Capital Markets Strategy

Essential inCights for the C-Suite

Momentum Shift

A Closer Look at the US Consumer

FEB 2023

"It's absurd to divide people between good and bad. People are either charming or tedious."

Oscar Wilde, Irish poet & playwright (1854 - 1900)

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"Macro stability isn't everything, but without it, you have nothing."

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Summary Conclusions

1. The January unemployment rate fell to a 53 year low of 3.4%, as nonfarm payrolls rose +517k and average hours worked increased 1.2% m/m. The post-COVID employment market remains extremely tight and will provide meaningful support for the US consumer.

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2. In aggregate, US household balance sheets increased by nearly $30 trillion since the start of the pandemic. However, the gains have not been evenly distributed across income brackets. Over 65% of total wealth gains since Q4 2019 have accumulated to those in the top 20% income bracket. In aggregate, US household balance sheets remain strong.

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3. The "stock" of US excess savings is elevated, at $1.4 trillion today, but is declining rapidly. At peak, excess savings reached $2.4 trillion in August of 2021. However, the US savings rate has declined to just 3.4%, well below the pre-COVID average of 7.3%.

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4. Middle class US wealth appears to have peaked. After an unprecedented five year rise for the "middle 40%", average wealth levels appear to have peaked in March 2022 and have declined 4% since.

Summary Conclusions

5. **Historically, large gaps between consumer confidence (currently low) and spending (strong) nearly always converge.** In this cycle, consumer confidence fell below recession thresholds in December 2021 and remained at depressed levels through the entirety of 2022. **Low levels of consumer confidence often precipitate declines in real consumption.**

6. **In December, 35% of US households indicated they used credit cards or loans to fund spending needs.** In the trailing 12-months to December, **revolving credit increased 15% y/y**. Consumers are increasingly using sources outside their regular income to fund purchases. **Though rising, credit card balances relative to disposable income and credit card & auto loan delinquencies remain below pre-COVID averages.**

7. Monthly data shows that both real consumption and nominal retail sales lost momentum into year end. **US retail sales declined by the most in a year in December, with retail purchases down in four of the prior six months.** Spending on services (adjusted for inflation) was flat in December, the worst monthly reading in a year.

8. **There are numerous tailwinds for the US consumer in 2023, including:** exceptionally tight labor markets; excess stock of savings; elevated disposable income; and declining inflation. **However, headwinds are also mounting:** elevated inflation, declining "excess savings," rising consumer debt levels.

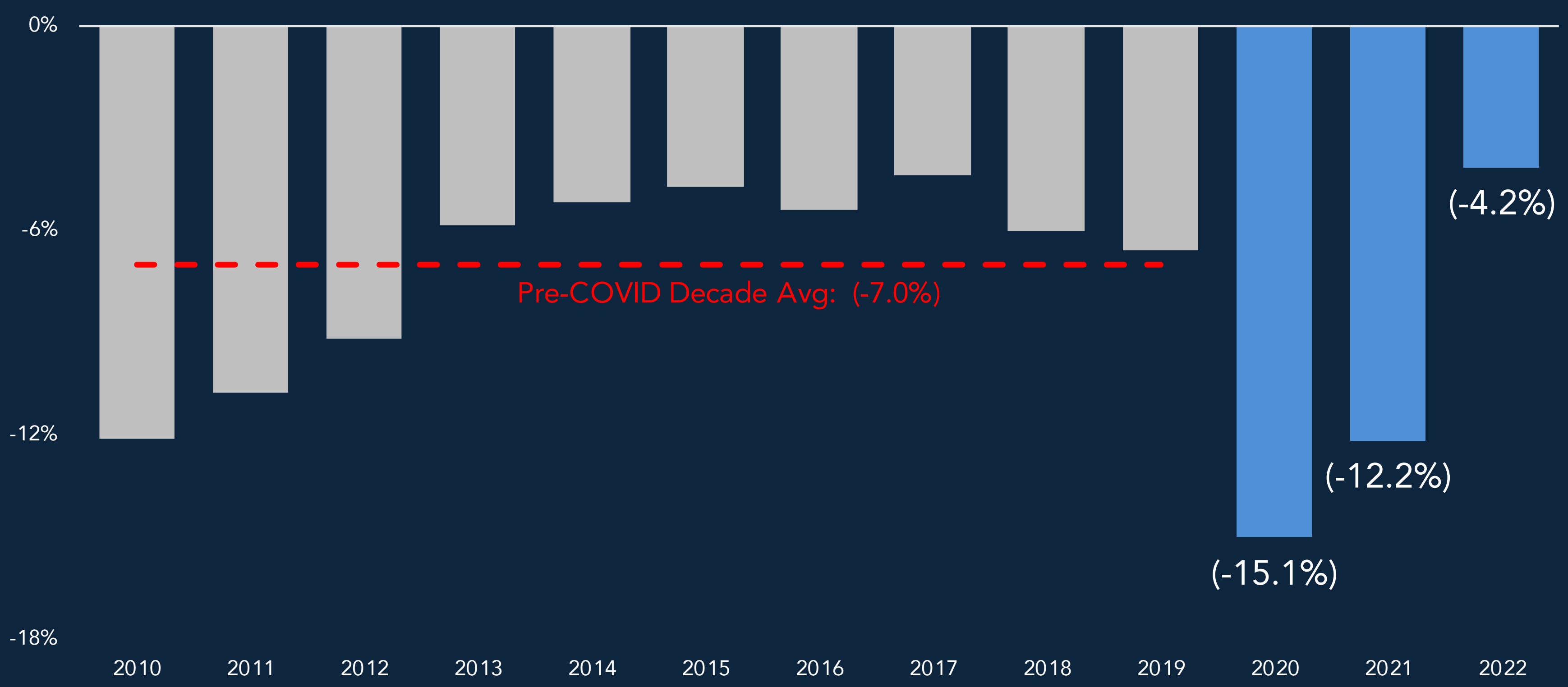
1

COVID Crisis Impact

2020-21 Fiscal Tailwinds Slowly Fading

The sheer magnitude of COVID-era fiscal stimulus remains one of the more under-appreciated stories in global markets, in terms of its impact on both consumer spending and inflation. Disposable income, the single most important driver of consumer spending, rose sharply following the extraordinary fiscal stimulus of 2020-2021 and the low unemployment and wage gains of 2022 and early 2023. Looking forward, the comparatively tight fiscal policy of 2022 will likely continue under "divided government" over the next 2 years.

US government balance, % of GDP

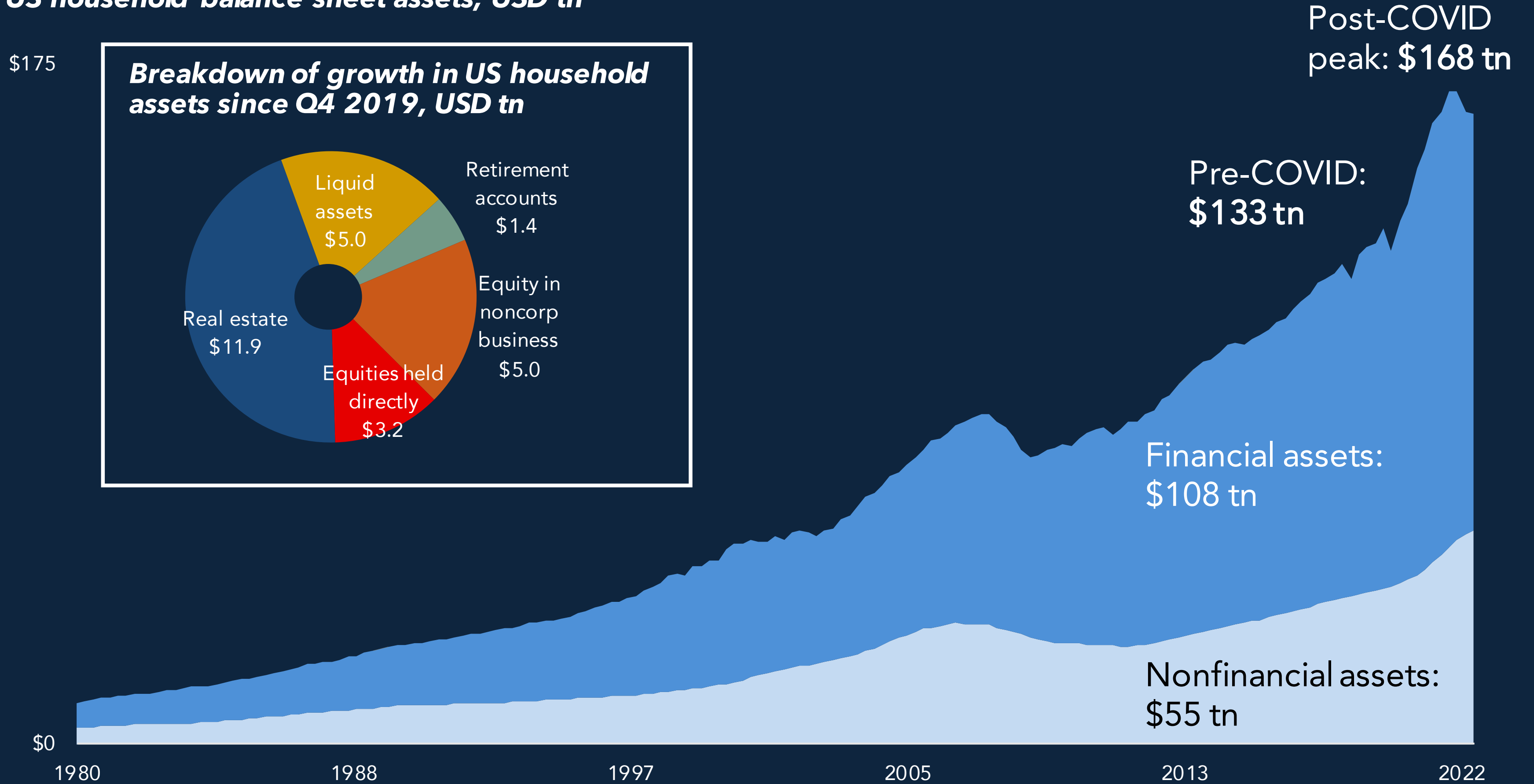


Source: (1) Oxford Economics. Data as of February 2, 2023.

US Household Balance Sheets Rose $30 Trillion

Remarkably, total US household balance sheets increased nearly $30 trillion since the pandemic began at the end of Q4 2019. Though non-financial assets (i.e., Real Estate) account for roughly a third of household wealth, they accounted for almost half the COVID period increase.

US household balance sheet assets, USD tn



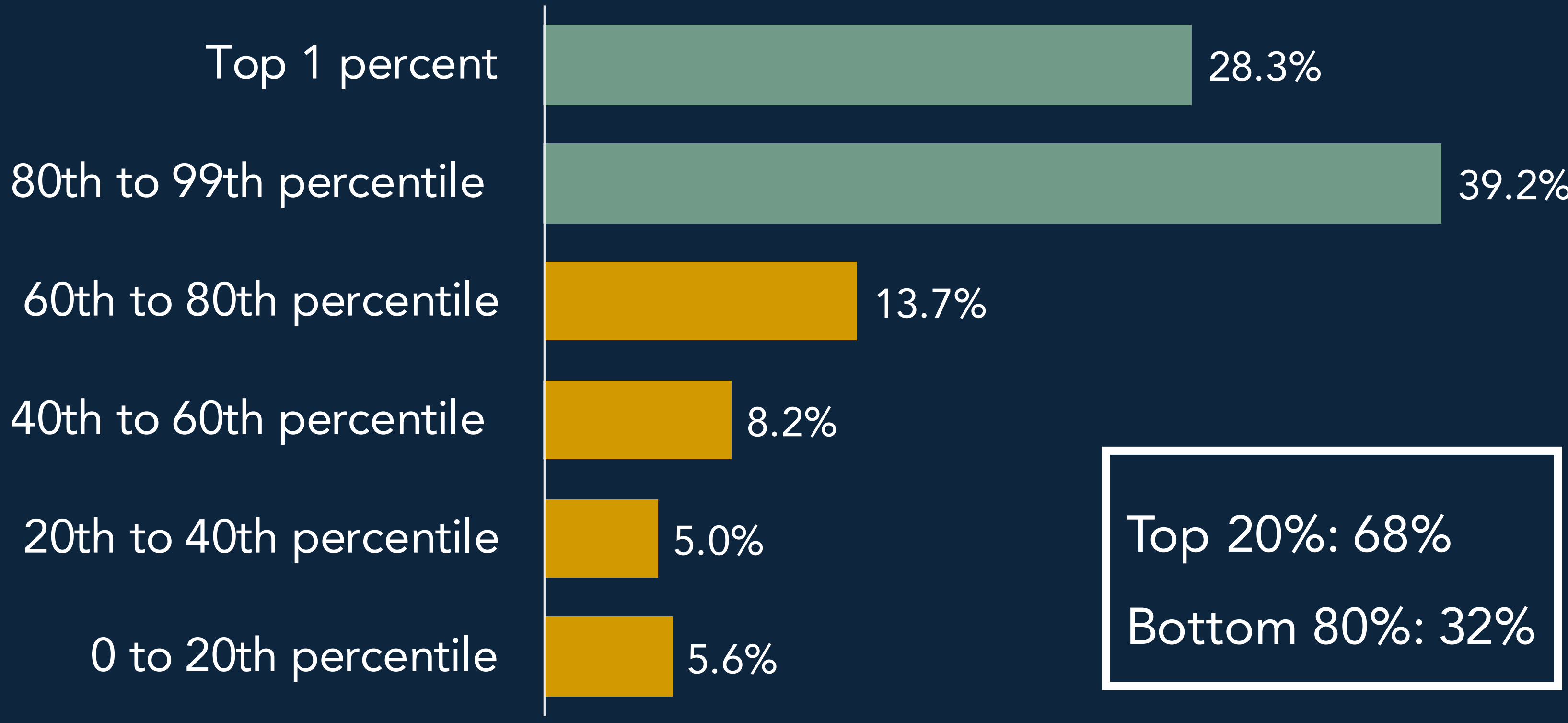
Source: (1) Federal Reserve. Financial Accounts of the US, Household balance sheets. Data through Q3 2022.

Wealth Gains Concentrated at Highest Quintile

While household wealth gains during the crisis period were robust, they were not evenly distributed. Nearly 68% of total wealth gains since Q4 2019 accumulated to those in the top 20% income bracket, who spend more heavily on services. Notably, all income segments realized household wealth gains during COVID.

US household wealth gains since Q4 2019

Share of cumulative household net worth change during the pandemic by percentile

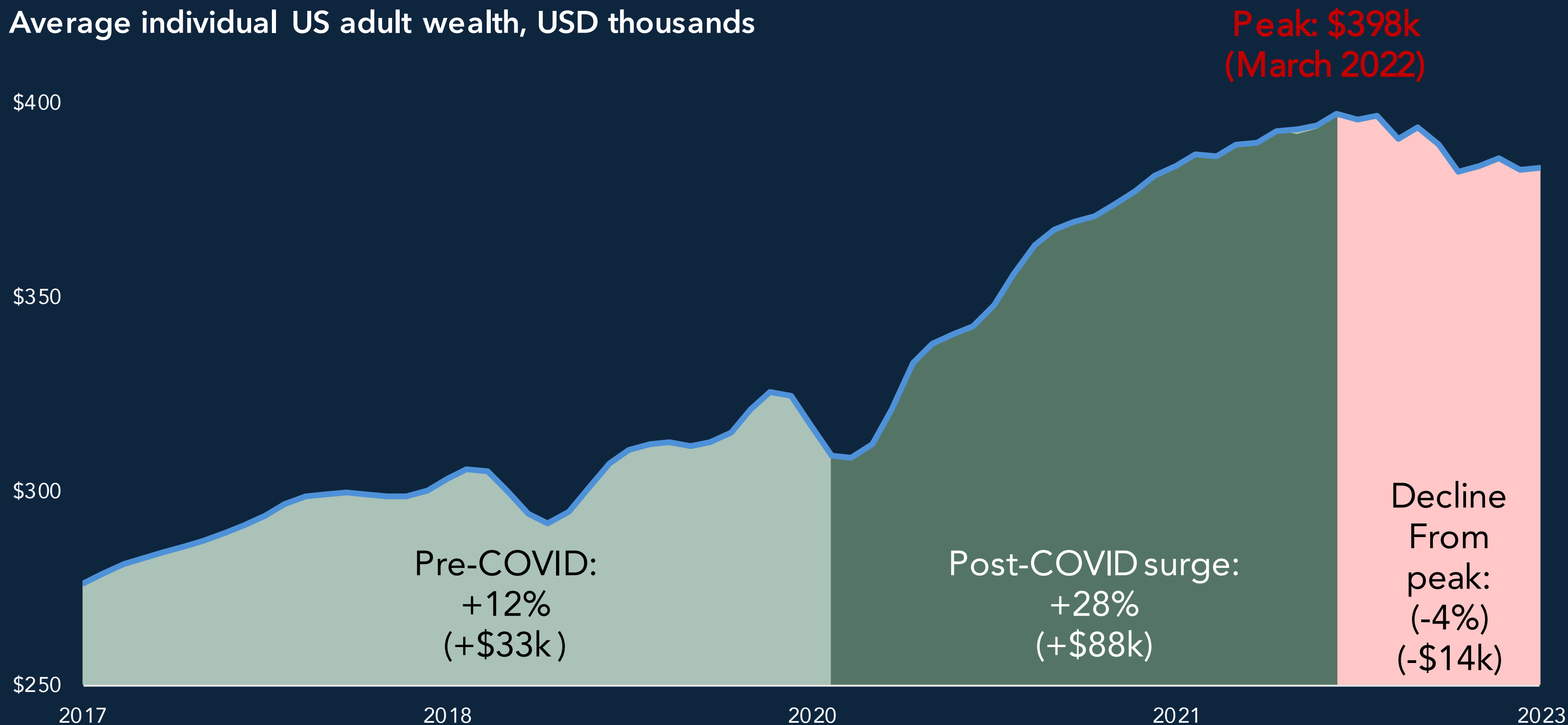


Source: (1) Oxford Economics, "US Excess Savings Offer Cushion to Only Some Households". Data through Q3 2022.

US Middle Class Wealth Surged During COVID

Middle-class Americans (those in the 50th to 90th wealth percentile) are the primary engine of the US economy and account for roughly half of consumption expenditure. After an unprecedented five year rise for this "middle 40%", average wealth levels appear to have peaked. In March 2022, average wealth for middle-class Americans reached a record $397,598, but has since declined roughly 4%.

Average individual US adult wealth, USD thousands



Source: (1) Real Inequality, University of California Berkeley. Average real income in September 2022 dollars for adults aged 20+ years. Data as of February 2, 2023. January 2023 data is estimate.

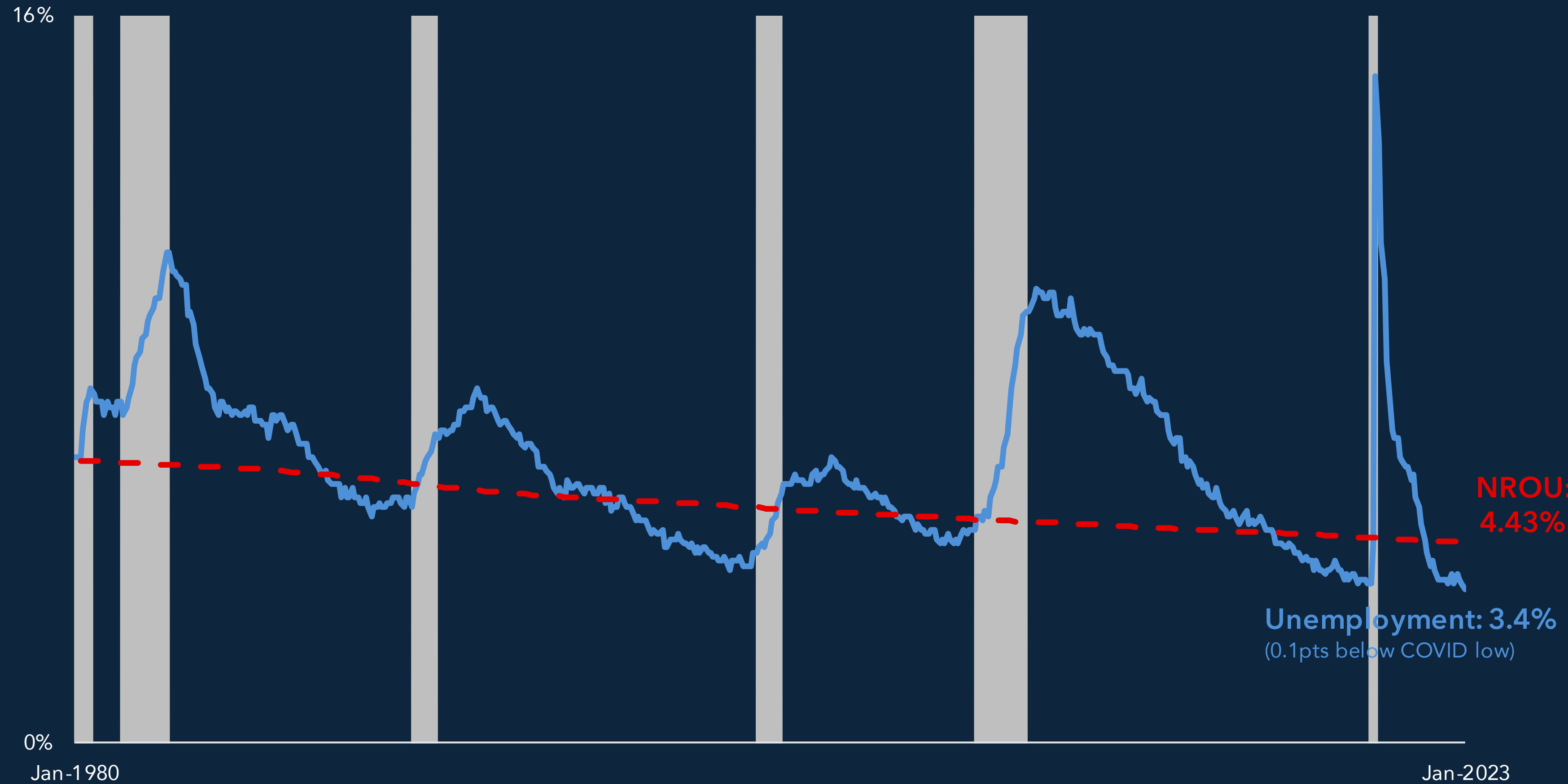
2

Robust US Labor Markets

US Unemployment at 53 Year Low

The January unemployment rate fell to a 53 year low of 3.4%, as nonfarm payrolls rose +517k and average hours worked increased 1.2% m/m. The post-COVID employment market remains extremely tight and will provide meaningful support for the US consumer.

US unemployment rate

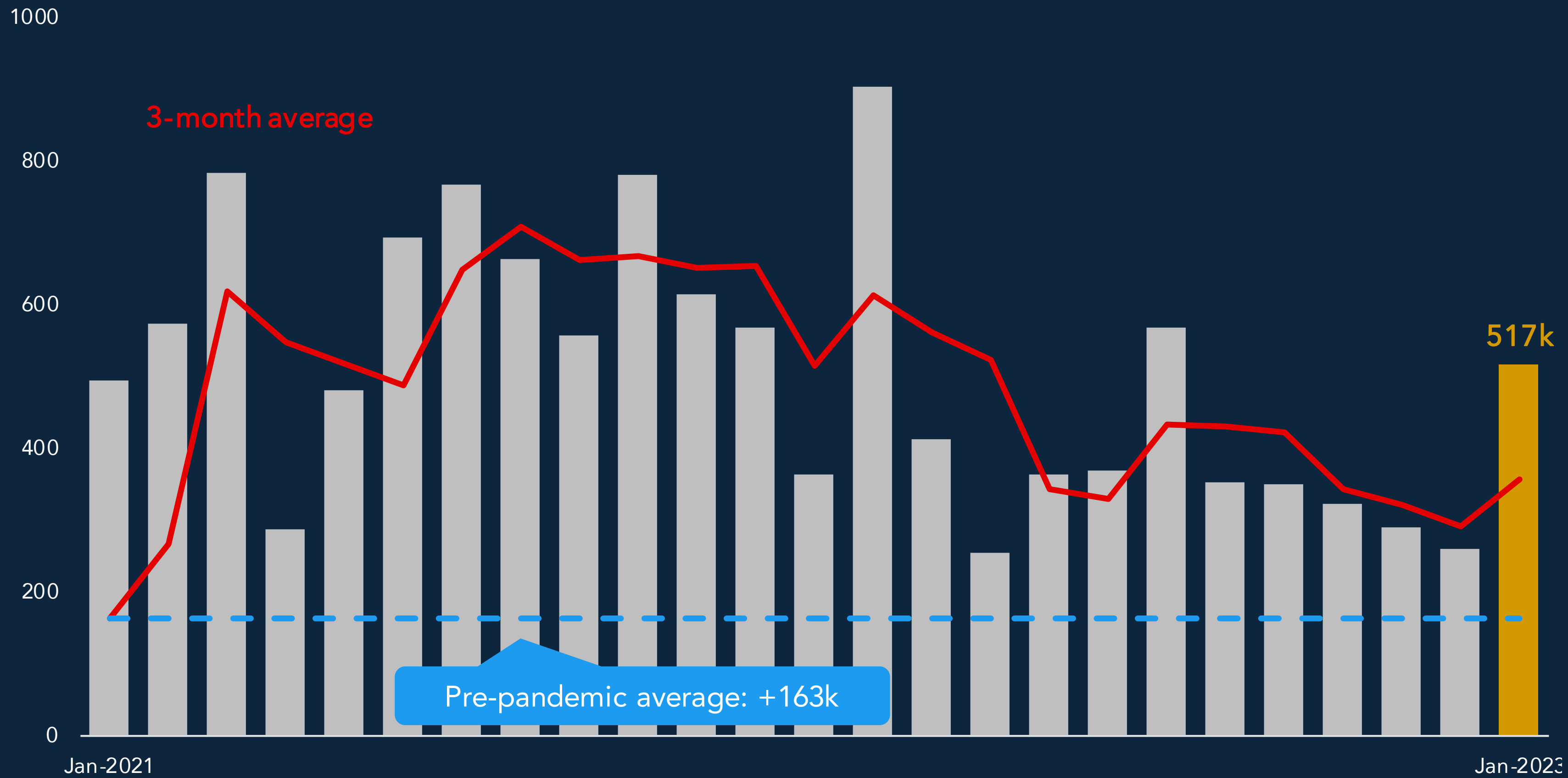


Source: (1) Bloomberg. Data as of February 3, 2023.

Nonfarm Payrolls Surge Above Expectations

Economists expected nonfarm payrolls to increase +188k in January, well below the actual job growth of 517k. The surge in new nonfarm payrolls broke a five-month trend of slowing employment growth and pushed the three-month average to 356k, well above the pre-pandemic average of 163k.

US nonfarm payrolls, monthly change, thousands

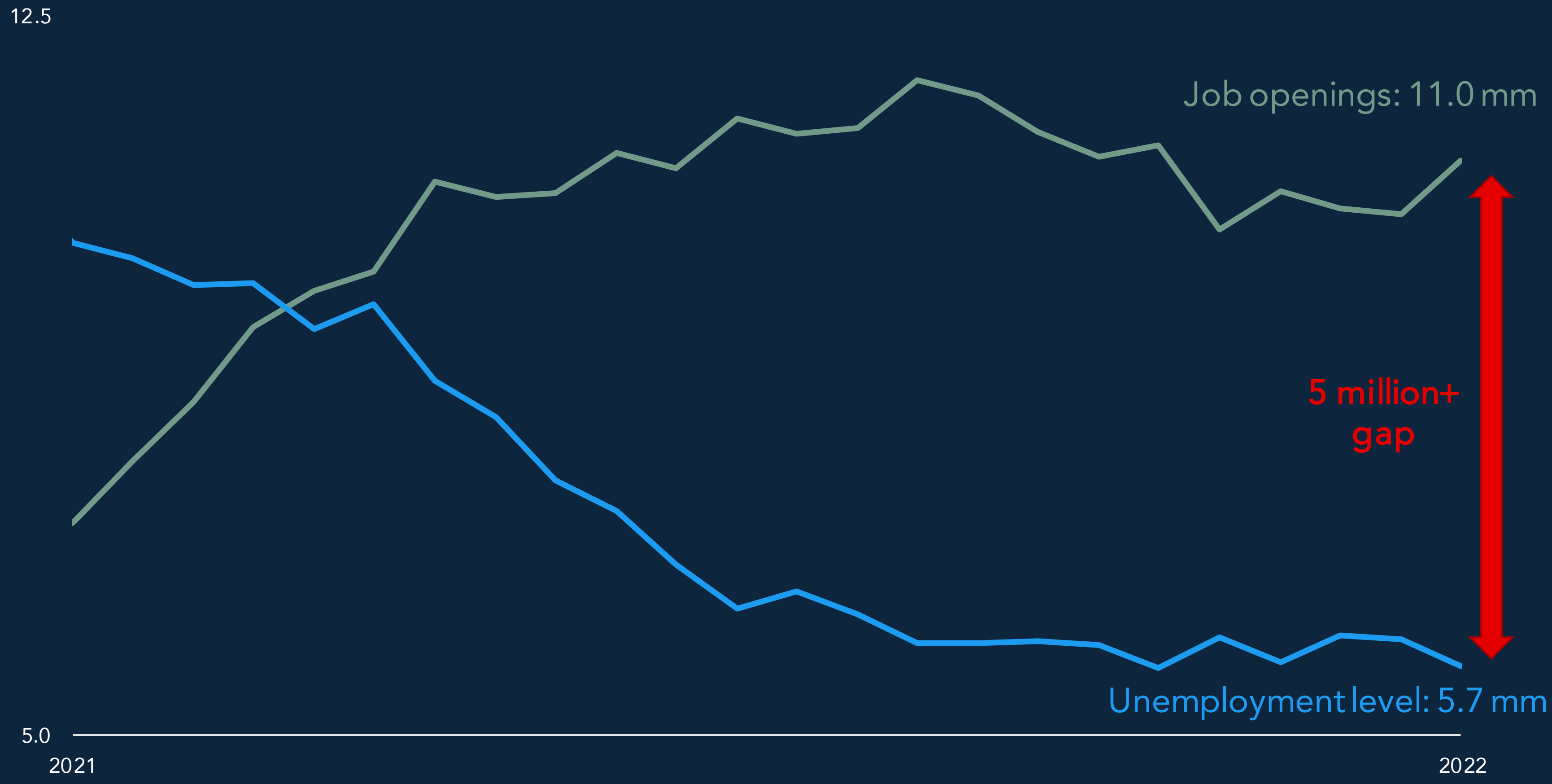


Source: (1) Bloomberg. Data as of February 6, 2023.

Job Openings Nearly Double Unemployed

Job openings in December increased 5.5% to 11 million, while job openings per unemployed person rose to 1.9 – both the highest levels since July 2022

US job openings vs. unemployment level, millions

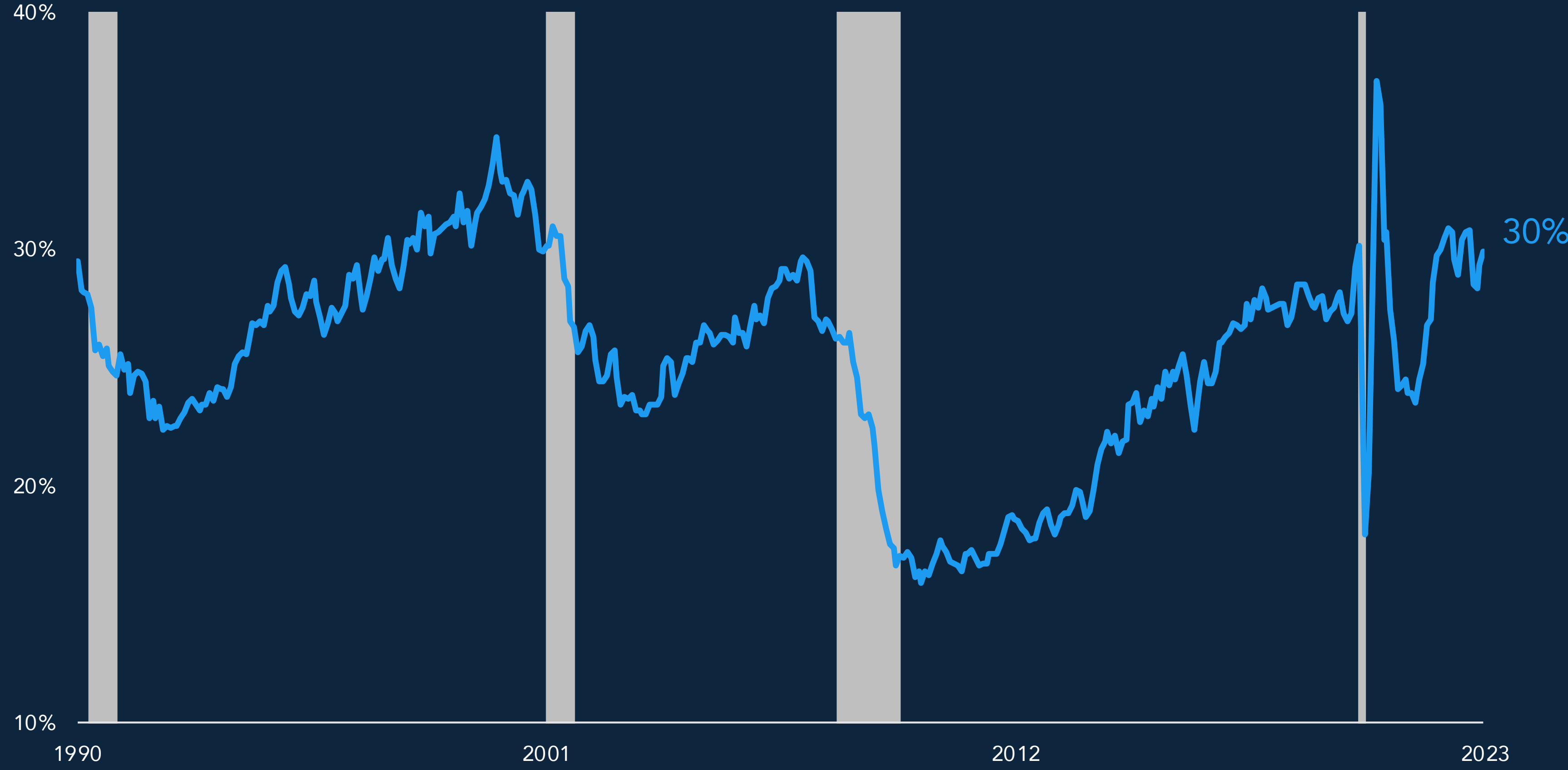


Source: (1) Bloomberg. Data as of February 2, 2023. Labor Department.

Unemployed Workers Finding Employment Quickly

December jobs data showed 11 million job openings and roughly 1.9 available jobs per unemployed person. With persistently tight labor markets, data from the Department of Labor suggests individuals who are getting laid off are finding new jobs at a historically high pace.

Flows from unemployment into employment, as share of unemployed workers

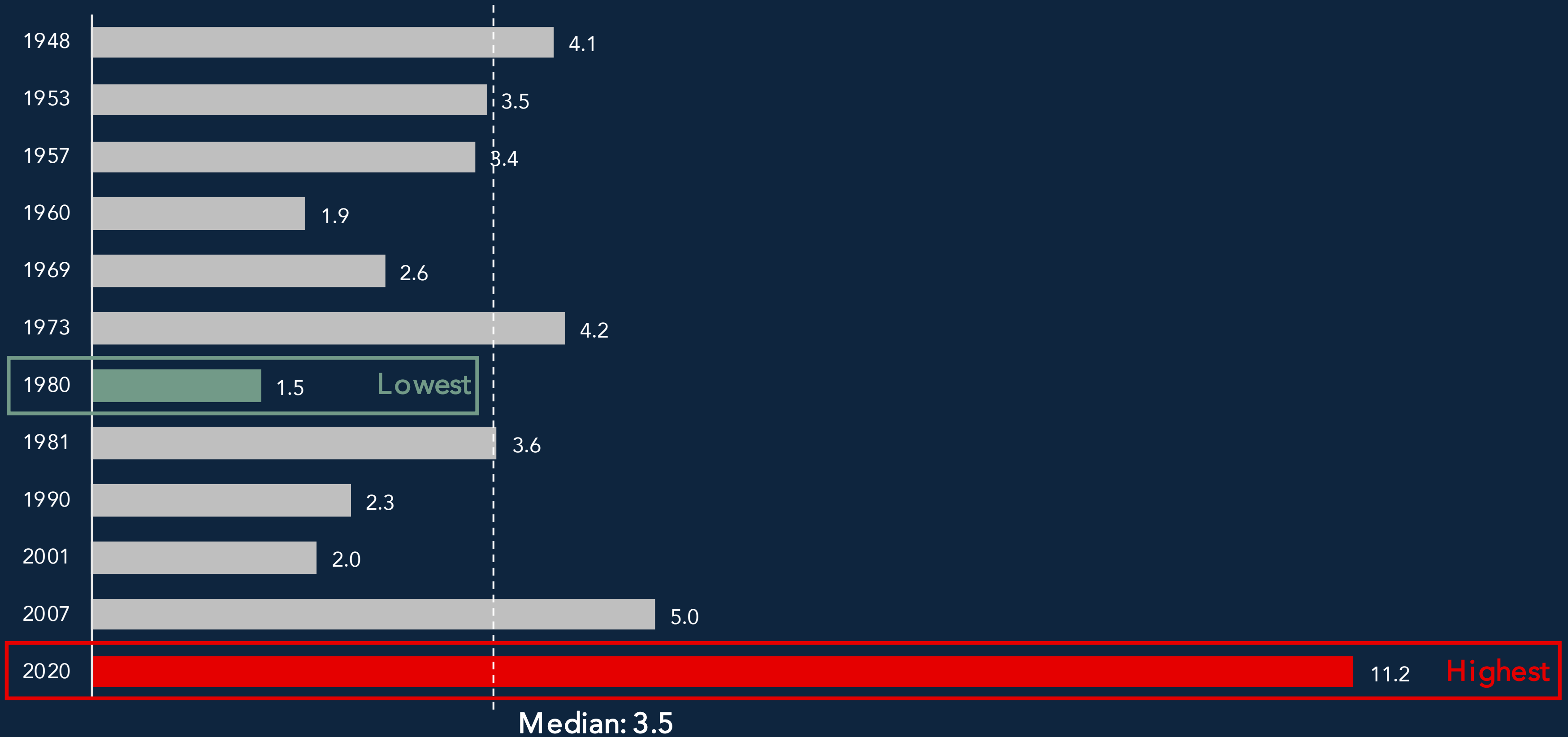


Source: (1) Bloomberg. Data as of February 7, 2023. Labor Department. Line is 3-month moving average.

Labor Markets Provide Buffer for Recession Timing

The unemployment rate has risen in EVERY ONE of the 12 US recessions since WWII. Historically, unemployment has increased by approximately 0.4% from its trough to the "start of the recession," and an average of 3.5% from trough "to peak" during and after the recession. Additionally, in every post-WWII US recession the unemployment rate has risen to at least 6.1% at its peak.

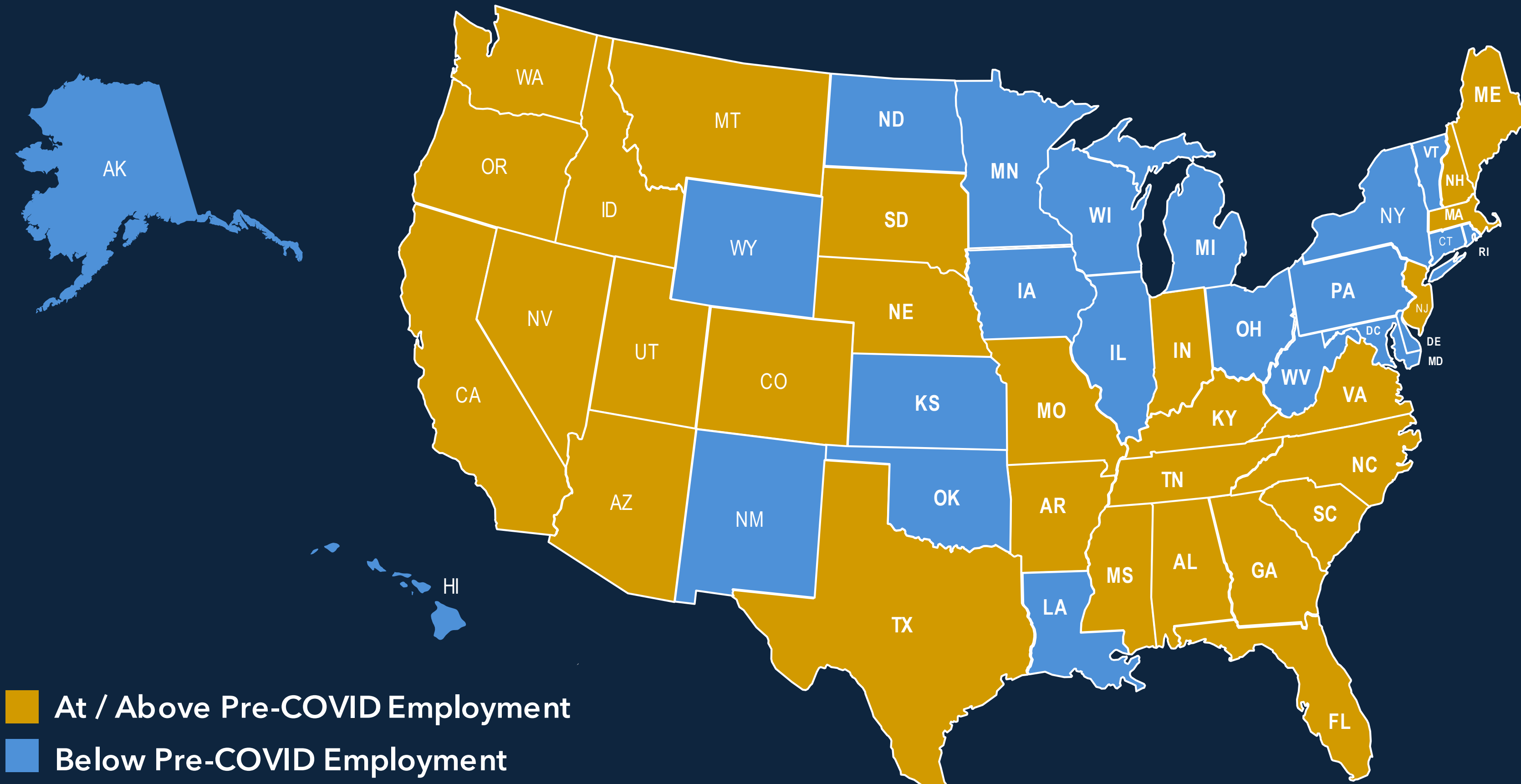
Change in unemployment rate, from trough to peak, during and after recession



Source: WSJ "If the US is in a Recession, It's a Very Strange One," (Jon Hilsenrath - July 4, 2022). Bureau of Labor Statistics.

Slow Post-COVID Employment Recovery

In January, US employment was 2.7 mm jobs higher than the February 2020 (pre-pandemic) level. However, employment gains have been unevenly distributed across the country with employment still below pre-COVID levels in 22 states and the District of Columbia. While total jobs are above pre-pandemic levels, they are still below the pre-pandemic "path" of what economists forecast employment would have been if the pandemic had not occurred.

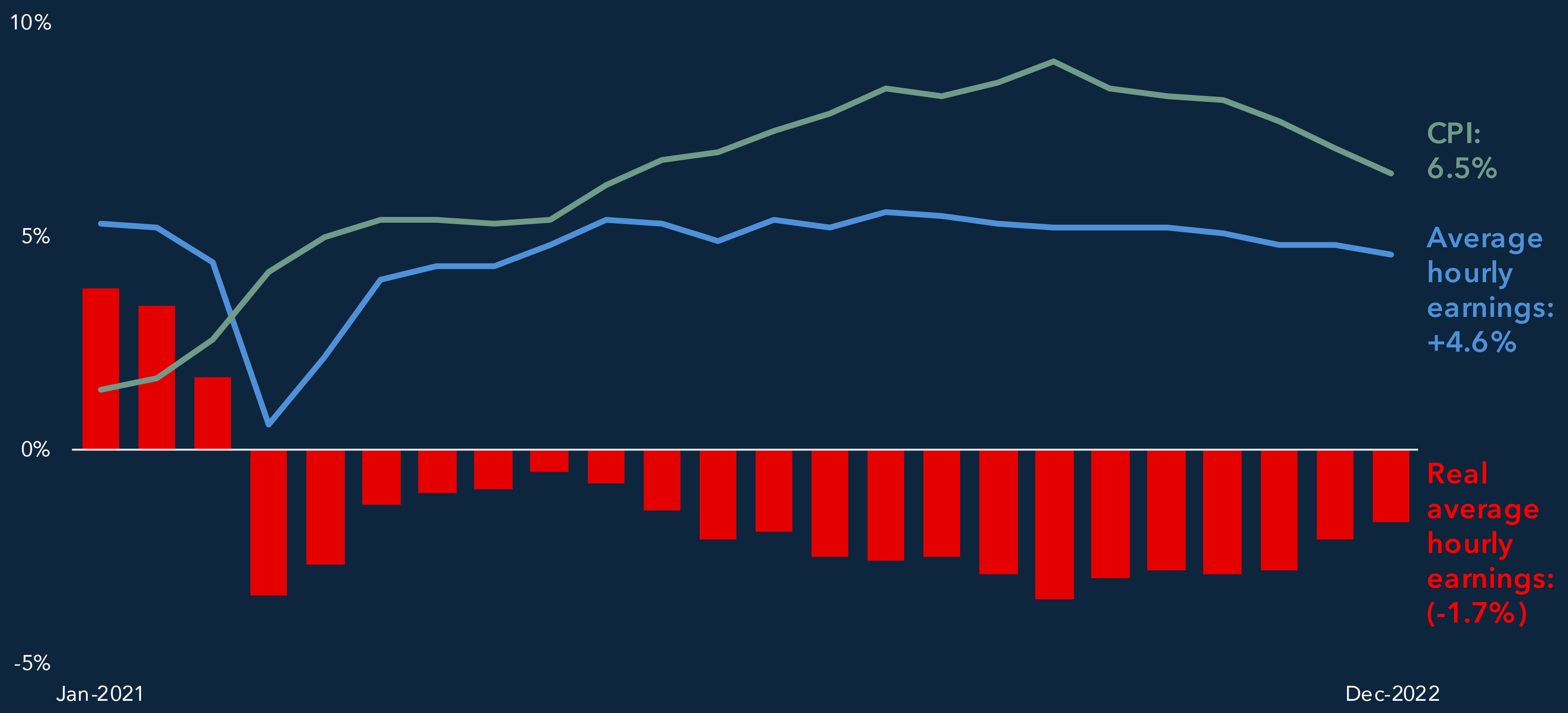


Source: (1) Bureau of Labor Statistics

Real Wage Growth Still Negative

Wage growth was robust in 2022. However, with broader CPI rising more rapidly than wage inflation, US real wage growth has been deeply negative since early 2021, squeezing US consumers and dampening consumer sentiment and activity.

y/y change in real and nominal earnings and CPI

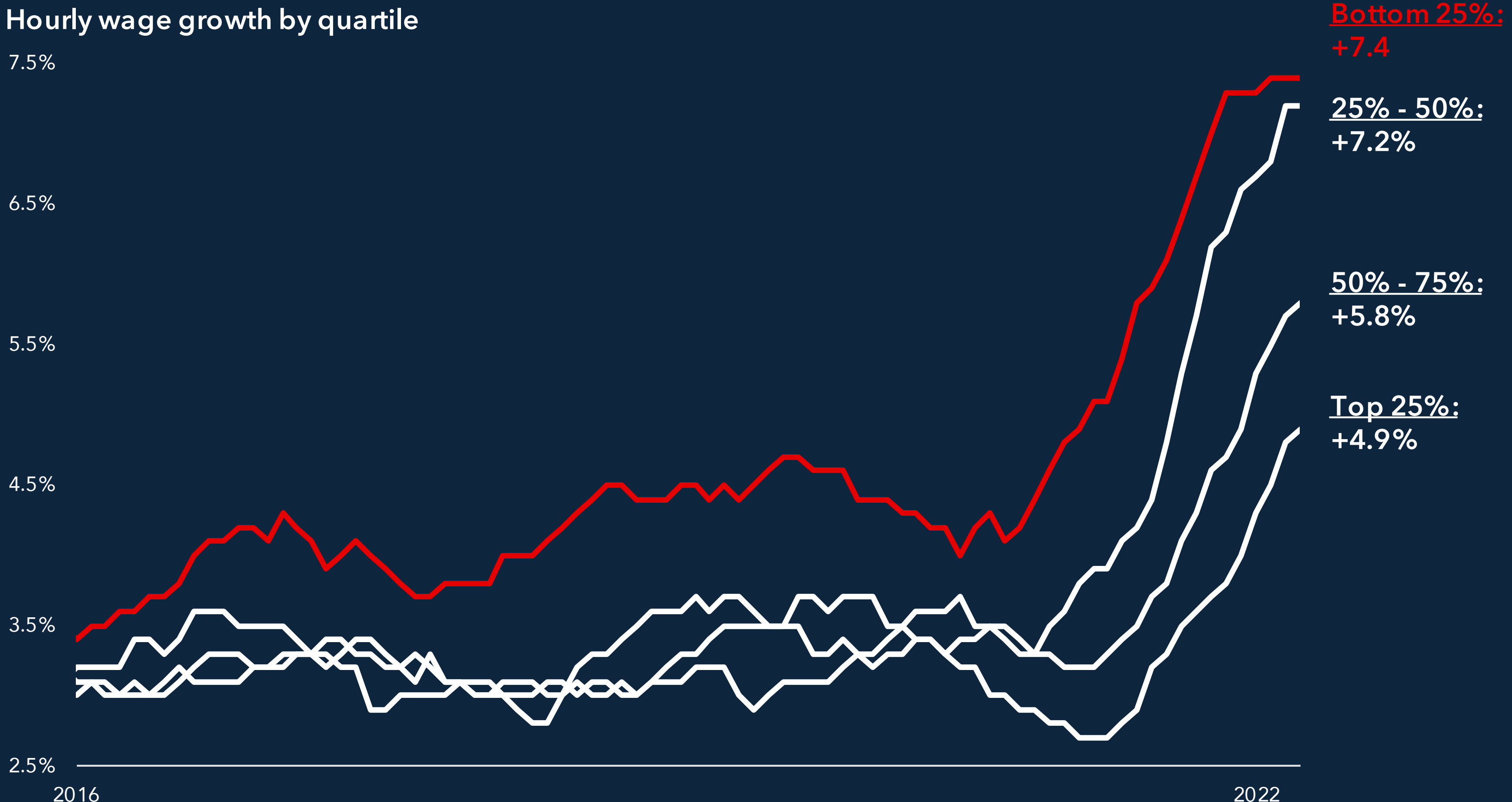


Source: (1) Oxford Economics, "What History Tells us About Rate Hikes and Recession Risk" (May 9, 2022). Bloomberg. Data as of February 2, 2023.

Wage Growth Varies by Income Level

Wages have risen much more quickly among lower income brackets during the pandemic. Given the structural labor shortages in the economy, we expect wage pressures to be persistent, exerting downward pressure on margins, even as the economy slows.

Hourly wage growth by quartile



Source: (1) Atlanta Fed Wage Growth Tracker. 12-month moving average of median wage growth, hourly data. Data as of February 2, 2023.

"Structural" Shortfalls in Labor Markets

Structural challenges in labor markets are likely to be a persistent theme for many years, with implications for inflation, corporate capex spending & profit margins

More COVID-related

- COVID fears
- COVID visa / travel restrictions
- COVID behavior changes
- Elevated consumer savings
- Child & elderly care challenges
- Accelerating baby boomer retirements
- Aging demographics
- "Mismatches" between job needs and skillsets
- Low immigration
- Decade-long disruption from technology disintermediation

More STRUCTURAL

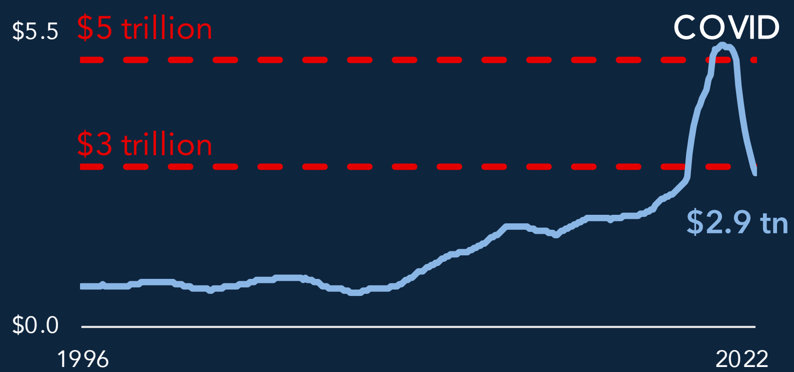
3

Strong Consumer Balance Sheets

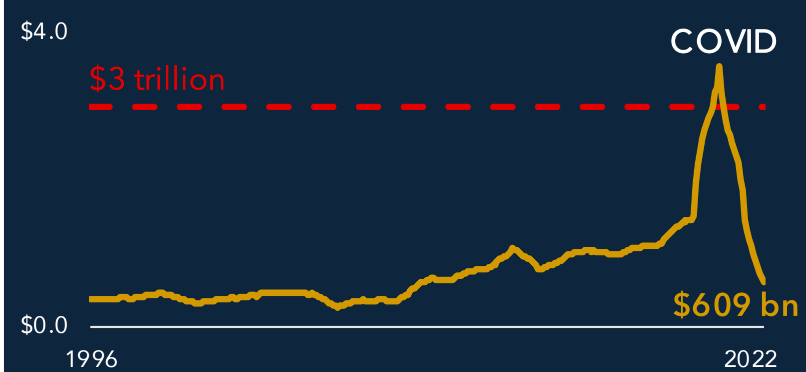
“Stock” of Excess Savings Declining Rapidly

While the overall “stock” of total US consumer savings remains high (though unevenly distributed), the “flow” of US savings has been declining rapidly

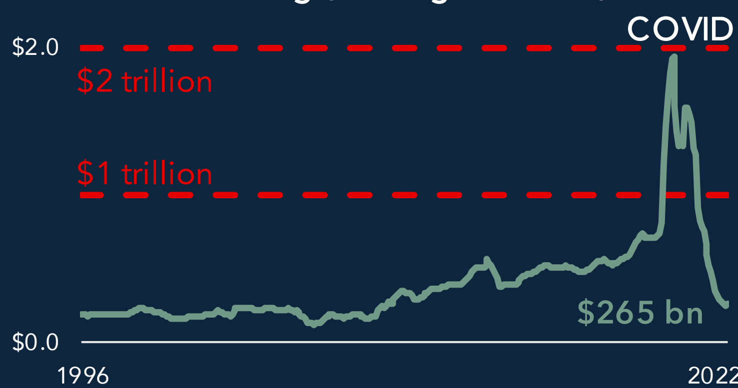
US cumulative savings, trailing 24 months, USD tn



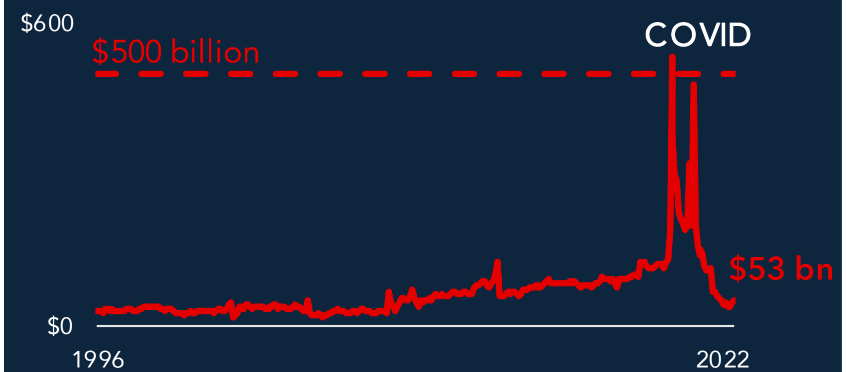
US cumulative savings, trailing 12 months, USD tn



US cumulative savings, trailing 6 months, USD tn



US cumulative savings, monthly, USD bn

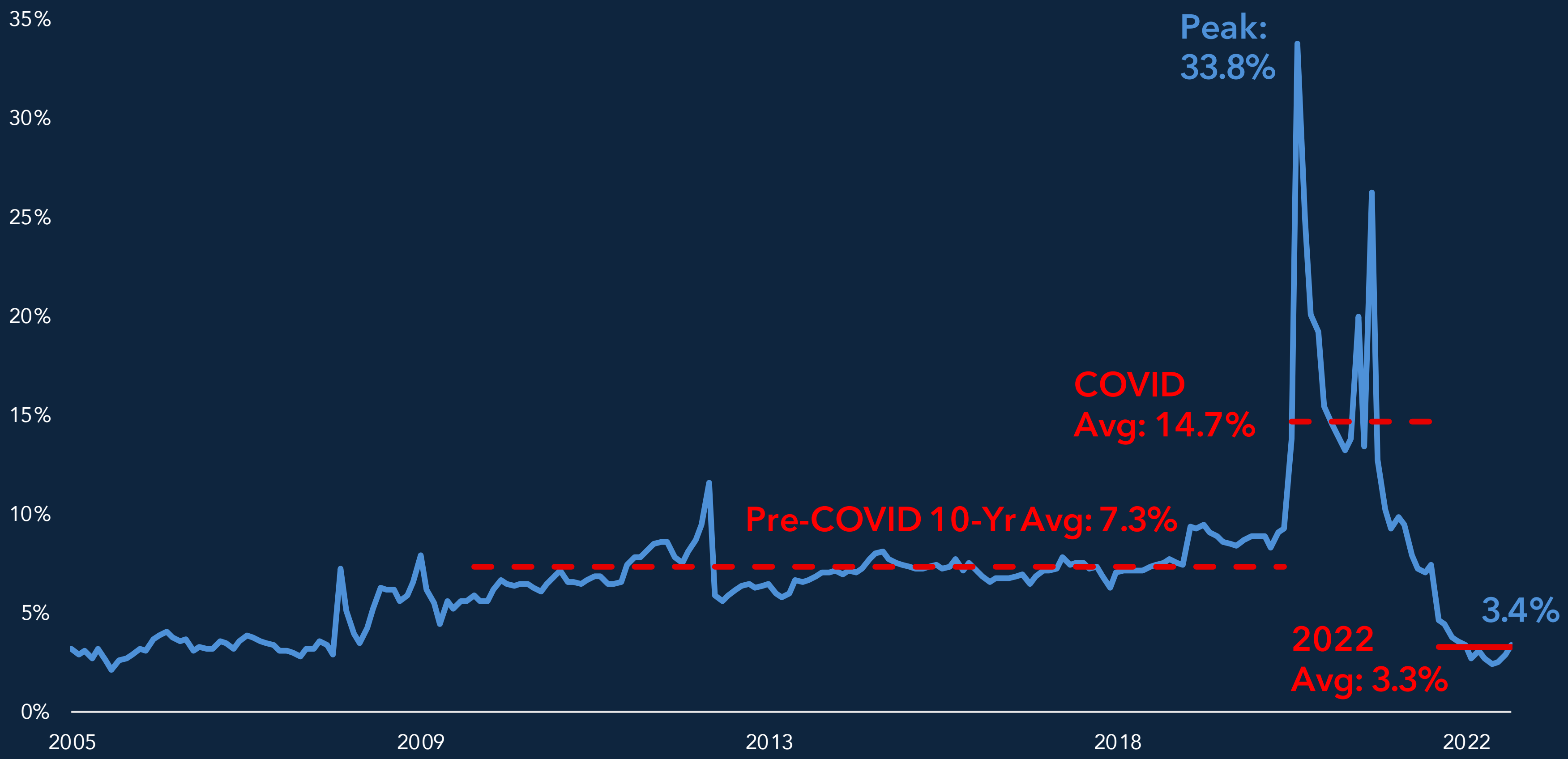


Source: (1-4) CreditSights, “U.S. Consumer Credit and Banks: Narrative Pushback” (July 7, 2022). Bloomberg. Data as of February 2, 2023.

Savings Rate Becoming Headwind for US Consumer

In the pre-COVID decade, the US personal savings rate was generally in a tight band between 6 – 9%. While the average rate more than doubled during the COVID crisis, the 2022 average was just 3.3%. Further, the September reading of 2.4% was the second lowest monthly reading since 1950, before rising to 3.4% in December.

US personal savings rate

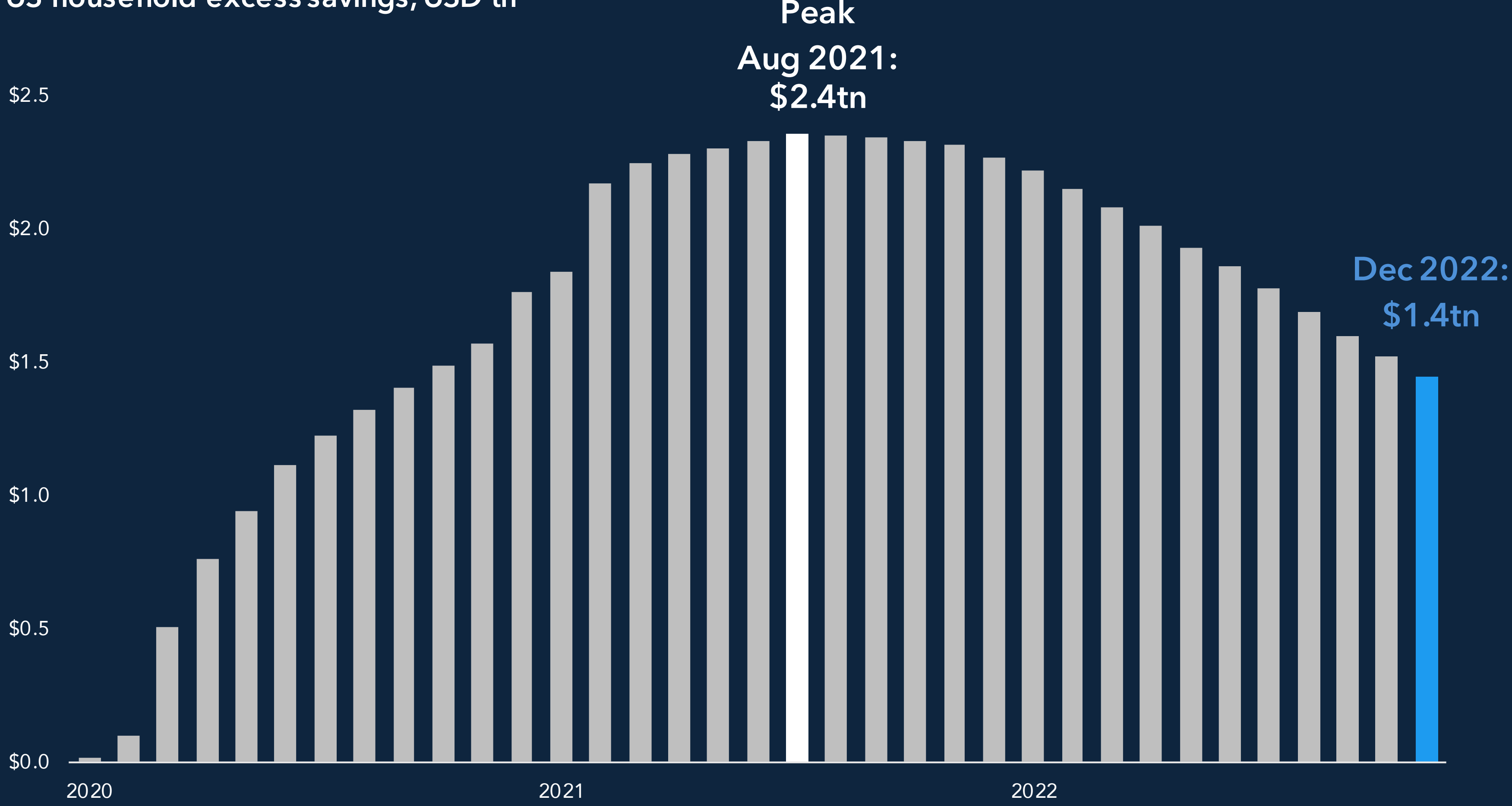


Source: (1) Bloomberg. Data as of February 2, 2023.

Consumers Depleting "Excess Savings"

US consumer "excess savings" peaked in August 2021 at roughly $2.4 tn and has fallen to about $1.4 tn as households deplete savings to support spending and high inflation

US household excess savings, USD tn

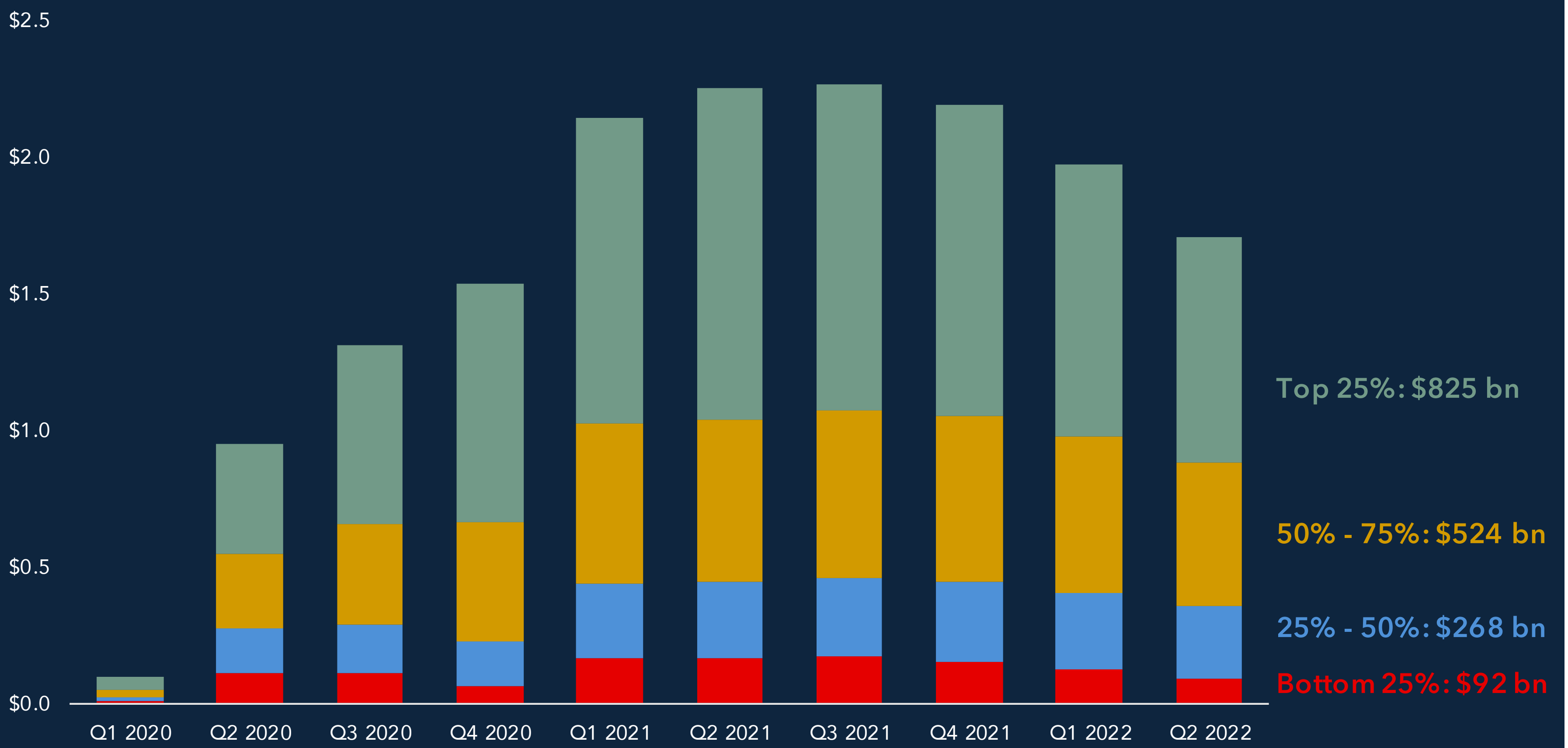


Source: (1) Oxford Economics, "Consumer Spending Depends on Continued Savings Drawdown" (October 26, 2022). Data updated as of February 2, 2023.

"Depletion Rate" Varies by Income Bracket

While the top half of the US income distribution hold the vast majority of remaining excess savings, an analysis by the Fed indicates households in the bottom half of the income distribution still hold a sizable stock of excess savings.

Stock of excess savings by income quartiles, USD tn

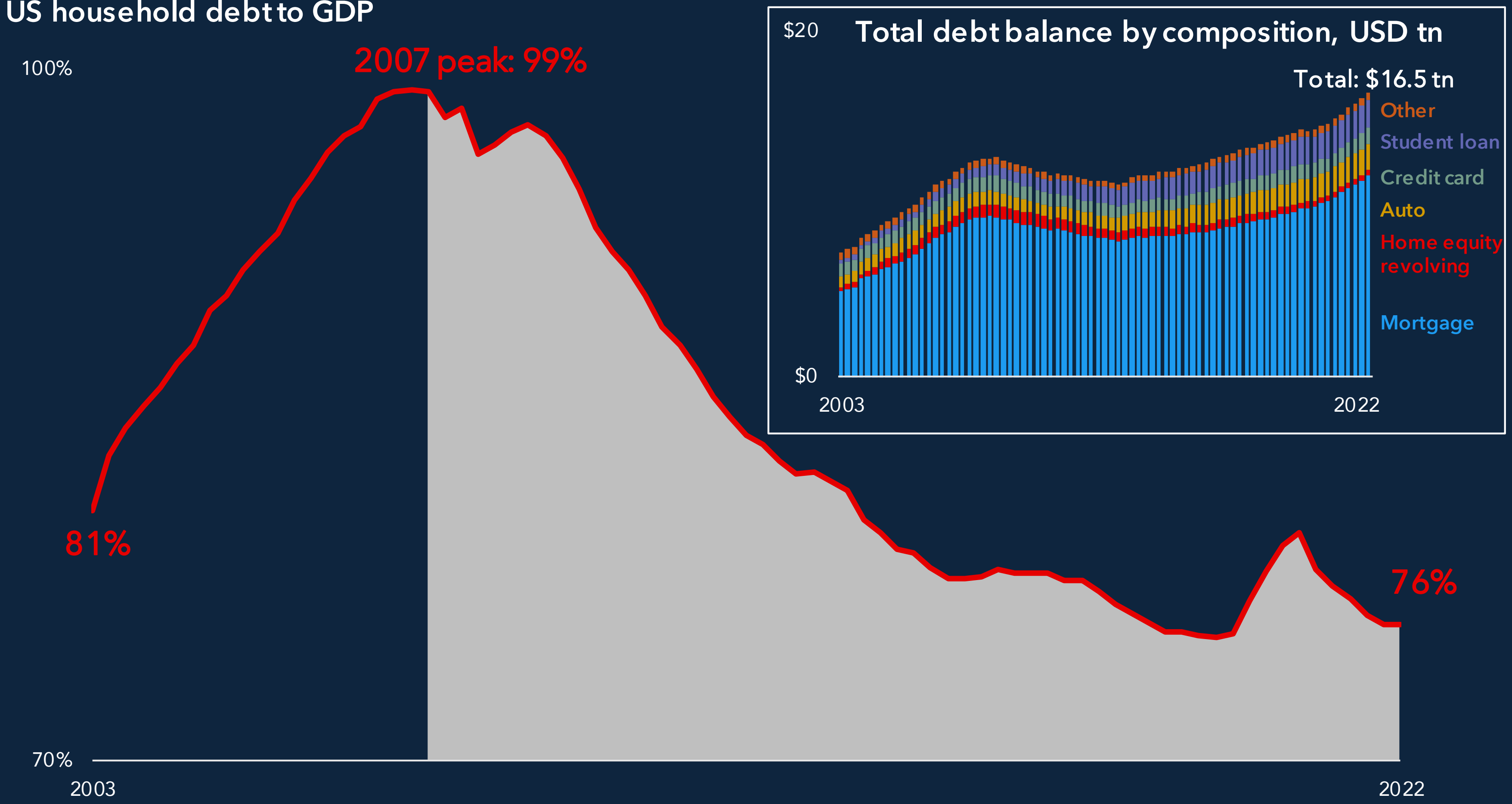


Source: (1) Federal Reserve, "Excess Savings During the COVID-19 Pandemic" (October 21, 2022). Bloomberg.

Consumer Debt / GDP Well Below GFC Levels

More so than most G20 economies globally, the US consumer has significantly de-levered since the GFC. Today, US consumer debt to GDP stands at 76%, well below the 2007 peak of 99%. While mortgage debt remains the largest sub-category of US debt, auto and student loans have been the fastest growing sub-categories over the last 15 years.

US household debt to GDP

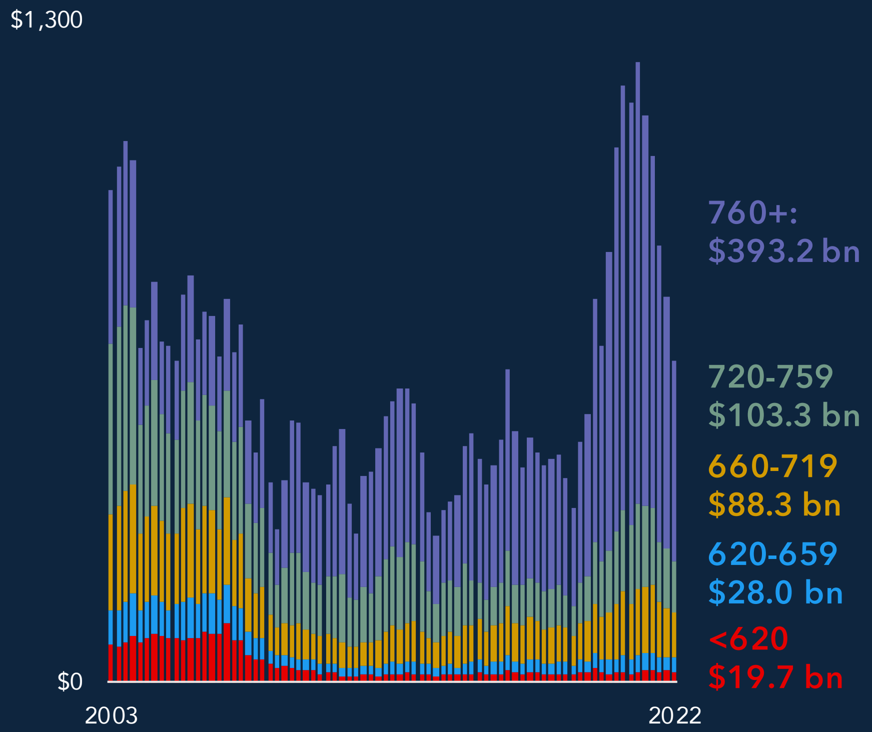


Source: (1) IIF. Data through Q3 2022. (2) New York Fed Consumer Credit Panel / Equifax. Q3 2022 report released November 2022.

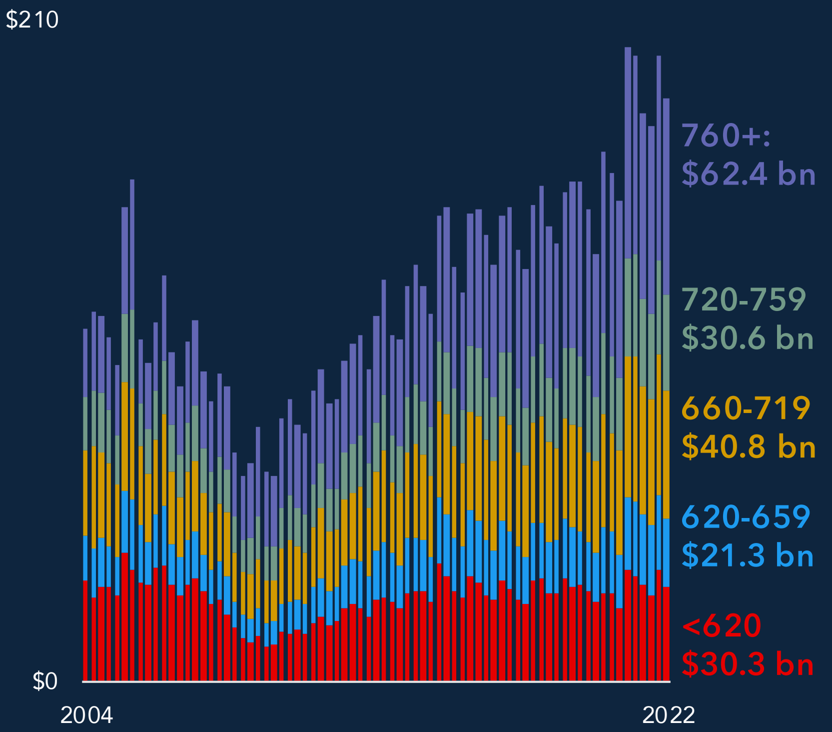
Mortgage & Auto Debt Heavily Concentrated in "Prime" Credit Tier

While household debt in the US has reached $16.5 trillion, 80% of that debt is in mortgages and auto loans. An analysis of mortgage and auto debt by credit score shows the vast majority of that debt is held by consumers in the "prime" (700+ credit score) and "non-prime" (700 – 620) segment, while a relatively low percentage is held by customers with credit scores below 620.

Mortgage originations by credit score, USD bn



Auto loan originations by credit score, USD bn

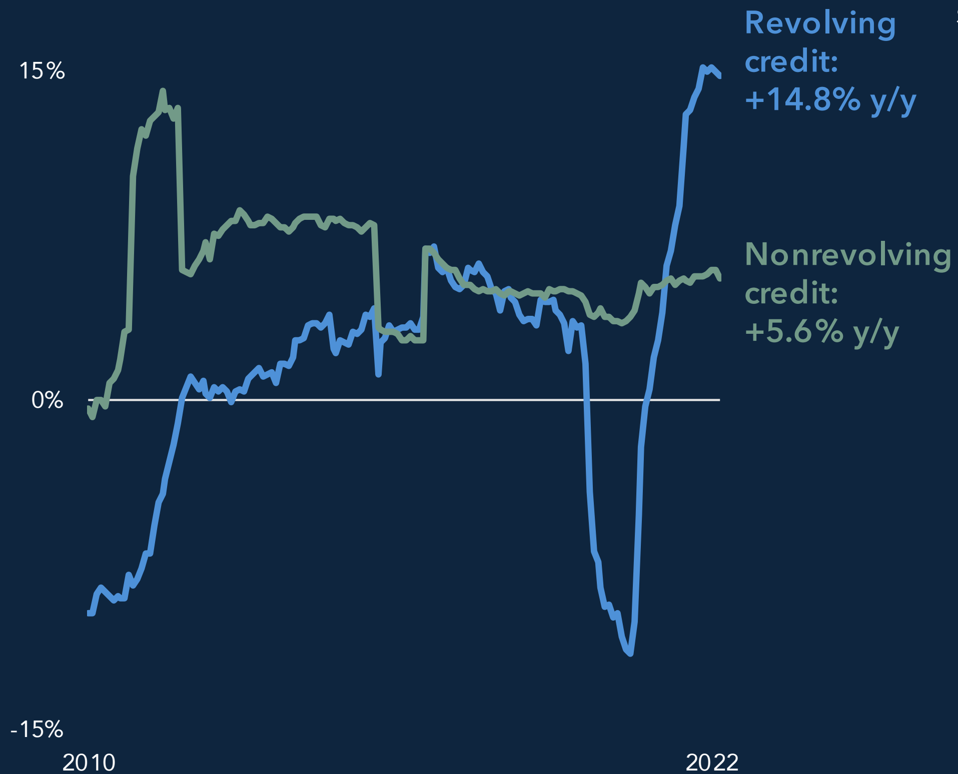


Source: (1-2) New York Fed Consumer Credit Panel / Equifax. Q3 2022 report released November 2022.

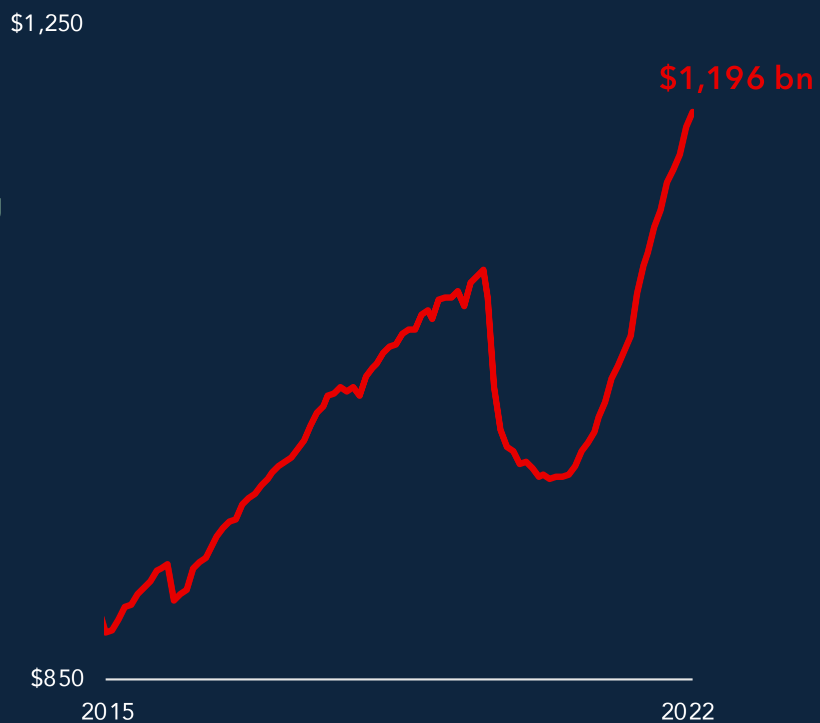
US Consumer Credit Balances Rising

In December, 35% of US households indicated they used credit cards or loans to fund spending needs. In the trailing 12-months to December, revolving credit increased 15% y/y. Consumers are increasingly using sources outside their regular income to fund purchases. Though rising, credit card balances relative to disposable income and credit card & auto loan delinquencies remain below pre-COVID averages.

y/y growth in consumer credit



Revolving consumer credit owned and securitized, USD bn



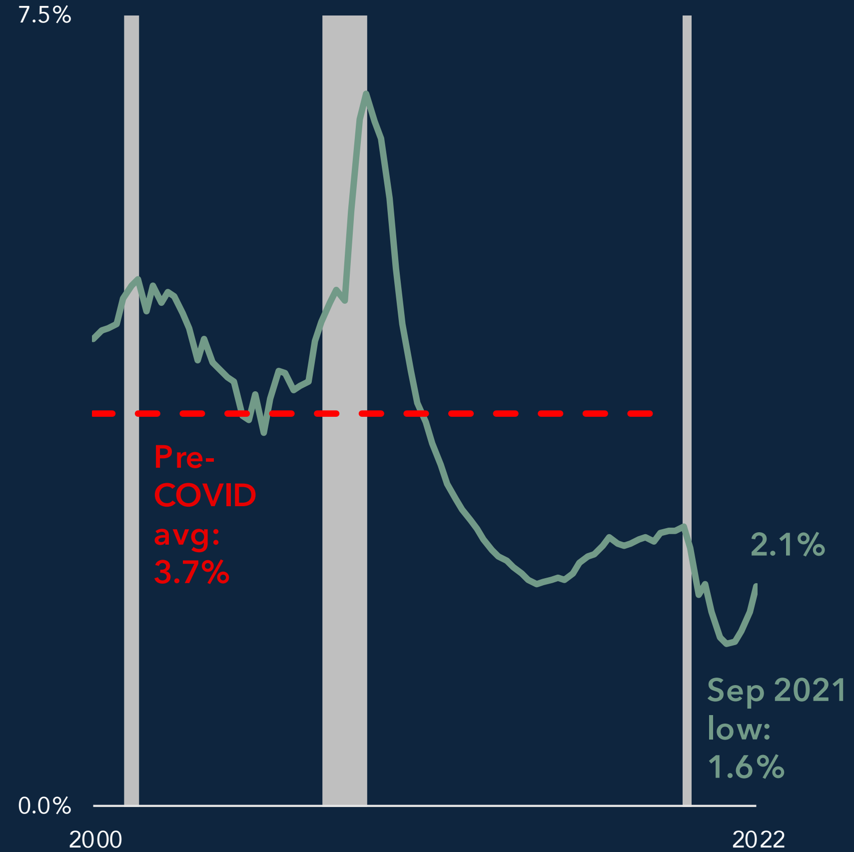
Source: (1-2) Bloomberg. Data as of February 7, 2023. Oxford Economics, "Consumers Continue to Borrow at a Steady Clip" (December 7, 2022). FRED.

Delinquencies Below Pre-COVID Averages

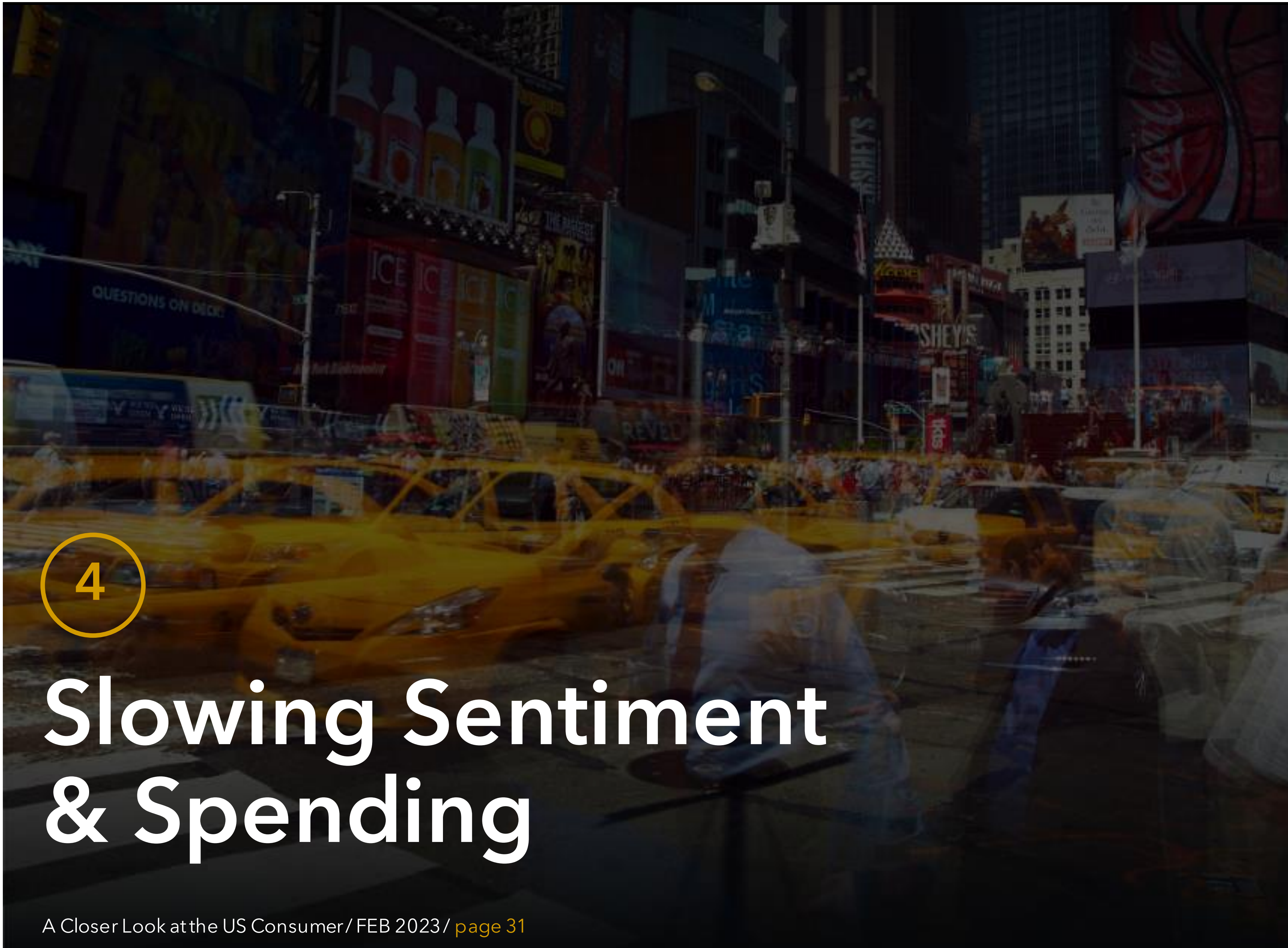
While rising from the lows of September 2021, consumer delinquency rates remain below their long term pre-COVID averages

US all consumer loan delinquency rates

US credit card delinquency rates



Source: (1-2) Bloomberg. Data as of February 2, 2023. Federal Reserve.



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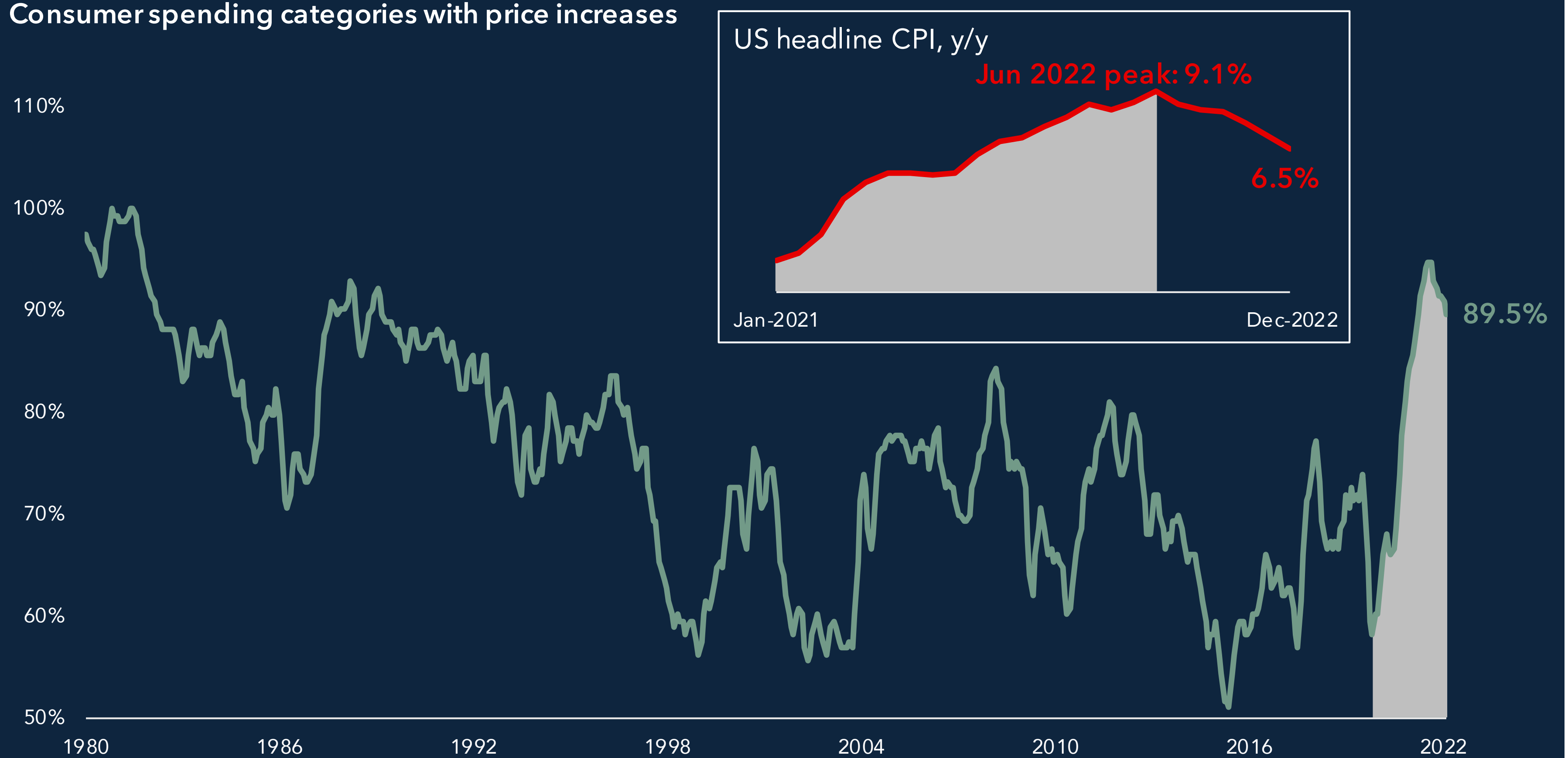
Slowing Sentiment & Spending

Inflation Remains a Challenge for the Consumer

Prices rose in nearly 90% of consumer spending categories in 2022. While inflation moderated in late 2022, it is still 2-3x the Fed's 2% target and likely to remain "sticky" in several important services categories.

Consumer spending categories with price increases



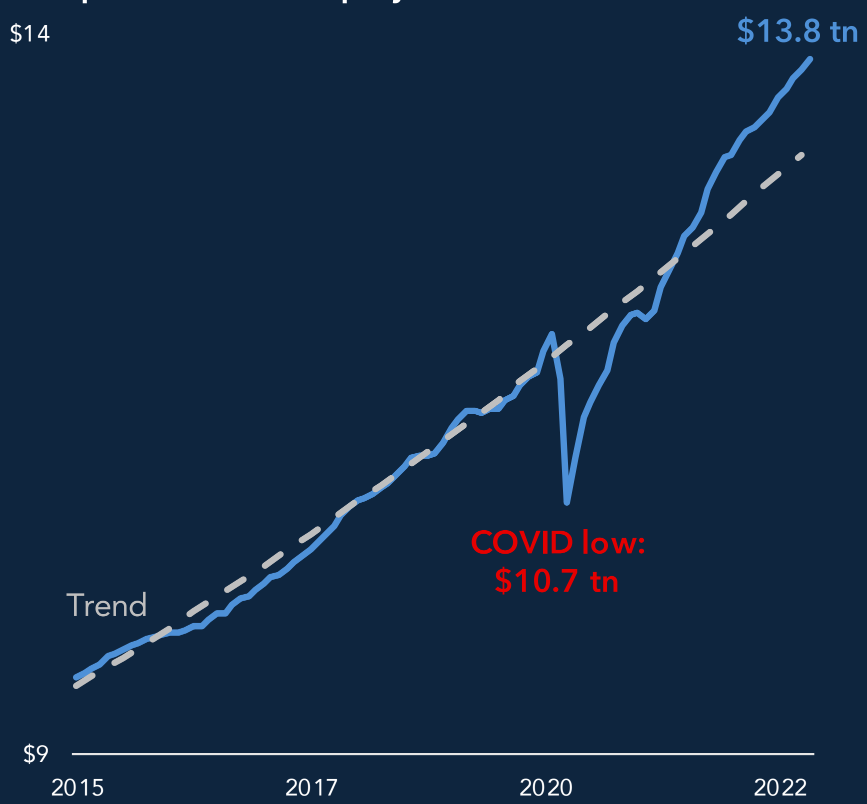
Source: (1) McKinsey, "Something's coming: How US companies can build resilience, survive a downturn and thrive in the next cycle" (September 2022). FRBSF. 3-month moving average of 12-month inflation diffusion indices based on items and expenditures. The expenditure categories series represents the number of personal consumption expenditure categories (of goods and services) with price increases as a fraction of total expenditure categories

Disposable Personal Income Returns to Long Term Trend

Nominal disposable US personal income spiked well above trend in 2020 and 2021, despite compensation dropping sharply as COVID disrupted the labor market. With tighter fiscal policy, elevated inflation, and lower savings, disposable personal income returned to trend in 2022. Statistically, changes in real disposable income have the largest impact on consumer spending behavior.

Disposable personal income, USD tn

Compensation of employees, USD tn

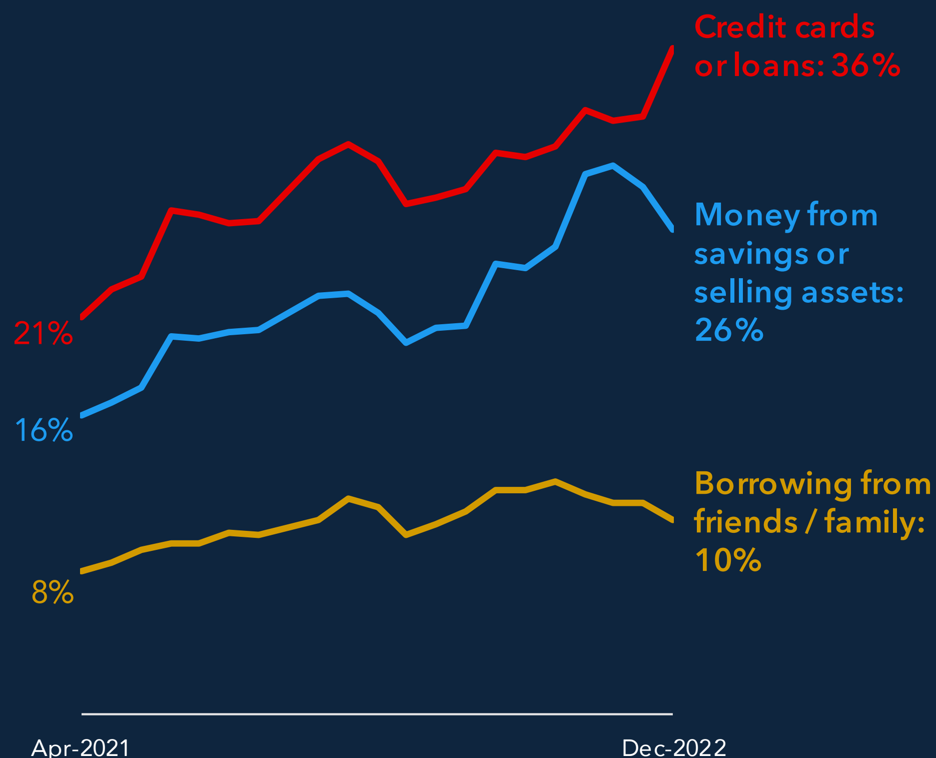


Source: (1) Federal Reserve, "Excess Savings During the COVID-19 Pandemic" (October 21, 2022). Bloomberg. BEA. Data as of February 2, 2023. Disposable personal income and compensation of employees are both seasonally adjusted annual rates.

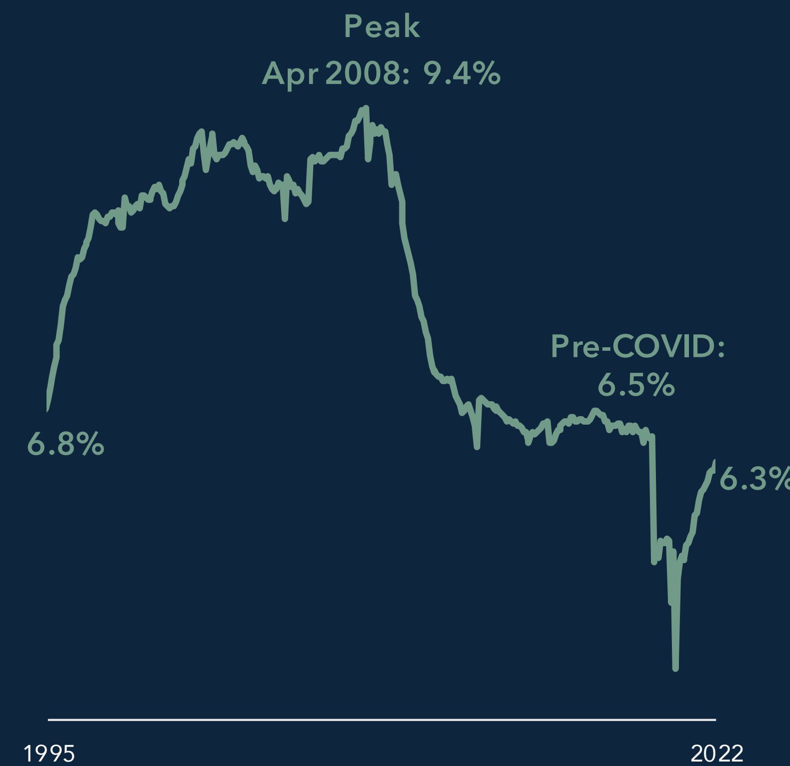
Credit Cards Increasingly Funding Purchases

In the face of high inflation, consumers are increasingly turning to credit cards and other sources outside their regular income to fund purchases. The Census Bureau's Household Pulse Survey found that 35% of US households used credit cards or loans to fund spending needs in December. Importantly, while credit card balances increased 15% y/y in the 3rd quarter, the largest increase in over 20 years, balances remain below pre-COVID levels as a percentage of disposable income.

Source of money to meet spending needs, % of total



Revolving consumer credit owned and securitized as a percent of disposable income

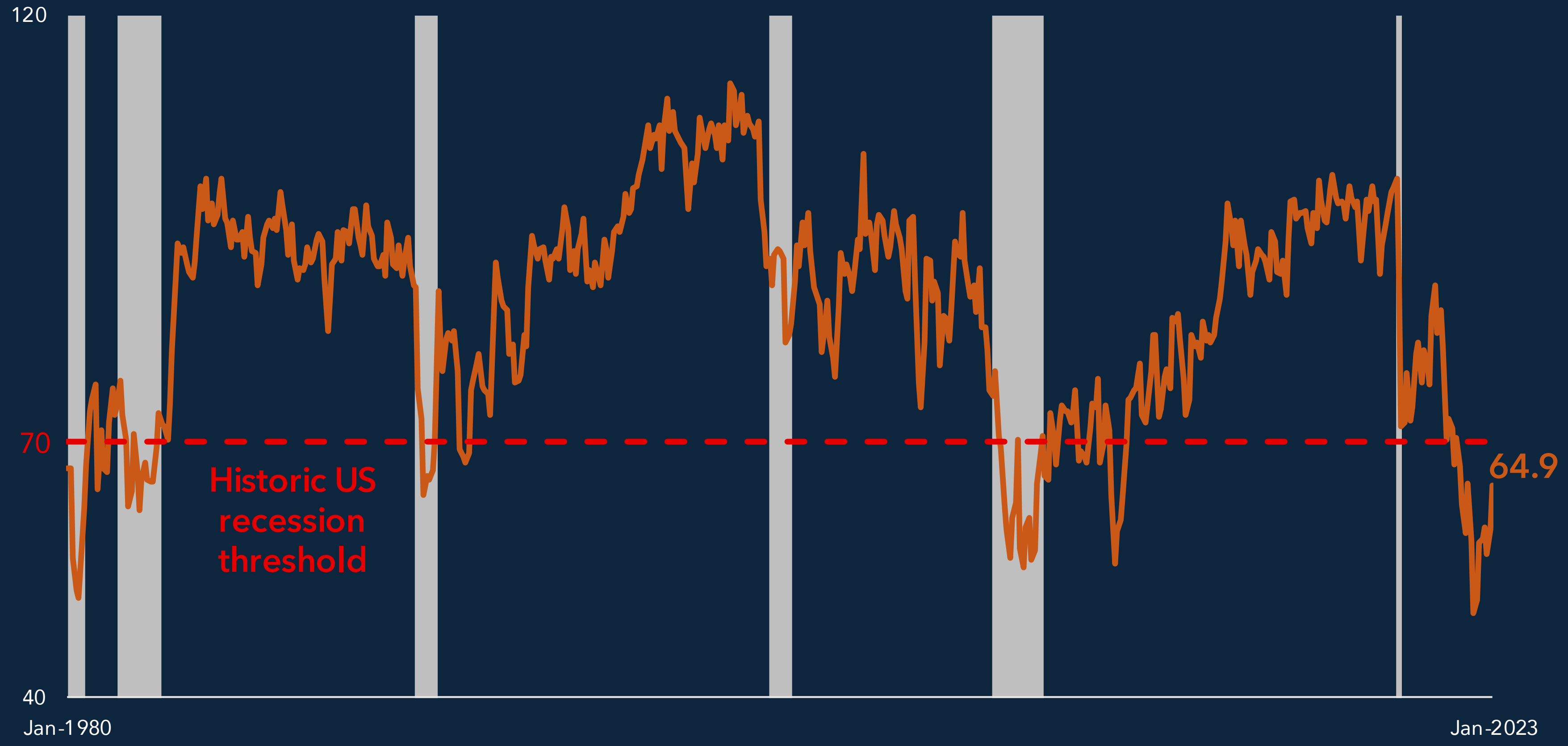


Source: (1-2) Bloomberg. Data as of February 2, 2023. Bloomberg Analysis of US Census Bureau Household Pulse Survey. Note – money from savings includes withdrawals from retirement accounts.

Consumer Confidence Remains Low

Despite a gas price fueled rebound in sentiment since July, consumer confidence has dropped below historic US recession period thresholds (including 2008-9 GFC). Low levels of consumer confidence often precipitate declines in real consumption.

University of Michigan consumer sentiment has typically dipped below 70 during recessions

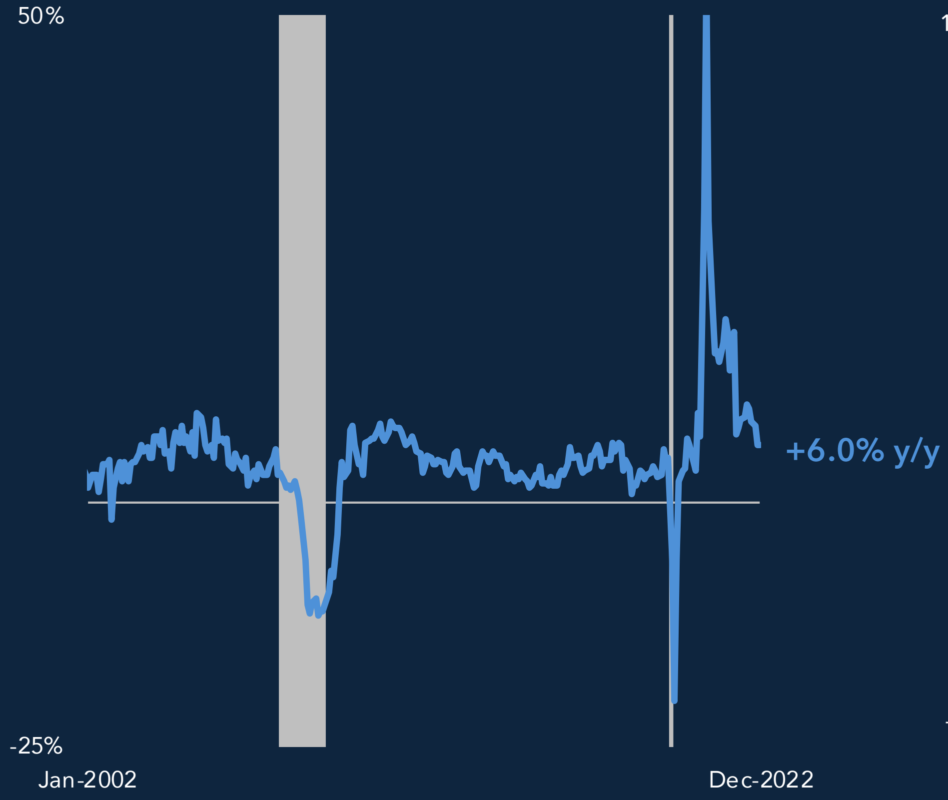


Source: (1-2) Bloomberg. Data as of February 2, 2023. Capital Economics "Confidence boosted by lower energy prices".

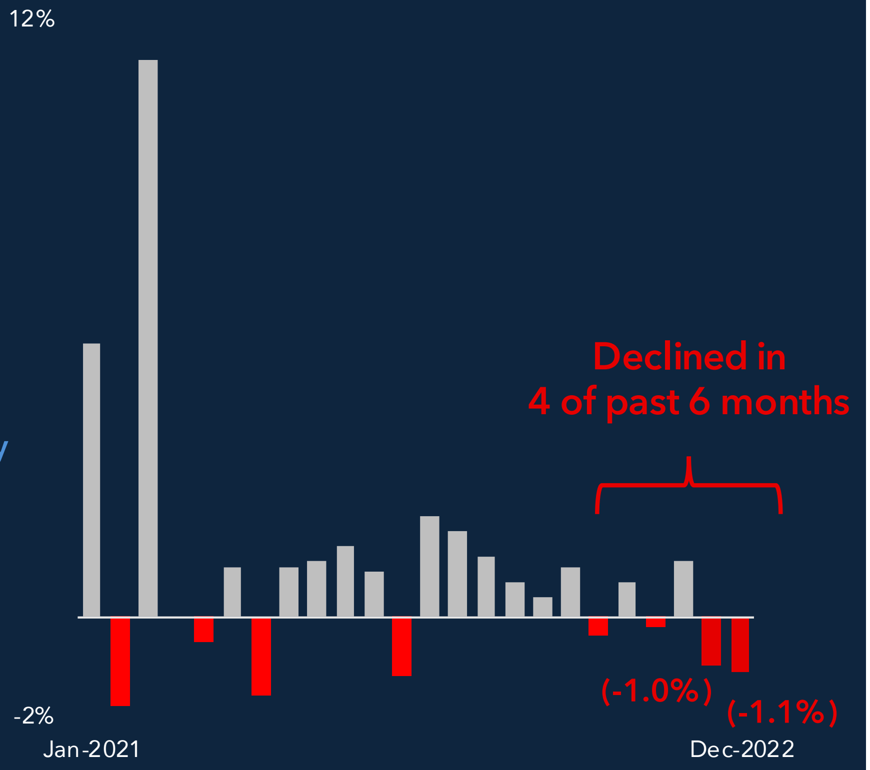
Momentum Shift in Consumer Spending

Despite weaker consumer sentiment, consumer spending remained strong through much of 2022. However, monthly data indicates a recent downshift in spending momentum with m/m declines in 4 of the past 6 months and consecutive declines in November and December. Retail sales typically decline toward or below 0% growth as a recession approaches.

US retails sales, y/y



US retails sales, m/m

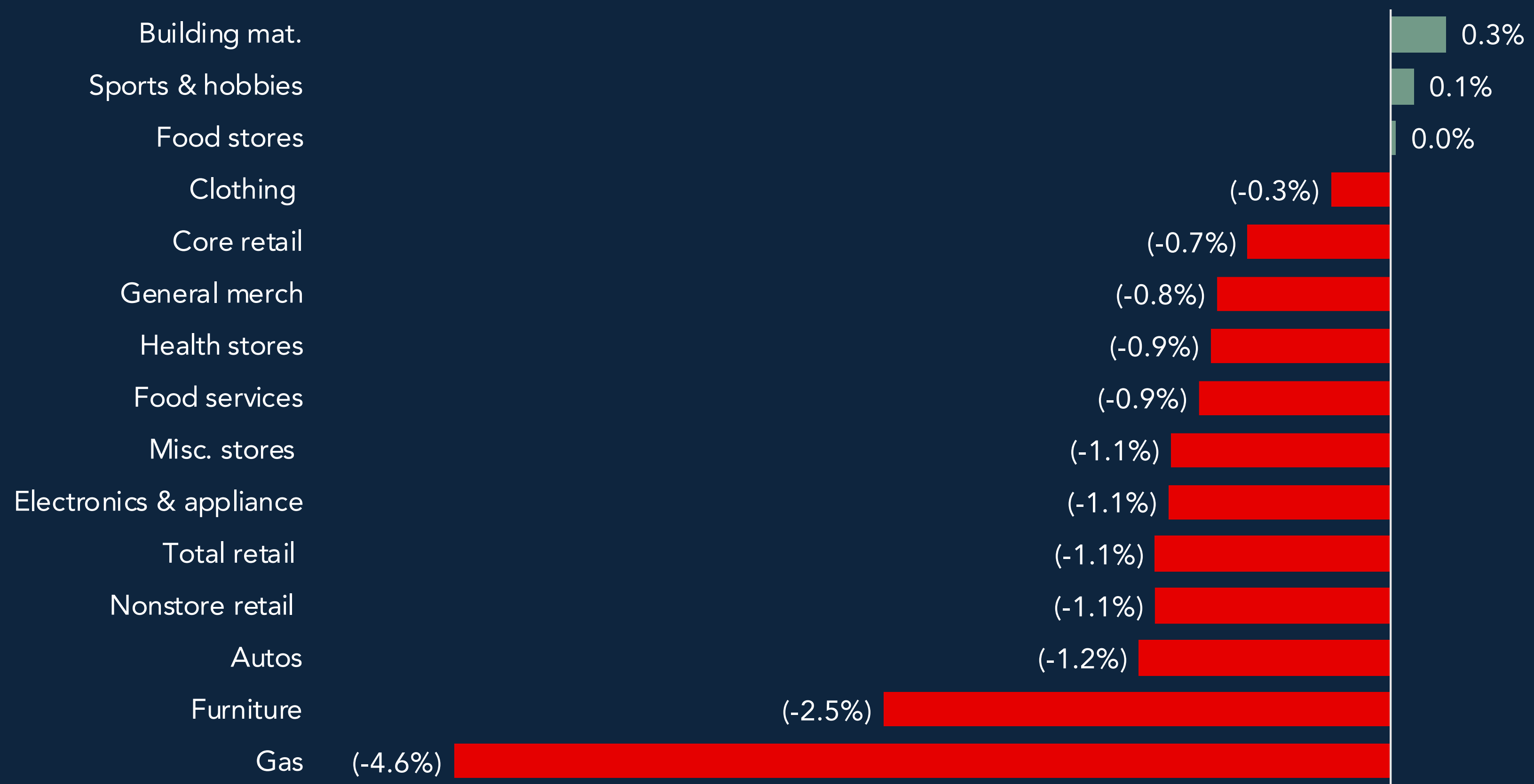


Source: (1-2) Bloomberg. Data as of February 2, 2023. FRED. Real retail sales are adjusted for inflation. Capital Economics "US Retail Sales (Sep.), Real consumption growth muted as higher rates bite)."

Retail Sales Growth Contracting into 2023

In December, headline nominal sales were down (-1.1%) on the month, adding to November's (-1.0%) decline. Control retail sales, which feed into the GDP calculation, fell for the second straight month, down (-0.7%). Consumers cut back their spending in nearly all categories as elevated inflation, declining incomes, depleted excess savings and negative wealth effects take a toll.

December US retail sales by category, m/m change

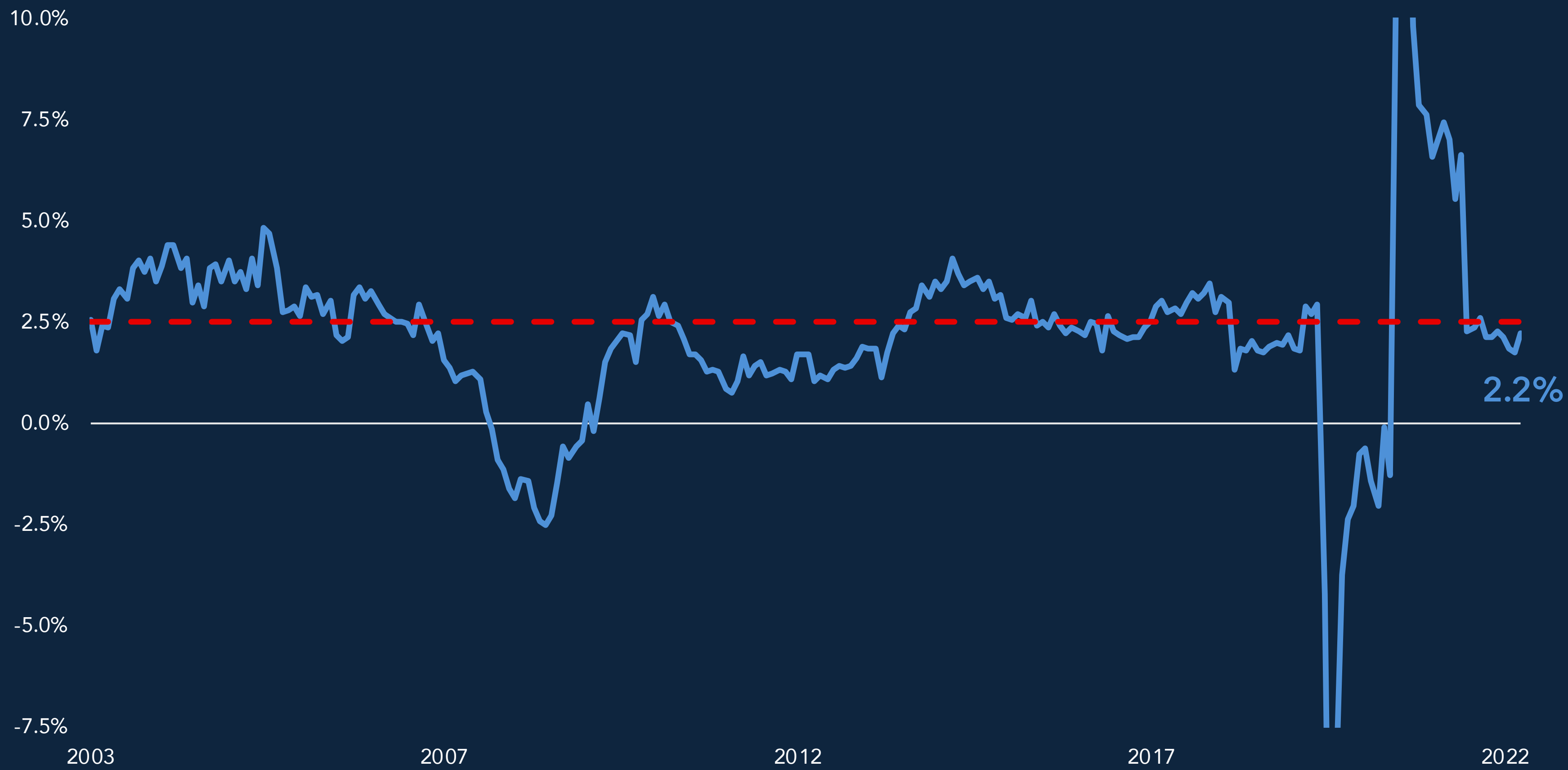


Source: (1) Oxford Economics, "US Consumer Keeps Chugging Along" (November 16, 2022). US Census Bureau. December Retail Sales Report. SA. Data as of February 2, 2023.

“Real” Consumption Signaling Recession Risk

In nominal terms, consumer spending fell (-1.9%) in 2020, surged to almost +13% in 2021 and remained elevated at 9% in 2022. However, with the pace of consumption moderating and inflation still 3x the Fed’s target rate, real personal consumption is now below historical recession thresholds.

US real personal consumption expenditures



Source: (1) Bloomberg. Data as of February 2, 2023. FRED.

5

Mixed US Recession Signals

US Consumer Recession Signals

We expect the consumer (nearly 70% of US GDP) to remain relatively resilient as the US economy enters a reasonably "short and shallow" recession in 2023 as a result of elevated inflation and continued Fed tightening

- Consumer inflation
- Consumer inflation expectations
- Consumer confidence
- "Rate" of consumer savings
- Auto sales
- Mortgage rates

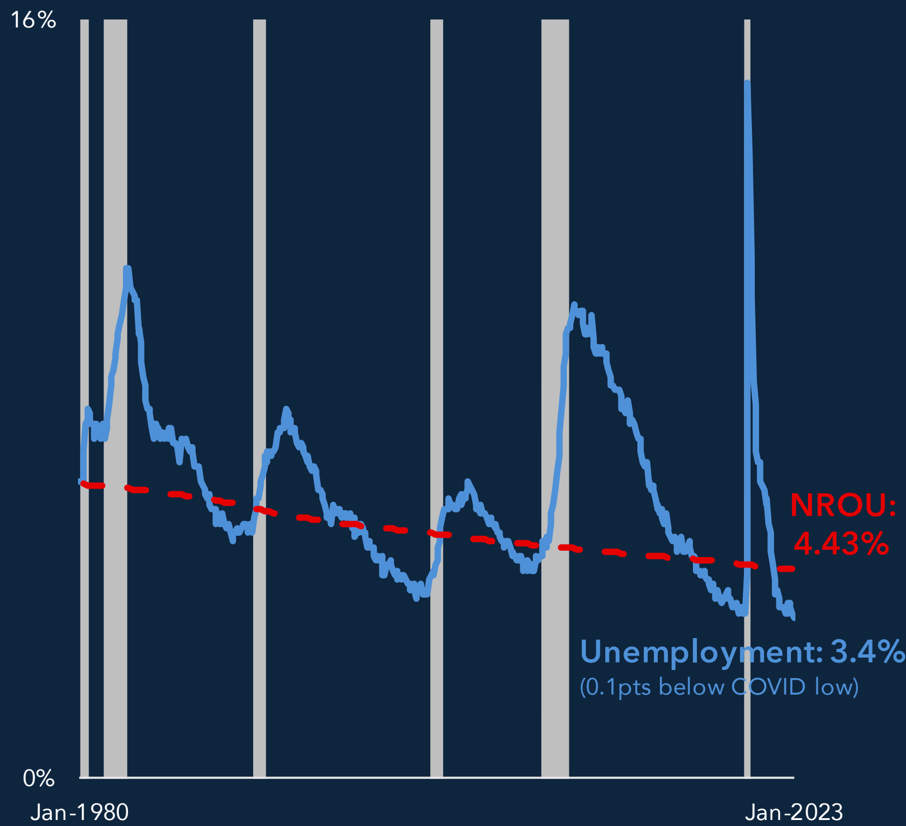
- Retail sales
- Economic surprise index
- Real house prices
- Real personal consumption expenditures

- Unemployment rate
- Job openings (JOLTS)
- Continuing jobless claims
- Change in jobless claims
- Payrolls
- Wage growth
- "Stock" of consumer savings

Recession Signals: Unemployment Rate

Historically, the unemployment rate has risen about 0.4% from its low point to time of recession start. In January, US unemployment reached a new 53-year low of 3.4%

✓ **Historically, when the unemployment rate rises above the non-cyclical rate of employment (NROU, previously NAIRU), the economy is in a recessionary period**



Start of recession	Increase in unemployment rate from trough to recession start	Number of months before recession start
Jul 1953	+0.1	1
Aug 1957	+0.4	5
Apr 1960	+0.4	2
Dec 1969	+0.1	7
Nov 1973	+0.2	1
Jan 1980	+0.7	8
Jul 1981	+0.0	3
Jul 1990	+0.5	16
Mar 2001	+0.5	11
Dec 2007	+0.6	7
Feb 2020	+0.0	1
Median	**+0.4**	**5**

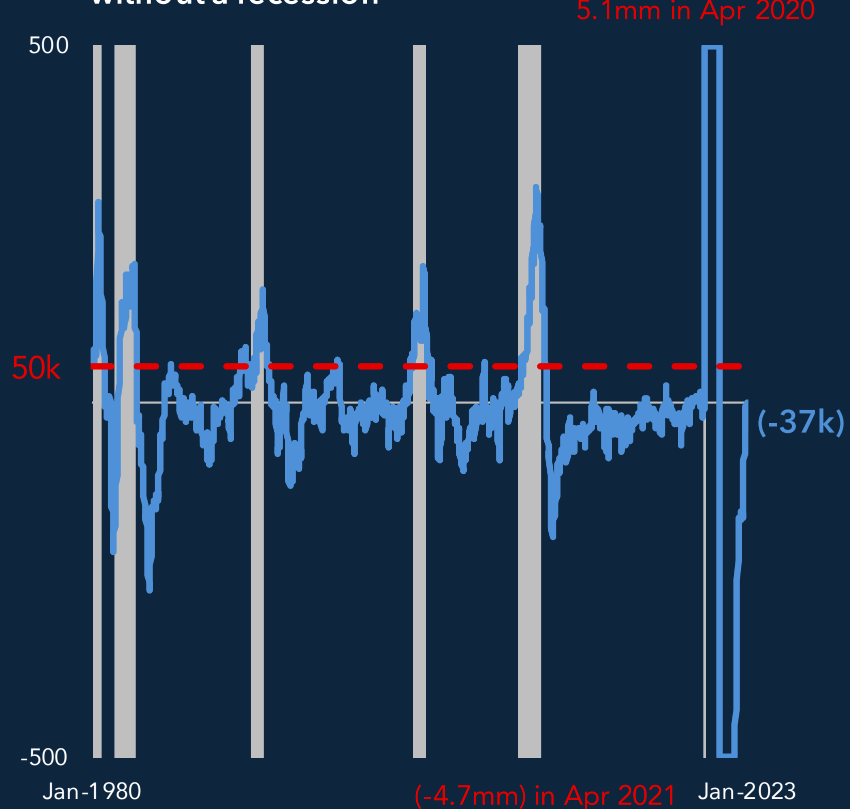
Source: (1-2) Bloomberg. Data as of February 3, 2023.

Recession ✓ Not yet ✓ Already happened

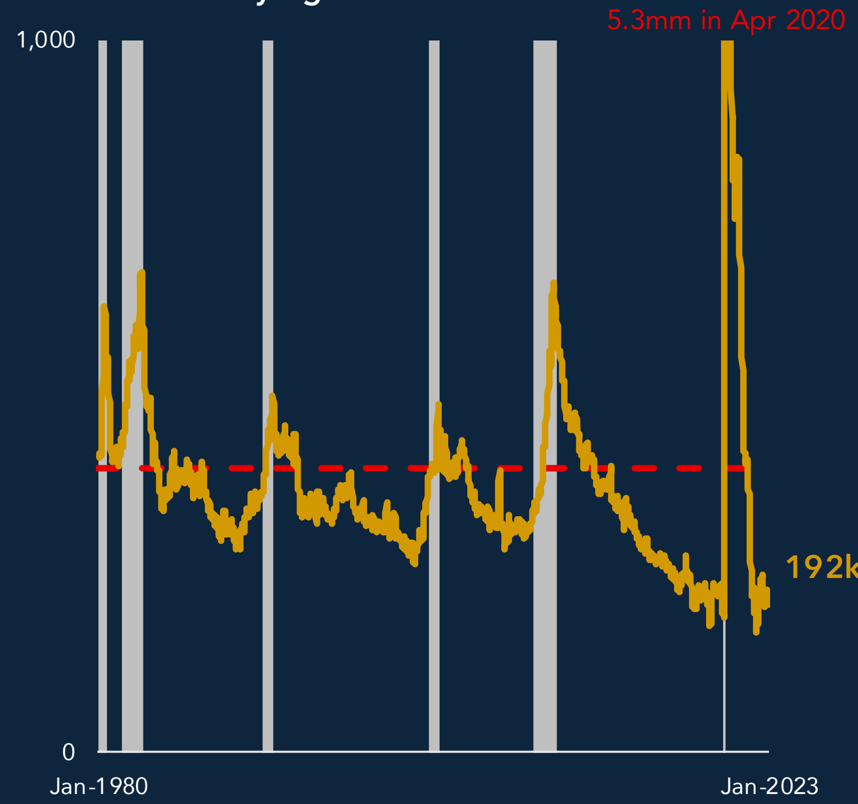
Recession Signals: Labor Markets

In the 12 US recessions since WWII, output has contracted and unemployment has risen on each occasion. While the unemployment rate is expected to increase from here, it may not reach the highs typical of other cycles.

The year-on-year increase in four-week average initial jobless claims has only breached 50k once without a recession



The four-week average of weekly initial jobless claims above 400,000 for several weeks has historically signaled US recessions



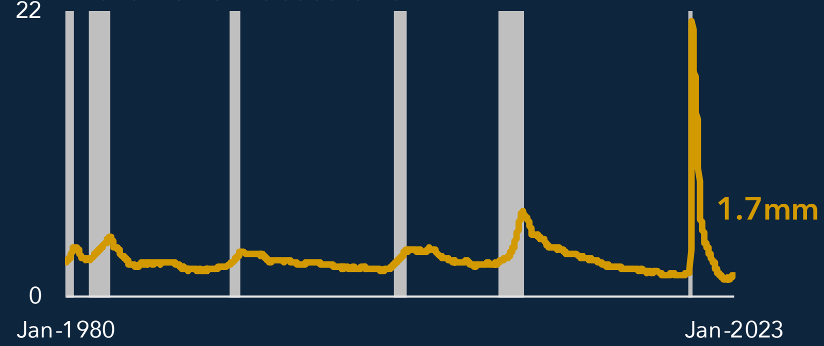
Source: (1-2) Bloomberg. Data as of February 2, 2023.

Recession | Not yet | Already happened

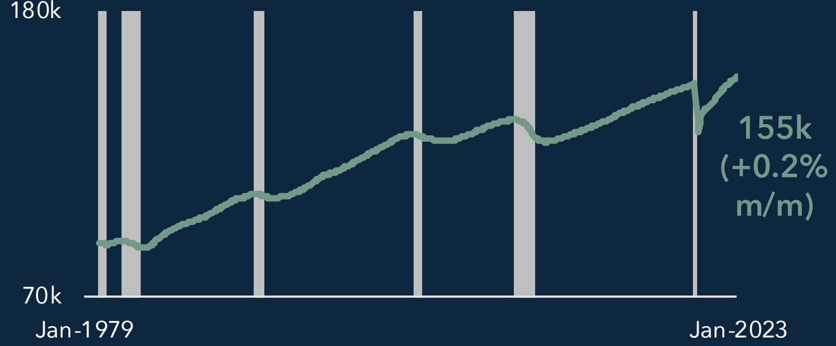
Recession Signals: Labor Markets

The number of job openings surged from 7 million prior to the pandemic to a record high of over 11 million (60% above its pre-COVID level) with the ratio of job openings per unemployed worker still close to an all time record of 2, nearly double the pre-COVID level.

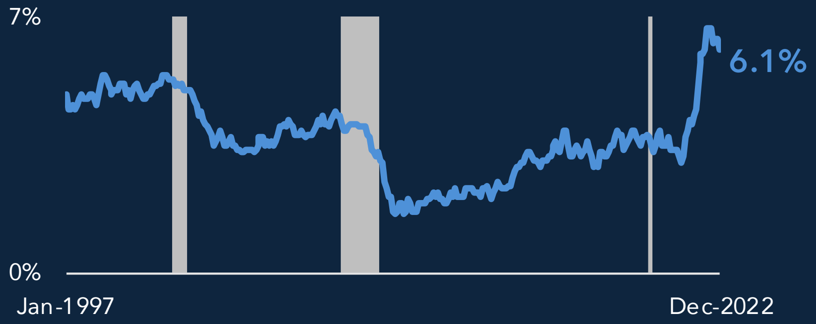
Prolonged increases in continuing jobless claims has historically been an accurate real-time indicator of recessions



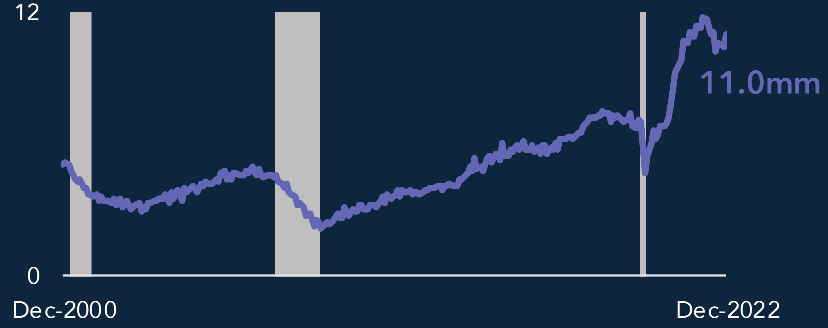
The three month moving average for payrolls has historically declined through recessions



US wage growth has historically experienced prolonged declines during recessions



Historically, the JOLTS data has shown a significant decline in job vacancies leading into economic recessions



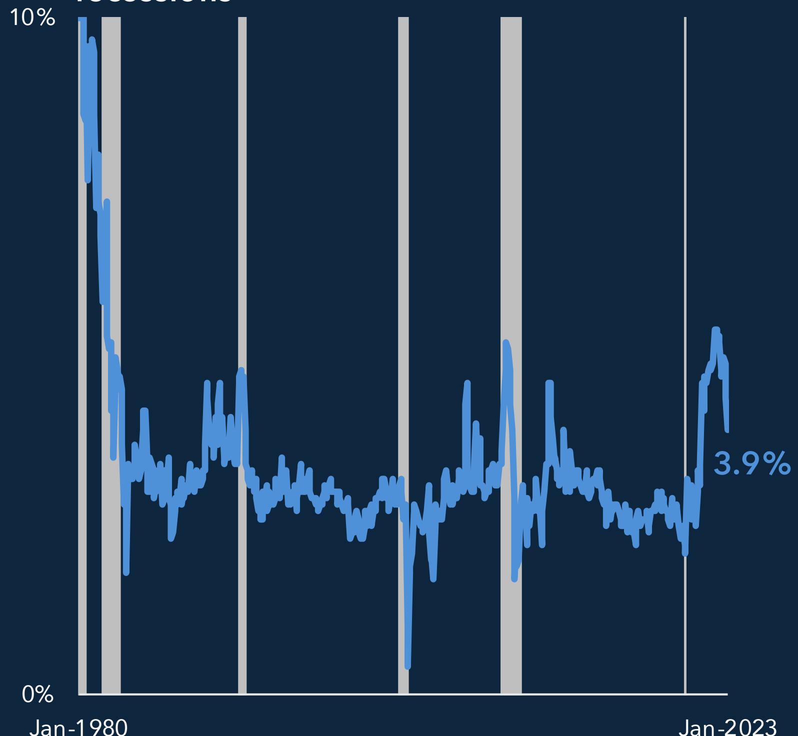
Source: (1-4) Bloomberg. Data as of February 3, 2023. FRED. Wage growth is Atlanta Fed. Continuing jobless claims is 4-week moving average.

Recession Not yet Already happened

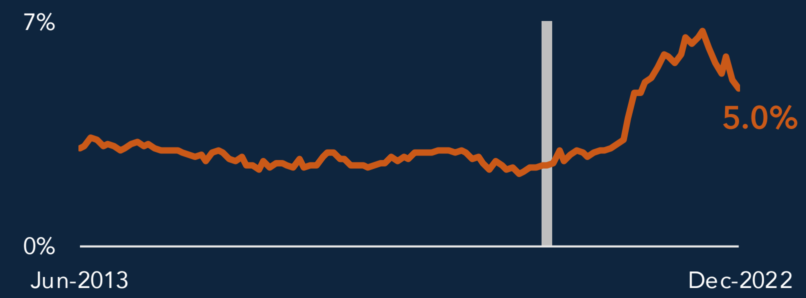
Recession Signals: Inflation "Expectations"

The University of Michigan's inflation "expectations" index for the year ahead reached its highest level since 1981 in March and April 2022 (5.4%). Though it has declined rapidly, respondents continue to cite inflation as a leading cause for lower overall sentiment. Additionally, the Fed's own Common Inflation Expectations (CIE) measure, which is comprised of 21 key inflation expectation measures including the UofM reading, remains elevated.

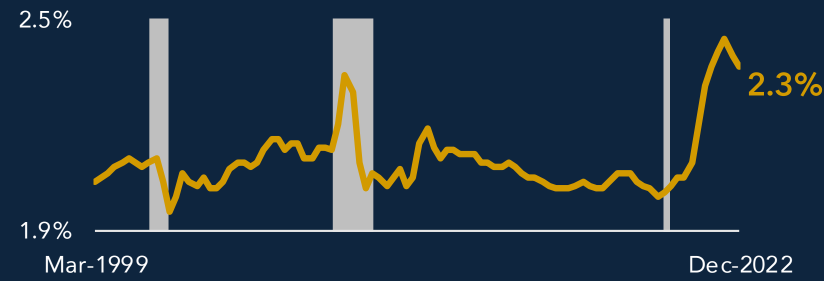
University of Michigan 1-year ahead inflation expectations typically rise sharply prior to recessions



The NY Fed's survey of consumers' one-year ahead inflation expectations is at a series high



The Fed's Common Inflation Expectations index is at the highest reading in over a decade



Source: (1-3) Bloomberg. Data as of February 2, 2023. Oxford Economics.

Recession ✓ Not yet ✓ Already happened

Recession Signals: Inflation

In June 2022, the CPI index peaked at 9.1%, its highest reading in 42 years (1981). While inflation has declined, it has been above the 5% threshold for US recession for 19 straight months. With the US consumer nearly 70% of GDP, a broad-based surge in inflation poses systemic risks and markedly increases the likelihood of recession.

Going back to 1950, the US has generally entered into a recession after year-on-year headline inflation growth rises above 5%

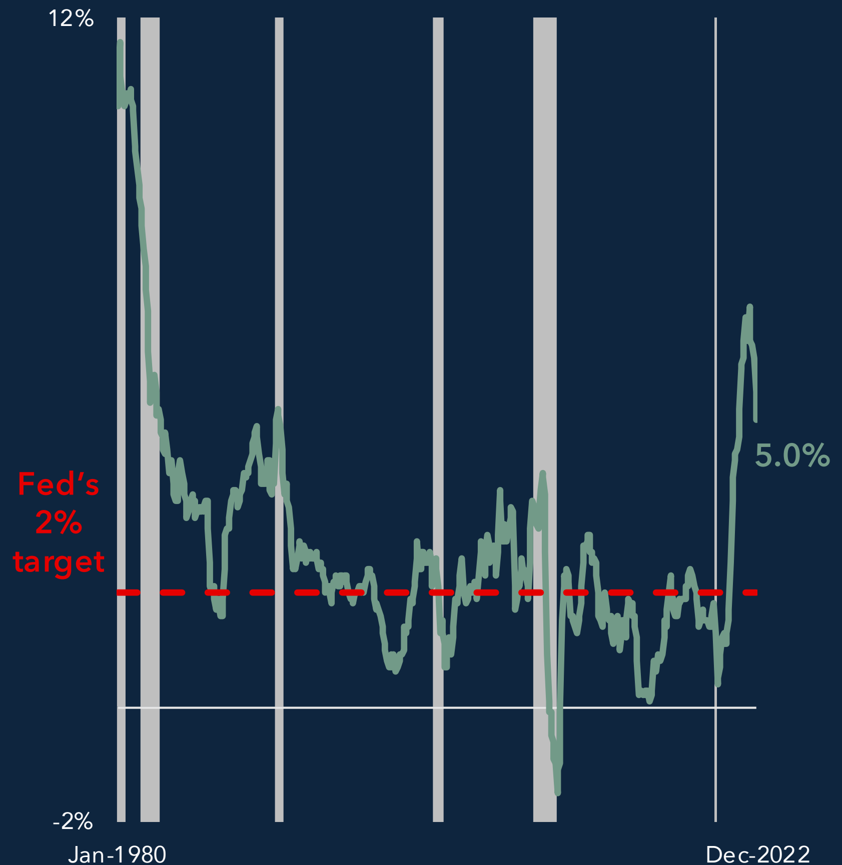
Source: (1) Bloomberg. Data as of February 2, 2023.

Recession Not yet Already happened

Recession Signals: PCE Deflator

Headline and core PCE, two inflation indices that the Fed watches most closely, have historically risen above the Fed's 2% target during recessionary periods

✓ Headline PCE y/y



✓ Core PCE, y/y

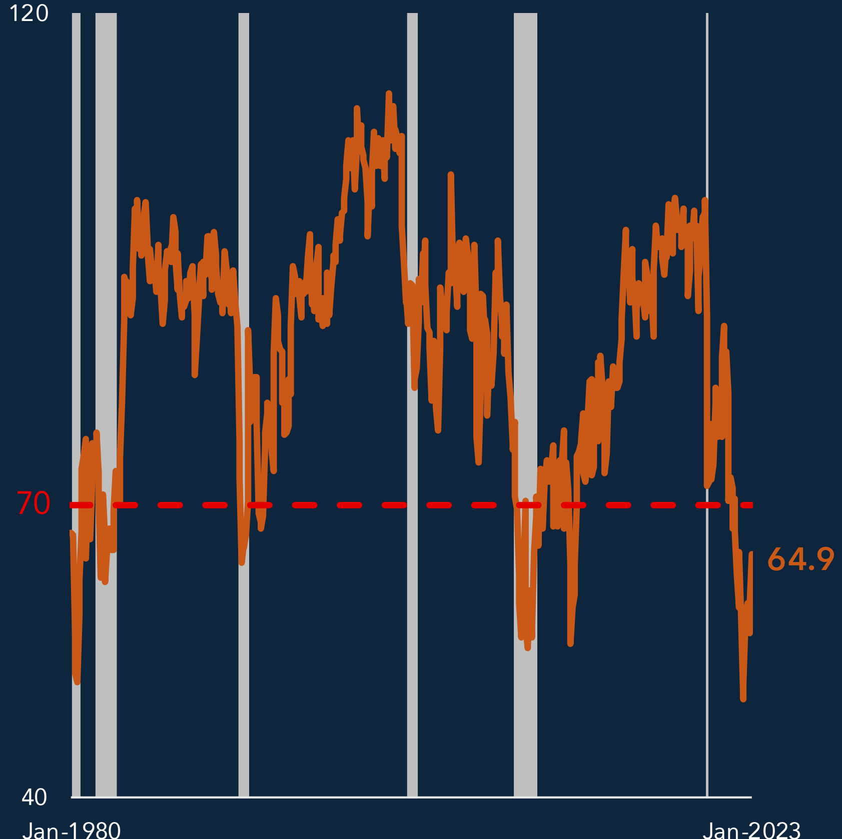
Source: (1-2) Bloomberg. Data as of February 2, 2023.

Recession ✓ Not yet ✓ Already happened

Recession Signals: Consumer Confidence

US consumer confidence metrics have rebounded from historic lows but remain at levels that historically indicate high recession risk

University of Michigan consumer sentiment has typically dipped below 70 during recessions



The future expectations of consumer confidence index typically converges lower to near term expectations as recessions approach

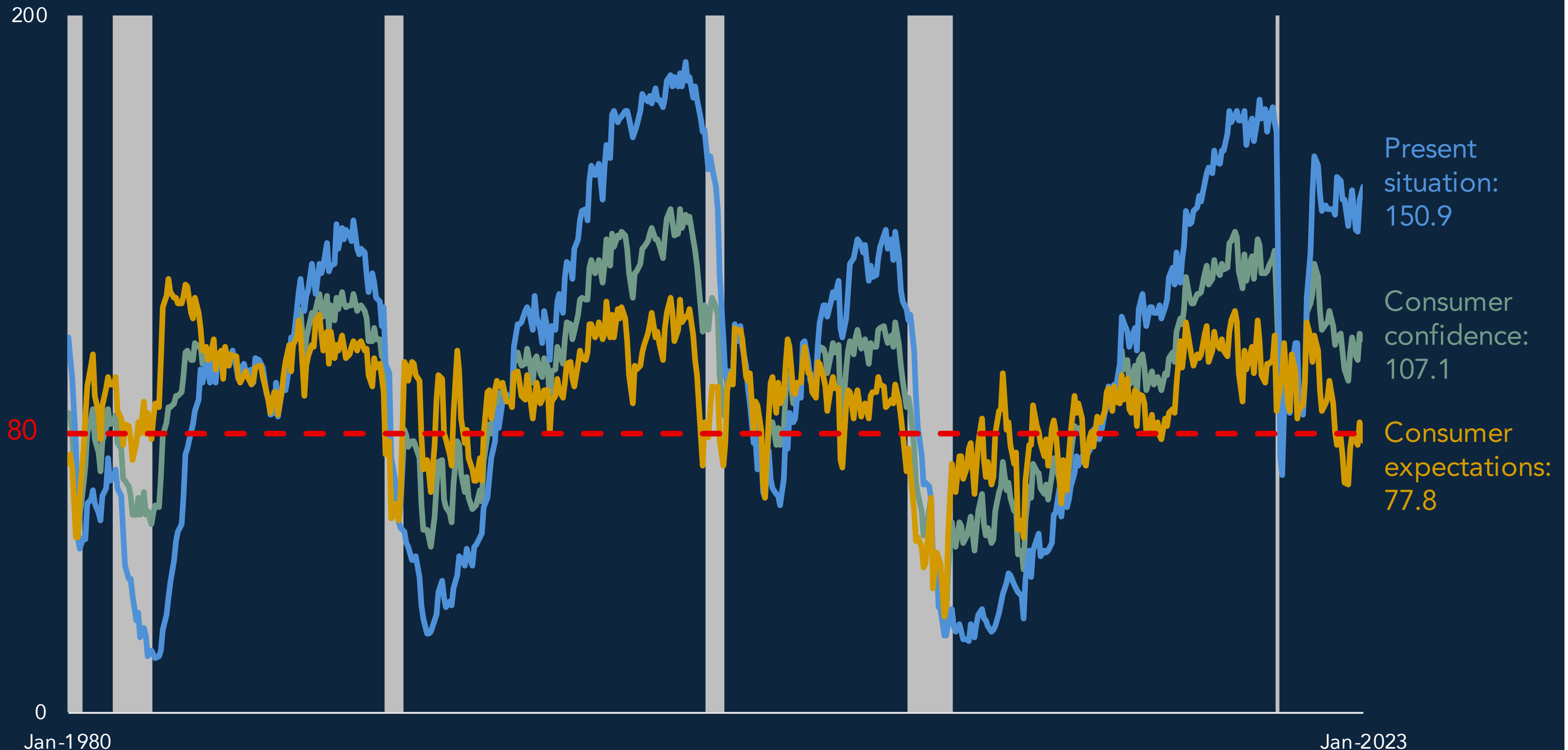
Source: (1-2) Bloomberg. Data as of February 2, 2023.

Recession · Not yet · Already happened

Recession Signals: Consumer Confidence

After rising to the highest reading since April 2022 in December, January Conference Board consumer confidence dropped sharply. The decline was entirely due to expectations for the next six months, which are now below the typical recession threshold level.

✓ **Conference Board consumer confidence expectations for the 6 months ahead falls below 80 during recessions**



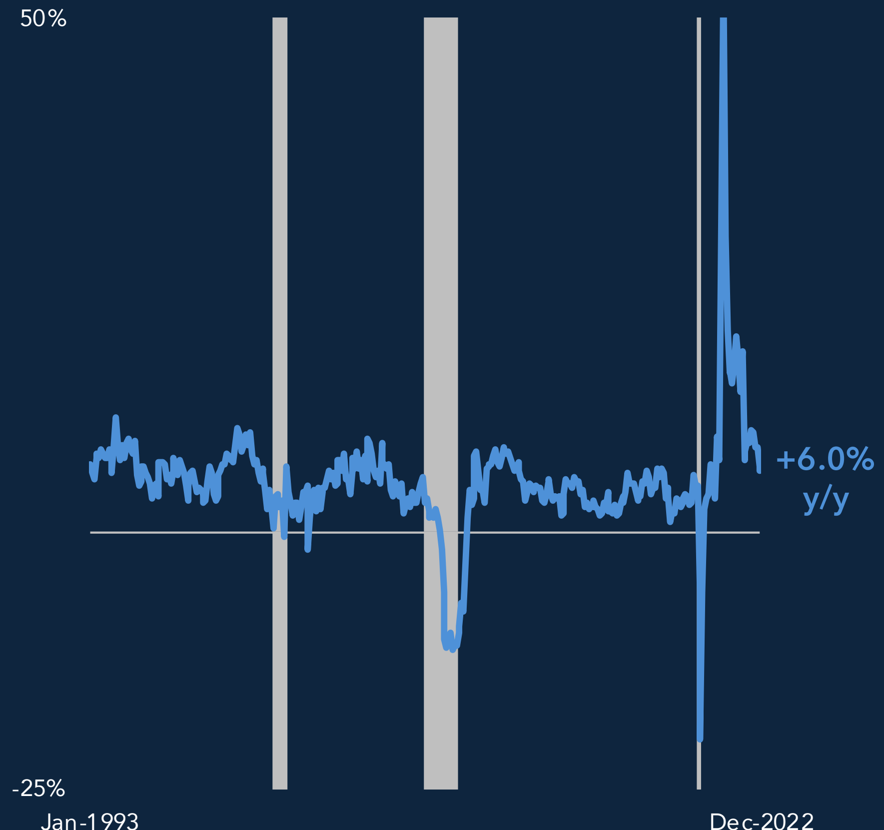
Source: (1) Bloomberg. Data as of February 2, 2023.

Recession ✓ Not yet ✓ Already happened

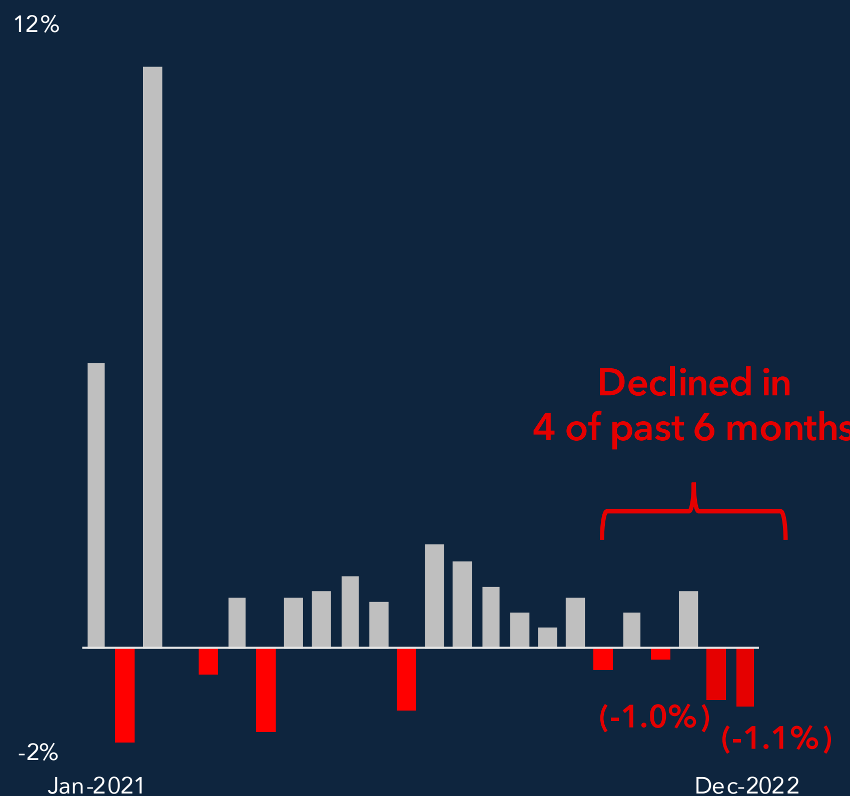
Recession Signals: Consumer Spending

While the US consumer has shifted spending from goods to services, many economists are concerned that the strength of US consumer services spend will dissipate in 2023

Retail sales typically decline toward or below 0% growth as a recession approaches



US retails sales, m/m



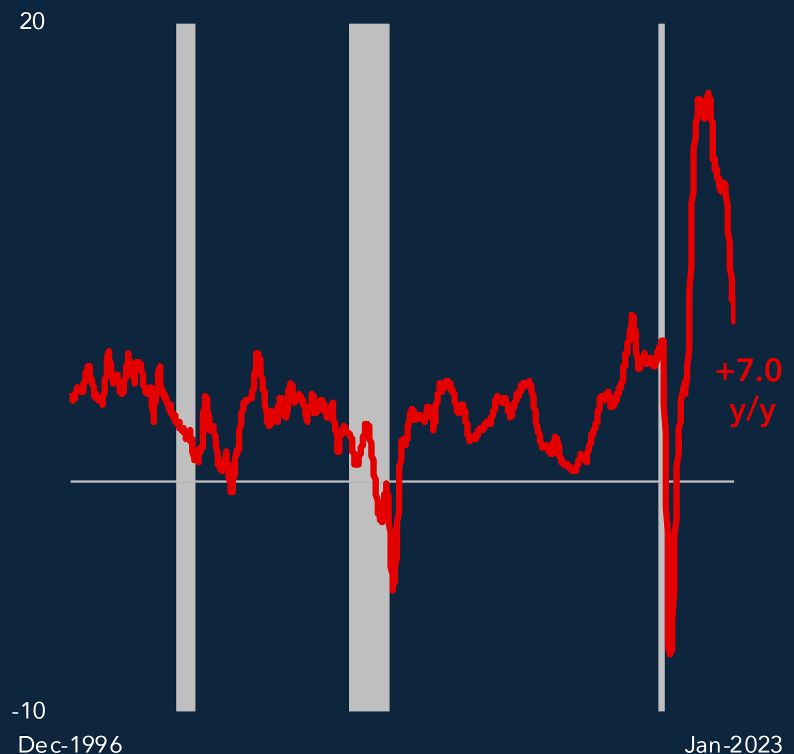
Source: (1-2) Bloomberg. Data as of February 2, 2023.

Recession Not yet Already happened

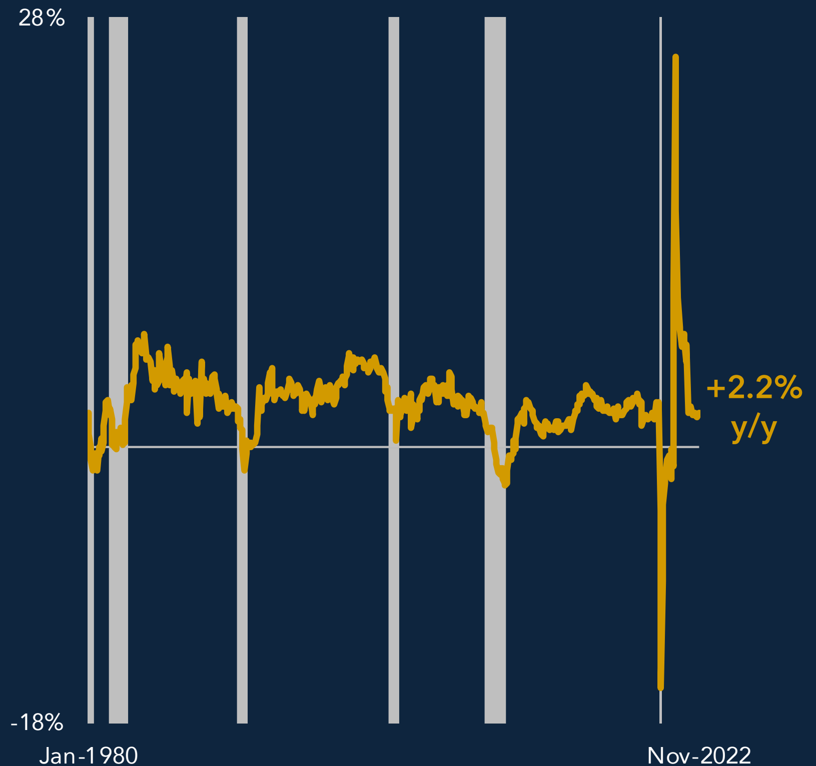
Recession Signals: Consumer Spending

On a year over year basis, same store sales and retail sales were robust in 2022. However, monthly data shows rapid deceleration in the last two months of the year. Further, real personal consumption, which remained positive in 2022, disappointed expectations of 3% and is showing signs of further deterioration.

Johnson Redbook same store sales have significantly declined toward or below 0% growth as recession approaches



Real personal consumption expenditures historically contract ahead of recessions



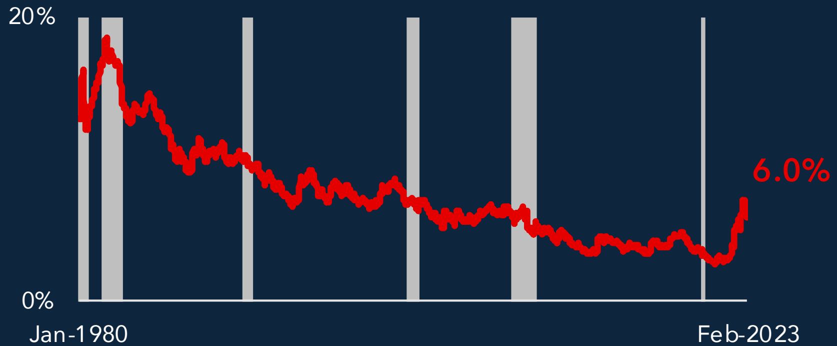
Source: (1-2) Bloomberg. Data as of February 2, 2023. Johnson Redbook same store sales is 3 month moving average.

Recession Not yet Already happened

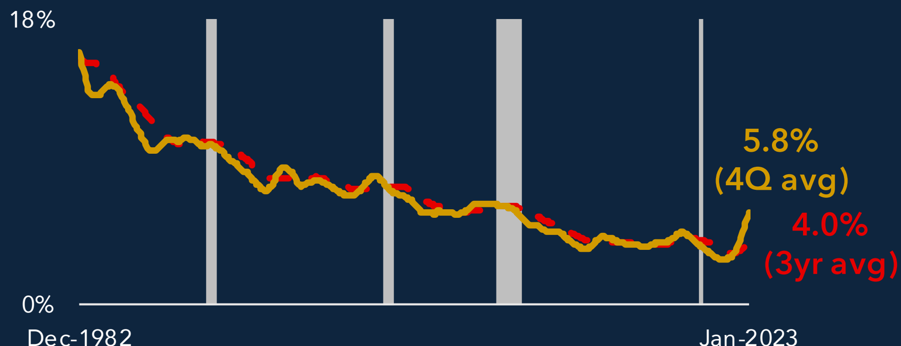
Recession Signals: Mortgage Rates

US mortgage rates more than doubled in 2022 to new 20 year highs while existing home sales fell to their lowest level since 2014. In Q4, 57% of consumers reported concerns over making housing payments, up from 48% in Q3.

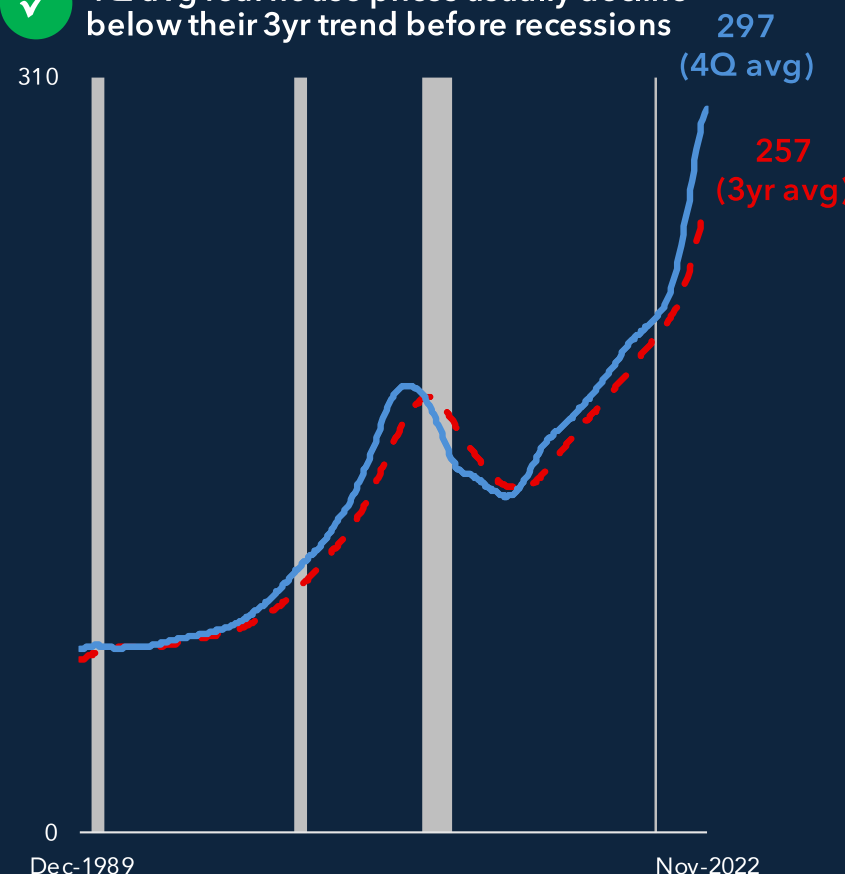
US mortgage rates typically rise sharply and then fall during recessions



The 4Q avg of 30yr mortgage rates typically spike above their 3yr trend before recessions



4Q avg real house prices usually decline below their 3yr trend before recessions



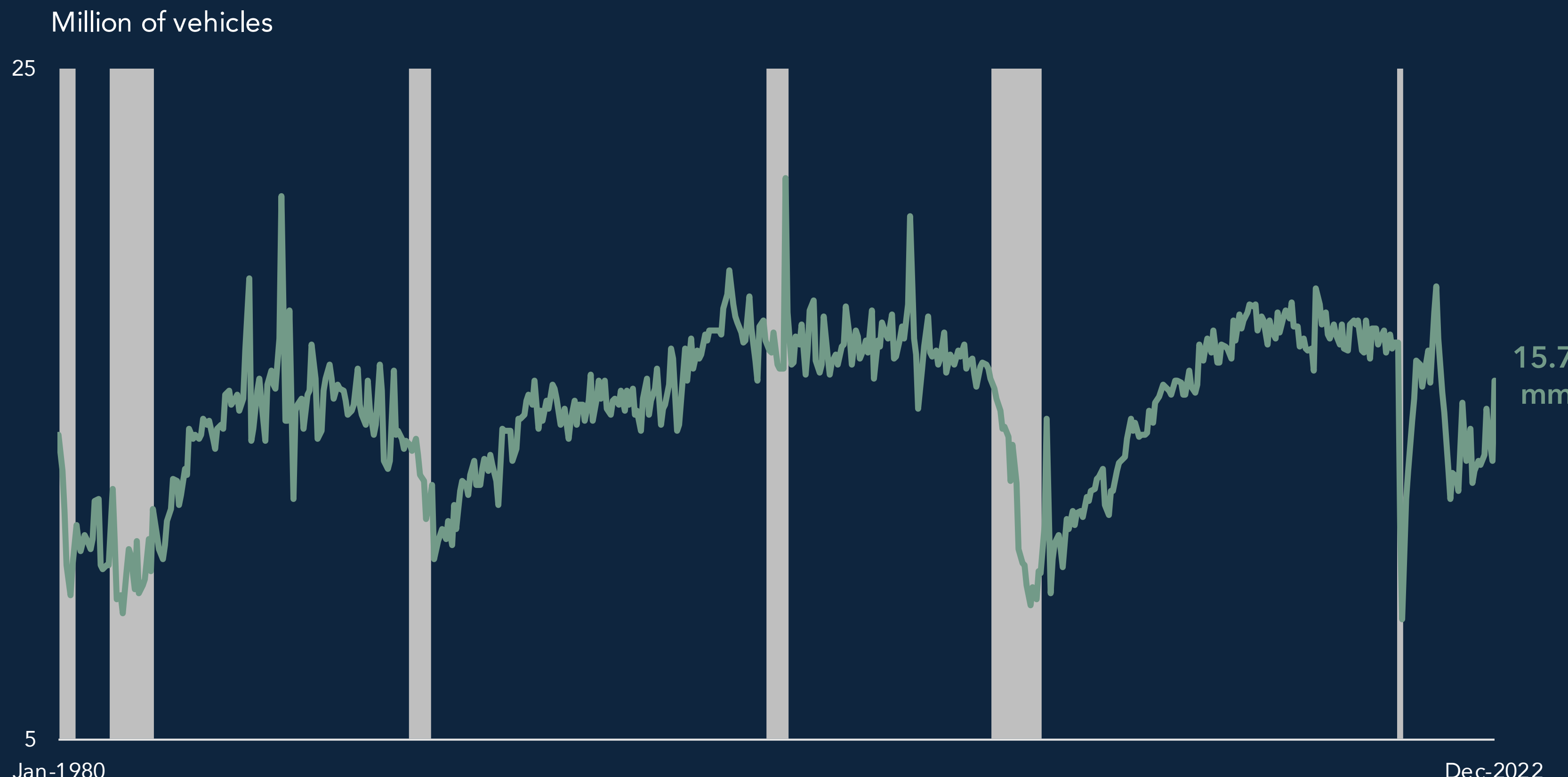
Source: (1-3) Bloomberg. Data as of February 2, 2023. US mortgage rate is Freddie Mac 30-year fixed rate mortgage. Real House prices based on the Case-Shiller US National Home price Index. Jan 2000 = 100.

Recession Not yet Already happened

Recession Signals: US Auto Sales

In 2022, US auto sales fell to their lowest levels in over a decade as interest rates rose and consumer sentiment wavered. However, sales rebounded sharply in January 2023 to a near-two year high.

US auto sales, a good indicator of consumer sentiment, typically declines sharply ahead of recessions and has declined 4 of the last 5 months



Source: (1) Bloomberg. Data as of February 2, 2023. Johnson Redbook same store sales is 3 month moving average.

Recession Not yet Already happened

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Tom Joyce is a Managing Director and Capital Markets Strategist within MUFG's global capital markets and investment banking business. Based in New York, Tom heads a team that creates customized analytical content for multi-national S&P 500 companies. His team provides in depth analysis on the impact of economic, political, public policy and regulatory dynamics on the US credit, foreign exchange, rates and commodities markets.

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Tom has over 25 years of Investment Banking experience in New York, London, Hong Kong, and San Francisco. Over the last 15 years, Tom created and built the Capital Markets Strategy role, advising corporate C-Suite executives (Boards, CEOs, CFOs, and Treasurers) on the pervasive macro forces driving markets. Tom also presents at dozens of corporate events each year including Board meetings, CEO ExCo sessions, CFO and Treasury off-sites, corporate leadership events and conferences.

Education

Tom's educational background includes a year of study at Oxford University from 1991 - 1992, a Bachelor of Arts in Political Science from Holy Cross College in 1993, and a MBA from Kellogg Business School, Northwestern University in 2000.

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Tom resides in New Canaan, CT with his wife and four sons, where he serves on the Board of Trustees of the New Canaan Library as well as the Holy Cross College President's Council.

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Experience

Hailey has a decade of Wall Street experience, including three years as a Consumer Sector Specialist in Equity Sales and seven years as a Capital Markets Strategist. Hailey is also a member of MUFG's Inclusion & Diversity Council and has devoted years to participating in and developing Wall Street recruiting programs.

Education

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In March 2020, Crain's New York Business Magazine named Hailey one of the "Rising Stars in Banking and Finance".

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Experience

Stephanie has spent over five years as a Capital Markets Strategist. She is an active member of the University of Michigan recruiting team and is also focused on the diversity recruiting effort at MUFG. At her prior firm, Stephanie was a part of the Americas Women's Network Junior Council.

Education

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Stephanie is actively involved in NYC's iMentor program, mentoring high school students with their journey to college graduation.

MUFG's Capital Markets Strategy Team

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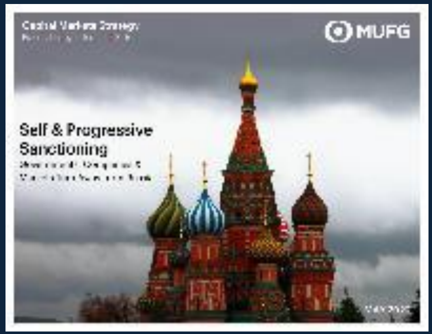
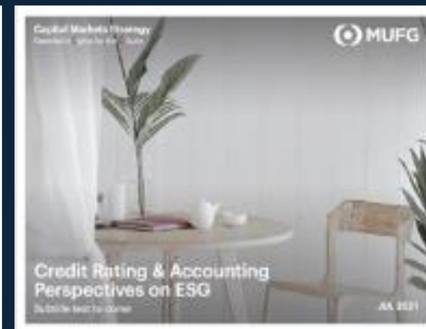


MUFG’s Capital Markets Strategy Team



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