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US Inflation Jitters

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Overview

- Last week featured the release of two sets of price indices that set off jitters about inflation in the US – the CPI (including core CPI which was up 0.4% on strong increases in service prices, and "supercore" CPI or core services ex-shelter), and the PPI and core PPI both of which increased 0.4% more than expectations. Equities fell and bond yields rose on both outcomes.
- Nevertheless, US inflation will continue to fall during 2024. There is little basis for expecting any sustained resurgence of inflation, but it is unclear how long will it take for the Fed to be satisfied that 2% inflation has been reached on a sustainable basis.
- Section 1 reviews the broad monetary forces pointing to disinflation but broadens the analysis beyond measures of money in the banking system (M1, M2). I consider some of the developments in the shadow banking system and private credit markets. While these support buoyant asset markets, they do not support CPI inflation.
- Section 2 asks whether, in line with the Phillips curve, further increases in wages – as employees attempt to retore their purchasing power – will create a "second round" of inflation based on cost-push. The conclusion is negative. I also check whether economic slowdowns must precede declines in inflation.
- Section 3 examines historical relationships between broad components of the US CPI – goods and services – to see if it is possible to assess, from pre-Covid relationships, how far through the transmission process the US economy has progressed.
- The conclusion is that while durable and non-durable goods price inflation appears to be over, service price inflation has some distance to run.

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Introduction

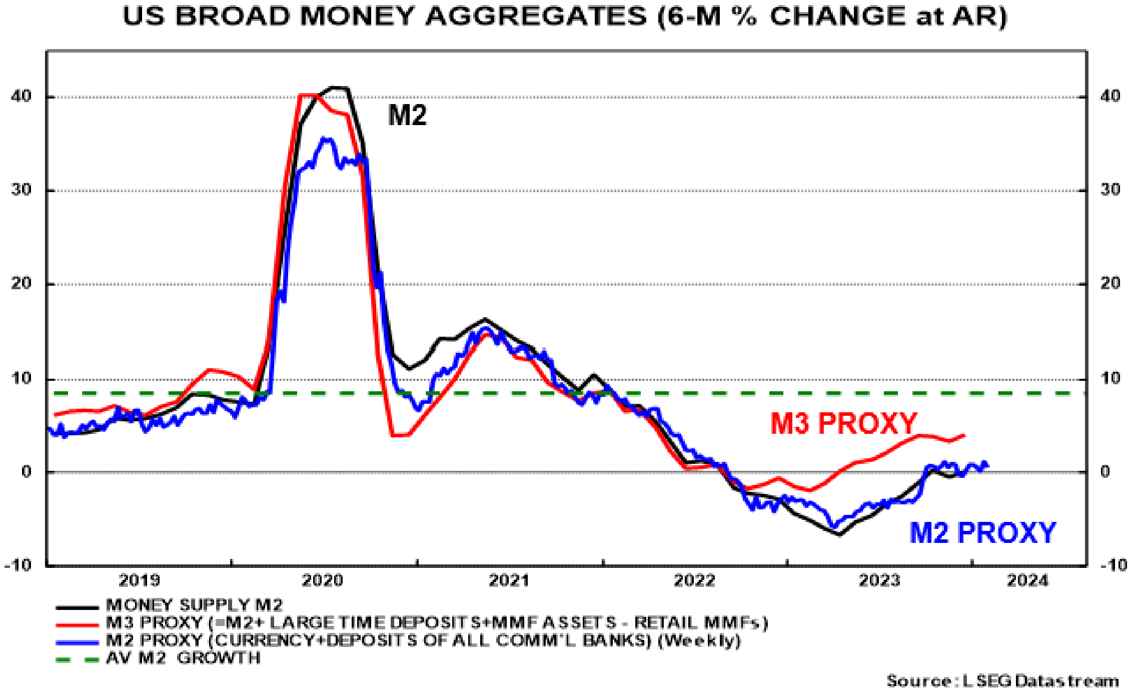
US inflation will continue to fall during 2024. Despite the angst and brief market sell-off prompted by the release of the January CPI figure on February 13th and the decline on February 16th due to the PPI release, there is little basis for expecting any sustained resurgence of inflation. The only question is how long will it take for the Fed to be satisfied that 2% inflation has been reached on a sustainable basis? In other words, what will the timing and profile of the disinflation be?

To answer these and related questions I will review (Section 1) the broad monetary forces pointing towards US disinflation – and possibly even deflation – and then consider (Section 2) some of the flaws in the non-monetary arguments that inflation may persist and even increase again in 2024, and (Section 3) how the transmission process will complete its progression through the economy.

Section 1. Broad Monetary Background Points to Further Disinflation

The source of the inflation in the US and other major economies over the past two and a half years was the huge surge in money growth at the start of the Covid pandemic. However, from March 2022 the Federal Reserves switched to tighten monetary policy by raising interest rates, and, from June, starting on QT. Money growth (M2) then plunged from high single-digit growth rates to zero or less. By September 2022 US M2 growth was negative on a 6-month annualised basis (Figure 1), and other broad measures of money were exhibiting very similar behaviour.

Figure 1. Over the past two years, broad money aggregates have stalled.

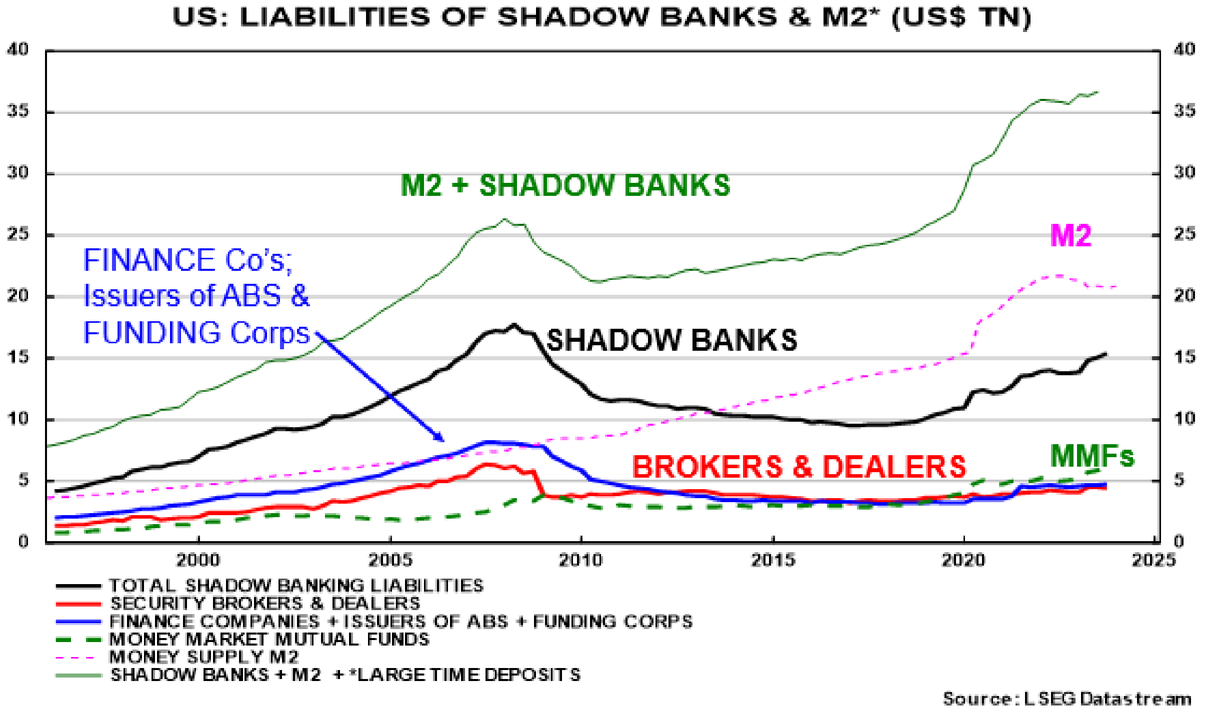


In Figure 1, I have included M2 and a weekly approximation for M2 that can be obtained by adding the cash currency issued by the Fed to the total of all deposits of

US commercial banks (the blue line). In addition, I have added a proxy for M3 (in red), the definition of money that the Fed ceased publishing in 2006. To obtain this figure I added large time deposits (which, amazingly, are omitted from M2) and shares (or deposits) in money market funds. (To avoid double-counting, this also requires the deduction of retail money market fund shares that are already included in M2.) The resulting M3 is M2 plus large time deposits plus money market funds.

The downward and very low growth rate of the two M2 series over the two years 2022-23 is the basis for forecasting a decline of inflation and possible deflation in 2024-25. The wider M3 series, also measured on a 6-month annualised basis, troughed in February 2023, moved into positive territory in April 2023, and has been growing at around 4% since September 2023. While it is possible that this very modest degree of stimulus could have brought about an upswing in asset prices and in economic activity, it is surely too soon for there to have been any impact on inflation. I therefore continue to believe that inflation will be declining in 2024 (under the influence of the earlier monetary slowdowns), and that the current upswing of M3 would not start to have any impact on inflation until early 2025.

Figure 2. Shadow Bank Activity Picking Up



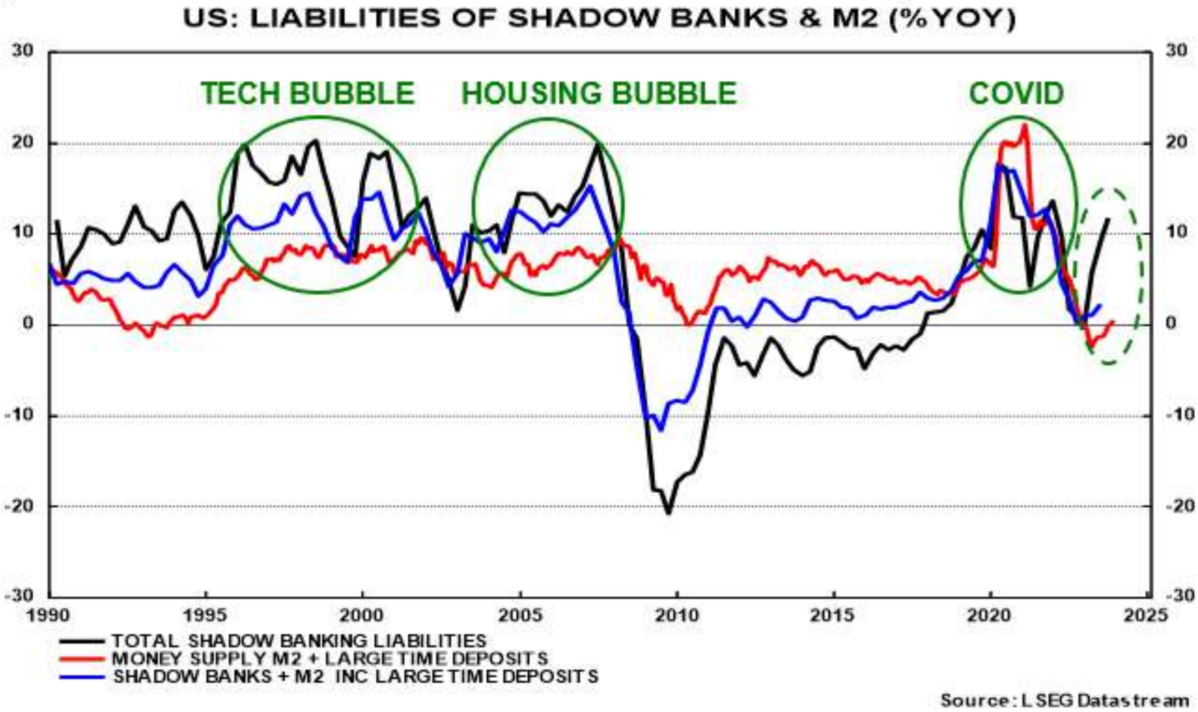
However, we also need to take account of money and credit markets outside of the narrow banking system, i.e., funding available through “shadow banks” – non-bank and private credit, leveraged loans and other non-bank sources of credit. In modern financial markets this kind of funding is often provided through asset-based lending, securitisation, or pledged collateral loans e.g., repo etc. Figure 2 shows the total liabilities of shadow banks using a definition from T. Adrian and H.S. Shin[1]. Note that these entities expanded hugely ahead of the 2008-09 GFC, and at the peak in 2008 shadow banks on this definition exceeded the size of M2 by about $8 trillion.

[1] The Shadow Banking System: Implications for Financial Regulation, FRBNY, Staff Report 382, July 2009.

Having undergone a long and painful contraction between 2009 and 2019, these entities have been gradually growing again in the past 2-3 years.

While shadow banks typically finance asset purchases rather than the purchases of goods and services in the "real" economy, the underlying assets may include equities, debt instruments, and securities based on these as well as long-lived assets such as housing and commercial property. The thin green line at the top of Figure 2 shows the sum of shadow bank liabilities plus M2, and suggests that the recent expansion of shadow banking, especially money market funds, has largely compensated for the decline in M2. Even so, the combined total has slowed abruptly since 2022 Q1.

Figure 3. A brief history of shadow banking.



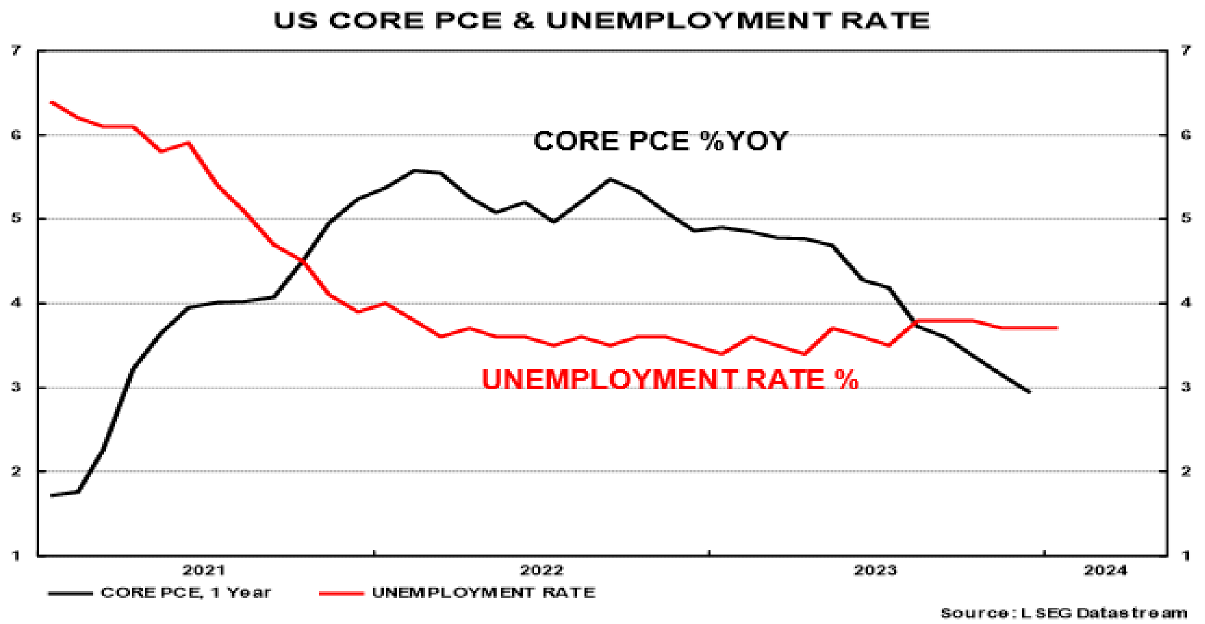
As Figure 3 suggests, the expansion of shadow banking was an important factor in the tech bubble of the late 1990s as well as in the housing bubble of the early 2000s, but it did not lead to CPI inflation. One of the main channels of expansion in those two episodes was the securitisation of bank loans – a layering of credit. Following the post-GFC collapse there appears to have been an extended period of quiescence for some of these activities (although we know that private equity and leveraged loans were active), but the Covid episode has revived activity. During the Covid period, one key mechanism was the extension of maturities by companies that had issued high-yield bonds before 2020 and took advantage of sharply lower rates to extend them.

The current post-Covid boom in credit markets and parallel expansion of shadow banking (dashed oval in Fig. 3) has been led by the huge growth of money market funds, now $6 trillion. In summary, the overall picture for the US is that the broadest measures of money plus "funding" through the shadow banking system initially slowed markedly after 2022 Q1 (coinciding with the period of tighter money imposed by the Fed and sharply lower M2 growth) but have subsequently surged again. In effect, the surge of money into Money Market Funds and other shadow banking instruments has arguably offset some of the slowdown or contraction in M2, facilitating the funding of both the federal deficit (since "government" MMFs must hold at least 50% of their assets in the form of Treasury Bills) and private credit markets.

Section 2. Non-Monetary Arguments for Inflation Persistence

One of the consensus arguments for inflation persistence derives from the Phillips Curve, the relation between the level of unemployment and the rate of change of wages or inflation. If the labour market is tight, according to the theory, the risks of inflation are much higher. Therefore central bankers, who cling to this theory, remain very worried that further increases in wages – as employees attempt to retore their purchasing power – will create a "second round" of inflation based on cost-push.

Figure 4. US inflation has declined without the typical rise in unemployment.



There can be little doubt that the steep decline of US inflation without any adverse effects on unemployment (Figure 4) is a puzzle to those of us who predicted recession in 2023 or 2024. However, cases where inflation has declined without an increase of unemployment or without a recession are not unknown.

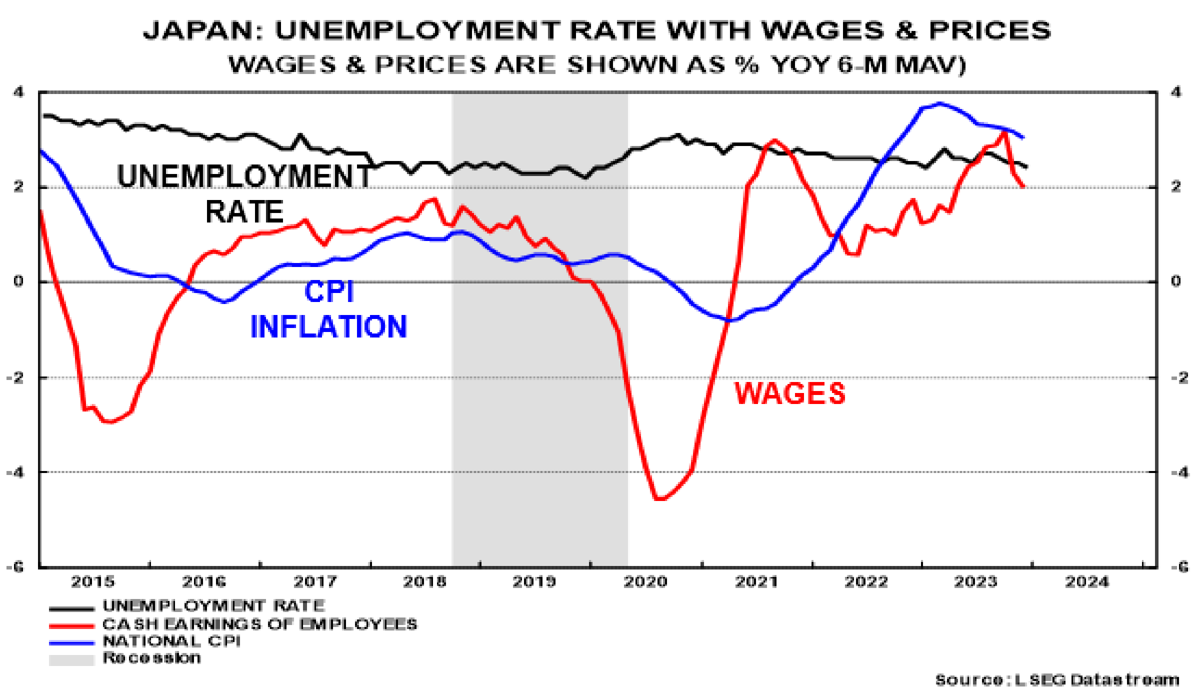
A former colleague reminded me of such an occasion in Japan in the period 1976-78. Unlike the US in 2022-23, Japan's M2 money supply did not decline in absolute terms and the fall in inflation was not as dramatic as it has been in the US in the past year, but it was a rare example of falling inflation creating "room" for real economic activity, and therefore avoiding a recession.

In Japan's case CPI inflation fell from 10.5% in 1976 Q4 to 3.9% by 1978 Q2 (all figures year-on-year), but the disinflation was relatively painless with the strength of the yen a big factor in bringing down commodity prices. Then, with M2 averaging

11.7% p.a. and without any acceleration in money growth in 1977-78, the real economy sprang back to life at the beginning of 1978, accelerating from 2.7% in 1976 Q4 to 5.6% and 5.8% in 1978 Q3 and Q4 respectively. The reduction in inflation created "room" for real activity to revive. The reduction in inflation enabled the growth in real terms. In sum, this was a modest demonstration of the reversal of the normal sequence of events: the effects of monetary policy reducing inflation first, obviating the need for a dramatic slowdown in the real economy.

More generally, Japan today also illustrates the proposition that low unemployment does not necessarily translate into inflation or wage increases (Figure 5).

Figure 4. Low unemployment in Japan with low wage growth and low inflation.



Admittedly, Japan's historical practice of lifetime employment has always meant that unemployment did not rise much in the event of a recession, and similarly, when there was overheating and inflation, wages tended to follow. This is what we are seeing in the current cycle: wages were rising based on inflation following a brief spurt of rapid M2 growth in 2021-22, but as M2 has slowed and inflation starts to decline (see IMM Newsflash #5, 31/01/2024), wage growth is also likely to start to soften. In other words, the salient point – for both the US and Japan – is that inflation and wages were -and are - both driven by monetary growth rather than the state of the labour market being an independent driver of the inflationary process.

Section 3. The remaining stages in the transmission process.

During the Covid crisis and subsequently there have been two main views of the causes of inflation: the monetary and non-monetary views. I have always adhered to the monetary school, but the consensus of economists and central bankers have tried to make the case that the inflation was largely a result of supply chain disruptions and their knock-on effects on domestic prices and wages. If this latter view was correct, we should have seen the ***level*** of prices and wages rise and then the ***level*** adjust back downwards again after the crisis was over. Instead, what we have seen is a rise in the ***level*** of prices (and therefore the ***rate*** of inflation), but a decline only in the ***rate*** of inflation; the ***level*** of prices has remained elevated.

To illustrate this result, we can use the Global Supply Chain Pressure Index (GSCPI), introduced in January 2022, by economists at the Federal Reserve Bank of New York to monitor global supply chain pressures.

Figures 5 & 6. Supply chain indices track rates of price change, but not the level of prices.

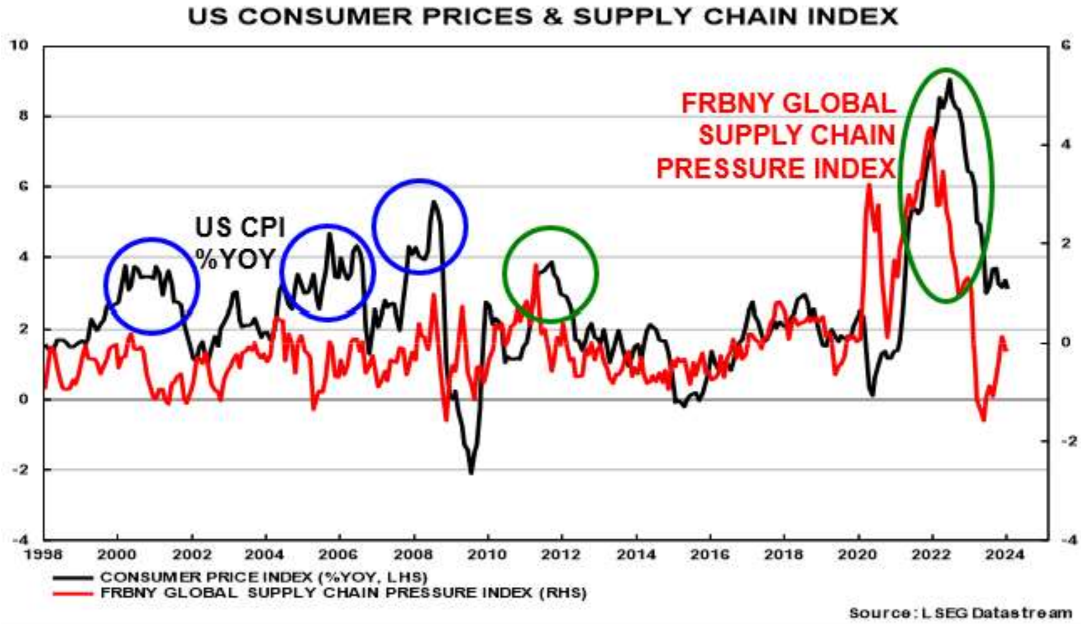
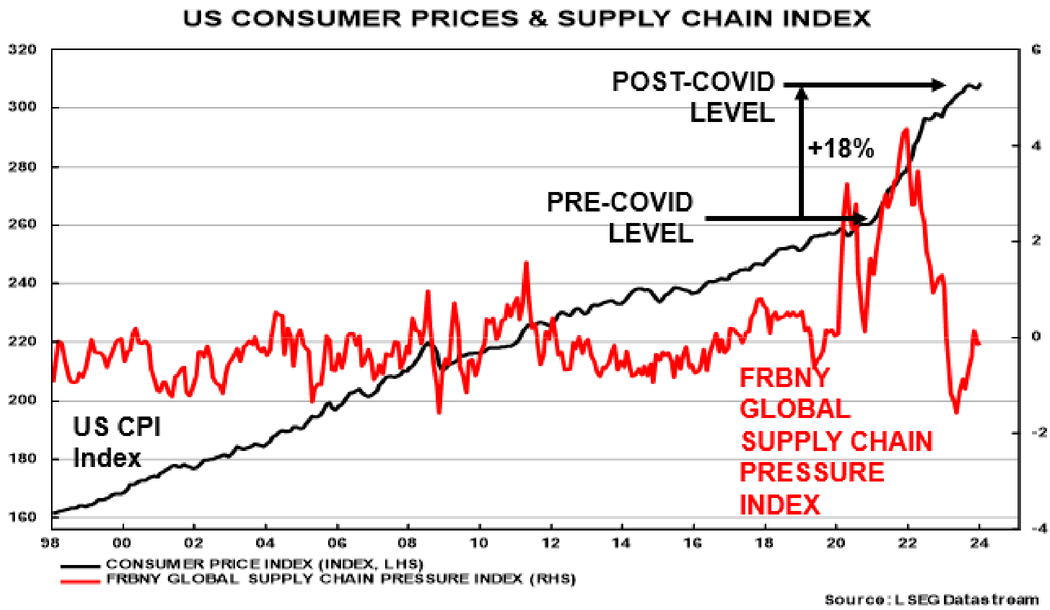


Figure 6.

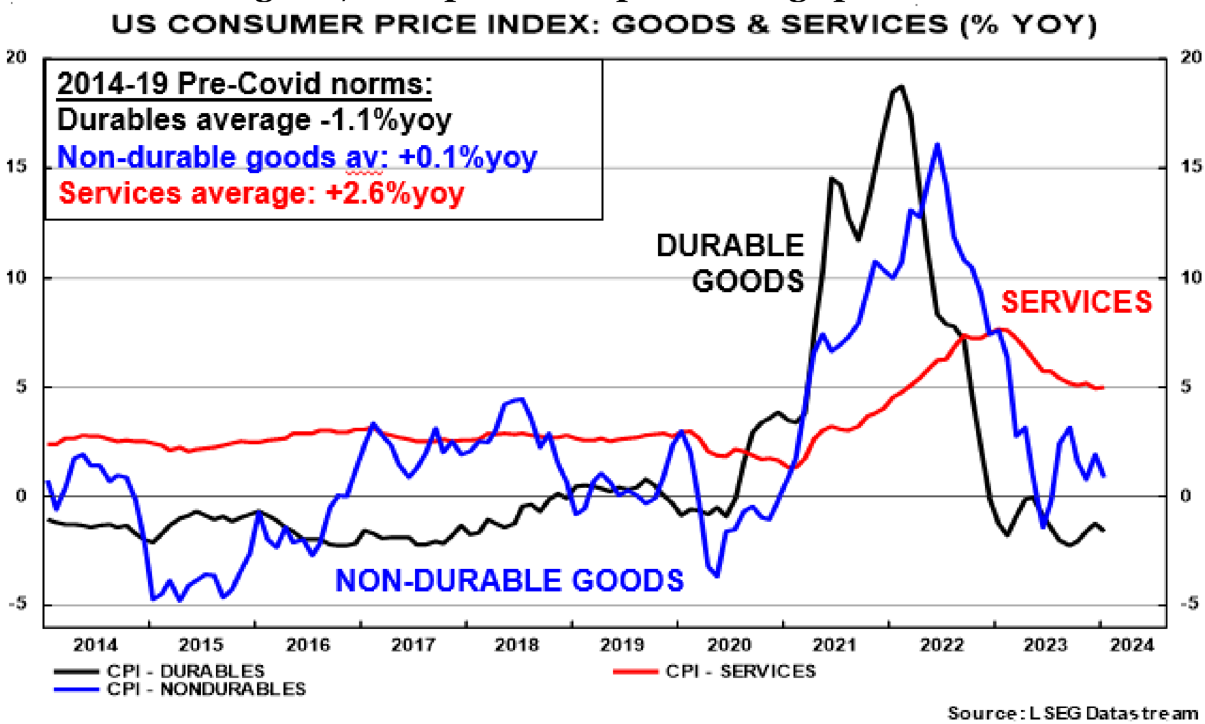


As shown by the blue circles in Figure 5, the GSCPI failed to give advance warning of CPI price increases in three episodes in the early 2000s but did a better job with the uptick of prices in 2011 and during Covid (the two green circles). Currently, having eased sharply in the first half of 2023, supply chain pressures have been easing (returning to the zero line) in the second half of 2023 but may increase further depending on what happens with transportation links through the Red Sea and the Suez Canal. However, it is inconceivable that the CPI level in Figure 6, now 18% above its level at the start of Covid, could return to its pre-Covid level. The 18% increase in the CPI level has been permanent (due to excess money), not transitory.

Popular surveys of inflation or inflation expectations among consumers often convey a widespread frustration that the overall price level is not coming down, and related fears that it might surge again. Among professional investors, however, the most important reasons for recent jitters about inflation are (1) that second round effects from services and wages might give inflation a further boost, delaying rate cuts and (2) that the Fed (and other central banks) might ease prematurely, setting off an extended round of price increases.

In my view, these fears stem from a general failure to understand the transmission process. In the following paragraphs I propose to show why the pattern of price increases so far in the Covid inflation are consistent with inflation coming to an end, and that the prospect of a further round of serious inflation is effectively nil.

Figure 7. The pattern of price change pre-Covid

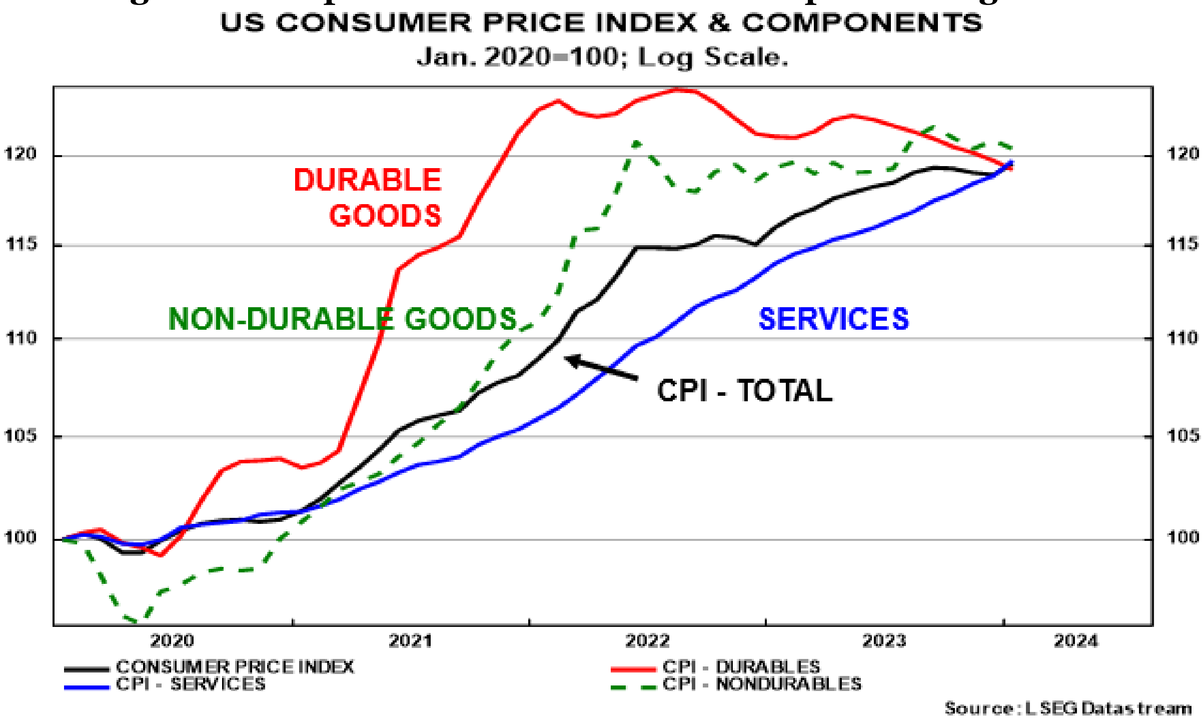


For perspective, consider the pattern of price rises during the period 2014-19 when the overall CPI increased on average by 1.6% p.a. The typical pattern was for goods prices to fall or remain roughly stable while service prices increased. As shown in the box in Figure 7, between 2014 and 2019, durable goods prices *fell* on average by 1.1% yoy, while non-durable goods prices (including food) rose by on average by 0.1% yoy.

Meanwhile, services prices increased by an average of 2.6% yoy. Since the overall CPI is a weighted average of goods (durable and non-durable) and service prices, the resulting overall annual percentage change in the CPI (averaging 1.6% p.a. during the period 2014-19) is the outcome of these three components.

During Covid this pattern was abruptly overturned. Initially, durable goods prices increased most (due to lockdowns and supply chain disruptions), followed by the prices of non-durable goods. Service prices only began to increase from the start of 2021, and generally increased at a slower pace than either durables or non-durables.

Figure 8. The pattern of inflation was disrupted during Covid.



For more detail we turn to the **levels** of the component indexes in Figure 8, using the same three key components of the CPI. Rebasing the data to January 2020=100 enables us to highlight movements during the Covid period, and particularly the timing of their increases since 2020.

Durable goods prices were the first to surge, between June and October 2020 as the first wave of Covid eased and demand pressures showed up especially in the auto market and in the related market for electronic chips. Next, there was a sustained surge between March 2021 and February 2022 when durable goods prices peaked at 24-25% above their levels of January 2020. Subsequently they have gradually slipped back to 20% above their January 2020 levels.

The story for non-durable goods prices has been very similar, except that the first lockdown with its closure of restaurants and entertainment facilities caused prices to fall by 5% in the first half of 2020. These prices then increased in the second half of 2020 and 2021, reaching an initial peak in June 2022 at 20.8 % above January 2020, and a second peak in September 2023 (21.7% above their January 2020 level), since when that level has been broadly maintained.

The pattern of service price increases, however, has been very different. Initially service prices increased at half their normal rate -- only 1.3% year-on-year to January 2021 -- but then climbed much more vigorously to "catch up" with other components of the CPI. On a year-on-year basis service prices peaked at 7.6% in January and February 2023, and slowed to 5.0% by January 2024. The overall increase so far, as shown in Figure 8, has been almost 20%.

Given what we know from the pre-Covid period about the pattern of price changes, what can we say about the recent performance of these CPI components? Figure 8 shows that the overall increase of prices as measured by the CPI is 20% since the start of Covid. Concerning its three main components, I believe the following statements are consistent with both theory and recent experience:

- First, durable goods prices have peaked and are now appear to be resuming their pre-Covid trend of annual declines of -1.1% p.a. (featured in Figure 7). After an overshoot one would expect a quicker adjustment initially, followed by a return to "trend" declines. From a peak level of 24-25% (in August 2022, Figure 8) above the Covid starting point, durable goods prices within the CPI have already declined to 19% above the pre-Covid start point. If these faster declines persist, that could be an early signal not simply of disinflation to 2%, but a signal that overall prices might weaken more – i.e., potential deflation.

- Second, non-durable goods prices appear to have plateaued at 20% above pre-Covid levels. The roughly flat pattern since their initial peak in June 2022 (Figure 8) is consistent with their pre-Covid trend of +0.1% p.a. yoy (Figure 7). In short, both durable and non-durable goods prices are behaving in a manner consistent with the current episode of inflation having ended, and these indices are returning to something close to their pre-Covid trends.

- Finally, however, service prices are still rising at 5% yoy (Figure 7), roughly double their pre-Covid trend of +2.6% p.a. (which was based on the overall CPI average increase of 1.6% p.a. in 2014-19). How long can service prices continue to climb at this rate? When will they resume a lower rate? Very roughly, given the overall increase in the CPI of 20% between January 2020 and December 2023, one could reasonably expect the service component of the CPI to rise potentially by 20% plus 2.6% for each year (= 30.4%), or another 10 percentage points from its current level of almost 120. The rather gloomy forecast implicit in this analysis is that service prices could rise at a rate faster than 2.6% p.a. for another two years without disturbing the overall relationship between the overall CPI and its components. A mitigating factor would be if M2 monetary growth continued to decline, but that would also imply some downward adjustments in durable and non-durable goods prices.

Conclusion.

The pattern of durable and non-durable goods price changes suggests that inflation in these components of the CPI is essentially over, but there remain up to 10 percentage points of service inflation still to come if the "normal" relationship between goods prices, service prices and the overall CPI is to be restored. This is troubling for an early cut in interest rates and for the outlook of bond and equity markets.

Summary and Investment Conclusions

- US inflation will continue to fall during 2024. There is little basis for expecting any sustained resurgence of inflation, but it is unclear how long will it take for the Fed to be satisfied that 2% inflation has been reached on a sustainable basis.
- Section 1 broadened the analysis beyond measures of money in the banking system (M1, M2) to developments in the shadow banking system and private credit markets. Historically, while surges in this kind of activity have supported buoyant asset markets, there is little evidence that they boost CPI inflation.
- Section 2 asked whether, in line with the Phillips curve, further increases in wages – as employees attempt to retore their purchasing power – will create a "second round" of inflation based on cost-push. The conclusion is negative. I also reported that it is not unknown for declines in inflation to precede economic slowdowns. The case of Japan in 1976-78 provides food for thought.
- However, contrary to the normal pattern, inflation has so far come down without any substantial slowdown in economic activity. I therefore reported on a rare example from Japan in 1976-78 of falling inflation creating "room" for real economic activity, thereby avoiding a recession.
- Section 3 examined historical relationships between broad components of the US CPI – goods and services – to see if it was possible to assess, from pre-Covid relationships, how far through the transmission process the US economy has progressed.
- The conclusion is that while durable and non-durable goods price inflation appears to be over, service price inflation has some distance to run.
- From an investment standpoint, this implies an extra degree of caution about the fixed income markets, even if US equities continue to outperform.
