Economic Outlook:

A New Fed Strategy to Tame Inflation: Skip and Reengage

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Hiring Momentum Slowing: 187k Payrolls Added in August

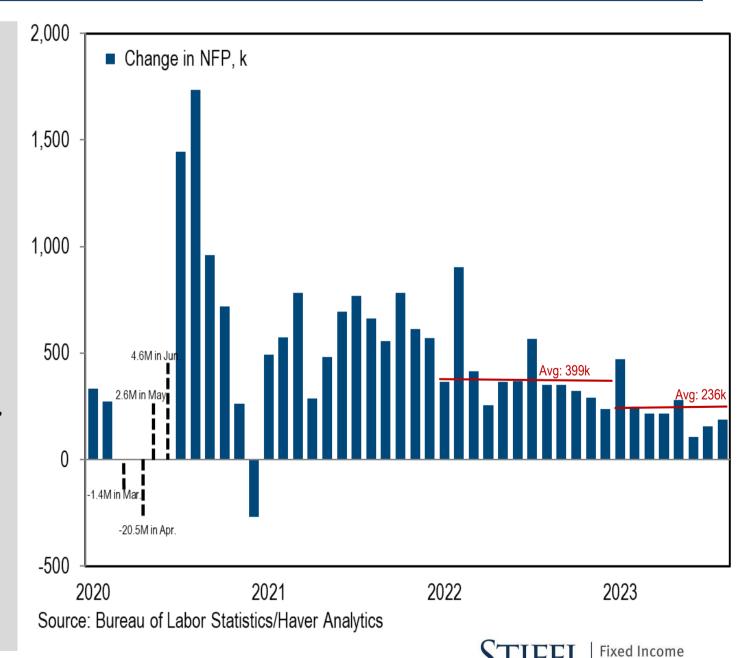
Other sectors of the economy are more clearly showing indications of waning momentum or slower growth, the labor market is not among them

Nonfarm payrolls rose by **187k** in August following a 157k gain in July and the strongest pace of job creation since May

With earlier revisions to previous months, the overall change (August data + net revisions) was 77k

Nonfarm payrolls fell 1.4M in March and 20.5M in April of 2020, the largest monthly decline on record

For the full year of 2022, U.S. employers added 4.8M jobs, the second-best year for job creation on record after 2021's 7.3M gain. Payrolls dropped 9.3M in 2020, the largest decline on record, and more than the combined decline in 2008 and 2009



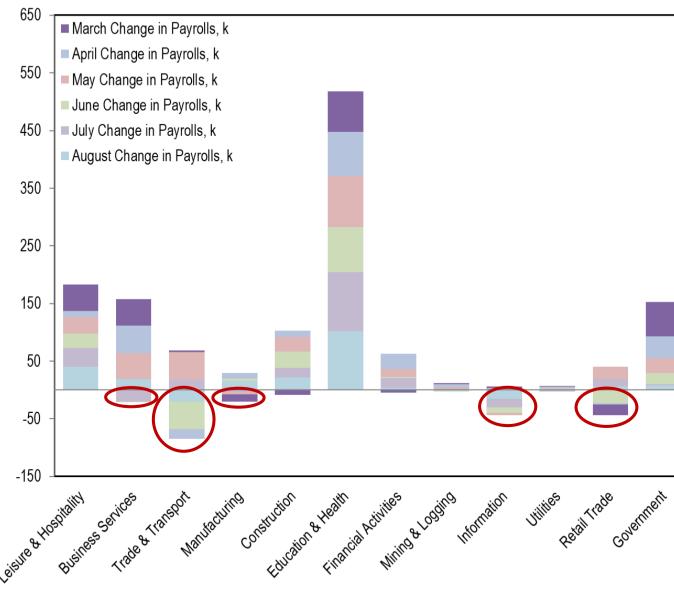
Payrolls by Category

Education & health payrolls led the gain in job creation in August with payrolls rising **102k**

Leisure & hospitality payrolls rose **40k**, business services payrolls gained **19k**, government payrolls rose **10k**, and financial payrolls increased **4k**

Also, manufacturing payrolls rose **16k** and retail trade payrolls gained **6k** in August

On the other hand, information payrolls fell **15k**, and trade & transport payrolls dropped **20k**



Source: Haver Analytics/Bloomberg

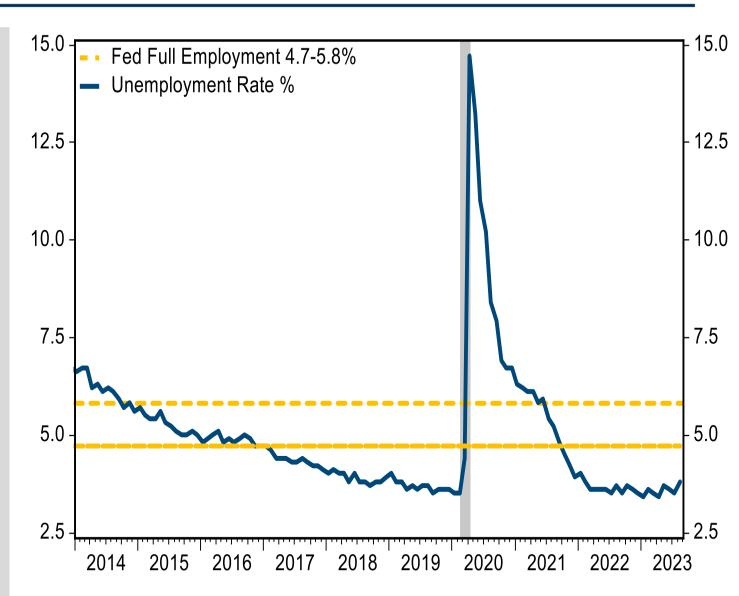
3.8% U.S. Unemployment Rate

The decline in the unemployment rate shows further improvement in labor market conditions

Household employment rose by **222k** in August, and the labor force rose by **736k**, resulting in an unemployment rate of **3.8%** in August, the highest since February 2022 but still near a five-decade low

The decline in the unemployment rate reflects more employment and sidelined workers

Returning workers will push unemployment rate higher



Source: Bureau of Labor Statistics/Haver Analytics



Participation Rate Still Shy of Pre-Pandemic Level

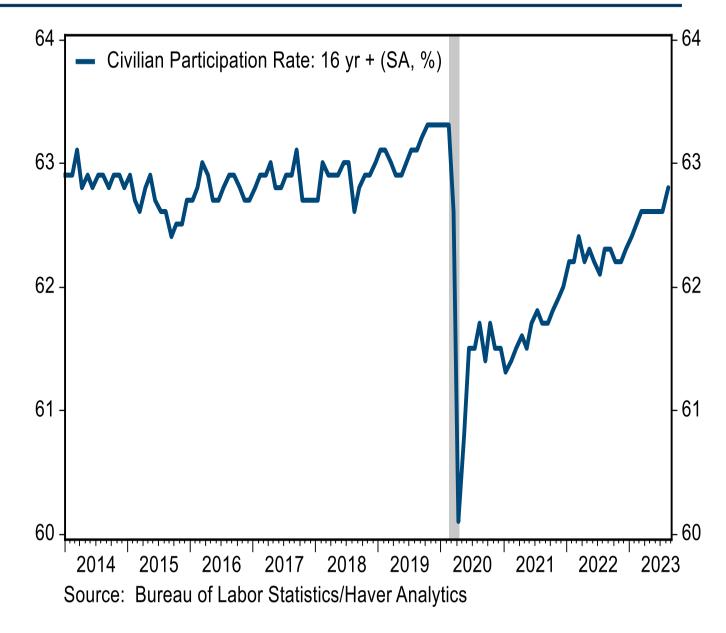
The labor force rose by **736k** in August

The labor force participation rate rose to **62.8%** in August, the highest since February 2020, but still below the precrisis peak of 63.3%

The participation rate remains nearly 0.5% below the pre-Covid level, representing a potential gap of roughly 2M workers

The largest drop in participation has been from workers aged 55+, still down roughly 1.4 percentage points from the start of 2020

Fewer workers is far from the ideal scenario particularly as businesses remain desperate to hire



Average Hourly Earnings Lose Momentum in August

As businesses search for workers, compensation is elevated, although the trend appears to be moderating as businesses struggle to absorb costs

Average hourly earnings rose **0.2%** in August, following a 0.4% rise in July

Year-over-year, wages rose **4.3%** in August, down from a 4.4% gain in July

Longer-term, businesses may turn to technology or close doors

For now, costs are likely to remain elevated as long as labor remains scarce

Average earnings increased early on during the pandemic as lower-wage workers dropped out of the workforce



^{*}Does not include government assistance



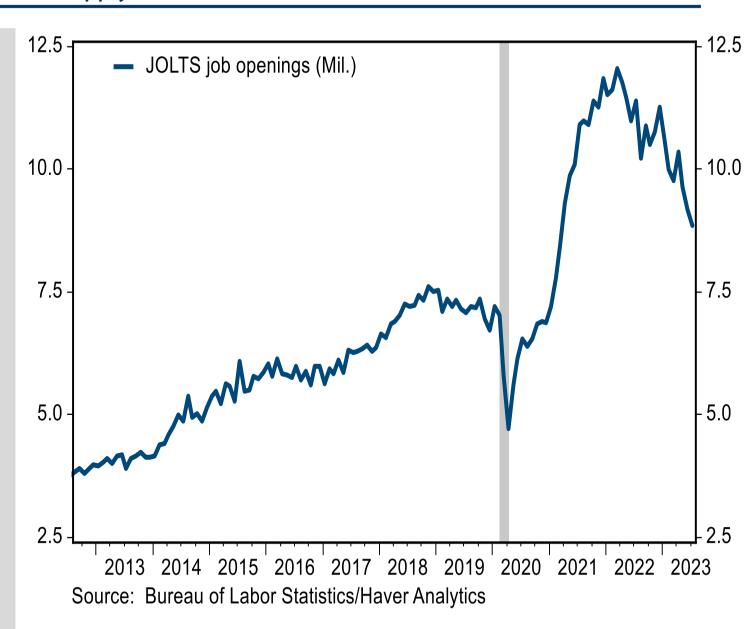
Labor Demand Outpaces Labor Supply

Hiring limited by supply, with demand far outpacing available workers

The number of job openings, according to JOLTS – the Job Openings and Labor Turnover Survey – fell from 9.2M to **8.8M** in July, the lowest since March 2021

Prior to July, there were 27 straight months above 9M, suggesting producers remain desperate for workers to increase output and meet a still-heightened level of demand for goods and services

There are still roughly two vacant positions for every one person seeking a job



Where Have All the Workers Gone?

Some workers have lingering health concerns or ongoing health impacts resulting from the virus

Some face lingering childcare or elder care issues

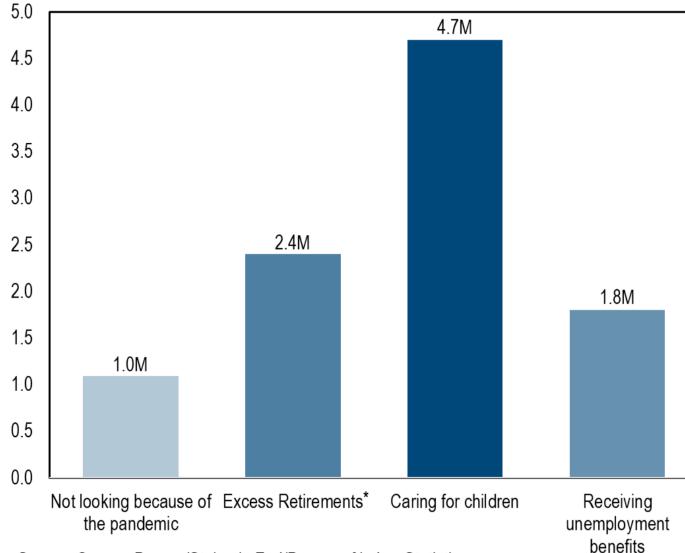
Labor supply has been improved with schools reopen, higher vaccination rates and an end to federal benefits, but it will take time to entice workers back into the labor market

According to the St. Louis Fed, as of April, there were approximately **2.4M** excess retirees in the U.S.

The Census Bureau reports that **4.7M** people are out of work because they were "caring for children not in school or daycare"

There is **35%** increase in disability claims over the past 2 years with a **30%** increase in homeschool enrollment since the start of 2019

5 states plan to send out new tax relief/stimulus this year



Source: Census Bureau/St. Louis Fed/Bureau of Labor Statistics

*Excess Retirements is calculated by the St. Louis Fed using trend analysis to compare actual retirees with the natural trend that results from the aging of the baby boomer generation



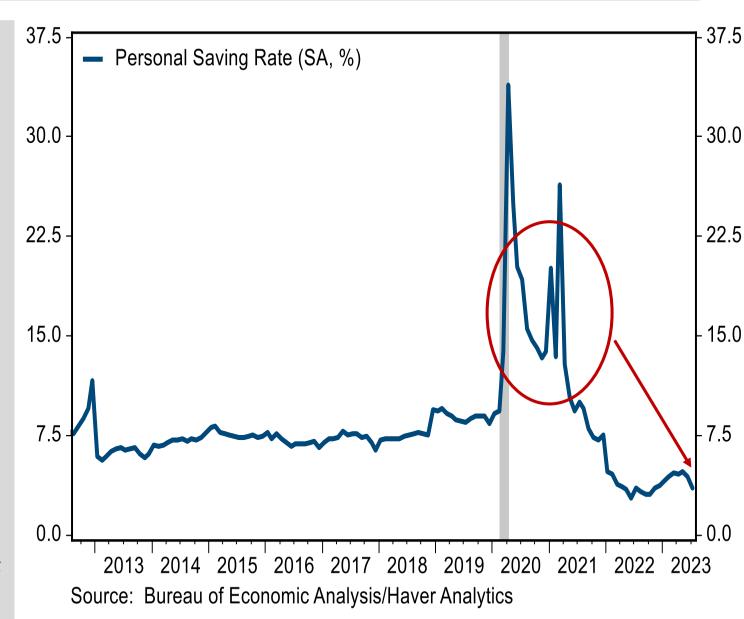
Trillions in Accumulated Savings Dwindle

The U.S. consumer remains solid with **\$706B** in savings and a savings rate of **3.5%** as of July

Additional savings, higher wages and additional federal spending will help supplement the consumer and mitigate the fiscal cliff resulting from an end of pandemic stimulus

Savings won't support potential workers indefinitely – already the savings rate has slowed, and that stockpile of savings has dwindled markedly as spending adjusts back to pre-pandemic patterns, fiscal support wanes and prices rise

Although higher rates are aiding the interest earnings on consumer behavior with trillions in money market funds and deposits earning 5.2% and 2%, respectively, totaling \$630B on an annual basis vs. \$37B before the pandemic



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Debt as a Percent of Income Lowest Level on Record

At the same time, consumers are increasingly turning to credit cards and additional sources of debt to support spending habits

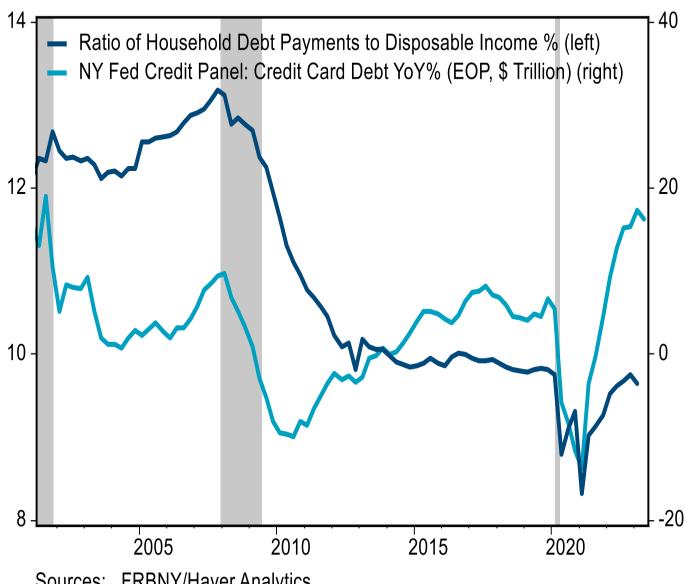
Credit card debt rose 16.2% in Q2 from the year prior, following a 17.2% gain in Q1, the largest increase since 03 2001

401k hardship withdrawals rose 36% in Q2 2023

Most households are better positioned to take on at least some additional debt burden

Debt as a percent of disposable income remained at 9.6% in Q1, near the lowest on record

After 3yrs of relief, come October, student loan payments will resume for approx. 45M



Sources: FRBNY/Haver Analytics



Retail Sales Volatile and Trending Lower

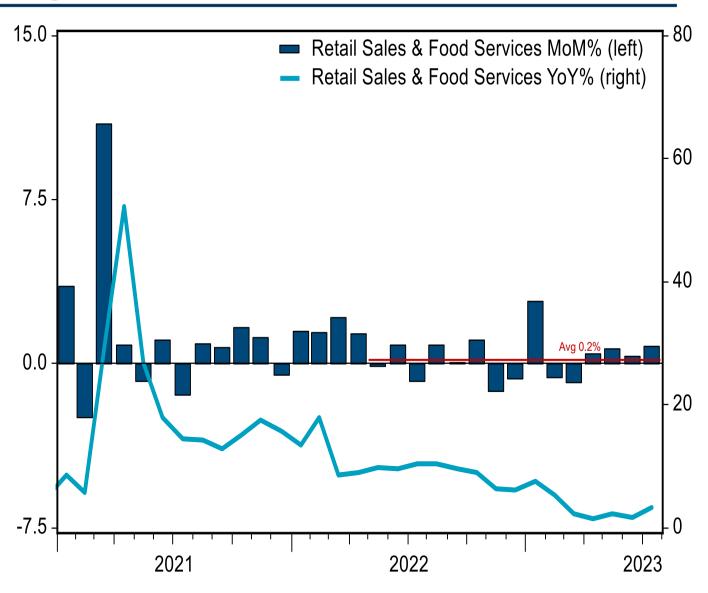
For some, the notion of a reduced or evaporated wealth cushion is causing an outright shift or reduction in spending habits

Trillions in savings and upward momentum in wages has helped consumers to weather different variants and to offset a loss of fiscal support, but inflation is complicating the picture

Large retailers report customers are cutting back as the balance sheet is becoming increasingly fragile amid rising costs and rates

Sales rose **0.7%** in July, following a 0.3% gain in June

Year-over-year, retail sales rose **3.2%** in July following a 1.6% gain in June



Source: Census Bureau/Haver Analytics



Manufacturing Activity Slowing

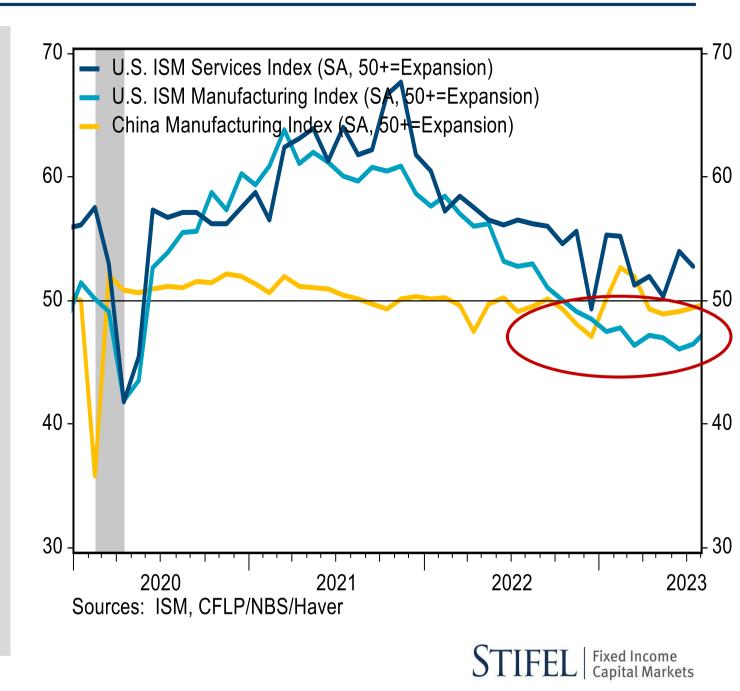
Even with a *relative* decline in spending, positive nominal spending is keeping pressure on producers

The ISM declined from a nearterm peak of 60.8 in October 2021 to 47.6 as of August, falling below 50 as of November 2022

The ISM Services Index, meanwhile, fell to **52.7** in July, a two-month low

The China Manufacturing PMI rose slightly to **49.7** in August, bouncing along breakeven since June 2021

Solution to supply chain disruptions will depend on global policy, trade relations and georesponse to the virus – even domestic producers are impacted resulting in price pressures



Chinese Economy Faces Pressure on Multiple Fronts

According to Treasury Secretary Janet Yellen, the mounting weakness in China is a "risk factor" for the US

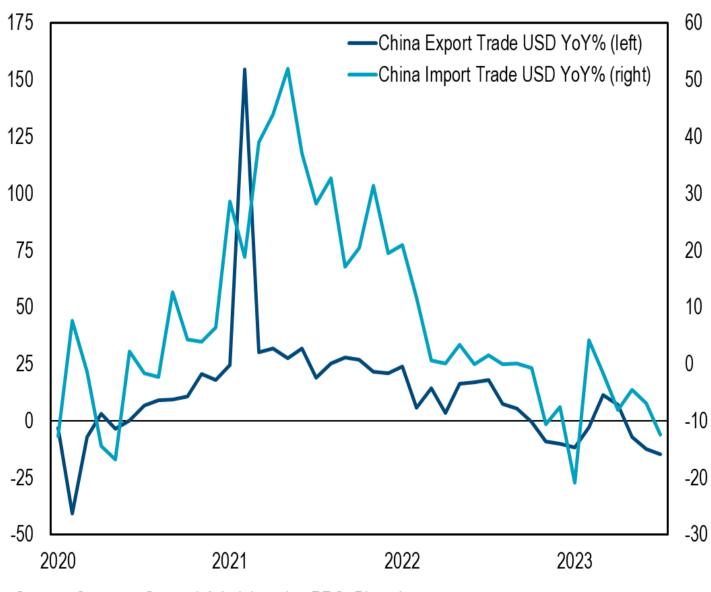
"China's slowdown will have the largest impact on its Asian neighbors, but there will be some spillovers to the United States," Yellen told reporters following a speech in Las Vegas

Chinese exports **dropped 14.5%** in July over the past 12 months, the weakest pace since February 2020, with imports **contracting 12.4%**

Industrial output grew **3.7%** in July from the year prior, slowing from the 4.4% annual gain in June

Chinese retail sales rose **2.5%** in July from a year ago, down from the 3.1% annual gain in June and the weakest pace since December 2022

Additionally, youth unemployment, which wasn't reported in July, rose to **21.3%** in the latest June report, a record high



Source: Customs General Administration PRC, Bloomberg



"Surprising Rebound" in Home Sales

Americans view their home as a workplace, school and refuge

Home sales surged during the pandemic and immediate aftermath

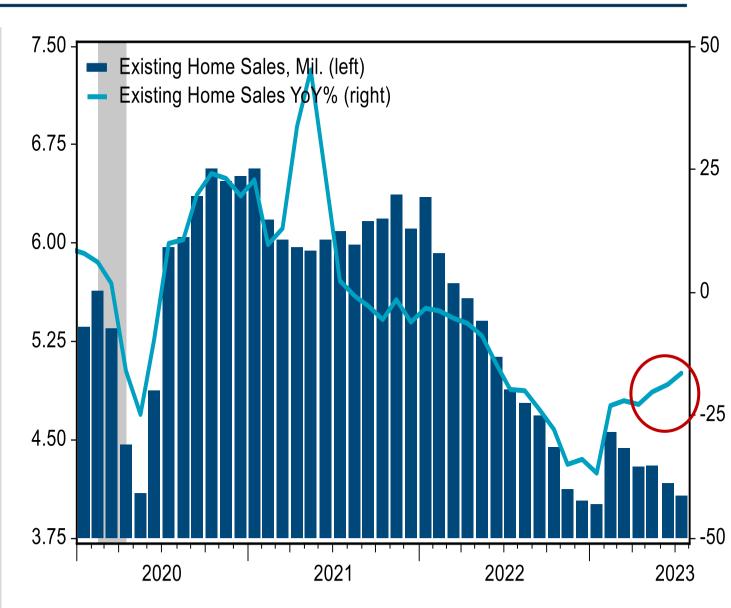
Sales rose 6.6% at the end of 2021, reaching a peak pace of 6.36M units

Rising interest rates, rising costs of materials and declining real income is already taking a toll on some would-be buyers and prompting many more potential sellers anxious to offload in a still-hot market

Existing home sales fell 2.2% in July to a **4.07M** unit pace

Off 36% from peak levels, sales are up 2% in the recent "rebound"

According to RedFin, more than 90% of homeowners have a mortgage rate below 6%, resulting in a lock-in-effect



Source: National Association of Realtors/Haver Analytics



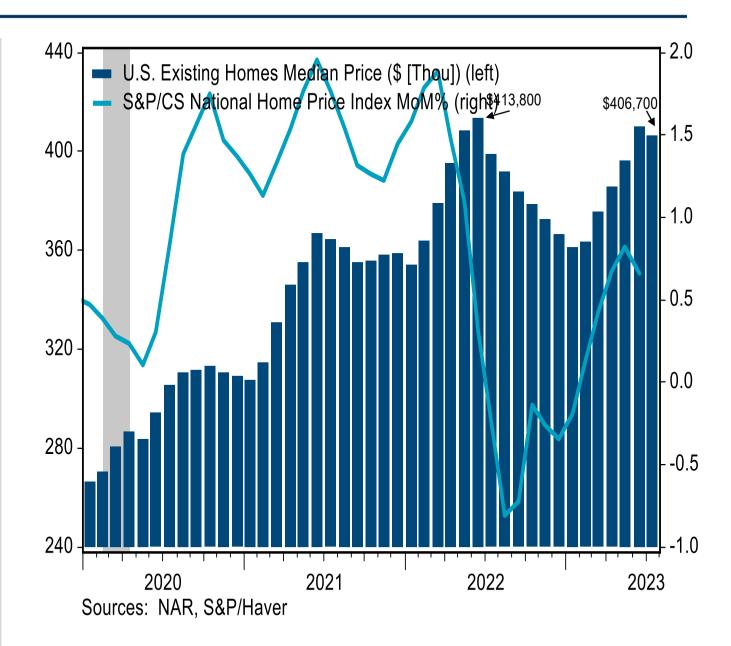
Home Prices Push Higher

Demand is still *relatively* solid, supply is still *relatively* limited, keeping pressure on prices

The median price of an existing home fell to **\$406,700** in July, a two-month low

Nationally, home prices rose **0.7%** in June but declined **0.1%** year-over-year, following a 0.4% fall the month prior, and down from the 20.6% peak reached in April, the largest gain in the history of the index dating back to 1987

Price growth is not limited to downtown, urban markets



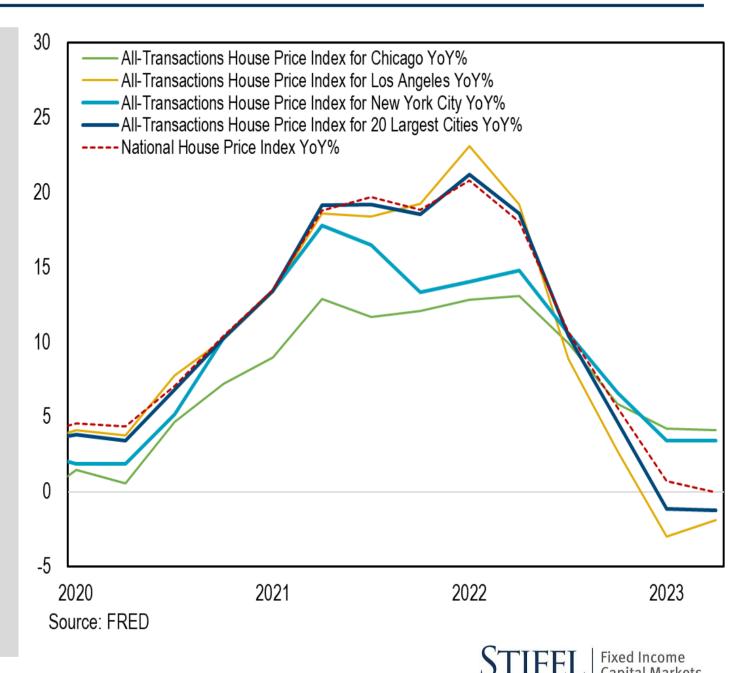
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Home Prices Push Higher but Uneven

House prices in the 20 largest cities are down **1.2%** in Q2 2023 from a year ago, following a similar annual decline in O1

In Chicago, house prices are up **4.1%** as of Q2 2023, down slightly from the 4.2% gain in Q1, with prices in NYC **3.4%** more expensive from the year prior, while prices in Los Angeles are down **1.9%** in Q2

Nationally, home prices are down **0.1%** in Q2 2023, following a 0.7% increase in Q1



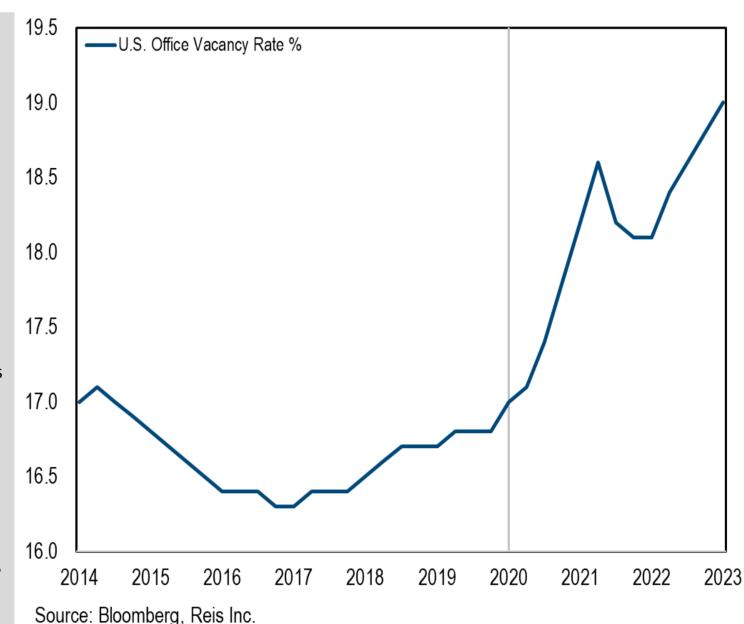
Office Vacancy Rate Hits New Peak

For the commercial market, as the work-from-anywhere environment has been wholly adopted, a change in structural preferences has resulted in a significant relocation of populations

For the downtown urban centers still experiencing at most a **40-50%** return to office rate, the population support will be more difficult to recapture

According to real estate data firm Trepp, **4.02%** of office loans that make up MBS are at least 30 days delinquent, the largest amount since 2018

Other areas, however, experiencing population booms will need further investment in commercial space to support the emerging growth and demand in everything from shopping centers to office spaces or alternative spaces for work, grocery stores and everything in between

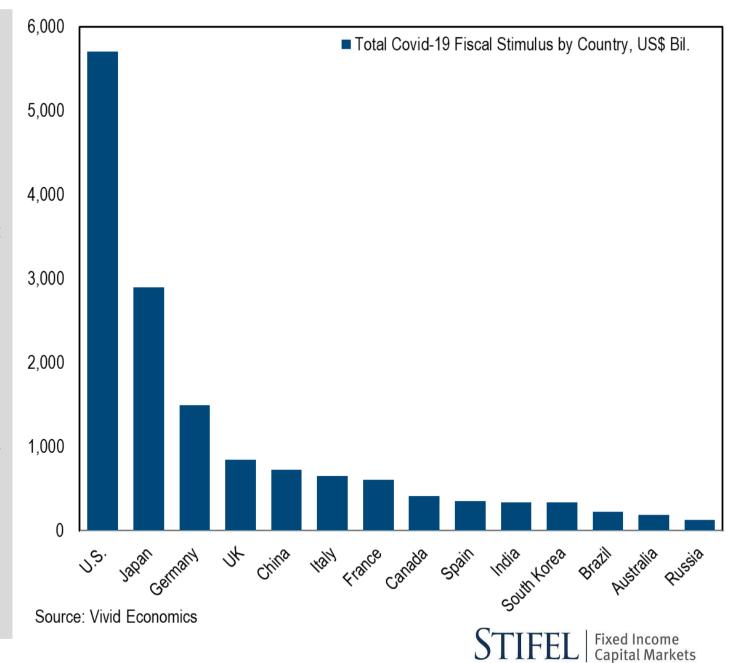


Global Covid-19 Spending

Even without the IRA, the U.S. has spent nearly **\$6T** in Covid relief grossly contributing to the nation's inflationary concerns

Developed nations in total spent \$17T on the pandemic with government spending becoming a greater share of GDP in every major advanced economy, a relentless expansion of government

The U.S., however, spent more than double the next highest spender with much in the way of direct payments, leading to higher inflation rates than almost anywhere else in the world



U.S. Debt Rises to All-Time High: \$31T vs. \$25T Economy

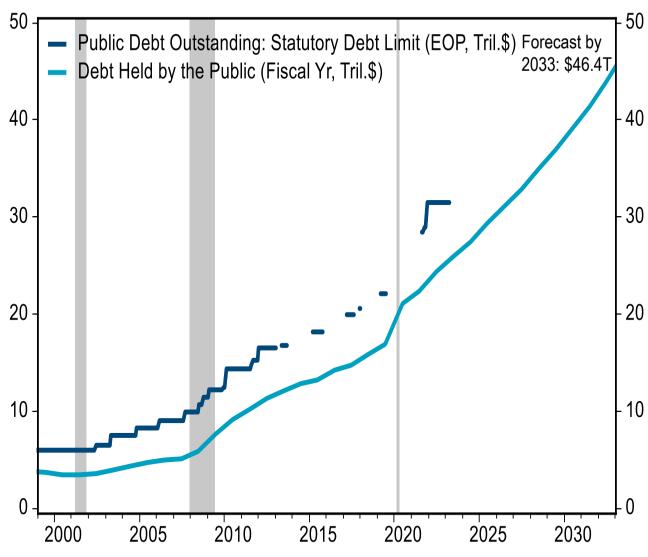
In FY 2022, the federal government ran a deficit of \$1.38 trillion

The deficit for FY23, of course, will be markedly less than the year prior given the significant reduction in outlays from the waning federal response to the pandemic

Total public debt outstanding rose from \$28T in FY 2021 to \$31T in FY 2022, an all-time high

Total public debt is forecasted to reach over \$46T by 2033

President Joe Biden and House Speaker Kevin McCarthy reached an agreement on raising the debt ceiling



Sources: U.S. Treasury, Congressional Budget Office/Haver Analytics

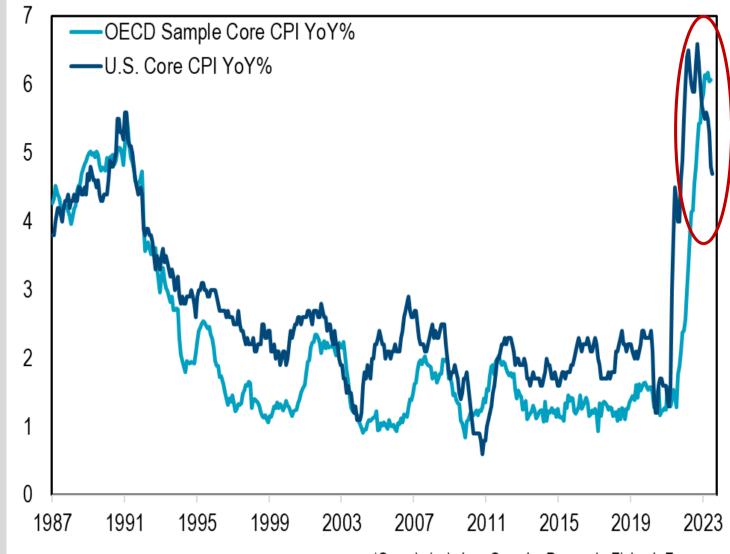


U.S. Inflation No Longer Higher than Abroad

Countries are reeling from supply-side constraints

U.S. inflation has been exacerbated by fueling demandside metrics and labor costs resulting from fiscal policy measures

U.S. inflation no longer continues to outpace other countries, rising **4.7%** as of July vs. **6.1%** elsewhere in the developed world



Source: FRED

*Sample includes: Canada, Denmark, Finland, France, Germany, Netherlands, Norway, Sweden, and the U.K.



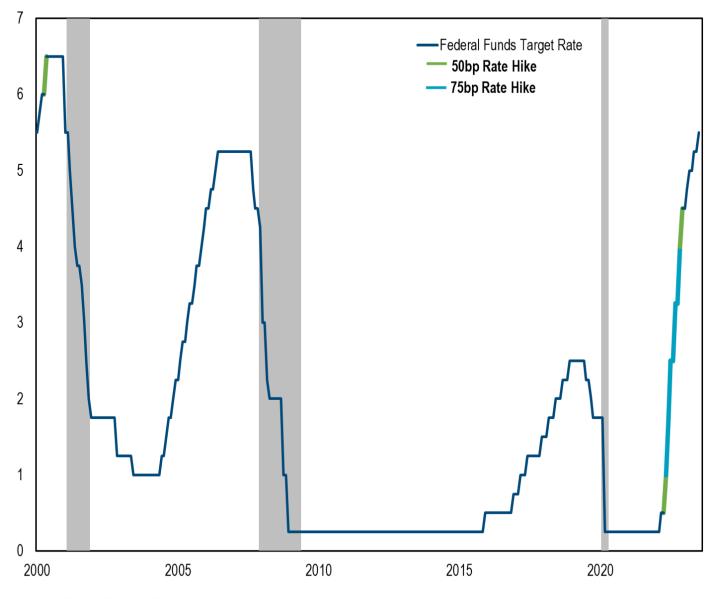
Fed Raises Rates in July after June Pause

In March 2022 the Fed took a decisively more hawkish position

The Fed has raised rates 525bps since March of last year: **25bps** in March, **50bps** in May, **75bps** in June, July, September & November, and **50bps** in December of last year. This year, the Fed has raised rates **25bps** in February, March, May and July reaching **5.25-5.50%**

The Fed's expected rate pathway has markedly increased with inflation still "too-high"

In June, the SEP showed expectations for **5.6%** in 2023 with rates slowing to **4.6%** in 2024



Source: Federal Reserve Board



"In determining the **extent of additional policy firming that may be appropriate** to return inflation to 2 percent over time, the Committee will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, and economic and financial developments."

- July 26 FOMC Statement

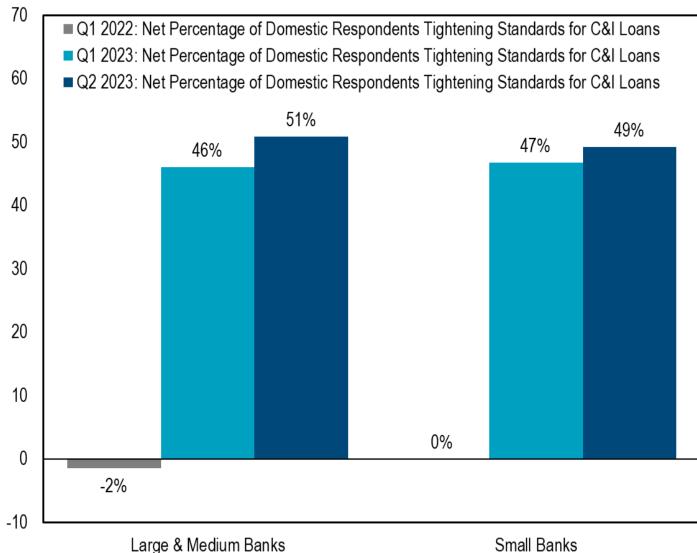
"Economic activity has been expanding at a moderate pace. Job gains have been robust in recent months, and the unemployment rate has remained low. Inflation remains elevated."

"The U.S. banking system is sound and resilient."

- July 26 FOMC Statement

So Why Pause in June? To Assess Data and Lending Standards

The Federal Reserve's Senior Loan Officer Opinion Survey on Bank Lending Practices reported that major banks tightened lending standards with 51% of large and medium banks reporting tighter standards in Q2 and 49% of small banks also reporting tighter standards, up from 45% and 44%. respectively, in the first quarter of the year



Source: Federal Reserve Board

Small Banks

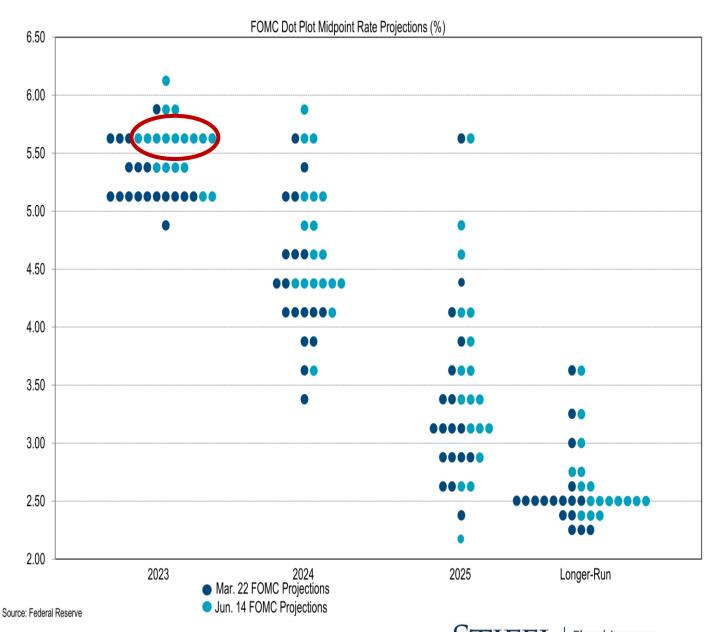
*Small banks = annual sales of less than \$50M *Large & medium banks = annual sales of \$50M or more



Question 1: How High Will Rates Rise?

The majority of Fed officials anticipate a terminal rate still rising above 5% with **three** officials forecasting a rate **between 5.75% and 6.25%**

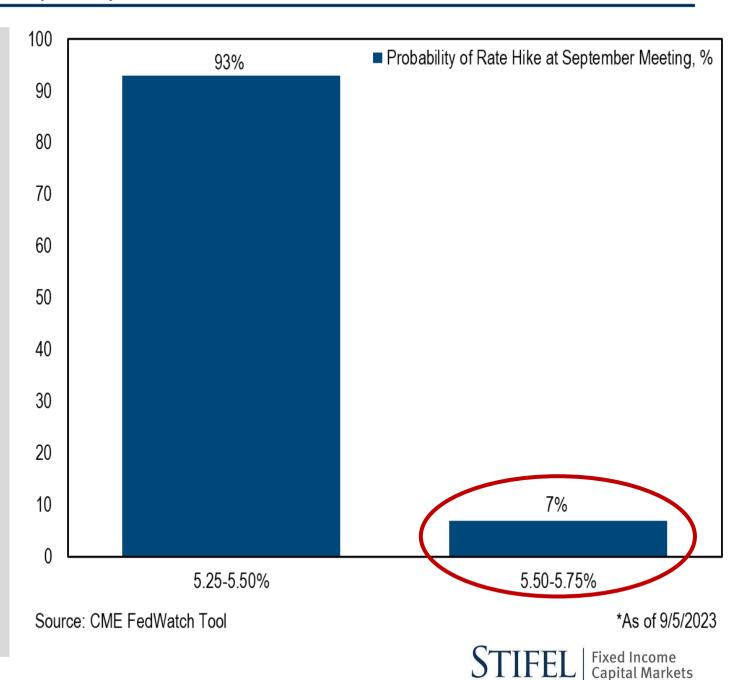
Although, two Committee members anticipates no further action by the Fed after the March meeting with the upper bound now at an even 5.25%



Fed Likely to Hold Rates Steady in September

The market is currently pricing in a September rate hike at just **5%**

Of course, investors have been wrong before, prematurely calling an end to Fed tightening throughout the year, instead betting on rate cuts, which have not materialized

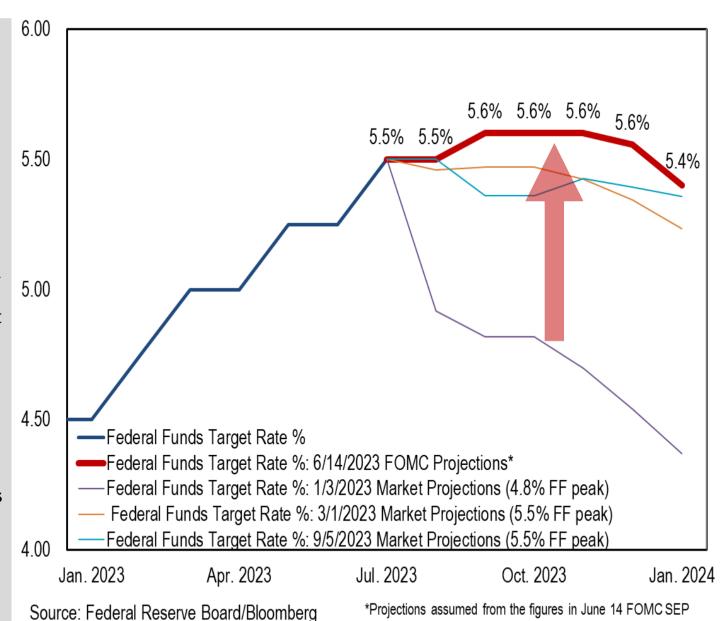


Question 2: How Long Will Rates Remain Elevated?

According to the fed funds forward curve, investors are predicting a decisively more dovish pathway relative to that anticipated prior to the March meeting

The market was pricing in a peak fed funds rate of **5.7**% as of early March with the first rate cut delayed until November

Now in the aftermath of SVB, Signature Bank, & First Republic failures, and the latest July policy decision, forward projections expect a 5.5% terminal rate with at least 10bps of cuts by the start of the year

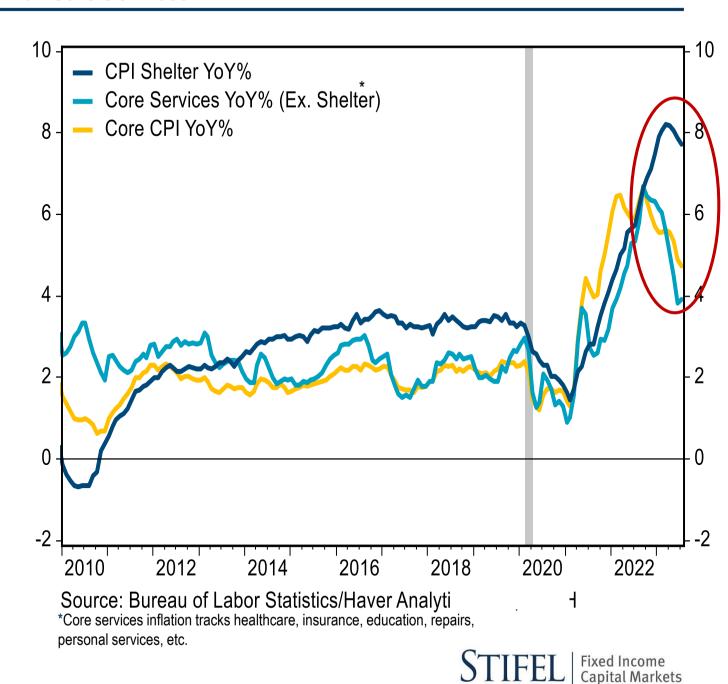


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Inflation Remains Elevated with Core Services

The core CPI rose 0.2% in July and **4.7%** year-over-year, down from the 4.8% annual gain in June

Core services excluding shelter, meanwhile, rose **3.9%** year-over-year in July, up from the 3.8% annual increase in June



Supply-Side Pressures Transcend Monetary Policy to Determine Timeline for Rate Cut

- "It will be appropriate to cut rates at such time as inflation is coming down really significantly. And again, we're talking about a couple of years out." Federal Reserve Chairman Jerome Powell, June 14 FOMC Press Conference
- Fed anticipates a bit more inflation in 2023, raising forecast from 3.1% to 3.3%
- Wage-push inflation: an overall rise in the cost of goods that results from a rise in wages
- <u>Demand-side inflation</u>: when demand for goods or services rises faster than the supply of those goods and services
- <u>Supply-side inflation</u>: price increases in the energy and food sectors or shortages in certain industries (such as shortages of semiconductor chips) can cause shifts in the demand patterns in other industries (such as automobiles)
 - Russia-Ukraine conflict continues to pose upside risks to inflation
 - Fertilizer, food, and energy commodities flows directed to China as opposed to less friendly countries supporting Ukraine
 - Black Sea agreement, which allowed for safe exports of grain from Ukraine, expired
- Greedflation: a price rise introduced by companies to take advantage of inflation and boost profit margin

U.S. Economy Showing Signs of Weakness; Recession Looming?

The Fed has vowed to raise rates enough to root out inflation but will it work?

Typically, the Fed raises rates when the economy is overheating versus struggling to gain legs post-pandemic

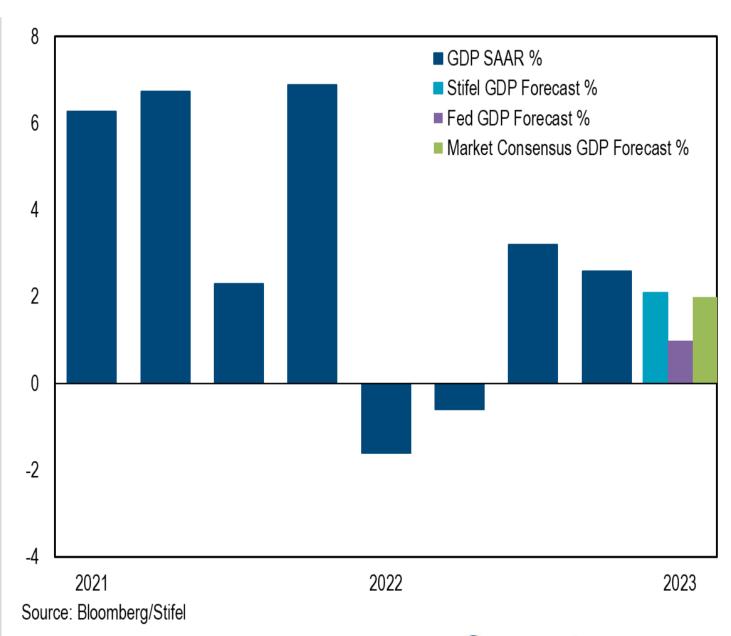
The majority of price pressures stem from supply side constraints, limiting impact of Fed rate hikes

With an aggressive rate path, growth is likely to slow further into recession

Structural supply-side constraints, specifically in the markets for shelter and labor

GDP rose **2.1%** in Q2 2023, following a 2.0% rise in Q1

Excluding trade and inventories, final sales to domestic purchasers rose 2.3%



Thank you

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