

Economic Outlook:

The Fed's Dilemma: Inflation vs. Recession

October 2022



STIFEL

Lauren G. Henderson
Economist

For Institutional Use Only

263k Payrolls Added in September

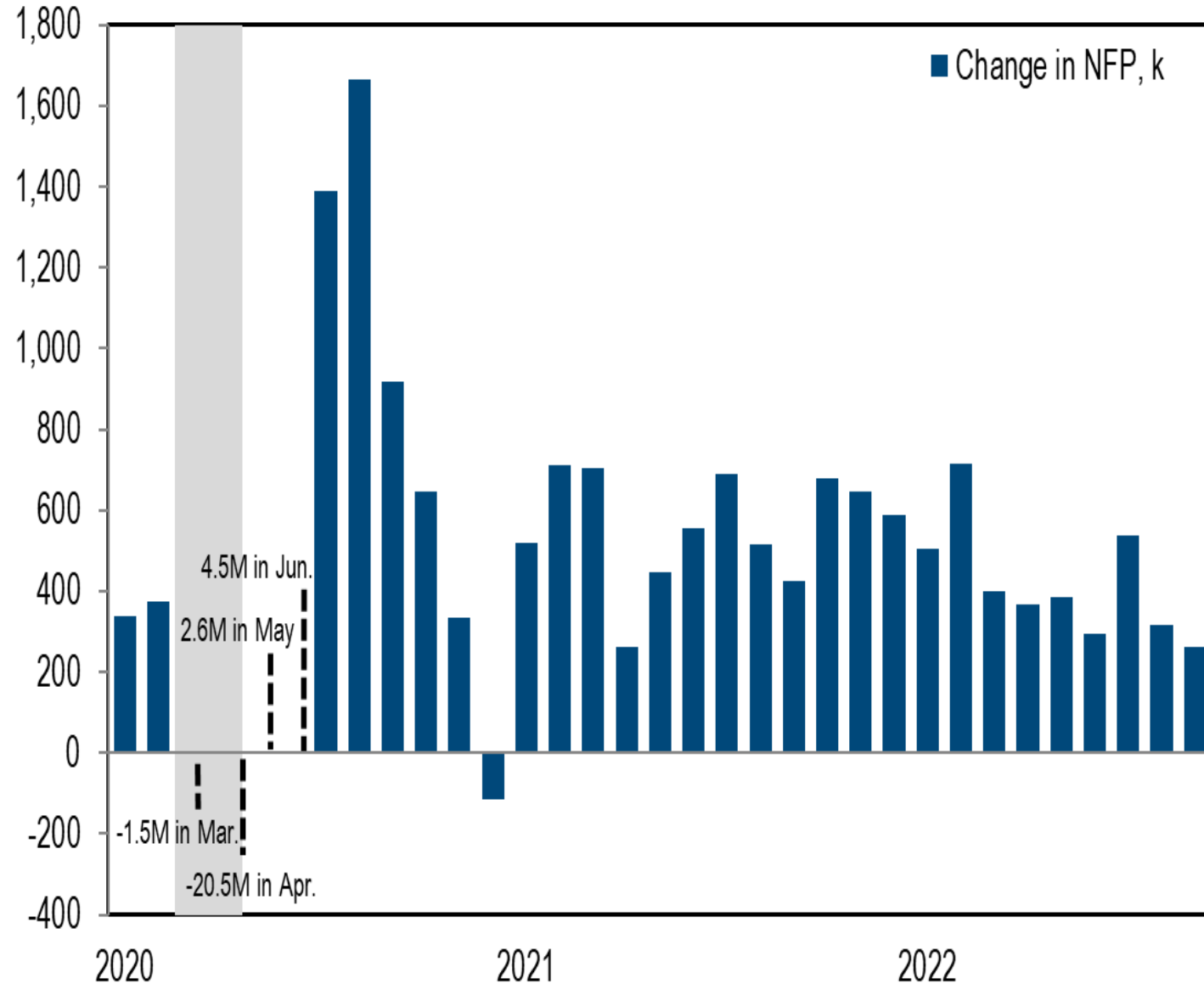
Other sectors of the economy are more clearly showing indications of waning momentum or slower growth, the labor market is not among them

Nonfarm payrolls rose by **263k** in September, the weakest pace of job creation since April 2021

With earlier revisions to July and August, the overall change (September data + net revisions) was 274k

Nonfarm payrolls fell 1.5M in March and 20.5M in April of 2020, the largest monthly decline on record

For the full year of 2021, payrolls rose 6.7M, a record high, but following a 9.3M drop in 2020, the largest decline on record, and more than the combined decline in 2008 and 2009



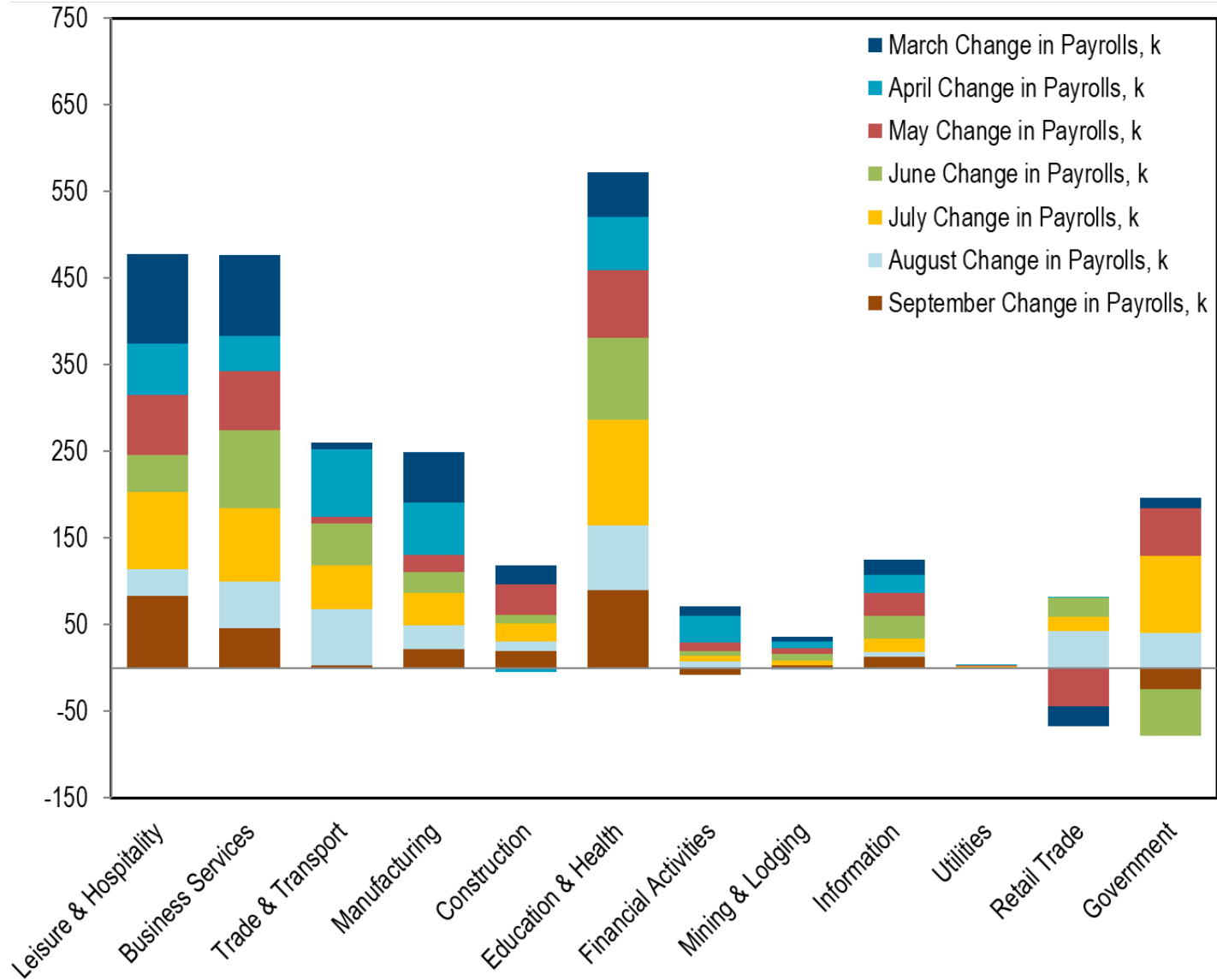
Source: Bureau of Labor Statistics/Haver Analytics

Payrolls by Category

Education & health payrolls led the gain in payrolls in September with payrolls rising **90k**

Leisure & hospitality payrolls rose **83k**, business services payrolls gained **46k**, information payrolls increased **13k**, and trade & transport payrolls rose **3k**

On the other hand, government payrolls dropped **25k**, and retail trade payrolls fell **1k** in September



Source: Haver Analytics/Bloomberg

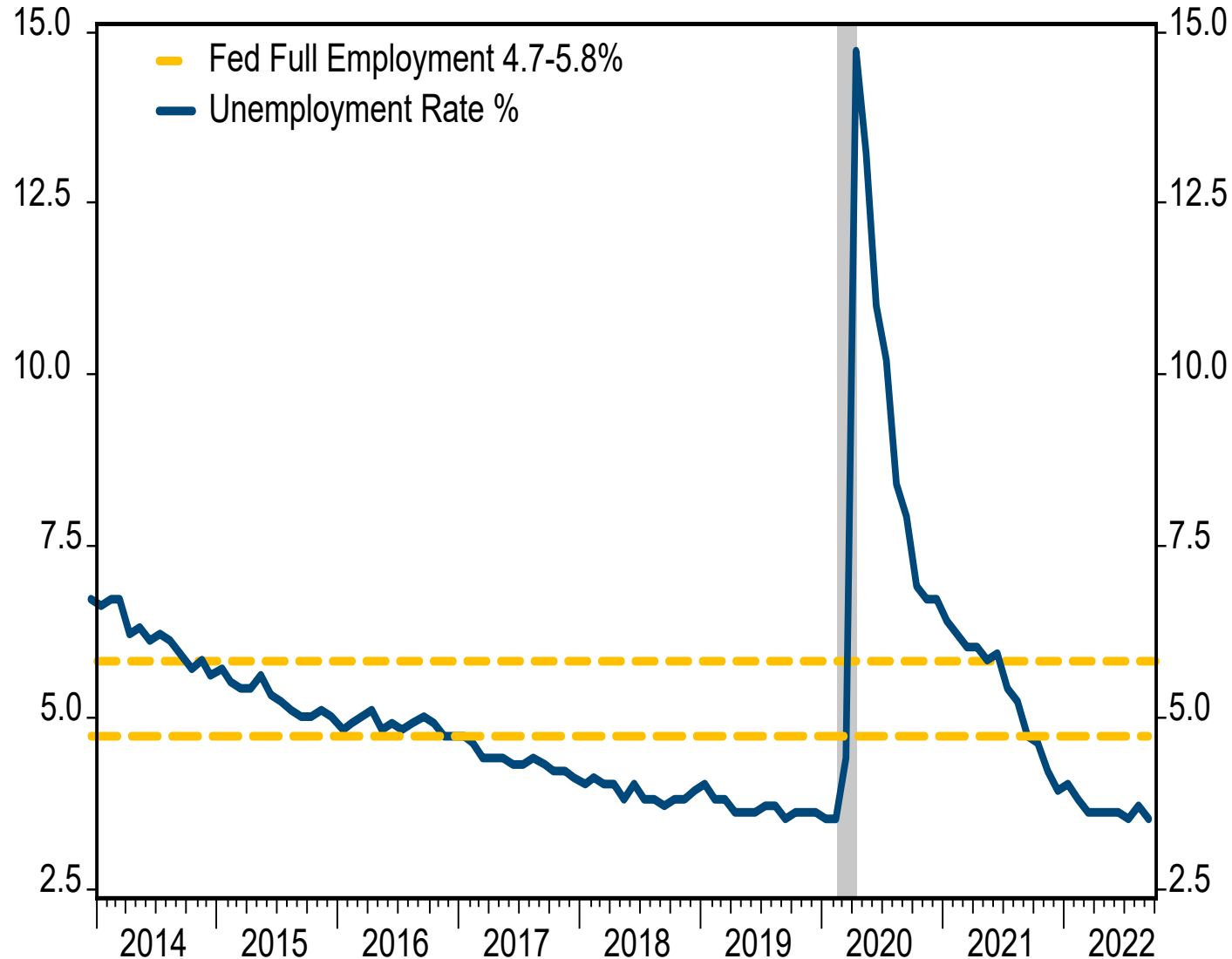
3.5% U.S. Unemployment Rate

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

Household employment rose by **204k** in September, but the labor force fell by **57k**, resulting in an unemployment rate of **3.5%** in September, a **five-decade low**

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

Returning workers will push unemployment rate higher



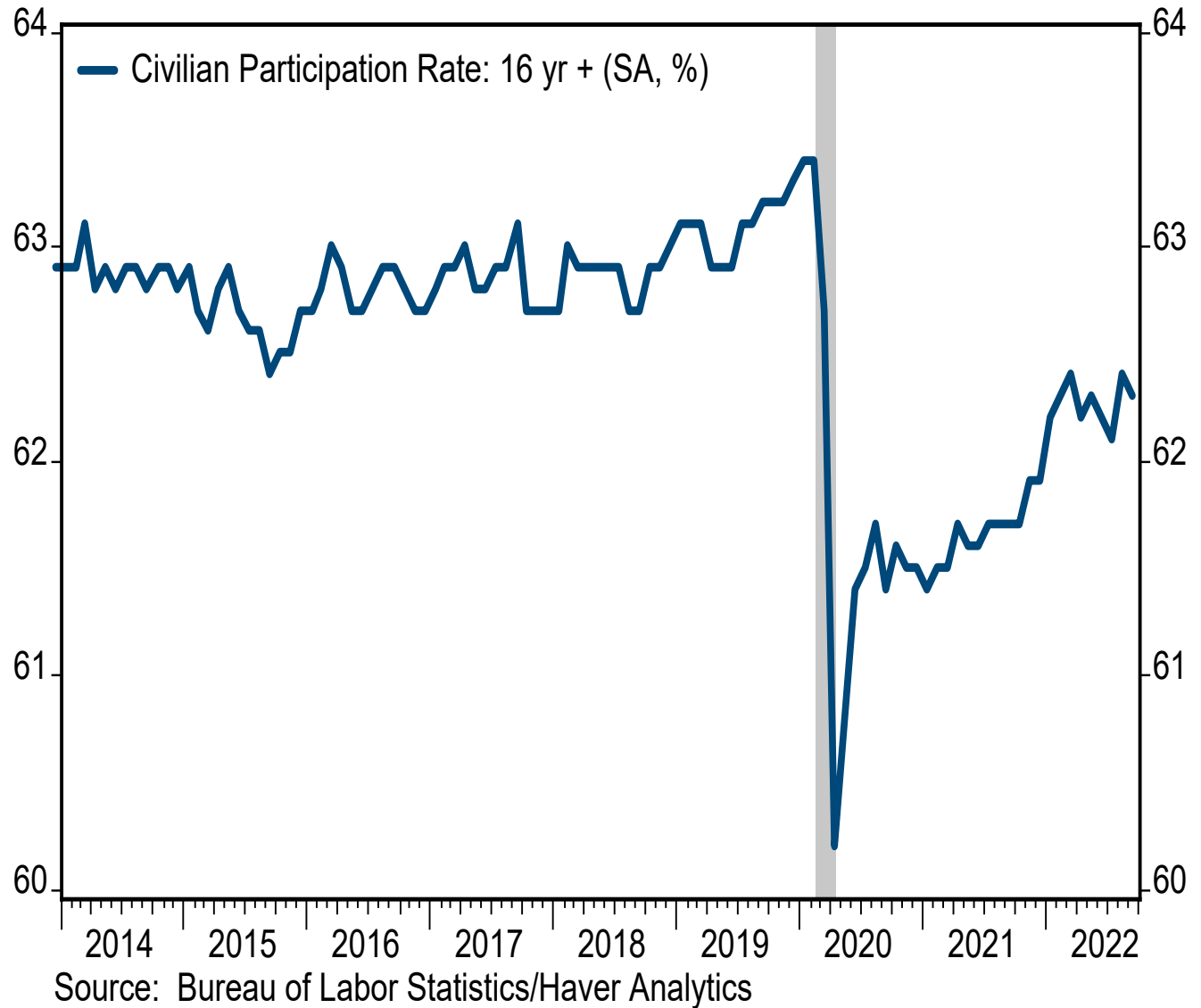
Source: Bureau of Labor Statistics/Haver Analytics

Participation Rate Stubbornly Low

The labor force fell by **57k** in September

The labor force participation rate fell from 62.4% to **62.3%** in September, a **two-month low** and further below the pre-crisis peak of 63.4%

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



Average Hourly Earnings Remain Solid

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

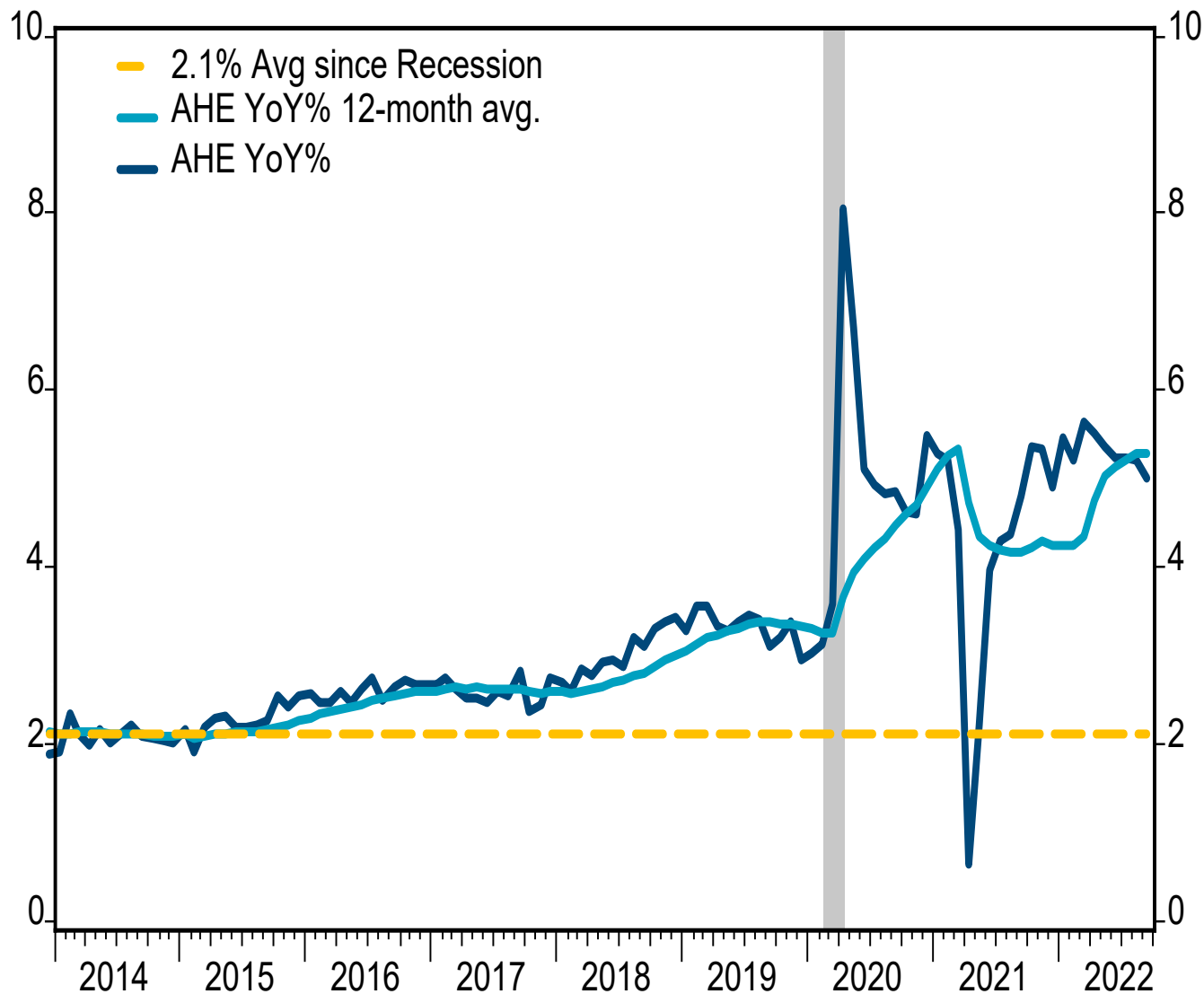
Average hourly earnings rose **0.3%** in September, following a similar increase in August

Year-over-year, wages rose **5.0%** in September, down from the 5.2% increase in August and further below a recent peak of 8.2% in April 2020

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



Source: Bureau of Labor Statistics/Haver Analytics

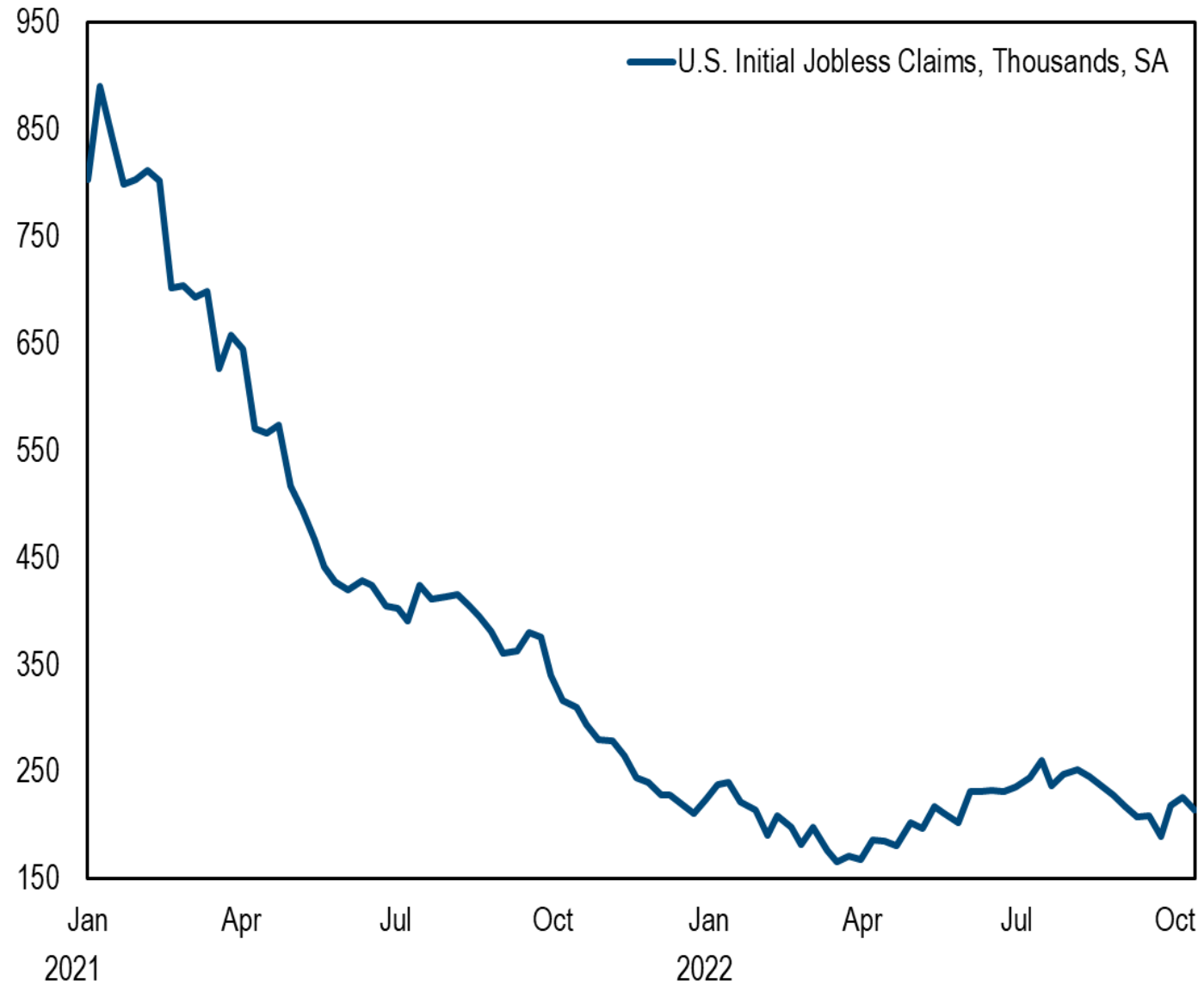
*Does not include government assistance

Jobless Claims on the Rise

Data remain uneven and cracks are beginning to emerge in the labor market

Sizable corporate layoff announcements, fewer job openings and rising jobless claims

Initial jobless claims fell to **214k**, jumping more than 15k in the past five months



Source: U.S. Department of Labor/Bloomberg

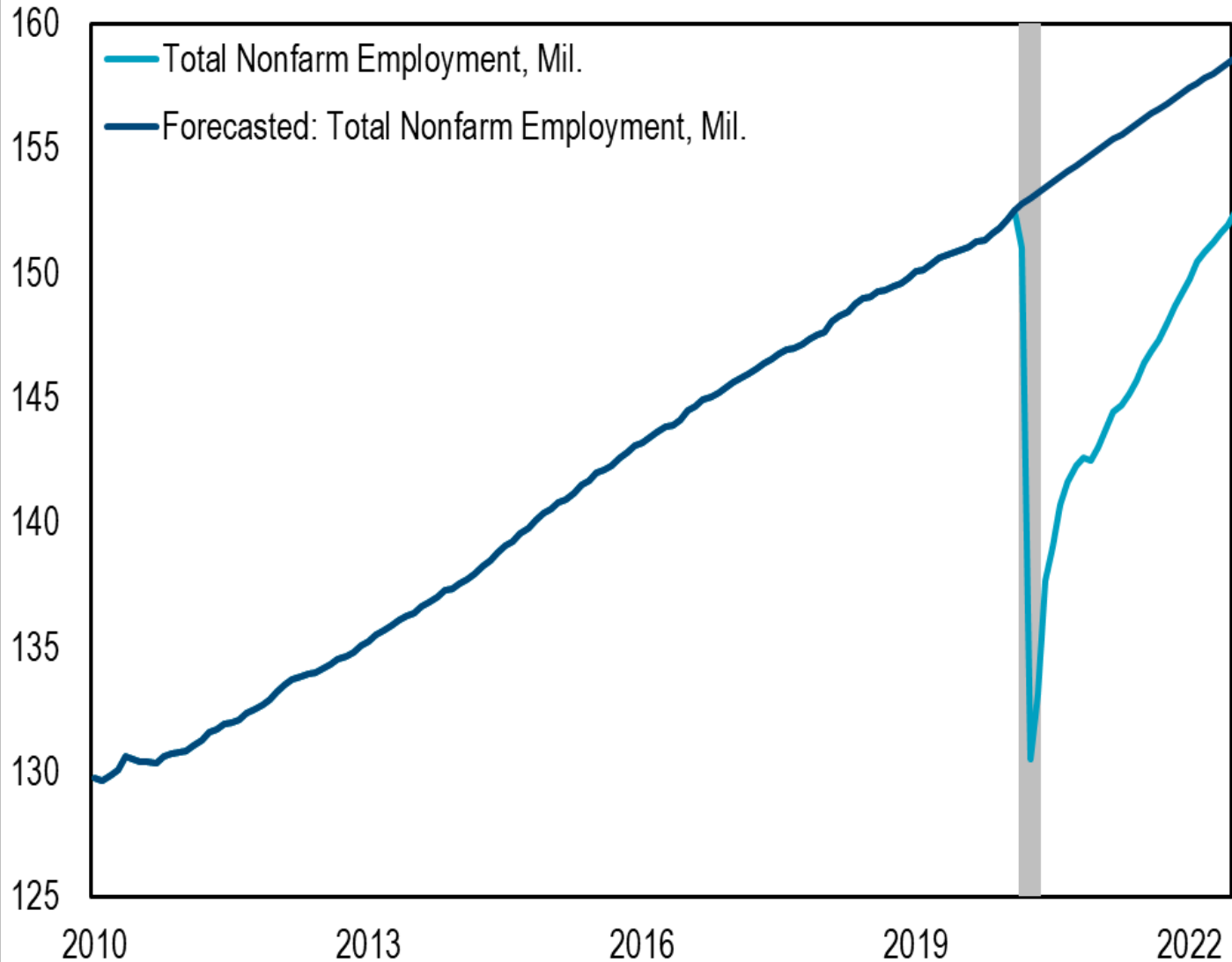
Total Employment Still Behind Pre-Covid Levels

While job creation remains solid, much of the improvement has been replacing jobs lost during the Covid-19 recession

Between March and April 2020, the U.S. lost 22M jobs

In July, the labor market finally recaptured all of the 22M jobs lost at the onset of the Covid-19 pandemic

Total nonfarm employment remains around **6.0M** jobs short of potential job growth at 153M as of September



Source: Bureau of Labor Statistics/Haver Analytics

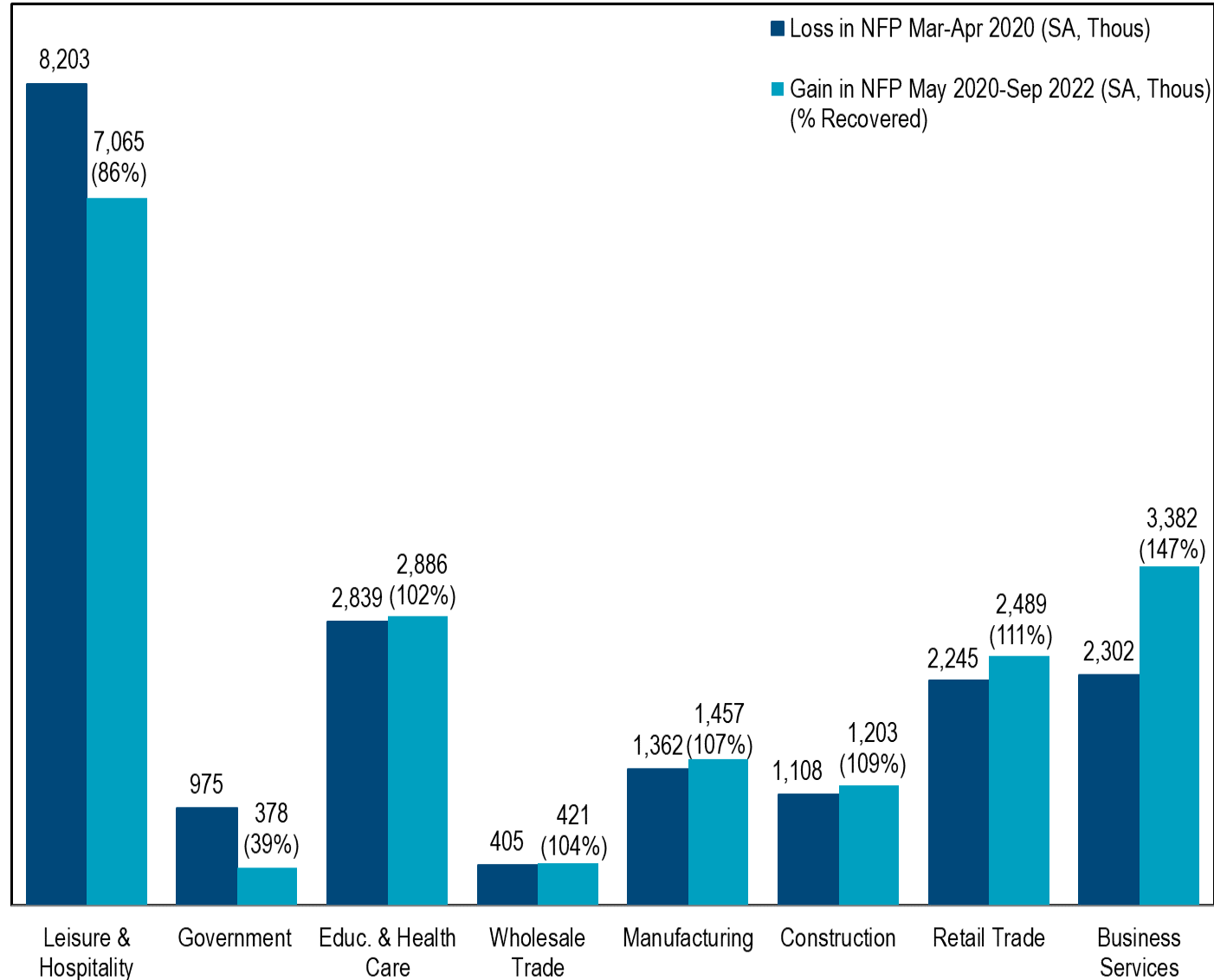
Hardest Hit Industries Still Struggle to Recapture Jobs

Labor market improvements have been uneven across sectors

Some of the hardest-hit sectors are still struggling to reconnect with customers, employees and supply chains, and thus, recapture lost jobs

The leisure and hospitality industry lost over **8M** jobs during the pandemic but has since recaptured over **7M** or **86%**

The hardest hit sectors have recaptured roughly 90% of lost jobs



Source: Bureau of Labor Statistics

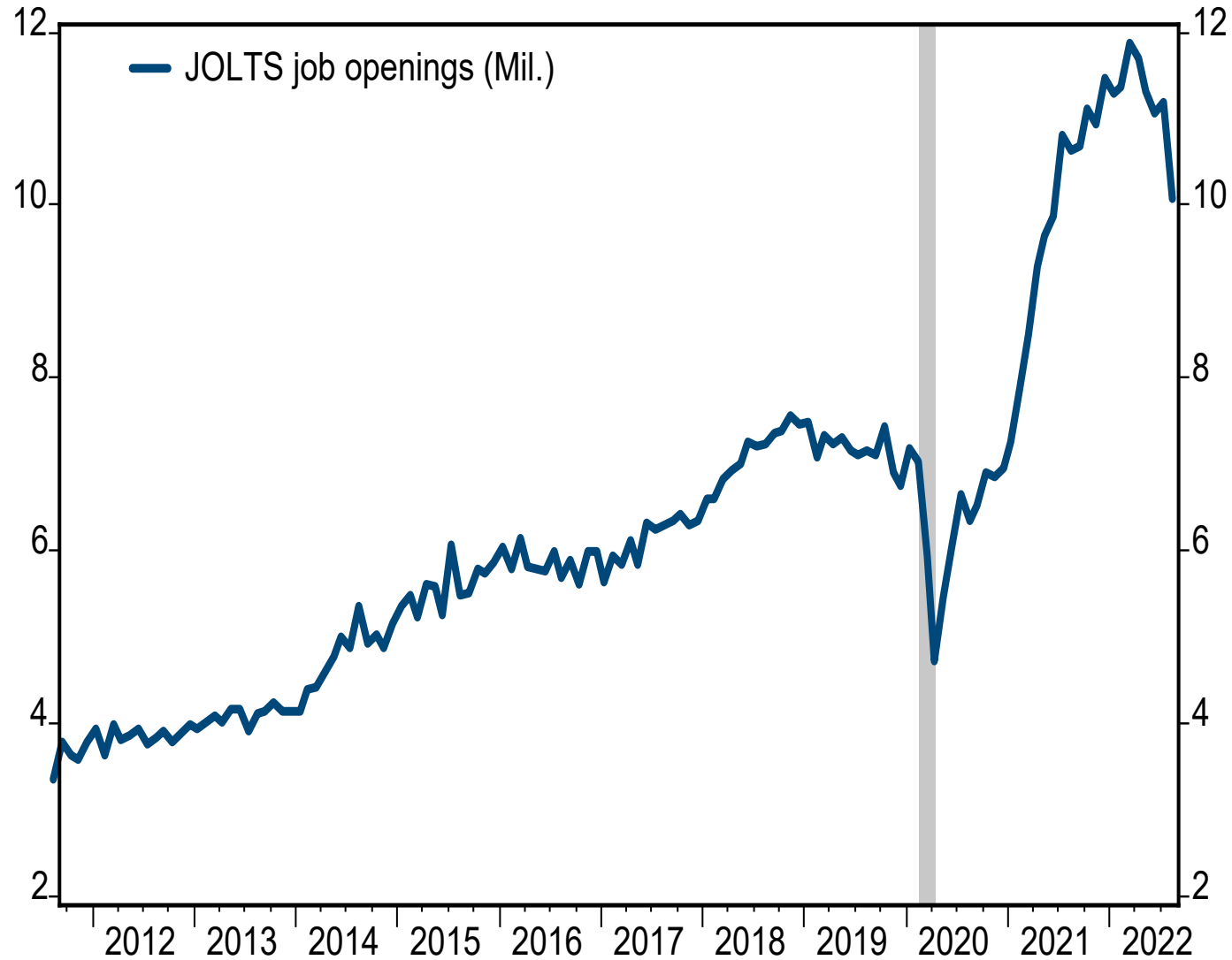
Labor Demand Outpaces Labor Supply

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 11.2M to **10.05M** in August

Still, the fourteenth straight month above 10M, suggesting producers remain desperate for workers to increase output and meet a still-heightened level of demand for goods and services

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



Source: Bureau of Labor Statistics/Haver Analytics

Where Have All the Workers Gone?

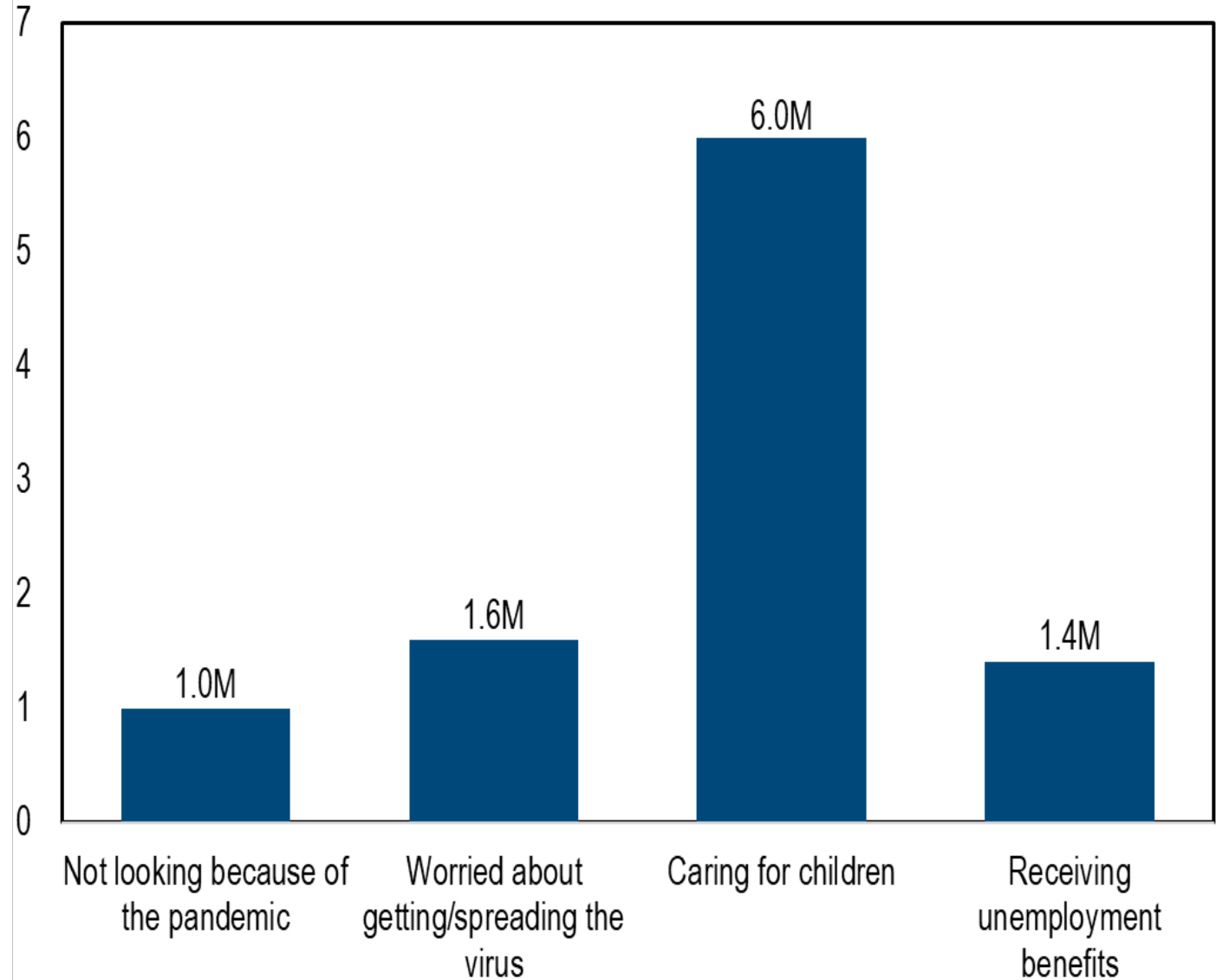
Some workers have lingering health concerns or ongoing health impacts resulting from the virus

Some face lingering childcare or elder care issues

Labor supply gap will be 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 Bureau of Labor Statistics, as of August, **1.6M** Americans report they remained sidelined due to *“worries about getting or spreading the virus”*

The Census Bureau reports that **6.0M** people are out of work because they were *“caring for children not in school or daycare”*



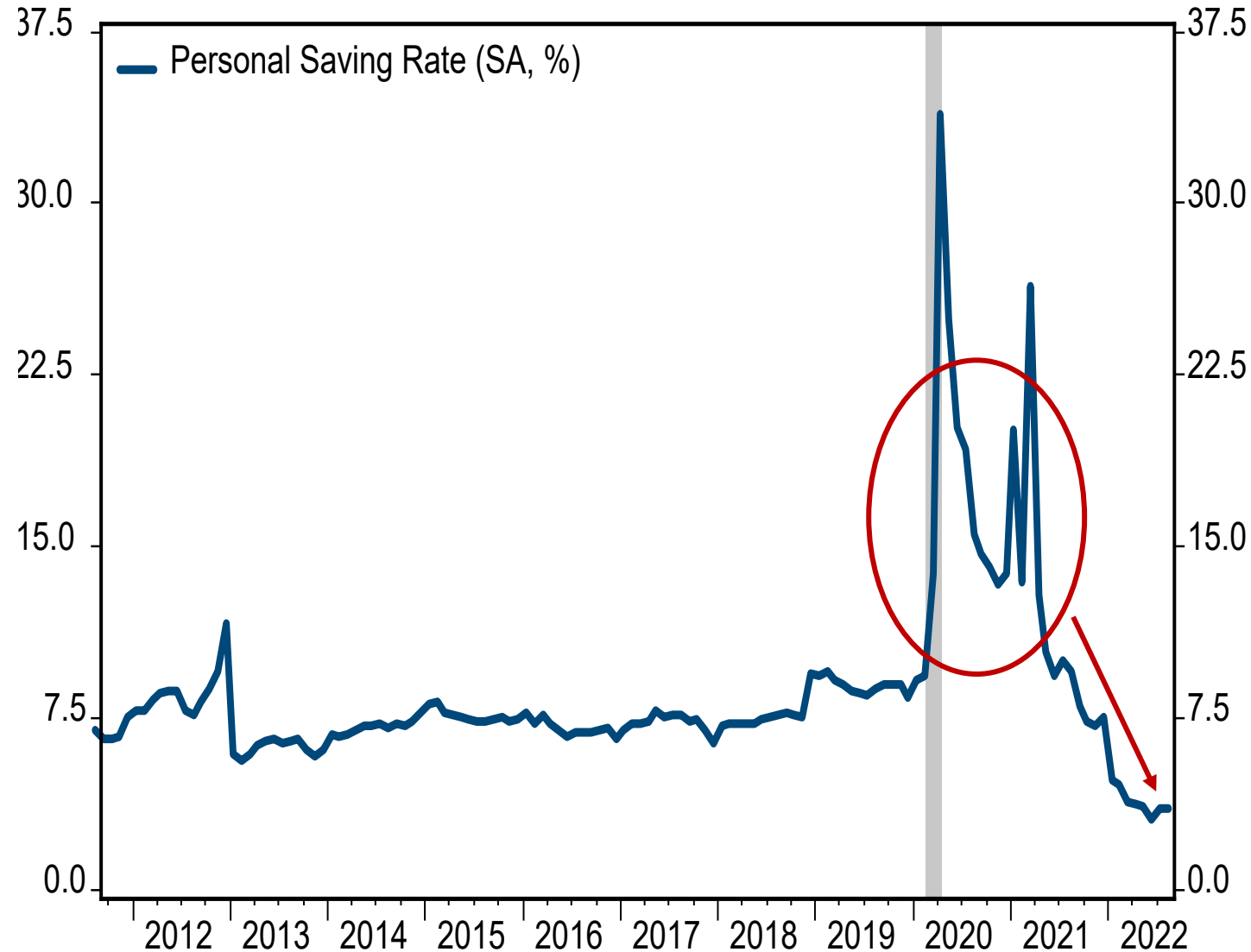
Source: Census Bureau/Bureau of Labor Statistics

Trillions in Accumulated Savings Dwindle

The U.S. consumer remains solid with **\$653B** in savings and a savings rate of **3.5%** as of August

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



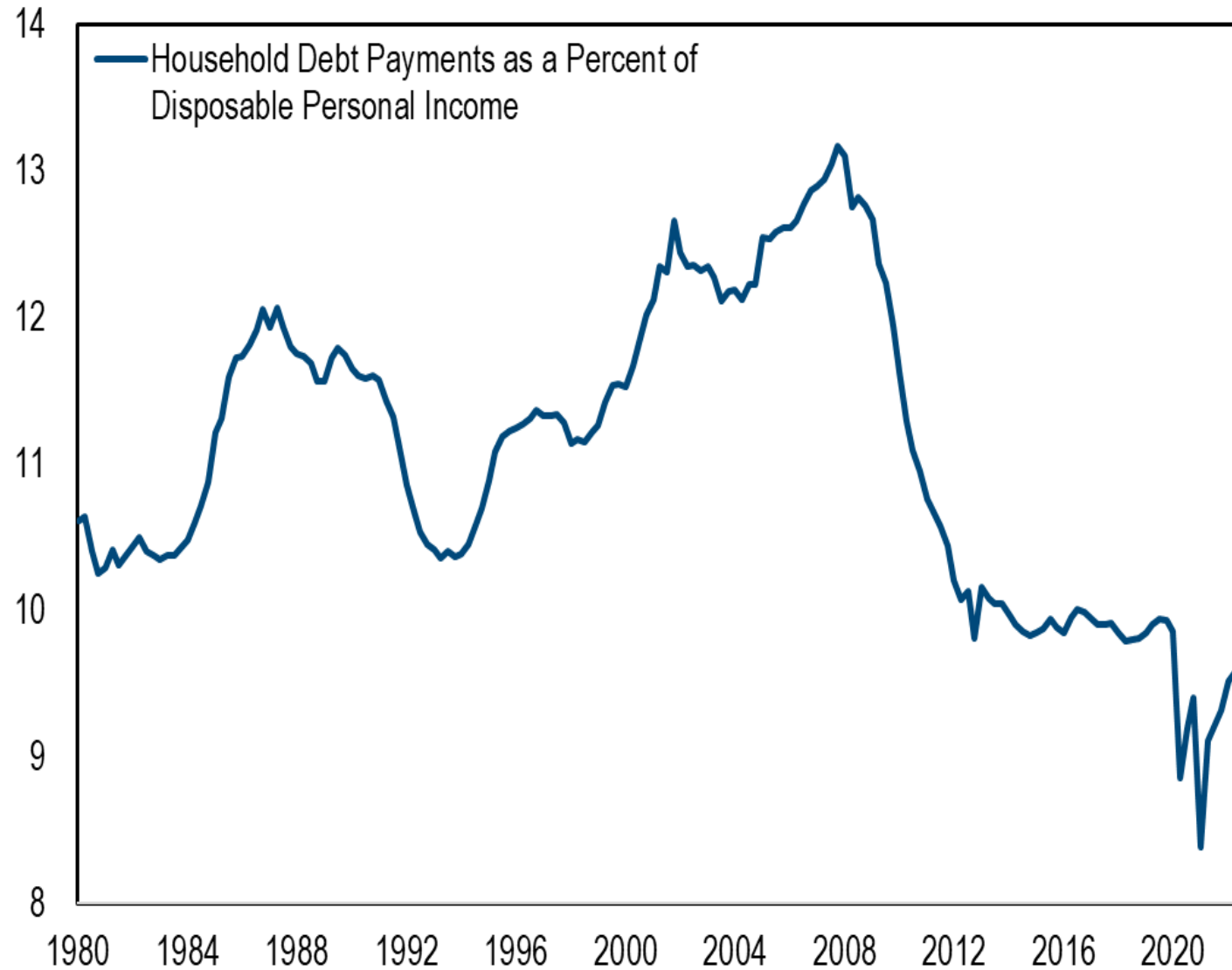
Source: Bureau of Economic Analysis/Haver Analytics

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 perpetuate their spending habits as fiscal support fades and savings dwindle

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

Debt as a percent of disposable income rose from 9.5% to **9.6%** in Q2, still near the lowest on record



Source: FRED

Stimulus Support to Consumption Wanes

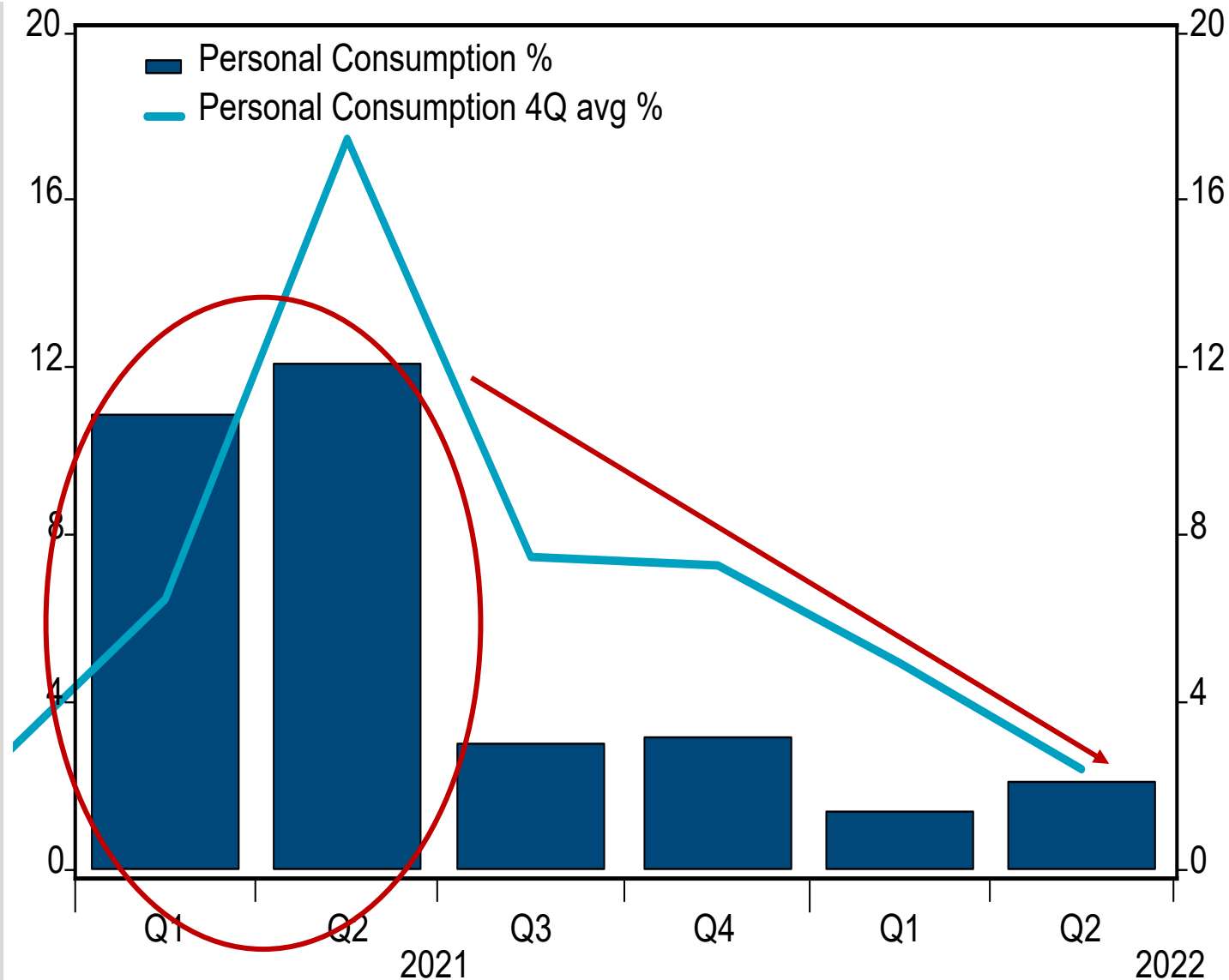
For some, the notion of a reduced or evaporated wealth cushion is causing an outright shift or reduction in spending habits

Consumer spending was robust at the start of the year reflecting pent-up demand and ample fiscal stimulus

Since then, however consumption has slowed, somewhat expected as fiscal support wanes

Personal consumption expenditures rose **2.0%** in Q2 2022, up from the 1.8% pace the quarter prior, but below the 12% pace in Q2 2021

On a four-quarter average basis, consumption fell from 4.9% to 2.4%, further below the record 17.5% pace in Q2 2021



Source: Bureau of Economic Analysis/Haver Analytics

Retail Sales Trending Lower

Retail sales were robust at the start of the year

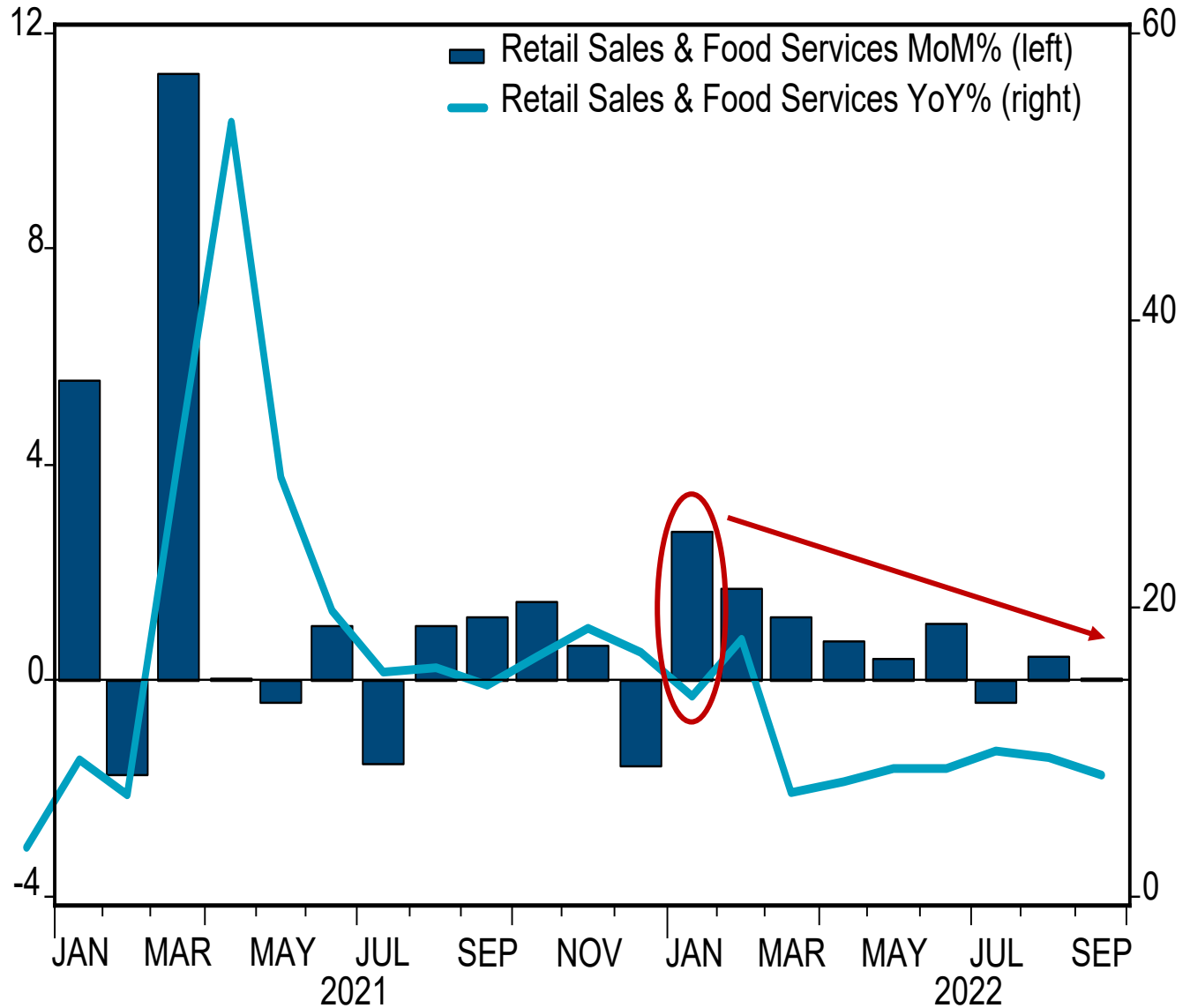
Sales rose **2.7%** in January, the strongest pace since March 2021 and following a 1.6% decline in December

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 were flat in September, following a 0.4% rise in August

Year-over-year, retail sales rose **8.2%** in September, following a 9.4% gain in August



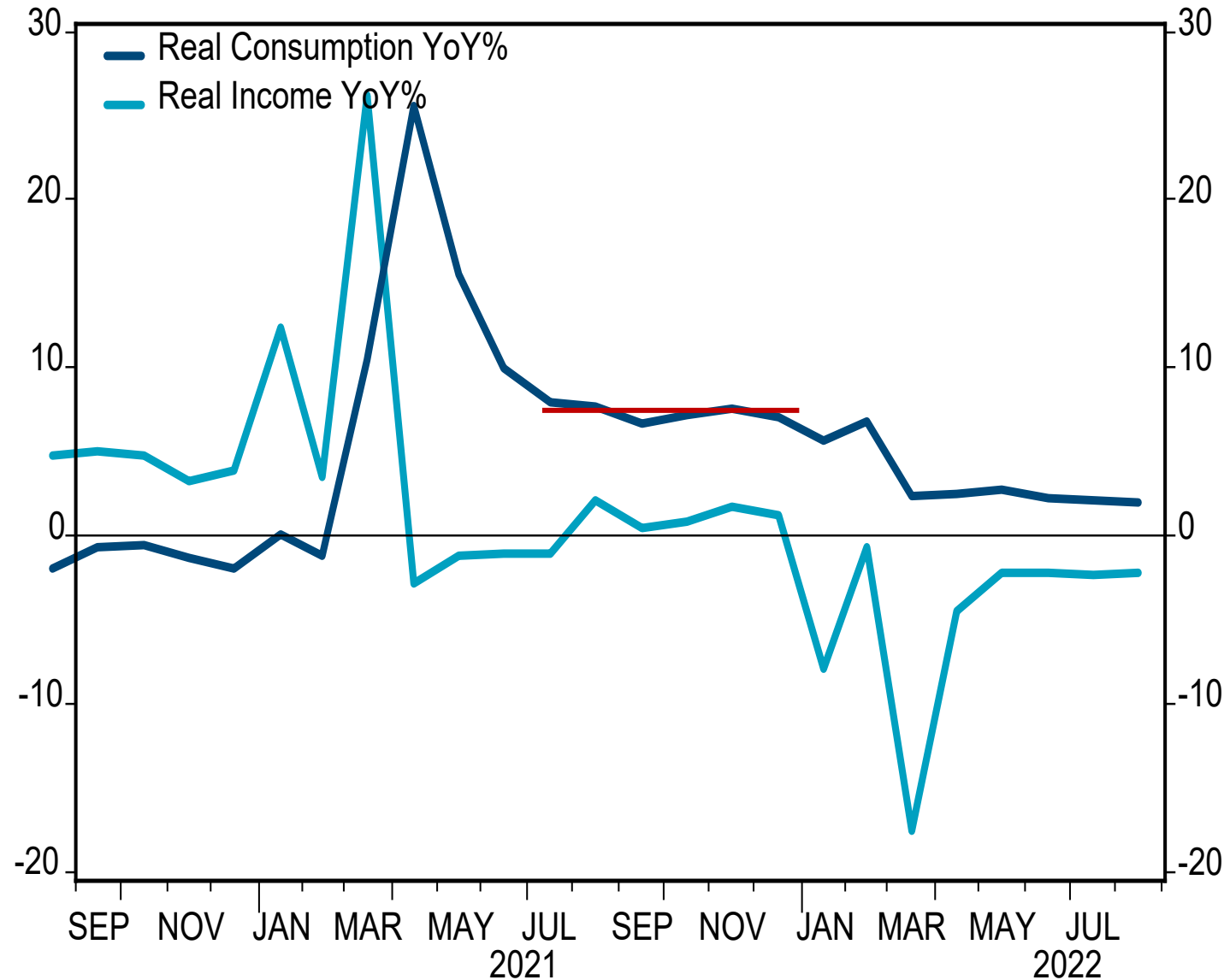
Source: Census Bureau/Haver Analytics

Real Consumption and Income Weak

Despite *nominal* wage growth, taking inflation into account, real income has remained in the red since March, **down 2.3%** as of August

Consumption remains positive – for now – but real spending is already trending lower

July real consumption rose **1.8%** over the past 12 months, a two-month high, but down from a trend pace of **7.3%** in 2021



Sources: Bureau of Economic Analysis/Haver Analytics

Manufacturing Activity Slowing

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

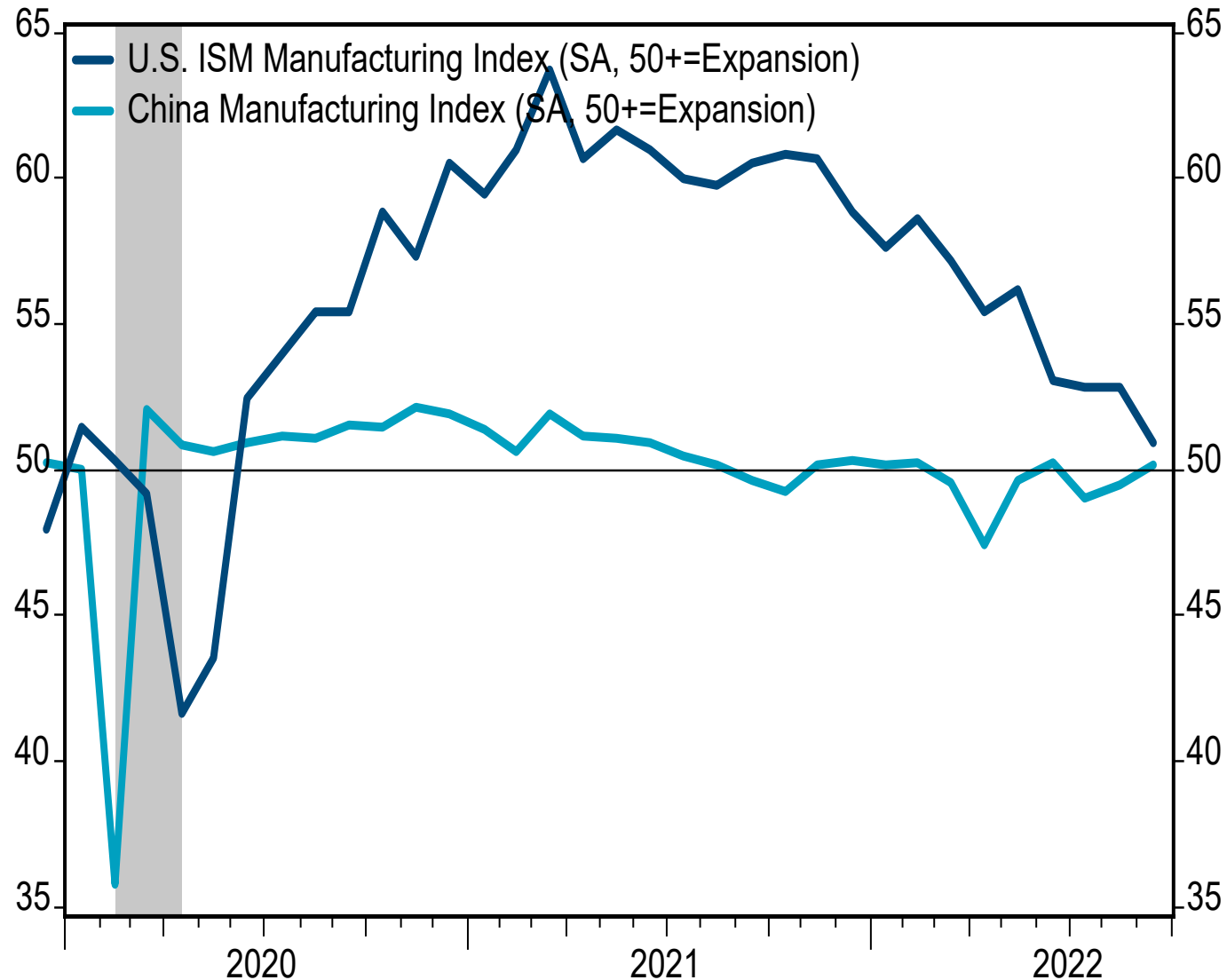
Producers face labor shortages and lingering supply chain disruptions which have improved but remain historically high

Shortages reported for lumber, tires, wire, etc. leading to extended wait times, higher prices and inventory complications

The ISM declined from a near-term peak of 60.8 in October 2021 to **50.9** as of September

The China Manufacturing PMI rose to **50.1** in September, bouncing along breakeven since June 2021

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



Sources: ISM, CFLP/NBS/Haver

Waning Demand for Housing

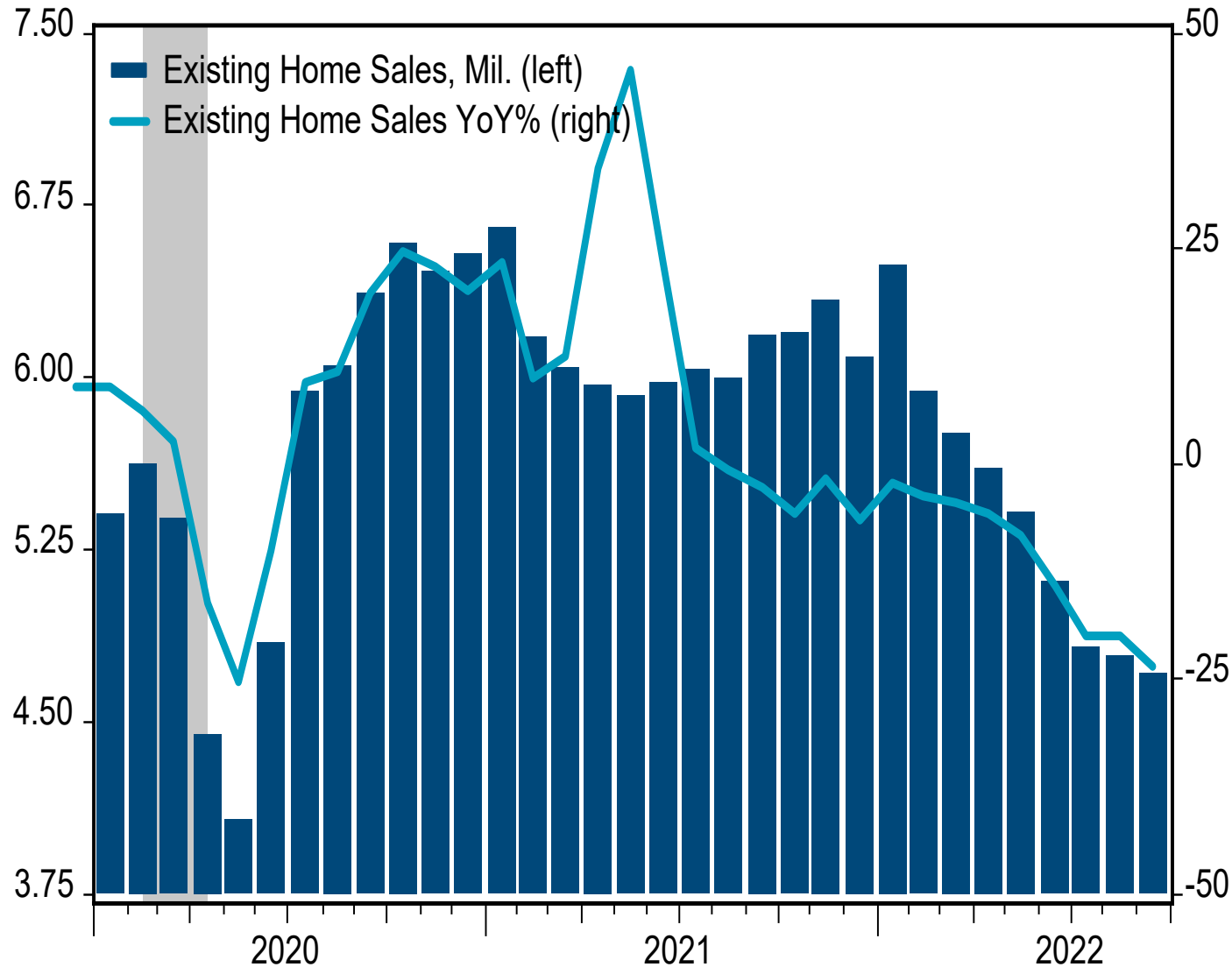
Americans view their home as a workplace, school and refuge

Home sales surged during the pandemic and immediate aftermath

Sales rose 6.6% at the start of the year, reaching a peak pace of 6.49M 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 dropped 1.5% in September to a **4.71M** unit pace, down 27% from a recent January peak



Source: National Association of Realtors/Haver Analytics

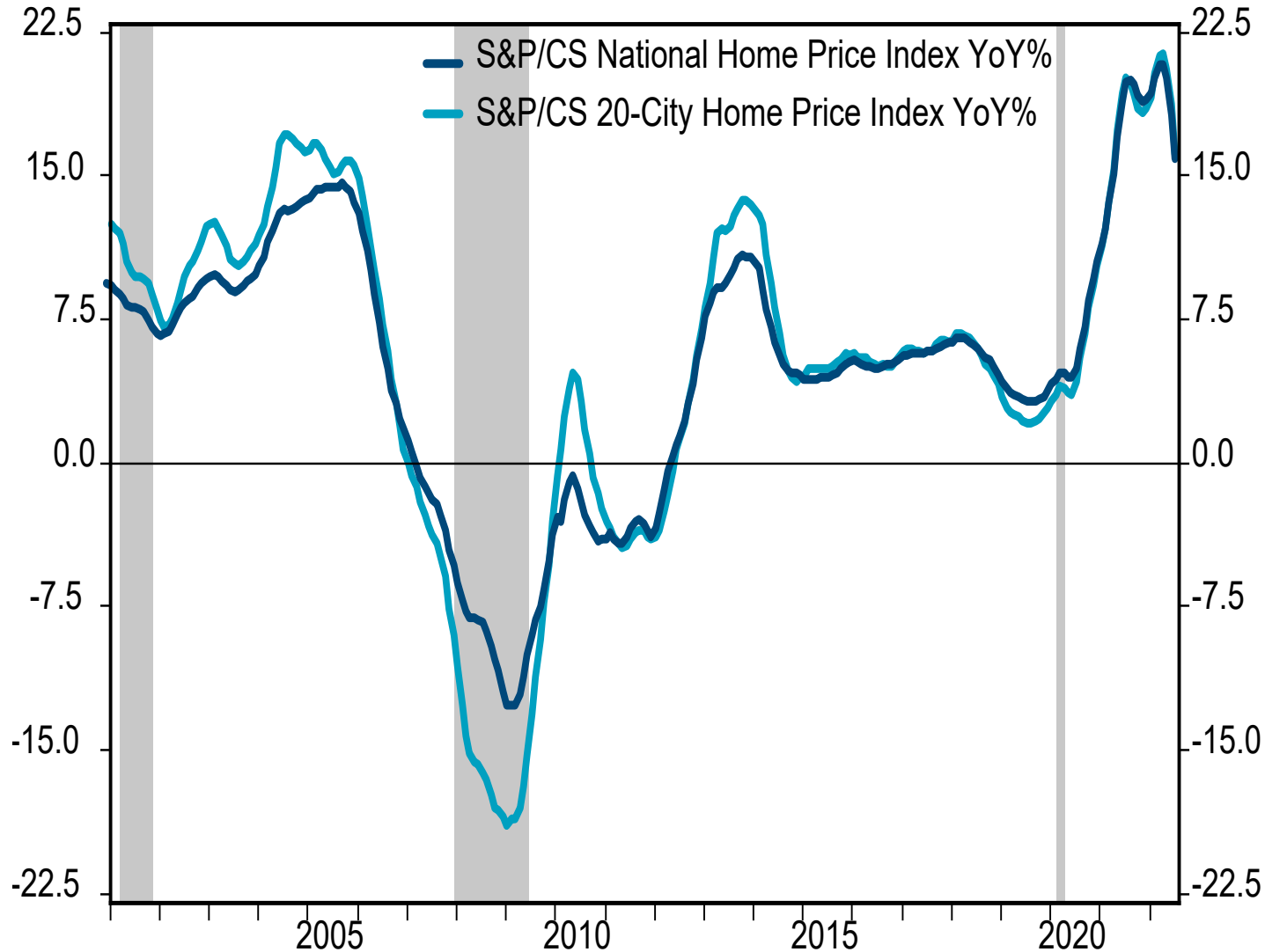
Home Prices Still Elevated

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

Year-over-year, the 20-city home price index rose **16.1%** in July, down from the 21.3% peak in April, the largest gain on record

Nationally, home prices rose **15.8%**, following a 18.1% rise 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



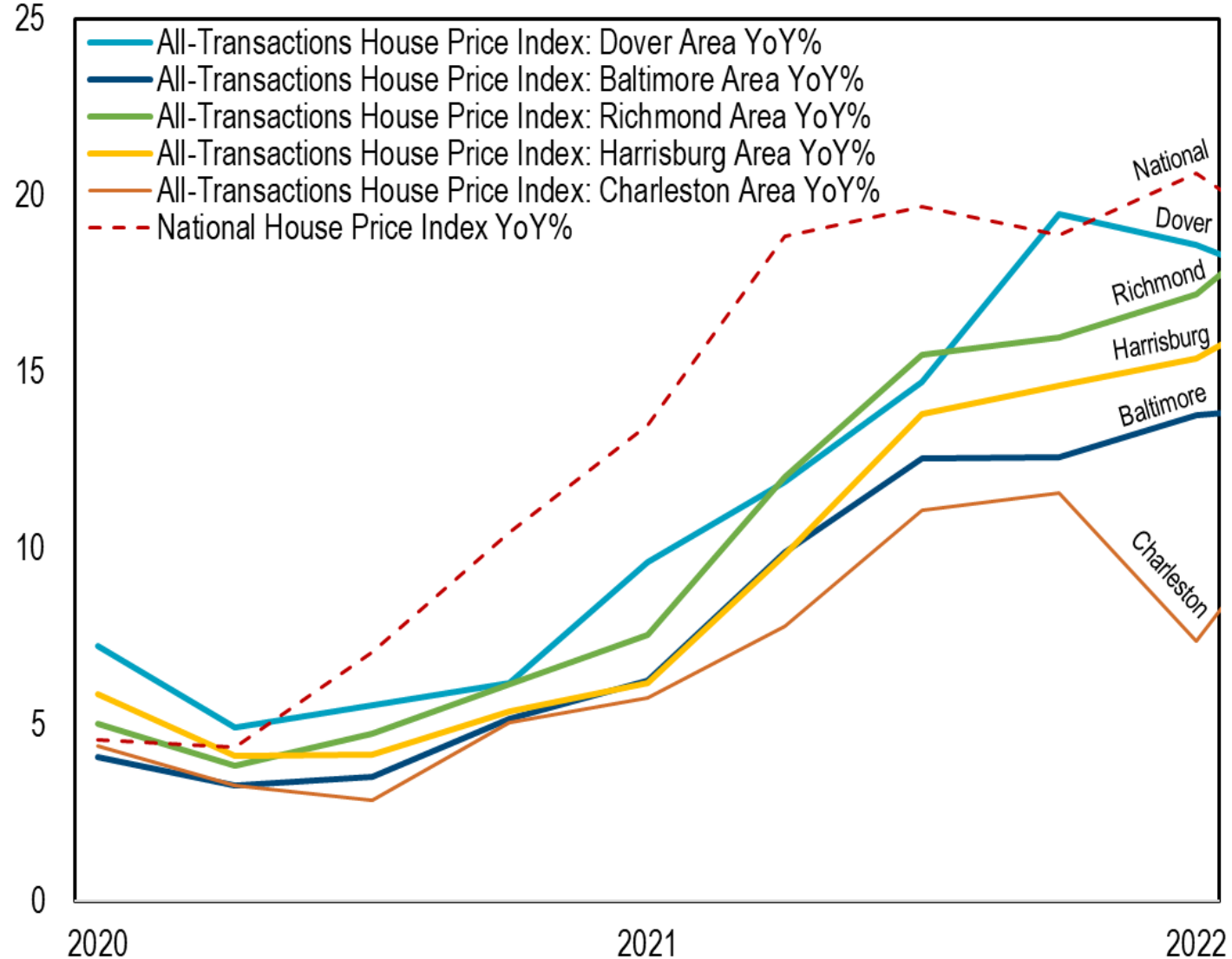
Source: Standard & Poor's/Haver Analytics

Home Prices Still Elevated... But Slowing

House prices in the Dover are up 17.0% in Q2 2022, down from 18.6% in Q1 and further below a near-term peak of 19.5% in Q4 2021

In the Harrisburg area, house prices are up 17.5%, while house prices in the Richmond area are 20.4% more expensive

Home prices in the Charleston, WV area, meanwhile, are up 12.5% in Q2 2022, and Baltimore area house prices are up 14.1% as of Q2 2022



Source: FRED

\$1.2T Infrastructure Plan

Continued uncertainty creates an opportunity for officials in Washington to ramp up spending in the name of economic growth, job creation and taming inflation – despite further inflationary implications

After months of negotiations and a standoff between progressive and moderate Democrats, the **\$1.2T** package of road, broadband, and other *"hard"* infrastructure improvements passed in November

Key items include:

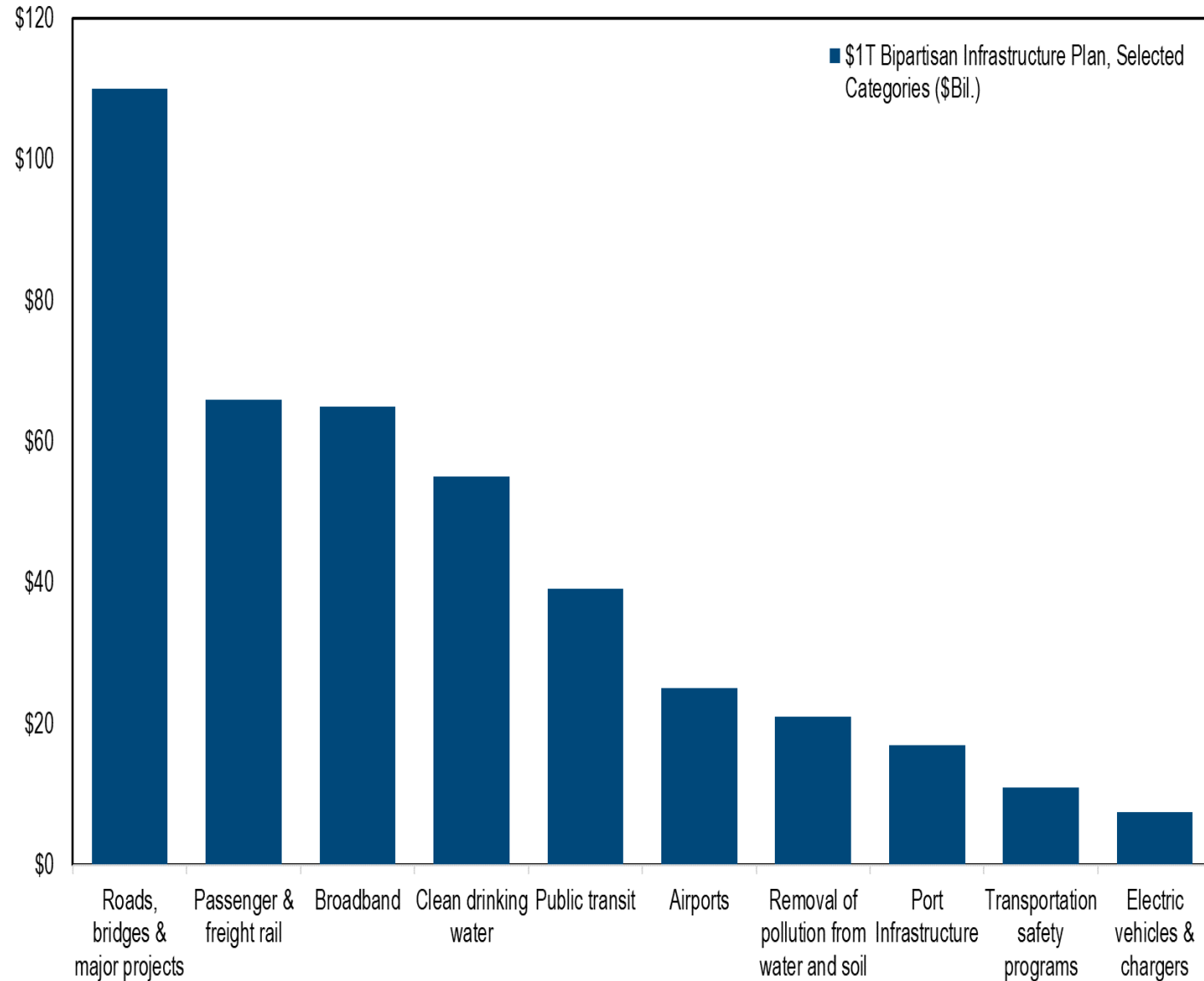
\$110B for roads & bridges

\$66B for passenger & freight rail

\$55B for clean drinking water

The five-year spending initiative will have a limited impact on growth in near-term

In the SOTU, President Biden continued to push for BBB at \$1.75T



Source: Reuters/NPR

Advocates Argue

- The package will serve to reduce the deficit by limiting tax fraud and increasing tax revenues from corporate America
- Increase spending to combat climate change
- Allow the government to negotiate certain drug prices

Opposition Suggests

- The legislation will simply result in tax increases on most households
- The legislation would fail to bring down inflation with some arguing the legislation may exacerbate inflation pressures by handing out more federal dollars to American households resulting from elevated tax collection from the private sector

Bipartisan Analysis Concludes

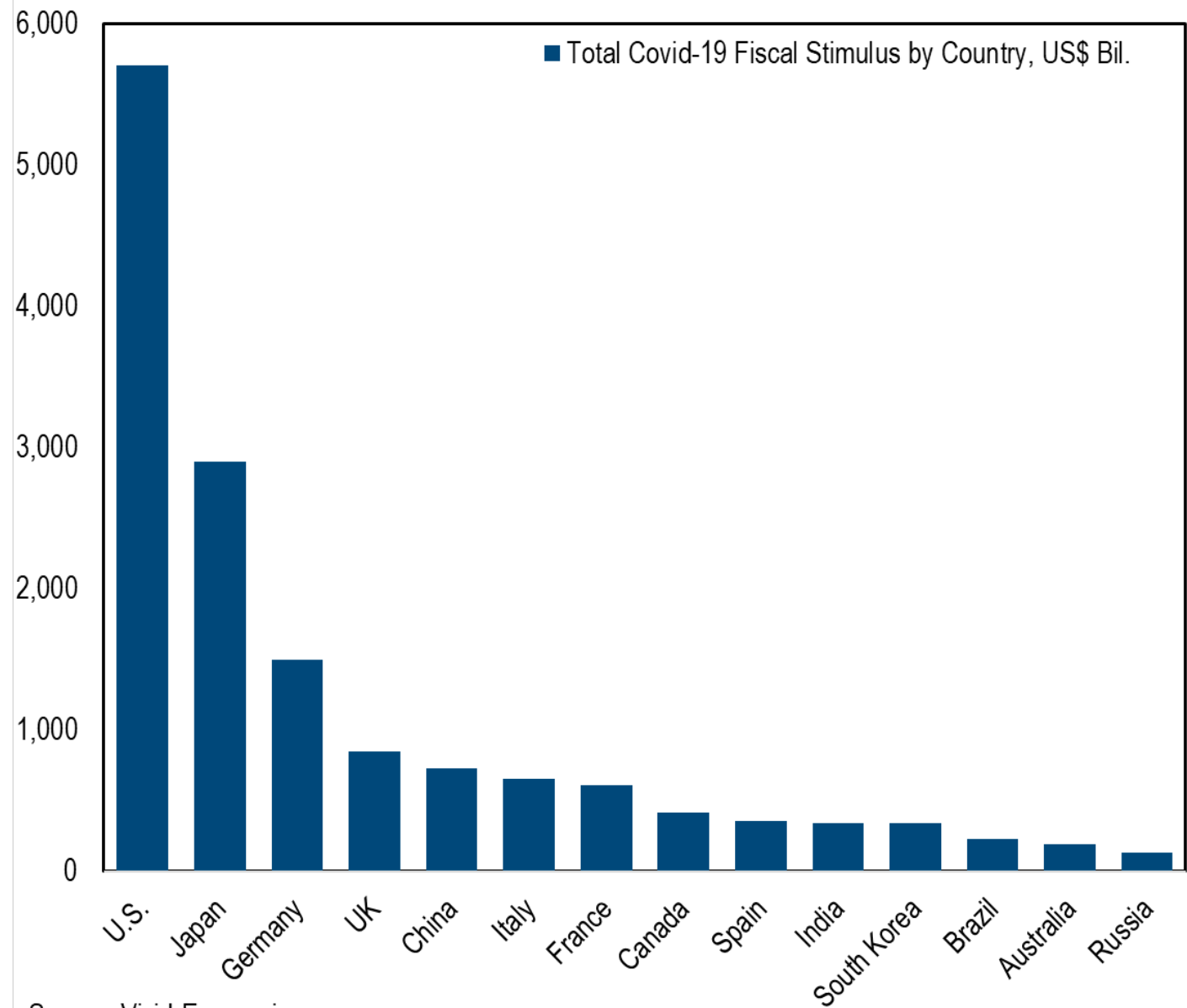
- According to initial estimates, the measure could reduce the deficit by about \$102B over the next 10 years
- Although, other analysis suggests the act would slightly increase inflation until 2024
- The bill passed in the Senate on August 7 and passed in the House on Friday, August 12

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



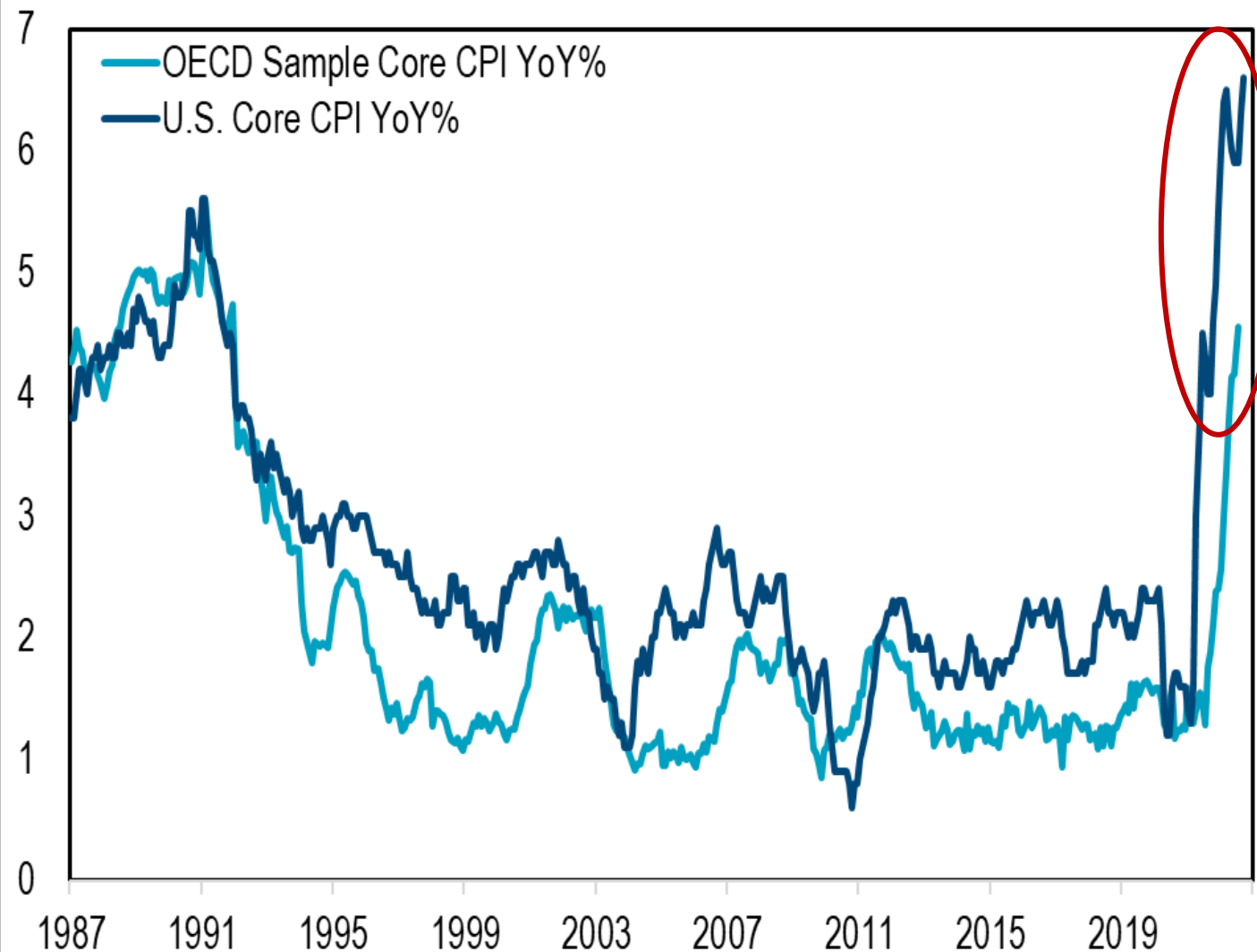
Source: Vivid Economics

U.S. Inflation Higher than Abroad

Countries are reeling from supply-side constraints

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

U.S. inflation continues to outpace other countries, rising **6.6%** as of September vs. **4.6%** elsewhere in the developed world



Source: FRED

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

Rate Expectations Materially Increased

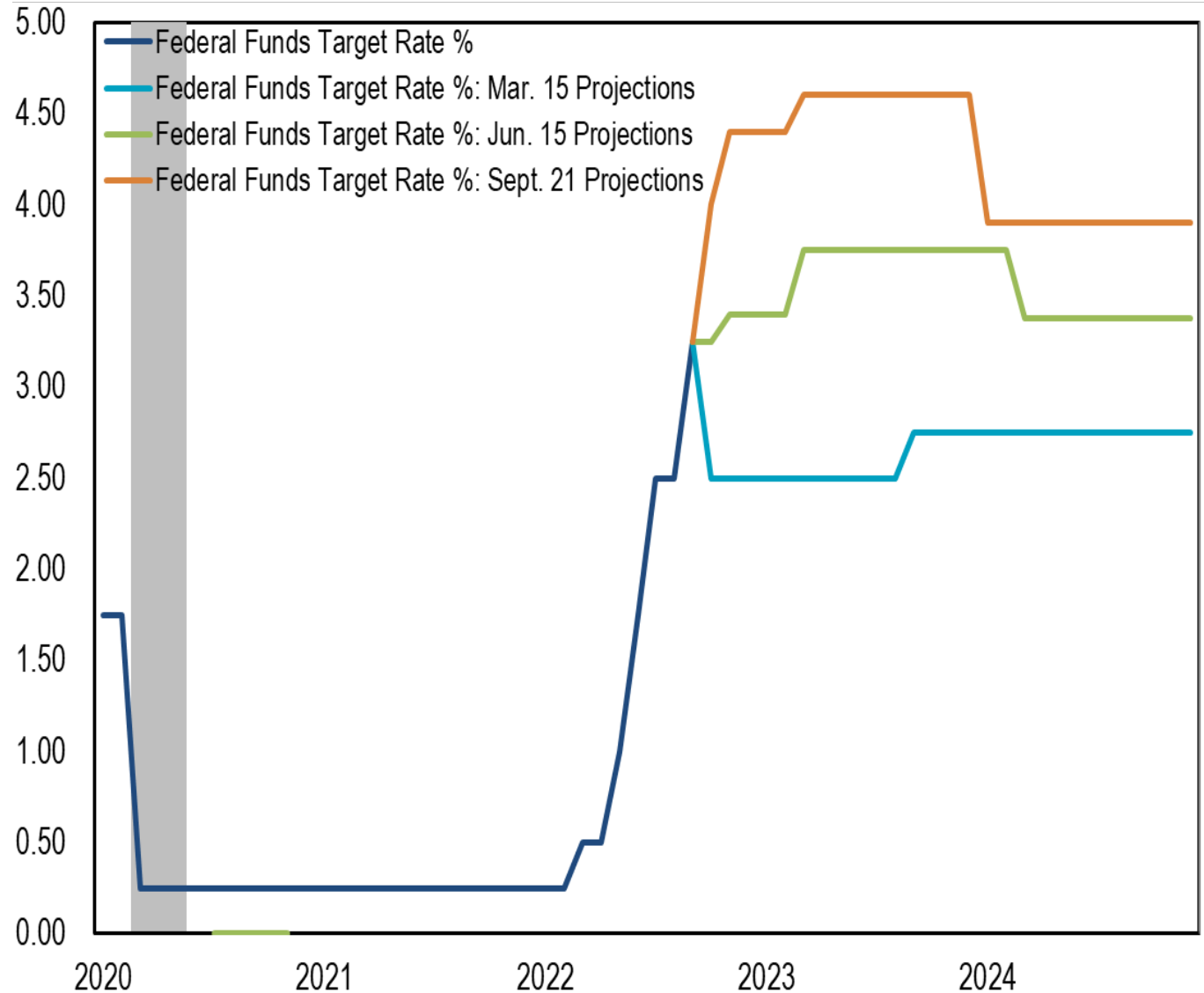
In March the Fed took a decisively more hawkish position

The Fed raised rates, **25bps** in March, **50bps** in May, and **75bps** in June, July and September reaching 3.00-3.25%

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

According to the September 2022 FOMC dot plot, members now expect the target rate to reach near **4.4%** this year and around **4.6%** next year

In June, the SEP showed expectations for **3.4%** in 2022 and **3.8%** in 2023

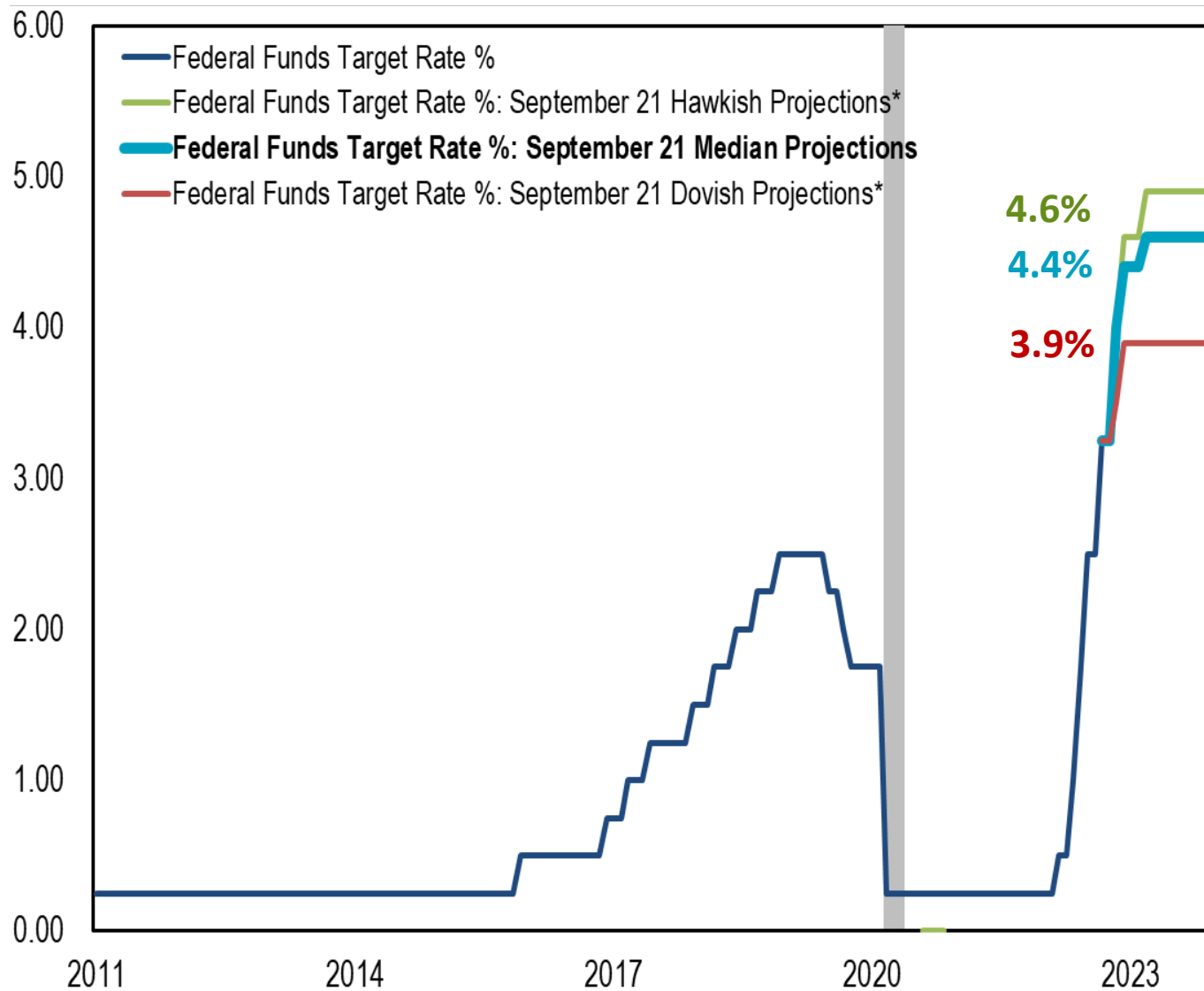


Source: Federal Reserve Board/Bloomberg

An Array of Policy Opinions Among Fed Members

The array of opinions among policy makers is still quite large

The more dovish members are forecasting a federal funds rate of closer to **3.9%** by year-end while hawkish members are forecasting around **4.6%** by year-end



Source: Federal Reserve Board/Bloomberg

*Median projections based on Sept. Dot Plot

“Too High” Inflation Motivation for Hawkish Fed

“Too high” inflation motivation for Fed policy directive

Labor and wage gains “solid,” however, inflation has become more “broad-based”

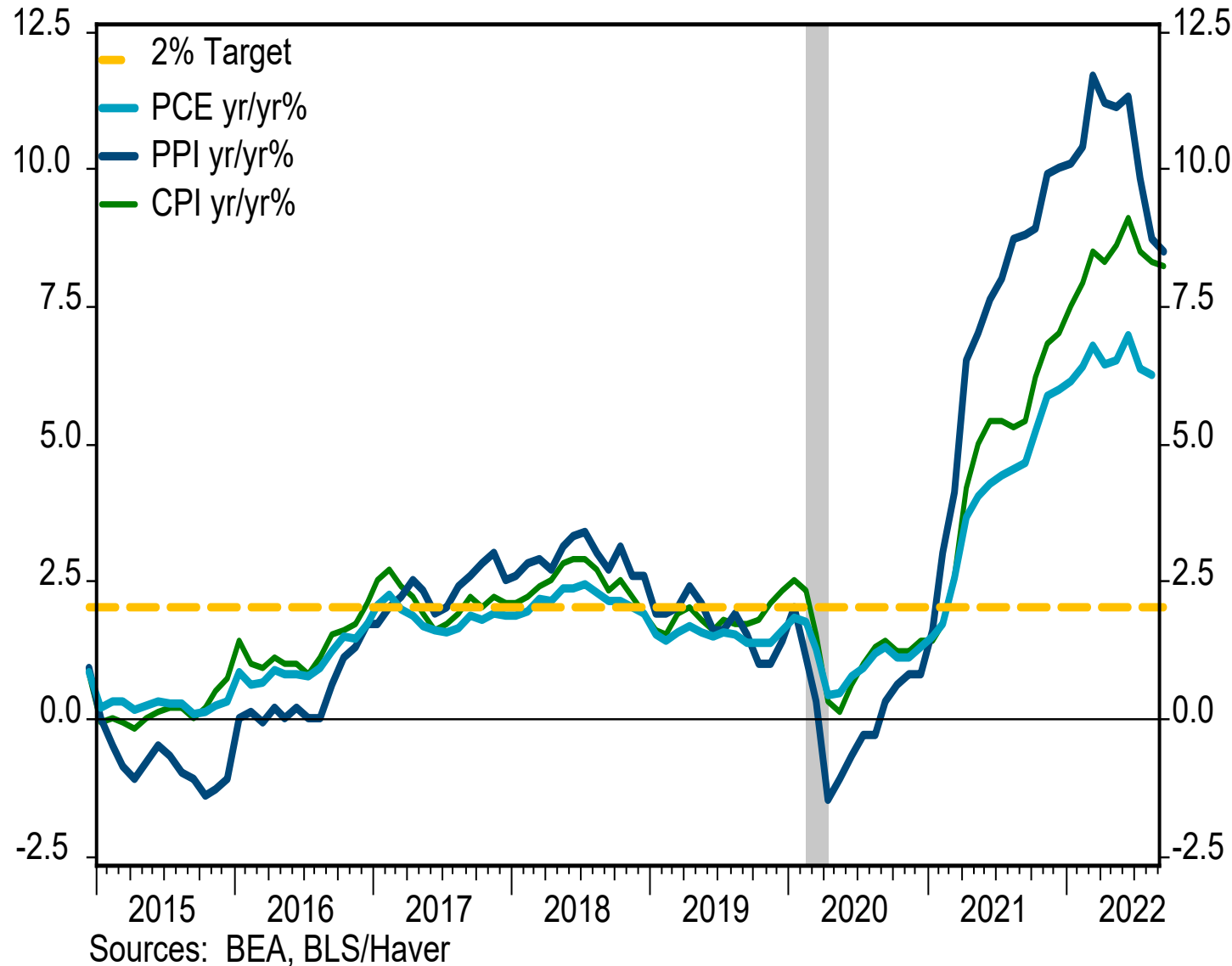
Even with recent reprieve, the CPI is up **8.2%** and the PPI is up **8.5%** as of September

The PCE rose **0.3%** in August and rose **6.2%** YoY, down from the 6.4% pace in July

The core PCE rose **0.6%** in August and rose **4.9%** YoY, up from the 4.7% pace in July

Inflation had fallen short of the Fed’s 2% target for nearly a decade

However, in 2021 alone, inflation averaged 3.7%



Inflation by Category

| | MoM% | YoY% |
|-----------------|------|------|
| CPI | 0.4% | 8.2% |
| Core CPI | 0.6% | 6.6% |
| PPI | 0.4% | 8.5% |
| Core PPI | 0.3% | 7.2% |

The cost of gasoline continues to rise, up **18%** over the past 12 months, with other housing materials such as paint and heating equipment up **23%** and **14%** over the past 12 months, respectively

The cost of animal feed and certain foods has also increased with animal feeds up **16%**, eggs up **31%**, and pork prices up **7%** from a year ago in September



Gasoline: **18.2%** YoY



Used Cars & Trucks: **7.2%** YoY



Asphalt: **43.3%** YoY



Prepared Paint: **23.3%** YoY



Lumber: **-7.0%** YoY



Heating Equip.: **14.0%** YoY



Animal Feeds: **15.8%** YoY



Pork: **6.7%** YoY



Eggs: **30.5%** YoY



Mixed Fertilizer: **18.2%** YoY
Source: Haver Analytics



Cereal: **17.7%** YoY



Corn: **36.5%** YoY

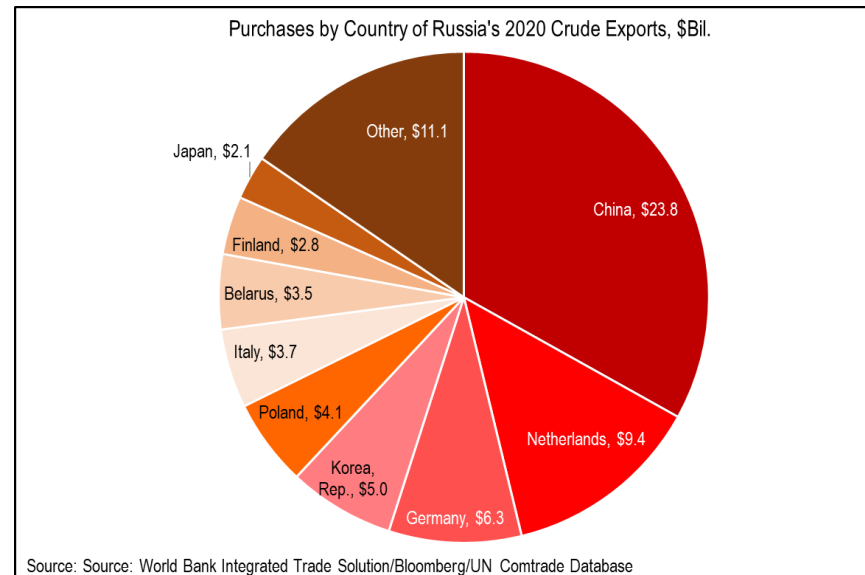
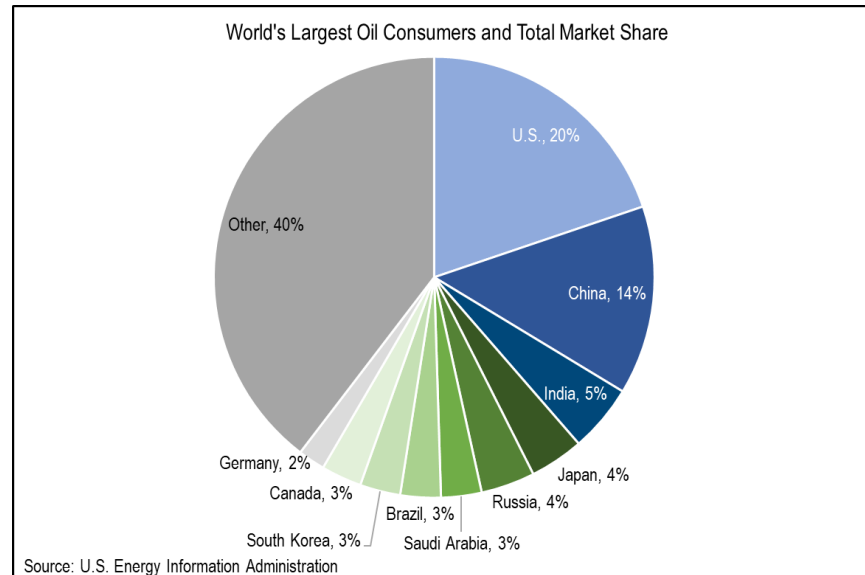
Oil Prices Impacted by International Factors

Russia is the world's **third largest oil producer** behind only the U.S. and Saudi Arabia

While Russia accounts for 3% of U.S. crude oil imports and roughly 1% of total crude oil processed by U.S. refineries, **Russian exports account for nearly 25% of the European Union's crude, 40% of its natural gas, and 46% of its coal imports**

In May, the European Commission, the executive arm of the EU, announced new sanctions including a phase-out of all Russian crude oil imports within six months and refined products by the end of the year. According to European Commission President Ursula von der Leyen, the process of untangling the EU from reliance on Russian energy will not be easy, but is a necessary step. Leyden also indicated that during this process officials would work to minimize the collateral damage *"to us and our partners around the globe."*

Oil prices are at \$85.11 a barrel as of October 21, down from a near-term high of \$123.70 on March 8



Agricultural Impact of Russia-Ukraine War

Ukraine is considered the breadbasket of Europe with 70% of land agricultural

Ukraine is the **fourth-largest exporter of maize** globally – behind only the U.S., Argentina and Brazil – accounting for 13% of the world’s total maize exports

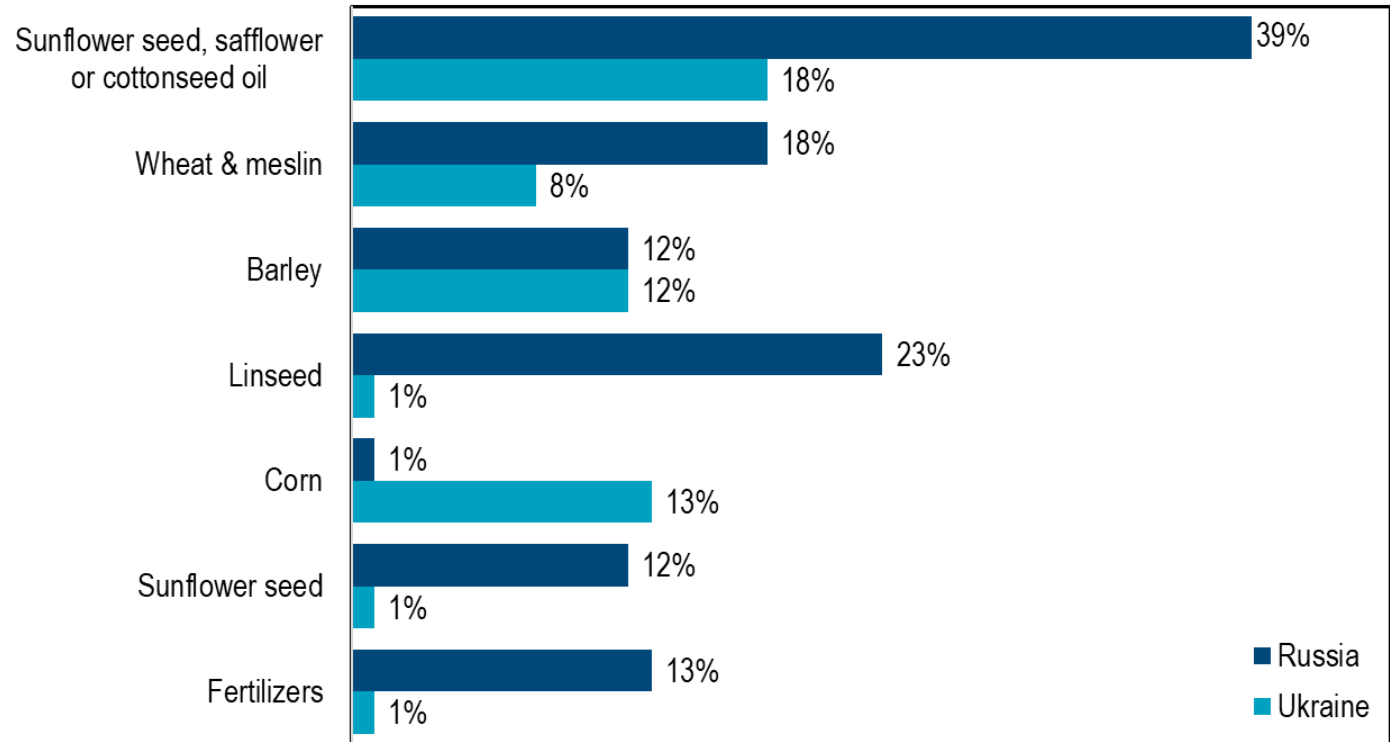
Ukraine is the **fourth-largest exporter of barley**, accounting for 12% of total world exports, and the **fifth-largest exporter of wheat and meslin**

Ukraine is the **largest exporter globally of sunflower seeds and sunflower oil**, which is the fourth most-consumed vegetable oil in the world

Russia is a **leading exporter of wheat and meslin**, exporting \$7.9 billion worth in 2020, or roughly 18% of global exports

Russia is the **sixth-largest producer of corn**, accounting for 2.3% of the world’s exports

Russia & Ukraine Share of Total Global Exports in 2020, %*



Source: International Trade Centre

*Exports shown are those with a combined share over 10% of 2020 export

Cost of Staples Elevated

Prices were already on the rise after Covid-19, international conflict is adding pressure

Commodity prices have cooled amid fears of slowing global growth but prices are still elevated

Wheat costs are up 10% since the start of the year and oil is up 13%

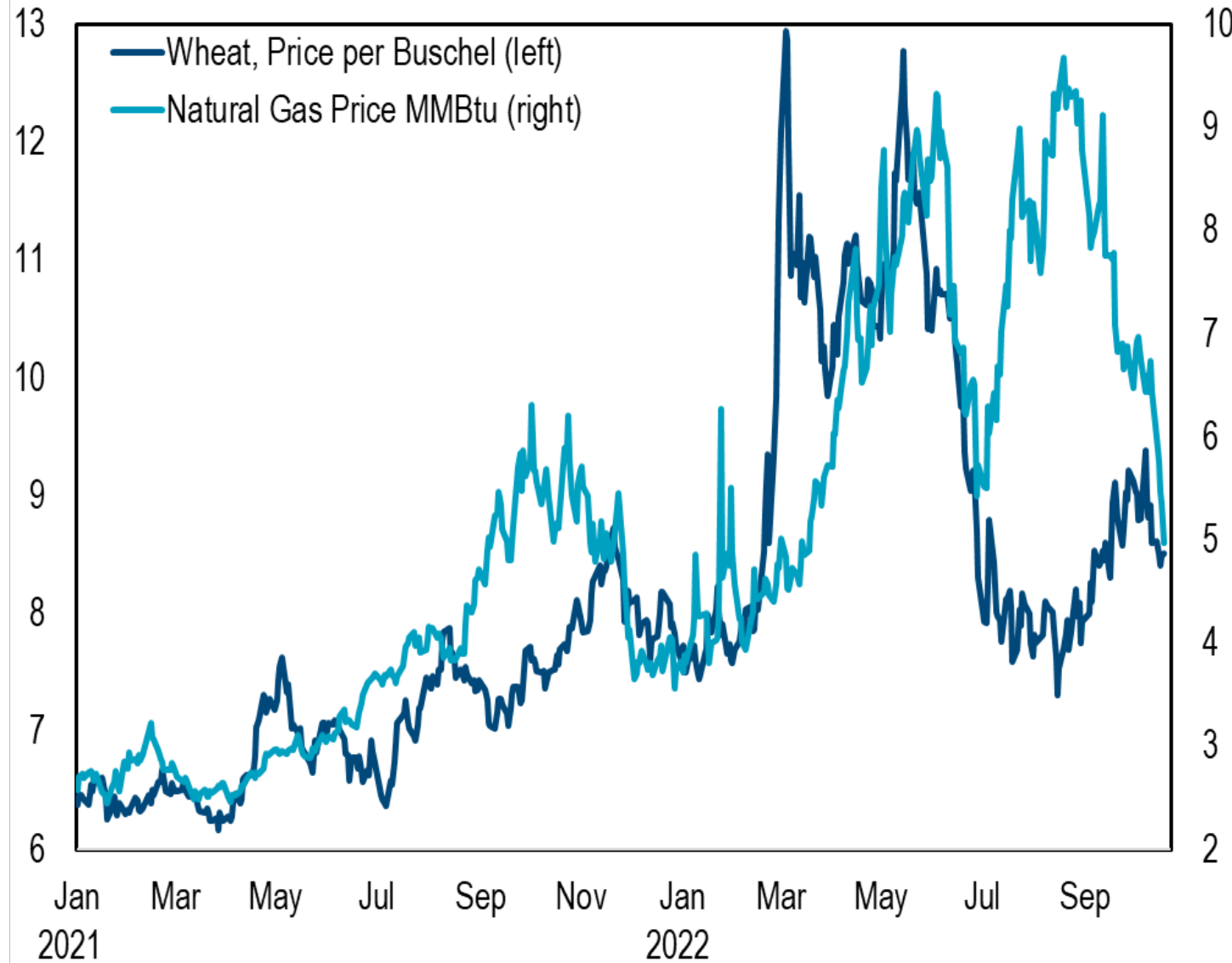
The cost of staples – bread, pasta, and flour – remains elevated as the world faces uncertain grain stockpiles, although shipments have resumed

Gas prices are down from a peak of \$5.02 to **\$3.82** a gallon as of October 21, up 13% from this time last year

The fastest way to derail consumer is heightened energy prices, but there is no alternative for food supply

Natural gas prices are at **\$4.98**/MMBtu as of October 21, down from a \$9.68 peak in August

Oil prices have fallen 31% from a peak of \$123.70 in March to **\$85.11** as of October 21



Source: Bloomberg

U.S. Economy Showing Signs of Weakness

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

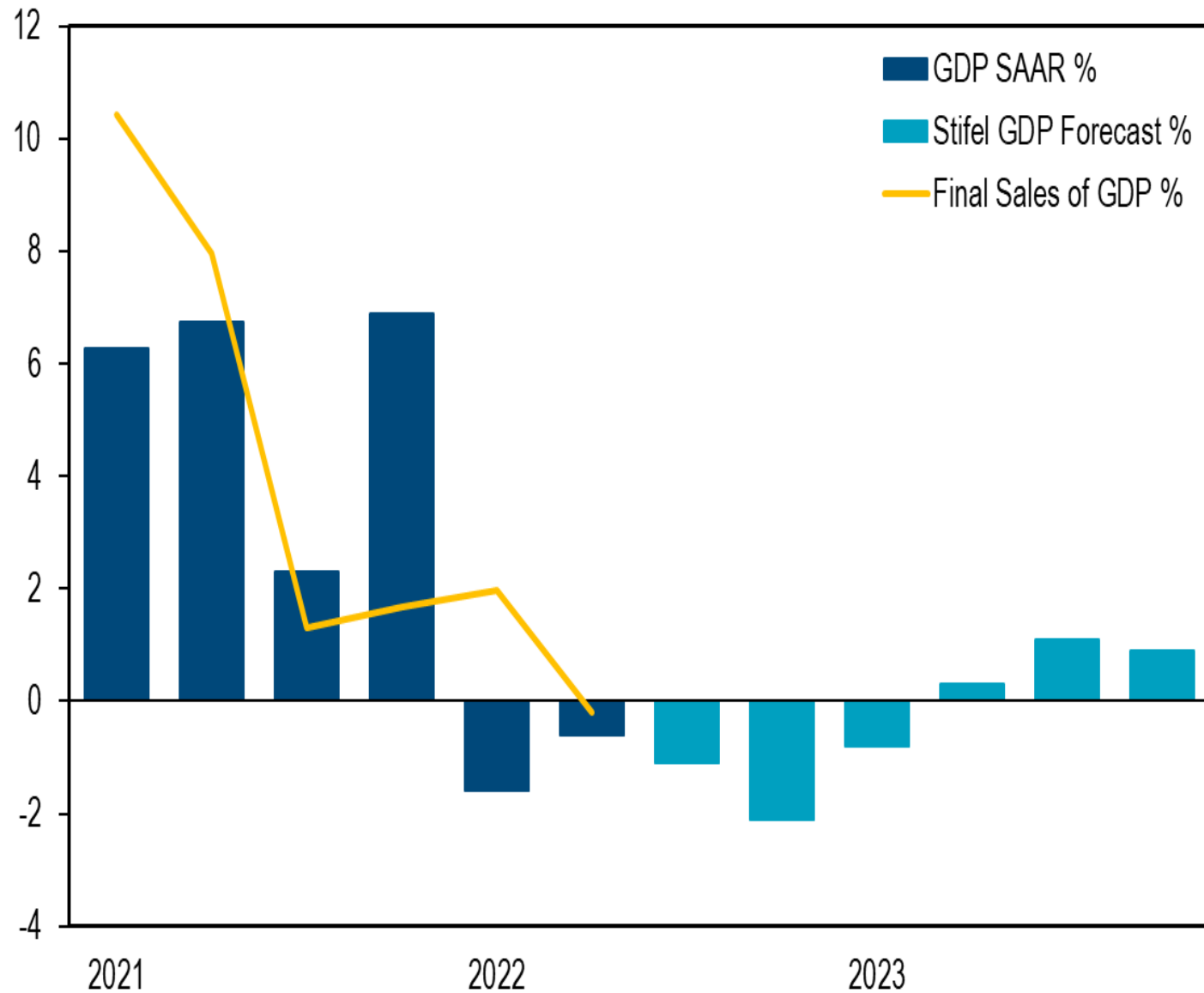
Typically, the Fed raises rates when the economy is overheating versus struggling to gain legs post-pandemic

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

GDP fell **0.6%** in Q2 2022, the second consecutive quarter of decline

Excluding trade and inventories, final sales to domestic purchasers fell **0.2%**



Source: Bloomberg/Stifel

- National Bureau of Economic Research (NBER) Business Cycle Dating Committee *officially* determines recession
- Eight committee members accepted as experts in macroeconomics and business cycle research
- An official recession involves a significant decline in economic activity that is spread across the economy
- Weakness typically lasts for a modest period of time
- The Committee emphasizes “*economy-wide*” measures of economic activity

Are We in Recession?

Yes:

- Negative Q2 GDP, following a 1.6% drop in Q1
- Manufacturing is slowing from a recent peak of 60.8 to 50.9 in September
- Real retail sales have slowed to 0.8% in August from a peak of 9.1% in February
- Real income growth is negative, down 2.3% in August
- Hiring slowed from 315k to 263k in September

No:

- Excluding inventories and trade, Q2 GDP dropped just 0.3% after a 2.0% rise in Q1
- Manufacturing remains above breakeven
- Real consumption still positive, up 1.8% in August
- Real income growth improved from a recent low of -17.6% to -2.3% in August
- Unemployment rate fell from 3.7% to 3.5%, the lowest level in the last 50 years

Does the Fed Have the Resolve to Raise Rates in Recession: Fed Officials Posture Hawkish Tone



“Inflation remains far too high and not near our price stability goal...This is why we don’t want to declare victory on inflation coming down. We’re not near done yet.”

-San Francisco Fed President Mary Daly, Financial Times Interview, August 11, 2022



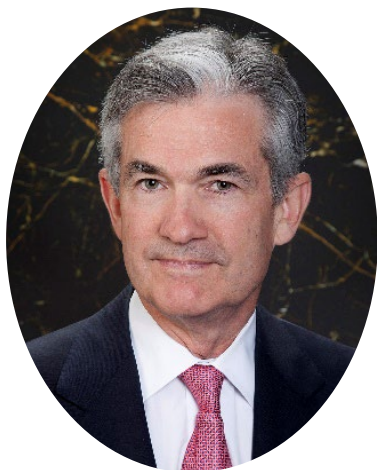
“This is a serious problem and we need to be sure we respond to it appropriately...We have increased the policy rate substantially this year and more increases are indicated.”

-St. Louis Fed President James Bullard, London Policy Forum, September 27, 2022



“We’re at a target range of 3 to 3.25%...That is beginning to move into restrictive territory, but with inflation as high as it is, and getting inflation under control being job one, it’s not nearly restrictive enough.”

-Chicago Fed President Charles Evans, London School of Economics, September 28, 2022












*“While higher interest rates, slower growth, and softer labor market conditions will bring down inflation, they will also bring some **pain to households and businesses**. These are the unfortunate costs of reducing inflation. But a failure to restore price stability would mean far greater pain.”*

-Federal Reserve Chairman Jerome Powell, Jackson Hole Policy Summit, August 26, 2022

*“The Committee is highly attentive to inflation risks. The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to raise the target range for the federal funds rate to 3 to 3-1/4 percent and anticipate that **ongoing increases in the target range will be appropriate**.”*

-September 21 FOMC Statement

What Does This Mean for Rates?

| Inflation | FF Pathway | GDP Expectations | 10-Year UST Yield Near Term | 10-Year UST Yield Medium Term |
|--|------------|-------------------------------------|--|--|
|  | Dovish | Minimal Contraction/Modest Recovery |  |  |
|  | Dovish | Modest Contraction/Minimal Recovery |  |  |
|  | Hawkish | Deeper Contraction/Robust Recovery |  |  |

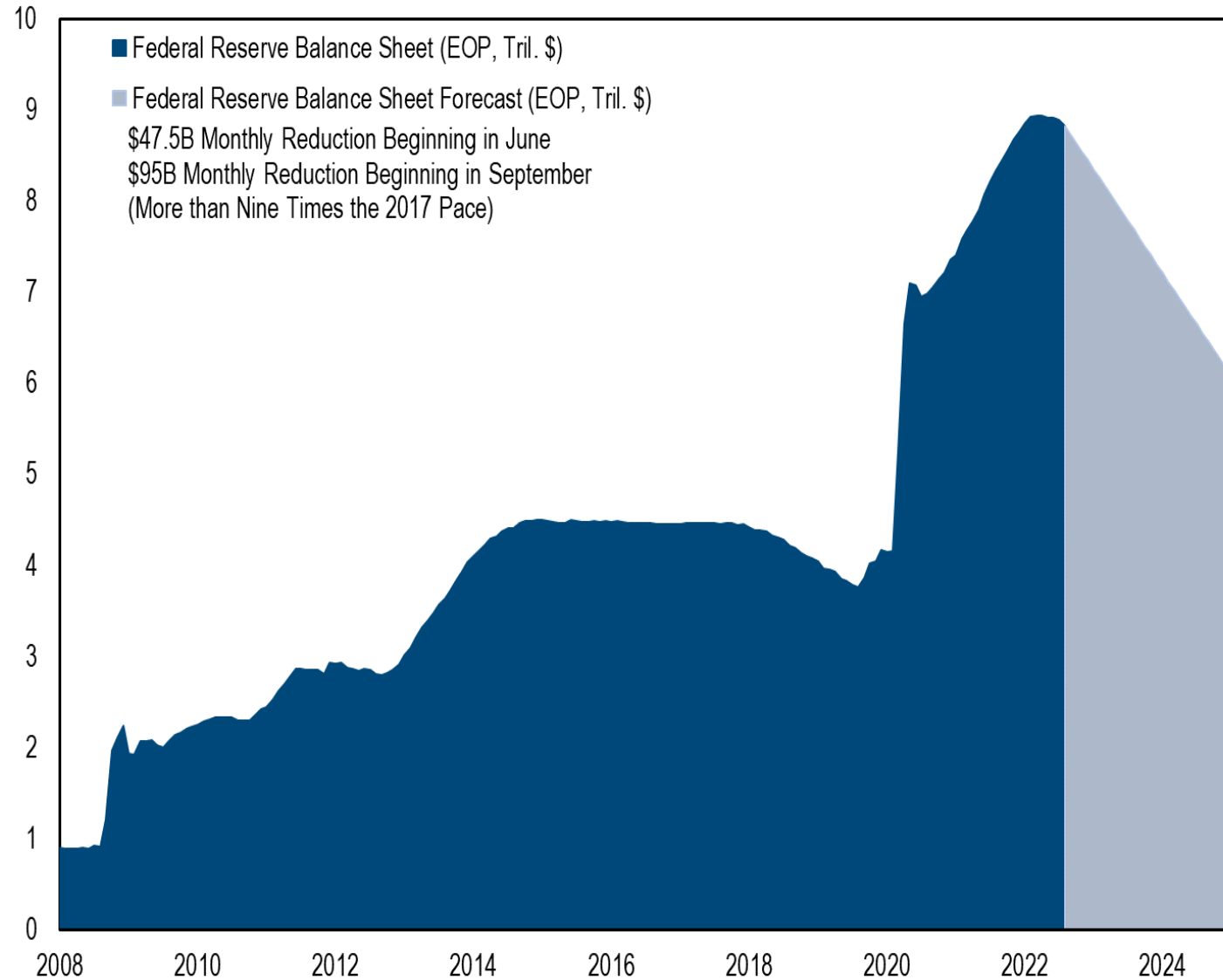
- As the Fed moves, the short end will presumably move along with the Fed
- The long end will struggle to keep up with the Fed as policy intentionally slows domestic activity risking persistent inversion

Balance Sheet Provides Alternative to Rate Hikes and Floor for Rates

Balance sheet reduction could help add upward momentum or at the very least provide a floor to longer rates

Aside from raising rates, the Fed is ramping up a drawdown of the balance sheet to **\$95 billion** a month by September including a \$60 billion reduction of UST and a \$35 billion reduction MBS

Recall, by contrast, after the taper in 2014, the Fed kept its balance sheet steady for roughly three years before allowing the portfolio to shrink



Source: Federal Reserve Board/Haver Analytics/Stifel

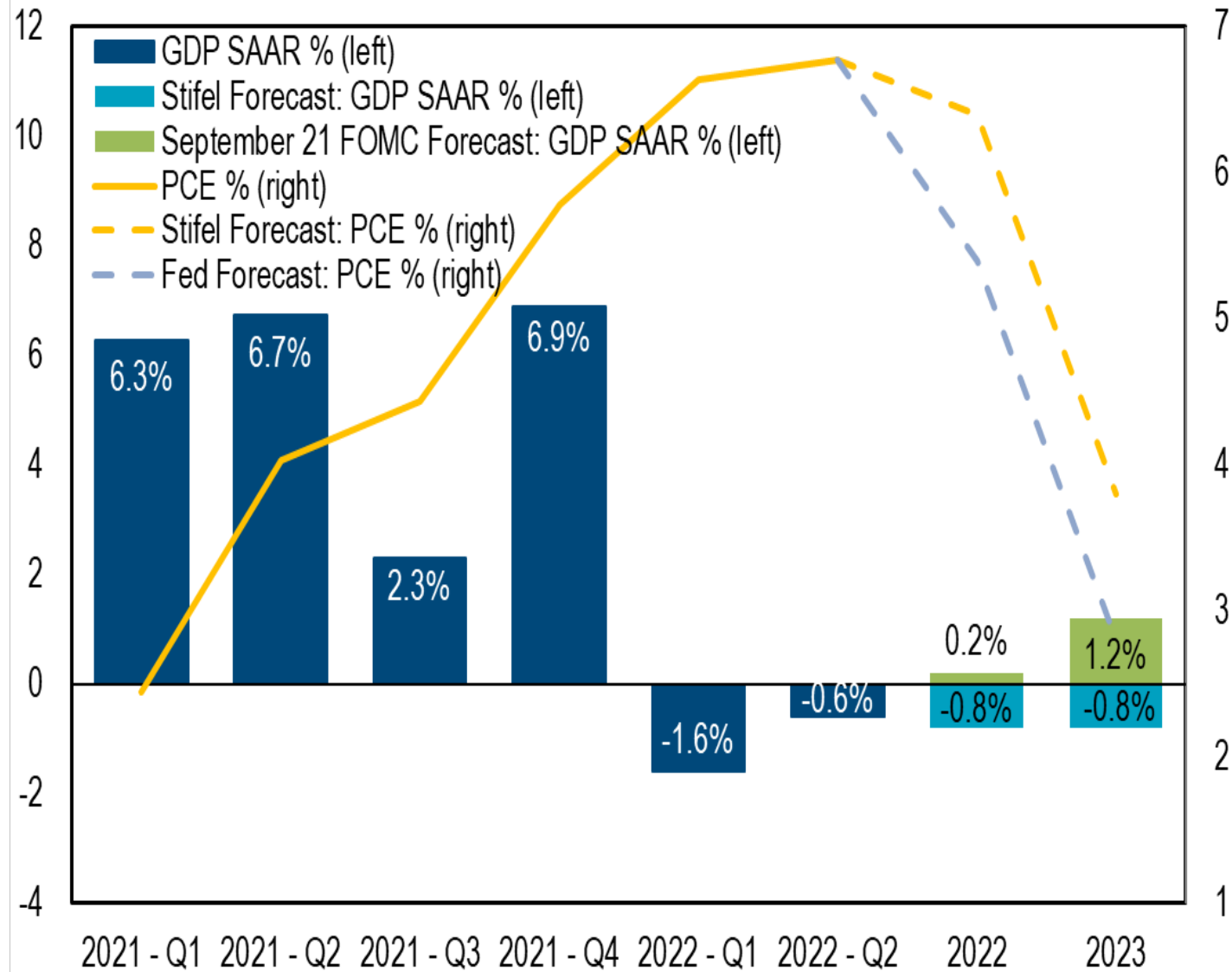
Fed Optimistic Regarding Growth

Amid increased economic uncertainty and volatility in the market, the economy is likely to slow into the second half of the year with growth dropping further into negative territory and the Fed struggling to raise rates enough to tamp down inflation

Of course, the only certainty is uncertainty

From a forecasting perspective, understanding the directional momentum and potential factors driving that pressure in one direction or the other

Economic forces not alone in driving the market: fiscal policy, international conflict, and geopolitics



Source: Census Bureau/Federal Reserve/Stifel/Bloomberg

Thank you

Disclosures and Disclaimers

The Fixed Income Capital Markets trading area of Stifel, Nicolaus & Company, Incorporated may own debt securities of the borrower or borrowers mentioned in this report and may make a market in the aforementioned securities as of the date of issuance of this research report. Please visit the Research Page at www.stifel.com for the current research disclosures applicable to the companies mentioned in this publication that are within Stifel's coverage universe.

The information contained herein has been prepared from sources believed reliable but is not guaranteed by Stifel and is not a complete summary or statement of all available data, nor is it to be construed as an offer to buy or sell any securities referred to herein. Opinions expressed are subject to change without notice and do not take into account the particular investment objectives, financial situation or needs of investors. Employees of Stifel or its affiliates may, at times, release written or oral commentary, technical analysis or trading strategies that differ from the opinions expressed within. No investments or services mentioned are available to "private customers" in the European Economic Area or to anyone in Canada other than a "Designated Institution". The employees involved in the preparation or the issuance of this communication may have positions in the securities or options of the issuer/s discussed or recommended herein.

Stifel is a multi-disciplined financial services firm that regularly seeks investment banking assignments and compensation from issuers for services including, but not limited to, acting as an underwriter in an offering or financial advisor in a merger or acquisition, or serving as a placement agent in private transactions. Moreover, Stifel and its affiliates and their respective shareholders, directors, officers and/or employees, may from time to time have long or short positions in such securities or in options or other derivative instruments based thereon.

Stifel Fixed Income Capital Markets research and strategy analysts ("FICM Analysts") are not compensated directly or indirectly based on specific investment banking services transactions with the borrower or borrowers mentioned in this report or on FICM Analyst specific recommendations or views (whether or not contained in this or any other Stifel report), nor are FICM Analysts supervised by Stifel investment banking personnel; FICM Analysts receive compensation, however, based on the profitability of both Stifel (which includes investment banking) and Stifel FICM. The views, if any, expressed by FICM Analysts herein accurately reflect their personal professional views about subject securities and borrowers. For additional information on investment risks (including, but not limited to, market risks, credit ratings and specific securities provisions), contact your Stifel financial advisor or salesperson.

Our investment rating system is three-tiered, defined as follows:

Outperform - For credit specific recommendations we expect the identified credit to outperform its sector specific peers over the next six months.

Market perform - For credit specific recommendations we expect the identified credit to perform approximately in line with its sector specific peers over the next six months.

Underperform - For credit specific recommendations we expect the identified credit to underperform its sector specific peers over the next six months.

Additional Information Is Available Upon Request

I, Lindsey Piegza, certify that the views expressed in this research report accurately reflect my personal views about the subject securities or issuers; and I certify that no part of my compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research report.

© 2022 Stifel, Nicolaus & Company, Incorporated, One South Street, Baltimore, MD 21202. All rights reserved.

STIFEL | Fixed Income
Capital Markets