? 2) What is the risk of a recession caused by the current high interest rate environment?

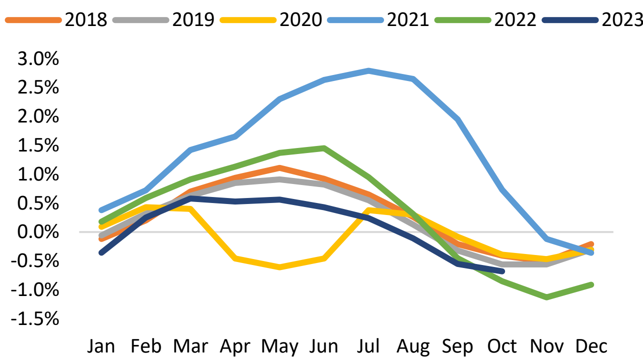
Trend v.s. Absolute Level

First, the potential progress on inflation can be analyzed from below three aspects: 1) high frequency indicators; 2) supply and demand structure; 3) inflation experiences.

About high frequency indicators, we break inflation down into Housing, Used cars, Food, Energy, Core goods and Core services, respectively measured by high-frequency rental data (leading the shelter component of CPI by 1-1.5 years), Manheim Used Vehicle Value Index (leading the used cars and trucks component of CPI by 2 months), FAO Food Price Index (leading the food component of CPI by 6 months), US regular gasoline prices by EIA (leading the energy component of CPI by 1-2 months), Global Supply Chain Pressure Index by NY Fed (leading the core goods component of CPI by 6 months) and average hourly earnings YoY.

We can find that in October rents were trending slower than previous years, used car prices slipped further in November, food prices dipped, energy prices kept falling through the month, global supply chain pressure was easing, and wage increases moderated. Most inflation high-frequency data point to a possibility of decelerating inflation, despite the influence of base effect, statistic factors or short-term fluctuations in individual items.

MoM Change in US Rent Index



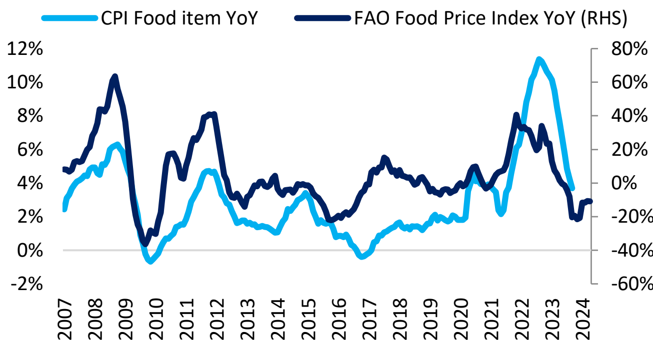
Source: Apartment List Rent Estimates

Manheim Used Vehicle Value Index

Month	2022	2023
Jan	257.7	224.8
Feb	252.3	234.5
Mar	243.9	238.1
Apr	241.3	230.8
May	243.0	224.5
Jun	239.9	215.1
Jul	239.6	211.7
Aug	230.0	212.2
Sep	223.1	214.3
Oct	218.2	209.4
Nov	217.6	206.1
Dec	219.3	
Annual Avg.	235.5	220.1

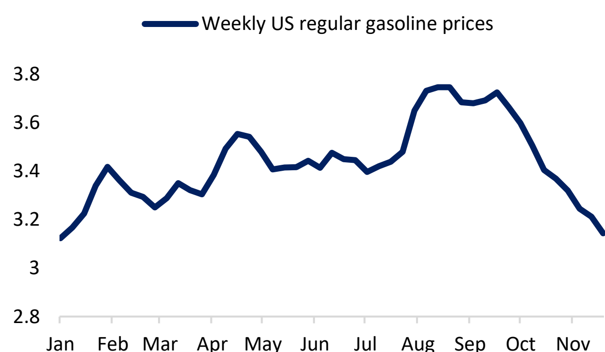
Source: Manheim

Food



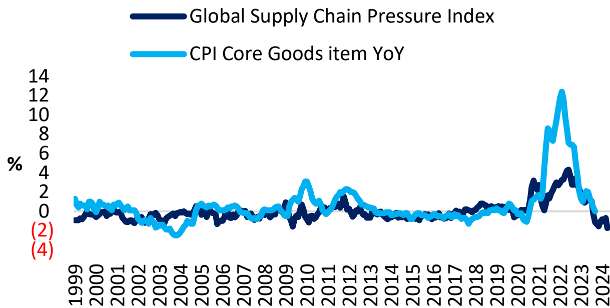
Source: FAO, Wind

Energy



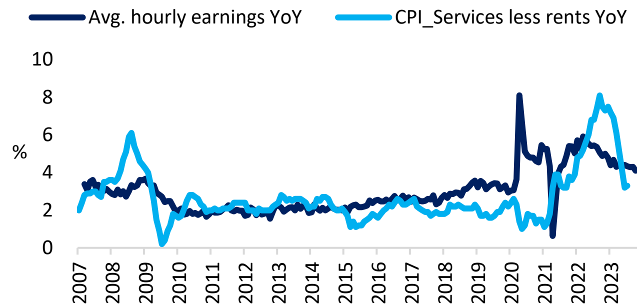
Source: EIA

Core Goods



Source: NY Fed, Wind

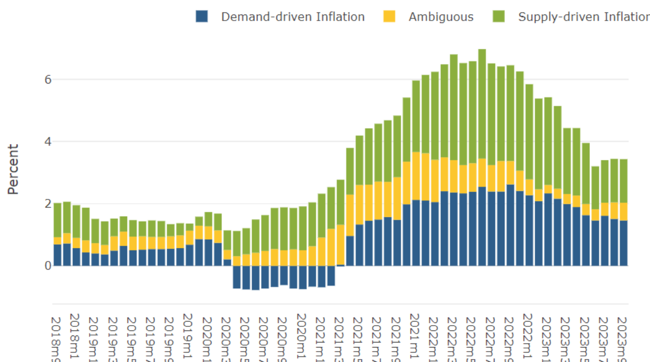
Core Services



Source: Wind

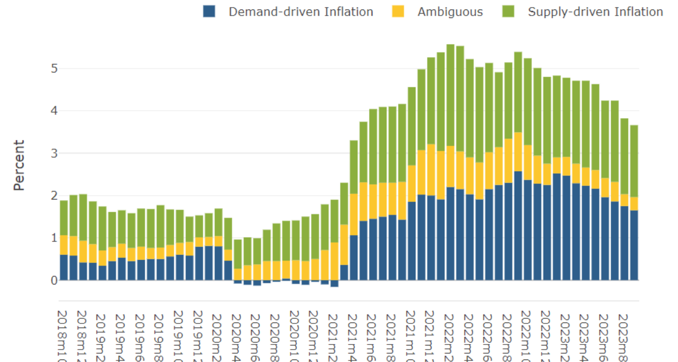
In terms of supply-demand structure, we use the supply-and demand-driven contributions by San Francisco Fed which show that high inflation seen during 2022-2023 was contributed by both aggregate demand and supply factors, including supply chain disruptions. The gradual resolution of supply chain bottlenecks contributed to the improved inflation environment in 2023. While supply-driven contribution still exceeds pre-pandemic levels, it will return to its historical levels as the contribution from related items (primarily housing) continues falling, and inflation will drop to 2.5% consequently.

Supply and Demand Contributions to YoY Headline PCE



Source: San Francisco FED

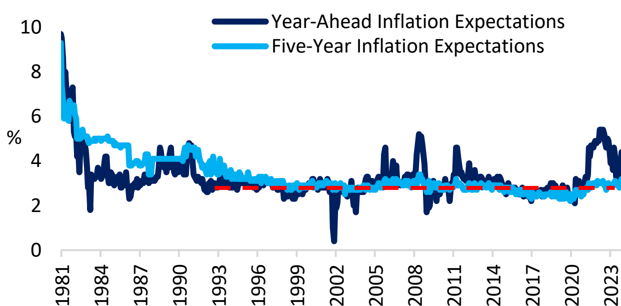
Supply and Demand Contributions to YoY Core PCE



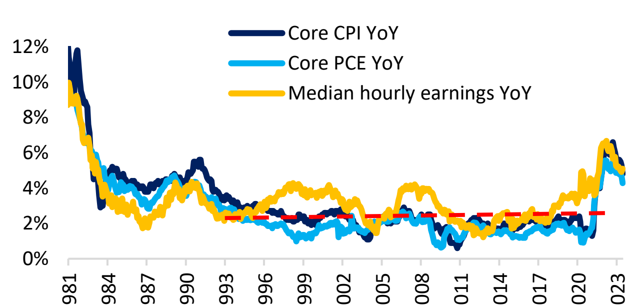
Source: San Francisco FED

Many investors worry that shortages in the job market could lead to persistently high inflation. From our opinion, it is trend or absolute level that matters. Before 1990, consumers' medium-term (five years ahead) inflation expectations of the University of Michigan Consumer Sentiment Index showed a strong correlation to the actual inflation data, but the correlation weakened significantly afterwards. When consumers' medium-term (five years ahead) inflation expectations hovered at 3%, core CPI YoY rarely went above 2.5% despite the sometimes-tight labor market and accelerating wage growth.

Consumer Inflation Expectations



Source: Bloomberg



Source: Bloomberg

The above phenomenon is fairly straightforward. If consumers, even of high-income levels, are expecting a mild inflation and there are no supply chain issues to force consumers to accept brutal price hikes, then consumers will only absorb the price increases within a reasonable range, therefore capping consumer prices at certain levels. Considering that the current consumers' medium-term (five years ahead) inflation expectations hasn't changed much since 1990, consumer price inflation should still be capped at around 2.5%.

As for the trend, will inflation fall further from current level of 3.2%? The answer is yes. Will inflation keep falling after it hits the absolute level of 2.5%? We are not so sure, but it doesn't really matter because real interest rate will approach 3% as inflation comes down to 2.5%. Once inflation stays not too far from 2%, there would be no reason for the Fed to keep rates higher for longer, paving the way for a less restrictive monetary policy.

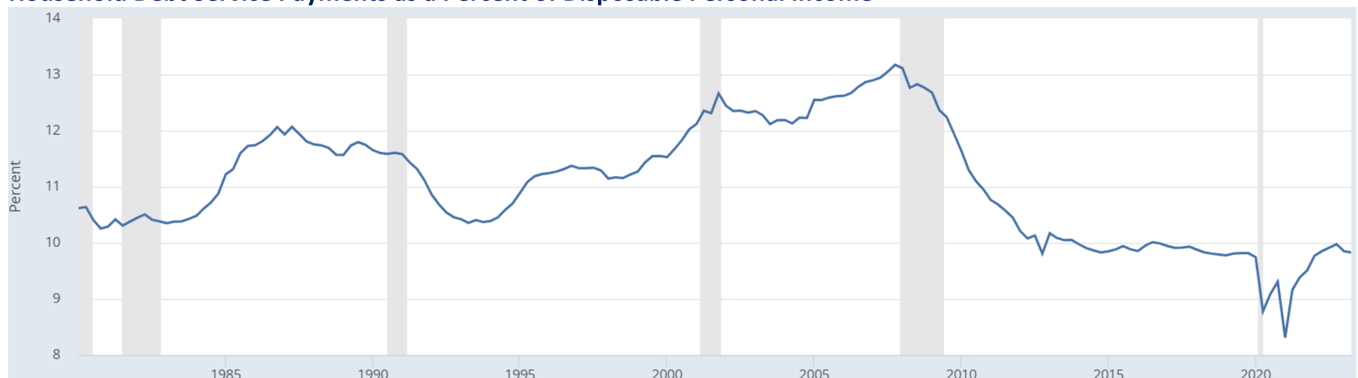
How to assess recession risk?

The next question is: what is the risk of a recession caused by the current high interest rate environment?

Before diving into this question, we should define what a recession is first. According to NBER, a recession is "a significant decline in economic activity spread across the economy, lasting more than a few months. That is, an overheating economy (resulting in deep and widely diffused decline in activity) or a financial crisis (dragging on the real economy) is usually a prerequisite for the NBER-defined recession.

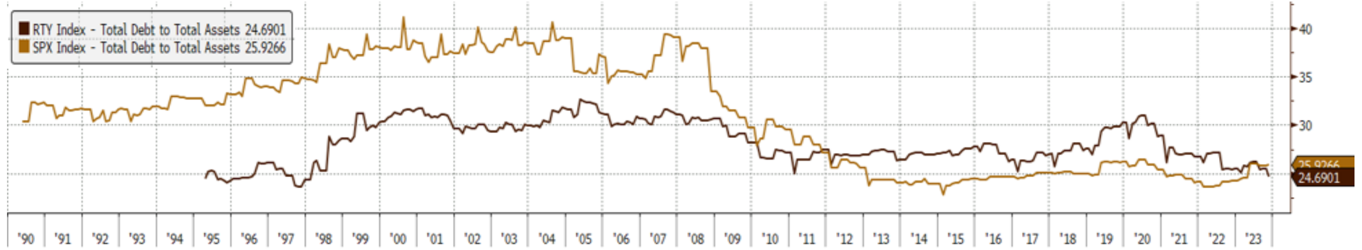
We can judge if a recession has occurred by observing below indicators. 1) Household debt service payments to disposable personal income (12% as the threshold for a recession according to history); 2) Total debt to total assets of S&P 500 and Russell 2000 (30% as the threshold); 3) Unemployment rate (below 4.5% implies limited job growth); 4) Manufacturing inventory (when over 53, manufacturing sector may face destocking pressure); 5) the percentage difference between the Fed Funds Rate and GDP (5%); and 6) R&D expenditure in view of the fact that supply-side innovations may also bring about new demands (monitoring the change in the slope of R&D expenditure).

Household Debt Service Payments as a Percent of Disposable Personal Income



Source: Board of Governors of the Federal Reserve System (US)

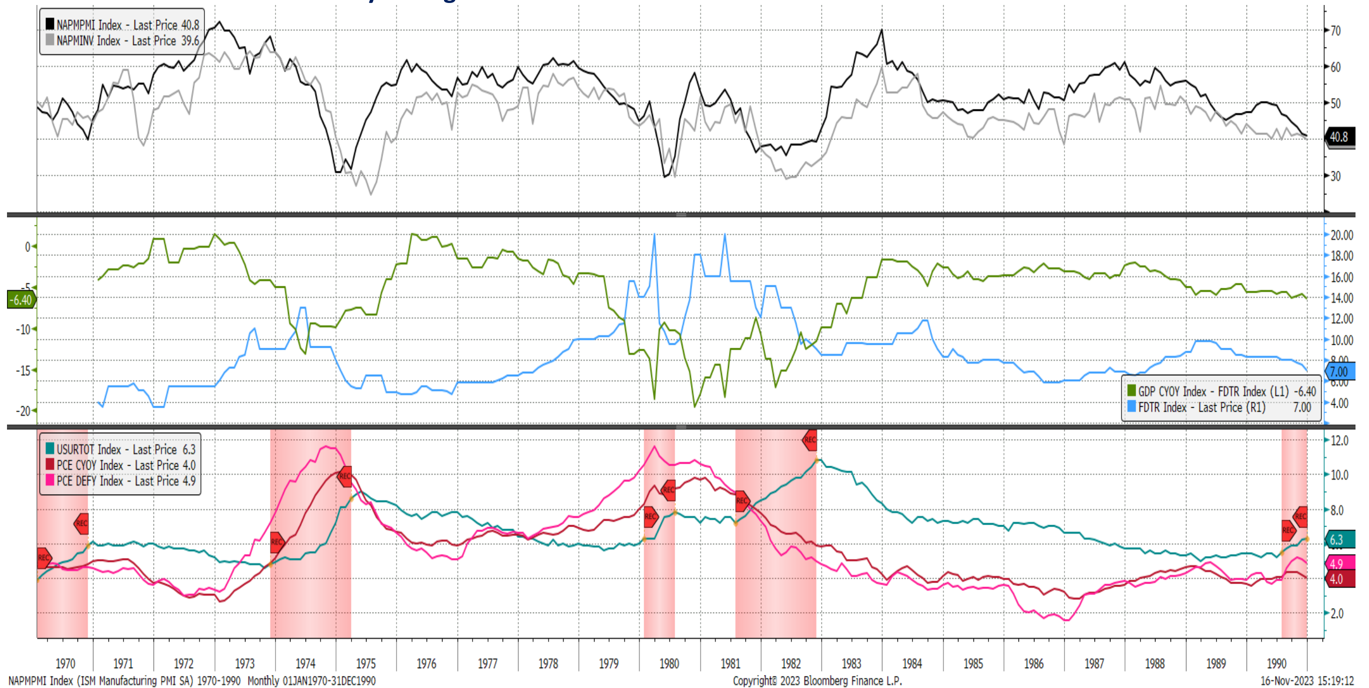
Total debt to total assets of S&P 500 and Russell 2000



Source: Bloomberg

During 1970~1990, as impacted by the oil war and labor movements, inflation and consumers' medium-term (five years ahead) inflation expectations hovered at high levels (>5%). For monetary policy, inflation was the center of attention, and interest rates were persistently at tight levels (policy rate - real GDP >5%). Haunted by high corporate financing rates and fear of inflation, unemployment rate remained at highs and corporates/ consumers were acting more cautiously. Once the manufacturing slowed down, the economy usually ended up with a hard landing (1985 was the only exception with a soft landing).

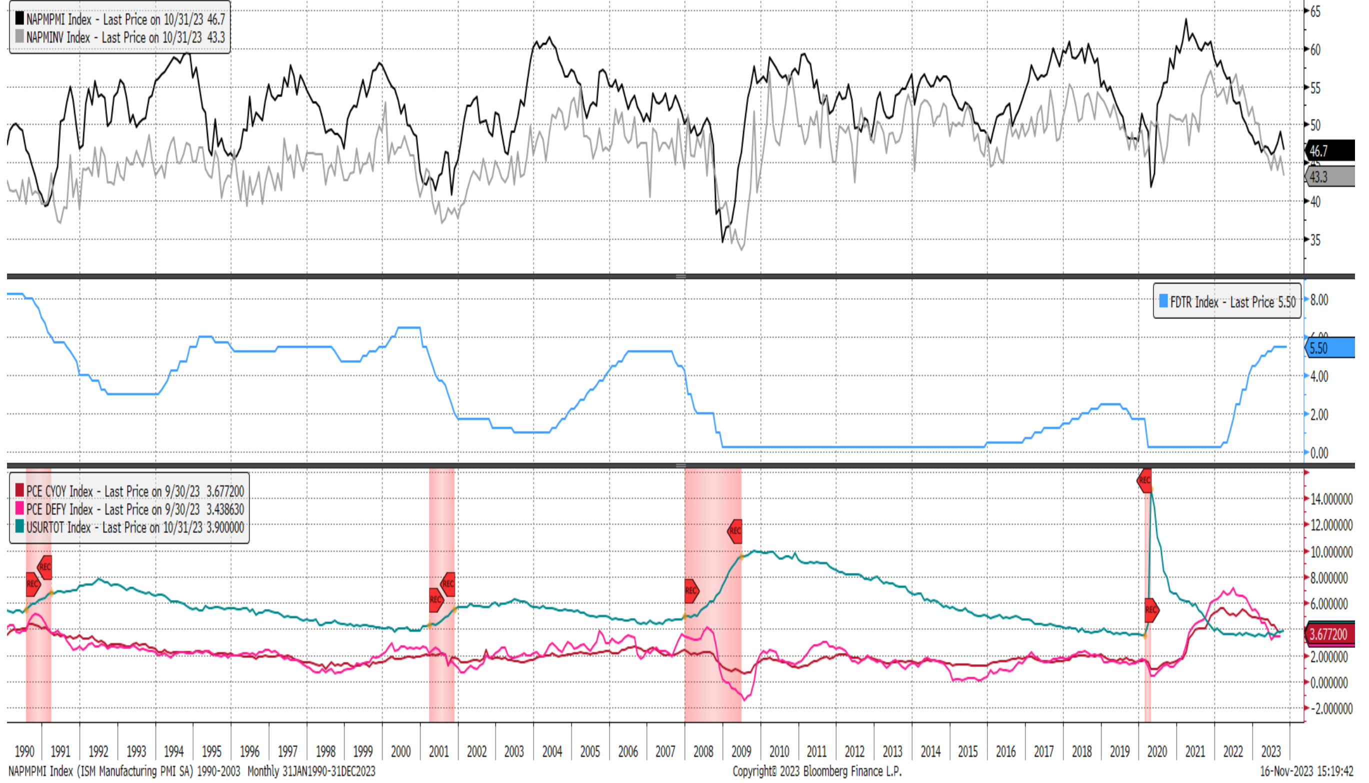
The outcome for the US economy during 1970~1990



Source: Bloomberg

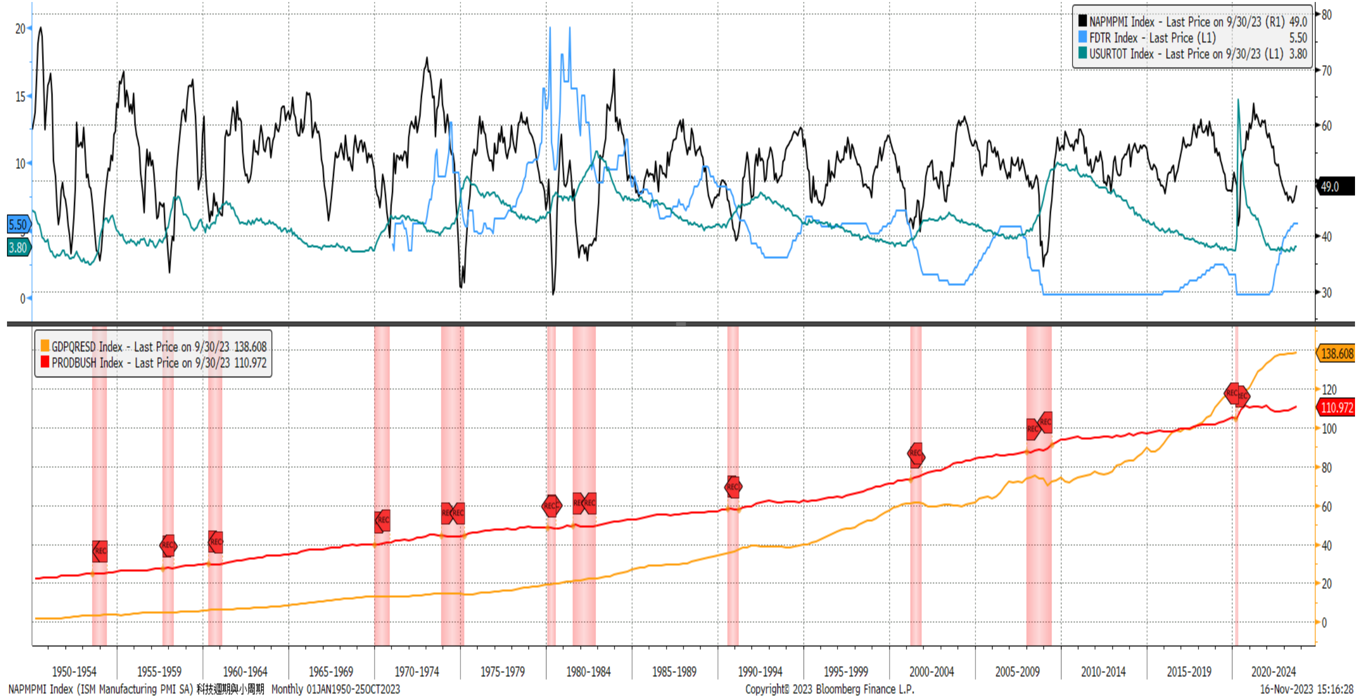
After 1990, with organized labor's influence waning, consumers' medium-term (five years ahead) inflation expectations stabilized at 3%, and meanwhile inflation volatility declined. The center of monetary policy shifted to economic growth. Interest rates were no longer tight (policy rate - real GDP >5%). Under the environment with stable interest rates and inflation and limited monetary impact, the economy showed resilience and the likelihood of a soft landing increased (Soft landing occurred in 1995, 1997, and 2019).

The outcome for the US economy after 1990



Source: Bloomberg

Link between US R&D expenditure and short-run cycles



Source: Bloomberg

Signs of an overheating economy v.s. Recession

	Manufacturing Expansion	Policy rate – Real GDP <5%	Unemployment rate >4.5%	Household debt service payments to disposable personal income (<12%)	Total debt to total assets (<30%)	ISM Manufacturing PMI: Inventories Index <53	Overheating Degree
1974	X	X	X			X	100%
1980	X	X	O	O		X	60%
1981	X	X	O	O		O	40%
1985	O	O	O	X		X	40%
1990	O	X	O	X	X	X	60%
1995	O	O	O	X	O	O	17%
1998	O	O	X	X	O	O	33%
2000	X	O	X	X	X	X	83%
2007	X	O	X	X	X	O	67%
2019	O	O	X	O	O	X	33%
2024	O	O	X	O	O	O	17%

Source: Compiled by Cathay SITE
Note: Grey- NBER recession; Green – non-NBER recession; Yellow – overheating degree <50% with an NBER recession

From the table above, we can conclude that an overheating economy (>50% of indicators triggered the threshold, i.e. 1974, 1980, 1990, 2000 and 2007) would generally result in a recession. By contrast, less than 50% of indicators triggering the threshold (1985, 1995, 1998 and 2019) implied a recession was less likely. 1981 was an exception because the Fed raised rate to 20% after a “stop-go” monetary policy, which we don’t think it will happen this time.

According to current observations, 1) Household debt service payments to disposable personal income: 9.8%; 2) Total debt to total assets of S&P500 and Russel 2000: 25%; 3) Unemployment rate: 3.9%; 4) Manufacturing inventory: 43; 5) the percentage difference between the Fed Funds Rate and GDP: 1.4%; 6) slope of R&D expenditure not substantially changed. Among the six indicators, only Unemployment rate shows signs of overheating. To sum up, the chance of a recession in 2024-2025 is projected at 17%.

To be greedy when others are fearful

After the September FOMC meeting, the concern and debate about a recession is likely to continue for a while. After all, we haven’t experienced an interest rate as high as 5% and above for a long time. However, the possibility of a recession in our estimate is lower than market expectations. Even though the Fed’s higher for longer policy may impede economic expansion in the short term, there is a slim chance for an economic downturn against the backdrop of no further rate hikes and cooling inflation.

As a whole, we believe that inflation will continue to slow and the chance for a recession will be smaller than market expected. Although market volatility may rise caused by the Fed’s expectation management from time to time, it would be a good timing to buy the dips should the worries over lingering inflation or a recession be reignited.

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