

US Economics Analyst

2023 US Economic Outlook: Approaching a Soft Landing (Mericle)

- The key macroeconomic question of the year has been whether inflationary overheating can be reversed without a recession. Our analysis suggests that the answer is yes—an extended period of below-potential growth can gradually reverse labor market overheating and bring down wage growth and ultimately inflation, providing a feasible if challenging path to a soft landing.
- The initial steps along this path have been successful, but there is much further to go in 2023. We expect another year of below-potential growth and labor market rebalancing to solve much but not all of the underlying inflation problem. Unlike consensus, we do not expect a recession.
- The first step in keeping the adjustment process on track is ensuring that GDP growth remains below potential. The fiscal tightening that helped to slow the economy this year has mostly run its course, but the large tightening in financial conditions engineered by the Fed should keep GDP growth near 1% in 2023. Consumer spending should grow a bit more firmly as income begins to rise again, but this is likely to be offset by weakness elsewhere, especially in housing.
- The second step requires soft GDP growth to further reduce labor demand. So far, the speed and composition of labor market rebalancing have been encouraging. Our jobs-workers gap has shrunk substantially, driven by a decline in job openings rather than employment. In 2023, we expect a further large decline in job openings coupled with a ½pp rise in the unemployment rate to shrink the jobs-workers gap from the historical peak of 5.9 million reached earlier this year to the 2 million threshold that we estimate is necessary to dampen labor market overheating.
- The third step requires labor market rebalancing to slow wage growth. Wage growth has begun to moderate in recent months, and we expect it to fall to 4% by the end of 2023, not far above our 3.5% estimate of the pace compatible with 2% inflation. If so, this intermediate step would provide crucial early support for the view that overheating can be reversed without a recession.
- The fourth step requires softer wage growth to bring inflation back to target. This should get underway in 2023 but will take longer. We expect core PCE inflation to fall from roughly 5% to 3% by December 2023, driven largely by goods categories where supply chain recovery is now reversing pandemic shortages.

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Services inflation is likely to fall meaningfully in the official data only with a longer lag, especially in the largest categories, shelter and health care.

- We expect the FOMC to slow the pace of rate hikes as it shifts to fine-tuning the funds rate to keep growth below potential, but to ultimately deliver a bit more than is priced, with a 50bp hike in December and three 25bp hikes next year raising the funds rate to a peak of 5-5.25%. Our recession odds are below consensus even though our Fed forecast is slightly more hawkish than consensus because we expect demand to prove more resilient than expected next year.

2023 US Economic Outlook: Approaching a Soft Landing

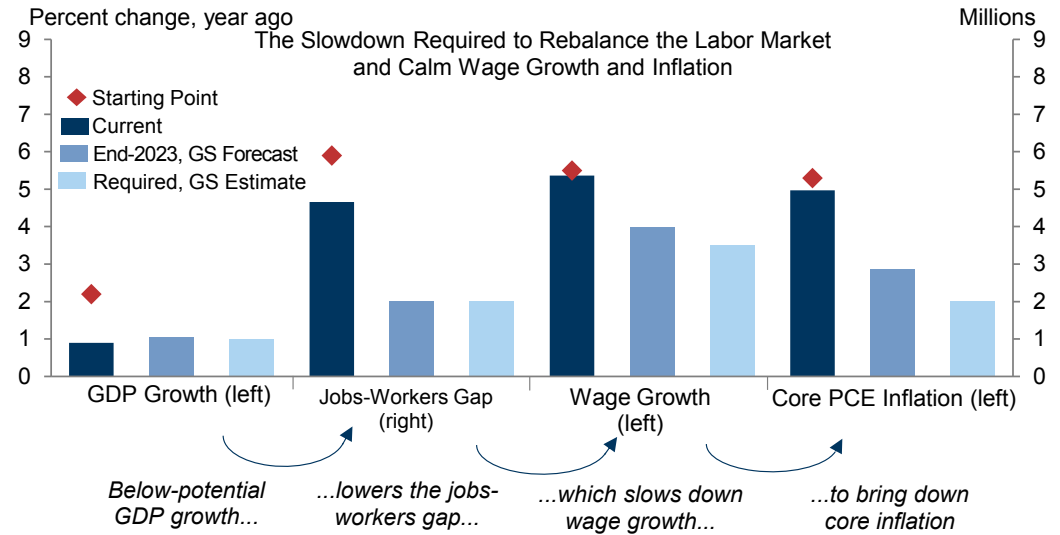
A year ago, the inflation problem began to broaden beyond the initial pandemic-driven dislocations and started to also include an element of textbook overheating in which labor demand far exceeded labor supply and high wage growth, high inflation, and high short-term inflation expectations reinforced each other in a feedback loop. Since then, the key macroeconomic question has been whether inflationary overheating can be reversed without a recession.

Earlier this year, we introduced a step-by-step framework for analyzing this question, summarized by the diagram in Exhibit 1.¹ Working backwards, we first asked how much wage growth would need to decline to be compatible with 2% inflation and concluded it would have to fall from 5.5% to 3.5%. We then asked how much the imbalance between labor demand and labor supply would need to shrink to dampen wage pressures and concluded that the jobs-workers gap would have to fall from 5.9 million, the widest gap in history, to 2 million. Finally, we asked how weak aggregate demand would have to be to reduce labor demand enough to achieve this rebalancing, assuming that labor supply rebounded only modestly, and concluded that an extended period of positive but below-potential GDP growth could reduce labor demand by the amount required. The punchline was that there is a plausible path to a soft landing, though calibrating policy just right to stay on that path would surely be challenging.

The initial steps along this path have been successful, but there is much further to go in 2023. Growth slowed quickly to a solidly below-potential pace this year, labor market rebalancing has gone very well so far, and recent months have finally brought signs of moderation in wage growth and inflation. We expect another year of below-potential growth and further labor market rebalancing in 2023 to solve much but not all of the underlying inflation problem. Unlike consensus, we do not expect a recession.

¹ These reports include More Jobs than Workers: A New Measure of Labor Market Tightness, What Will It Take to Restore Balance to the Labor Market?, Q&A on the Jobs-Workers Gap and the Risk of Recession, A Recession Is Not Inevitable, Prospects for a Soft Landing: What Could Make the Fed's Job Easier or Harder?, What Wage Growth Rate Is Compatible With 2% Inflation?, Taming Inflation Without a Recession: A Progress Report, and The Expected Path to Sustainable Wage Growth.

Exhibit 1: . We Expect Another Year of Below-Potential GDP Growth in 2023 to Rebalance the Labor Market and Slow Wage Growth and Inflation, but Reaching the 2% Target Will Take Longer

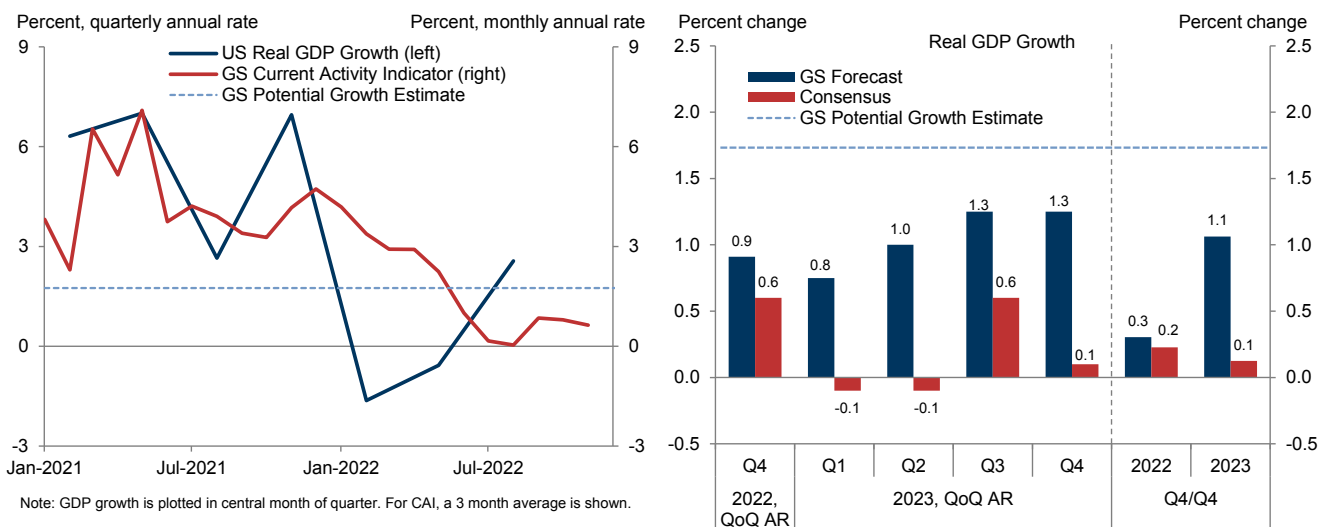


Source: Department of Commerce, Department of Labor, Goldman Sachs Global Investment Research

Another Year of Below-Potential Growth, Not a Recession

The first step in keeping the adjustment process on track is ensuring that GDP growth remains below potential. GDP growth is on track to slow from 5.7% in 2021 (Q4/Q4) to just 0.2% in 2022, meaning that so far, policy tightening has been very well calibrated to slow demand growth as much as possible without accidentally tipping the economy into a recessionary spiral, an underappreciated success. In 2023, we expect GDP growth of about 1%, below potential but well above consensus expectations.

Exhibit 2: GDP Growth Slowed Abruptly in 2022, and We Expect It to Remain Below Potential in 2023

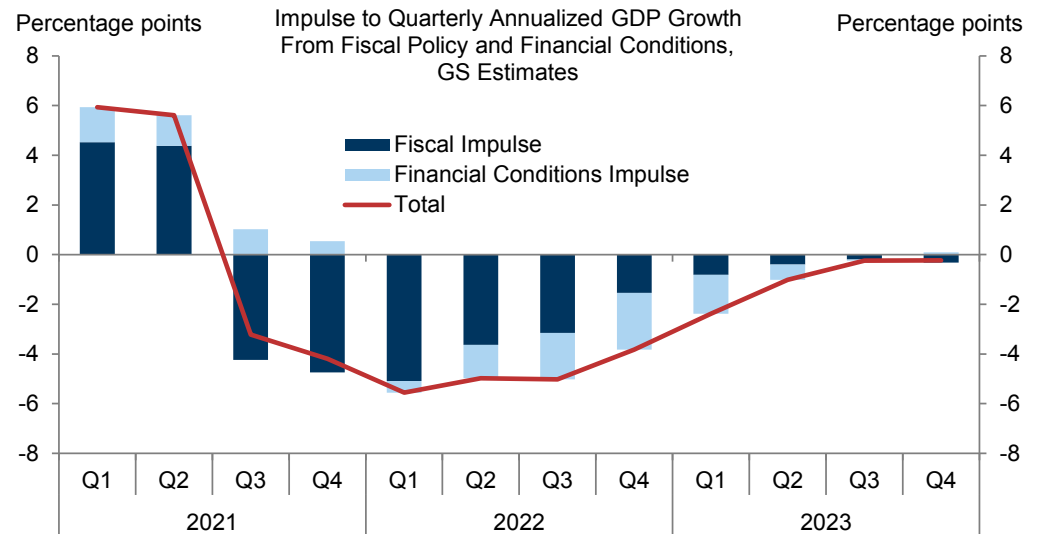


Source: Department of Commerce, Bloomberg, Goldman Sachs Global Investment Research

A year ago, our below-consensus growth forecast for 2022 largely reflected the drag we expected from fiscal and monetary policy tightening. Today, our above-consensus

forecast for 2023 in part reflects the diminishing impact of policy restraint. The large drag from the expiration of pandemic fiscal relief measures is now mostly behind us, and our financial conditions index (FCI) framework implies that the impact of monetary policy tightening is peaking now and will gradually fade in 2023.

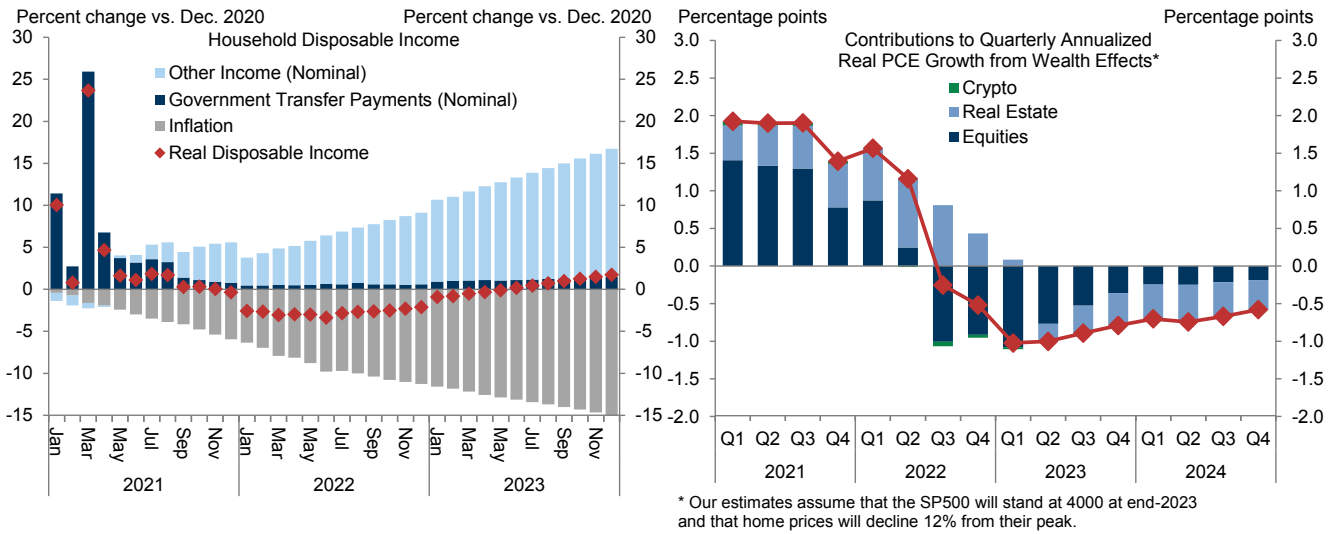
Exhibit 3: Fiscal Policy Tightening Is Mostly Behind Us, and the Impact of the Tightening in Financial Conditions Engineered by the Fed Is Likely Peaking Now



Source: Goldman Sachs Global Investment Research

An important consequence of the end of the fiscal tightening is that income should start growing again. Real disposable income fell for a year as special transfer payments expired and inflation outran wage growth. With few transfers left to lose and inflation likely to be more restrained in 2023, we expect real income to rise 3.5% next year, although this partly reflects large gains from interest income and tax rate normalization that will accrue mostly to high-income households and have less impact on spending. Offsetting the turnaround in income, wealth effects on consumer spending have shifted from positive to negative as higher interest rates have brought down equity and home prices, the latter of which likely have further to fall. We expect these forces, along with other influences including fading boosts from the reopening impulse and excess savings, to net out to consumption growth of roughly 1.5% in 2023.

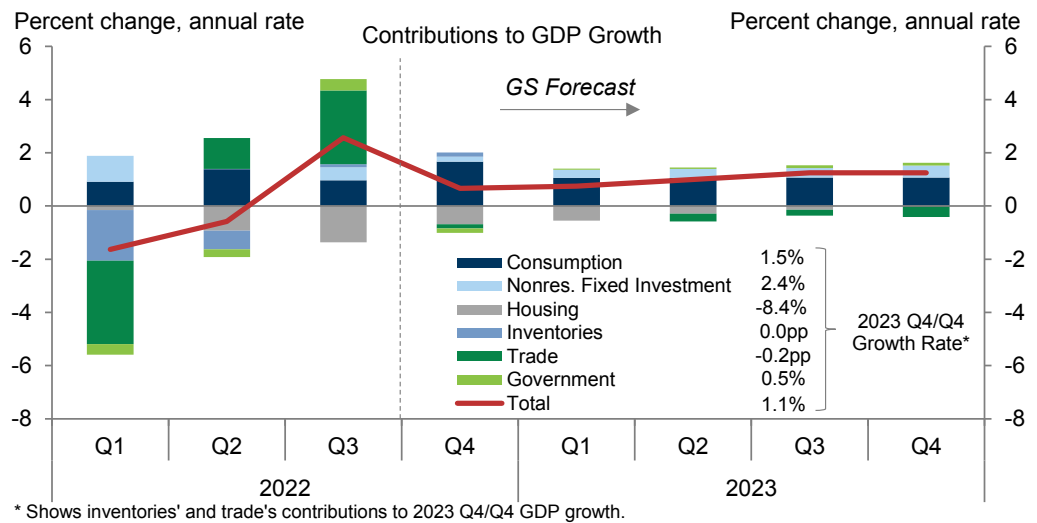
Exhibit 4: We Expect Consumer Spending to Grow 1.5% in 2023 as a Year of Falling Income Offset by Positive Wealth Effects Gives Way to a Year of Rising Income Offset by Negative Wealth Effects



Source: Department of Commerce, Goldman Sachs Global Investment Research

Other areas of the economy are likely to be weaker, especially the interest rate-sensitive housing sector, the business structures component of capital spending, and government spending. This should keep GDP growth near 1% in 2023, a pace that is likely close to a speed limit for the Fed until a larger dent has been put in the inflation problem, in that acceleration beyond this point would likely be unwelcome and might be met with further tightening to ensure that supply and demand continue to rebalance quickly.

Exhibit 5: We Expect GDP to Grow About 1% in 2023 as Weakness in Housing, Business Structures, and Government Spending Offsets Somewhat Firmer Consumption Growth



Source: Department of Commerce, Goldman Sachs Global Investment Research

Reversing Labor Market Overheating Without a Spike in the Unemployment Rate

Below-potential growth has already produced a rebalancing in the labor market whose

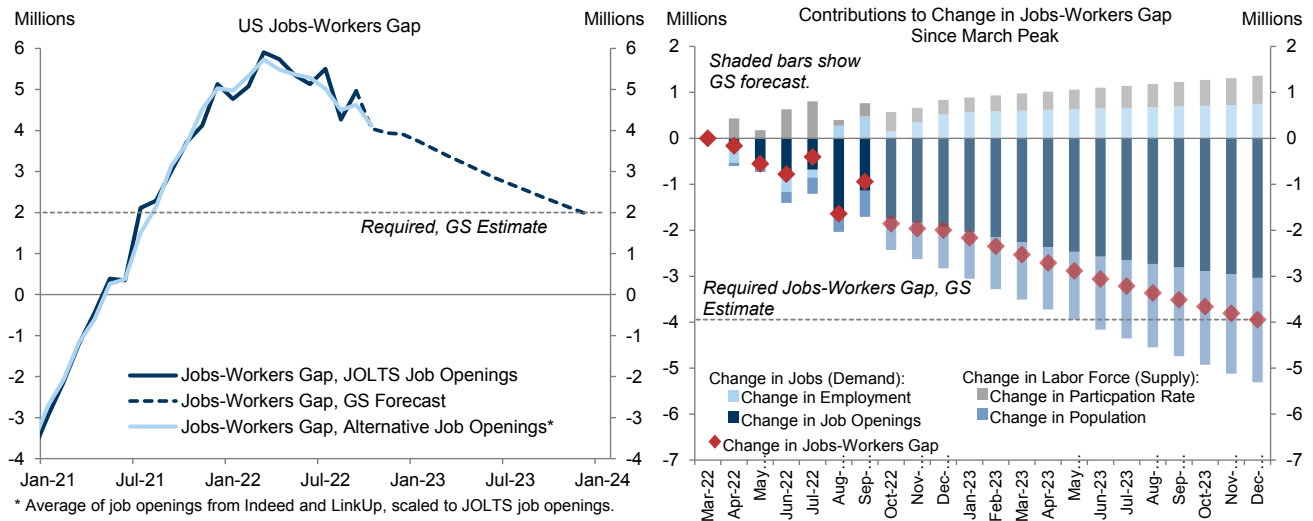
speed and composition have been very encouraging. Based on timely job openings measures from LinkUp and Indeed, we estimate that the jobs-workers gap—total labor demand (employment plus job openings) minus total labor supply (the size of the labor force)—has fallen from a peak of nearly 6 million to just over 4 million. All of the decline in labor demand so far has come from a decline in job openings—a drop that is much larger than any in US history seen outside a recession—rather than in employment.

How has this been possible? Didn't a shift out in the Beveridge curve during the pandemic signal a breakdown in the efficiency with which workers matched to jobs, implying that a large decline in labor demand would unfortunately have to involve a large increase in the unemployment rate? And wouldn't this set in motion the usual recessionary vicious circle where job loss leads to a sharp pullback in spending, leading to more job loss? In our view, the Beveridge curve debate last summer missed several important points: what looked like a conventional shift out in the curve signaling a structural increase in mismatch was more a matter of unemployed workers temporarily not wanting or applying for jobs because of elevated unemployment benefits and Covid fears; standard measures of industry mismatch were low, not high; and the rate at which unemployed workers were flowing into new jobs was high, not low. These points have made us confident that the labor market is on a steep part of the Beveridge curve where a reduction in labor demand disproportionately takes the form of a decline in job openings.

This favorable trend is likely to continue for now. Job openings are still falling, and the layoff rate remains very low, despite recent layoffs in the technology sector. We expect a further large drop in job openings in 2023 coupled with a more limited ½pp rise in the unemployment rate to shrink the jobs-workers gap to the 2 million threshold that we estimate would slow wage growth to a sustainable rate.

Our forecast implies a trough to peak increase in the unemployment rate of 0.7pp, roughly one-third the increase seen in even the shallowest US recessions. In part for that reason and in part because we expect activity growth to remain positive, our forecast would probably not be classified as a recession.

Exhibit 6: We Expect the Jobs-Workers Gap to Shrink to the 2mn Threshold That We Estimate Is Needed by the End of 2023, Led by a Large Decline in Job Openings and a ½pp Rise in the Unemployment Rate



Source: Department of Labor, Indeed, LinkUp, Goldman Sachs Global Investment Research

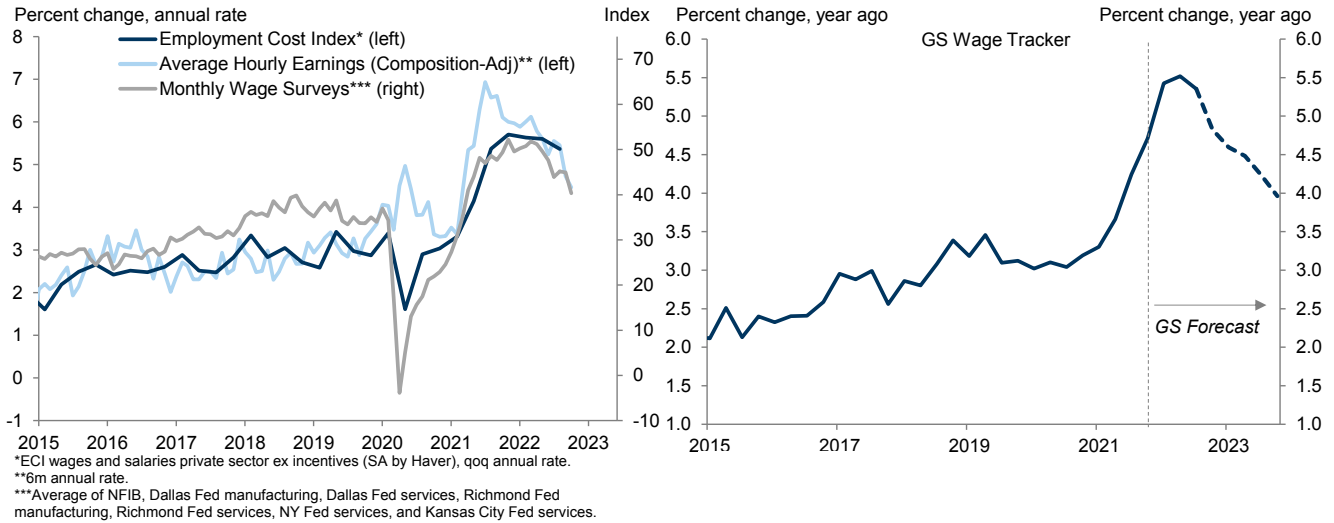
Wage Growth Slows Most of the Way to a Sustainable Rate

Only recently has labor market rebalancing begun to yield clearer evidence of a moderation in wage growth. Average hourly earnings have decelerated meaningfully and survey measures of current and future wage growth have fallen too, though the employment cost index decelerated only a touch in Q3.

We see some risk of an upcoming “January effect” where more wage contracts reset at the start of the year and incorporate larger than usual cost of living adjustments, resulting in an outsized jump in wages even after seasonal adjustment. But by the end of 2023, we expect a large decline in the jobs-workers gap to reduce wage growth from the peak of 5.5% reached in the middle of this year to 4%, not far above our 3.5% estimate of the pace compatible with 2% inflation.

Because lowering inflation to an acceptable rate is likely to take a while, a further decline in wage growth next year would be a crucial intermediate benchmark that could reassure policymakers that with patience, gradual labor market rebalancing can reverse inflationary overheating without a recession.

Exhibit 7: Wage Growth Is Showing Early Signs of Moderation and Should Fall to About 4% by Late 2023



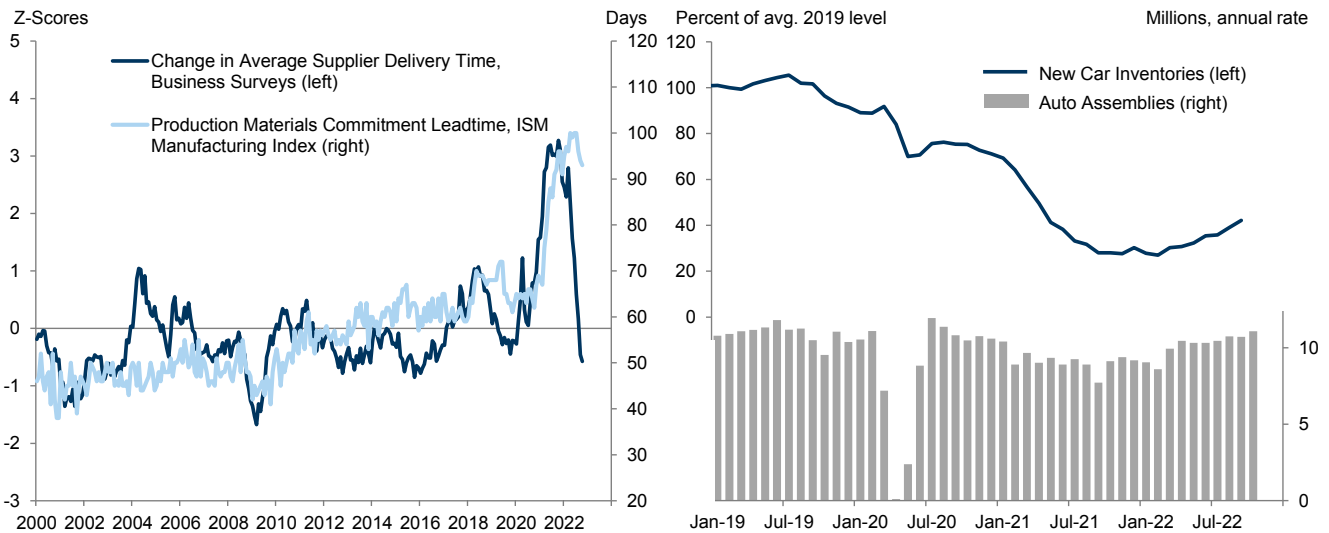
Source: Department of Labor, Federal Reserve, NFIB, Goldman Sachs Global Investment Research

Core Inflation Falls from 5% to 3%, Led by Goods Categories

The 2023 inflation outlook presents two quite different stories in the goods and services categories.

On the goods side, supply chain recovery finally appears to be yielding the deflationary payback that has been deferred for more than a year by a series of further pandemic- and war-related disruptions. As production of items such as autos rebounds and inventories are rebuilt, competition should reverse the scarcity effects that raised retail margins and consumer prices earlier in the pandemic. In addition, more moderate commodity price inflation, falling transportation costs, and downward pressure on import prices from dollar appreciation should also help to reduce core PCE goods inflation, which we expect will fall sharply from 5.7% year-over-year now to -1.6% by December 2023.

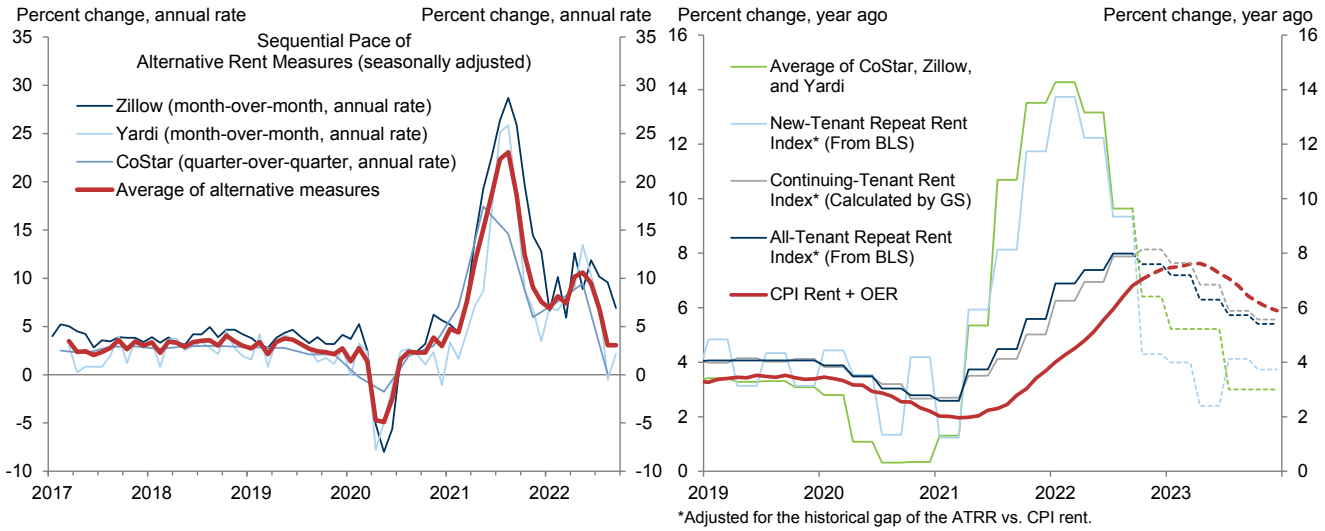
Exhibit 8: As Supply Chains Recover, Production Rebounds, and Inventories Rebuild, Competition Should Unwind Scarcity Effects and Lower Prices in Supply-Constrained Goods Categories Like Autos



Source: Federal Reserve, Institute for Supply Management, Department of Commerce, Goldman Sachs Global Investment Research

On the services side, disinflation will take longer. We expect core PCE services inflation to fall only modestly from 4.9% now to 4.4% by December 2023. The broad reason is that there will likely be some lag from a slowdown in wage growth to a slowdown in inflation in labor-intensive services categories. A more specific reason is that the largest categories, health care and shelter, already appear destined to run hot because of lags in the official data. In the health care category, a large Medicare fee adjustment in response to cost increases this year will affect government-paid services directly and likely spill over to privately-paid services. In the shelter category, web-based alternative measures of new tenant rents have already decelerated sharply to an annualized growth rate of about 3%. But the official series—which covers rents on both new tenant and continuing tenant leases—is likely to rise a firmer 6% next year as continuing tenant rents catch up to market rates, though it should decelerate sequentially.

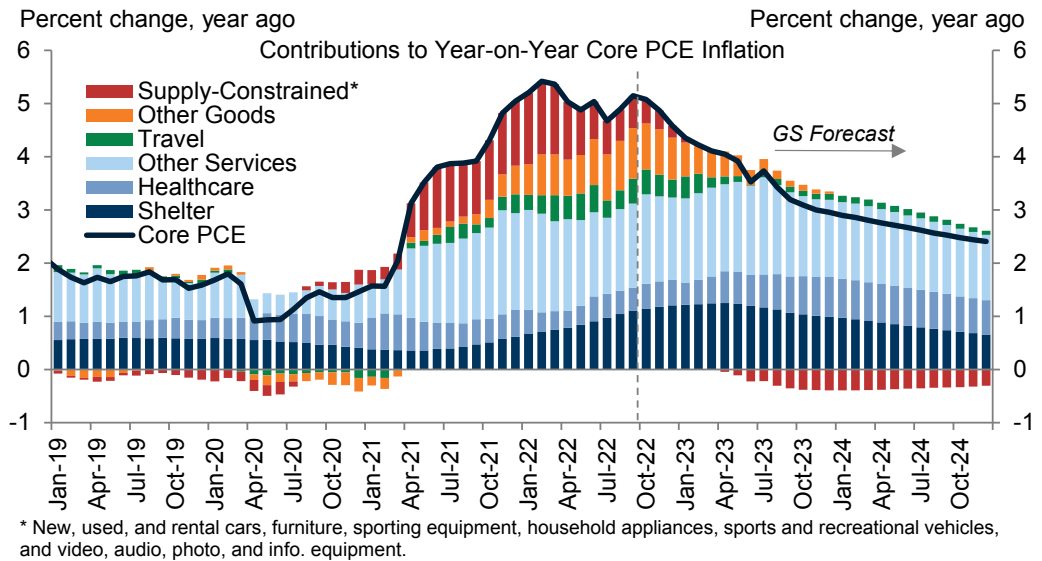
Exhibit 9: Alternative Data Show a Sharp Slowdown in New Tenant Rent Growth, but Shelter Inflation Is Likely to Remain High in the Official Data in 2023 as Continuing Tenant Rents Catch Up to Market Rates



Source: Zillow, Yardi, CoStar, Department of Labor, Goldman Sachs Global Investment Research

Taken together, we expect year-over-year core PCE inflation to decline from 5.1% in September to 2.9% in December 2023. We expect an even larger decline in year-over-year core CPI inflation from 6.3% in October to 3.2% in December 2023. As we noted last year, this would mean that the large divergence between CPI and PCE in 2022 should fade in 2023 as declines in durable goods prices weigh more heavily on the CPI and the health services categories in the two indices move in opposite directions.

Exhibit 10: We Expect Core PCE Inflation to Fall from 5.1% Today to 2.9% in December 2023, Led Mainly by Goods Categories



* New, used, and rental cars, furniture, sporting equipment, household appliances, sports and recreational vehicles, and video, audio, photo, and info. equipment.

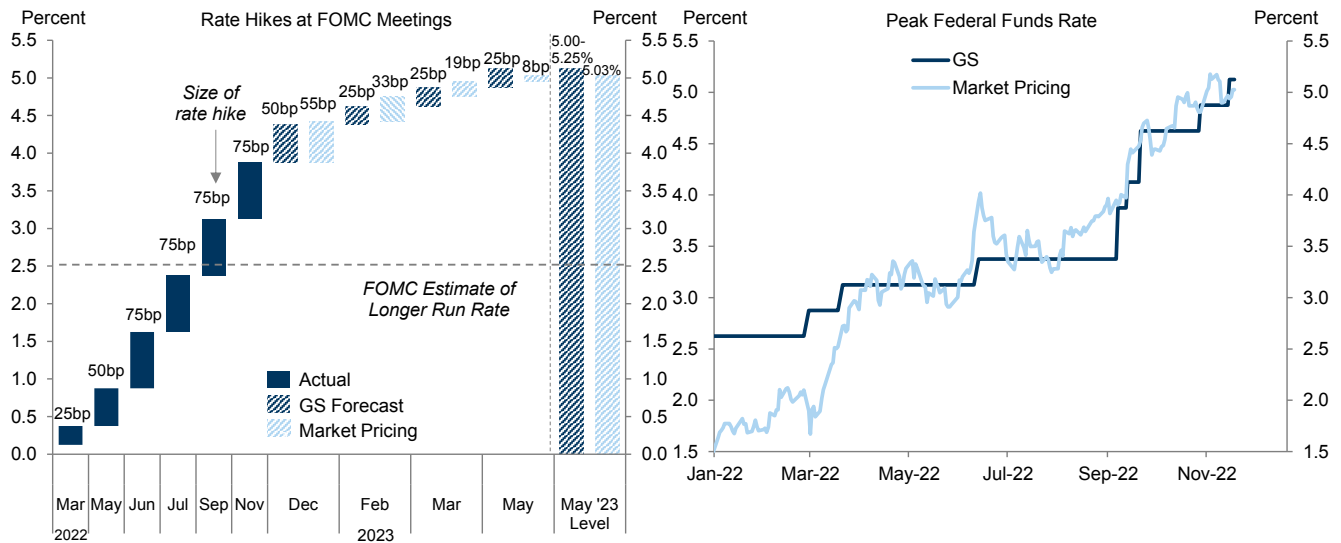
Source: Department of Commerce, Goldman Sachs Global Investment Research

Fine-Tuning the Funds Rate

We expect the FOMC to slow the pace of rate hikes to 50bp in December and to 25bp

in February, March, and May, raising the funds rate to a peak of 5-5.25%.

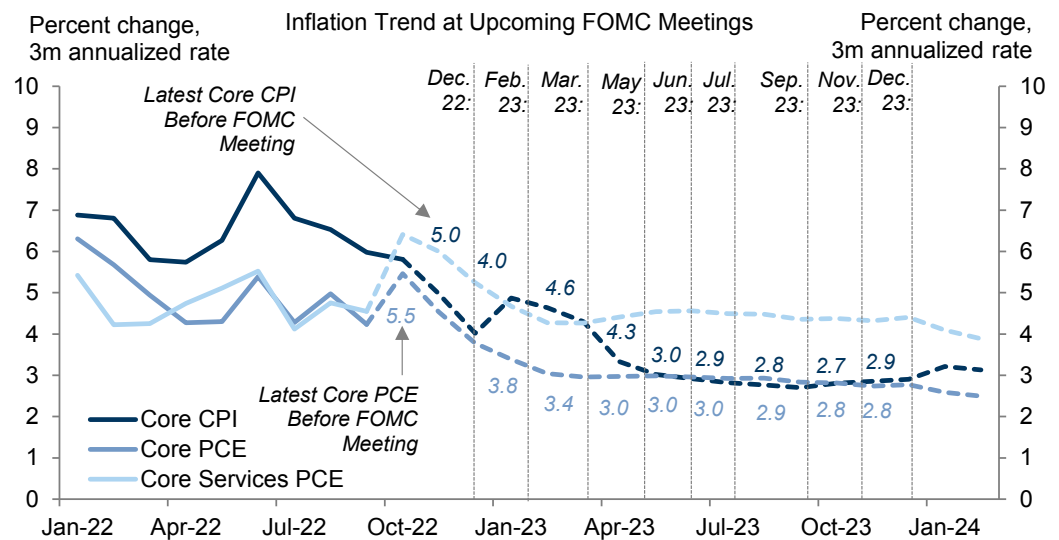
Exhibit 11: We Expect a 50bp Hike in December Followed by 25bp Hikes in February, March, and May to Raise the Funds Rate to a Peak of 5-5.25%



Source: Federal Reserve, Goldman Sachs Global Investment Research

We see a couple reasons for hikes to continue through the spring. First, our forecast implies that the inflation trend is likely to remain uncomfortably high for a while longer. Second, with the fiscal tightening now mostly behind us and household real disposable income rising again, the FOMC will need to tighten financial conditions enough to keep the economy on a solidly below-potential growth path.

Exhibit 12: The Inflation Trend Will Remain High in Early 2023, Creating Pressure to Keep Hiking

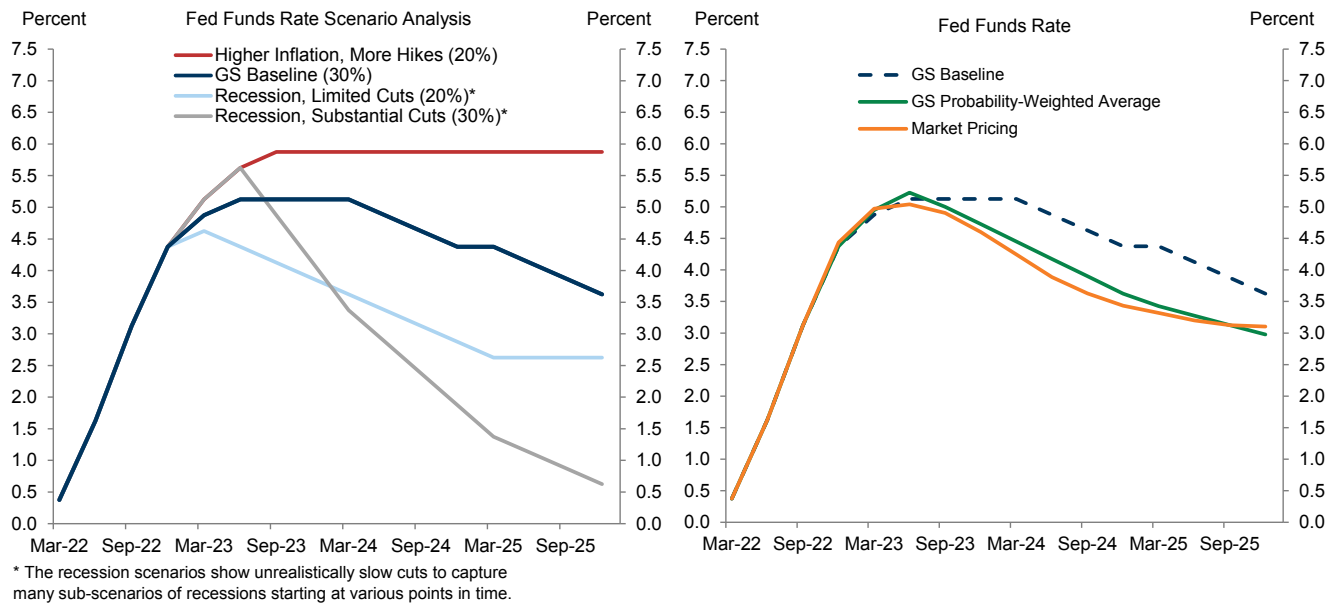


Source: Department of Commerce, Department of Labor, Goldman Sachs Global Investment Research

We do not expect rate cuts next year because we do not expect a recession and we are skeptical that a decline in inflation alone would lead the FOMC to cut toward neutral because we suspect that the Fed leadership shares our skepticism about neutral rate

estimates. Instead, we think the more natural path if inflation comes down is to simply wait until something goes wrong and then deliver either small cuts in response to a smaller threat, similar to the insurance cuts of 2019, or substantial cuts in response to a full recession. In the other direction, if inflation is stickier than we expect or underlying growth momentum is stronger, the FOMC would likely raise the funds rate to a higher level. Our [Fed scenario analysis](#) implies that our probability-weighted average view is a touch more hawkish than market pricing.

Exhibit 13: Our Scenario Analysis of Possible Fed Paths Implies That Our Probability-Weighted Average View Is a Touch More Hawkish Than Market Pricing



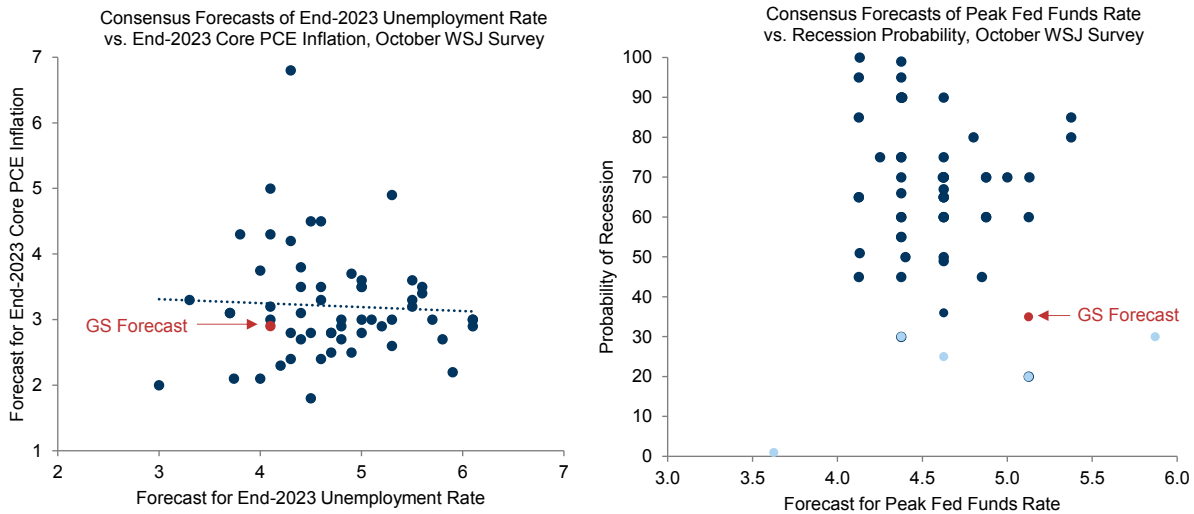
Source: Goldman Sachs Global Investment Research

The Risks to Our Forecast of a Soft Landing

Why do our views differ from consensus? Why do we think the Fed can achieve a soft landing now when it couldn't in the 1960s and 1970s? And what would lead us to forecast a recession instead?

Relative to consensus, we expect roughly in-line inflation, a lower unemployment rate, higher GDP growth, and a slightly higher peak funds rate. On inflation, there is substantial disagreement among forecasters, but little of it appears to be driven by differences in unemployment rate forecasts—that is, by traditional Phillips curve effects. Instead, it is likely driven by views on whether resolving pandemic dislocations in the goods sector will deliver a long-awaited deflationary impulse. This has proven hard to time so far, but we think the process is finally on track. On the unemployment rate, we expect a smaller increase because we continue to take an optimistic view in the Beveridge curve debate. Our growth forecast is above consensus and our recession odds are below consensus even though our Fed forecast is slightly more hawkish than consensus because we expect demand to prove more resilient next year, and because our models imply that the drag on growth from the tightening in financial conditions is peaking now, whereas others likely expect the “long and variable lags” of monetary policy to peak later.

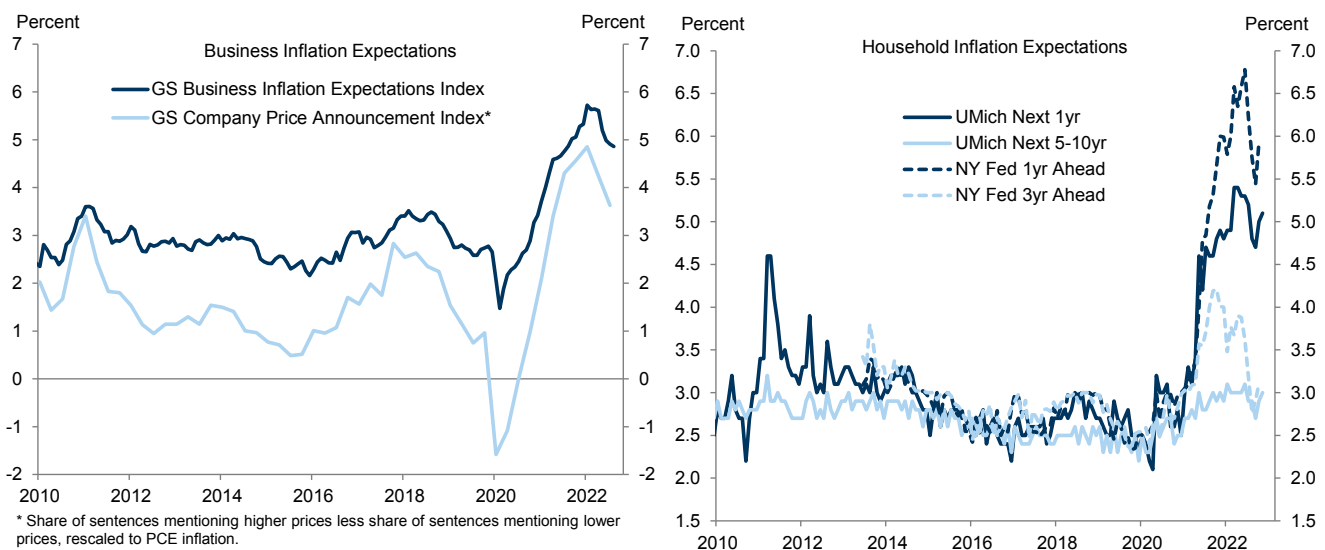
Exhibit 14: Relative to Consensus, We Expect a Slightly More Favorable Inflation-Unemployment Tradeoff and See Less Risk of Recession Despite Having a Slightly More Hawkish Fed Forecast



Source: Wall Street Journal, Goldman Sachs Global Investment Research

Why do we think the Fed can reverse overheating more successfully today than it could in the 1960s and 1970s? One reason is that the problem is less serious today: a part of the inflation overshoot still reflects pandemic-related supply-demand imbalances that will fade on their own; job openings are very elevated, but the employment-to-population ratio is not unsustainably high; and while short-term inflation expectations are high, long-term inflation expectations remain anchored, meaning that there is not yet a perception of high inflation as a new normal that only a deep recession could cure. Another reason is that monetary policymakers today have a more sophisticated understanding of both inflation dynamics and their policy tools, are more politically independent, and have better real-time data for monitoring the economy. Achieving a soft or at least “softish” landing is in large part a question of calibrating policy tightening correctly, and while this isn’t easy, it has gone well so far this year.

Exhibit 15: Short-Term Inflation Expectations Remain High, but Long-Term Expectations Are Anchored



Source: Federal Reserve, University of Michigan, Goldman Sachs Global Investment Research

What would make us change our mind? We would raise our recession odds if the benign labor market adjustment led by a decline in job openings stops, if elevated near-term inflation expectations in the business sector make a return to pre-pandemic labor market conditions less effective in bringing down wage growth and inflation than we are assuming, or if new global supply shocks such as another large jump in energy prices add to inflation momentum and make the Fed's task even harder.

David Mericle

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The US Economic and Financial Outlook

THE US ECONOMIC AND FINANCIAL OUTLOOK

(% change on previous period, annualized, except where noted)

| | 2020 | 2021 | 2022 (f) | 2023 (f) | 2024 (f) | 2025 (f) | 2022 | | | | 2023 | | | | |
|--|--------|--------|-------------|-------------|-------------|-------------|----------|----------|--------|----------|--------|--------|--------|--------|--|
| | | | | | | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | |
| OUTPUT AND SPENDING | | | | | | | | | | | | | | | |
| Real GDP | -2.8 | 5.9 | 1.9 | 1.1 | 1.6 | 1.9 | -1.6 | -0.6 | 2.6 | 0.9 | 0.8 | 1.0 | 1.3 | 1.3 | |
| Real GDP (annual=Q4/Q4, quarterly=yoy) | -1.5 | 5.7 | 0.3 | 1.1 | 1.9 | 1.9 | 3.7 | 1.8 | 1.8 | 0.3 | 0.9 | 1.3 | 1.0 | 1.1 | |
| Consumer Expenditures | -3.0 | 8.3 | 2.8 | 1.9 | 1.8 | 1.9 | 1.3 | 2.0 | 1.4 | 3.3 | 1.5 | 1.5 | 1.5 | 1.5 | |
| Residential Fixed Investment | 7.2 | 10.7 | -10.2 | -15.8 | -0.1 | 2.0 | -3.1 | -17.8 | -26.4 | -21.3 | -17.5 | -10.0 | -5.0 | 0.0 | |
| Business Fixed Investment | -4.9 | 6.4 | 3.3 | 1.9 | 3.3 | 3.6 | 7.9 | 0.1 | 3.7 | 0.1 | 2.1 | 2.3 | 2.4 | 3.0 | |
| Structures | -10.1 | -6.4 | -9.5 | -4.8 | 2.4 | 3.0 | -4.4 | -12.7 | -15.4 | -10.9 | 0.0 | 0.0 | 1.0 | 2.0 | |
| Equipment | -10.5 | 10.3 | 4.5 | 2.0 | 2.6 | 3.0 | 11.4 | -2.1 | 10.8 | 0.0 | 1.0 | 1.5 | 1.5 | 2.5 | |
| Intellectual Property Products | 4.8 | 9.7 | 8.8 | 4.9 | 4.3 | 4.5 | 10.8 | 8.9 | 6.9 | 5.5 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Federal Government | 6.2 | 2.3 | -3.1 | -0.8 | -0.1 | 0.0 | -5.3 | -3.4 | 3.7 | -3.0 | -1.0 | -1.0 | 0.0 | 0.0 | |
| State & Local Government | 0.4 | -0.5 | 0.3 | 0.8 | 1.0 | 1.0 | -0.4 | -0.6 | 1.7 | 0.2 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Net Exports (\$bn, '12) | -923 | -1,233 | -1,369 | -1,304 | -1,351 | -1,371 | -1,489 | -1,431 | -1,274 | -1,282 | -1,282 | -1,296 | -1,308 | -1,329 | |
| Inventory Investment (\$bn, '12) | -55 | -19 | 112 | 75 | 66 | 60 | 215 | 110 | 62 | 61 | 75 | 75 | 75 | 75 | |
| Industrial Production, Mfg. | -6.3 | 5.7 | 3.5 | 1.5 | 2.5 | 3.2 | 3.6 | 3.2 | 0.3 | 1.7 | 1.4 | 1.5 | 1.8 | 2.1 | |
| HOUSING MARKET | | | | | | | | | | | | | | | |
| Housing Starts (units, thous) | 1,395 | 1,605 | 1,613 | 1,570 | 1,570 | 1,570 | 1,720 | 1,647 | 1,458 | 1,627 | 1,570 | 1,570 | 1,570 | 1,570 | |
| New Home Sales (units, thous) | 831 | 769 | 631 | 549 | 722 | 786 | 776 | 609 | 608 | 533 | 496 | 528 | 559 | 613 | |
| Existing Home Sales (units, thous) | 5,638 | 6,127 | 5,057 | 3,831 | 4,147 | 4,509 | 6,057 | 5,373 | 4,770 | 4,028 | 3,750 | 3,793 | 3,858 | 3,924 | |
| Case-Shiller Home Prices (%yoy)* | 9.5 | 18.8 | 6.7 | -7.5 | -2.2 | 3.8 | 20.0 | 19.6 | 13.1 | 6.7 | -1.0 | -7.4 | -8.2 | -7.5 | |
| INFLATION (% ch, yr/yr) | | | | | | | | | | | | | | | |
| Consumer Price Index (CPI)** | 1.3 | 7.1 | 6.8 | 3.2 | 2.6 | 2.5 | 8.0 | 8.6 | 8.3 | 7.2 | 5.7 | 4.0 | 3.2 | 3.1 | |
| Core CPI ** | 1.6 | 5.5 | 5.9 | 3.2 | 2.7 | 2.5 | 6.3 | 6.0 | 6.3 | 6.1 | 5.6 | 4.7 | 3.8 | 3.3 | |
| Core PCE** † | 1.5 | 5.0 | 4.5 | 2.9 | 2.4 | 2.2 | 5.3 | 5.0 | 4.9 | 4.7 | 4.1 | 3.7 | 3.3 | 2.9 | |
| LABOR MARKET | | | | | | | | | | | | | | | |
| Unemployment Rate (%)^ | 6.7 | 3.9 | 3.6 | 4.1 | 4.2 | 4.2 | 3.6 | 3.6 | 3.5 | 3.6 | 3.8 | 3.9 | 4.0 | 4.1 | |
| U6 Underemployment Rate (%)^ | 11.7 | 7.3 | 6.7 | 7.7 | 8.0 | 7.9 | 7.0 | 6.6 | 6.7 | 6.7 | 7.0 | 7.2 | 7.5 | 7.7 | |
| Payrolls (thous, monthly rate) | -774 | 562 | 370 | 29 | 52 | 60 | 539 | 349 | 381 | 212 | 40 | 25 | 25 | 25 | |
| Employment-Population Ratio (%)^ | 57.4 | 59.5 | 60.0 | 59.6 | 59.4 | 59.2 | 60.1 | 59.9 | 60.1 | 60.0 | 59.9 | 59.8 | 59.7 | 59.6 | |
| Labor Force Participation Rate (%)^ | 61.5 | 61.9 | 62.3 | 62.2 | 62.0 | 61.8 | 62.4 | 62.2 | 62.3 | 62.3 | 62.3 | 62.2 | 62.2 | 62.2 | |
| Average Hourly Earnings (%yoy) | 4.9 | 4.2 | 5.1 | 4.2 | 3.7 | 3.3 | 5.4 | 5.3 | 5.1 | 4.7 | 4.5 | 4.4 | 4.1 | 4.0 | |
| GOVERNMENT FINANCE | | | | | | | | | | | | | | | |
| Federal Budget (FY, \$bn) | -3,132 | -2,775 | -1,375 | -1,250 | -1,350 | -1,600 | -- | -- | -- | -- | -- | -- | -- | -- | |
| FINANCIAL INDICATORS | | | | | | | | | | | | | | | |
| FF Target Range (Bottom-Top, %)^ | 0-0.25 | 0-0.25 | 4.25-4.5 | 5-5.25 | 4.25-4.5 | 3.5-3.75 | 0.25-0.5 | 1.5-1.75 | 3-3.25 | 4.25-4.5 | 4.75-5 | 5-5.25 | 5-5.25 | 5-5.25 | |
| 10-Year Treasury Note^ | 0.93 | 1.52 | 3.75 | 4.00 | 3.75 | 3.65 | 2.32 | 2.98 | 3.83 | 3.75 | 3.90 | 4.00 | 4.00 | 4.00 | |
| Euro (€/\$)^ | 1.22 | 1.13 | 0.99 | 1.05 | 1.10 | 1.10 | 1.11 | 1.05 | 0.98 | 0.99 | 0.95 | 0.98 | 1.02 | 1.05 | |
| Yen (\$/¥)^ | 103 | 115 | 144 | 125 | 115 | 115 | 121 | 136 | 145 | 144 | 145 | 133 | 128 | 125 | |

* Weighted average of metro-level HPIs for 381 metro cities where the weights are dollar values of housing stock reported in the American Community Survey. Annual numbers are Q4/Q4.

** Annual inflation numbers are December year-on-year values. Quarterly values are Q4/Q4.

† PCE = Personal consumption expenditures. ^ Denotes end of period.

Note: Published figures in bold.

Source: Goldman Sachs Global Investment Research.

Source: Goldman Sachs Global Investment Research

Economic Releases

| Date | Time (ET) | Indicator | Estimate | | | |
|------|-----------|-----------|--|-------------|--------------|--------------|
| | | | GS | Consensus | Last Report | |
| Tue | Nov 22 | 8:30 | Richmond Fed Manufacturing Index | n.a. | -8 | -10 |
| Wed | Nov 23 | 8:30 | Durable Goods Orders (October) | | +0.4% | +0.4% |
| | | 8:30 | Durable Goods Orders Ex-Transport (October) | | +0.1% | -0.5% |
| | | 8:30 | Capital Goods Orders (October) | | +0.2% | -0.4% |
| | | 8:30 | Capital Goods Shipments (October) | | +0.3% | -0.5% |
| | | 8:30 | Initial Jobless Claims | 215k | 225k | 222k |
| | | 8:30 | Continuing Claims | n.a. | 1,520k | 1,507k |
| | | 9:45 | S&P Global US Manufacturing PMI (November preliminary) | n.a. | 50.0 | 50.4 |
| | | 9:45 | S&P Global US Services PMI (November preliminary) | n.a. | 48.0 | 47.8 |
| | | 10:00 | Umich Consumer Sentiment (November final) | 55.5 | 55.2 | 54.7 |
| | | 10:00 | 5-10 Year Inflation Expectations (November final) | 2.9% | n.a. | 3.0% |
| | | 10:00 | New Home Sales | | | |

Source: Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Jan Hatzius, Alec Phillips, David Mericle, Spencer Hill, CFA, Joseph Briggs, Ronnie Walker, Tim Krupa and Manuel Abecasis, 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.

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