

Powell's Inflation Theory

By John Greenwood

Overview

- At Jackson Hole, Fed Chair Jay Powell laid out his theory of how the inflation of the past three years had occurred, and how it has been overcome. There is much good sense in what he said, but also much that is just wrong.
- This paper sorts out the wheat from the chaff.
- Chair Powell's description of conditions in the labour market would score highly in any school or college assessment. I have used some of his observations to paint a more complete picture of this critical market.
- However, he explicitly links conditions in the labour market to the inflation rate on a Phillips curve presumption that heated labour markets create inflation. They do not. That idea was debunked in the 1960s but lingers on.
- More challenging, perhaps, is Powell's view of how the inflation rate could "fall without a sharp rise in unemployment." His analysis merits a detailed treatment.
- In essence, he attributed the reduction of inflation without much rise in unemployment to the Fed's success in keeping inflation expectations anchored:
- "Disinflation while preserving labor market strength is only possible with anchored inflation expectations, which reflect the public's confidence that the central bank will bring about 2% inflation over time. That confidence has been built over decades and reinforced by our actions."
- To a monetarist, the underlying logic is not valid. Even if inflation expectations are low and stable, a sufficient injection of new money will create inflation.
- Conversely, without a slowdown in money growth, inflation will remain elevated even if inflation expectations remain anchored.
- All this means the Fed has learned nothing about controlling money from the Covid-era inflation and could easily repeat the same errors in future.
- Going forward and following the Fed's "framework review" later this year it seems highly likely that the Fed will continue to steer monetary policy based on interest rates alone. Already that is leading to the risk of overshooting on the downside – or, in monetarist language, monetary growth remaining too low. After M2 growth that was too rapid, now we have growth that is too low.

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Introduction: Two Views of Inflation

The basic framework underlying the Fed's view of inflation is the same aggregate demand versus aggregate supply concept used by the Bank of England and discussed in IMM Newsletter 41. Powell's Jackson Hole speech makes that very clear:

- “Our restrictive monetary policy helped restore balance between **aggregate supply and demand**, easing inflationary pressures and ensuring that inflation expectations remained well anchored.”
- “Our restrictive monetary policy contributed to a moderation in **aggregate demand**, which combined with improvements in **aggregate supply** to reduce inflationary pressures while allowing growth to continue at a healthy pace,” and
- “All told, the healing from pandemic distortions, our efforts to moderate **aggregate demand**, and the anchoring of expectations have worked together to put inflation on what increasingly appears to be a sustainable path to our 2 percent objective.” [Speech by Chair Powell on the economic outlook - Federal Reserve Board](#)

The problem with this concept is that (1) the balance between aggregate demand and aggregate supply can be disrupted by virtually anything that suits the official narrative, and (2) the Fed does not admit to contributing to the surge of inflation. In the 2020-2024 episode of inflation and disinflation, it is notable how – in Powell's account – shocks and distortions to specific sectors or particular relative prices caused the surge of prices in 2021-22, but the cooling of inflation in 2023-24 was almost all thanks to the efforts of the Fed (“our efforts to moderate aggregate demand, and the anchoring of expectations”).

On the aggregate demand side, the Fed pays enormous attention to the various factors affecting the labour market – even if it cannot manage them directly – and to inflation expectations as potential triggers for inflation, while on the aggregate supply side, increases in the labour force along with increases in productivity are generally unquantified restraints on inflation.

In contrast, the monetary theory of inflation, based on $MV = PY$ is that, for any economy, there is an appropriate, quantifiable growth rate of broad money which will maintain low and stable inflation. The appropriate money growth rate will vary depending on the potential growth rate of the economy (the annual average change of Y , which does not change much from year to year), the money-holding habits of the population (the annual average change of V , which we have found to be typically close to -2% for developed economies and -3% or more for developing economies), and the inflation target set by the relevant authorities (the annual average change of P).

Since the central bank can control the annual average change of M within quite narrow limits, a target inflation rate can be maintained, even if the control of broad money is not a specific objective of the central bank. A good illustration of this principle was the US experience between 2010 and 2019 when the Fed presided over

steady average annual growth of M2 of 5.8% p.a. This allowed US real GDP to grow at an average 2.4% p.a. while M2 velocity declined by -1.7% p.a. The result was that inflation, measured by the CPI, increased at only 1.8% p.a. or 1.6% p.a. if measured by the GDP deflator. Below we take an average of these two, 1.7% p.a.

Inserting these values into the rate of change form of the equation of exchange quoted above ($MV = PY$) we have:

$$5.8\% - 1.7\% = 1.7\% + 2.4\%$$

By contrast, during Covid in 2020-21 the Fed generated the fastest rate of growth of M2 ever seen in peacetime (peaking at 26.7% in February 2021 and adding a cumulative 40% to the stock of M2 in the 24 months to February 2022), thus laying the basis for the inevitable surge of CPI inflation to a peak of 9.1%.

Subsequently, since early 2022, the Fed has been making the opposite error, squeezing financial conditions with a very rare contraction in M2 (producing a year-on-year decline of 4.5% and a cumulative decline of 4.2% by April 2023), comparable only to the declines in M2 seen in 1920-22 and 1931-33, each of which was accompanied by a severe economic downturn. This threatens to lay the foundation for a recession and a fall in inflation well below the 2% target.

In the remainder of this Newsletter, I review (1) Powell's analysis of the rise and (2) the fall of inflation "even as unemployment has remained low", (3) his assessment of the labour market, and I consider (4) the changes in money growth that may occur when the Fed starts lowering interest rates, and hence the outlook for inflation and interest rates.

Section 1. Powell's Analysis of the Rise of Inflation

Powell's analysis of the surge in inflation, while admitting to some mistakes, still contains basic errors when viewed from a monetarist perspective.

The Chairman's thesis is that "much of the increase in inflation [was due] to an extraordinary collision between overheated and temporarily distorted demand and constrained supply." He recounted the constrained supply – the shutdowns resulting from the arrival of the pandemic. "It was a time of radical uncertainty and severe downside risks," and he used these conditions to justify the extraordinary response of the different branches of government. "Congress unanimously passed the CARES Act. At the Fed, we used our powers to an unprecedented extent to stabilize the financial system and help stave off an economic depression."

He also felt that he needed to justify the prolonged period of zero rates (and asset purchases, which he did not mention) implemented by the Fed. "As the risks of a severe, extended downturn receded, and as the economy reopened, we faced the risk of replaying the painfully slow recovery that followed the Global Financial Crisis." In addition, he argued, the Fed was not alone in sustaining stimulus: "Congress delivered substantial additional fiscal support in late 2020 and again in early 2021."

But it was clear at the time and in retrospect that the excess monetary stimulus (i.e., the growth of M2 peaking at 26.7% year-on-year in February 2021) was overdone and would add massively to demand and inflation. “Spending recovered strongly in the first half of 2021. The ongoing pandemic shaped the pattern of the recovery. Lingering concerns over COVID weighed on spending on in-person services. But pent-up demand, stimulative policies, pandemic changes in work and leisure practices, and the additional savings associated with constrained services spending all contributed to a historic surge in consumer spending on goods.”

“The pandemic also wreaked havoc on supply conditions. Eight million people left the workforce at its onset, and the size of the labor force was still 4 million below its pre-pandemic level in early 2021. The labor force would not return to its pre-pandemic trend until mid-2023. Supply chains were snarled by a combination of lost workers, disrupted international trade linkages, and tectonic shifts in the composition and level of demand. Clearly, this was nothing like the slow recovery after the Global Financial Crisis.”

While many of Powell’s observations are individually accurate, he did not link the surge in demand to the Fed’s massive boost to M2. Yet monetary theory tells us that sustained money growth in excess of 20% for an economy such as the US will lead directly to (a) a rise in asset prices, (b) a surge in demand, and (c) CPI inflation a year or so later – pandemic or no pandemic. And this is exactly what happened.

There follows a humbling postmortem on the notion of transitory inflation: “My colleagues and I judged at the outset that these pandemic-related factors would not be persistent and, thus, that the sudden rise in inflation was likely to pass through fairly quickly without the need for a monetary policy response—in short, that the inflation would be transitory.”

The Fed Chairman at least had the good humour to acknowledge (1) that “The good ship Transitory was a crowded one, with most mainstream analysts and advanced-economy central bankers on board,” and the good grace to admit (2) that the analysis turned out to be wrong. “The case began to weaken around midyear, as was reflected in our communications. Beginning in October [2021], the data turned hard against the transitory hypothesis. Inflation rose and broadened out from goods into services. It became clear that the high inflation was not transitory, and that it would require a strong policy response if inflation expectations were to remain well anchored. We recognized that and pivoted beginning in November. Financial conditions began to tighten. After phasing out our asset purchases, we lifted off in March 2022.”

In summary, Powell’s speech at Jackson Hole failed to link the rise of inflation to the Fed’s expansion of the money supply (M2) and he continues to attribute most of the blame for inflation “to an extraordinary collision between overheated and temporarily distorted demand and constrained supply.” Crudely, he is saying, inflation was not our fault. This is ominous because big shocks may well occur again, and the Fed could repeat the error of allowing excess growth of money.

As a footnote, we should note that, after explaining that “Russia’s invasion of Ukraine led to a sharp increase in energy and commodity prices, [delaying] improvements in supply conditions and a rotation in demand from goods to services,” Powell claimed that “High rates of inflation were a global phenomenon.” This is false. It is a blatant attempt to say that officials at the Fed were not the only people who made mistakes. Those countries like Switzerland and China that did not allow money growth to surge did not experience inflation. And those where the surge in money growth was minimal or brief, like Japan, suffered very little inflation.¹

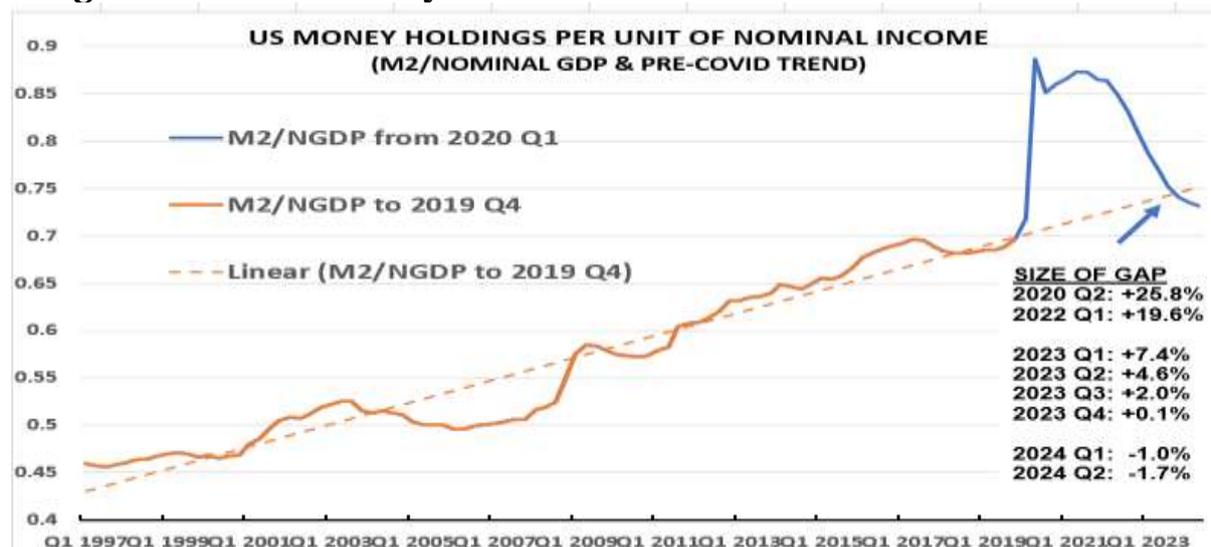
Section 2. The Fall of Inflation while Avoiding Recession

Other commentators have pointed out the degree of self-congratulation in Powell’s speech.² Here I am concerned with the arguments made by Powell as to why inflation has fallen so steeply while seemingly – at least so far – avoiding a recession. Before examining Powell’s case it is worthwhile to set out the monetarist position.

When the Fed raised rates in March 2022 it had already ceased asset purchases (QE) and from June it began a programme of asset disposals (QT). Bank lending growth, at 5% year-on-year, was picking up slowly while bank holdings of securities were slowing sharply. The net result was that M2 growth turned abruptly to contraction, peaking in April 2022 and declining continuously until October 2023.

From a situation where there had been excess money in the economy, suddenly the position changed to there being too little money – at least on an on-going basis. However, for a fair view, one must combine these two positions – something I have done by comparing the quantity of money outstanding with the level of nominal income (M2/NGDP). If this fraction is compared with the pre-Covid trend, a better judgment can be made about the level of money balances relative nominal GDP.

Figure 1. Desired Money Balances have Returned to Just Below Trend



¹ M2 in Japan peaked at 9.7% year-on-year in February 2021 and the CPI peaked at 4.4% in January 2023.

² Martin Wolf in the FT on September 3 said: “The speech by Jay Powell, chair of the Federal Reserve, at the Jackson Hole Economic Symposium last month was as close to a paean of victory as a sober central banker could utter.”

Figure 1 shows that the downturn in the quantity of money since April 2022 has been enough to bring the ratio of money to nominal GDP back to 1.7% below its pre-Covid trend. In other words, the overhang of excess money has now been used up and there is no longer any excess of money available to boost inflation in the economy – as long as money growth remains close to or below its appropriate (or “golden”) growth rate. This is why I have been confidently predicting a continuing decline in the inflation rate.

Powell’s case is very different. First, he relies on the reversal of the “severe shocks to energy and commodity markets” which, although they “took much longer than expected, [...] ultimately played a large role in the subsequent disinflation.” This is essentially an extension of the “transitory” argument – what goes up must come down and monetary policy can look through it. The problem is that this does not explain why other prices – such as services and wages – should also rise, or why overall consumer prices have risen by 21% since January 2020.

Second, he resorts to aggregate demand and supply, and Fed policy: “Our restrictive monetary policy contributed to a moderation in aggregate demand, which combined with improvements in aggregate supply to reduce inflationary pressures while allowing growth to continue at a healthy pace. As labor demand also moderated, the historically high level of vacancies relative to unemployment has normalized primarily through a decline in vacancies, without sizable and disruptive layoffs, bringing the labor market to a state where it is no longer a source of inflationary pressures.”

In other words, the surge in aggregate demand came out of nowhere, but the Fed, once it had understood that inflation was not transitory, eventually stood against the tide by raising rates to restrictive levels. This was especially helpful in the face of an overheated labour market and high vacancy rate, which threatened to push inflation even higher. Nevertheless, Fed tightening together with a big increase in the size of the labour force (which he mentions elsewhere) helped moderate the second-round effects.

Here the basic line Powell is taking is that the inflation would have been much worse had it not been for the Fed tightening policy. There is no discussion of the Fed allowing excess growth of the quantity of money (M2) for two whole years or the FOMC being too late to raise rates. Rather, Powell shifts to discussing “the critical importance of inflation expectations.” He concludes with the claim that “An important takeaway from recent experience is that anchored inflation expectations, reinforced by vigorous central bank actions, can facilitate disinflation without the need for slack.”

In Powell’s view, Fed tightening was adequate to keep inflation expectations anchored, thereby minimising the effect of the noxious, external shocks to prices. And because expectations were contained thanks to Fed efforts, the landing has been much smoother than it otherwise would have been.

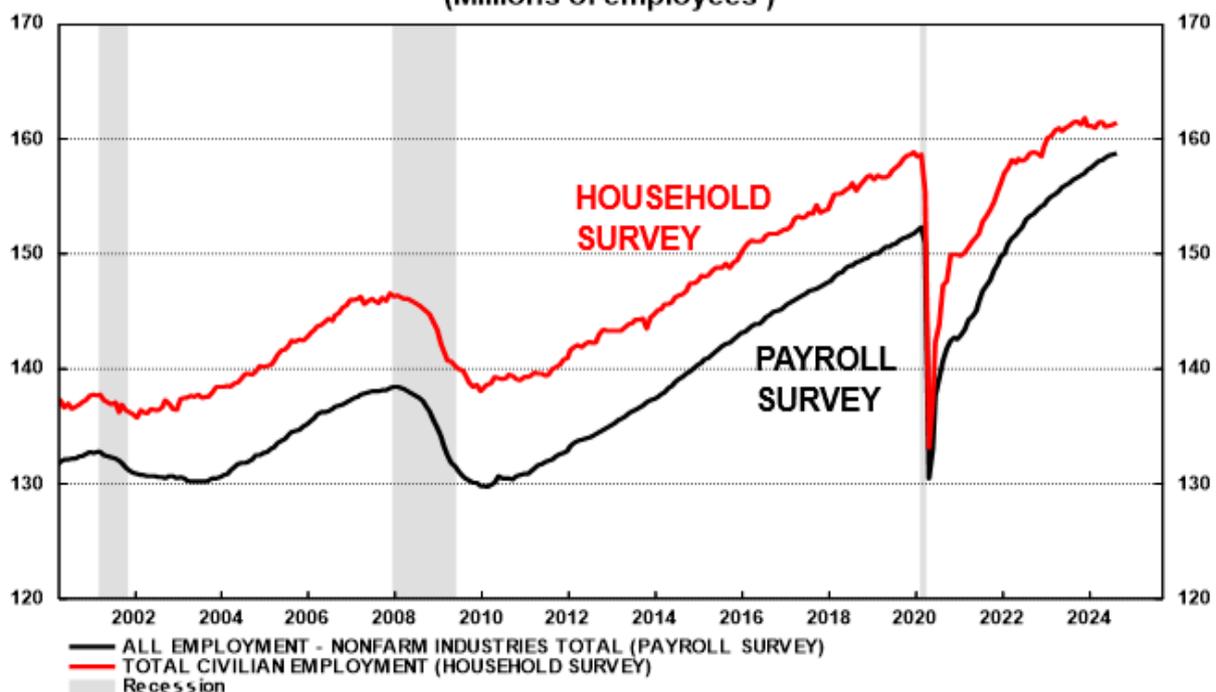
In my view Powell’s argument gives far too much weight to inflation expectations. Expectations do not have a life of their own. Without the huge increase in the quantity of money reflected in Figure 1 and spelled out on p. 3, inflation expectations would have remained entirely subdued. And while relative prices (for computer chips, for autos, energy, and food) would have risen, the overall price level would have remained much more stable – as it did in countries like China and Switzerland which did not boost money growth in response to the pandemic.

Section 3. The State of the Labour Market

Given its dual mandate from Congress – full employment and low inflation – it is natural that the Fed should concentrate so heavily on its responsibility to ensure a buoyant labour market while at the same time trying to avoid any upswing in inflation. But it is one thing to view labour market conditions as a by-product of good monetary policy (the monetarist interpretation), and quite another to view labour market conditions as the source of inflationary impulses (Chair Powell’s view).

In his speech at Jackson Hole, Chair Powell devoted significant time and charts to conditions in the labour market. He began by sketching ideal conditions: “Turning to employment, in the years just prior to the pandemic, we saw the significant benefits to society that can come from a long period of strong labor market conditions: low unemployment, high participation, historically low racial employment gaps, and, with inflation low and stable, healthy real wage gains that were increasingly concentrated among those with lower incomes.”

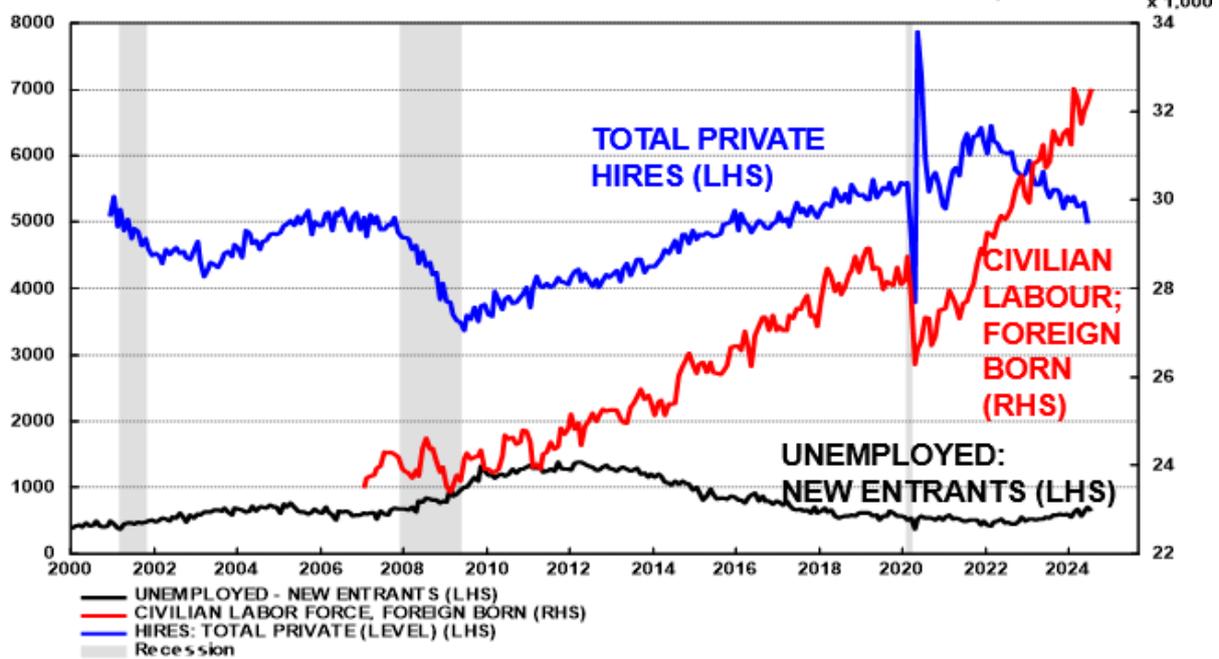
Figure 2. The Pace of Job Growth has Slowed Significantly
US : PAYROLL & HOUSEHOLD SURVEYS OF EMPLOYMENT
 (Millions of employees)



Source : L SEG Datastream

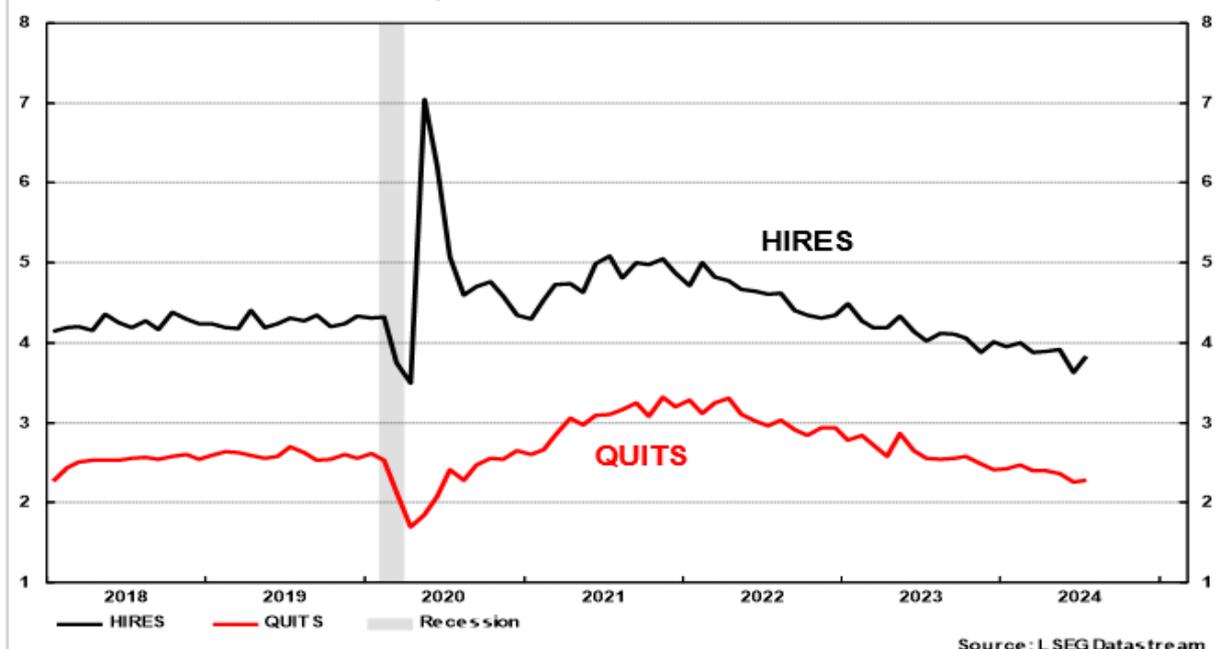


Figure 3. Unemployment Held Down by New Entrants
US: NEW ENTRANTS TO UNEMPLOYED POPULATION, HIRES



However, although the unemployment rate is low (4.2% following the August Payroll data), the reasons are very different from the pre-Covid situation. Then total employment was rising steadily (Figure 2), but today it is rising much more slowly. Today total hiring is falling (Figure 3) and much of the growth in the labour force is explained by foreign-born labour. Therefore Powell is probably correct in his assessment that the unemployment rate is low because the denominator (the labour force) has risen.

Figure 4. Hiring and Quits back at pre-Covid Levels
US: HIRES & QUIT S AS % PRIVATE EMPLOYMENT



Another reason to think that the situation is very different from 2019 is that both the hiring and quits levels (as a % of total private employment) have cooled to back below their pre-Covid levels following the frenetic pace of hiring in the immediate aftermath of the pandemic in 2021-22 (Figure 3).

Figure 5. More Evidence of Labour Market Cooling

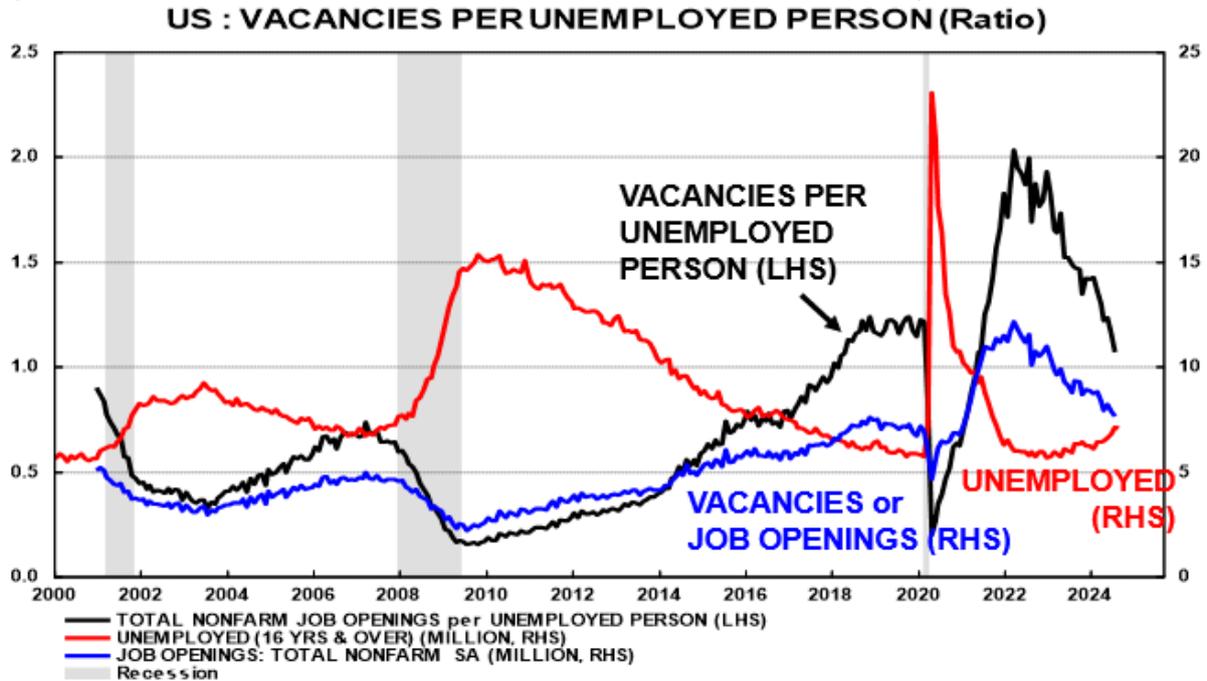
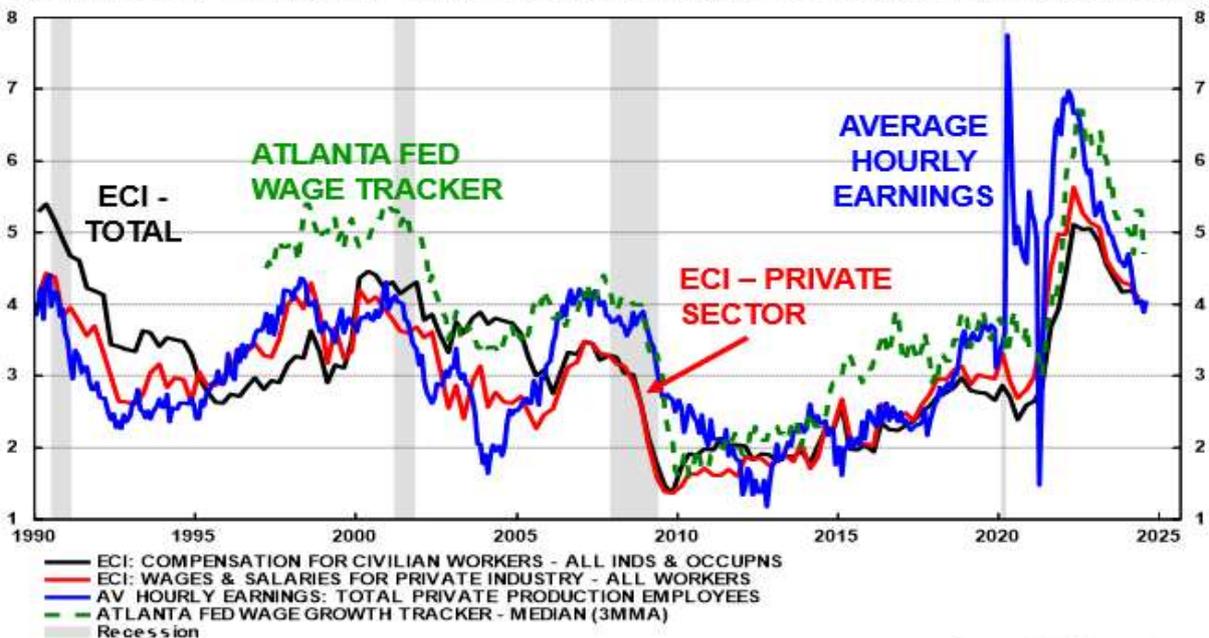


Figure 5 shows that the ratio of vacancies to unemployed persons has also returned to its pre-Covid level, but falling vacancies and rising numbers of unemployed suggest the ratio has further to fall. This is supported by cooling wage growth (Fig 6).

Figure 6. Wage Growth Cooling.

US WAGES: TOTAL & PRIVATE SECTOR WAGE GROWTH (%YOY, Nom.)



In summary, to use Powell’s words, “All told, labor market conditions are now less tight than just before the pandemic in 2019—a year when inflation ran below 2 percent.” In my view, this judgment is correct, but he went on to say, “It seems unlikely that the labor market will be a source of elevated inflationary pressures anytime soon.” Indeed, but it would be a misrepresentation of the past several years – and a mistake in economics – to claim that the labour market was ever a source of inflationary pressure. The true source of the inflation in 2021-23 was the excess broad money growth created by the Fed in 2020 and 2021, largely due to its excessive asset purchases. The strength of the labour market was a reaction to – or symptom of – the earlier rapid money growth.

Section 3. Prospects for Money Growth, Inflation, and Interest Rates

From a monetary standpoint, easing labour market conditions and easing wages are corroborative evidence that money growth *has been* tight. Easing labour market conditions and wages, along with slowing consumer and business spending, and slowing overall inflation are *symptoms* of the past tight money policy (i.e., slow or negative money growth) that was implemented from March 2022 – the date when the Fed started raising rates and money growth turned negative. The symptoms of economic weakening will likely continue to percolate outwards across the economy over the months ahead as the full effects of that monetary squeeze show up.

One factor that has been delaying the impact of the monetary squeeze has been the overhang of excess money injected into the economy in the two years 2020-2021 – a problem discussed above (pp. 5-6) and previously (e.g., in IMM#22 and #39). Insofar as some of that excess spending power is still present, the slowdown will be less severe than otherwise. But the outlook for inflation, wages and interest rates over the next two years depends largely on what money growth has been in the *past* two years since 2022. Given that the overhang of excess money has ended (Figure 1), the monetary numbers unequivocally point to very low nominal GDP growth unless M2 growth revives considerably from its July rate of just 1.3% year-on-year – far below the appropriate rate for hitting the 2% inflation target.

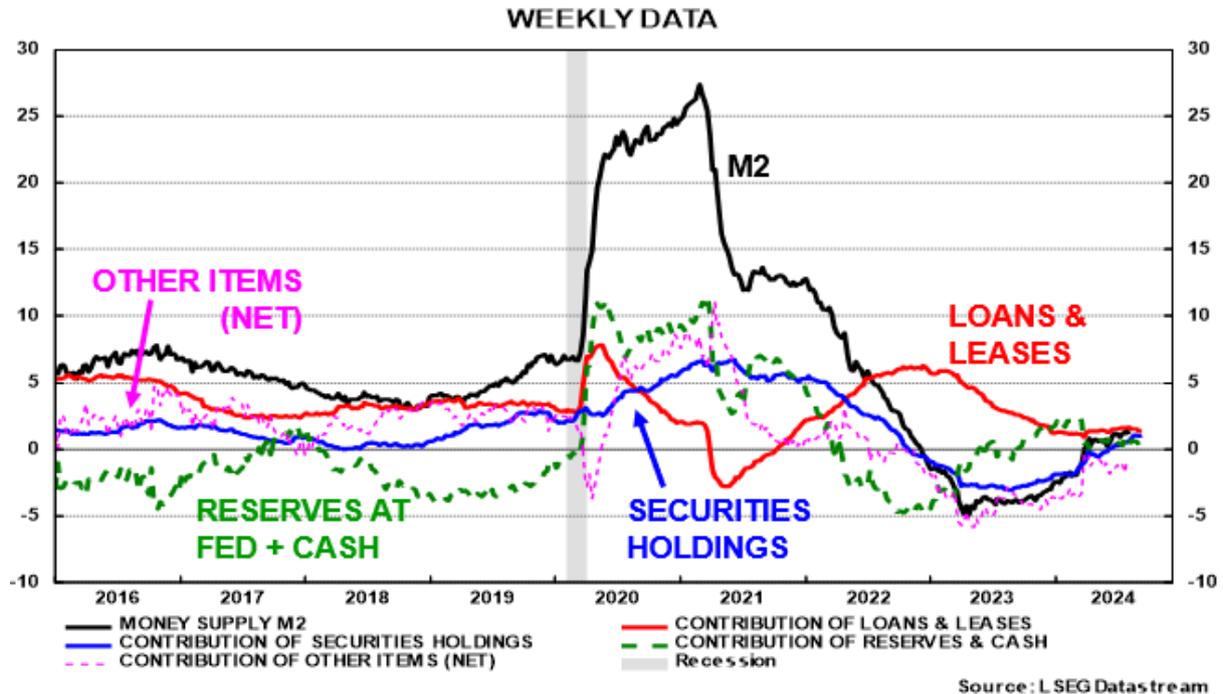
The table in Figure 8 provides a breakdown of the components contributing to the sub-par rate of M2 growth currently, while Figure 9 shows a chart of the same data since 2016. Unless these percentage point contribution rates change materially, the growth of M2 is likely to remain very subdued.

Figure 8. Percentage Point Contributions to M2 Growth (Year to July)

Sources of M2 Growth (percentage point contributions over one year) as at July 2024	
Bank Lending	1.6%
Securities Holdings of Banks	0.5%
Bank Reserves Held at Fed plus Cash	0.9%
Other Items*	-1.8%
M2 Growth (= Summation of Contributions)	1.2%

*These consist mainly of changes in bank capital and debt, and borrowing from the Fed.

**Figure 9. M2 Growth is Low because Asset Counterparts are not Growing
US: CONTRIBUTIONS TO ANNUAL CHANGE IN M2 (%YOY)**



In more detail, the surge of M2 in 2020-21 was accounted for by: (1) a jump in bank lending (in red) as firms initially drew down credit lines from their banks, although later these were run down as firms found they did not need the cash, (2) a bigger jump in reserves held at the Fed (in green) as a direct result of the Fed's asset purchases, for which the accounting counterpart to the growth in Fed assets was a growth in banks' reserves (a liability for the Fed, an asset for the banks), (3) a jump in bank borrowings from the Fed (part of the Fed's QE lending programs) (shown in pink), and (4) a steady increase in bank holdings of securities (in blue).

On the downside, the contraction in M2 in 2022-23 was accounted for by: (1) the cessation of the Fed's asset purchases (the green dashed line going negative from 2022), (2) a steady reduction in bank holdings of securities (in blue), (3) a steeper fall in bank borrowings from the Fed (included in the residual in pink), although these were reversed starting in March 2023 when Silicon Valley Bank and two others were subject to runs and the Fed countered with the Bank Term Funding Program (currently \$98 billion), and (4) a mild offset to all of these thanks to continued slow growth of bank lending (in red).

The conclusion from this survey of money growth and its drivers – the asset counterparts – is that unless bank lending or bank holdings of securities pick up substantially from here, M2 growth is likely to remain well below the 5-6% annual growth rate required to achieve the 2% inflation target. That in turn suggests that the US inflation rate will continue to fall over the remainder of 2024 and well into 2025. Along with the falling inflation rate, bond yields are also likely to fall further.



Summary and Investment Conclusions

- In his Jackson Hole speech Chair Powell presented a thesis on inflation and disinflation over the past four years that highlighted a “collision between overheated and temporarily distorted demand and constrained supply.”
- The inadequacy of this framework is shown by the Fed’s failure to forecast inflation either on the upside or on the downside.
- By contrast, monetary analysis, which I have used successfully to forecast both the peak of roughly 9% CPI inflation and the steep downturn in inflation in 2023, tells a very different story.
- After a period of stable M2 growth with steady real growth and low inflation in 2020-19, during Covid in 2020-21 the Fed generated the fastest rate of growth of M2 ever seen in peacetime (peaking at 26.7% in February 2021 and adding a cumulative 40% to the stock of M2 in the 24 months to February 2022), thus laying the basis for the inevitable surge of CPI inflation to a peak of 9.1%.
- Subsequently, since early 2022, the Fed has been making the opposite error, squeezing financial conditions with a very rare contraction in M2 (producing a year-on-year decline of 4.5% and a cumulative decline of 4.2% by April 2023), comparable only to the declines in M2 seen in 1920-22 and 1931-33, each of which was accompanied by a severe economic downturn. This threatens to produce a possible recession and a fall in inflation well below the 2% target.
- Powell’s account of the surge in inflation in 2021-22 blames supply chain shocks and distortions to demand, but completely ignores either money growth or the Fed’s contribution to the excess growth of money.
- Similarly, Powell’s account of the disinflation in 2023-24 acknowledges the reversal of some of the shocks of 2021-22 and credits the Fed’s tightening plus the role of stable inflation expectations. But he places far too much weight on the role of inflation expectations, while he ignores the abrupt reversal of money growth since March 2022 and the role it has played in curtailing inflation.
- His analysis of the labour market was reliable, but he makes the mistake – which derives from the Phillips curve – of associating inflation with tightness in the labour market. But there are cases of high inflation with a slack labour market (most hyperinflating countries) and cases of low inflation with a tight labour market (such as Japan). Inflation comes from excess money, not from a tight labour market.
- The implications of the current very low growth of the M2 money supply are disconcerting. It will definitely show up – as it invariably does – in very slow nominal GDP growth in 2025. But it may also show up as (1) a recession that will be hard to escape from as long as money growth remains so low, and/or (2) in the form of sub-target inflation or possibly deflation.
- These considerations imply adopting a cautious attitude to risk-assets such as equities, commodities or real estate, and a preference for fixed income assets such as government bonds – despite the widespread worries about continuing fiscal deficits. Remember, it is money that causes inflation or deflation, not debt and deficits.

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