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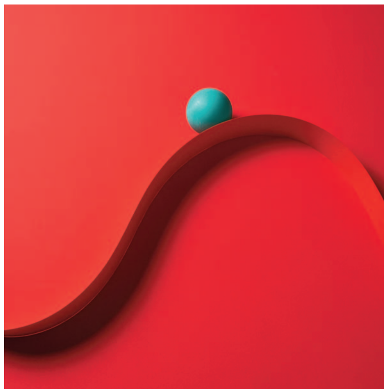
TOP of MIND

IS THE FED BEHIND THE CURVE?



Just as US inflation concerns moved into the rearview, the labor market started sending worrying signals, with the July jobs report triggering the Sahm rule, raising the question of whether the Fed is behind the curve in cutting rates and the risk of recession. Former regional Fed Presidents Bill Dudley and Rob Kaplan, Sahm rule creator Claudia Sahm, and GS GIR's David Mericle have varying levels of concern about the labor market, with Dudley most worried about the risk of a negative feedback loop between job losses and reduced spending that would lead to recession, Sahm somewhat concerned, and Kaplan and Mericle less worried. They also generally disagree on whether the Fed has waited too long to cut, with Mericle and Kaplan arguing that the Fed is not meaningfully behind the curve, Sahm more concerned that the Fed has yet to act, and Dudley worried that the Fed may already be too late to avert recession. GS strategists argue that markets are vulnerable to sharp corrections should recession occur, but that risky assets would have room to run if it doesn't.

We are clearly not seeing a layoff spiral, the fast-moving vicious circle of job and income loss leading to reduced spending and further layoffs that would be hard for policymakers to counteract.

- David Mericle

Just as the Fed was behind the curve in raising interest rates in this cycle, the Fed is now behind the curve in lowering rates to move closer to a neutral policy stance.

- Bill Dudley

Even if the Sahm rule is currently overstating the weakening in labor demand, it is still telling us something useful about the health of the US labor market.

- Claudia Sahm

If I were still in my seat at the Fed, I would determine from a risk management perspective that it's time to begin cutting rates.

- Rob Kaplan

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Bill Dudley, Former President of the Federal Reserve Bank of New York

Rob Kaplan, Former President of the Federal Reserve Bank of Dallas, Vice Chairman at Goldman Sachs

Claudia Sahm, Chief Economist at New Century Advisors, Former Section Chief at the Federal Reserve Board of Governors

David Mericle, Chief US Economist at Goldman Sachs

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MARKETS: NOT PRICING RECESSION
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EXCHANGE RATES: A RECESSION HEDGE
Teresa Alves, GS Markets Research

...AND MORE

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Investors should consider this report as only a single factor in making their investment decision. For Reg AC certification and other important disclosures, see the Disclosure Appendix, or go to www.gs.com/research/hedge.html.

The Goldman Sachs Group, Inc.

Macro news and views

We provide a brief snapshot on the most important economies for the global markets

US

Latest GS proprietary datapoints/major changes in views

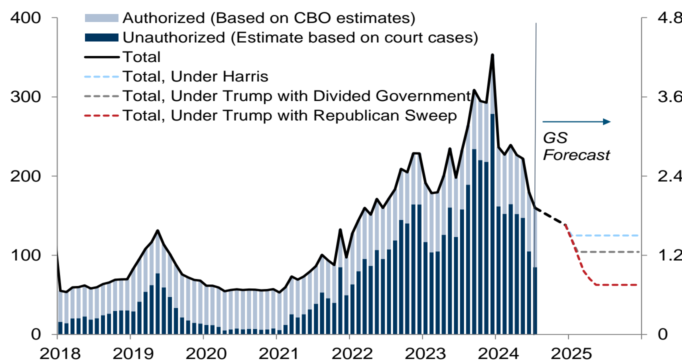
- No major changes in views.

Datapoints/trends we're focused on

- Fed policy; we expect the Fed to deliver three consecutive 25bp rate cuts beginning in September.
- Growth; we think continued expansion is far more likely than recession and expect GDP growth of 2.3% in 2024 (Q4/Q4).
- Labor market; we continue to view the recent rise in the unemployment rate as less dangerous than past increases.
- Core PCE inflation, which we expect to remain around 2.6% through end-2024 before converging to 2% next year.
- US immigration, which we expect to slow, but the size of the slowdown will depend on the US election outcome.

Immigration: an uncertain slowdown

GS estimate of monthly net immigration by category, thousands (lhs), millions, ann. (rhs)



Note: For a full list of our assumptions see exhibit 4 here.

Source: Goldman Sachs GIR.

Japan

Latest GS proprietary datapoints/major changes in views

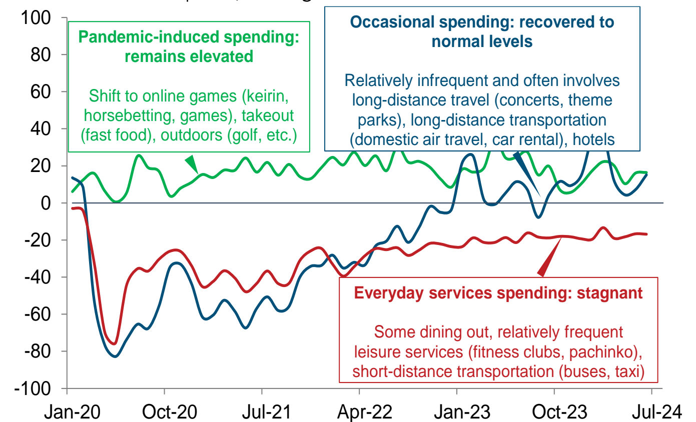
- No major changes in views.

Datapoints/trends we're focused on

- BoJ policy; we expect the BoJ to deliver 25bp rate hikes semiannually to a policy rate range of 1.25-1.5% in 2027.
- Japanese inflation; while the Tokyo new core CPI accelerated in August, the Yen's recent appreciation could put renewed downward pressure on inflation.
- Japanese growth, which we expect to accelerate further in 3Q24 to 3.5% (qoq ann., from 3.1% in 2Q24).
- Japan consumption; while services consumption remains flat, we expect overall consumption to continue recovering owing to a rebound in auto production and income tax cuts.

Japan: stagnant services spending

Services consumption, % chg from 2018



Source: Ministry of Economy, Trade and Industry, BoJ, Goldman Sachs GIR.

Europe

Latest GS proprietary datapoints/major changes in views

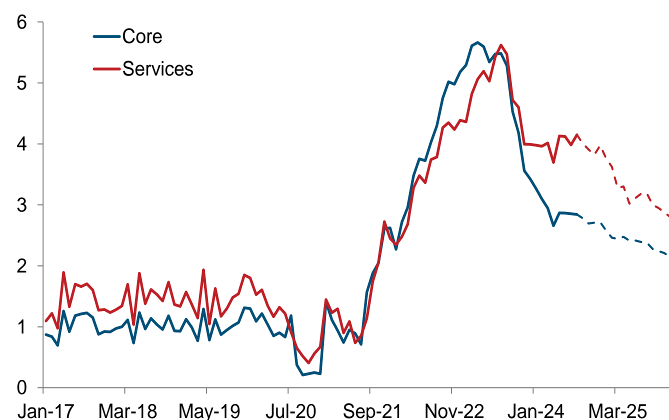
- No major changes in views.

Datapoints/trends we're focused on

- ECB policy; we expect the ECB to continue cutting rates at a quarterly pace with the next cut on Sept 12, but see the risks skewed toward sequential cuts, especially in 1H25.
- Euro area inflation; while services inflation has been sticky, we think services disinflation remains on track and expect it to fall to 3.98% yoy by Dec 2024 (from 4.15% currently), which should lead core inflation to slow to 2.7% yoy.
- UK core inflation, which remains considerably further above target compared to the Euro area and US.

EA services inflation: sticky, but lower ahead

EA HICP inflation, % chg yoy; dashed lines represent GS forecasts



Source: Haver Analytics, Goldman Sachs GIR.

Emerging Markets (EM)

Latest GS proprietary datapoints/major changes in views

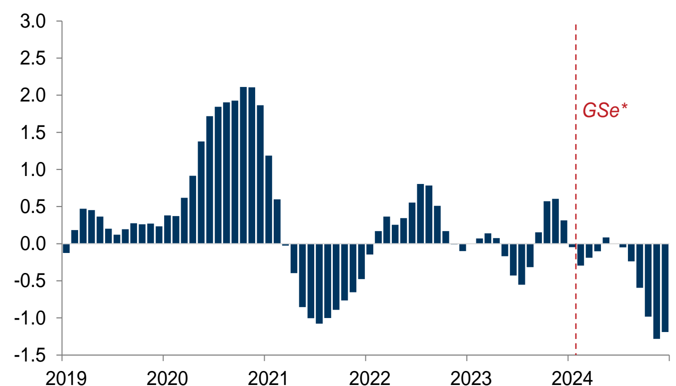
- No major changes in views.

Datapoints/trends we're focused on

- China growth; we believe downside risk to China's growth is rising as official unemployment rates have started increasing and the credit impulse has become more negative, and think more fiscal easing is needed to help secure the "around 5%" full-year growth target.
- EM policy; we expect the EM cutting cycle to broaden amid fading US growth exceptionalism and greater confidence in the start to Fed rate cuts, with central banks in South Korea, South Africa, and India to begin cuts later this year.

China credit impulse: a growing growth headwind

Growth impact of credit impulse, % of GDP, ann.



**Aug-Dec 2024 estimates assume the same pace of credit growth as in July.*

Source: Goldman Sachs GIR.

Is the Fed behind the curve?

Just as several benign data prints pushed US inflation concerns into the rearview, the US labor market started sending worrying signals, with the July employment report showing a further rise in the unemployment rate to 4.3%. This increase triggered the Sahm rule, a widely-followed recession indicator that has accurately signaled every US recession since 1970. And this has come alongside growing concerns about the health of the US consumer on downbeat commentary from several consumer-facing companies as well as increased signs of weakness in the manufacturing sector. Amid this more worrying macro backdrop, the Fed has kept rates on hold as it has sought to gain more confidence that inflation is returning to target before starting rate cuts. While Chair Powell clearly signaled a dovish pivot at Jackson Hole, stating that "the time has come for policy to adjust", whether the Fed has waited too long to act—and what that means for US recession risk—is Top of Mind.

We first speak with Claudia Sahm, the creator of the Sahm rule, Bill Dudley and Rob Kaplan, former Presidents of the New York and Dallas Feds, respectively, and David Mericle, GS Chief US Economist, about how concerning the recent triggering of the Sahm rule is. Sahm explains that the rule relies on a powerful negative feedback loop in which job losses cause laid-off workers to reduce their spending, leading to further job losses and, ultimately, recession. But Sahm argues that an increase in labor supply—rather than just lower demand for workers—drove the recent rise in the unemployment rate, which reduces the risk of the negative feedback loop taking hold. However, she cautions against complacency, arguing that hires and quits rates—two key indicators of labor market strength—are sending disconcerting signals about the health of the US labor market.

Dudley goes a step further, pointing out that the Sahm rule has correctly indicated recession even in periods of strong labor supply growth, meaning that the risk of the negative feedback loop should not be discounted. And he argues that relatively small increases in unemployment, whether driven by rising labor supply or job losses, have historically been followed by material increases, which would hit low- and moderate-income households—that are already under significant strain from high prices and interest rates—particularly hard.

Kaplan and Mericle, however, are less concerned. While Kaplan has grown marginally more worried about the labor market amid recent signs of softening, he too questions the relevancy of the Sahm rule in the current cycle. And he says his wide-ranging discussions with companies suggest that the labor market is not "falling out of bed", which is partly why the US consumer remains in decent shape overall even as lower-income households are undoubtedly struggling.

Mericle, for his part, is not convinced that "we have a meaningful labor market problem" as he sees no evidence of a negative feedback loop between job losses and reduced spending that could push the economy into recession, with strong real income growth driven by a still-healthy labor market and record-strong household balance sheets likely to continue to support the US consumer. Indeed, while GS senior credit strategists Lotfi Karoui and Vinay Viswanathan note pockets of stress for lower-income consumers, consistent with the cautionary message GS equity analysts heard from consumer-facing companies in Q2 earnings commentary (see pgs. 20-21), Mericle, Karoui, and Viswanathan argue that the US consumer in aggregate is reasonably healthy and should remain so in coming months.

Despite their varying levels of concern about the labor market, our interviewees agree: the current stance of monetary policy is too restrictive. Mericle says that with the labor market having rebalanced and inflation expectations having returned to target-compatible levels by the end of last year, the inflation problem has essentially been solved for some time now. And Kaplan believes that, given the substantial progress on disinflation and softening labor market, "it's time to begin cutting rates", though he argues that the Fed should remain vigilant in its inflation fight. But they both argue that the Fed is not meaningfully behind the curve, and see only 20% odds of recession over the next year.

But Sahm is somewhat more concerned that the Fed has yet to act given the worrying direction of travel in the labor market, which leads her to ascribe the highest recession odds that she has in this cycle—around 25%. By choosing to wait until the disinflation trend was very clear in the data, Sahm believes that the Fed must now act quickly and decisively to avoid recession—which, if it does occur, she says would be the result of a "huge, unforced policy error." But she thinks that sequential 25bp cuts starting at the September FOMC meeting would probably suffice to avoid this negative outcome.

Dudley, however, believes that the Fed has fallen further behind the curve and worries that even more aggressive Fed action may not be enough at this point to stave off recession. He notes that the long and variable lags of monetary policy mean that it has historically proven very hard for the Fed to intervene "quickly enough on signs of economic weakness to prevent a full-fledged downturn." So, Dudley sees 50-60% odds of a US recession over the next year.

Given the uncertainty around recession risk and whether the Fed can do enough at this point to stave it off, we then dig into what's priced into assets today. GS senior market strategist Vickie Chang and senior US equity strategist Ben Snider argue that markets are not currently priced for recessionary outcomes, leaving risky assets vulnerable to sharp corrections in the event of recession, which GS market strategist Teresa Alves finds could be hedged against through long positions in the Yen and Swiss Franc as well as short positions in the Mexican Peso, Australian Dollar, and British Pound. However, with GS economists arguing that continued US economic expansion remains far more likely than recession, Chang and Snider see room to run for risky assets ahead.

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Interview with David Mericle

David Mericle is Chief US Economist at Goldman Sachs. Below, he argues that the Fed is unlikely meaningfully behind the curve, as recent labor market developments don't appear as concerning as when the unemployment rate rose in the past and the US consumer outlook remains reasonably healthy.

Allison Nathan: Chair Powell clearly stated at Jackson Hole that the balance of risks has shifted to the employment side of the Fed's mandate, implying an imminent start to rate cuts. But is the Fed nevertheless behind the curve, increasing the risk of US recession?

David Mericle: Some FOMC participants were probably too concerned about inflation for too long, and that held the FOMC back a bit. Our view has been that the labor market had already rebalanced and inflation expectations had returned to target-compatible levels by the end of last year, so at that point the problem was essentially over, and that most of the remaining overshoot of 2% is just lagged catch-up inflation that is fading naturally. So yes, the Fed could have cut one meeting earlier. But I don't think it matters much. I'm not yet convinced that we have a meaningful labor market problem, and if we do have a problem, it is at most a moderate one. Any delay in delivering the first rate cut can easily be made up if the labor market weakens further, and markets have already priced a sufficiently aggressive cutting cycle to deliver the same easing in financial conditions that the FOMC would have by starting a bit earlier.

> "Yes, the Fed could have cut one meeting earlier. But I don't think it matters much. I'm not yet convinced that we have a meaningful labor market problem."

Allison Nathan: But the much weaker-than-expected July employment report triggered the Sahm rule, which has accurately indicated every US recession since 1970. Why don't you believe that to be the case this time around?

David Mericle: I'm less worried about the rise in the unemployment rate than the pattern in US history might suggest. First, the pattern has been less reliable in other G10 economies. Second, we are clearly not seeing a layoff spiral, the fast-moving vicious circle of job and income loss leading to reduced spending and further layoffs that would be hard for policymakers to counteract. That doesn't prove that we don't have a problem—even without layoffs, we could have a more moderate and slow-moving problem where labor demand is a bit too weak to absorb the growth in labor supply and the unemployment rate keeps crawling higher. But that leads to the third point: labor demand looks fine. Trend job growth is running at ~160k/month, job openings are still a touch higher than pre-pandemic levels, and indeed it would be odd if labor demand were suddenly weakening excessively because GDP is growing robustly. So, labor demand appears to be at the right level for a normal environment; it just wasn't quite strong enough to absorb the additional labor supply from the peak of the immigration surge. And new immigrants—especially those without work permits—have a harder time finding jobs at first. But now that the immigration boost to labor supply is slowing, the unemployment rate should hold roughly steady.

Allison Nathan: Even if there is reason to believe that the Sahm rule may not apply in this cycle, haven't labor market indicators weakened a fair bit at this point?

David Mericle: Yes, and I'd say they've weakened a touch more than necessary. 2022 featured perhaps the tightest peacetime labor market in US history, and it made sense as part of the inflation fight to try to revert to pre-Covid conditions, when the labor market was very strong but did not present an inflation problem. The message from a range of labor market measures—the unemployment rate, our jobs-workers gap, the quits rate, and survey measures—is that over the last couple of months, we've undershot that pre-pandemic balance a little. This is a bit nitpicky, but I don't think that was necessary to solve the inflation problem, and Chair Powell hinted at Jackson Hole that he doesn't either.

None of this is a major problem yet, but we shouldn't let it go any further. Again, my best guess is that with labor demand still healthy and the immigration boost to labor supply growth slowing, the labor market won't soften materially further. But uncertainty is high and a plausible risk exists that labor demand will prove a bit too weak. If evidence builds in that direction, the FOMC should err on the side of caution and react forcefully, and Powell's Jackson Hole speech suggests that it will.

Allison Nathan: Many investors also seem worried about the consumer given negative statements from consumer companies during Q2 earnings. Doesn't that worry you?

David Mericle: After labor market concerns, the biggest driver of renewed recession fears among clients has been a sense that the bottom-up message from earnings season presented a more negative picture of consumer spending than official data had yet revealed. I'm skeptical. I suspect the market narrative just overweighted more negative anecdotes, as aggregate company revenues suggest deceleration but not decline to a still-respectable ~2.5% real growth pace. In any case, I put a lot more weight on the official data; consumer spending grew at a 2.9% rate in Q2 and rose strongly again in July. So, consumer fears look misplaced, and we still see the consumer outlook as healthy and straightforward—strong real income growth driven by a healthy labor market plus record-strong household balance sheets should generate solid consumption growth.

Allison Nathan: But don't consumer balance sheets look increasingly stressed? And won't the weakening in labor market indicators make that worse?

David Mericle: Much of the increase in delinquency and default rates in consumer balance sheets reflected two things. First, normalization from unusually low rates a few years ago when special pandemic fiscal transfers made it easier for people to pay their bills. And second, inadvertently risky lending by banks that didn't realize credit scores had been temporarily inflated by that stimulus-aided period of low delinquencies. Higher interest rates on consumer debt and difficulties some families faced in adjusting their spending back in line with their income after the fiscal transfers ended also likely caused some distress. But the key point is that the rise in the delinquency rate is not mainly a sign of weak household finances, and the negative impact on aggregate consumer spending of some households hitting credit constraints is likely modest compared to the positive impact of rising aggregate household wealth.

I also wouldn't interpret the softer labor market signals as indicating downside for consumer spending. Real wages and payrolls have grown at a good pace. Because the rise in the unemployment rate has been driven not by layoffs but by a jump in labor supply, the implication for spending is not that some workers now have less income to spend, which would push consumption growth below trend, but rather that we missed an opportunity to put everyone to work and grow consumption even further above trend than we did.

Allison Nathan: So, what's likely next for Fed policy?

David Mericle: The signs of softness in the labor market so far seem enough to accelerate easing from the original plan of quarterly to consecutive 25bp cuts, but not yet to 50bp cuts. So, we expect 25bp cuts in September, November, and December. Recent FOMC commentary has been consistent with our forecast of a 25bp cut. They seem to be thinking in line with historical precedent, where the Fed has tended to only take more drastic action such as intermeeting or larger cuts in the more urgent context of an obvious crisis or at least a layoff spiral. But if the August jobs report isn't better than the July report, then the FOMC would likely deliver a 50bp cut instead.

Allison Nathan: What are you expecting for the August jobs report, and how might your expectations for the September FOMC change if it is weaker than expected?

David Mericle: We estimate that the underlying trend rate of job growth is closer to 160k/month than the 114k we got in July, and we expect at least some of the jump in temporary layoffs in July to reverse in August. So, we suspect the August report will look better than the July report, with payrolls at ~155k and the unemployment rate rounding to 4.2%. In that case, I'm confident we'd get a 25bp rate cut.

But a worse report is certainly possible, so the bond market is justified in pricing decent odds of a 50bp cut, even though it's not my base case. And even if we're right on the fundamentals, simple monthly volatility or statistical noise could easily produce a print bad enough to push the Fed toward a larger cut. ~35% of the time the initial payrolls print is at least 60k below our statistical estimate of the trend, which would imply August payroll gains below 100k. And that is a particular risk this month because payroll growth has a negative first-print bias in August.

Even in a scenario where the incoming labor market data are a bit worse than I expect, I'd see more downside for the funds rate than for the economy. Again, at worst, we have a problem where labor demand is a bit too soft to absorb temporarily elevated labor supply growth, which would be a moderate, slow-moving, and likely ultimately solvable problem for the Fed.

Allison Nathan: Beyond the upcoming employment report, what are you watching to gauge the US economy and Fed path ahead, and what would lead you to become more concerned about US recession risk?

David Mericle: For now, the labor market data seem to be the most important driver for the Fed and the most critical data for monitoring downside risks to the economy, if only because downside risks seem limited elsewhere. Of course, not only the employment report, but also job openings, are important.

Inflation data could also be a tiebreaker if the employment report is right on the edge, but the message from Jackson Hole was that Fed leadership has now decisively moved past fears of sticky inflation. Consumer spending data are also key—if final demand is still growing at a good pace, it's hard to worry too much about labor demand. But, regrettably, consumption data are volatile and not entirely reliable at a high frequency, so I'd be more hesitant to change my view abruptly there.

It's also worth remembering that most recessions have an obvious catalyst. It's rare that consumer spending or the labor market spontaneously drops off without a negative shock. I don't currently see any major vulnerabilities, such as severe financial imbalances. But an unexpected financial or geopolitical shock or, as we learned, a pandemic can always occur. Such events are hard to predict and are the main reason that the baseline 12-month recession probability is 15% even when everything seems fine. We're at 20% recession odds currently.

Allison Nathan: If the economy turns out to be weaker than you expect and the Fed cuts by 50bp, how effective would that be considering that monetary policy works with a lag and that it seems to have had less impact recently?

David Mericle: I don't think that monetary policy lags are actually that long. The transmission from a Fed pivot to easier financial conditions would likely be immediate—if the data is worse, the market will likely price a faster cutting cycle before Fed officials announce it. And we find that the transmission lag from easier financial conditions to the real economy is shorter than widely believed. Some idiosyncrasies of the pandemic cycle likely dampened some of the transmission channels of monetary policy to the real economy, and at least some of those forces apply symmetrically, to hikes *and* cuts. To take one obvious example, rate cuts will provide less cash flow boost through the refinancing channel than usual because so many homeowners already have such low mortgage rates. But, I'm not that worried about any of this—again, we have at worst a moderate problem, and the Fed has 525bp of room to cut.

Interview with Bill Dudley

Bill Dudley is former President of the Federal Reserve Bank of New York (2009-18). Below, he argues that the Fed is behind the curve in lowering rates and it could be difficult for it to catch up quickly enough to prevent a recession given the long and variable lags of monetary policy.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Allison Nathan: In June 2022, you argued that the Fed was behind the curve and needed to hike aggressively to tame inflation, which would inevitably push the US economy into recession within 12-18 months. The Fed did ultimately hike aggressively, but recession did not ensue. What allowed the US to avoid recession?

Bill Dudley: My argument in 2022 that US recession risk was elevated was a simple one: The Fed's monetary policy framework meant that it would not tighten monetary policy until 2% inflation and full employment was achieved, which would mean that the Fed would be late and therefore likely have to tighten policy substantially and induce a sizable rise in the unemployment rate to tame inflation. And, according to the Sahm rule, a rise in the three-month moving average of the unemployment rate of at least 0.5pp above its 12m low has, since 1970, always been accompanied by a US recession. So, if monetary policy had to be tight enough to lead to a reasonable increase in the unemployment rate, recession would be the most likely outcome.

However, two factors allowed the US to avoid recession. First, inflation expectations remained well anchored, likely owing to the Fed's strong inflation-fighting credibility and Fed Chair Powell's consistent messaging that the Fed was determined to bring inflation back down to 2%, which limited the amount of tightening required to tame inflation. Second, the labor market normalized in a benign manner as the unwinding of pandemic-era distortions largely proved enough to rebalance the labor market, a hotly debated belief at the time that turned out to be right. These factors enabled the Fed to tame inflation without a large rise in unemployment, setting the stage for a soft landing.

Allison Nathan: In July 2024, you "switched allegiance" from Fed hawk to dove, arguing that the Fed is once again behind the curve but in the other direction, raising recession risk. What led to this shift?

Bill Dudley: The Fed has two objectives: maximum sustainable employment and price stability, which they judge as 2% inflation. When I looked at the economy, risks to the price stability mandate that had been so in focus in recent years were diminishing, while risks to the employment mandate were rising. Inflation pressures in recent years stemmed from pandemic-era distortions in supply chains and a tight labor market. And wage inflation proved especially sticky, running at 4.0-5.5% for an extended period, depending on the specific indicator. But wage growth has now declined considerably, as reflected both in average hourly earnings of 3.6% yoy in the last employment report and meaningful declines in the employment cost index over the last year. With wage inflation now below 4%, it's easier to make the case that wage growth is roughly consistent with the Fed's 2% inflation target. And, recent aggregate inflation data, like the PPI and CPI, have generally continued to cool. So, I've become more confident that the Fed will achieve its inflation objective.

At the same time, signs of weakness in the real economy have begun to emerge. Weakness in multifamily housing starts suggests that the housing sector may have turned over. And many indicators are signaling strain among low- and moderate-income households. It's really a tale of two cities in the US on that front, as high-income households benefit from low long-term mortgage rates, low credit card and other types of short-term debt, and financial asset price inflation, while low- and moderate-income households that live more paycheck-to-paycheck don't benefit from low mortgage rates or the soaring stock market and carry more credit card and auto debt. These lower-income households are struggling in the current still-high inflation and interest rate environment, especially as excess savings from pandemic-era fiscal transfers have now been exhausted, which is evident in indicators such as a sharp rise in credit card delinquencies.

Now, lower-income households don't account for a significant share of US consumer spending, and the fact that employment continues to rise, incomes are growing, and the stock market is at or close to all-time highs is still providing reasonable support to consumer spending, as reflected in the July solid retail sales report. But several labor market indicators have also shown signs of weakening, with the rise in the unemployment rate now enough to trigger the Sahm rule. Whether the rule will apply in this cycle is a matter of substantial debate, but it's increasingly clear that the risks to the two sides of the Fed's mandate are now close to balance, and Chair Powell clearly acknowledged as much in his speech at Jackson Hole. In such an environment, the appropriate monetary policy stance is a neutral one. But the Fed is currently far from neutral. So, from a risk management perspective, the Fed now needs to move in that direction, which Powell indicated the Fed is set to do.

Allison Nathan: But strong labor force growth largely drove the rise in the unemployment rate. Wouldn't that suggest that this rise is painting a misleadingly negative picture of the US labor market and argue for being less concerned?

Bill Dudley: The growth in the labor force is a reason to be less concerned, but not a reason to have no concern. The Sahm rule has accurately indicated recession in past periods of rapid labor force growth, such as in the late 1960s and 1970s. So, it's not the case that the rule only works when labor force growth is slow. And while the Sahm rule in itself is simply a statistical regularity—with the 0.5% threshold set precisely at the level necessary to generate accuracy—it presages an underlying process in the labor market whereby small increases in the unemployment rate have tended to be followed by sizable increases. Historically, after a 0.5pp rise in the three-month moving average of the unemployment rate, the next stop has

been a 1.9pp rise as labor market deterioration beyond a certain point starts to scare households and businesses, prompting households to pull back on spending and, in turn, businesses to pull back on hiring and investment. That leads to additional economic weakness, which causes a self-reinforcing negative feedback loop. So, the Sahm rule provides not only a useful statistic in indicating recession, but also an important signal that the labor market could be approaching a tipping point.

Allison Nathan: The recent rise in the unemployment rate hasn't occurred alongside a rise in layoffs. Doesn't that short-circuit the cycle that has historically led to recession?

Bill Dudley: Yes, but temporary layoffs have risen, which could turn into permanent layoffs. It will be interesting and important to watch in the coming months whether firms that were facing a very tight labor market and hoarding workers will begin to lay off marginal workers now that the labor market is softening and concerns about the economic outlook have grown, which could then lead to the negative feedback loop observed in the past.

Allison Nathan: Does still-solid GDP growth today give you any comfort?

Bill Dudley: Not necessarily. It's important to note that GDP data heading into a recession has tended to look better than it ultimately proved to be. That's because GDP data embeds assumptions that often turn out to be too optimistic when the economy is at a negative turning point. And history shows that the differences between reported and revised GDP data can be quite large. So, data that inspires optimism today could be revised downward, as occurred recently with payrolls.

Allison Nathan: Even if things are weaker than appreciated, couldn't the Fed act more aggressively to avoid recession?

Bill Dudley: The Fed can certainly act aggressively to try to prevent the negative self-reinforcing dynamic from taking hold and, again, the Fed has now stated it is poised to act. However, just as the lags of monetary policy are long and variable on the way up, they are long and variable on the way down. So, historically, it's been very hard for the Fed to intervene quickly enough on signs of economic weakness to prevent a full-fledged economic downturn. The only time that the Fed achieved a soft landing in the last 40 years or so was in the mid-1990s. And, interestingly, the Fed didn't increase the unemployment rate then at all, with unemployment basically stabilizing, so the risk of a negative self-reinforcing dynamic was limited. The Fed is now trying to replicate that experience, but it remains to be seen whether they can pull it off.

Allison Nathan: So, what's the likelihood that the US economy enters recession over the next year?

Bill Dudley: I'd currently put the odds at 50-60%, higher than they were a few months ago and substantially higher than default recession odds of 15%, but below the odds implied by mechanically applying the Sahm rule. The triggering of the Sahm rule does not guarantee that a recession lies ahead. That said, I always feel a little uneasy when people say "this time is different." This claim has failed many times in the past, with the Global Financial Crisis (GFC) being perhaps the best example. Many people at the time claimed that the US housing cycle was "different", which turned out to be untrue.

Allison Nathan: But a major imbalance in the economy led to the GFC, as well as other past recessions. Does the lack of major imbalances today give you any comfort?

Bill Dudley: Relatively healthy household and business balance sheets today, as well as the Fed having plenty of room to cut rates and the ability to do so given cooling inflation, gives me comfort that any recession would most likely be mild absent an exogenous shock like a major war in the Middle East, in contrast to the deep recessions that followed the buildup of past imbalances. That, in turn, should underpin financial markets, which interestingly convulsed following the weak July employment report and recent ISM manufacturing report, but would likely be supported by aggressive monetary easing if the economy were to weaken further.

Allison Nathan: So, what should the Fed do and what are they most likely to do ahead?

Bill Dudley: Just as the Fed was behind the curve in raising interest rates in this cycle, the Fed is now behind the curve in lowering rates to move closer to a neutral policy stance. Of course, nobody knows what Fed funds rate is consistent with neutral. But I don't know anybody who thinks that it's 5.25-5.5%, and most people think it's in the 3-4% range. That means the current rate is at least 133bp north of neutral. This argues for cutting rates quickly and aggressively, and doing so with a clear articulation that a neutral stance is more appropriate given current economic conditions would reduce the possibility of a negative self-reinforcing dynamic and increase the probability of a soft landing. Whether the Fed takes such action is a different question and will depend on the dataflow, with the August employment report likely to be very relevant in terms of how concerned the Fed is about downside risk in the economy. If they're not very concerned, a 25bp cut is most likely at the September FOMC meeting. If they're quite concerned, a 50bp cut would likely be on the table.

Allison Nathan: How would your views change if the August employment report came in strong?

Bill Dudley: One should never put too much weight on any one data point, and the fact is that I shifted to a dovish Fed view *before* the July employment report. I would never change my view in response to one month of economic news because these reports are compiled through surveys, which creates sampling error. And the seasonal adjustment process is tricky. Interpreting data is like viewing an Impressionist painting. Each report is one paint dot, and one must look at all the paint dots—formal economic releases and anecdotal data—to see the whole picture. So, a slightly firmer August employment report, which seems likely, wouldn't change my view.

But, just as for a painting, my view could shift if the totality of the economic data from here—labor market, consumption, and GDP data—showed strength. That would lead me to conclude that monetary policy may not be as tight as believed, with the current Fed funds rate closer to the neutral rate than assumed, which would reduce the urgency for the Fed to act. So, the strength of demand will be key to watch, as that will ultimately determine both the risk of a hard landing as well as how tight monetary policy is and what the Fed must therefore do.

A snapshot of the US labor market

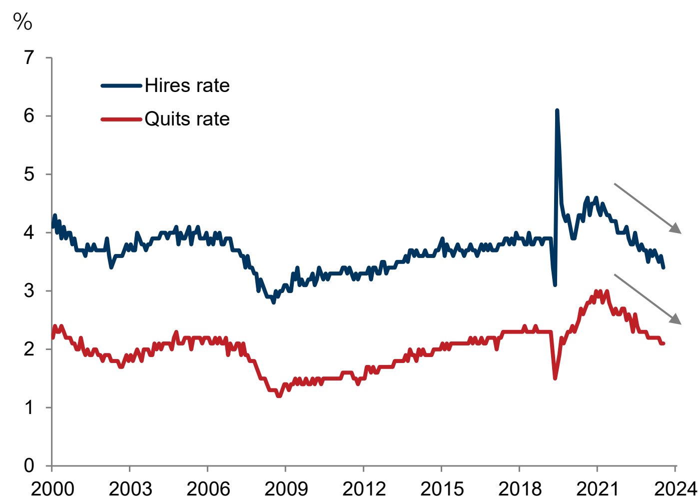
US job growth has slowed in recent months, with nonfarm payrolls rising by only 114k in July, well below expectations...

3-month average of monthly change in total nonfarm employees, thousands, SA

Note: Preliminary benchmark revision released in Aug 2024 suggests a 68k/month downward revision to monthly change in total nonfarm employees over Apr 2023 to Mar 2024. Grey shaded areas indicate NBER recessions.
Source: US Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, GS GIR.

...hires and quits rates* have also declined, indicating a cooling labor market...

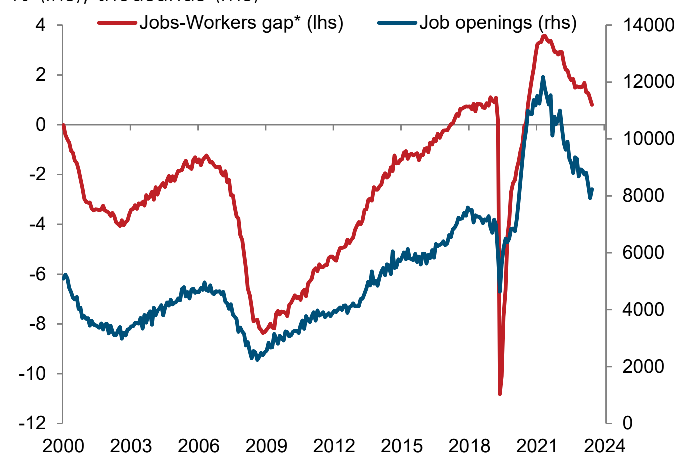
%



*Number of hires and quits during the entire month as a % of employment, respectively.
Source: US Bureau of Labor Statistics, Goldman Sachs GIR.

...and the labor market has rebalanced to a point where further softening in labor demand could hit jobs, not just openings

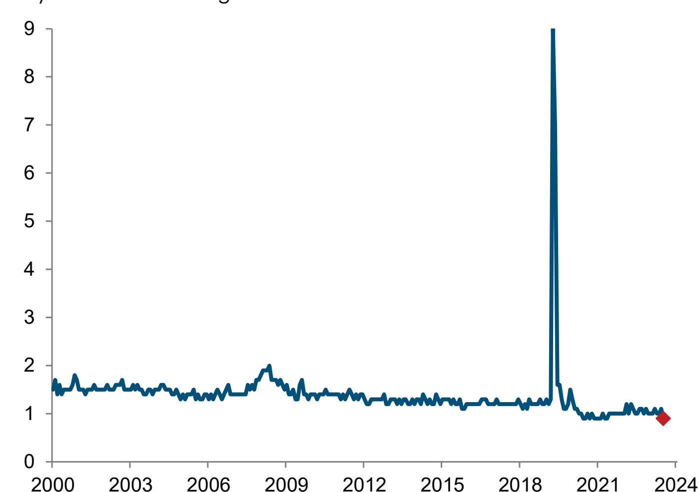
% (lhs), thousands (rhs)



*The sum of employed workers and job openings minus the total labor force, as a percent of the labor force.
Source: US Bureau of Labor Statistics, Goldman Sachs GIR.

However, layoff rates are still at record-low levels...

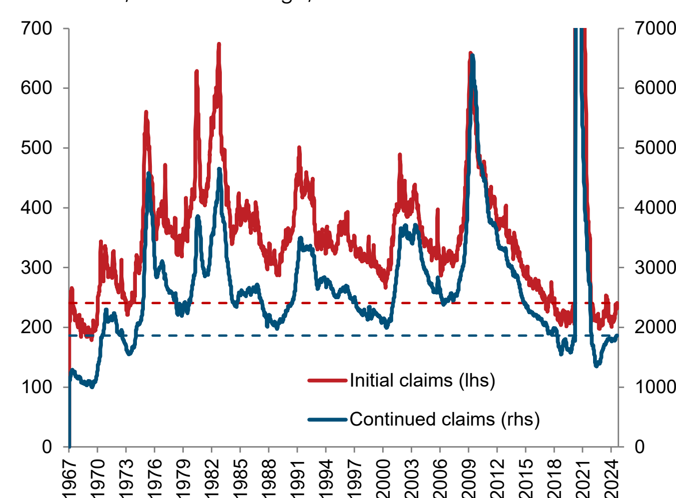
Layoffs and discharges rate*



*Number of layoffs and discharges during the entire month as a % of employment.
Source: US Bureau of Labor Statistics, Goldman Sachs GIR.

...jobless claims remain relatively low...

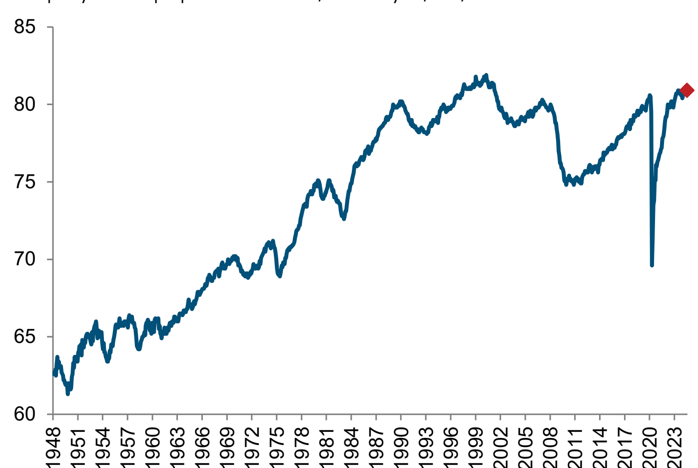
Thousands, 4-week average, SA



Source: US Employment and Training Administration, Federal Reserve Bank of St. Louis, Goldman Sachs GIR.

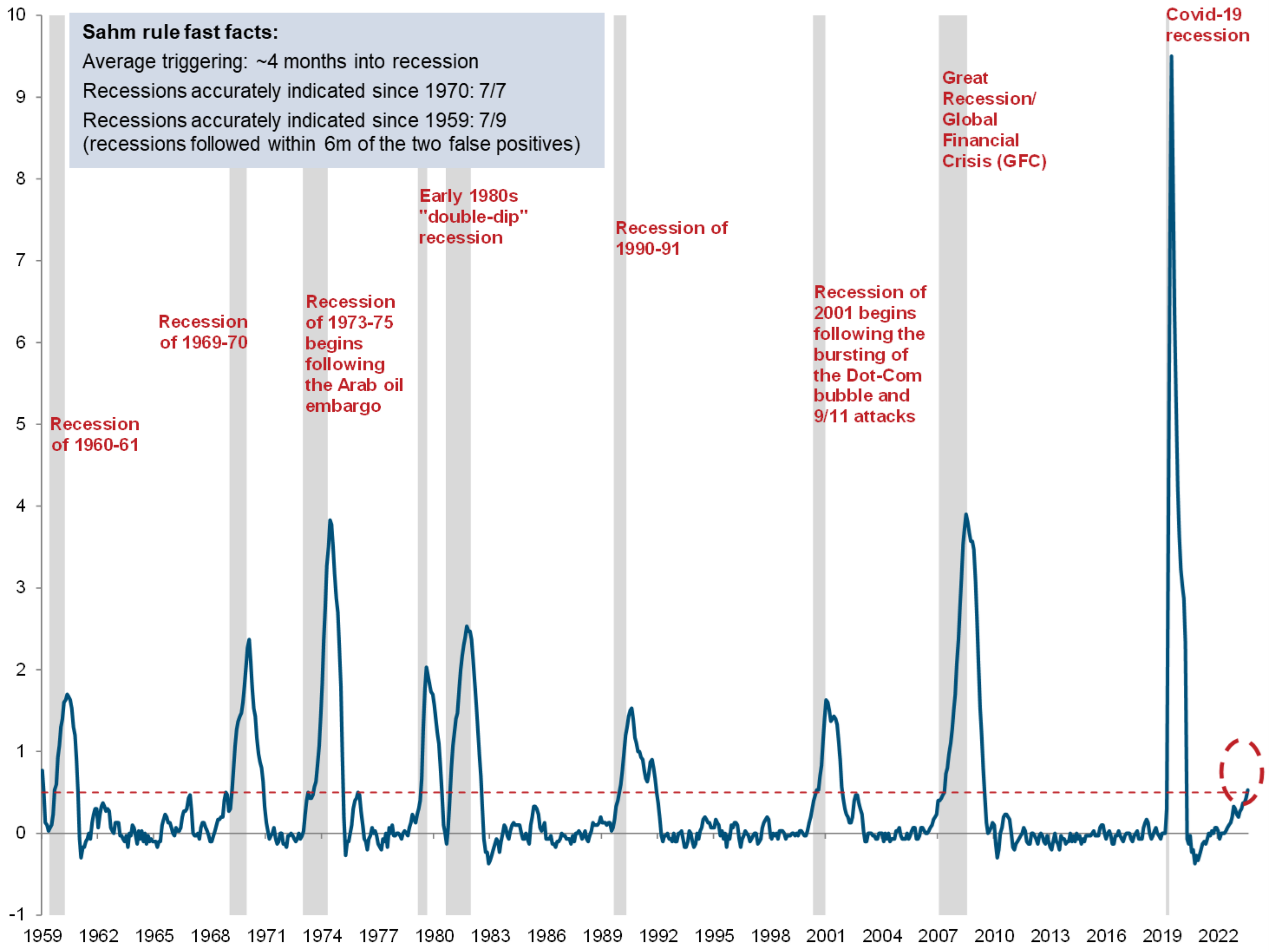
...and the employment-population ratio for prime-age workers has risen to its highest level since the early 2000s

Employment-population ratio, 25-54yrs, %, SA



Source: US Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, GS GIR.

The Sahm rule, illustrated



Source: Claudia Sahm (see interview on pgs. 10-11), Federal Reserve Bank of St. Louis, Goldman Sachs GIR.

Interview with Claudia Sahm

Claudia Sahm is Chief Economist at New Century Advisors. Previously, she was Section Chief at the Federal Reserve Board of Governors, where she created the Sahm rule, a widely-followed recession indicator. Below, she argues that while the US economy is likely not currently in recession, the Fed should act quickly and decisively to avoid further, unnecessary weakening in the labor market.

The views stated herein are those of the interviewee and do not necessarily reflect those of Goldman Sachs.

Jenny Grimberg: You created the Sahm rule, which signals US recession based on labor market conditions. Why was the rule created, and how reliable of a recession indicator has it been historically?

Claudia Sahm: I developed the rule in early 2019 as part of a policy project on how to improve fiscal stimulus. The goal was to identify an indicator of recessions that would trigger automatic stabilizers, such as stimulus checks. That indicator needed to be both highly reliable, as it would kick off large fiscal stimulus programs, and early in the detection of recessions to minimize the pain and severity of the downturn. When I looked at the historical record of US recessions, I found that an indicator based on real-time changes in the unemployment rate could meet both criteria. The beauty of using the unemployment rate as the basis for a recession indicator is that relatively small increases in unemployment often snowball into the large increases that characterize recessions, and, in fact, it takes only a 0.5pp increase in the three-month moving average of the unemployment rate from its 12-month low to signal recession. So, the Sahm rule triggers when the 0.5pp threshold is met, which typically occurs around four months into a recession, fulfilling the early requirement. The rule is, by design, highly accurate. Since 1970, the Sahm rule has correctly indicated every US recession and has not triggered outside of one. While it did falsely trigger in 1959 and 1969, a recession followed within six months in both cases.

Jenny Grimberg: The recent rise in the US unemployment rate has triggered the Sahm rule. So, is the US economy in recession?

Claudia Sahm: Contrary to what the rule is indicating, the US economy is, in all likelihood, not in recession. Most of the economic data that the NBER considers when determining recession looks solid. US real GDP increased at an annual rate of 3% in Q2. Real personal income excluding transfers grew 1.6% yoy in July. Consumer spending remains strong, as indicated most recently by the July retail sales data. And monthly payroll gains have averaged 170k over the past three months. This is not what an economy in contraction looks like.

Jenny Grimberg: So, is the triggering of the Sahm rule painting a misleadingly negative picture of the health of the US labor market and, in turn, the economy?

Claudia Sahm: The recent increase in the unemployment rate is sending a more pessimistic message about the US economy's current state and outlook than is probably warranted. Typically, less demand for workers—whether that manifests in increased layoffs or fewer hires—drives increases in the unemployment rate. And that lower demand can feed on itself as workers without paychecks or with smaller paychecks pull back on spending, leading to less demand for other workers who then pull back on their spending—that is the powerful feedback loop that the Sahm rule relies on and that ultimately leads to recession.

But the unemployment rate can also rise for good reasons, such as an increase in the supply of workers that the economy may not be able to absorb today but could in the future. Unemployment will decline once jobs catch up with these new job seekers, and more workers in the labor force will ultimately allow the economy to grow more. So, supply dynamics could be an important driver of a higher unemployment rate, which is precisely the case today. Stronger labor supply owing to an immigration surge and workers reentering the labor force after the pandemic accounted for around half of the recent rise in the unemployment rate, a significantly higher share than in recent recessions when most of the contribution came from temporarily or permanently laid-off workers. This was always the Achilles heel of using the unemployment rate, which does not distinguish between demand and supply factors, as the basis for a recession indicator. Like other important economic concepts, such as the most widely used recession indicator of a two-quarter decline in GDP growth and the Phillips Curve, the Sahm rule is all about the demand story, and if we've learned anything over the past 4.5 years since the pandemic began, it's that the supply story is also incredibly important.

That said, I am always hesitant to claim that "this time is different" with an indicator that has correctly worked for several decades. The labor market story is more complicated than just the relatively benign increase in the unemployment rate, with other data sending more disconcerting signals. Two important indicators of labor market strength, hires and quits rates, have declined as employers have leaned harder on hirings than firings to express their lower demand for workers—with hires rates now back to 2014 lows while layoff rates remain at record-low levels—and employees have become more reluctant to quit their jobs. We also shouldn't be overly comforted that layoff rates haven't risen. Employers may not currently want to lay off workers given the difficulty of rehiring workers after the pandemic, but even in a typical recession, layoffs are one of the last levers that employers pull; the layoff rate has never been an early warning indicator. So, even if the Sahm rule is currently overstating the weakening in labor demand, it is still telling us something useful about the health of the US labor market.

Jenny Grimberg: So, how concerned are you about the prospect of a US recession in the coming months?

Claudia Sahm: I have grown more concerned in recent months. I have been firmly in the soft landing camp throughout this cycle, and I felt very comfortable pushing back on the consensus recession call in 2022 and 2023 because I believed that pandemic-era supply disruptions would eventually ease—which would go a long way in bringing down inflation—the labor market was strong, and household finances were healthy—all of which would help shield the economy from the pressure of higher interest rates as the Fed raised rates to tame inflation. And, as we've discussed, the US economy is still in a good place.

But the direction of travel is worrying. Payroll gains, while still solid, have slowed over the past several months, and we recently learned that the level of payrolls will likely be revised downward. The unemployment rate, while still low, has risen steadily since March. To be clear, my base case is still no recession, because part of the slowing the US economy is currently experiencing is a policy choice. The Fed has deliberately put downward pressure on the economy in its fight against inflation, and as Fed Chair Powell said at Jackson Hole, the time has come to release some of that pressure by reducing interest rates. But the Fed has yet to do so even as the direction of travel has worsened, and neither the labor market nor household balance sheets are strong enough to continue buffering the economy from high interest rates. So, my current recession odds are the highest they've been this whole cycle—around 25%.

Jenny Grimberg: So, is the Fed now behind the curve on cutting interest rates?

Claudia Sahm: Whether the Fed is behind the curve is somewhat of a moot question because the Fed can't go back and cut in July, and the answer will only become clear several months down the line, at which point it would be too late for the Fed to act given the long and variable lags of monetary policy. The better and more actionable question is whether the current stance of monetary policy is justified, and the answer to that *is* clear: no. The only justification for raising and keeping the Fed funds rate at an elevated level compared to any reasonable estimate of neutral is to bring inflation down, and as soon as the Fed has done more than necessary to achieve that goal, they've done too much. The US labor market is currently experiencing a wholly unnecessary slowing. Inflation is well on its way back to target, with the latest CPI and PPI data supplying even more evidence of that. So, if the economy does enter recession in the next year, it will not be because the Fed had no choice but to induce a recession to tame inflation, but rather the result of a huge, unforced policy error. So, regardless of whether the Fed is behind the curve, it's very clear what policymakers must do now: cut.

Jenny Grimberg: How much, and how quickly, should the Fed cut rates?

Claudia Sahm: The Fed can no longer afford to move gradually, like once a quarter, and meet its dual mandate. The Fed has clearly stated over the past year that it has wanted to see more good inflation data before starting to ease, and seemed to feel that it had the luxury of time because the labor market was so strong. But data, by nature, is backward-looking, so by choosing to wait until the disinflation trend was very clear in the data, the Fed is now at a point where it has to act decisively. It also always struck me as a very risky proposition to use the labor market as a security blanket, as recent data has made increasingly clear. So, the Fed must now embark on a steady series of rate cuts. I don't currently see a need for extreme moves such as consecutive 50bp or 75bp cuts, and certainly not emergency cuts. 25bp cuts would probably suffice to avoid the worst possible economic outcomes but, again, these cuts have to be delivered decisively, not gradually.

Jenny Grimberg: How likely is it that the Fed embarks on such a path, and how would your recession odds change if it doesn't?

Claudia Sahm: Powell's clear acknowledgement of the need to start rate cuts now was a comfort, and I see a higher chance of sequential cuts than I did even a month or two ago due to the recent inflation and labor market data, which we know the Fed is watching closely. The Fed has also used a risk management framework throughout much of this cycle that would argue in favor of a series of small rate cuts over periodic large ones that could prove disruptive.

That said, I remain concerned that the Fed may not move quickly enough. Atlanta Fed President Raphael Bostic, speaking even after the weak July employment report, reiterated that one of the worst possible outcomes would be that the Fed cuts rates and inflation comes back. I don't agree. The worst possible outcome is a recession that the US economy didn't need to get inflation down. The Fed is, by nature, a slow-moving and conservative institution, which are often positive qualities because policymakers *should* be deliberate and thoughtful. But now, as we've discussed, the path forward is clear, and the Fed needs to move quickly. Failure to do so would unnecessarily raise the risk of recession.

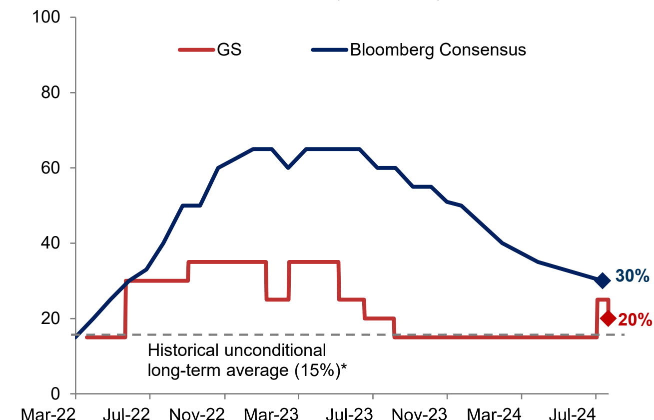
Jenny Grimberg: How would your views on the Fed's path and, in turn, the odds of recession, change if the August employment report comes in stronger than expected?

Claudia Sahm: I might actually become *more* concerned about recession because a stronger report would probably slow the Fed down. The Fed likely isn't viewing the July employment report as dire and signaling the start of a recession. A solid August employment would just confirm that belief, especially if the temporary layoffs that contributed significantly to the rise in the unemployment rate in July unwind. So, a solid employment report would give policymakers a false sense of confidence and reduce the urgency for rate cuts, which would be a mistake. The fact that the labor market is still cooling is worrying, and unless and until a compelling case can be made that it has leveled out, Fed officials must act decisively. So, I will not rest easy until either the Fed funds rate is notably below current levels or economic fundamentals shift in such a way that the economy can tolerate high interest rates. And, at least right now, a strong argument cannot be made for the latter.

Still-low US recession odds...

GS economists see only slightly elevated 12m US recession odds of 20%...

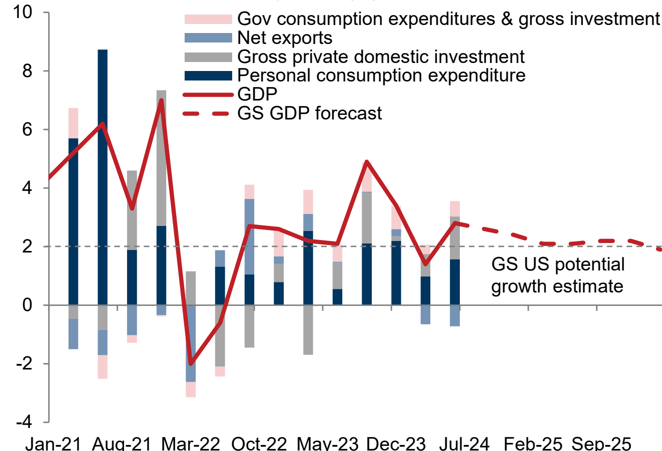
US 12-month ahead recession probability, %



*The unconditional long-term average probability of recession is 15% due to the fact that a recession has occurred once every seven years.
Source: Bloomberg, Goldman Sachs GIR.

...and expect the economy to continue growing at around its estimated potential growth rate of 2%

US real GDP annualized quarterly growth, %



Source: NBER, Goldman Sachs GIR.

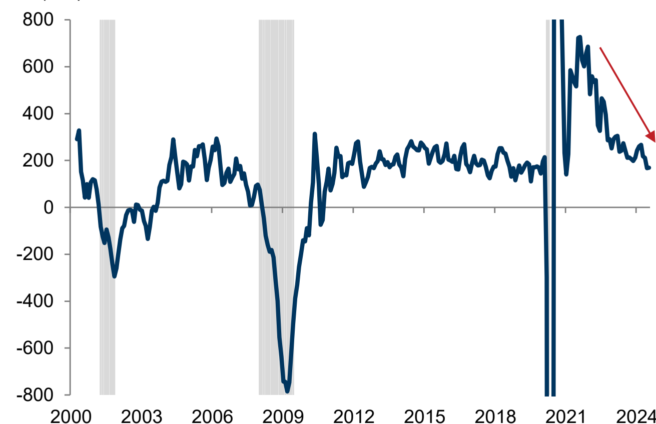
Most NBER recession indicators remain at positive levels...

NBER Recession Indicators		
Most Important		
Monthly		
	Recent Trend**	As of
Nonfarm payrolls	1.3%	July
Real personal income ex. transfers	2.6%	July
Quarterly		
Real GDP	3.0%	Q2
Real GDI	1.3%	Q2
Less Important		
Industrial production	1.6%	July
Real manufacturing and trade sales	4.2%	June
Household employment	-0.6%	July
Monthly real PCE	4.8%	July

Note: This list represents the set of data highlighted by NBER as the indicators for consideration of business cycle turning points. For monthly indicators, we report the three-month annualized percent change. For quarterly indicators, we report the latest quarter-on-quarter annualized rate. Household survey yoy rate is based on outdated population controls.
Source: NBER, US Bureau of Labor Statistics, Goldman Sachs GIR.

...and, while the pace of payrolls growth has slowed, it remains solidly positive

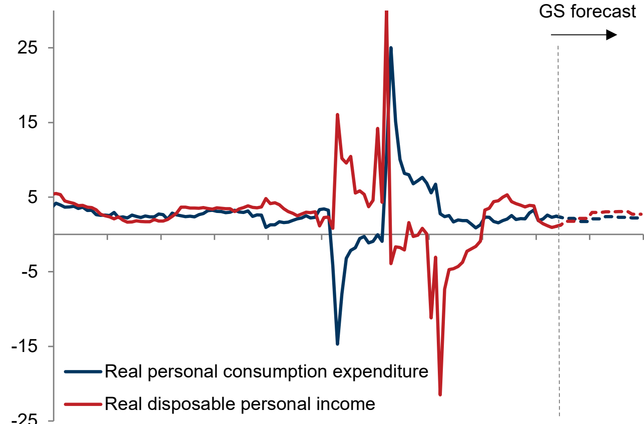
3-month average of monthly change in total nonfarm employees, thousands, SA



Note: Preliminary benchmark revision released in Aug 2024 suggests a 68k/month downward revision to monthly change in total nonfarm employees over Apr 2023 to Mar 2024. Grey shaded areas indicate NBER recessions.
Source: Bureau of Labor Statistics, Federal Reserve Bank of St. Louis, GS GIR.

Consumer spending and disposable personal income have also remained solid and will likely continue growing around their pre-pandemic pace...

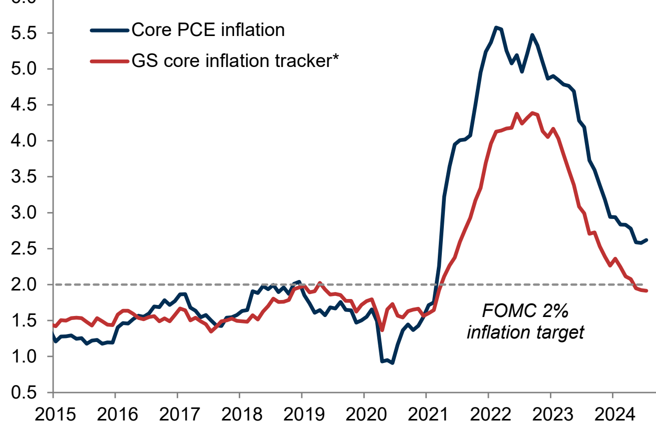
Real personal consumption expenditure and disposable personal income growth, % chg, yoy



Source: US Bureau of Economic Analysis, US Bureau of Labor Statistics, Goldman Sachs GIR.

...and inflation has progressed toward the Fed's 2% target, which increases the Fed's room to deliver rate cuts as needed

US core inflation, % chg, year ago



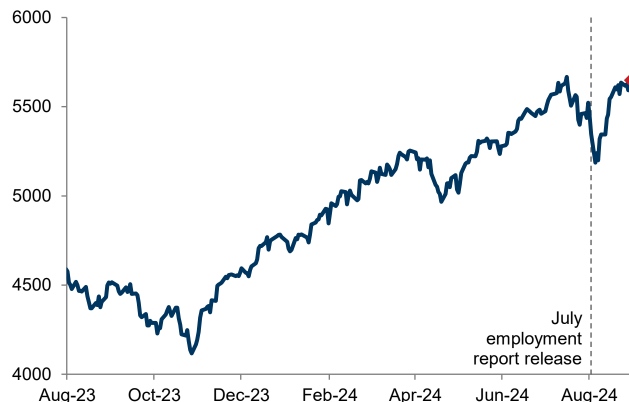
*The GS core inflation tracker is a simple average of the statistically and the theoretically derived measures. See more detail here.
Source: US Department of Commerce, Goldman Sachs GIR.*

Special thanks to the US economics team for charts.

...and market stress remains limited

The S&P 500 Index fell sharply in the days immediately following the weaker-than-expected July US employment report, but it has since fully recovered...

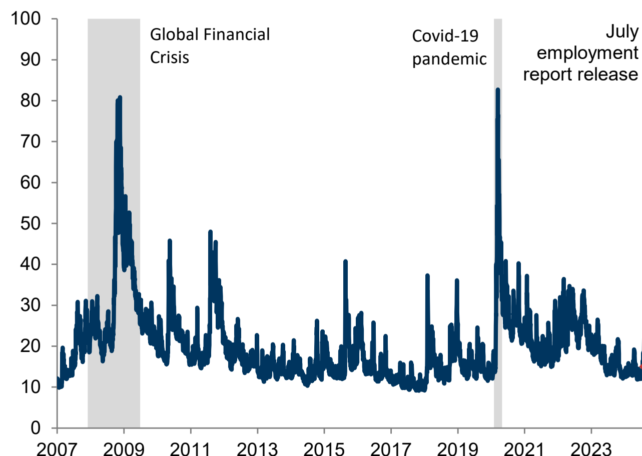
S&P 500 Index



Source: Bloomberg, Goldman Sachs GIR.

...and the VIX index—a measure of equity market volatility—has also normalized from its post-employment report spike

VIX Index



Source: Bloomberg, Goldman Sachs GIR.

While US Treasury yields remain relatively low as growth worries continue to linger, they are off their recent lows...

US 10-year Treasury yield, %

Source: Bloomberg, Goldman Sachs GIR.

...and credit market signals remain broadly benign, with USD HY and IG spreads moving back toward their recent ranges

USD investment-grade credit spreads (lhs, bp) and high-yield credit spreads (rhs, bp)

Source: Bloomberg, Goldman Sachs GIR.

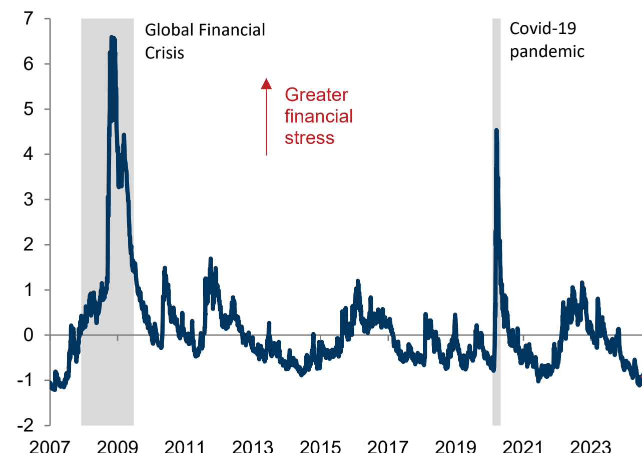
Financial conditions have eased from their initial tightening following the employment report release and remain easier than their average over the past year...

GS US Financial Conditions Index

Source: Goldman Sachs GIR.

...and our Financial Stress Index has retraced from its post-employment report increase, remaining at roughly normal levels by historical standards

GS Financial Stress Index, Z-score



Source: Goldman Sachs GIR.

Interview with Rob Kaplan

Rob Kaplan formerly served as President of the Federal Reserve Bank of Dallas (2015-21). Currently, he is Vice Chairman at Goldman Sachs. Below, he argues that it's time for the Fed to begin cutting rates.

The interviewee is an employee of the Goldman Sachs Executive Office Division, not Goldman Sachs Research, and the views stated herein reflect those of the interviewee, not Goldman Sachs Research.

Allison Nathan: After a couple of years of prioritizing the fight against inflation, Fed Chair Powell clearly signaled at Jackson Hole a shift to a more balanced focus between the Fed's price stability and full employment mandates. Do you agree with this shift?

Rob Kaplan: Yes, I think the Fed can take a more balanced approach to its inflation and full employment mandates, consistent with Jay Powell's Jackson Hole speech that clearly signaled a more balanced approach to monetary policy.

We have made substantial progress on inflation-----but the battle isn't necessarily over yet. Goods prices have undoubtedly dis-inflated as pandemic-related supply chain issues have largely resolved and substantial manufacturing overcapacity in China has distributed goods disinflation around the world. However, ground zero of the inflation issue has been services. Unlike goods markets, which are global in nature, services markets are local; people don't travel to China for a haircut. Excess fiscal spending, along with very accommodative monetary policy in 2021 and most of 2022, had the impact of overheating the labor market. This contributed to stickier services inflation even as monetary policy became much more restrictive in 2023 and 2024. In recent months, services inflation has subsided somewhat, and overall inflation—both goods and services—has made substantial progress toward the Fed's 2% target.

I'd add there is a significant disconnect between Wall Street, which is generally encouraged by this progress, and Main Street—the 60 million low-to-moderate income families in the US who are not focused on the current inflation rate but on the average inflation rate over the last several years, which has run around 4.5%. The cumulative price level is still too high for these households to make ends meet. So, the Fed needs to be cognizant of this as it pivots on monetary policy.

> "If I were still in my seat at the Fed, I would determine from a risk management perspective that it's time to begin cutting rates."

That said, I've now seen enough progress on disinflation to conclude that the inflation fight no longer needs to be the Fed's primary priority. And recent signs that the labor market is softening suggests that the Fed should now start to balance its inflation and employment objectives. The recent BLS benchmark revision further reinforces this rebalancing. So, if I were still in my seat at the Fed, I would determine from a risk management perspective that it's time to begin cutting rates.

Allison Nathan: The July employment report came in much weaker than expected only days following the Fed's decision to keep rates on hold, and the market reacted strongly. Did that report give you pause about the Fed's decision to remain on hold in July?

Rob Kaplan: I would note that a substantial portion of the job losses in the July employment report owed to temporary layoffs, which is very unusual. This was likely attributable to severe weather events affecting Houston during the month of July despite the BLS saying otherwise. The August jobs report may be stronger than expected. Time will tell. But I would advise to avoid overreacting to any one data point that could be distorted, misleading, and/or ultimately revised. My conversations with various types of businesses across the country suggest that the labor market is weakening but not falling out of bed. While the Fed has been striving to cool the labor market, it also doesn't want to cool it so much that it risks a more severe slowing.

I'd also note that the sharp rise in market volatility around the jobs report really resulted from a confluence of events. The weaker-than-expected report came out shortly after the BoJ's decision to raise interest rates, which caused a dramatic strengthening of the Yen and, in turn, an unwinding of the Yen carry trade that led to a flight to quality and a selloff in risk assets/spike in market volatility. So, the same selloff potentially could have occurred even if the Fed had cut rates in July.

> "My conversations with various types of businesses across the country suggest that the labor market is weakening but not falling out of bed.

Allison Nathan: But the weak employment report came on top of other indications of a softening labor market, such as lower hires and quits rates, and the rise in the unemployment rate actually triggered the Sahm rule, which has proven an extremely reliable recession indicator in the past. Does that worry you at all?

Rob Kaplan: Even Claudia Sahm would say that she's not sure the Sahm rule is relevant right now because the theory behind the rule is based on increased unemployment due to weak labor demand. Much of the recent increase in unemployment appears to be due to an increase in the labor supply primarily as a result of immigration. So, rules of thumb like the Sahm rule are good to pay attention to, but not to be a slave to.

Allison Nathan: The labor market is softening at the same time as low-to-moderate income households are still contending with high prices, fueling concerns about the health of the US consumer. What's your take on the outlook for the consumer?

Rob Kaplan: As I mentioned, the roughly 60 million low-to-moderate income households that earn less than $55k/year and have limited investments in financial assets are undoubtedly struggling, and companies serving those consumers are experiencing some weakness, as reflected in recent earnings reports. On the other hand, there is an equally sizable cohort of consumers that tends to be 55 and older, own their home, have a fixed-rate mortgage, and own financial assets. This cohort is insulated from higher interest rates and may even be seeing an increase in their incomes and wealth. This discrepancy explains the mixed bag of stronger-than-expected July retail sales data and poor guidance on the consumer front from some companies.

Overall, I would say while consumer spending is softening, it is in decent shape because even the lower-income worker continues to be employed. The risk is that unemployment does rise materially, which would hit this already-vulnerable population especially hard. That's why, from a risk management perspective, it would be wise for the Fed to take some chips off the table and lower the Fed funds rate while it remains vigilant in its inflation fight.

Allison Nathan: But you don't think that the Fed is behind the curve at this point in doing so?

Rob Kaplan: If the Fed is behind the curve, it's not behind by more than a meeting or two. So, if the Fed is late, I would view that more as a tactical error that could be corrected in subsequent meetings versus a strategic error, like the one the Fed made in 2021/22 when it was 18 to 20 months late in winding down asset purchases and then hiking rates to fight inflation.

Allison Nathan: So, what odds would you put on the US economy entering recession in the next year?

Rob Kaplan: I agree with GS research US recession odds—on the order of 20%.

I would note that one reason we haven't had a recession is the substantial amount of fiscal spending that flowed through the system after 2020. In 2020, the CARES act was designed to substantially fill the $2 trillion Covid GDP gap. In 2021, Congress passed the $2 trillion American Rescue Plan Act (ARPA). It ran through the 2021 budget, raising the federal deficit to approximately 15% of GDP that year. However, a substantial portion of the ARPA money was spent in 2021, 2022, 2023, and 2024. In addition, we also passed the Inflation Reduction Act, and the Infrastructure Investment and Jobs Act. These fiscal programs stimulated the economy and particularly demand for workers. To some extent, I believe these programs partially blunted restrictive monetary policy and required the Fed to raise rates higher and keep them higher for longer.

Despite unusually high fiscal spending, monetary policy still has had a potent impact. Restrictive policy has certainly slowed industries that are sensitive to interest rates, created challenges for small businesses, dampened the ability of small banks to lend to small businesses, and cooled labor force demand. The Fed kept rates higher for longer in order create this "cooling" and fight inflation. However, we are at—or even past—the point where continued highly restrictive monetary policy will increase the risk of recession.

Allison Nathan: Given everything we've discussed, how is the Fed likely to proceed from here?

Rob Kaplan: If the August employment report is relatively solid, the Fed will most likely cut the Fed funds rate by 25bp in September and position themselves to cut again by 25bp in both November and December so long as inflation trends remain benign. If the August employment report and other economic indicators come in weaker than expected, the Fed will be prepared to cut by 50bp in September, and in more than one meeting if need be. Either way, I believe that policymakers are reasonably well-positioned to act.

I caution, though, that if I were still at the Fed, I'd want to keep all of my policy options open. If you hear certain Fed speakers sounding hawkish, I would encourage observers not to overreact—this rhetoric may be in service of keeping policy optionality.

If I were still at the Fed, I'd want to keep all of my policy options open. If you hear certain Fed speakers sounding hawkish, I would encourage observers not to overreact—this rhetoric may be in service of keeping policy optionality."

Allison Nathan: What should investors be watching to gauge the path of the economy and Fed policy ahead?

Rob Kaplan: Many market and economy watchers have become maniacally focused on data. And unlimited amounts of data are available to feed this focus. But I call data the "bouncing ball" because the several datapoints released in any given week often send confusing signals about the economy that could also obscure the forest for the trees. Most data series are aggregated and backward-looking, at risk of being stale, and subject to revision. Of course, investors should still watch the data and the August employment report in particular will be relevant for the Fed's next steps. But, to gauge the overall direction of the economy and policy, investors should perhaps pay even more attention to fundamental structural drivers, including demographic trends, technology-enabled disruption, regulatory policy, impact of the energy transition, etc. So, I would focus more broadly on business commentary and structural drivers——as well as data—–in order to keep your eye on the ball. This broadened focus may help you avoid getting too distracted by the volume of data and its bounces.

US equities: further room to rise

Ben Snider argues that despite lingering growth concerns, US equities are likely to continue rising from here

While US equity markets rebounded from the early-August macro-driven selloff, markets remain volatile as growth concerns and the possibility of a Fed policy mistake that could tip the economy into recession continue to linger on investors' minds. We find that equities would have far to fall if a recession were to materialize. But we think growth concerns are overblown (see pgs. 4-5), and expect sustained economic expansion alongside solid corporate earnings growth to continue lifting equity prices into 2025.

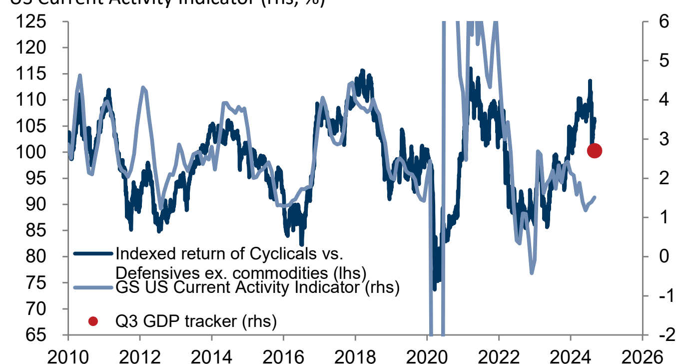
A return to fair value

Increased recession fears provided the fundamental catalyst for the early August equity market drawdown. Against a backdrop of elevated leverage, weak US labor market data sparked both a S&P 500 selloff as well as intra-market rotations indicative of a sharp downgrade to expected economic growth; the S&P 500 fell 6% during the first three trading days of August and a basket of cyclical stocks posted some of its worst daily returns on record relative to a basket of defensive stocks.

But even at the S&P 500's recent near-record highs, stocks were still pricing less optimistic growth expectations than prior to the volatility. However, we think this reflects a convergence to fair value rather than the expectation of recession. Indeed, prior to the rotation, cyclical stocks had outperformed for months despite a coincident slowdown in the economic data. Now, the cyclical and defensive baskets are pricing real US GDP growth closer to 3%—compared to over 4% previously—which is only slightly above our economists' growth forecast for 2H24, and the current S&P 500 P/E multiple of 21 matches that indicated by our macro valuation model.

The cyclical and defensive baskets are now pricing real US GDP growth largely in line with our economists' growth forecasts

Indexed return of Cyclicals vs. Defensives ex. commodities (lhs, index) vs. GS US Current Activity Indicator (rhs, %)



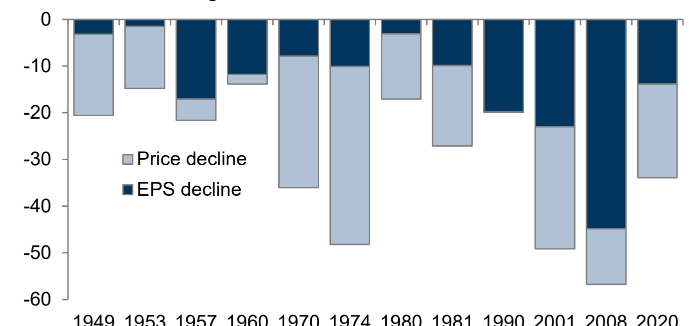
Note: Baskets developed by the Global Banking and Markets Division.
Source: Goldman Sachs FICC and Equities, Goldman Sachs GIR.

Further to fall in the event of recession…

While the market has downgraded its growth expectations, substantial room for downside still exists if economic growth stalls. If the economy dips into recession, history suggests that the S&P 500 would fall from around 5600 currently to roughly 4000. In the 12 recessions since WWII, the S&P 500 typically peaked eight months before the recession started and subsequently declined by a median of 24% over 14 months alongside a median earnings decline of 13%. Within the market, defensive sectors including Consumer Staples and Health Care typically outperformed while cyclicals like Consumer Discretionary underperformed—a pattern we could expect to repeat this time around.

In the 12 recessions since WWII, the S&P 500 typically declined by a median of 24% alongside a median earnings decline of 13%

S&P 500 declines during the 12 recessions since WWII, %



Source: Compustat, Goldman Sachs GIR.

…but recession is not our base case, suggesting room to run

That said, we expect sustained economic and corporate earnings growth will continue to lift equity prices into 2025. Our economists see only a 20% likelihood of US recession within the next 12 months, which is consistent with the current signal from corporate profit margins. S&P 500 profit margins have historically peaked a median of three quarters before recessions, with total US corporate national income and product accounts (NIPA) margins peaking slightly earlier. This decline in corporate profitability helps explain the decline in worker demand that characterizes US economic downturns.

Recently, however, profit margins have risen, and both our macro models and consensus estimates expect margin expansion to persist in coming quarters. Should these expectations prove correct, and the US avoids recession, we think stocks would have further room to run. Indeed, if the economy continues growing in line with our economists' forecasts, the Fed cuts as expected, and no major changes to the corporate tax code are implemented, we expect S&P 500 EPS growth of 6% next year to extend the ongoing bull market.

Fed cuts and equities: a beneficial match

We find that stocks usually rally when the Fed starts to cut, but that growth ultimately drives equity market performance. In the eight Fed cutting cycles over the last 40 years, the S&P 500 posted a median 6-month return of 9% following the first Fed cut, generating positive returns in six of the eight cycles. The two exceptions—2001 and 2007—saw the economy dip into recession within six months following Fed cuts.

From a sector standpoint, the start of Fed cutting cycles often features the same equity sector rotations as the start of recessions because Fed cuts have usually begun against a backdrop of slowing growth and because declining interest rates tend to increase the appeal of the stability and dividends offered by "bond proxy" equities in defensive sectors. All told, given our view that US economic expansion will continue, we expect equity markets to rise alongside Fed cuts, and potentially positive bond returns, in this cycle.

Ben Snider, Senior US Portfolio Strategist

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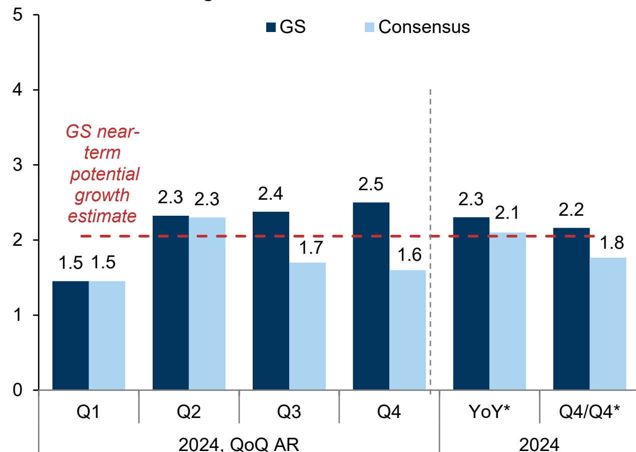
Goldman Sachs & Co. LLC

A still-reasonably healthy US consumer

Real consumer spending growth remains resilient, and we expect it to continue growing at an above-consensus pace of 2.2% in 2024 (Q4/Q4)…

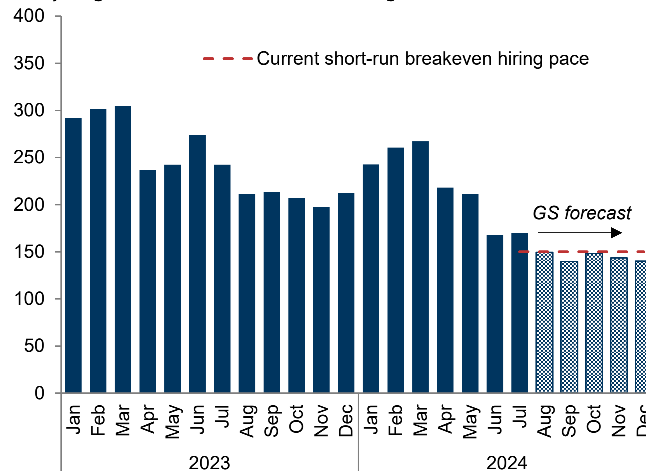
Real personal consumption expenditure (PCE) growth forecasts, % change



*Calculated from quarterly consensus forecasts.

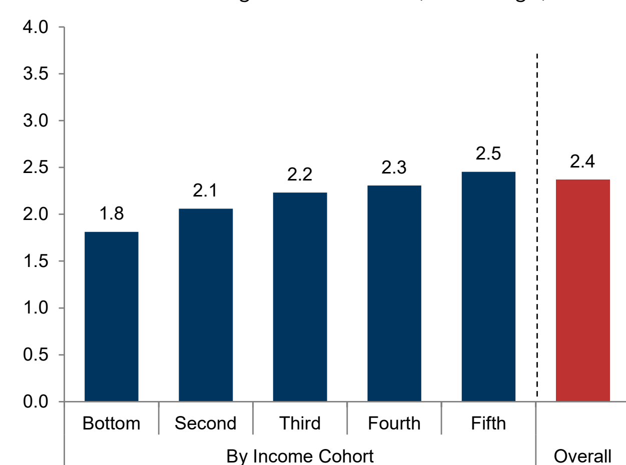
…and we expect firm labor demand alongside continued labor force expansion will lead job growth to average around 145k/month for the remainder of 2024…

Net job gains, thousands, 3m average



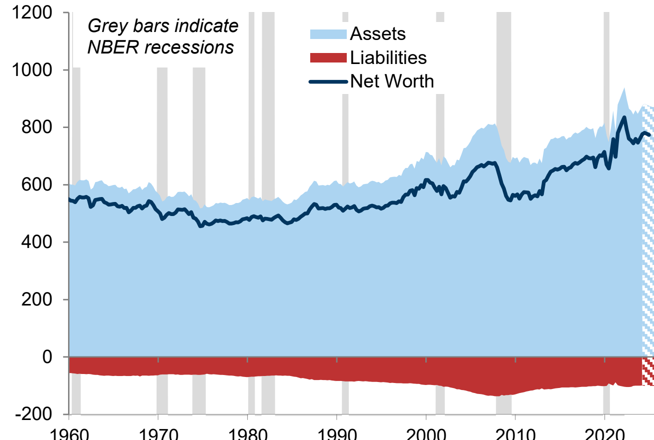
…which, alongside strong real wage growth, should lead to positive real income growth across all income quintiles

GS 2024 real income growth forecasts, % change, Q4/Q4



Household balance sheets remain strong as the net worth-to-disposable personal income ratio remains near its all-time high

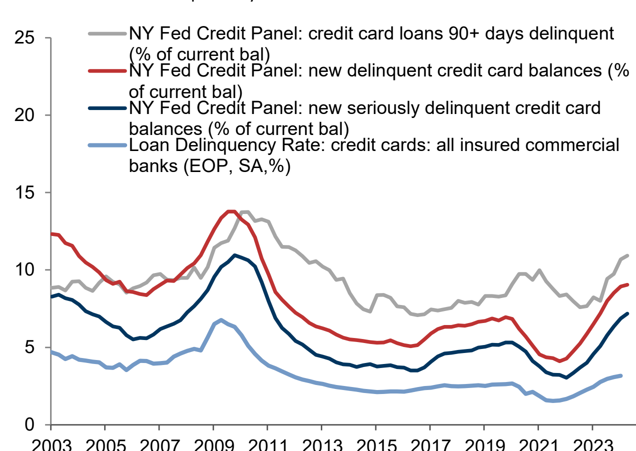
Household net worth, % of disposable income



Note: Dotted and diagonal lines indicate GS forecasts based on income, saving, and asset return assumptions.

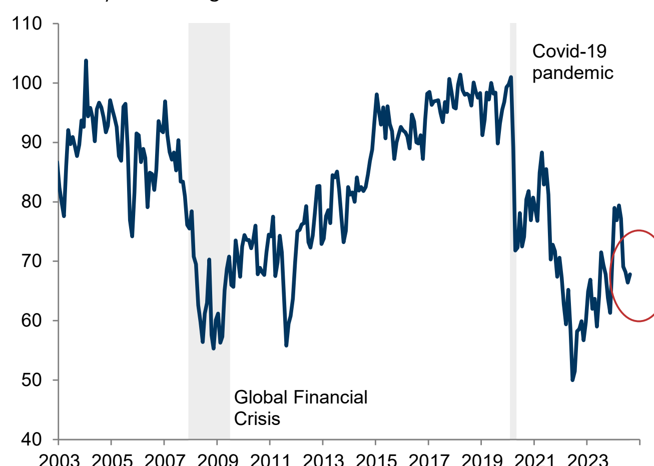
And while credit card delinquencies have continued to rise, the pace of increases decelerated in Q2…

Credit card delinquency rate, %



…and the University of Michigan's consumer sentiment index ticked up slightly in its preliminary August report

University of Michigan Consumer Sentiment Index



Source: Bureau of Economic Analysis, US Bureau of Labor Statistics, Federal Reserve Board, University of Michigan, The Conference Board, US Federal Reserve Bank, IRS, Goldman Sachs GIR.

Special thanks to GS senior global economist Joseph Briggs for charts.

Consumer debt: healthy on net

Lotfi Karoui and Vinay Viswanathan argue that despite pockets of weakness within US consumer debt, the US consumer outlook remains relatively healthy

July's disappointing US nonfarm payrolls report increased scrutiny on household finances as investors across the equity and fixed income markets alike grew more concerned about the state of the US consumer. While pockets of weakness tied to low-income cohorts have emerged over the past year, we remain constructive on the health of the consumer in aggregate, primarily owing to our expectation that real disposable income growth will remain strong despite the recent uptick in the unemployment rate.

Household finances are largely rock solid...

US households' aggregate net worth has grown by an impressive 25% in real terms over the past five years. Survey data from the Federal Reserve Board indicates that real net worth grew across the entire spectrum of the income distribution between 2019 and 2022, including among the lowest-income households. The main driver of this growth has been real wages, which have grown steadily across income quintiles. Indeed, real wage growth for the bottom two wage quintiles has outperformed its historical trend and outpaced that of higher wage cohorts. Lower-income borrowers have been much less supported by non-wage income, such as dividend and rental income, while higher-income quintiles have benefitted significantly from asset inflation and non-wage income.

Consumer spending has also proven resilient. Real consumer spending grew 2.6% on a year-on-year basis through June, and core retail sales rose 0.7% in real terms in July. Moreover, our quantitative measure of earnings sentiment suggests that company managements signaled a *more sanguine* tone on the US consumer in Q2 earnings reporting as opposed to the *negative* media coverage around consumer spending.

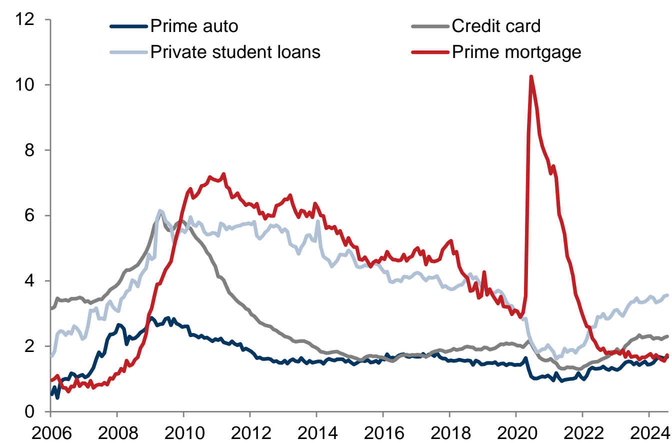
...though pockets of weakness have emerged

Given its solid foundation in household finances, aggregate consumer loan performance has also been solid. The delinquent share of total loans to consumers (including mortgages) remains close to pre-pandemic lows despite a gradual increase over recent quarters. That said, these topline figures obscure an important bifurcation under the hood: while residential mortgage credit performance continues to serve as a ballast for the broader consumer loan market, with mortgages representing 70% of all household debt, auto, credit card, and personal loans have shown increased signs of weakness.

What accounts for this divergence? For mortgage loans, steady home price appreciation over the past four years has helped grow mortgage borrowers' home equity, providing a solid line of defense against foreclosures. As a result, the average loan-to-value ratio on outstanding prime mortgages has declined to around 50%, near the lowest levels on record. Homeowners have also proven largely immune to the significant increase in funding costs over the past few years. Over 95% of outstanding first-lien mortgages are fixed rate, with an average effective interest rate of 3.9%, representing a 2.5pp discount to current mortgage rates.

New delinquency rates remain low for mortgages...

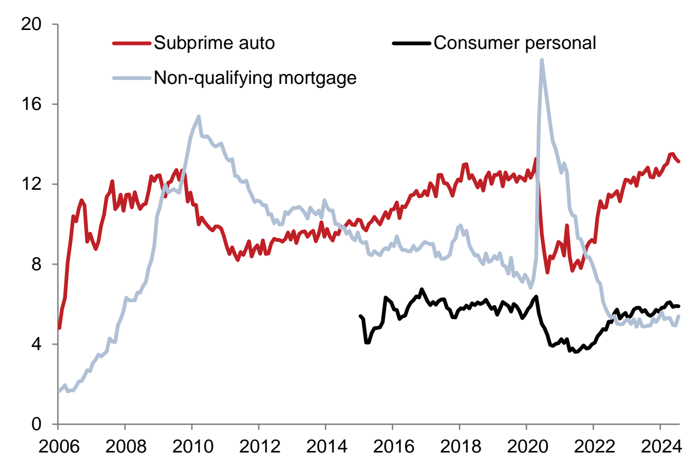
30+ day delinquency rate by loan type for low-delinquency sectors, %



Note: Uses data from securitization trusts through July 2024.
Source: Intex, Goldman Sachs GIR.

...but have risen markedly for subprime auto loans

30+ day delinquency rate by loan type for high-delinquency sectors, %

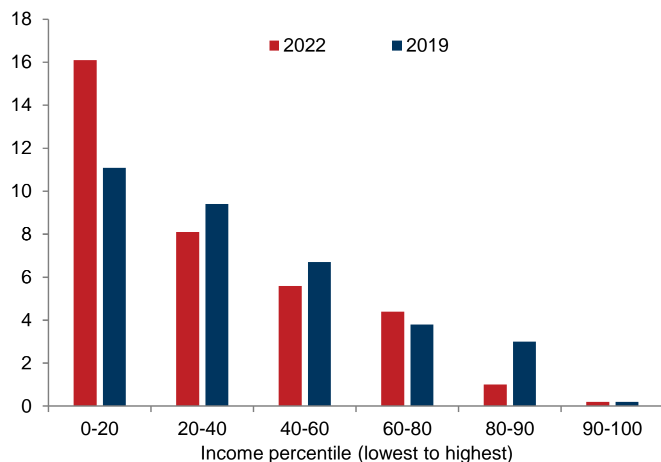


Note: Uses data from securitization trusts through July 2024.
Source: Intex, Goldman Sachs GIR.

For auto, credit card, and personal loans, the rise in delinquencies has largely reflected the diminished debt servicing capacity of low-income households in the face of higher funding costs and inflation. This stress has been particularly visible in the significant increase in subprime auto loan delinquencies relative to prime auto loans. Acute inflation in the cost of vehicles has created affordability issues in the auto market similar to those in the housing market, but without the same rock-solid fundamentals for households to fall back on. Borrowers with low credit scores also account for a larger share of consumer loans than mortgage loans, another key factor behind the divergence in loan performance. Less than 7% of mortgage originations in Q1 were for borrowers with a credit score below 660. By contrast, 25% of auto loan originations, 34% of credit card originations, and 51% of personal loan originations were for borrowers with a sub-660 credit score, according to data collected from Equifax. This aligns with the concentrated rise in delinquencies for low-income households across debt products reported in the most recent Survey of Consumer Finances.

Rising delinquency rates across loan types have largely been isolated to low-income households

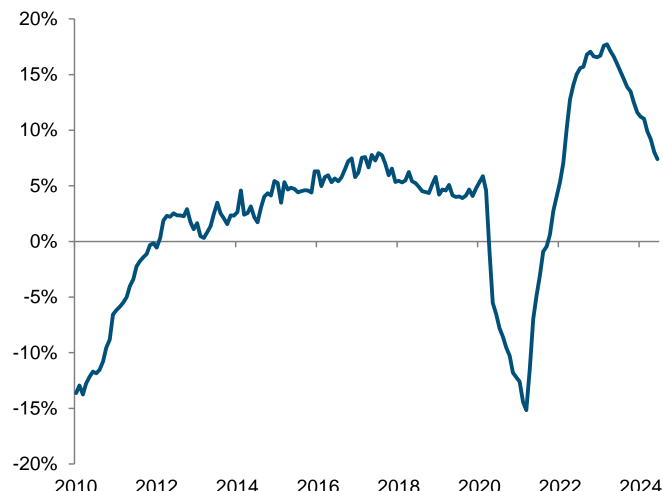
% of debtors by income quintile reported to be 60+ days late on any form of debt in the 2022 Survey of Consumer Finances



Source: Federal Reserve Board, Survey of Consumer Finances, GS GIR.

Credit card debt growth has slowed sharply over the last year

Credit card debt growth, year-over-year



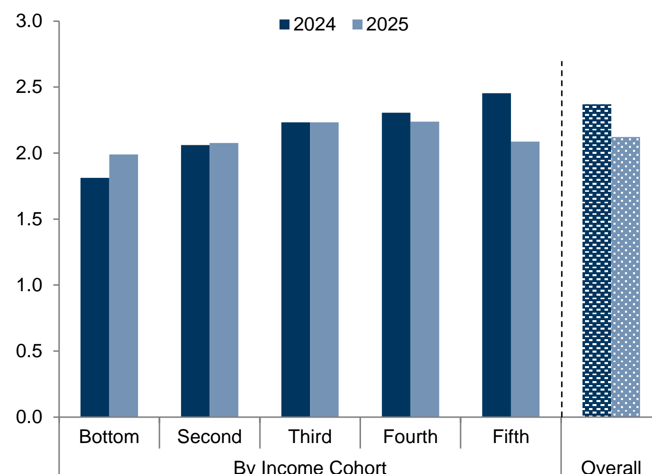
Source: Equifax, Goldman Sachs GIR.

US consumers should see bright days ahead

Despite these pockets of weakness, GS economists expect US consumers to remain reasonably healthy over the coming months, forecasting real disposable income growth of 2.4% for all households for 2024 (on a Q4/Q4 basis) and 2.1% for 2025, with a relatively equal path across income cohorts, including the bottom quintile of households. Job gains and higher real wages should support income growth, while waning cost inflation should disproportionately benefit low-income households. The slowdown in consumer debt growth over recent quarters, as evidenced by the drop in year-over-year credit card debt growth from a peak of 18% in 1Q23 to 7% in June, potentially as a result of a downtick in debt-funded consumption, is also encouraging. And in terms of spending, we think wealth effects on the back of the recent strength in financial markets and our constructive outlooks for equity and home prices should, on their own, push annualized consumption growth higher by 0.3% over the next year. Together, this should portend relatively bright days ahead for US consumers.

We expect real income growth will rise steadily over the next two years across income quintiles

GS 2024 and 2025 real income growth forecasts, % change, Q4/Q4



Source: Goldman Sachs GIR.

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A roundup of the US consumer

What are you observing in the micro data of your companies regarding the current state of the US consumer, and what are you hearing from your companies about where the US consumer may be heading?

Retail

Kate McShane, GS Equity Research

- **Retail companies are starting to see signs of a slowdown.** Indeed, the majority of companies report that overall, consumer health was steady to slightly worse in 2Q24 than in 1Q24. While the employment picture for the consumer remains healthy, retailers note that persistent inflation, higher interest rates, and uncertain macroeconomic and geopolitical factors have driven consumers to seek greater value and be more choiceful in their spending (echoing Q1 commentary from these companies). To address this, retailers have increased promotions and price investments as they focus on providing customers with as much value as possible. Encouragingly, after two years of negative growth, signs of stabilization in some discretionary categories emerged in Q2 from select retailers, largely reflecting easy compares as well as offerings of new/innovative products. That said, the lowest-income cohort remains pressured and continues to prioritize consumables.
- **Companies expect consumers to remain more value-focused and discerning.** In their FY24 guidance, companies are largely assuming that the Q2 trends will continue given a likely consistent employment picture. That said, consumer trends could potentially worsen further ahead of the upcoming US election as elections have proven to be a distraction to the consumer in the past. As a result, we expect retailers to continue focusing on increasing promotions to appeal to a more discerning consumer. Retailers also note five less shopping days exist between Thanksgiving and Christmas this year versus last year, which could have a negative impact on holiday sales.

Apparel

Brooke Roach, GS Equity Research

- **Data for the apparel sector has been fairly mixed over the past few months,** with bifurcating trends dividing the market into winners and losers. While trends differ by retailer, one consistent message we've heard this earnings season is that conversion—the share of store visitors that actually make a purchase—has weakened. Indeed, consumers have become increasingly choiceful in their purchasing decisions and more focused on promotions/value. Amid this, the off-price segment has gained market share with those companies reporting benefits from higher traffic of trade-down customers. On the other hand, department stores report weaker comp trends and have lowered their outlooks for 2H24. This value-seeking behavior and more muted conversion trend has been visible across all customer income demographics in Q2.
- **And companies have generally provided an outlook for slower growth in the back half of 2024.** Many retailers recently cut their 2H24 US growth outlooks given more cautious consumer conversion trends, including select department stores, specialty retailers, and global brands. Other companies had already embedded more muted growth for the holiday season owing to a narrower holiday selling season (five fewer days between Thanksgiving and Christmas), election noise, and tougher compares. Promotionality has risen modestly as retailers seek to drive growth from value focused consumers. But while retailers remain cautious on the consumer, several have noted better-than-expected early back-to-school selling trends owing to new product launches and marketing.

Food Retail & Packaged Food

Leah Jordan, GS Equity Research

- **Food retailers face a mixed consumer.** Food retailers have noted strength in both value and premium offerings, with continued solid engagement from middle- and upper-income cohorts and improving momentum from lower income cohorts. Trade-down trends are decelerating, including private label share gains and traffic growth at value-based food retailers. That said, select packaged food companies have also noted a shift to lower absolute price points by some customers as dry grocery inflation has been stickier than the rest of the store.
- **And pullback on impulse purchases.** Total food-at-home spending continues to trend at a normalized rate of +2.5% with +1% food-at-home inflation, revealing solid overall real demand. But consumers have pulled back on impulse purchases, especially for snacking categories, suggesting consumers remain discerning. Specifically, companies have noted lower-income consumers remain focused on total basket size per trip, with items that fall outside the budget being excluded.
- **But companies remain cautiously optimistic on the consumer** as income growth continues to outpace food-at-home inflation, which suggests an improvement in consumer sentiment ahead. That said, companies are also mindful of ongoing macroeconomic uncertainty, which could support continued value-seeking behavior regarding both products purchased and the channels where consumers shop. As such, food companies have increased promotional budgets this year—largely centered around common items in most baskets—to foster greater engagement with more price sensitive customers, which is starting to improve volumes.

Restaurants

Christine Cho, GS Equity Research

- **Some restaurant companies note slower traffic amid more discerning consumers.** Indications are mixed with our covered companies reporting same-store sales growth (SSSG) ranging from -3% to +29% in Q2. While fast casual restaurants report resilient top-line trends, the majority of quick service restaurants (QSR) acknowledge recent challenges in driving store traffic as consumers—particularly lower-income consumers—have become increasingly discriminating/price-sensitive. And with restaurant menu prices now much higher relative to grocery stores as QSRs have pushed significant pricing through to customers in the last three years (almost 3x versus the average of the pre-pandemic), more consumers are choosing to eat at home.
- **And companies expect recent pressures to persist.** Many companies noted that these pressures have deepened and broadened as the year progressed and they do not expect a meaningful reversal in the next few quarters. Even companies toward the top end of the industry on Q2 SSSG expressed worries about consumer strength in the second half of the year. In response to these concerns, restaurants have increased the number of promotions/disruptive deals over the last few months in the form of value combos and free/inexpensive add-on offers. While the net impact of value deals on transaction growth are highly debated, companies continue to extend these offers beyond the summer and are working toward a more permanent, everyday value platform with some degrees of success. Many companies also seem hesitant to increase prices further given the softer consumption/more competitive backdrop.

Leisure

Lizzie Dove, GS Equity Research

- **Cruise companies have yet to see a slowdown and remain unconcerned.** Contrary to much of the leisure sector, the cruise industry continues to fire on all cylinders, with operators noting robust demand spanning all brands and price points as well as bookings in 2025 pacing ahead (i.e. more occupancy filled), with higher pricing year-over-year. While 2024 is mostly de-risked given that the majority of sailings are already on the books, onboard spending—a more real-time indicator of demand—remains robust. As such, cruise companies don't sound concerned. We expect focus to shift to "Wave Season"—the key booking period for cruises—which runs for several months beginning in November. Based on real-time data from HundredX that shows accelerating Net Purchase Intent for cruises, we continue to expect bookings to remain robust in 2025.
- **While theme parks have started to see some weakness, they have yet to sound the alarm.** Trends have diverged at the destination and regional parks. Major theme parks have missed estimates, highlighting a "normalization" from the post-Covid surge in trends domestically, which they expect to continue for the next couple of quarters. However, the shift in demand at regional parks hasn't been quite as material, though some evidence of discounting on tickets has emerged and summer foot traffic data looks somewhat soft. Companies haven't sounded the alarm as they expect to potentially benefit from a "trade-down" dynamic, though they acknowledged the possibility of discounting in certain markets if further weakness occurs.

Entertainment

Stephen Laszczyk, GS Equity Research

- **Consumer demand for live entertainment remains strong** with several Q2 earnings reports noting positive demand trends across income groups. Indeed, reports from several companies in our coverage indicate that attendance remains healthy across lower and premium ends of their offerings with revenues set to increase year-over-year in 2Q24. And our live entertainment attendance tracker suggests a record year for sports and concerts attendance across Arenas (+25% YoY) and Amphitheaters (+28% YoY). Driving this strength is, one, the fact that the live experiences market is disproportionally driven by the upper quartile of the income distribution, with demand for premium and VIP hospitality accounting for an outsized portion of the industry's revenue growth over the last year. And two, concert and sporting events markets are more supply-side driven than other forms of discretionary travel and leisure (e.g. theme parks, cruises, and travel) and 2024 has been a particularly robust 'supply-side' year.
- **And companies remain cautiously optimistic** on the demand environment heading into 2H24 and 2025. Most management teams are positioning their companies to take advantage of these durable trends through increasing supply and leaning into premium hospitality. And companies plan to lean into dynamic pricing technology to maximize revenue from its most in-demand events and hospitality offerings as well as increase the frequency of events offered based on robust pre-sales.

Markets: not pricing recession

Vickie Chang sees room for further market relief following the August macro-driven selloff, but argues that renewed growth risks would pose a challenge to market pricing

Following a brief but intense growth scare on the back of a weak July US employment report and ISM manufacturing print, markets have now partially retraced and are not pricing meaningful recession risk. We also view recession risk as limited, with our economists ascribing only 20% odds to a US recession over the next year (see pgs. 4-5), and see room for modest further market relief if better data and our relatively optimistic growth forecasts are realized. But with assets not currently priced for recession, they would have significant room to fall if one does materialize. As such, the challenge for investors today is finding ways to position for our more benign baseline forecasts without leaving too much exposure to downside growth risks.

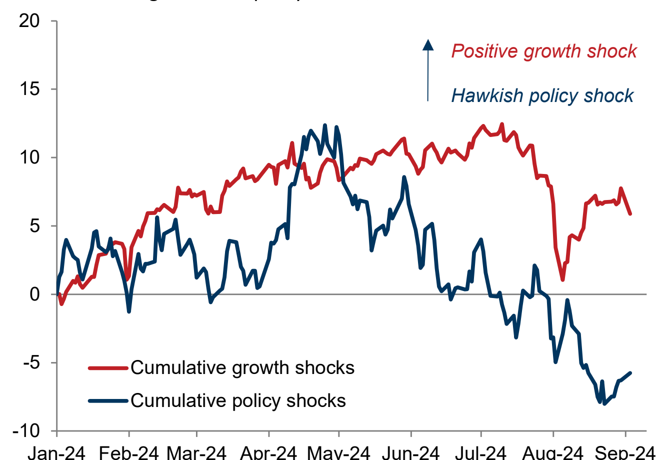
A large growth scare…

Asset prices reflected a brief but sharp increase in recession risk during the growth scare in early August. Our macro framework that uses the movement of bonds and equities to assess how the market is shifting its views on US growth or policy suggests that the market began downgrading its forward growth views in mid-July, with the clearest growth scare taking place from August 1-5. At the lows, markets had priced a roughly 170bp downgrade to 1y-ahead US GDP growth. But the moves varied in intensity across assets. Indeed, we find[1] that some assets moved in ways that would usually be consistent with a larger growth downgrade than others. At the extremes, the moves in some assets—in particular, Japanese equities, the Japanese Yen, and the VIX—were clearly consistent with recessionary growth downgrades. But those moves were likely driven at least in part by market positioning dynamics, not just by a shift in the market's growth views. It is also possible that the market—at least in assets like equity implied volatility, USD/JPY, and cyclical equities—may have priced a more optimistic growth view than the data justified before the August correction.

Directionally, the moves made sense—US growth data had disappointed for much of the last three months, and the particularly weak set of data prints from August 1-2 clearly catalyzed the growth scare. The magnitude of the growth worry, though, was extremely large relative to the change in our baseline forecasts. Indeed, our US economists did not shift their growth forecasts, and still expect solidly non-recessionary growth in the coming quarters. From that perspective, the market moves looked overdone.

Markets quickly priced—and have partially reversed—a sharp growth downgrade

YTD cumulative growth and policy shocks, index



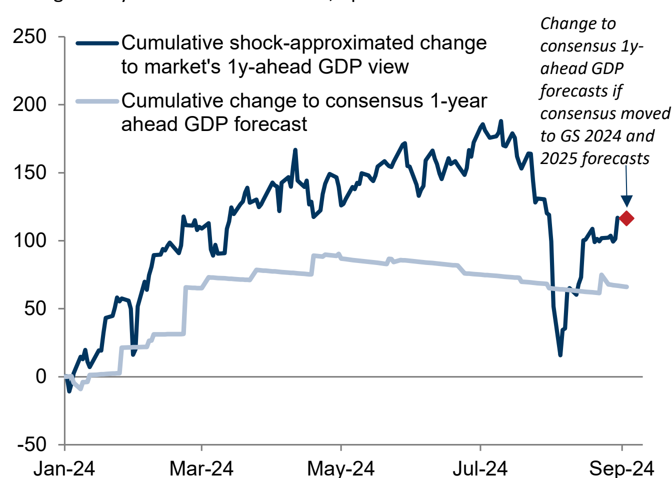
Source: Goldman Sachs GIR.

…which has partially reversed, but still some room for relief

Markets have largely retraced from the August macro-driven selloff as growth fears have diminished and investors have taken comfort from the prospect of imminent Fed easing. However, market pricing still reflects a roughly 100bp growth downgrade from the mid-July peak. And several assets—including cyclical equities, small-cap equities, and Japanese assets—remain notable underperformers. While it is always difficult to benchmark the "level" of growth that the market is pricing, we find[2] some evidence that market pricing after the relief seen in recent weeks now appears closer again to reflecting our own above-consensus growth views. However, we do not weight that conclusion heavily, because we find it easier to benchmark changes rather than levels of growth in asset prices, and because the choice of starting point matters a lot. So, we think room for modest upside potentially still exists, especially if upcoming labor market data looks reasonably good and recession risk recedes further.

Some evidence that markets are again pricing growth views more consistent with our baseline forecasts

Change to 1-year ahead GDP outlook, bp



Source: Bloomberg, Goldman Sachs GIR.

[1] We estimate asset sensitives to growth and policy shocks, and use those estimated sensitives to growth shocks and the relationship between growth shocks and changes in 1y-ahead growth views to benchmark the growth downgrade major assets priced.

[2] We compare the change in consensus 1y-ahead US growth views to the change in our growth shocks translated into 1y-ahead GDP terms since the start of the year.

Further to fall in a recession

Although asset markets are broadly consistent with a lower growth outlook than they were in June, assets are still not generally priced for recessionary outcomes. So, while a recession looks less likely than it did even several weeks ago, assets would have significant room to fall if one does materialize. The unemployment rate plays an important role in many of our macro models given the clear linkages between the labor market and risk premia, meaning that asset market outcomes hinge on the labor market outcome.

We can construct a simple and illustrative recession scenario using our macro frameworks and the links between the unemployment rate and growth. A scenario where the unemployment rate rises by 2.6pp from trough to peak, in line with the average move during the 1990 and 2001 recessions that lacked the amplifiers of the Global Financial Crisis or the exogenous pandemic shock in 2007 and 2020, respectively, would imply a further 1.7pp increase in the unemployment rate after accounting for the rise in the unemployment rate that has already occurred since its April 2023 low.

The macro environment has differed significantly across recessions, as has the severity of the labor market deterioration

US recessions and associated market drawdowns since 1970

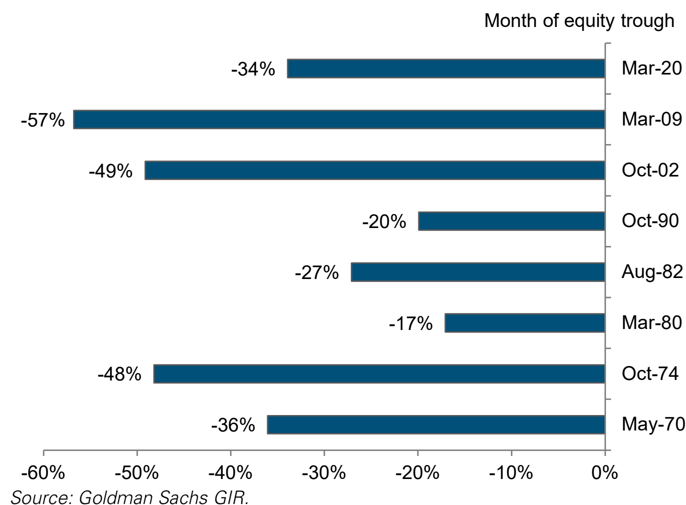
Trough date	Draw down	At Start of Recession: Core CPI	At Start of Recession: Equity macro valuation	At Start of Recession: Private sector financial balance*	Trough to peak change in UR
May-1970	-36%	6.2%	26%	2.3%	2.7%
Oct-1974	-48%	4.7%	-11%	4.0%	4.4%
Mar-1980	-17%	12.0%	18%	2.9%	2.2%
Aug-1982	-27%	11.6%	13%	4.0%	3.6%
Oct-1990	-20%	5.5%	13%	3.3%	2.6%
Oct-2002	-49%	2.7%	49%	-4.1%	2.5%
Mar-2009	-57%	2.5%	-2%	-2.1%	5.6%
Mar-2020	-34%	2.1%	-14%	3.8%	2.9%^

**As % of GDP. We take the 12m minimum of the private sector financial balance.*
^"Underlying" unemployment rate adjusted for proportion of unemployed on "temporary layoff".
Source: Department of Commerce, Federal Reserve, Haver Analytics, GS GIR.

Such a scenario would translate into a GDP growth downgrade that suggests, using our simple cross-asset frameworks, roughly a 20% correction in the S&P 500 Index, 80bp decline in the US 10-year Treasury yield, and 3% strengthening of the trade-weighted US Dollar. If the market prices additional policy easing on top of what the growth downgrade would normally suggest, that dynamic would mitigate some of the equity downside, increase the yield downside, and potentially mitigate USD strength. This approach is highly stylized, but the main conclusion is that a recession, if it were to occur, would lead risky asset prices firmly lower, and, in many cases, well below the early August lows.

The S&P 500 has nearly recovered from its August lows, but a recession would take equities firmly lower, as in past recessions

S&P peak-to-trough drawdowns associated with US recessions since 1970, %



Source: Goldman Sachs GIR.

A challenging positioning environment

While our economists see continued US economic expansion as far more likely than recession, US growth risks have risen somewhat. The flip side of the market recovery in recent weeks is that real downside risk exists in the case that a recessionary outcome materializes. While unlikely in our view, the August growth scare demonstrated how quick and painful a manifestation of these risks could be for asset markets.

The challenge for investors now is to find ways to position for our more benign baseline economic outcome without too much exposure to the US recession tail. With focus on recession risk likely to linger, markets will be more sensitive than usual to any disappointing US growth and labor market data. We think there is value in fading growth worries and positioning for the possibility that the economy and markets respond quickly to non-recessionary policy easing, but in places and forms that are somewhat protected from downside US growth risks, which is partly why we continue to see value in hedging long risk positions (see pg. 24).

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Exchange rates: a recession hedge

Exchange rates can experience sharp moves when markets price a negative growth shock that drives equities and yields lower. Indeed, during the Covid shock in early 2020, the Mexican Peso (MXN) and the Norwegian Krone (NOK) weakened by over 20% versus the Dollar over the course of a month. With investors now focused again on downside risks to US activity, we have updated our FX Hedge Framework to identify which currencies could be the most effective hedges in the event of a US recession. With this framework, we rank currencies based on their expected depreciation (or appreciation) in a scenario in which both US equities and US Treasury yields fall sharply according to historical sensitivities. Ultimately, we find that the Japanese Yen (JPY) and Swiss Franc (CHF) are among the most effective hedges in a US recession, and also see value in MXN, Australian Dollar (AUD), and British Pound (GBP) short positions.

Longs in safe-haven currencies are among the best hedges

The JPY and the CHF are commonly referred to as 'safe-haven' currencies as they typically appreciate versus the Dollar when risk sentiment weakens, whereas other currencies typically depreciate versus the Dollar. Accordingly, we find that JPY and CHF longs are among the most effective hedges within the FX complex, with the Yen, in particular, consistently screening as the most reliable hedge to a decline in both US equities and yields. While CHF has traded closely with risk sentiment recently, we think limits exist to this correlation and, more broadly, to the Franc's role as a recession hedge given that the SNB appears willing to intervene in currency markets.

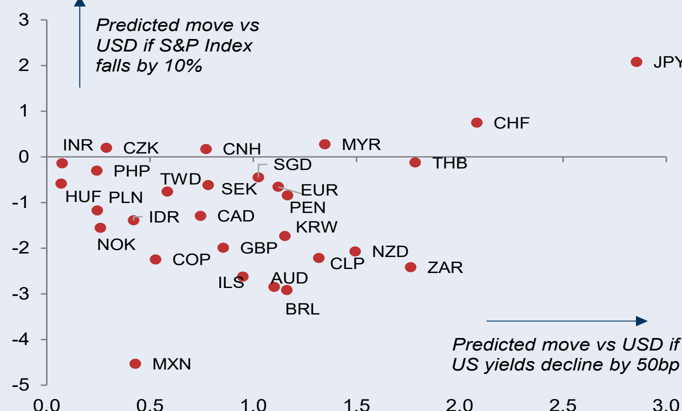
MXN, AUD, and GBP shorts also screen as reliable hedges

Our analysis depends largely on the relative move between equities and rates, with a higher degree of rate relief from lower US yields helping to reduce the impact of the equity selloff on high-beta currencies. However, among these currencies, a decline in the S&P 500 Index most negatively impacts the Mexican Peso (MXN), while MXN benefits less from a decline in US yields compared to other currencies. As such, MXN shorts are also among the most effective US recession hedges, which is consistent with the strong economic interlinkages between the US and Mexican economies.

While JPY longs and MXN shorts—and, to a lesser extent, CHF longs—are the most effective hedges, they are relatively costly to maintain given the punitive carry and elevated implied volatility. Instead, shorts in the AUD and GBP feature an attractive combination of low carry and reliable responsiveness to recessionary shocks.

MXN is the most negatively impacted by a fall in the S&P 500, while JPY tends to benefit from a decline in US yields and is not as negatively impacted by the fall in equities

Predicted moves vs. USD if S&P falls by 10% or US yields decline by 50bp

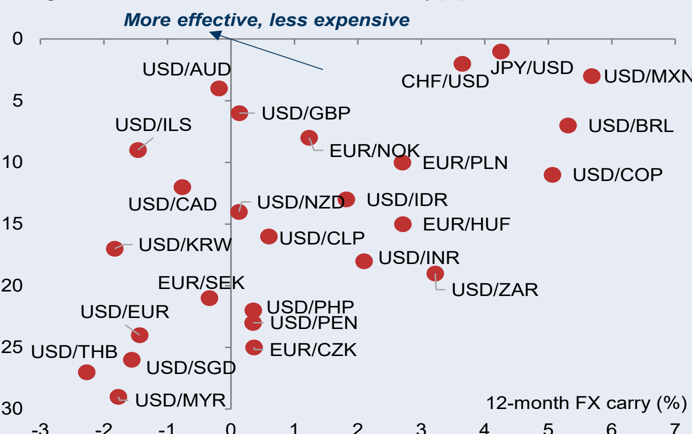


Note: Sensitivities estimated over last 12 months and displayed for XXX/USD crosses (with CEE and Scandinavian currencies as XXX/EUR).

Source: Bloomberg, Goldman Sachs GIR.

Short AUD and GBP feature an attractive combination of reliable responsiveness to recessionary shocks and low carry

Hedge effectiveness rank* vs. 12-month FX carry (%)



*Based on hedge effectiveness of being long each cross in a scenario where the S&P 500 Index declines by 10% and US 10-year yields decline by 50bp.

Source: Bloomberg , Goldman Sachs GIR.

Keep an eye on oil prices too

Simultaneous equity and yield declines could also occur in a geopolitical risk-off episode, which could have different FX implications than those seen in a recession. To distinguish the two scenarios, we augment our analysis to factor in oil prices. We find that moves in oil prices do not appear to materially impact the effectiveness of the top hedges—short USD/JPY, short USD/CHF, and long USD/MXN. The largest difference between the scenarios lies in their implications for currencies of oil exporters and importers. In particular, long EUR/NOK is one of the most effective hedges for an 'equities down, yields down, oil down' shock, as we saw in early 2020. In such a shock, long USD/COP and USD/CAD experience a similar but less pronounced shift in their hedge rank. If, instead, oil prices rise together with weaker risk sentiment, which could occur in a geopolitical shock, the effectiveness of using long USD/ILS as a hedge increases meaningfully.

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Summary of our key forecasts

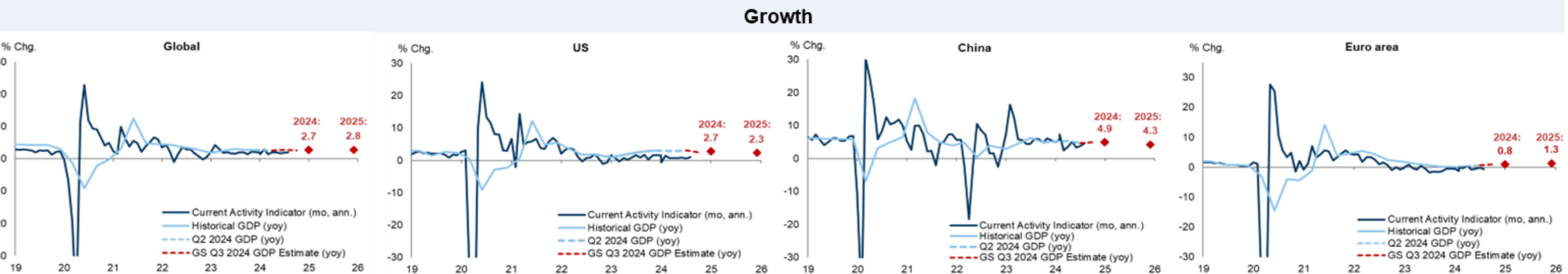
GS GIR: Macro at a glance

Watching

- **Globally,** we expect real GDP growth of 2.7% yoy in 2024, reflecting tailwinds from real household income growth, a gradual recovery in manufacturing activity, and broadening rate cuts. We expect global core inflation to fall below 3% by end-2024 and converge towards 2% by end-2025 as core goods inflation continues to decline, shelter inflation falls further, and both services inflation and wage growth continue to slow in response to the improved supply-demand balance across the global economy.
- **In the US,** we expect a modest growth pickup in 2H24 from 1H24 for real GDP growth of 2.3% in 2024 on a Q4/Q4 basis reflecting consumer spending growth, easing financial conditions, and rebound in inventory investment. We expect core PCE inflation to stand at 2.6% yoy by December 2024 before converging toward 2% next year, reflecting further rebalancing in the auto and housing rental markets. We expect the unemployment rate to end 2024 at 4.2% and decline gradually to 3.9% over the next two years.
- **We expect the Fed** to deliver an initial string of consecutive 25bp cuts in September, November, and December as we expect job growth to recover in August and think the FOMC will judge consecutive 25bp cuts as a sufficient response to any downside risks. Subsequently, we expect rate cuts to proceed at a quarterly pace until the terminal rate range reaches 3.25-3.5%.
- **In the Euro area,** we expect real GDP growth of 0.8% yoy in 2024 amid weakening survey data, policy gridlock in France, and rising growth risks from international trade, though we think the two main drivers of the recovery in Europe—continued real disposable income growth and a fading credit drag—remain intact. We expect core inflation to slow further to 2.7% yoy by December 2024, reflecting continued declines in services inflation, normalizing wage growth, and further scope for energy-related effects to fade.
- **We expect the ECB** to deliver a 25bp cut in September, after which we expect cuts to continue at a quarterly pace until the policy rate reaches 2.25% in 4Q25.
- **In China**, we expect real GDP growth of 4.9% yoy in 2024 as continued policy easing and strong exports offset growth headwinds such as a prolonged property downturn, lack of confidence among households and private businesses, and an increasingly negative credit impulse. Looking further ahead, we expect China's growth to decline over subsequent years amid deteriorating demographics, the ongoing housing downturn, and global supply chain de-risking.
- **WATCH US RECESSION RISK, US ELECTION, AND GEOPOLITICAL RISKS**. Despite recent concerns about a US recession, we continue to see recession risk as limited given still relatively solid data overall, a lack of major financial imbalances, and substantial scope for the Fed to act if need be. The November US election could also have important macro and market implications, especially if it leads to a further rise in tariffs should Trump be reelected, which would weigh on growth in the US, with potentially larger growth impacts in Europe and China. And elevated geopolitical tensions as the situation in the Middle East remains highly uncertain, the Russia-Ukraine war drags on, and US-China relations continue to be fraught, could also have material market implications.

Goldman Sachs Global Investment Research.

Growth



Source: Haver Analytics, Goldman Sachs Global Investment Research.
Note: GS CAI is a measure of current growth. For more information on the methodology of the CAI please see "Improving Our Within-Month CAI Forecasts," Global Economics Comment, Mar. 06, 2023.

Forecasts

Economics

GDP growth (%)	2024 GS (Q4/Q4)	2024 Cons. (Q4/Q4)	2024 GS (CY)	2024 Cons. (CY)	2025 GS (CY)	2025 Cons. (CY)
Global	2.7	--	2.7	2.6	2.8	2.6
US	2.3	1.8	2.7	2.5	2.3	1.7
China	4.8	4.6	4.9	4.8	4.3	4.5
Euro area	1.1	1.1	0.8	0.7	1.3	1.3

Policy rates (%)	2024 GS	2024 Mkt.	2025 GS	2025 Mkt.
US	4.63	4.34*	3.63	3.13*
Euro area	3.25	3.04	2.25	2.08
China	1.60	1.55	1.40	--
Japan	0.25	0.30	0.75	0.55

Markets

Interest rates 10Yr (%)	Last	E2024	E2025
US	3.91*	4.25	4.10
Germany	2.30	2.25	2.00
Japan	0.91	1.25	1.80
UK	3.97	3.75	3.75

Commodities	Last	3m	12m
Crude Oil, Brent ($/bbl)	78	81	77
Nat Gas, NYMEX ($/mmBtu)	2.13*	2.80	4.00
Nat Gas, TTF (EUR/MWh)	38.68	30	33
Copper ($/mt)	9,059	9,210	10,630
Gold ($/troy oz)	2,499	2,590	2,700

FX	Last	3m	12m
EUR/$	1.11	1.05	1.08
GBP/$	1.31	1.27	1.32
$/JPY	147	155	150
$/CNY	7.10	7.35	7.40

Credit (bp)		Last	3Q24	4Q24
USD	IG	93	90	90
	HY	301	294	291
EUR	IG	129	120	120
	HY	339	339	336

Equities

S&P 500	E2024 GS	E2024 Cons.	E2025 GS	E2025 Cons.
Price	5,600	--	--	--
EPS	$241	$243	$256	$279
Growth	8%	9%	6%	15%

Returns (%)	12m	YTD	E2024 P/E
S&P 500	1	18.4	23.8x
MXAPJ	7	9.2	14.3x
Topix	7	14.8	15.9x
STOXX 600	3	9.6	14.6x

Consumer	2024 CPI (%, yoy)	2024 Unemp. Rate	2025 CPI (%, yoy)	2025 Unemp. Rate
US	2.9	4.2	2.2	4.0
Euro area	2.4	6.7	2.2	6.7
China	0.4	--	1.5	--

Wage Tracker 2024 (%)	Q1	Q2	Q3	Q4
US	4.2	4.0	--	--
Euro area	--	--	--	--
China	--	--	--	--

Source: Bloomberg, Goldman Sachs Global Investment Research. For important disclosures, see the Disclosure Appendix or go to www.gs.com/research/hedge.html.

Market pricing as of September 2, 2024
***As of August 30, 2024**

Glossary of GS proprietary indices

Current Activity Indicator (CAI)

GS CAIs measure the growth signal in a broad range of weekly and monthly indicators, offering an alternative to Gross Domestic Product (GDP). GDP is an imperfect guide to current activity: In most countries, it is only available quarterly and is released with a substantial delay, and its initial estimates are often heavily revised. GDP also ignores important measures of real activity, such as employment and the purchasing managers' indexes (PMIs). All of these problems reduce the effectiveness of GDP for investment and policy decisions. Our CAIs aim to address GDP's shortcomings and provide a timelier read on the pace of growth.

For more, see our CAI page and Global Economics Analyst: Trackin' All Over the World – Our New Global CAI, 25 February 2017.

Dynamic Equilibrium Exchange Rates (DEER)

The GSDEER framework establishes an equilibrium (or "fair") value of the real exchange rate based on relative productivity and terms-of-trade differentials.

For more, see our GSDEER page, Global Economics Paper No. 227: Finding Fair Value in EM FX, 26 January 2016, and Global Markets Analyst: A Look at Valuation Across G10 FX, 29 June 2017.

Financial Conditions Index (FCI)

GS FCIs gauge the "looseness" or "tightness" of financial conditions across the world's major economies, incorporating variables that directly affect spending on domestically produced goods and services. FCIs can provide valuable information about the economic growth outlook and the direct and indirect effects of monetary policy on real economic activity.

FCIs for the G10 economies are calculated as a weighted average of a policy rate, a long-term risk-free bond yield, a corporate credit spread, an equity price variable, and a trade-weighted exchange rate; the Euro area FCI also includes a sovereign credit spread. The weights mirror the effects of the financial variables on real GDP growth in our models over a one-year horizon. FCIs for emerging markets are calculated as a weighted average of a short-term interest rate, a long-term swap rate, a CDS spread, an equity price variable, a trade-weighted exchange rate, and—in economies with large foreign-currency-denominated debt stocks—a debt-weighted exchange rate index.

For more, see our FCI page, Global Economics Analyst: Our New G10 Financial Conditions Indices, 20 April 2017, and Global Economics Analyst: Tracking EM Financial Conditions – Our New FCIs, 6 October 2017.

Goldman Sachs Analyst Index (GSAI)

The US GSAI is based on a monthly survey of GS equity analysts to obtain their assessments of business conditions in the industries they follow. The results provide timely "bottom-up" information about US economic activity to supplement and cross-check our analysis of "top-down" data. Based on analysts' responses, we create a diffusion index for economic activity comparable to the ISM's indexes for activity in the manufacturing and nonmanufacturing sectors.

Macro-Data Assessment Platform (MAP)

GS MAP scores facilitate rapid interpretation of new data releases for economic indicators worldwide. MAP summarizes the importance of a specific data release (i.e., its historical correlation with GDP) and the degree of surprise relative to the consensus forecast. The sign on the degree of surprise characterizes underperformance with a negative number and outperformance with a positive number. Each of these two components is ranked on a scale from 0 to 5, with the MAP score being the product of the two, i.e., from -25 to +25. For example, a MAP score of +20 (5;+4) would indicate that the data has a very high correlation to GDP (5) and that it came out well above consensus expectations (+4), for a total MAP value of +20.

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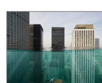

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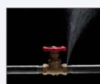

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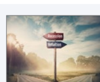

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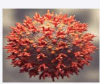

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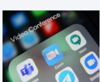

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Reg AC

We, Allison Nathan, Jenny Grimberg, Ashley Rhodes, Lotfi Karoui, David Mericle, Ben Snider, Vickie Chang, Vinay Viswanathan, and Teresa Alves, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

We, Kate McShane, Christine Cho, Lizzie Dove, Leah Jordan, Stephen Laszczyk, and Brooke Roach, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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