

# Précis® U.S. Macro

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- » ADP National Employment Report
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- » Bankruptcy Filings
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- » Challenger Report
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- » Consumer Price Index
- » CoreLogic Home Price Index
- » Creditforecast.com Quarterly Household Credit Report
- » Current Account
- » Durable Goods (Advance)
- » Employment Cost Index
- » Employment Situation
- » Existing-Home Sales
- » Factory Orders (M3)
- » FHFA Purchase-Only House Price Index
- » Financial Accounts-Households
- » Financial Accounts-Nonfinancial Corporate
- » Financial Obligations Ratio
- » FOMC Meeting
- » FOMC Minutes
- » GDP
- » Import and Export Prices
- » Industrial Production
- » International Trade (FT900)
- » Internet Sales (E-Commerce Sales)
- » ISM Index
- » ISM Nonmanufacturing Index
- » Job Openings and Labor Turnover Survey
- » Jobless Claims
- » Kansas City Fed Manufacturing Survey
- » MBA Delinquency Rates
- » MBA Mortgage Applications Survey
- » Moody's Analytics Inflation Expectations Pulse
- » Moody's Analytics Monthly U.S. GDP
- » NAHB Housing Market Index
- » NAPM - NY Report
- » NAR Metro Prices
- » New-Home Sales (C25)
- » New Residential Construction (C20)
- » NFIB Small Business Survey
- » NY Empire State Manufacturing Survey
- » Oil and Gas Inventories
- » Pending Home Sales
- » Personal Income
- » Personal Spending
- » PCE Deflator
- » Philly Fed Manufacturing Survey
- » Philly Fed Nonmanufacturing Survey
- » Producer Price Index
- » Productivity and Costs
- » Quarterly Services Survey
- » Regional and State Employment & Unemployment
- » Retail Sales (MARTS)
- » Richmond Fed Manufacturing Survey
- » Risk of Recession
- » S&P/Case-Shiller® Monthly Home Price Indexes
- » Senior Loan Officer Opinion Survey
- » State Personal Income
- » Texas Manufacturing Outlook Survey
- » Texas Nonmanufacturing Survey
- » The Conference Board Consumer Confidence
- » The Conference Board Leading Indicators
- » Treasury Budget
- » Treasury International Capital Flows
- » University of Michigan Consumer Sentiment Survey
- » Vehicle Sales - AutoData
- » Weekly Natural Gas Storage Report
- » Wholesale Trade (MWTR)

## Broad View

- 2 » Executive Summary  
MARK ZANDI
- 6 » Forecast Assumptions  
MARK ZANDI
- 7 » Forecast Risks  
MATT COLYAR
- 16 » Regional Economies  
ADAM KAMINS

## Market View

- 18 » U.S. Financial Markets  
DAMIEN MOORE
- 20 » International Markets  
STEFAN ANGRICK
- 22 » Labor Markets  
DANTE DEANTONIO
- 24 » Cost Pressures  
GUSTAVO ROJAS-MATUTE
- 26 » Credit Quality  
KYLE HILLMAN

## Industry View

- 28 » Business Investment  
EDWARD A. FRIEDMAN
- 30 » Energy & Commodities  
CHRIS LAFAKIS
- 32 » Consumer Activity  
SCOTT HOYT
- 34 » Housing  
SHANNON BROBST

## Government View

- 36 » Monetary Policy  
MARTIN A. WURM
- 38 » Federal  
BRENDAN LACERDA
- 40 » State & Local  
EMILY MANDEL

## Data Tables

- 1 » Macro Summary Table
- 8 » Recent Performance Tables
- 42 » U.S. Forecast Detail Tables

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### INCORPORATING DATA RELEASED THROUGH MARCH 1, 2024

For the economic indicators listed on the inside back cover, full analysis from Moody's Analytics economists, data, and charts are available within 30 minutes of release on Economic View ([www.economy.com/economicview](http://www.economy.com/economicview)). A complete list of international releases is available on the web site.

# MACRO SUMMARY TABLE

	Units	24Q1	24Q2	24Q3	24Q4	25Q1	25Q2	25Q3	25Q4	2024	2025	2026	2027	2028
<b>NIPA</b>														
Gross domestic product	%AR	2.4	1.5	1.5	1.3	1.4	1.5	1.6	1.9	2.5	1.5	1.9	2.2	2.4
Consumption	%AR	3.0	1.9	2.0	2.1	2.0	1.9	1.9	1.9	2.5	2.0	2.0	2.0	2.1
Durables	%AR	0.9	1.7	2.7	2.5	2.7	1.5	1.3	1.4	2.4	2.1	1.3	0.5	0.4
Motor vehicles	%AR	-4.3	1.1	5.8	6.0	7.6	3.4	3.0	2.7	-1.0	4.9	2.3	-0.1	-0.2
Nondurables	%AR	1.8	1.2	1.1	1.0	1.0	1.0	1.0	1.1	2.0	1.0	1.2	1.4	1.7
Services	%AR	3.8	2.2	2.1	2.4	2.2	2.3	2.3	2.3	2.6	2.3	2.4	2.5	2.6
Fixed investment	%AR	4.7	4.3	3.0	2.3	2.6	2.2	1.7	1.5	3.6	2.5	1.9	2.5	2.8
Nonresidential	%AR	5.2	2.8	3.1	1.5	1.3	0.3	0.3	0.5	3.4	1.3	1.1	2.5	2.9
Structures	%AR	4.7	2.4	1.6	0.7	-0.2	-1.5	-1.6	-0.9	5.5	-0.1	0.6	4.3	4.1
Equipment	%AR	7.7	3.9	6.1	2.5	2.6	0.7	0.6	-0.1	3.1	2.3	0.7	1.8	2.2
Intellectual property	%AR	3.3	1.9	1.3	1.0	0.8	0.8	0.9	1.6	2.4	1.0	1.7	2.4	3.0
Residential	%AR	2.4	10.9	2.3	5.6	8.5	10.5	7.5	5.7	4.5	7.4	5.4	2.3	1.9
Single-family	%AR	15.7	24.7	6.4	3.8	7.5	9.4	9.5	9.7	15.4	8.4	8.4	1.8	-1.6
Multifamily	%AR	-25.5	-7.9	-18.4	2.6	4.1	2.3	2.2	1.1	-9.7	-0.8	1.8	2.1	1.4
Other	%AR	1.6	5.9	4.5	8.0	10.6	13.7	7.1	3.5	0.5	8.7	3.8	2.8	5.0
Exports	%AR	1.8	0.1	0.1	0.3	1.1	1.1	1.8	2.4	1.7	0.9	3.0	4.7	4.5
Merchandise	%AR	2.5	-0.3	0.0	0.2	0.6	1.1	1.5	1.9	1.3	0.7	2.7	4.5	4.3
Services	%AR	0.4	1.0	0.4	0.5	2.4	1.3	2.3	3.5	2.6	1.5	3.8	5.1	5.0
Imports	%AR	1.1	4.1	2.9	2.3	2.4	1.7	1.3	1.6	2.1	2.2	1.8	2.0	2.0
Merchandise	%AR	0.3	4.4	2.9	2.3	2.6	1.7	1.3	1.6	2.0	2.3	1.9	2.2	2.1
Services	%AR	4.7	2.7	2.7	2.3	1.7	1.7	1.2	1.6	2.6	1.9	1.4	1.3	1.3
Government	%AR	-1.5	-1.4	-2.0	-1.1	-0.1	0.7	0.6	2.0	0.7	-0.2	0.9	0.5	0.9
Defense	%AR	-3.0	-2.3	-2.8	-0.9	1.7	3.9	3.0	4.6	-0.4	1.2	2.4	1.8	2.4
Nondefense	%AR	-6.5	-7.0	-6.9	-2.2	-2.1	-2.2	-2.2	3.5	-2.5	-2.7	2.0	3.2	2.6
State and local	%AR	0.5	0.5	-0.4	-0.8	-0.2	0.4	0.6	0.6	2.0	-0.0	0.1	-0.6	-0.2
Final sales	%AR	2.6	1.2	1.1	1.4	1.6	1.7	1.7	2.0	2.3	1.5	1.9	2.2	2.3
Final domestic sales	%AR	2.7	1.8	1.5	1.6	1.8	1.8	1.6	1.9	2.4	1.7	1.8	1.9	2.0
<b>Consumers</b>														
Personal saving rate	%	4.0	4.3	4.5	4.4	4.4	4.4	4.5	4.6	4.3	4.5	4.6	4.9	5.1
Retail sales & food services	\$ tril	8.46	8.51	8.58	8.65	8.72	8.80	8.87	8.94	8.55	8.83	9.13	9.43	9.75
Change	%AR	0.2	2.5	3.3	3.3	3.5	3.5	3.3	3.3	2.5	3.3	3.4	3.2	3.4
Total vehicle sales	mil	15.54	15.90	16.31	16.67	17.10	17.31	17.43	17.46	16.11	17.33	17.67	17.74	17.71
Housing starts	mil	1.34	1.37	1.38	1.41	1.44	1.47	1.50	1.53	1.37	1.48	1.58	1.59	1.55
Median house sales price	\$ ths	406.41	407.84	407.97	406.57	404.89	402.36	400.99	400.03	407.20	402.06	399.47	404.46	417.26
Change	%AR	6.6	1.4	0.1	-1.4	-1.6	-2.5	-1.4	-1.0	3.7	-1.3	-0.6	1.2	3.2
<b>Producers</b>														
Industrial production	2017=100	102.9	103.4	103.9	104.3	104.7	104.9	105.1	105.2	103.6	105.0	105.6	107.0	108.8
Change	%AR	1.2	2.1	2.0	1.5	1.5	1.0	0.7	0.4	0.8	1.3	0.6	1.3	1.7
Capacity utilization	%	76.9	77.3	77.6	77.7	77.7	77.6	77.5	77.4	77.3	77.6	77.3	77.7	78.4
<b>Labor Markets</b>														
Total employment	mil	157.8	158.2	158.4	158.6	158.7	158.9	159.0	159.2	158.2	159.0	159.5	160.0	160.5
Change	%AR	1.9	0.9	0.6	0.4	0.4	0.4	0.4	0.3	1.4	0.5	0.3	0.3	0.3
Avg monthly change	ths	229	84	78	53	54	47	48	42	111	48	39	42	45
Unemployment rate	%	3.8	4.0	4.0	4.0	4.1	4.1	4.1	4.1	3.9	4.1	4.0	4.0	4.0
<b>Prices</b>														
Consumer price index	1982-84=100	310.3	312.2	314.1	315.9	317.7	319.6	321.4	323.2	313.1	320.5	327.7	334.8	342.0
Change	%AR	2.9	2.5	2.4	2.4	2.3	2.4	2.2	2.3	2.8	2.3	2.3	2.2	2.7
Producer price index	1982=100	250.0	249.9	251.4	252.3	253.0	253.7	254.1	254.6	250.9	253.8	256.4	259.8	263.5
Change	%AR	-4.1	-0.2	2.5	1.4	1.0	1.1	0.6	0.9	-1.9	1.2	1.0	1.3	1.4
West Texas Intermediate	\$/Bbl	75.7	79.1	81.2	78.9	76.1	74.7	73.3	72.0	78.8	74.0	71.0	71.0	71.3
<b>Financial Markets</b>														
Federal funds	%	5.33	5.33	5.13	4.82	4.61	4.38	4.13	3.88	5.15	4.25	3.26	2.95	2.76
Prime rate	%	8.49	8.50	8.30	7.99	7.78	7.55	7.30	7.05	8.32	7.42	6.43	6.12	5.93
10-yr Treasury	%	4.09	4.18	4.15	4.12	4.10	4.07	4.05	4.04	4.14	4.06	4.05	4.04	4.01
FRB 10-country index	Jan06=100	120.6	118.1	115.3	113.9	112.4	112.1	112.0	111.9	117.0	112.1	111.4	111.0	110.6
Change	%AR	-4.0	-8.1	-9.1	-4.7	-5.2	-1.2	-0.3	-0.2	-2.9	-4.2	-0.6	-0.4	-0.3
<b>Government Balance</b>														
NIPA basis	\$ bil	-1,545.7	-1,519.0	-1,476.9	-1,446.3	-1,450.9	-1,470.2	-1,488.8	-1,506.2	-1,497.0	-1,479.1	-1,545.8	-1,673.3	-1,799.8
Unified budget	\$ bil	-553.3	-250.8	-321.2	-442.7	-556.8	-272.7	-353.6	-457.6	-1,568.0	-1,640.6	-1,657.2	-1,716.4	-1,836.4

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate

# Threading the Monetary Policy Needle

BY MARK ZANDI

*The runup in stock prices and housing values since the pandemic is eye-popping, reflecting the strong economy and helping to power it. But prices may be too pricey and vulnerable to a significant correction. Asset prices would quickly swing from providing a tailwind to growth to potentially undermining it.*

The U.S. economy is performing well. The economy's strong performance has helped propel stock prices and housing values higher. In turn, those high prices have lifted household wealth, consumer spending and the economy. But prices look pricey and vulnerable to a correction, particularly as long as the Federal Reserve maintains a tight monetary policy. While there are good reasons to think asset prices will hold more or less firm, there is a meaningful risk they will not. This risk poses a threat to the economy.

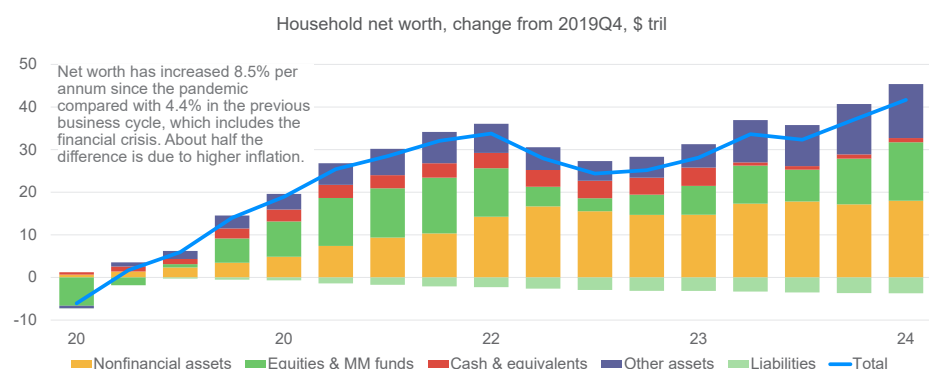
It is hard to quibble with how well the economy is doing. Real GDP expanded by a strong 2.5% last year and is set to increase by close to 2% annualized in the first quarter of this year. This is near the economy's estimated potential growth. Thus, businesses continue to create jobs at a rate sufficient to maintain unemployment below 4%, consistent with full employment.

The biggest surprise is just how many jobs the economy is creating. Payrolls are increasing by approximately 250,000 per month on average (abstracting from the vagaries of the data). This is almost double the pace Moody's Analytics had anticipated for the time when the economy reached full employment. This is because of surging foreign immigration. Immigration poses significant challenges to many communities, but the benefit is that it is lifting labor supply, allowing for stronger job and economic growth without fanning inflation. Indeed, inflation continues to moderate, and on a harmonized basis is already back to the Federal Reserve's inflation target.

## Up, up and away

The resilient economy is the fundamental reason for the surge in stock prices.

## Households Are Much Wealthier Since the Pandemic



The Wilshire 5000, which measures the value of all U.S. publicly traded stocks, is up close to an astonishing 60% since the pandemic hit four years ago. Almost half this gain has come in the last six months as it became clear that the economy would not suffer the recession feared by many economists and investors, and inflation was receding enough to end Federal Reserve rate hikes. Indeed, the Fed is set to cut rates in the not-too-distant future.

Corporate bond spreads also have narrowed significantly. The difference between the yield on high-yield (below-investment-grade) corporate bonds and risk-free 10-year Treasury bonds is thin at just over 3 percentage points. The spread is the compensation bond investors receive for taking the risk that corporate borrowers will not make timely payments on their bonds. Since the high-yield market was established in the mid-1990s, the spread has been closer to 5 percentage points on average. There are few times in history that spreads have been as narrow.

House prices have also taken off. They are up almost 50% nationwide since the pandemic hit. Most of the runup was early on in the pandemic, when record-low mortgage rates and the shift to remote work juiced-up housing demand. But even since these tailwinds turned into headwinds with higher rates and a shift back to the office, prices

have held up well and are still rising strongly in many parts of the country.

## Wealth effect

The surge in asset prices has made many Americans much wealthier. Household net worth—the estimated difference between what households own and what they owe—has increased by more than \$40 trillion since the pandemic (see Chart 1).

The average household has seen its net worth increase by nearly \$325,000 in just four years. Almost half the increase is due to appreciating stock prices and the other half to higher house prices and increased homeowner equity. Household debt and other liabilities have also increased, but only modestly compared with the increase in households' asset holdings.

Of course, the after-inflation increase in net worth is not quite as impressive given the surge in inflation since the pandemic. And asset holdings are highly concentrated; two-thirds of households own their home, and no more than half own stocks of any consequence. Moreover, according to the Fed's Distributional Financial Accounts, households in the top decile of the wealth distribution hold nearly two-thirds of the nation's net worth.

Nonetheless, the massive increase in household wealth has been a powerful tailwind to consumer spending via the so-called wealth effect. Wealthier households are able and

willing to spend more out of current income and save less. In typical times, we estimate the wealth effect to be approximately 3 cents. That is, every dollar increase in net worth powers a 3-cent increase in consumer spending. These are not typical times, and given how concentrated the increase in wealth has been, the effect may be smaller. But since the excess savings built up during the pandemic have gone mostly into easily accessible checking accounts, the wealth effect could be larger. Sticking with the 3-cent estimate, the wealth effect alone has added 0.35% to per annum real GDP growth over the past four years.

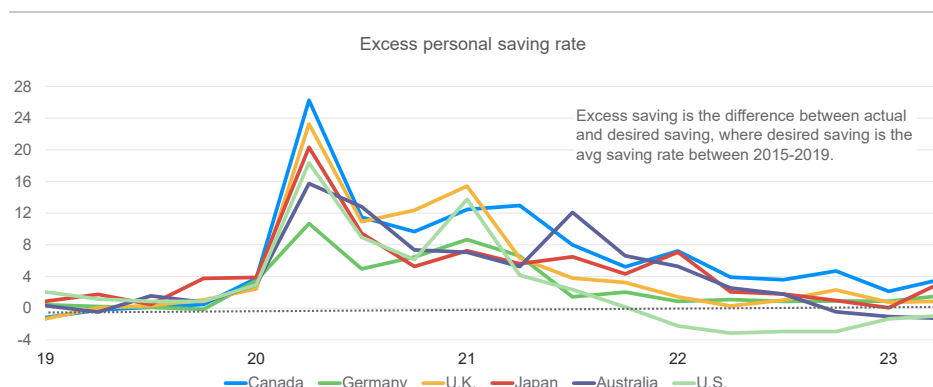
Surging household wealth and buoyant consumers distinguish the U.S. from most everywhere else in the world. Household stock holdings are meaningfully lower overseas, and asset prices have not risen as much. Surging net worth here at home and the wealth effect go a long way to explaining why American consumers have been willing to draw down the excess savings they accumulated in the pandemic, while consumers in other countries have not (see Chart 2). And this helps explain why the U.S. economy has outperformed nearly all others since the pandemic.

### Prices are pricey

The wealth effect has been a boon to the U.S. economy, but it is also a vulnerability since asset prices now look pricey and at increasing risk of a serious correction. This is especially so if the Fed does not soon follow through on the rising expectation that it will cut interest rates.

Stocks look richly overvalued by any measure. There are different measures of valuation, but particularly useful is the economy-wide price-to-earnings ratio, which is equal to the ratio of the Wilshire 5000 and corporate profits from the Bureau of Economic Analysis. As of last year's fourth quarter, the economy-wide PE ratio was close to 20 times, and it is sure to have risen significantly in the first quarter of this year given the massive stock market rally and despite what appears to be a solid increase in earnings (see Chart 3). This is far from the peak PE ratio of 30 times during the height of the internet stock bubble but is more than

### American Consumers Have Been Willing to Spend Excess Savings



Sources: Eurostat, ONS, Canada Statistics, BLS, Japan Statistics Bureau, Moody's Analytics

a standard deviation above the long-run average PE ratio of 13 times.

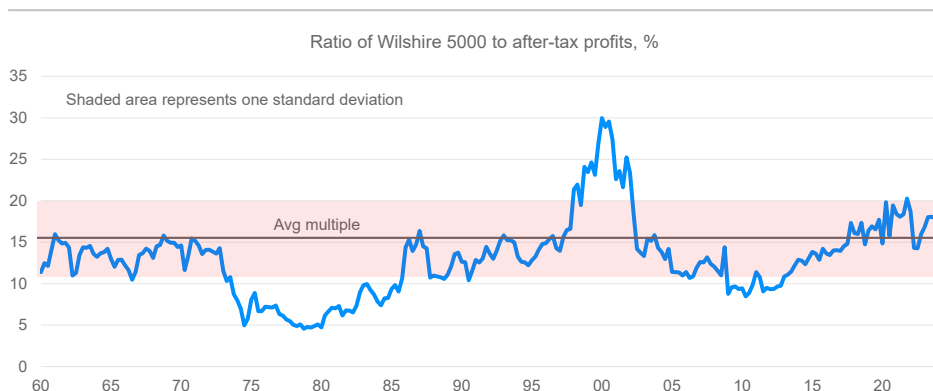
There are good reasons why the stock market's valuation should be high. Corporate profits jumped during the pandemic, and profit margins have never been higher, even after abstracting from the ups and downs in the business cycle. The market is also being driven primarily by the so-called magnificent seven technology stocks that are benefiting from the investor euphoria over the potential business opportunities created by artificial intelligence. Valuations for these companies have gone parabolic, while valuations for the rest of the market are high but pedestrian by comparison. These caveats notwithstanding, the market's valuation feels precarious.

House prices also appear stretched, as evidenced by the high house price-to-

effective rent ratio (see Chart 4). The value of a home is ultimately tied to the future rent it will produce either if actually rented or implicitly if the owner lives in the home. The current PR ratio is close to 24 times. This is just below the record of 27 times hit during the housing bubble but well above its long-run average of 18 times. That valuations have remained so high given the doubling in mortgage rates since just prior to the pandemic is especially surprising.

Of course, the high valuations are supported in part by the unprecedented lack of housing supply. Most existing homeowners are effectively locked in to their homes with mortgages at interest rates near 3.5%. With new mortgage rates about double that, moving can result in a big increase in monthly payments particularly given the increase in house prices. So, homeowners are not

### Stock Market Is Richly Overvalued



Sources: BEA, Moody's Analytics

## Single-Family Housing Is Expensive



Sources: BEA, Moody's Analytics

moving, and there are few homes for sale. A severe shortfall of new housing supply since the collapse in homebuilding during the financial crisis is also keeping house prices and valuations up. The homeowner vacancy rate is hovering near a record low. For some semblance of normalcy to return to the housing market, something has to give—mortgage rates need to decline, incomes rise, and/or house prices cool considerably.

## Waiting on the Fed

The most likely (our baseline) scenario is that stock prices and housing values go more-or-less sideways for a year—or two or three—and allow corporate earnings and

rents to catch up and valuations to normalize at least partially. Critical to this relative optimism is the view that interest rates have peaked. It is testament to the fundamental strength of the stock and housing markets that prices held up so well in the face of the Fed's unprecedented interest rate hikes and the near tripling in 10-year Treasury yields and fixed mortgage rates in 2022. Indeed, aside from an outright recession, it is difficult to envisage a more rigorous test of the resilience of stock prices and housing values.

That said, the widespread expectation is that the Fed will soon begin to ease monetary policy. Like most investors, we expect three

quarter-point rate cuts to the federal funds rate this year, the first occurring in June, and then approximately one 25-basis point cut each quarter until the funds rate settles into its long-run equilibrium. The funds rate will fall from 5.5% today to 3% by 2026. But if the Fed fails to begin cutting rates soon—for whatever reason—given the sky-high valuations, investors seem likely to run for the door, driving up long-term rates and pushing down stock prices and housing values.

A garden-variety correction in stock prices, say a decline of not much more than 10%, and a single-digit peak-to-trough decline in housing values would weigh on the economy but should not undermine it. After all, declines of this magnitude would only retrace part of the runup in prices since the pandemic. Moreover, judging by how well the financial system and economy are digesting the current slump in commercial real estate prices, which we estimate are down almost 15% since their peak nearly two years ago, a modest decline in stock prices and house prices should not kill the economic expansion. However, sustained price declines in the double digits would likely be too much for the economy to bear. And if prices continue to march quickly higher from here, stretching valuations even more, a darker scenario is more likely to unfold.





# Forecast Assumptions

BY MARK ZANDI

## Monetary policy

The Federal Reserve is expected to begin cutting interest rates in coming months. This comes after two years of interest rate hikes, which has pushed up the federal funds rate near 5.5%. This will be the terminal funds rate in this hiking cycle.

The funds rate is well above our estimate of its long-run equilibrium, or  $r$ -star, of 3%. The funds rate at close to twice  $r$ -star should be sufficient to slow the economy's growth and succeed in bringing inflation near the Fed's target by the end of this year.

The Fed continues to allow the Treasury and mortgage-backed securities on its balance sheet to mature and prepay. This quantitative tightening is reducing its securities holdings by nearly \$100 billion each month, ultimately reducing the balance sheet from a peak of close to \$9 trillion to closer to \$7 trillion.

Moody's Analytics expects the Fed to begin lowering rates at the June meeting of the Federal Open Market Committee. By that time, it will be clear that inflation is headed to the Fed's 2% target. We expect the funds rate to fall by about 0.25 percentage point per quarter and return to  $r$ -star by early 2026.

Ten-year Treasury yields are currently consistent with our estimated long-run equilibrium of near 4%. The equilibrium rate is consistent with our estimate of nominal potential GDP growth of near 4% (2% target inflation plus 2% real potential GDP growth). We expect long-term yields to remain close to 4% for the foreseeable future.

## Fiscal policy

Lawmakers continue to avoid a government shutdown by passing continuing resolutions to fund the federal government, and we assume they will soon reach an agreement to fund the government through the remainder of fiscal 2024. This will include a 3% increase in defense spending and a 1% cut in discretionary nondefense spending.

While a close call, we assume that lawmakers will also pass tax legislation that in-

cludes an increase in the maximum child tax credit, raises the ceiling for the low-income housing tax credit, and reinstates some business deductions, including allowing businesses to deduct R&D costs annually. The package costs nearly \$80 billion and is paid for by ending the employee retention tax credit.

The federal government's budget deficit will narrow somewhat from \$1.7 trillion in fiscal 2023 to \$1.6 trillion in fiscal 2024-2025. The nation's publicly traded debt-to-GDP ratio, which is at just less than 100%, up from 80% prior to the pandemic, will steadily rise.

Early 2025, soon after November's election, is shaping up to be a period of significant change to fiscal policy. Not only will the debt limit need to be taken up again, but the expiration of some of the tax cuts passed under President Trump and the expiration of Obamacare health insurance subsidies under President Biden will need to be addressed.

We expect that lawmakers will not materially address the nation's unsustainable long-term fiscal outlook until they are under extraordinary economic and political pressure, which may require some form of fiscal crisis.

## U.S. dollar

The value of the U.S. dollar is off its pandemic peak but it remains high, receiving a substantial boost from the Fed's tight monetary policy and the flight to quality into U.S. assets prompted by heightened global uncertainties. On a real broad trade-weighted basis, the dollar is more than half a standard deviation above its long-run average since it began to freely float in the early 1970s.

The dollar's value will remain high until the Fed begins to ease policy and geopolitical uncertainties, including the Russian war in Ukraine and ongoing tensions between the U.S. and China, moderate. The dollar's reserve currency status will remain unchallenged.

## Energy prices

Global oil prices have pushed up a bit in recent weeks and are currently trading near \$80 per barrel. Supporting prices are ongoing sanctions on Russian oil, large production cuts by Saudi Arabia, and the Israel-Hamas conflict, which could potentially disrupt oil supplies from Iran and other parts of the Middle East. However, forestalling even higher prices is a substantial increase in production from the U.S., Brazil, Norway and Guyana, and soft demand from the stuttering Chinese economy.

We continue to expect prices to range between \$80 and \$90 per barrel this year. The Saudis appear to be calibrating their production to keep prices above \$80 per barrel, which is the price they need to meet their fiscal demands, but below \$90 per barrel, which would undermine oil demand in the short and long run, as it would accelerate the transition to green energy. Gasoline prices are expected to average near \$3.50 for a gallon of regular unleaded.

## Geopolitical risks

Fallout from the pandemic on global supply chains, tourism, business travel, immigration and labor markets continues to recede. We expect any remaining global economic impacts from the pandemic to largely wind down in coming months.

The Russian war in Ukraine will continue for the foreseeable future, but its impact on energy, agriculture, and other commodity markets and the global economy continues to fade. Global oil markets have adjusted well to the disruptions caused by the war.

The Israel-Hamas conflict is not expected to spread to other parts of the Middle East, including Iran. This should limit any disruption to energy markets and global shipping through the Suez Canal.

The relationship between the U.S. and China is vexed but stable, and this is expected to remain the case. Both economies will continue to steadily decouple, weighing on global growth, but tensions will not boil over into a serious conflict.

## Forecast Risks

BY MATT COLYAR

### ↓ Fed policy

At January's Federal Open Market Committee meeting, policymakers again kept their main policy rate unchanged. Should the Federal Reserve misread financial conditions or overestimate the U.S. economy's strength and leave policy too restrictive for too long, business investment and consumer spending will turn sharply downward, weighing heavily on the economy. Still-strong job growth and a stretch of volatile inflation reports make this a likelier outcome.

Conversely, if the Fed mistakenly eases policy too quickly, inflation could come roaring back. This would entrench higher inflation expectations from consumers and businesses because the central bank would have sacrificed credibility. This would make ridding the U.S. economy of elevated inflation even more difficult and lead to a prolonged and painful economic downturn. However, this is diminishing as a risk since the Fed has now lifted policy above what Moody's Analytics considers sufficiently restrictive and inflation shows a clear downward trend.

### ↓ Financial conditions

Banks' self-tightening, on top of the Fed's restrictive policy, makes it difficult to gauge in real time the economy's reaction, and fault lines could come about suddenly. Another rise in long-term interest rates would again threaten to sap credit demand and would weigh heavily on bank balance sheets. The Bank Term Funding Program, put in place after the collapse of Silicon Valley Bank, is set to expire. The removal of the BTFP's cheap liquidity, alongside the ongoing decline in banks' reserves due to the Fed's quantitative tightening, could quickly generate financial market volatility.

Outside of the banking sector, overleveraged firms, also accustomed to lower-for-longer borrowing, are set to come under increasing pressure as rates rise. A string of corporate defaults or a significant widening

of corporate bond spreads could dampen sentiment and soften investment.

### ↓ Geopolitics

Tensions in the Middle East are on a worrying rise. An Iranian-sponsored attack killed three Americans in late January and the U.S. government has since responded. Commercial cargo continues to route away from the Red Sea, which is causing a rise in global shipping costs. Global energy markets have so far adapted but represent the clearest channel for the conflict to affect the global economy.

With the continuing Russian war in Ukraine, the Black Sea remains crucial for the distribution of grain and other foodstuffs. However, Russia backed out of a deal that allowed Ukrainian grain exports. Similar inflationary tactics could be employed if Russia's military continues to struggle.

Deterioration in diplomatic relations between the U.S. and China, particularly over Taiwan, could generate substantial economic turmoil. Disruptions to shipping in the Taiwan Strait represent a considerable downside risk for global trade and growth and an upside risk for inflation. Tensions between the world's two largest economies have steadied in recent months, but the relationship remains frosty. Tit-for-tat trade restrictions on sensitive technologies such as microchips are the primary channel to fight what is worryingly taking the shape of a second Cold War.

### ↓ Global supply chains seize up

These three geopolitical threats occurring in isolation or simultaneously could place immense pressure on global supply chains. Commercial shipping could be disrupted further in the Red Sea, the Black Sea, or in the South China Sea and Taiwan Strait in the event of a Chinese invasion of Taiwan. Escalation could make freedom of navigation through crucial areas of the Pacific Ocean perilous. This would cause the rerouting of cargo away from unfriendly areas and

put significant upward pressure on energy and goods prices.

### ↓ Social and political unrest

Worsening political polarization in the U.S. as the 2024 presidential election draws near has risen as a threat to the U.S. economy. A disputed election and an ensuing constitutional crisis would paralyze the government. In the near term, this limits the public sector's ability to function, but longer term, the costs are borne by a society with less trust in its elected leaders and the system of government they live within. Low-trust political systems are more violent and find necessary tasks such as tax collection harder.

### ↑ Consumer spending

Decades-high inflation and the policy tightening by the Fed to bring it down will weigh on consumer spending. Nevertheless, the insatiable U.S. consumer has thus far been surprisingly resilient. The baseline forecast could again underestimate consumer spending, which would result in faster growth. The labor market is loosening but remains tight, keeping job and income growth elevated. Businesses, correctly, are calculating that the labor-supply issues in the aftermath of the pandemic are here to stay. This is leading them to retain staff despite slowing demand. This dynamic could push household income up faster than expected. As much of the income is spent, the economy would grow above expectations.

Sentiment measures have begun to improve, but it may not take much loosening in the labor market for consumers to quickly hunker down and spend less.

### ↓ Organized labor strikes

The macroeconomic impact of the United Auto Workers' strike last fall was limited. However, the success of the strikes from the labor union's point of view, the still-tight labor market, and the Biden administration's vocal support of organized labor make additional work stoppages likely.

## RECENT PERFORMANCE TABLE

							Average Value		
Indicator	Units	Feb 24	Jan 24	Dec 23	Nov 23	Oct 23	3m	6m	12m
Employment									
Payroll employment, change	ths	275.0	229.0	290.0	182.0	165.0	264.7	231.2	229.0
Household employment, change	ths	-184.0	-31.0	-683.0	586.0	-270.0	-299.3	-88.7	55.6
Nonfarm employment	ths	157,808	157,533	157,304	157,014	156,832	157,548	157,193	156,525
Change	% yr ago	1.8	1.8	2.0	1.9	1.9	1.8	1.9	2.1
Goods-producing employment	ths	21,766	21,747	21,723	21,690	21,654	21,745	21,707	21,641
Service-providing employment	ths	112,862	112,658	112,505	112,324	112,208	112,675	112,443	111,999
Government employment	ths	23,180	23,128	23,076	23,000	22,970	23,128	23,043	22,885
Part-time workers for economic reasons	ths	4,376.0	4,422.0	4,211.0	3,994.0	4,284.0	4,336.3	4,226.0	4,125.6
Change	% yr ago	7.5	9.2	8.6	7.8	16.8	8.4	9.3	4.7
Labor force	ths	167,426	167,276	167,451	168,127	167,723	167,384	167,650	167,337
Change	% yr ago	0.7	0.8	1.5	2.2	1.8	1.0	1.5	1.6
Labor force participation rate	%	62.5	62.5	62.5	62.8	62.7	62.5	62.6	62.6
Adult men	%	70.0	70.2	70.4	70.6	70.2	70.2	70.3	70.4
Adult women	%	59.0	58.8	58.4	58.7	58.8	58.7	58.8	58.7
Avg weekly hrs, total private	hrs	33.8	33.5	33.8	33.7	33.8	33.7	33.7	33.8
Avg weekly overtime hrs, manuf.	hrs	3.6	3.5	3.5	3.4	3.5	3.5	3.5	3.6
Avg hourly earnings	\$	29.7	29.6	29.5	29.4	29.3	29.6	29.5	29.2
Aggregate hrs worked index	2002=100	123.4	122.2	123.0	122.4	122.6	122.9	122.7	122.4
Change	% yr ago	1.2	0.1	1.7	1.0	1.0	1.0	1.0	1.2
Diffusion index of employment		62.6	61.8	63.0	52.4	56.6	62.5	59.5	59.4
Change	% yr ago	9.1	-9.1	-2.2	-17.6	-15.0	-0.7	-6.5	-10.8
Unemployment									
Initial UI claims	#	213,000	208,500	210,600	220,250	210,750	210,700	212,317	225,796
Unemployment rate	%	3.9	3.7	3.7	3.7	3.8	3.8	3.8	3.7
Prime-age men	%	3.1	3.3	3.3	3.2	3.3	3.2	3.3	3.2
Unemployed 15 wks or longer	%	33.7	35.0	37.5	34.3	36.8	35.4	35.6	34.7
Median duration of unemployment	wks	9.3	9.6	9.7	9.0	8.6	9.5	9.2	9.0
Announced layoffs	#	84,638	82,307	34,817	45,510	36,836	67,254	55,261	58,992
Job losses due to layoff	%	12.8	14.3	14.6	14.2	14.0	13.9	13.8	13.4
Income									
Personal income	% yr ago	na	4.8	4.8	4.7	4.4	4.8	4.7	5.1
Wages & salaries	% yr ago	na	5.7	7.0	6.5	5.9	6.4	6.1	6.3
Personal dividend income	% yr ago	na	5.9	2.7	2.1	0.8	3.6	2.4	2.4
Personal interest income	% yr ago	na	5.3	5.6	6.1	6.8	5.7	6.6	8.3
Disposable personal income	% yr ago	na	4.5	7.0	7.1	7.0	6.2	6.8	7.8
Personal saving rate	%	na	3.8	3.7	4.1	4.1	3.9	4.0	4.5
Consumer Confidence									
Consumer confidence index	1985=100	106.7	110.9	108.0	101.0	99.1	108.5	105.0	106.1
Present situation	1985=100	147.2	154.9	147.2	136.5	138.6	149.8	145.1	147.9
Expectations	1985=100	79.8	81.5	81.9	77.4	72.7	81.1	78.3	78.2
Confidence by age of household head									
Under 35	1985=100	111.8	118.8	123.2	117.1	116.8	117.9	117.3	120.3
35-54	1985=100	104.8	104.4	105.1	94.1	96.9	104.8	101.7	103.5
55 and over	1985=100	101.4	108.6	102.2	96.8	90.6	104.1	99.3	98.2



## RECENT PERFORMANCE TABLE

							Average Value		
Indicator	Units	Jan 24	Dec 23	Nov 23	Oct 23	Sep 23	3m	6m	12m
Retail Sales									
Retail sales and food service	\$ bil	700.3	706.2	703.3	703.5	705.3	703.3	703.0	695.5
Change	% yr ago	0.6	5.3	3.6	2.2	4.0	3.2	3.1	2.8
Ex autos	\$ bil	567.9	571.5	569.0	569.6	570.0	569.4	569.0	562.5
Change	% yr ago	1.2	4.4	3.1	2.0	3.4	2.9	2.7	2.5
Motor vehicle & parts dealers	\$ bil	132.4	134.7	134.3	133.9	135.3	133.8	134.1	133.0
Automobile & other motor vehicles	\$ bil	121.0	123.2	122.9	122.4	123.8	122.4	122.6	121.8
Furniture & home furnishings	\$ bil	11.1	10.9	10.9	10.6	10.9	11.0	10.9	11.1
Electronics & appliances	\$ bil	7.3	7.4	7.4	7.8	7.8	7.4	7.6	7.7
Building materials, garden equip. & supply	\$ bil	39.7	41.3	41.0	41.6	41.5	40.6	41.1	41.4
Food & beverage	\$ bil	83.3	83.2	83.0	82.7	82.6	83.1	82.8	82.3
Health & personal care	\$ bil	36.5	36.9	37.5	37.4	36.9	36.9	36.9	36.3
Gasoline stations	\$ bil	52.4	53.3	53.7	55.8	56.7	53.1	54.7	54.3
Clothing & clothing accessories	\$ bil	26.6	26.6	26.3	26.0	26.0	26.5	26.3	26.0
Sporting goods, hobby, book & music	\$ bil	8.5	8.5	8.6	8.5	8.5	8.5	8.5	8.6
General merchandise	\$ bil	73.9	73.9	73.0	73.2	73.2	73.6	73.4	73.0
Miscellaneous retailers	\$ bil	15.2	15.7	15.7	15.7	15.6	15.5	15.4	15.4
Nonstore retailers	\$ bil	118.4	119.4	117.7	117.3	117.6	118.5	117.8	115.4
Electronic shopping & mail-order houses	\$ bil	na	109.8	108.1	107.4	107.3	108.4	107.4	104.8
Food services & drinking places	\$ bil	95.1	94.4	94.2	93.0	92.7	94.6	93.4	91.1
Vehicle Sales									
Vehicle sales, SAAR	mil	15.4	16.6	16.0	15.9	16.3	16.1	16.1	16.1
Change	% yr ago	-1.2	18.0	8.3	5.0	14.6	7.7	8.5	12.0
Light vehicles (autos + light trucks)	mil	14.9	16.1	15.5	15.5	15.8	15.6	15.6	15.6
Automobile sales	mil	3.0	3.2	3.1	3.1	3.3	3.1	3.1	3.1
Change	% yr ago	-2.0	12.8	1.6	0.5	13.3	5.7	5.4	9.1
Domestic	mil	2.1	2.3	2.2	2.2	2.3	2.2	2.2	2.3
Imports	mil	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9
Truck sales	mil	12.4	13.4	12.9	12.9	13.0	13.0	13.0	13.0
Change	% yr ago	-0.9	19.3	10.1	6.2	15.0	8.2	9.3	12.8
Domestic	mil	9.5	10.2	9.8	9.8	9.9	10.0	9.9	9.9
Imports	mil	2.4	2.7	2.6	2.6	2.6	2.5	2.6	2.5
Expenditures									
Personal consumption - nominal	\$ tril	19,054.2	19,010.3	18,883.6	18,810.6	18,791.5	18,982.7	18,867.0	18,636.1
Change	% YA	4.5	5.9	5.5	5.0	5.5	5.3	5.3	5.8
Durable goods	\$ tril	2,176.0	2,219.1	2,195.8	2,191.1	2,213.4	2,196.9	2,198.1	2,195.6
Change	% YA	-1.7	5.5	4.0	0.9	2.6	2.6	2.2	2.8
Nondurable goods	\$ tril	4,032.3	4,066.3	4,046.7	4,059.6	4,065.0	4,048.4	4,050.9	4,001.9
Change	% YA	2.5	4.5	3.2	3.0	3.9	3.4	3.4	3.0
Services	\$ tril	12,845.9	12,725.0	12,641.1	12,559.9	12,513.0	12,737.3	12,618.0	12,438.7
Change	% YA	6.3	6.5	6.6	6.4	6.6	6.5	6.5	7.2
Personal consumption - real	CW\$ tril	15,635.0	15,652.7	15,566.9	15,505.2	15,496.0	15,618.2	15,549.3	15,449.6
Change	% YA	2.1	3.2	2.8	2.0	2.1	2.7	2.4	2.2
Durable goods	CW\$ tril	2,050.6	2,095.6	2,064.1	2,050.0	2,065.8	2,070.1	2,061.8	2,042.9
Change	% YA	0.7	8.0	6.2	3.1	5.1	5.0	4.5	4.0
Nondurable goods	CW\$ tril	3,395.3	3,411.1	3,391.0	3,381.5	3,376.1	3,399.1	3,386.2	3,361.8
Change	% YA	2.0	2.9	2.1	1.4	1.1	2.3	1.8	1.1
Services	CW\$ tril	10,223.2	10,187.4	10,149.9	10,111.0	10,093.7	10,186.9	10,139.3	10,082.0
Change	% YA	2.3	2.5	2.3	2.0	1.9	2.4	2.2	2.2
Household Credit Conditions									
Total consumer credit outstanding	\$ tril	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Change	% yr ago	2.5	2.6	2.9	3.1	3.6	2.7	3.1	4.5
Revolving credit	\$ tril	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Change	% yr ago	8.5	8.8	9.6	9.4	10.3	9.0	9.6	11.0
Nonrevolving credit	\$ tril	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Change	% yr ago	0.5	0.5	0.8	1.0	1.4	0.6	1.0	2.5

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate

## RECENT PERFORMANCE TABLE

							Average Value		
Indicator	Units	Jan 24	Dec 23	Nov 23	Oct 23	Sep 23	3m	6m	12m
International Markets									
ISM new export orders index	index	45.2	49.9	46.0	49.4	47.4	48.9	48.3	48.1
Change	% yr ago	-8.5	8.0	-5.0	6.2	-0.8	1.0	0.6	-3.6
Total merchandise exports	\$ bil	170.3	170.1	166.8	171.0	173.6	169.1	170.1	167.9
Agriculture products	\$ bil	14.7	15.1	14.4	14.5	15.0	14.7	14.5	14.5
Foods, feeds & beverages	\$ bil	13.7	13.9	13.3	13.5	13.8	13.6	13.4	13.4
Industrial supplies	\$ bil	61.3	62.9	59.5	63.0	61.9	61.2	61.5	60.4
Capital goods	\$ bil	51.5	50.9	51.2	51.1	51.0	51.2	51.1	50.2
Autos, vehicles & parts	\$ bil	15.1	13.7	14.2	15.0	16.0	14.3	14.9	14.9
Consumer goods	\$ bil	21.6	21.0	20.3	20.8	22.9	20.9	21.5	21.5
Imports of goods and services	\$ bil	257.2	256.9	254.1	257.9	261.0	256.0	257.1	254.2
Change	% yr ago	-0.4	2.6	0.5	0.9	0.5	0.9	0.3	0.2
Trade-weighted dollar broad index	Jan2006=100	120.6	120.2	121.5	123.8	122.0	121.1	121.5	120.7
Change	% yr ago	0.6	-1.7	-2.7	-2.9	-2.9	0.7	-0.9	-1.0
Japanese yen	JPY/USD	146.3	144.0	149.7	149.6	147.8	146.6	147.8	143.2
Euro	USD/EUR	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
British pound sterling	USD/GBP	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.3
Canadian dollar	CAD/USD	1.3	1.3	1.4	1.4	1.4	1.3	1.4	1.3
Mexican peso	MXN/USD	17.1	17.2	17.4	18.1	17.3	17.1	17.4	17.5
Business Investment									
Shipments, nondefense	\$ bil	79.8	82.2	83.1	82.9	83.1	81.7	82.4	82.0
Change	%MA	-3.0	-1.0	0.2	-0.2	-0.3	-1.3	-0.5	-0.0
New orders, nondefense	\$ bil	82.7	102.5	102.4	86.6	101.0	95.9	93.5	91.3
Change	%MA	-19.4	0.1	18.2	-14.2	17.7	-0.3	-0.1	0.7
Unfilled orders, nondefense	\$ bil	844.6	841.7	821.4	802.1	798.4	835.9	814.8	782.8
Change	%MA	0.3	2.5	2.4	0.5	2.3	1.7	1.4	1.2
Book-to-bill ratio 3-mo MA									
Industrial machinery	ratio	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Computers and electrical equipment	ratio	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Private construction put-in-place									
Lodging	%MA	-0.8	-0.3	-0.2	-2.1	-0.9	-0.4	-0.4	0.4
Office	%MA	0.1	0.1	0.6	-0.1	0.2	0.3	0.4	0.4
Commercial	%MA	-3.3	-0.8	1.2	-1.1	0.2	-1.0	-0.5	0.3
Healthcare	%MA	-0.2	-1.0	4.2	1.9	1.4	1.0	1.3	1.1
Educational	%MA	-1.3	0.8	5.6	-0.4	0.4	1.7	1.5	1.7
Infrastructure	%MA	0.2	0.5	2.1	1.5	1.3	0.9	1.2	0.6
Manufacturing	%MA	2.0	0.8	5.6	1.9	-0.5	2.8	2.2	2.7
Other	%MA	-0.7	-0.2	0.5	3.5	1.2	-0.2	0.9	0.9
Inventory-to-sales ratios									
Manufacturers	ratio	na	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Wholesalers	ratio	na	1.3	1.3	1.4	1.3	1.3	1.4	1.4
Retailers	ratio	na	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Production									
Industrial production index	2017=100	102.6	102.7	102.7	102.4	103.2	102.6	102.8	102.8
Manufacturing	2017=100	99.2	99.7	99.6	99.2	100.0	99.5	99.6	99.8
Durable	2017=100	101.1	101.0	101.1	100.0	101.7	101.1	101.1	101.2
Nondurable	2017=100	97.3	98.4	98.1	98.4	98.5	97.9	98.2	98.5
Consumer goods	2017=100	102.6	102.0	101.9	101.2	102.1	102.2	102.0	102.2
Industrial & other equipment	2017=100	101.7	101.9	102.8	103.1	103.3	102.1	102.9	103.9
Capacity utilization	%	78.5	78.7	78.8	78.6	79.4	78.7	78.9	79.2
Manufacturing	%	76.5	77.1	77.1	76.8	77.6	76.9	77.1	77.6
Durable	%	74.9	75.0	75.1	74.4	75.7	75.0	75.1	75.5
Nondurable	%	78.2	79.2	79.1	79.3	79.5	78.8	79.1	79.7

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## RECENT PERFORMANCE TABLE

							Average Value		
Indicator	Units	Jan 24	Dec 23	Nov 23	Oct 23	Sep 23	3m	6m	12m
Consumer Prices									
Consumer prices all items	% yr ago	3.1	3.3	3.1	3.2	3.7	3.2	3.4	3.9
All items less food and energy	% yr ago	3.9	3.9	4.0	4.0	4.1	3.9	4.1	4.7
Food and beverages	% yr ago	2.5	2.7	2.9	3.3	3.7	2.7	3.2	5.1
Food at home	% yr ago	1.2	1.3	1.6	2.1	2.4	1.4	1.9	4.3
Food away from home	% yr ago	5.1	5.2	5.3	5.4	6.0	5.2	5.6	6.9
Housing	% yr ago	4.7	4.8	5.2	5.3	5.6	4.9	5.2	6.2
Apparel and upkeep	% yr ago	0.0	1.2	1.4	2.7	2.4	0.9	1.8	2.5
New cars	% yr ago	0.3	0.4	1.0	1.3	1.7	0.6	1.2	3.0
New trucks	% yr ago	0.8	1.1	1.4	2.0	2.8	1.1	1.9	3.5
Used cars	% yr ago	-3.3	-1.3	-3.7	-7.1	-8.0	-2.7	-5.0	-6.4
Gasoline	% yr ago	-6.4	-1.6	-8.7	-5.2	2.9	-5.6	-3.8	-10.1
Airline fare	% yr ago	-6.4	-9.4	-12.2	-13.2	-13.4	-9.3	-11.3	-6.3
Medical care	% yr ago	1.1	0.4	0.1	-0.8	-1.4	0.5	-0.3	0.3
Entertainment	% yr ago	2.8	2.7	2.5	3.2	3.9	2.7	3.1	3.9
Producer Prices									
All commodities	% yr ago	-3.7	-3.2	-3.8	-3.8	-3.3	-3.5	-3.7	-4.0
Finished goods	% yr ago	2.4	2.6	2.9	3.1	3.4	2.6	3.0	4.1
less food and energy	% yr ago	2.4	2.6	2.9	3.1	3.4	2.6	3.0	4.1
Finished consumer goods	% yr ago	-2.5	-0.8	-2.4	-1.7	1.8	-1.9	-0.7	-0.5
Capital equipment	% yr ago	2.6	2.8	3.2	3.3	3.7	2.9	3.2	4.4
Intermediate materials	% yr ago	-3.8	-2.6	-4.3	-4.5	-3.8	-3.6	-3.9	-4.2
less food and feeds	% yr ago	-3.5	-2.4	-4.3	-4.5	-3.7	-3.4	-3.8	-4.2
Crude materials for further processing	% yr ago	-15.1	-18.8	-13.7	-14.5	-21.3	-15.9	-18.3	-20.3
Farm products	% yr ago	-14.2	-18.3	-16.8	-15.2	-11.9	-16.4	-14.4	-10.3
Energy Prices									
West Texas Intermediate spot price	\$/Bbl	74.2	71.9	77.7	85.6	89.4	77.2	77.8	77.9
Change	% yr ago	-5.1	-6.1	-7.9	-2.2	6.1	1.7	-1.9	-11.6
Refiners' acquisition cost	\$/Bbl	73.2	72.2	79.7	86.6	89.3	75.0	80.5	77.4
Change	% yr ago	-3.3	-5.6	-5.8	-1.6	3.2	-4.9	-4.6	-16.7
PPI, natural gas to utilities	1982=100	276.5	275.4	272.8	261.8	261.6	274.9	268.5	270.6
Change	% yr ago	-17.7	-12.2	-9.6	-15.7	-19.7	-13.2	-15.4	-10.5
PPI, coal	1982=100	289.2	287.9	289.3	281.6	274.3	288.8	284.3	282.8
Change	% yr ago	0.1	2.4	-4.8	-8.8	-10.9	-0.8	-4.8	0.4
CPI, residential electricity	1982-84=100	277.0	273.6	272.0	269.4	268.3	274.2	271.1	268.7
Change	% yr ago	3.8	3.3	3.4	2.4	2.6	3.5	2.9	5.3
Commodity Prices									
ISM price diffusion index	index	52.9	45.2	49.9	45.1	43.8	50.2	48.2	47.4
USDA farm prices - all farm products	2011=100	111.7	113.3	114.0	113.3	121.8	113.0	116.7	122.1
All crops	2011=100	98.2	101.7	101.0	102.9	112.5	100.3	105.9	113.4
Livestock & poultry	2011=100	135.4	129.5	134.0	133.2	133.1	133.0	133.3	134.0
Food commodities	2011=100	125.2	124.6	128.6	122.3	130.2	126.1	127.5	130.4
Trade									
Import prices	2000=100	139.5	138.4	139.4	140.1	141.0	139.1	139.8	139.9
Change	% yr ago	-1.3	-2.4	-1.6	-1.8	-1.5	-1.7	-1.9	-3.2
Import prices ex petroleum	2000=100	123.8	123.1	123.1	122.8	123.1	123.3	123.2	123.6
Export prices	2000=100	147.5	146.4	147.5	148.6	150.0	147.1	148.2	148.8
Change	% yr ago	-2.4	-2.9	-5.1	-4.7	-4.3	-3.5	-4.2	-5.6

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate

## RECENT PERFORMANCE TABLE

		Average Value							
Indicator	Units	Feb 24	Jan 24	Dec 23	Nov 23	Oct 23	3m	6m	12m
Money & Interest Rates									
Federal funds rate	%	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.17
Discount rate	%	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.34
Prime rate	%	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.34
3-mo Treasury bill	%	5.24	5.22	5.24	5.27	5.34	5.23	5.27	5.17
3-yr Treasury bond	%	4.33	4.11	4.19	4.64	4.89	4.21	4.48	4.32
5-yr Treasury bond	%	4.19	3.98	4.00	4.49	4.77	4.06	4.32	4.11
30-yr Treasury bond	%	4.38	4.26	4.14	4.66	4.95	4.26	4.48	4.19
Aaa corporate bonds (Moody's)	%	5.03	4.87	4.74	5.28	5.61	4.88	5.11	4.89
Yield curve	%	-1.06	-1.19	-1.30	-0.86	-0.65	-1.18	-1.03	-1.20
M1	\$ tril	na	17.99	18.09	18.03	18.07	18.04	18.11	18.41
Change	% yr ago	na	-8.0	-8.8	-9.7	-10.1	-8.8	-9.6	-9.4
M2	\$ tril	na	20.78	20.83	20.73	20.69	20.78	20.76	20.81
Change	% yr ago	na	-2.0	-2.4	-3.1	-3.4	-2.5	-3.1	-3.4
Stock Market									
S&P 500	1941-43=10	5,011.96	4,804.49	4,685.05	4,460.06	4,269.40	4,833.83	4,606.68	4,432.26
Change	% yr ago	22.9	21.3	19.7	13.9	14.6	21.3	17.8	10.6
Dow Jones	index	50,821.89	48,275.32	47,787.47	45,414.79	41,597.35	50,073.03	47,503.12	45,525.62
Change	% yr ago	26.6	17.3	24.1	10.8	6.6	22.7	18.3	14.0
Change in Bank Deposits - Last Month									
Demand deposits	\$ bil	na	-100.80	69.30	11.50	54.90	-6.67	6.20	-6.51
Money market mutual funds	\$ bil	na	33.30	15.90	42.00	32.80	30.40	31.77	41.27
Small CDs	\$ bil	na	17.80	27.20	35.20	28.50	26.73	31.13	53.63
Commercial bank assets	\$ tril	na	10.34	10.34	10.30	10.31	10.33	10.33	10.39
Change	%AR	na	-1.5	-1.5	-1.9	-1.9	-1.6	-1.8	-1.0
Loans and leases in bank credit	\$ tril	na	6.73	6.73	6.75	6.76	6.74	6.75	6.75
Change	%AR	na	0.3	0.4	0.6	1.3	0.5	1.0	3.2
Terms of Credit at Commercial Banks									
48-mo new car loan	%	na	na	na	8.51	na	8.51	8.41	7.97
24-mo personal loan	%	na	na	na	12.35	na	12.35	12.26	11.87
Interest rates on credit cards	%	na	na	na	21.47	na	21.47	21.33	20.90
Accounts assessed interest	%	na	na	na	22.75	na	22.75	22.76	22.15

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## RECENT PERFORMANCE TABLE

Indicator	Units	Jan 24	Dec 23	Nov 23	Oct 23	Sep 23	Average Value		
							3m	6m	12m
Housing Activity									
Total housing starts, SAAR	ths	1,331.0	1,562.0	1,512.0	1,376.0	1,356.0	1,468.3	1,407.0	1,421.5
Change	% yr ago	-0.7	15.1	6.0	-3.9	-7.3	6.8	-0.7	-5.7
Single-family	ths	1,004.0	1,054.0	1,126.0	974.0	966.0	1,061.3	1,012.0	960.6
Change	% yr ago	22.0	18.8	40.0	13.5	8.9	27.0	17.7	1.3
Multifamily	the	327.0	508.0	386.0	402.0	390.0	407.0	395.0	460.9
Change	% yr ago	-36.8	8.1	-38.0	-30.0	-32.3	-22.2	-28.0	-14.5
2-4 units	ths	13.0	19.0	13.0	18.0	14.0	15.0	14.0	13.6
5 or more units	ths	314.0	489.0	373.0	384.0	376.0	392.0	381.0	447.3
New single-family home sales	ths	661.0	651.0	607.0	670.0	698.0	639.7	656.8	667.2
Mo supply new single-family homes	mo	8.3	8.3	8.9	7.9	7.5	8.5	8.1	7.9
Existing single-family home sales	ths	3,600.0	3,480.0	3,500.0	3,440.0	3,550.0	3,526.7	3,528.3	3,670.0
Mo supply existing single-family homes	mo	3.0	3.1	3.5	3.6	3.4	3.2	3.3	3.1
NAHB housing market index*	index	44	37	34	40	44	43	41	46
Median existing single-family sales price	\$ ths	405.6	399.9	400.4	399.4	397.4	402.0	400.4	394.4
Change	% yr ago	5.0	3.7	3.6	3.0	2.1	4.1	3.4	1.0
Northeast	\$ ths	461.3	450.2	448.0	454.5	449.0	453.2	453.0	442.2
Change	% yr ago	10.7	9.8	5.2	7.3	4.9	8.5	7.3	4.6
Midwest	\$ ths	301.1	291.7	291.6	290.1	291.5	294.8	293.3	289.7
Change	% yr ago	7.8	5.1	5.0	3.7	4.1	6.0	5.3	3.8
South	\$ ths	371.0	364.8	364.7	365.9	363.8	366.9	365.4	361.4
Change	% yr ago	3.8	2.8	2.9	3.2	1.7	3.2	2.7	0.9
West	\$ ths	621.1	618.2	627.2	616.2	614.8	622.2	617.7	603.5
Change	% yr ago	6.5	5.0	5.7	2.2	1.9	5.7	3.6	-0.8
Median new single-family sales price	\$ ths	420.0	401.1	423.8	403.6	418.0	415.0	419.1	426.1
Change	% yr ago	-2.4	-13.9	-7.3	-16.2	-11.0	-7.9	-8.4	-6.3
ENR: construction cost index	1913=100	13,515.0	13,514.8	13,510.6	13,498.0	13,485.7	13,521.7	13,514.7	13,444.5
Change	% yr ago	2.6	2.6	2.5	2.5	2.4	2.6	2.6	2.4
NAR Housing Affordability Index **									
Fixed	index	na	98.3	93.0	92.0	94.2	94.4	94.8	98.8
MBA Mortgage Application Survey									
Composite index	Mar1990=100	205.5	187.0	172.0	168.3	185.1	194.7	184.9	196.6
Change	% yr ago	-10.2	-8.1	-16.4	-17.9	-26.0	-9.1	-14.6	-25.8
Purchase index	Mar1990=100	159.9	147.1	136.4	129.9	142.8	149.3	142.8	152.0
Refinance index	Mar1990=100	445.2	410.4	347.3	357.3	393.4	435.6	400.8	422.0
Fixed-rate index	Mar1990=100	202.6	183.6	164.9	159.6	180.0	191.0	179.6	191.6
Adjustable-rate index	Mar1990=100	266.9	258.6	321.2	347.4	292.3	271.8	296.1	301.5
Percent refinancing by number	%	35.7	37.9	31.6	31.2	30.9	35.6	33.4	30.7

\* The NAHB measures sales expectations for the single-family housing market. A score of greater than 50 indicates good sales.

\*\* The Affordability Index measures the ability of the median-income household to afford the median-priced home.

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## RECENT PERFORMANCE TABLE

							Average Value		
Indicator	Units	Jan 24	Dec 23	Nov 23	Oct 23	Sep 23	3m	6m	12m
Regional Economies									
Employment growth, U.S.	% yr ago	1.8	2.0	1.9	1.9	2.0	1.8	1.9	2.1
Northeast	% yr ago	na	1.3	1.5	1.7	1.8	1.5	1.6	2.1
Midwest	% yr ago	na	1.4	1.3	1.3	1.4	1.3	1.4	1.7
South	% yr ago	na	2.0	2.1	2.2	2.2	2.1	2.2	2.7
West	% yr ago	na	1.8	1.7	1.8	1.9	1.8	1.9	2.3
Unemployment rate, U.S.	%	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.7
Northeast	%	4.0	4.0	4.0	4.0	3.9	4.0	4.0	3.8
Midwest	%	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.5
South	%	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.3
West	%	4.6	4.5	4.5	4.5	4.4	4.5	4.5	4.2
Existing single-family home sales, U.S.	mil, SAAR	3.6	3.5	3.5	3.4	3.6	3.5	3.5	3.7
Northeast	mil, SAAR	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Midwest	mil, SAAR	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
South	mil, SAAR	1.7	1.6	1.6	1.5	1.6	1.6	1.6	1.7
West	mil, SAAR	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7
CPI, % change, SAAR	%AR	3.7	2.8	1.9	1.0	4.4	2.8	3.4	3.1
Northeast	%AR	3.0	2.7	1.3	2.5	5.0	2.4	3.6	2.6
Midwest	%AR	1.2	2.0	2.5	0.9	3.1	1.9	2.3	2.7
South	%AR	4.3	3.0	1.7	-1.5	5.8	3.0	3.8	3.5
West	%AR	6.7	2.6	-0.8	-0.5	7.0	2.8	3.7	3.4
Residential permits, U.S., SAAR	ths	1,470	1,493	1,467	1,498	1,471	1,477	1,490	1,471
Northeast	ths	117	98	84	128	109	100	109	115
Midwest	ths	210	197	190	170	189	199	194	191
South	ths	800	860	793	852	818	818	827	816
West	ths	343	338	400	348	355	360	360	350
Federal Government									
Surplus/deficit, 12-mo moving sum	\$ bil	-1,766.8	-1,783.7	-1,739.3	-1,673.8	-1,695.1	-1,763.3	-1,768.8	-1,884.4
Fed. govt. receipts, 12-mo moving sum	\$ bil	4,551	4,521	4,547	4,524	4,439	4,540	4,507	4,563
Change	% yr ago	-6.2	-7.2	-7.2	-8.2	-9.3	-6.9	-7.8	-4.7
Individual income taxes	\$ bil	2,217.2	2,196.9	2,234.2	2,221.0	2,176.5	2,216.1	2,204.8	2,206.1
Change	% yr ago	-13.9	-15.5	-15.3	-16.6	-17.3	-14.9	-15.9	-15.8
Share of total receipts	%	59.2	41.5	46.2	54.5	47.3	49.0	49.1	46.8
Corporate income taxes	\$ bil	502.9	500.0	493.7	489.7	457.4	498.9	485.8	481.3
Change	% yr ago	3.6	4.2	3.4	3.2	-4.0	3.7	2.3	2.7
Share of total receipts	%	4.9	22.4	4.3	12.7	20.4	10.6	11.2	10.9
Social insurance	\$ bil	1,643.9	1,635.5	1,627.4	1,620.6	1,614.5	1,635.6	1,625.5	1,615.0
Change	% yr ago	8.3	8.7	9.2	8.6	8.8	8.7	8.7	9.4
Share of total receipts	%	32.8	32.8	44.4	28.3	27.9	36.7	34.9	37.9
Excise taxes	\$ bil	78.2	76.8	76.9	77.3	75.8	77.3	77.5	79.7
Change	% yr ago	-11.2	-12.9	-12.8	-12.2	-13.6	-12.3	-11.7	-8.4
Share of total receipts	%	1.4	1.6	2.8	1.8	1.5	1.9	2.0	1.9
Fed. govt. outlays, 12-mo moving sum	\$ bil	6,318	6,305	6,286	6,198	6,134	6,303	6,276	6,417
Change	% yr ago	-1.7	0.3	0.5	-0.5	-2.2	-0.3	0.9	5.3
National defense	\$ bil	854.4	844.3	839.9	831.6	820.7	846.2	834.7	826.4
Change	% yr ago	9.9	9.0	8.7	7.4	7.1	9.2	8.4	8.6
Share of total outlays	%	12.0	14.5	11.9	18.6	13.2	12.8	17.7	15.8
Social Security and Medicare	\$ bil	2,276.2	2,257.6	2,241.5	2,219.5	2,201.9	2,258.4	2,228.7	2,200.8
Change	% yr ago	13.9	14.0	14.1	14.0	11.6	14.0	13.5	13.6
Share of total outlays	%	40.8	32.6	33.2	30.0	36.6	35.5	45.1	41.4
Health	\$ bil	888.1	889.0	889.3	889.4	889.3	888.8	889.1	892.3
Change	% yr ago	-1.8	-2.2	-2.9	-2.8	-2.8	-2.3	-2.4	-1.6
Share of total outlays	%	13.7	13.9	13.0	15.0	12.1	13.5	17.4	16.1
Income security	\$ bil	701.1	741.8	759.5	764.8	774.7	734.1	752.9	763.0
Change	% yr ago	-17.2	-8.8	-7.1	-8.7	-10.5	-11.0	-10.8	-13.8
Share of total outlays	%	8.1	10.9	8.4	7.0	9.0	9.1	11.6	11.1
Net Interest	\$ bil	748.3	730.4	716.7	692.2	659.2	731.8	696.8	668.0
Change	% yr ago	40.4	41.1	41.8	41.8	38.7	41.1	40.0	40.5
Share of total outlays	%	13.6	12.1	12.2	16.2	4.6	12.6	15.7	14.4

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate



# No Need to Panic About Layoffs in Tech and Finance

BY ADAM KAMINS

## Recent Performance

Regional economies are riding the wave associated with continued strength nationally. In year-over-year terms, job growth remains stronger in the West and South than elsewhere, with the gap reopening a bit last year. As a result, regional patterns more closely resemble the end of last decade and not the “new normal” that appeared to take hold in the aftermath of the pandemic.

This restoration of prior trends does come with one noticeable shift. The Northeast and Midwest have switched places, with the latter now a stronger performer. This is consistent with increased out-migration amid higher costs in the Northeast.

## White collar

White-collar layoffs are back in the headlines in early 2024, but this is not overly concerning. According to Layoffs.fyi, which tracks workforce reductions in the tech sector, January marked the worst month since the surge that ended last spring (see Chart 1).

Not surprisingly, weakness has been most pronounced in the Bay Area. Exposure to high interest rates has taken a significant toll, with various Northern California firms enacting major job cuts. Cisco and PayPal are among those laying off thousands of workers, and while their cuts are global, the impact will be felt most in Silicon Valley.

The impact of remote work on tech has proven a double-edged sword. For major cities with a traditionally large presence in the industry, increased flexibility to work from anywhere undermines the long-term outlook relative to less-expensive areas. But this also means that the traditional boom-bust cycle affects more of the country, leading to less-concentrated regional pain.

New York City is also facing headwinds from tech, but the bigger culprit in the Big Apple is outsize finance. Higher borrowing costs have put a crimp on deal volumes during the past year. Almost all major banks have downsized to some extent, with Citigroup the latest to cut positions. It joins

Goldman Sachs, JPMorgan and Morgan Stanley, all of which have also reduced headcounts over the past year.

While residual weakness will continue to have an impact, with Wall Street bonuses generally expected to be subpar again in 2024, conditions should improve soon. With interest rate cuts likely by midyear, equity prices will rise and deal volumes will pick back up. But for major finance hubs, the continued out-migration of jobs and workers to lower-cost areas will remain a headwind.

## Layoff rates

Zooming out a bit also makes it clear that there is little reason for panic. Despite early 2024 setbacks, there is little reason to worry about broader contagion. Not only is the national labor market enjoying continued robust growth, but even more vulnerable areas were weathering high interest rates relatively well coming into the year. Despite the impact of tech and finance, even harder-hit areas saw total payrolls move higher in 2023.

Further, data from the Job Openings and Labor Turnover Survey indicate that job losses remain relatively few and far between. The layoff rate remains close to historical lows nationally, with few pockets of weakness. As of December, larger states, most with large finance and tech sectors, are experiencing some of the lowest layoff rates in the nation. This includes New York, New Jersey and Massachusetts, with California also slightly below average (see Chart 2).

The flip side involves somewhat higher layoff rates in many states that have generally thrived since the pandemic. Idaho and Montana, both of which experienced surging in-migration after 2020, have leveled off a bit, causing consumer industries to moderate. Indiana, another strong performer in recent years, has seen layoffs pick up in part because of slowing demand for logistics.

## Venture capital

Job losses in tech are abating, but the road back for startups will be bumpy.

According to the National Venture Capital Association and Pitchbook, investment remained depressed last year. This is affecting nearly all markets, with some clear regional patterns emerging during the past year.

While the share of funding in the San Francisco Bay Area has gradually eroded over time, it rebounded impressively last year. Indeed, Silicon Valley enjoyed its highest share of national investment in eight years. The overall pie has shrunk everywhere, but this relative stability suggests that the world's pre-eminent tech hub remains a powerful source of innovation and business formation.

As a result, the West Coast secured more funding than the rest of the nation combined for just the second time since 2017 (see Chart 3). This is consistent with reduced movement to other regions, owing to a slightly narrower affordability gap along with the lock-in effect associated with high mortgage rates nationally. The decline in year-over-year funding for the region was the nation's second smallest, although it came with the largest decline in deal counts. This suggests a growing dependence on a handful of large transactions, rather than seed money being distributed more widely.

## Inflation

As price pressures abate further, the rate at which they are doing so still differs noticeably across regions. The South remains especially hot, both in terms of its labor market and price pressures. Housing costs are the key differentiator, rising at a far more rapid clip than nationally, reflecting both robust in-migration and lagged data. Recreation costs are also playing a key role in the mid-South, differentiating states such as Tennessee, where January estimates suggest the nation's highest rate of inflation.

At a metro area level, inflation remains highest in Miami, followed by the two main markets in Texas, Dallas and Houston. While Dallas has been an unabashed success story in recent years, both Miami and Houston have



underperformed their states in job growth. Combined with still-strong demand, this spells elevated wage pressures, according to the employment cost index.

Meanwhile, two of the poster children for high inflation have retreated noticeably since last year. Both Phoenix and Tampa FL experienced the largest declines in the U.S., with the former falling noticeably behind the national clip. All told, prices have risen more in those markets than elsewhere in recent years, but some leveling off is taking place in areas where affordability challenges have grown more severe (see Chart 4).

## Outlook

Continued job gains across the U.S. will translate into a stronger outlook across regions. All told, this will mean widespread acceleration from the end of 2023 to the first quarter of this year. That will be followed by a slowdown, but the trajectory through 2025 is encouraging.

Of course, a resilient labor market also means that inflation will be more difficult to break. The ramifications of this are significant for areas with persistent cost pressures, but also matter to larger markets where inflation has been a stubborn corrosive but not as severe of a headwind.

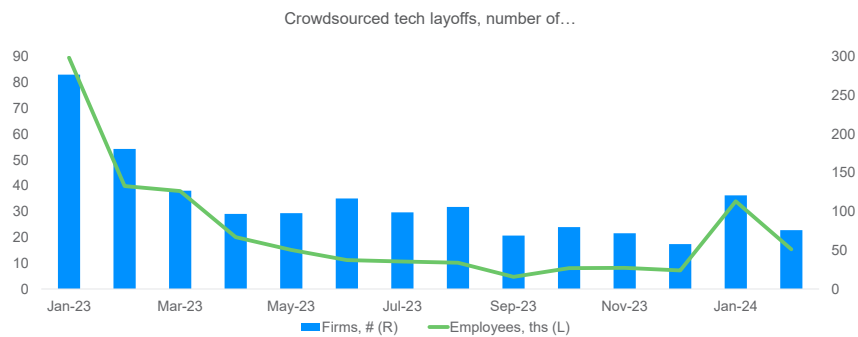
## Risks

The forecast remains littered with risks, but none seems particularly foreboding. Renewed job cuts in tech and finance could deal a blow to the gateway markets that rely heavily on those industries. But with interest rates set to fall, there is some upside risk as well should firms grow more aggressive when it comes to hiring and investment.

Geopolitical risk remains elevated as well. The wars in Ukraine and Gaza have affected supply chains, and both conflicts are a source of uncertainty. A spike in oil prices, for example, could prove especially painful in car- and manufacturing-dependent areas in the middle of the country. Domestically, while a government shutdown now appears unlikely, worries about dysfunction in an election year could slow hiring, while some of former president Trump's proposals to scale back the federal workforce could lead to job losses in and around Washington DC.

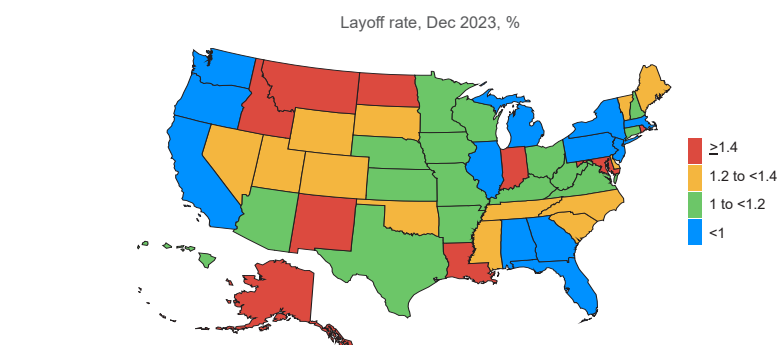
Finally, immigration is a source of risk as well. Shutting down the border to asylum seekers or, worse yet, severely restricting legal immigration, would lead to renewed worker shortages, perhaps even more painful than those experienced a few years ago. Further, with more migrants being transported to large cities, the cost of providing services to them could weigh on state and local finances amid an already-shrinking tax base.

## Pickup in Tech Layoffs Is Concerning, but Looks Fleeting



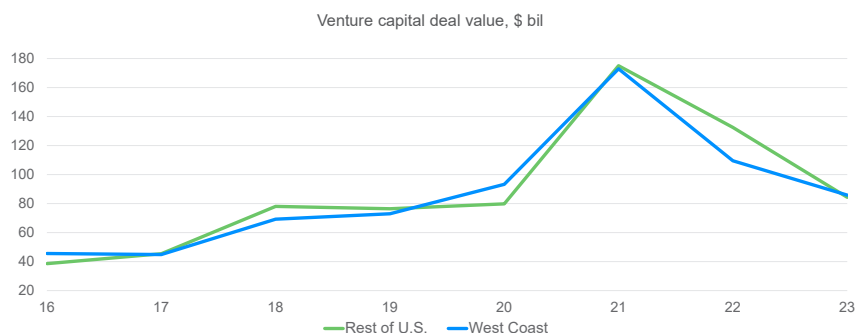
Sources: Layoffs.fyi, Moody's Analytics

## Job Cuts Were Nearly Nonexistent in Larger Coastal States



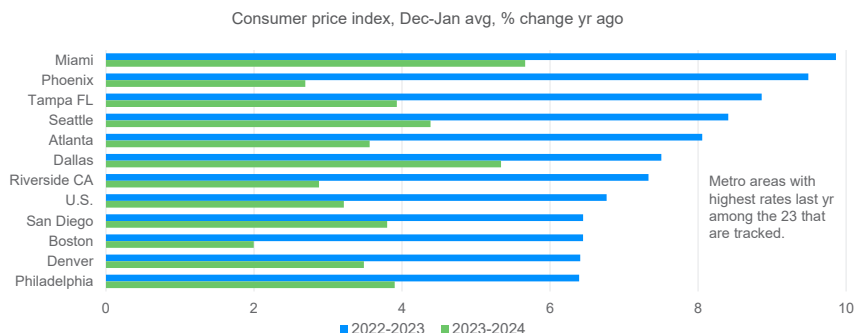
Sources: BLS, Moody's Analytics

## West Coast Inches Back Ahead for Tech Funding



Sources: NVCA/Pitchbook, Moody's Analytics

## Declining Inflation Looks Very Different Across Metro Areas



Sources: BLS, Moody's Analytics

# About Those Rate Cuts

BY DAMIEN MOORE

## Recent Performance

Financial market participants remain undeterred by another above-target inflation report. They have now sharply revised down their expectations for the pace of rate cuts by the Federal Reserve, but there have been few signs of spillover into other asset markets. The 10-year Treasury yield moved from around 4.1% to 4.3%. The Standard & Poor's 500 equity index gained almost 4% over the month on strong earnings reports, particularly for tech firms that account for 30% of the value of the index. The VIX, the options-implied equity volatility index and the market's fear gauge, has been steady in the low teens, trading only slightly above the low levels earlier in the year. Corporate debt spreads drifted down to their lowest levels in a decade. Investors appear to remain confident that the Fed ultimately will cut rates by summer, once inflation eases further.

## Shifting market view of Fed policy

With the latest pricing from the fed funds futures market, investors have almost completely rewound their expectations of rate cuts to where they were in November (see Chart 1), when investors were very pessimistic about the inflation outlook and risks of recession. The market is now pricing the first rate cut to occur in June rather than March, as had been the expectation in December and January. Traders are now splitting the difference between 75 and 100 basis points in total cuts by the January 2025 Federal Open Market Committee meeting instead of the 150 to 175 bps in expected cuts back in January.

In comparison, the Moody's Analytics forecast revisions have been more stable. We did not succumb to the market's December and January overconfidence about earlier and deeper cuts nor have we fully bought into the current pessimism. We shifted the first 25-basis point cut from May to June of this year and expect 75 basis points in cuts by the end of 2024 instead of

the 100 basis points in last month's forecast. The market's revised view has pushed up the Treasury curve and other interest rates, especially the mid-tenors.

## Uncertainty has not widened

Importantly, market uncertainty around rates has not widened appreciably. In fact, the Move index, reflecting the implied options volatility interest rate inferred from options on Treasury securities with maturities from two to 30 years, has steadily moved lower since October almost to where it was at the start of the tightening cycle in 2022. The is somewhat less evident on the shorter end of the curve with the futures contract for December now spanning a 100-basis point likely range compared with 125 basis points at times in November (see Chart 2).

Another pertinent measure of uncertainty involves inflation given how central it is to the Fed's thinking around rate cuts. The Minneapolis Fed reports percentiles of future inflation backed out of option prices on five-year inflation swap contracts (see Chart 3). The 10th, 50th and 90th percentiles of implied five-year ahead inflation all moved down starting in November last year. The 50th percentile is at 2%, slightly below the 2.5% that would be consistent with the Fed's 2% target for the broader measure of personal consumption expenditure inflation that the Fed prefers. The difference between the 90th and 10th percentiles narrows slightly, suggesting a small reduction in inflation uncertainty. The last couple of months reversed a little of that narrowing but not to a significant degree. This suggests that investors are still confident that inflation remains headed in the right direction despite sluggishness. However, the overall inflation environment remains uncertain.

## Return of a positive term premium?

The 10-year Treasury note yield has hovered around 4% to 4.3% for the last couple of months, roughly in line with where

we see it over the longer term. The shape of the Treasury yield curve is largely dictated by the same factors that drive interest rate futures markets. The combination of short-term interest rates above 5% and longer-term rates above 4% suggests that markets are expecting the fed funds rate to average more than 4% over the next decade. That seems starkly at odds with the Fed's long-run view, for a horizon from 2027 onward, that the fund rate will average 2.5% to 3%.

A more careful analysis, which can help reconcile those conflicting observations, decomposes long-term nominal interest into a short-term interest rate expectations component and a term premium component. The expectations component accounts for the expected path of short-term nominal interest rates over the maturity of the long-term bond. The term premium is the amount of compensation investors demand for bearing the relative risks of holding short- and long-term bonds. Thus, interpreting whether long-term yields are justified by a given expected path of short-term interest rates depends on one's view of the term premium.

Although the term premium cannot be observed directly, it can be inferred from models of interest rates such as the New York Fed's so-called ACM model of the term premium. While such models differ in the details, they generally predict similar behavior of the term premium. They show that the term premium moves around over time and can be both positive and, more recently, negative. Furthermore, the term premium has a term structure—the term premium for different long-term bonds varies significantly with their maturities. The term structure of term premiums can increase or decrease with maturity. Historically, an inflationary environment has been associated with a positive term premium and a disinflationary or recessionary environment with a negative term premium. While the term premium historically was positive, the term premium can be negative, as in recent years, because

long-term nominal bonds will provide a gain in real terms if inflation falls below what was expected.

It is puzzling that the current estimate of the 10-year term premium from the ACM model is roughly zero, having moved up from the negative value observed since the onset of the pandemic, implying that the 10-year nominal yield roughly matches the expected short rate path over the next 10 years. That led us to investigate the drivers of the term premium in the model and consider some alternative specifications (see Chart 4). While we found estimates to be relatively robust overall, we did find two alternative specifications that produced markedly higher current term premium estimates: (1) shortening the sample period to exclude the 1970s-1980s period of unmoored inflation expectations that precipitated the global shift to central bank inflation targeting, and (2) including the size of the Treasury debt stock and excess reserves relative to the economy to account for Treasury supply and Fed balance sheet activity, respectively. Either adjustment almost eliminates the discrepancy with the Fed's short rate projections and is more consistent with the future rate path where the Fed tames above-target inflation.

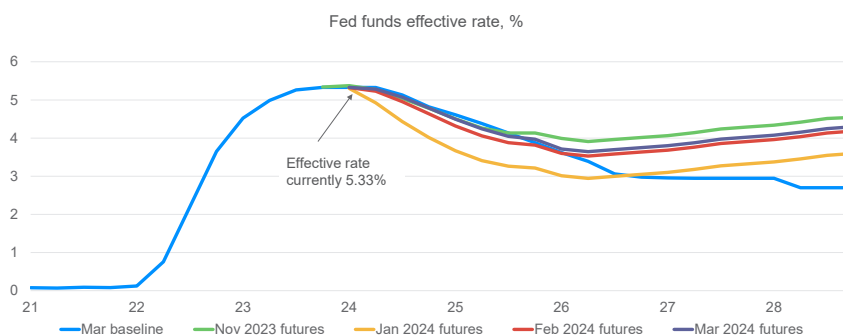
## Outlook

We forecast a positive outlook for asset markets as inflation continues to move downward, albeit at a slower pace than previously expected. We expect equities to underperform because their values have become stretched in recent months as investors appeared to be a little too optimistic about rate-cut prospects. The 10-year yield will remain above 4% for most of 2024 and corporate bond spreads will widen slightly toward historical averages.

## Risks

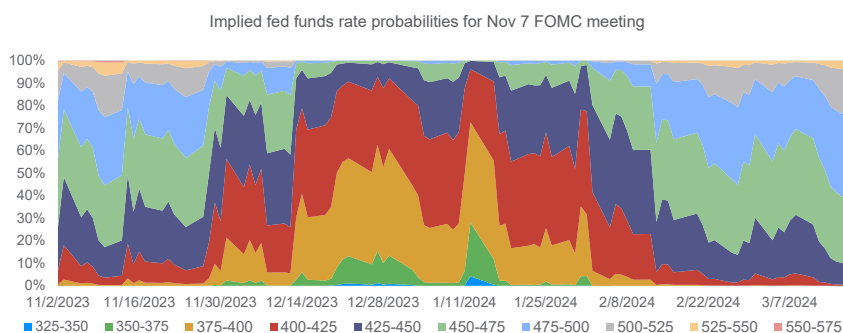
With interest rate cuts on hold for longer, the risks have increased that the Fed will misread the economy and cut rates too late to catch a slowing economy as has happened in many past business cycles. Credit-sensitive spending, especially in the housing market, could erode more and faster than anticipated because of the elevated costs of borrowing. The stock market could drop, and corporate spreads could widen if core inflation were to pick up again and force the Fed to either delay fed funds rate cuts or push the rate higher, sending the economy into recession. Other risks include a worsening of the Russian war in Ukraine and escalation of the China-Taiwan conflict. Partisan divisions may also make budget deals over the coming election year more challenging, which could rattle the Treasury market and spill over into other asset markets.

### Market Participants Ease Off Aggressive Jan Expectations



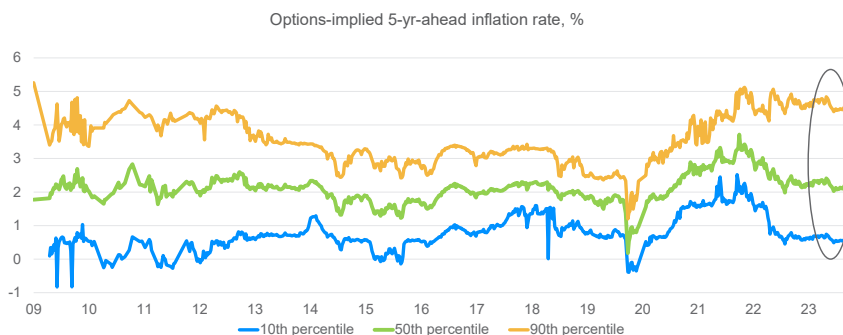
Sources: Federal Reserve, CME, Moody's Analytics

### What Trouble Could 75-Basis Point Shift in Rate Expectations Unleash?



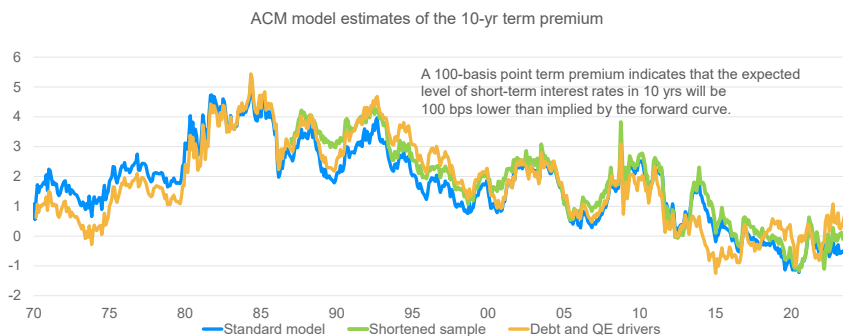
Sources: CME, Moody's Analytics

### Recent CPI Releases Had Minor Impact on Longer-Run Inflation Expectations



Sources: Minneapolis Fed, Moody's Analytics

### Market Implied Rate Path Interpretation Hinges on the Term Premium



Sources: NY Fed, Moody's Analytics

# Taking Stock

BY STEFAN ANGRICK

## Recent Performance

The global economy has had a rough couple of years. In 2020, it was knocked off course by a once-in-a-century pandemic. Lockdowns and mobility restrictions caused output to plummet. The reopening was marred by logistical chaos and supply-chain snarls. Shortages and inflation ensued. With the added disruptions of Russia's war in Ukraine and conflict in the Middle East, many countries have struggled to regain their footing.

Based on the trajectory of GDP prior to the pandemic, current global output is 2% lower than it would have been without these shocks (see Chart 1). But there are large regional differences.

## The U.S. has done well

Among advanced economies, the U.S. has fared the best. U.S. output in the fourth quarter was less than 0.5% below the pre-pandemic trend, thanks to robust policy support, a solid labor market recovery, and a strong rebound in consumer spending (see Chart 2). Yet the U.S.'s neighbor to the north has not done so well. Canadian GDP is 4% below where it would have been had pre-pandemic growth continued.

Things are worse across the pond. In the euro zone, output is 5% below the pre-pandemic trend. In the U.K., the gap is more than 6%. Western Europe's recovery initially looked promising, but the combination of supply snags and Russia's invasion of Ukraine dealt a significant blow to the region's fortunes. A disappointing 2023 saw the U.K. and Germany—Europe's largest economy—teeter on the brink of recession.

Turning eastward, Japan's GDP is almost 3% below the pre-pandemic trend. Japan's main challenge is a familiar one: subdued wage growth and weak domestic demand. Although wage growth has improved, pay gains are still trailing inflation. Exports are not much help either. Car shipments and tourism, which

boosted GDP last year, have grown little in recent months.

## Emerging Asia is struggling

Emerging markets' performance has broadly followed the global average, but there are large regional differences here as well (see Chart 3). China, the world's second-largest economy, is more than 2% smaller than it would have been had pre-pandemic growth continued. Its economy is challenged by a lack of domestic demand and a plethora of structural imbalances, including a bloated property sector. Despite these headwinds, China's policy response to date has been lackluster, with policymakers unwilling to spend on significant fiscal support or cut interest rates much.

Other economies in Asia have also struggled. India and Southeast Asia have seen some of the largest output losses globally. But stronger growth in the latter half of 2023 has allowed them to make back some lost ground. Better electronics exports and a tourism recovery should provide Southeast Asia with an additional lift this year.

Latin America, the Middle East, and Africa have navigated the past several years better. GDP across all three regions has outpaced pre-pandemic averages.

## Outlook

Moody's Analytics expects global growth to slow modestly in 2024. The forecast is for global GDP to grow 2.4% in 2024 after an estimated 2.6% expansion in 2023 (see Chart 4). Importantly, growth will accelerate over the year, with gains in the second half stronger than in the first.

U.S. GDP will grow 2.5% in 2024 following a 2.5% expansion in 2023. That forecast is predicated on the expectation that inflation eases toward the Federal Reserve's target and labor market conditions continue to normalize. This will allow the Fed to start cutting rates from midyear.

The outlook for other advanced economies appears more challenging. Canada's

GDP will grow only 0.8% in 2024 after a 1.1% expansion in 2023. Euro zone GDP will expand 0.7%, compared with 0.5% growth in 2023. Meanwhile, the U.K. will grow just 0.3% this year, little changed from last year's 0.1% expansion.

Despite the subdued growth outlook, monetary policy in the euro zone and the U.K. is expected to remain restrictive for longer. Both the European Central Bank and the Bank of England will start cutting rates later than the U.S. Fed.

## Risks

Beyond trade frictions, geopolitical risks arising from military conflicts pose a significant risk to the outlook. The Russia-Ukraine war and Israel's conflict with Hamas are examples. Shipping lanes in the Red Sea have come under attack, forcing the rerouting of commercial ships traveling between Asia and Europe. Any escalation could lead to a surge in energy prices and supply-chain disruptions, pushing inflation higher.

A flurry of elections in 2024 brings added uncertainty. Half of the world's population will be voting this year, with elections in the U.S., the U.K., India and South Africa among the most closely watched.

Economically, concerns regarding monetary policy missteps loom large. Policy rates in much of the world remain elevated and central banks have signaled that they want to be sure that inflation stays on target before easing policy settings. It would not take much to delay rate cuts, which creates a risk that authorities will keep rates too high for too long. At best, this would be an added drag on growth. At worst, it would cause the economy to tip into recession and precipitate broad financial market dislocations.

## Rates in Japan are headed higher

Bucking the trend toward lower rates is Japan. The Bank of Japan will drop negative interest rates in the first half



of 2024. Yield-curve control will get axed at the same time. This will take interest rates to 0% and simplify the BoJ's framework after a series of tweaks muddled the central bank's messaging through 2023.

It is hard to see rates climb beyond 0% given the fragile state of the economy. A strong result for the 2024 shunto spring wage negotiations will keep consumption from slipping further, but spending will not see big gains this year. Moody's Analytics expects the economy will barely grow in 2024.

### Demand in China will stay weak

For China, weak domestic demand is the main challenge. Fresh fiscal support announced at the recent Two Sessions meetings will keep growth from crumbling but will not shake the economy out of its structural demand shortage. This will keep price pressures muted. Chinese growth will slow to 4.7% this year from 5% in 2023.

For the rest of the world, weak demand in China is a mixed blessing. On one hand, it helps keep a lid on commodity prices. This is a positive at a time when inflation in many countries is still exceeding central bank targets.

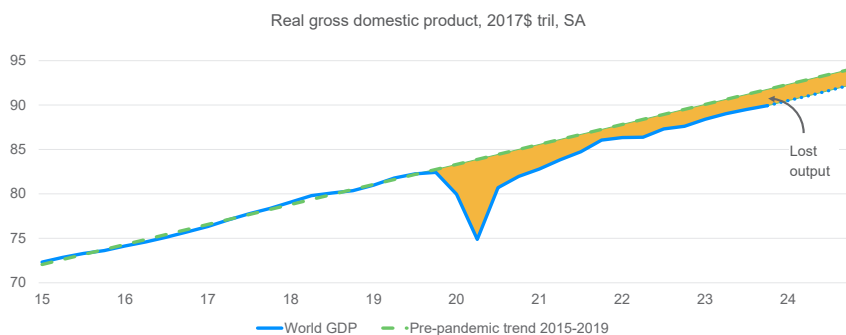
On the other hand, it is a sign that China's economy has made little meaningful progress rebalancing away from investment toward domestic household consumption. This raises tough questions about how to pull the economy out of its malaise.

With the property market in shambles and minimal support for households, officials are banking on manufacturing and exports to drive growth. Chinese manufacturers are already ramping up production of cars, machinery and electronics beyond what the domestic economy can absorb.

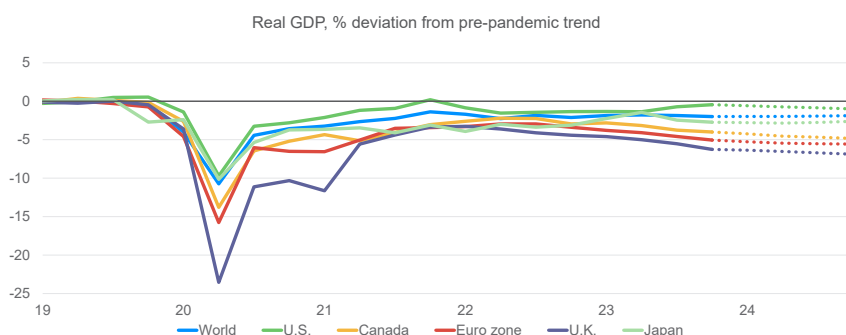
This creates a risk of increased trade friction. The U.S., Europe, Japan and other countries are looking to shore up domestic manufacturing and so are less receptive to Chinese surpluses. The European Union is debating whether Chinese-made electric cars are unfairly subsidized, while former U.S. President Trump, who is the Republican party's nominee for the 2024 general election, has proposed imposing a 60% tariff on imports from China.

Chinese import demand also does not benefit the rest of the world the way it used to. China now produces much of the machinery and cars it needs domestically, and so imports less from German, Japanese and South Korean makers. And with the property boom in the rearview mirror, Chinese demand for coal, iron ore and other commodities will stay soft.

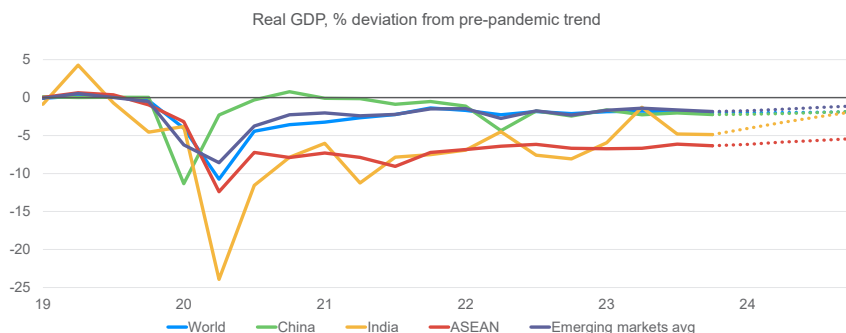
### Pandemic and Aftershocks Have Knocked the World Economy Off Course



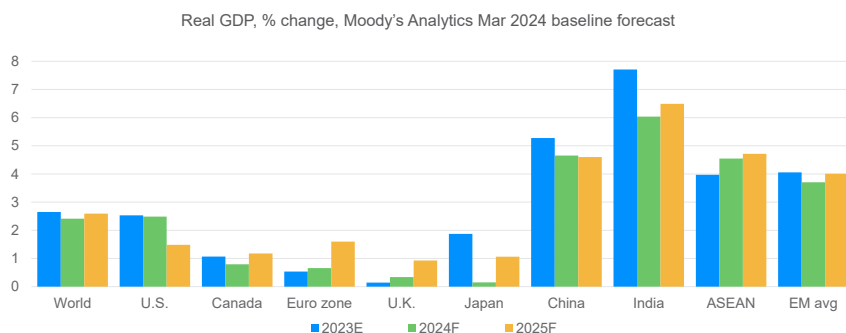
### The U.S. Has Done Well; Europe and Canada Have Struggled



### India and Southeast Asia Are Playing Catch-Up



### 2024 Got Off to a Slow Start



# Still (Mostly) on a Roll

BY DANTE DEANTONIO

## Recent Performance

The labor market keeps rolling on. Payroll employment rose by 275,000 in February, once again besting expectations. Growth was strongest in healthcare, leisure/hospitality, and the public sector, which accounted for more than two-thirds of total gains. Unlike January's report, the impact of revisions to prior months was significant and negative as gains in December and January were revised lower by a combined 167,000. The average gain during the last three months is 265,000, compared with 289,000 last month—prior to revisions.

Job growth was more concentrated in February, with the majority of gains coming from healthcare, leisure/hospitality and government. The three industries have accounted for more than 500,000 jobs since December—just over two-thirds of total job growth. On the downside, manufacturing turned negative again after posting modest gains in recent months.

Average hourly earnings returned to form, rising just 0.1% in February, while the outsize gain in January was revised slightly lower. Year-over-year growth has fallen back to its cycle low at 4.3% and will continue trending toward 4% in 2024. In addition, if recent strength in productivity growth holds up, it would likely suggest that the economy could sustain slightly higher wage growth while still being consistent with a 2% inflation target.

The results of the household survey were less positive in February. The unemployment rate ticked higher by 0.2% to 3.9%—the highest mark since January 2022. Meanwhile, labor force participation was stable at 62.5% and is unchanged over the last year. There is a growing gap between employment as reported in the two surveys. Household survey employment fell for the third straight month, down a total of 898,000, while payroll employment has risen by 795,000 in the same period (see Chart 1).

## Quits tracking lower

Labor market churn is tightening in the face of a slowing economy. The quits rate—which measures voluntary nonretirement separations by employees as a proportion of total employment and serves as an insightful metric for labor market churn—has been on a downswing since peaking at a record 3% in January 2022. Exactly two years later, the quits rate dipped below the 2.2% average set in the five years leading up to the pandemic (see Chart 2).

The quits rate matters because of its close connection with labor market tightness and wage growth. Workers will quit at a prodigious rate only when they are confident that there is an availability of better-paying jobs; as job postings have come down, so has the quits rate. Moreover, workers switching jobs typically experience bigger pay increases than job stayers. Indeed, our previous research has found that quits are the best predictor of wage growth. As a general rule, the annual growth rate in the employment cost index for private workers' wages and salaries—our preferred measure of wage growth—increases 0.2 percentage point for every 0.1-percentage point increase in the quits rate, and vice versa. Therefore, the return of the quits rate to its pre-pandemic norm suggests that, if sustained, further wage disinflation is ahead.

However, the quits rate varies across industries, and some are experiencing lesser churn than others relative to their respective historical norms. For instance, the rate of voluntary nonretirement-driven separation is lower in healthcare; professional/business services; financial services; trade, transportation and utilities; manufacturing (relative to last year but not the 2019 average); construction; and mining (see Chart 3).

There are a number of reasons for this. The first is that the labor market is loosening as the labor force expands and job postings get pulled down by employers. While layoffs have not been common, hiring reduc-

tions are, leaving workers less confident that they will be able to easily find a new position. Moreover, now that the Great Resignation has come and gone, many workers who took advantage of the plethora of job opportunities likely settled into positions that better fit their pay and workload expectations, leaving little reason to put themselves back on the market.

Two industries, however, boasted a higher-than-average quits rate in January, according to the latest Job Openings and Labor Turnover Survey report. Technology and other services—which includes everything from maintenance and repairs to personal services (funeral homes, barbershops, dry cleaning, pet care and so on) to political and religious organizations—remain burdened with relatively high levels of labor churn. Despite the quits rate in both industries back-tracking throughout 2023 relative to the 2019 average, it sprung forward in January.

There are a few plausible explanations for this. In tech, job openings remain high but hiring has slowed substantially, as the industry is still trying to wind down its overly bloated workforce built up during the pandemic. Quits, however, may be elevated, as workers flee tech for similar work in other, more stable industries. Indeed, while not bleeding into the economic data just yet, headlines denoting widespread tech layoffs may be causing a fight-or-(most probably) flight response for tech workers.

As for other services, the industry is still playing catch-up from the pandemic, as lost payrolls have yet to be fully recovered. Consumer demand for services remains elevated, keeping job openings for other services high and hiring at a historically normal pace.

We expect the labor market will continue to cool throughout the year, primarily through a reduction in job openings, moderation in hiring, and labor supply gains. As a result, the unemployment rate will inch up to a still-healthy, yet higher, 4% by the end

of the year, which will keep the quits rate subdued and remove its outsize upward pressure on nominal wage growth.

## Should we believe it?

Of increasing concern is the size of revisions to employment estimates. The first estimate for any given month tends to garner most of the headlines, but more often than not (of late), those initial estimates are revised by wide margins in subsequent months. Also important to note is that revisions have been particularly one-sided recently. The total revision between the first and final estimates was negative in 10 of 12 months in 2023, creating a misleading initial story about the performance of the labor market.

The increase in average revision size is not totally surprising given the recent trend in survey response rates. The first prints of employment estimates can be particularly unreliable when they are based on smaller-than-normal sample sizes, which has been the case recently (see Chart 4). Survey response rates for the first print of employment estimates during much of the last two years have been well below the pre-pandemic average, making larger subsequent revisions more likely.

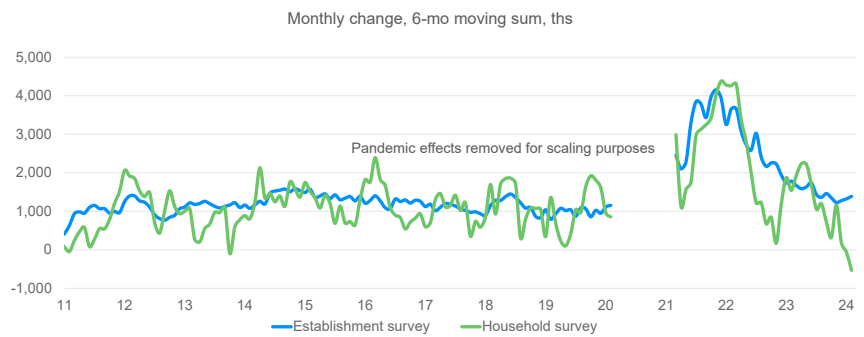
## Outlook

Another month of stronger-than-expected job growth in February will push average job gains in the first quarter just north of 250,000, an upgrade to our prior forecast. However, we still expect job growth to cool quickly and average about 120,000 in the second quarter before slowing to 60,000 by year's end. The unemployment rate forecast was little changed. The uptick in February to 3.9% was in line with our expectation for the unemployment rate to edge slightly higher, reaching 4% by the end of the year before peaking just above that in mid-2025.

## Risks

Risks to the outlook have become more balanced as a few upside risks have emerged against the plethora of downside risks. On the downside, a Federal Reserve misstep, a black swan event in the financial system, and higher oil prices stemming from a geopolitical crisis are at the top of the list for derailing the expansion. On the upside, the recent run of strong productivity growth could prove to be more resilient. Higher productivity would help the Fed out by offsetting higher inflation and letting up on wage pressures. Faster population growth—bolstered mainly by immigration—could also provide some upside if it leads to more labor supply than anticipated.

### It Was the Best of Times, It Was the Worst of Times



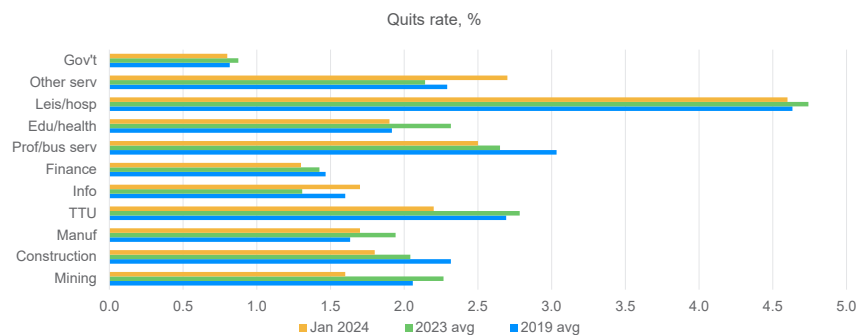
Sources: BLS, Moody's Analytics

### Back to Normal



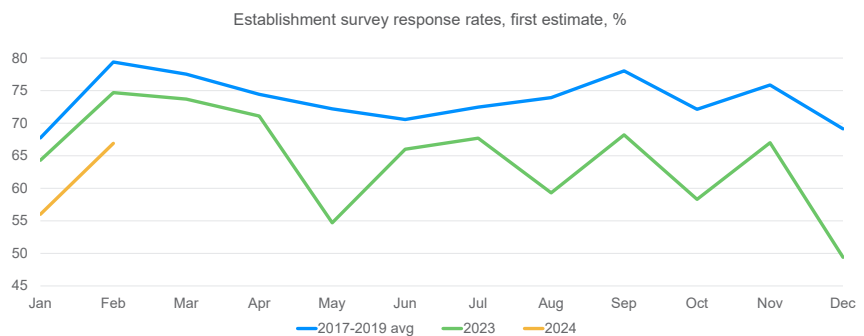
Sources: BLS, Moody's Analytics

### Tech and Other Services Stand Out



Sources: BLS, Moody's Analytics

### Survey Response Rates Have Deteriorated



Sources: BLS, Moody's Analytics

# The Last Mile

BY GUSTAVO ROJAS-MATUTE

## Recent Performance

February data came with another bump in the road confirming that the disinflation process seems to be stalled. The U.S. consumer price index rose 0.4% monthly in February following 0.3% growth in January. Relative to a year earlier, the headline CPI was up 3.2%. Excluding energy and food, core inflation rose 0.4% and was up 3.8% relative to a year earlier. Meanwhile, services less energy inflation slowed from 0.6% in January to 0.4% in February, reporting a 5.2% change year over year.

## The last mile

The vaunted “last mile” from the current inflation rate to the central bank’s target will be challenging. Consumer price inflation and inflation expectations for both firms and consumers have slowed. However, some factors that feed expectations remain volatile or inflation’s deceleration has stalled. The vicious cycle is hard to break. First, higher inflation leads to more news coverage, which generates more attention and higher expectations, feeding inflation again.

Chart 1 shows that the intensity of the news coverage of inflation—publicly available data from the Global Database of Events, Language, and Tone—declined significantly from August 2022 to July 2023 but has remained remarkably flat. The current level of intensity also remains higher than the average observed before 2021.

The coverage volume intensity measures the percentage of monitored articles in the global online news coverage search link, but we restricted the geographic sample only to the U.S.

More news coverage leads to more attention on inflation. As we have discussed in previous reports, we use Google searches for “inflation” as a proxy of the interest or the attention agents pay. To make the news intensity indicator comparable with the Google searches, we indexed the highest value at 100. In line with the intensity of the coverage, Google searches for inflation

have shown the same persistence since June 2023.

Interestingly, both indexes show a slight increase in November 2023, which coincides with the substantial increase in consumer inflation expectations that surpassed 4% in November and December. Moreover, the chart also shows that the 3% threshold has proven challenging for consumers to break.

Finally, firms’ one-year-ahead inflation expectations from the Federal Reserve Bank of Atlanta steadily decreased but remained higher than the Fed’s 2% inflation target.

Two main factors could alter inflation expectations and keep coverage in the news. For firms, it will be the strength of the labor market and its impact on wage growth, whereas for consumers it will be energy prices.

## Labor costs’ impact moderates

Firms’ expectations regarding the impact of labor costs on prices continued to shift from “strong” to “moderate.” In the Survey of Business Inflation Expectations conducted by the Atlanta Fed, businesses anticipating a moderate influence of labor costs have gained prominence over those expecting a strong impact, a shift not seen since 2019 (see Chart 2).

Nevertheless, the moderation process has been slower than general prices as the job market remains strong and wage growth indicators send mixed signals. The employment cost index has been trending downward. In the last quarter of 2023, it continued to decelerate after recording growth of 4.3% year over year, down from the 4.5% observed in the third quarter. In contrast, the decline in the private sector’s average hourly earnings growth rate has stalled. In February, it grew 4.5% year over year after ticking up in January.

## Commodity prices

Energy prices always play a critical role in consumers’ inflation expectations, and this has caused some bumps in the road.

Tensions in the Middle East and prolonged cuts in oil production have pushed up oil prices again since mid-February, with West Texas Intermediate close to US\$80, affecting gasoline prices.

However, global commodities are generally contributing to the disinflation process. In February, the energy price index—which includes oil, coal and natural gas prices—declined 7.5% year over year. While in the Moody’s Analytics baseline we expect global energy prices to drop 2.8% in 2024, WTI is set to grow 1.7%.

Meanwhile, metal commodities fell 10% in the same period. Despite a surge of enthusiasm in December, the metal commodity price index experienced a downturn in 2023, a trend projected to persist into 2024. The Moody’s Analytics baseline predicts a 3.8% decrease in metal prices. Nickel prices are expected to be most affected, with a projected 7% decline following a 16% drop in 2023 due to increased supply and stocks. The Nickel International Study Group anticipates that production in 2024 will reach 3.713 metric tons, while demand will be 3.474 metric tons. Stocks of copper also increased in 2023, which contributed to containing copper prices despite uncertainty about the long-term supply.

Iron ore prices are projected to decrease by approximately 5% this year, reverting to a range between \$110 and \$120 per ton, after reaching a higher-than-expected price of more than \$140 per ton in December. Nevertheless, metal prices are expected to remain above pre-pandemic levels.

Global food prices, which can also influence consumer expectations, declined 3.4% in February. We expect prices to decline 5.1% in 2024.

## Immigration and labor costs

Immigration has emerged as a significant factor in mitigating inflation pressures within the labor market; it will likely prevent the Fed from increasing the fed funds rate. Since the onset of the pandemic, the foreign-born

labor force has surged by 12%, contrasting with the stagnant growth in the native-born labor force (see Chart 3).

The influx of foreign-born workers has played a crucial role in easing inflation pressures, contributing to a more stable economic environment. These workers are not only the high-skilled immigrants who arrive in the U.S. with a worker visa but also asylum seekers who enter through the southern border. Since the beginning of the Biden administration, the Border Patrol has had more than 6.3 million encounters with illegal border crossers, many of them released into the U.S. with court dates. However, since the immigration court backlog is about 3.3 million, those immigrants are waiting, working and living in the U.S.

### A supply shock on labor force

Utilizing the Fed model FBR/US, we can dig into the consequences of an exogenous shock on the labor market, such as a 1 percentage point increase in labor force participation, that we can attribute to immigration. The immediate effect is a reduction in wage inflation, measured by ECI growth amid more workers filling vacancies, subsequently leading to a decrease in CPI inflation and the unemployment rate. This influx of labor and the lower cost pressures give the Fed room to cut fed funds rates over time, whereas the output gap increases over the output gap of the baseline scenario (see Chart 4). Nevertheless, the impact on the cut in the fed funds rate is minimal. Thus, lower inflation leads to less or no need for intervention of the monetary policy.

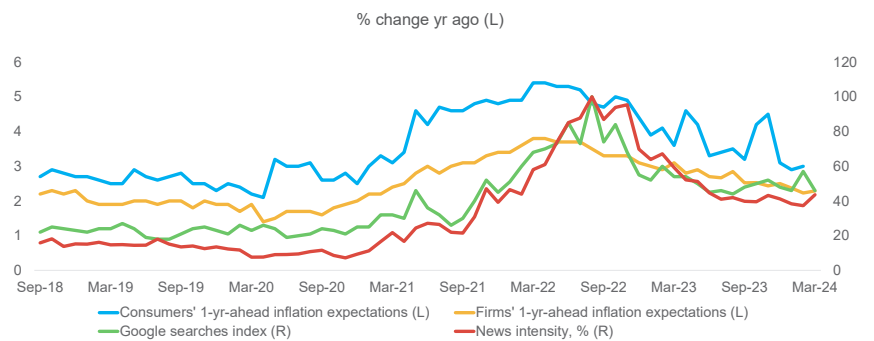
### Outlook

In the Moody's Analytics baseline scenario, CPI inflation is projected to average 3% in the first quarter of 2024 and 2.5% in the final quarter of the year. It is expected to reach the 2% target in 2025. In the coming months, we anticipate that CPI inflation will moderate at a slower pace than previously, owing to the diminishing year-over-year comparisons associated with the significant CPI increases during the pandemic and earlier in the Russia-Ukraine war.

### Risks

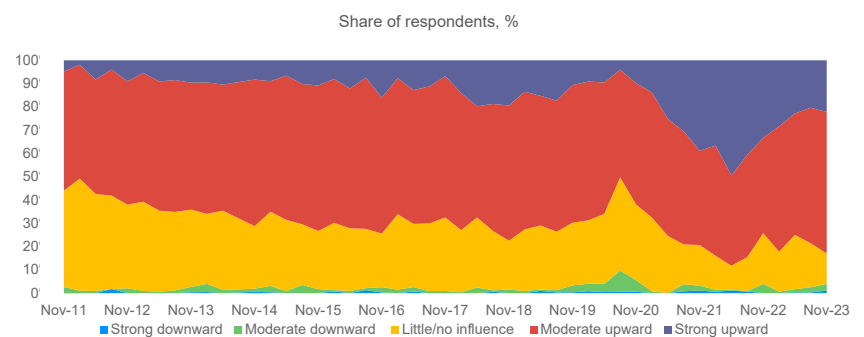
Significant risks that could affect inflation expectations are the slow pace at which the labor market is cooling and the volatility in energy prices. Both will provide a bumpy road in firms' and consumers' expectations. A stronger-than-expected recovery of the Chinese economy could also pressure the prices of commodity metals and raw agricultural materials.

A Vicious Circle



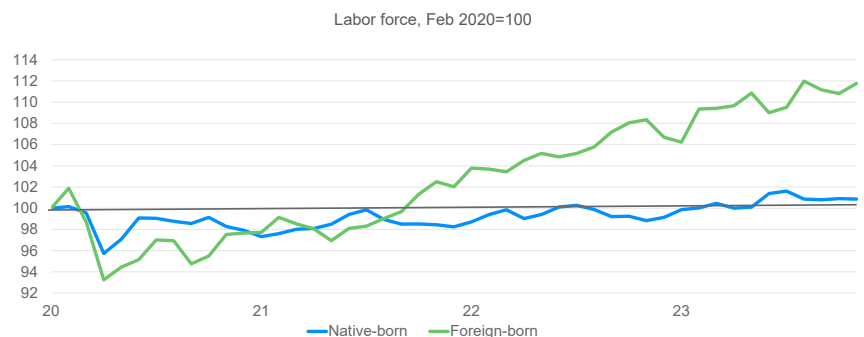
Sources: Global Database of Events, Language, and Tone, Atlanta Fed, Univ. of Michigan, Google Trends, Moody's Analytics

Labor Costs' Moderating Influence on Prices



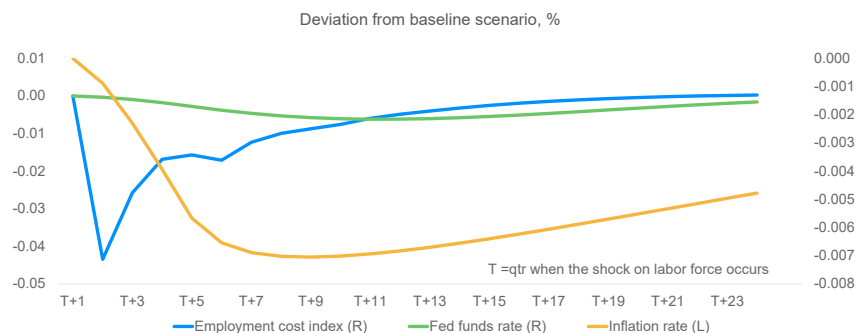
Sources: Atlanta Fed, Moody's Analytics

Foreign Immigration Powers Labor Force Growth Since Pandemic



Sources: BLS, Moody's Analytics

Immigration Likely Contributing to Soft Landing



Sources: Federal Reserve, Moody's Analytics



# Lower Rates on the Horizon

BY KYLE HILLMAN

## Recent Performance

Growth patterns are diverging across U.S. credit markets. On the consumer side, households continue to pull back as higher interest rates weigh on mortgage and auto gains, while a softer job market is reining in credit card and consumer finance expenditures. Balance growth across all consumer products was roughly flat from January to February while the number of active accounts fell 0.5%. On a year-ago basis, total outstanding balances rose 1.7% in February, unchanged from the prior month as gains in the HELOC and auto finance segments offset declines in the bankcard and consumer installment markets. First-mortgage lending, which accounts for more than 70% of outstanding consumer debt, rose 2.3% year on year in February, while the retail card and consumer revolving markets saw annual gains slow from 1.1% to 0.8% and 10.4% to 9.9%, respectively.

In contrast, corporate debt issuance has started 2024 on a strong note, particularly within the high-grade market. Cumulative dollar-denominated debt issuance through the first 11 weeks of 2024—to mid-March—reached \$563.8 billion, an approximately 28% increase relative to the same period in 2023. Gains have been powered by the high-quality issuance, which is off to its best start of the year in the last decade (see Chart 1). The high-yield market is somewhat more subdued as \$76.7 billion of dollar-denominated debt has been originated this year—a 55% increase relative to 2023 but still less than half the level of issuance seen in 2021.

Consumer credit performance continues to normalize. The total dollar delinquency rate across all products increased from 204 basis points to 214 bps in February and has risen 52 bps over the last year. However, this metric remains 39 bps below pre-pandemic levels thanks to outperformance in the real estate market and government support in the student loan segment. Monthly moves were mixed across products; retail and

bankcard delinquency rates ticked higher in February, while consumer finance and auto late payment rates edged lower. As for write-offs, the annualized total dollar default rate across all products fell from 101 bps to 91 bps in February, a reading in line with pre-pandemic performance.

Corporate credit performance modestly worsened in February. Nine U.S. corporate entities tracked by Moody's Ratings, including three healthcare firms and two hospital-ity companies, defaulted during the month, up from five in January. The year-to-date count—14—is consistent with the same period in 2023.

## Interest rates

Consumer credit growth is fading, largely because of the rapid rise in borrowing costs over the last two years. The 30-year fixed mortgage rate has doubled from its January 2022 level of 3.5% while the average interest rate on 60-month new-auto loans has increased from 4.5% to more than 8%. Unsecured markets have seen a similar shock; the average credit card rate has risen from 14.6% to 21.5% while personal loan rates have risen 300 bps to 12.4%. It is no surprise that higher borrowing costs have chilled demand. Home sales have plummeted since the end of 2021. Higher rates have dissuaded current owners from moving, limiting supply and keeping would-be buyers on the sidelines. In contrast, vehicle sales have modestly gained since the upward move in interest rates, though they remain below late-2019 levels. The same can be said for credit card and consumer finance issuance; originations peaked during the 2021 holiday season and have trended down since (see Chart 2).

Relief is on the way. Inflation, while still higher than the Federal Reserve would like, continues to moderate. As a result, the Moody's Analytics baseline forecast expects the central bank to start lowering short-term rates in June, ultimately cutting three times this year and then around

once per quarter through 2026, at which point the fed funds rate will approach a level consistent with a long-term neutral monetary policy stance. The impact will be felt across the yield curve, with consumer credit interest rates also trending lower (see Chart 3). Lower rates will support increased borrowing on the margins, halting the current slowdown in consumer credit markets.

We expect corporate borrowing costs to increase in the coming quarters. Spreads, or the difference between the interest rate on a loan made to a corporation versus the interest rate on a Treasury bond with the same duration, edged higher as the Fed tightened monetary policy. However, spreads have trended lower since 2023 thanks to strong earnings and rising equity prices. Yet after a more than 20% gain in 2023, equity valuations are expected to moderate in the coming year as slower global growth and compressed margins weigh on earnings. Investors will be wary, demanding higher rates on new issuance.

## Measuring the risks

Though our baseline forecast is upbeat with real GDP expected to grow nearly 2.5% this year, it is worth considering alternative outcomes, particularly to the downside. This is especially true in 2024, since a closely contested presidential election and host of other risks—higher oil prices, geopolitical conflict, CRE-related debt pressures—weigh on the outlook. To do this, we compare the baseline forecast against a downside scenario at the 90th percentile, consistent with an economic contraction. Consumer credit volumes are expected to increase 1.5% in 2024 and nearly 1.7% in 2025 under the baseline forecast; however, under the downside scenario, outstanding consumer credit balances gain only 0.4% this year and contract 0.3% in 2025. Performance also suffers in the recessionary scenario as the total dollar delinquency rate across all products spikes near 3.3%



in 2025; it does not exceed 2.5% under the baseline forecast (see Chart 4).

Similar dynamics hold in the corporate credit space. Year-ago growth in corporate debt will surpass 4% by the fourth quarter of 2024 under the baseline scenario. In contrast, the corporate debt market will shrink relative to year-ago levels should the downside scenario play out. Further, under the downside scenario, delinquency rates for commercial real estate and commercial and industrial lending exposures will push beyond what was seen in 2020 and remain elevated over the next several years.

## Outlook

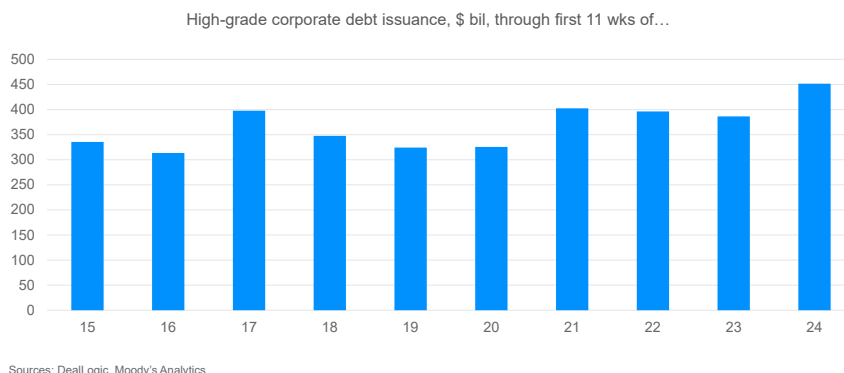
The U.S. economy is poised for above-trend growth in 2024, with real output rising by just less than 2.5%. Inflation is moderating and the Fed has room to lower interest rates, which will support steady, if slower, growth. The job market will loosen with the unemployment rate rising to 4.1% early next year. Though 275,000 net new jobs were added in February, the baseline forecast expects the monthly pace of hiring to slow to below 100,000 monthly by Memorial Day.

Credit markets will move in roughly the same direction. Growth will continue to moderate, with consumer credit balances rising only 1.5% in 2024, down from a 4.5% gain 2023. On the corporate side, dollar denominated issuance has gotten off to a quick start through the first quarter and outstanding corporate debt will increase 4.6% in 2024, up from 1.5% last year. Performance will worsen, though much of the deterioration has already played out. Consumer credit delinquency rates are expected to edge modestly higher before peaking in early 2025; corporate default rates are likely at or near peak and will trend lower in the coming quarters.

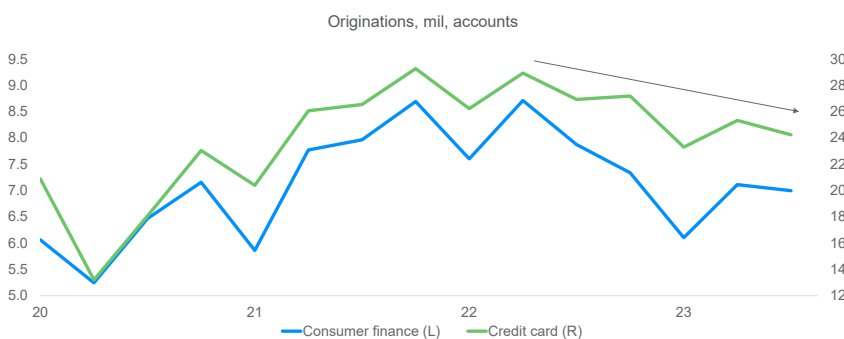
## Risks

Several risks bear watching. The U.S. presidential election looms and is expected to be close, and any hint of a contested outcome would lead to a selloff in risky assets, roiling financial markets during the final months of the year. Further, while inflation has moderated from its 2022 peak, annual price gains have stalled near 3% since 2023. If inflation fails to drop to the Federal Reserve target or trends higher, the central bank will delay the cuts expected this summer. High interest rates have thus far pressured growth without causing a recession, but cracks have emerged, most notably in the CRE and regional bank segments, suggesting near-term easing is needed to stave off contraction.

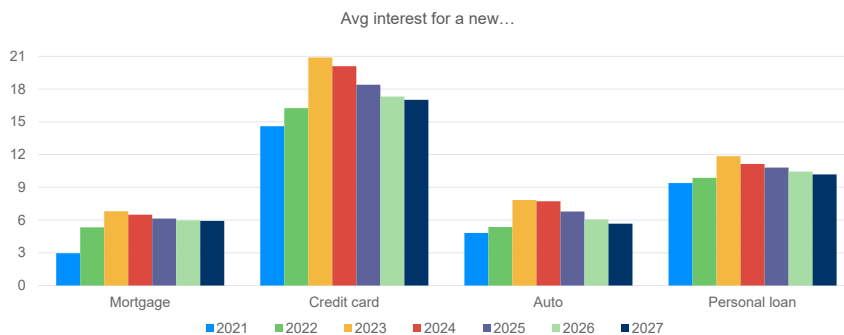
## High-Grade Corporate Debt Issuance Off to a Strong Start



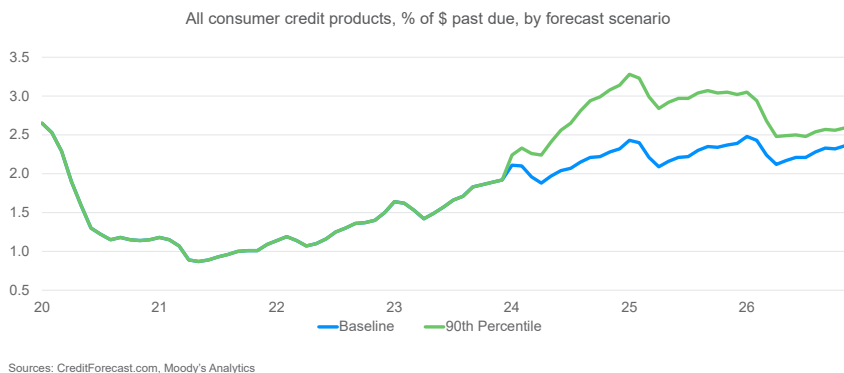
## Higher Rates Leading to Fewer New Accounts



## Interest Rate Relief Incoming



## Noticeable Credit Stress in Downside Scenario



## Mixed Performance

BY EDWARD A. FRIEDMAN

### Recent Performance

The Bureau of Economic Analysis' second estimate of growth in fourth-quarter real business investment was 2.4% annualized, modestly higher than the initial reading of 1.9%. Some of the added gains came from structures, up 7.5% annualized compared with 3.2% in the earlier report. Intellectual property also contributed, up a percentage point more than in the first estimate. Within structures, the decline in commercial was more modest than the initial reading, and the estimates for both manufacturing and power were higher.

In contrast, equipment was significantly weaker, a decline of 1.7% annualized compared with an initial positive reading of 1%. Drilling down, the increase in IT was revised downward to only half of the initial estimate. Nonetheless, this was the first increase in more than a year, potentially signaling the beginning of a significant rebound. Core industrial was also revised down to essentially flat compared with an initial reading of nearly 4% growth annualized. Although the revised data for transportation equipment were no worse than before, they confirm the weakness since mid-2023. The drop in light trucks reflects the persistence of struggles in that segment in recent years, at first because of supply-side shortages and subsequently on the demand side because of the elevated costs of borrowing. The level of real spending is no higher than in 2016 (see Chart 1).

### Monthly numbers still weak

High-frequency data suggest that a turnaround in business equipment spending could be on the way, but it has not arrived yet (see Chart 2). Shipments of nondefense, nonaircraft capital goods adjusted for inflation rose in December and January. However, inflation-adjusted new orders declined. On the positive side, the increase in shipments was consistent with a decline in unfilled orders, which rose sharply in 2021 and 2022. Fulfilling this large backlog

will support capital spending until new orders increase.

Surveys by Federal Reserve banks of planned capital expenditure improved in most regions in February (see Chart 3). The net percentage of companies expected to engage in more investment in six months than they do now was higher than in January for three of five surveys. And in four of the five surveys, the February figure showed a double-digit positive margin. Further, on a four-week moving average basis, the Moody's Analytics Survey of Business Confidence recently jumped significantly after having been in a holding pattern since mid-2022.

### Nonresidential building: Leaders

The prospects for business investment in structures in 2024 will vary by segment. In January, the Associated General Contractors of America surveyed its members on whether the dollar volume of projects on which they expect to compete in 2024 is higher or lower than in 2023. Overall, respondents expected the largest gains for projects involving water/sewer systems, rail/transit/airports, and bridges/highways—in other words, not private investment. This is consistent with the federal stimulus from the Infrastructure Investment and Jobs Act.

However, respondents also expect significant increases for some segments of private nonresidential. A standout is manufacturing. The value of construction put in place has more than doubled in both nominal and real terms since the end of 2020 (see Chart 4). A large part of the growth has been the building of plants to make semiconductors to address shortages and to assure the security of a domestic supply. The key incentive was the 2022 CHIPS and Science Act, which appropriated more than \$50 billion to fund builders of chip plants within the U.S. The expectation is that most CHIPS direct funding awards will range between 5% and 15% of project capital expenditures. According to

the AGC survey, the net percentage of respondents indicating that the dollar volume of projects on which they expect to compete in 2024 is higher than in 2023 is 15%.

Another growth segment is power. From the end of 2019 through the end of 2022, construction by utilities dropped cumulatively by about 25% nominally and nearly 50% in real terms. A modest recovery began in 2023 but was limited by the persistence of high costs of borrowing. However, according to the AGC survey, the net percentage of respondents who indicate that dollar volume of projects on which they expect to compete in 2024 is higher than in 2023 is 25%. One driver is the Inflation Reduction Act of 2022, which provides incentives for the development of solar and wind power, which could overtake coal as a power source this year. However, respondents might be too optimistic, because costs of borrowing remain elevated and may be higher for longer. Further, local political resistance to some renewables projects has grown.

### Nonresidential building: Laggards

A number of large segments of nonresidential construction will struggle in 2024. Foremost is office. The nominal value of construction put in place fell in 2020 and 2021, began to recover in 2022, and even returned to the previous peak by the end of 2023. However, almost all that apparent recovery was the effect of inflation. In real terms, the level of activity remains more than 20% below the pre-pandemic level. Occupancy remains deeply depressed, on the order of only 50% nationally, amid the expansion of remote working. Delinquencies have risen, and valuations have fallen by more than 10%. Consequently, there is little appetite to build, and there is a risk that office construction could decline in 2024. According to the AGC survey, the net percentage of respondents who indicated that the dollar volume of projects they expect to compete on in 2024 is higher than in 2023 is -24%.

Retail also experienced an apparent recovery beginning in early 2021, but that largely evaporates once inflation is taken into account. Moreover, in contrast to office, the downtrend goes all the way back to early 2017, when activity at malls and other stores began to erode amid growth in online shopping. This decline deepened during the pandemic. As with office, there is little enthusiasm for building now, and a risk that construction could decline in 2024. Per the AGC survey, the net percentage of respondents who indicated that dollar volume of projects on which respondents expect to compete is higher in 2024 than in 2023 is -15%. In sum, one driver of the weakness in both office and retail is the growing impact of the digital economy, which has reduced the need to physically travel either to work or to shop. The widening impact of the digital economy also explains another trend in business investment—the steady, strong growth in intellectual property, most of which is company software. The proportion of total real business investment that is intellectual property has risen from about 25% in 1990 to more than 40%.

With respect to lodging, the value of construction put in place dropped precipitously throughout 2020 and 2021 because of the pandemic. The recovery in 2022 and 2023 was moderate at best, and the surveyed expectations are consistent with this trend. The issue has been the cost and availability of financing rather than demand, as hotel occupancy recovered to normal levels more than a year ago. After factoring in inflation, hotel building remains 40% below its pre-pandemic peak. According to the AGC survey, the net percentage of respondents who indicated that the dollar volume of projects on which they expect to compete in 2024 is higher than in 2023 is nearly zero.

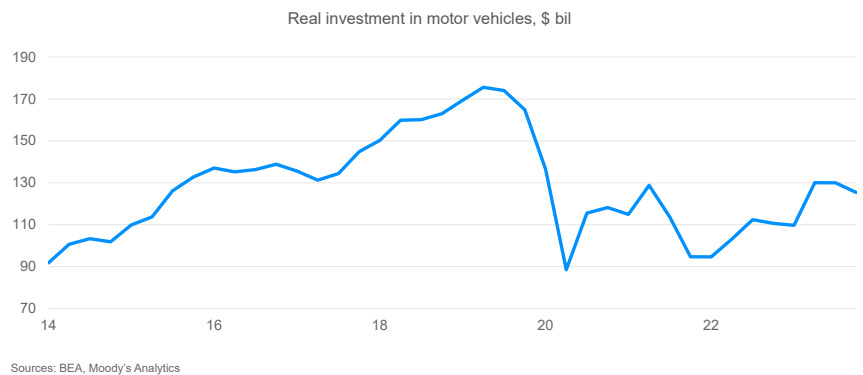
## Outlook

Real fixed business investment will rise 3.4% in 2024, above the 3% in our February baseline. Stronger growth in structures than previously anticipated will contribute, and so will a significant rebound in equipment spending. However, still-high interest rates will remain a headwind through 2024.

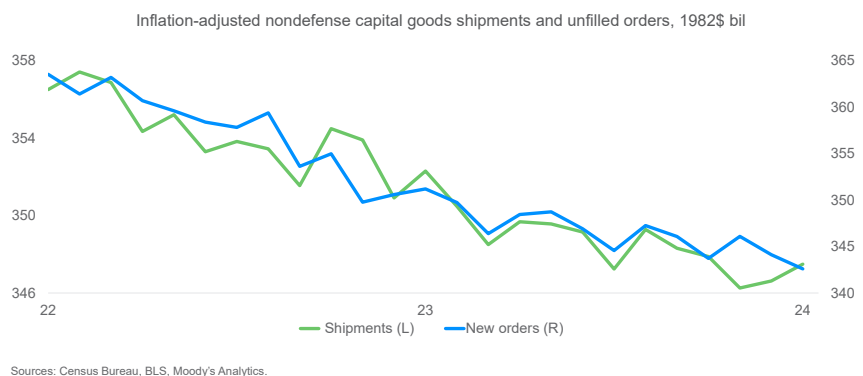
## Risks

Risks have become more balanced. Still-tight credit and reduced corporate cash flow could cause investment to be weaker than expected. A misstep by the Fed could cause business sentiment to fall, lowering capital outlays. On the positive side, earlier easing by the Fed could boost investment spending.

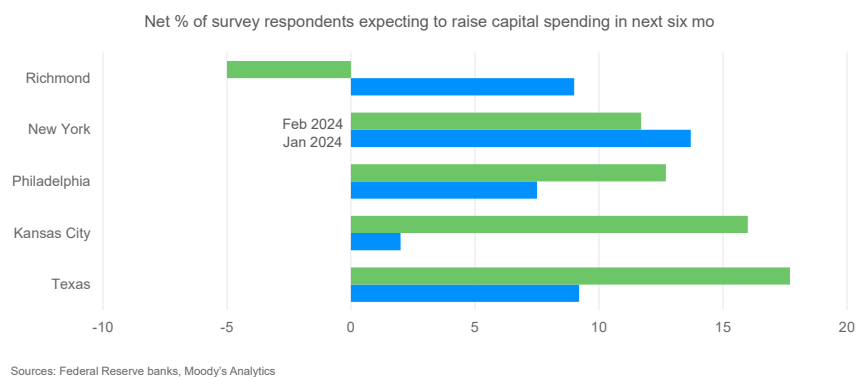
### Investment in Motor Vehicles Still Subdued



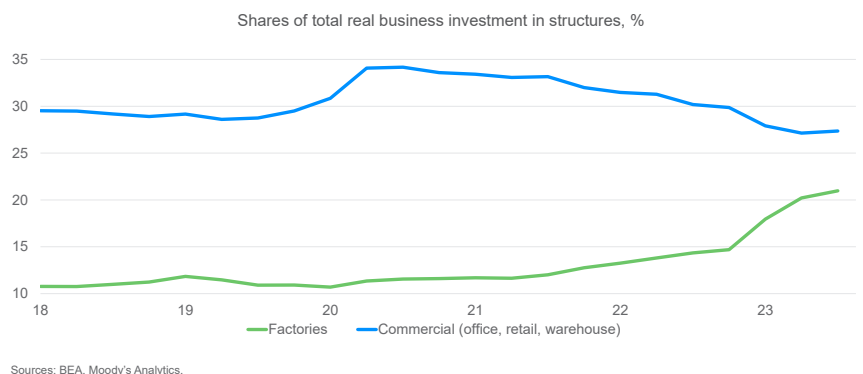
### Equipment Spending Has Yet to Turn Around



### CapEx Surveys Improving in Most Regions



### Factories a Rising Share of Structures Investment



# On the Other Side of Recession Fears

BY CHRIS LAFAKIS

## Recent Performance

Global energy markets are rangebound. At this writing, West Texas Intermediate crude oil is trading for \$80.69 per barrel with Brent trading for \$85.47. This is toward the higher end of the middle of the \$68-\$91 range that Brent crude oil has fluctuated within over the past 18 months. Oil prices have been supported by OPEC's decision to cut production. The cartel has been disciplined in sticking with its quotas.

Global oil supply exceeds global oil demand thanks to strong U.S. production growth in 2023. Moreover, oil demand is seasonally weak. Driving and air travel both decline in the Northern Hemisphere's winter months before ramping up and peaking in the summer. Investors are looking past the seasonality and assigning an increasing probability that OPEC+ will not raise output this year. This has driven up oil prices.

Oil prices are also higher than they otherwise would be without simmering conflicts in the Middle East. The Israel-Hamas war is fraught with geopolitics that could potentially destabilize oil production. Moreover, oil cargoes moving through Red Sea shipping lanes are still not entirely safe from attack, and some oil transporters are taking more costly and longer routes to avoid danger.

U.S. natural gas prices are in the doldrums, with the benchmark Henry Hub contract going for just \$1.66 per million BTU. A warm winter and strong gas production, in part due to the residual gas produced by shale oil drilling, left inventories bloated. Natural gas prices are \$7-\$8 per million BTU higher in Europe than in the U.S., providing shippers with substantial arbitrage opportunities. However, it is taking much longer than expected to establish new trade routes. Infrastructure is not coming on line fast enough to facilitate the arbitrage trade necessary to lower gas prices in Europe and raise them in the U.S.

Precious metals and cryptocurrencies have enjoyed a strong month. While the

Federal Reserve did not lower interest rates at its March meeting, it signaled that the first rate cut is not too far off, and that as many as three rate cuts could be in the cards for 2024. The prospect of a lower federal funds rate helped push gold prices up to \$2,166 per ounce, near an all-time high. The benchmark cryptocurrency bitcoin has risen from \$50,000 to \$63,000 over the past month, fueled by both the Fed's signals and the Securities and Exchange Commission's approval of a bitcoin exchange-traded fund, which has ushered in institutional investment.

## OPEC stands firm

OPEC and its allies agreed in March to keep their voluntary curbs on oil output in place. OPEC has throttled back output to keep prices elevated over the past couple of years. The cartel produced 32.3 million barrels per day in February, down from a peak of 34.1 million bpd in October 2022.

OPEC is sensitive to oil prices. The cartel boosted output when prices shot up in the immediate aftermath of Russia's invasion of Ukraine. But non-OPEC production shot up in response to higher prices as well, especially in the U.S. The response to the price shock—higher oil production from both OPEC and non-OPEC combined with demand destruction—left the global oil market oversupplied. Since 2022, OPEC has surrendered market share to bring the market back into balance.

Historically, this has not been sustainable. Excess capacity, which measures the oil that could be brought on line in the next six months but is currently sitting idle, stands at 5.4 million bpd, far exceeding the average of 3.5 million bpd over the last decade. Typically, prices will rise and incentivize OPEC producers to cheat, or OPEC will flood the market with barrels and tank prices to wash out non-OPEC supply. However, these outcomes are less of a concern now than they normally would be. Geopolitics is front and center in Saudi Arabia's calculus, given

that any decision it makes will affect the U.S. presidential election. The Biden administration's protest of the Jamal Khashoggi murder and Saudi Arabia's warm relations with the Trump administration make it less likely that OPEC will boost output in 2024.

## Tougher sledding for shale drillers

We expect U.S. oil production growth to slow markedly in 2024. Last year was a banner year for U.S. drillers; production rose by 1 million bpd, doubling the average annual rise in U.S. production over the past decade that represents the U.S. shale paradigm. But this year we expect below-average growth of 230,000 bpd.

Once we entered a higher-price oil environment after Russia's invasion, firms chose to complete their already-started wells without leasing more rigs to drill new holes. Drilled-but-uncompleted wells, or DUCs, are a cost-effective way to produce more oil without much drilling. But the current trajectory is unsustainable. DUCs are currently sitting at around 4,500, the lowest count since 2014. Firms will eventually have to drill new wells to boost output rather than just drawing down their inventories. Drilling new wells will make establishing production more expensive; hence, the expected slowdown in U.S. output growth.

Technological innovation is a helpful offset. The average lateral length of a well has increased from 3,879 feet in 2010 to 10,064 feet in 2022 (see Chart 1). Longer horizontal wells yield more oil when they are fracked. This has allowed the average Permian Basin well to yield over 1,000 bpd, up a breathtaking 400% over the past 10 years (see Chart 2).

## Demand outlook brightens

The outlook for global oil demand is markedly stronger than a year ago when recession fears dominated corporate America. The principal reason is the decline in the U.S. and global inflation rate. This has allowed central banks to pivot from jawboning about

interest rate increases to an easing posture. Because there are no significant bubbles or cracks in the U.S. economy, recession fears were always all about the Fed.

With the Fed—and the other central banks influenced by fed policy—switching gears, we have gotten more optimistic about global oil demand growth, along with OPEC and the International Energy Agency. We expect oil demand to rise by 1.3 million bpd, driven entirely by emerging market economies. That is on par with the average annual gain in global oil demand over the past two decades.

Growth will be completely driven by the industrialization of non-OECD economies. This has and will continue to be the engine driving global oil demand. Developed economies are largely mature, contending with already-high interest rates, and they are increasingly electrifying their vehicle fleets (see Chart 3). But as long as the global economy avoids recession, OECD demand will flatline, allowing emerging economies to fuel growth in global oil demand.

## Outlook

Growing oil demand, slowing production growth in the U.S., and production restraint by Saudi Arabia will bring balance to the oil market (see Chart 4). We expect Brent to average \$83.79 in 2024. Oil prices remain above their break-even cost of extraction in U.S. shale formations, which will still allow U.S. production to tick higher, although rising costs will keep that in check.

OPEC is expected to keep its restrictions on oil production in place at least until the U.S. presidential election.

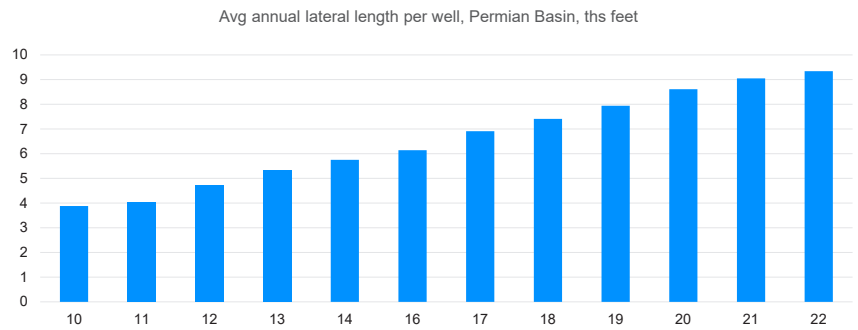
We do not expect the Israel-Hamas war or the Red Sea shipping attacks to measurably reduce oil output from the Middle East. The Biden administration is not interested in cracking down on Iranian oil production ahead of the election. Moody's Analytics modeling has shown that if gasoline prices rise to \$4 per gallon and stay there, the election could swing from Biden to Trump.

## Risks

Risks to the forecast are equally balanced. If OPEC indeed decides not to wind down its production cuts, the entire growth in global oil demand will have to be met by non-OPEC producers and existing inventories. Russian oil production could also deteriorate beyond expectations as sanctions take their toll.

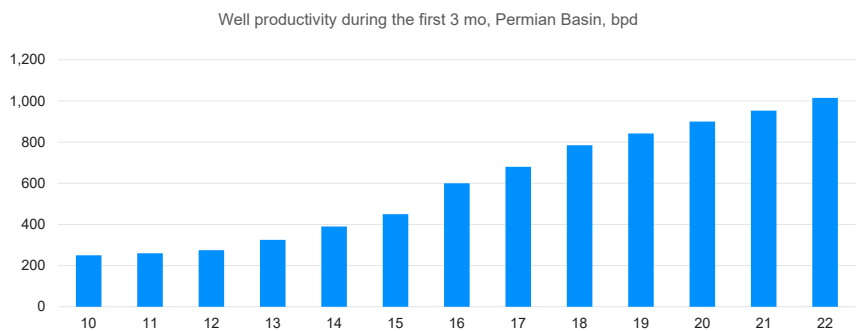
The biggest downside risk is that inflation rates stop declining and central banks keep raising interest rates. This could threaten a recession that would undermine demand.

### Shale Oil Producers Are Drilling Longer Wells...



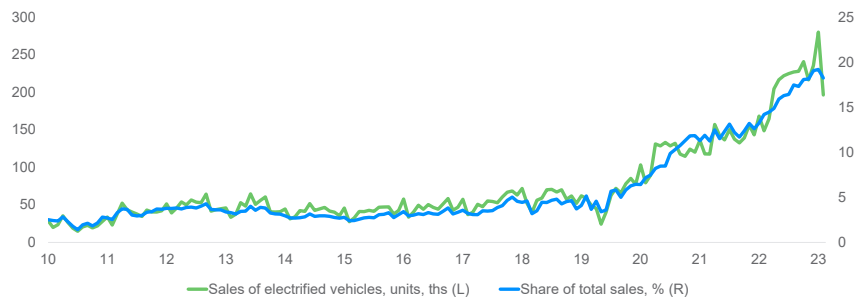
Sources: EIA, Moody's Analytics

### ...Enabling Output to Rise, Though Fewer Wells Are Being Drilled



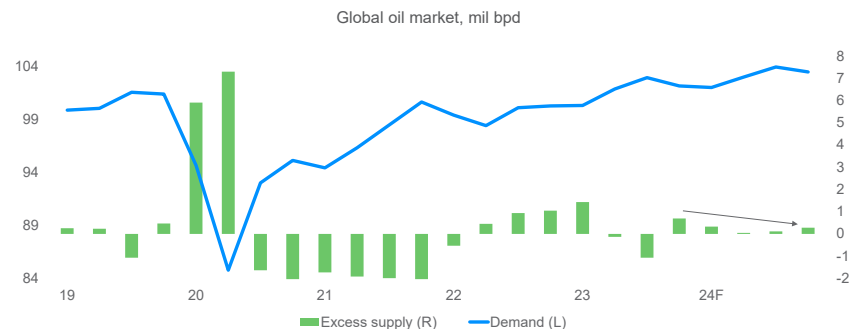
Sources: EIA, Moody's Analytics

### Soaring EV Sales Limit Demand Growth in the OECD



Sources: Argonne National Laboratory, Moody's Analytics

### Rising Emerging Market Demand Will Balance the Oil Market



Sources: IEA, Moody's Analytics



# Debt Burdens and Financial Obligations in Recessions

BY SCOTT HOYT

## Recent Performance

U.S. real consumer spending suffered some payback in January from a good holiday season. Results would have looked worse if a shift in the weather had not lifted utility spending. Real spending dipped by 0.1% in January, but this follows gains of 0.6% in December and 0.4% in November. Real durable goods spending led the weakness, tumbling 2.1%. Major segments posted declines, led by vehicles, except other durable goods, which rose modestly. Real nondurable goods spending slipped 0.5%. Service spending grew 0.4%, lifted by a weather-driven rebound in utility spending and growth in spending by nonprofits and on financial services. It does look like the pause in growth will be temporary, as vehicle sales jumped in February to 15.8 million at an annual rate from 14.9 million in January.

## Burdens in recessions

Recessions are hard on consumers. Jobs are lost, cutting into wage income both directly and through lost labor market power and slower growth in wage rates. Wealth is undermined. Confidence falls. Spending has to be cut. Overall, consumer finances suffer. In this environment, it may seem obvious that debt burdens and financial obligations would rise, especially relative to income. However, historically for U.S. consumers this has rarely been the case (see Chart 1).

In both the financial crisis and the recent pandemic-generated recession, debt burdens, as measured by the Federal Reserve's debt service ratio, fell sharply. They also drifted lower during the 1980 and 1990 recessions and remained about flat during the 1982 recession. The only recession where debt burdens increased was during the 2001 recession, and even then, they reversed course quickly afterward.

## Income

It turns out there are good reasons for this behavior since the drivers of debt

burdens and financial obligations move in differing or unclear ways during downturns. At first glance, a decline in income, contributing to an increase in the ratios, may seem unavoidable. Lost jobs undermine wage income, and asset income also falls as profits are reduced and interest rates fall. However, as the recent experience during the pandemic illustrated, there is an offsetting factor: government transfer payments. They increase during recessions both because of automatic stabilizers built into the tax code and transfer payment programs and because of government actions to support the economy.

Until the pandemic, income growth had always slowed during recessions—and in many cases, income outright declined. However, the importance of government support was brought to the fore during and immediately following the pandemic when income growth soared (see Chart 2). Growth came entirely from government support. Other components of income fell as expected. Yet government support contributed to the unprecedented declines in burdens during and after that recession.

## Payments

While the denominators of the debt service and financial obligations ratios fall during most recessions, driving up the ratios, the numerators, especially debt payments, also usually fall. There are several reasons for this. The first is a reduction in borrowing. Some households that lose income may attempt to increase their borrowing to meet urgent needs; however, overall household spending falls during a recession. This reduces the need for borrowing to spend, especially as the largest cuts to spending are usually (again, the pandemic notwithstanding) big-ticket goods frequently bought on credit.

Even if consumers do not choose to cut their borrowing, cutting may be forced upon them. Lenders, fearful that consumers will lose their jobs, tighten lending standards

when the economy weakens. Marginal borrowers lose access to credit, and even better-quality borrowers may have access reduced. Debt growth falls during recessions.

Another, more painful reason debt can fall during recessions is increased defaults. This was particularly evident during and following the financial crisis. Homeowners who could not afford mortgage payments and had no equity in their homes because of sharp house price declines simply gave the lenders their keys. This added to the normal increase in defaults and contributed to the large and extended reduction in debt burdens during and after the crisis.

In addition, debt burdens fall during a recession because of the reduction in interest rates. As the Fed cuts rates to stimulate the economy, required payments on variable rate debt fall. New debt, limited though it may be, is also less costly than existing debt. In contrast to the current situation where a low share of variable-rate debt has helped shield consumers from the recent increase in rates, variable-rate debt historically has been a larger share of outstanding balances, providing some relief to indebted consumers during downturns.

Finally, a relatively small factor, and not well-captured in the data, is lender forbearance. Sometimes lenders will reduce payments, lower interest rates, or take other measures to support consumers through a downturn without writing off the debt. This was massive when the pandemic hit, much of it mandated by the federal government, but it does occur to some extent in all recessions. This is not well-captured in the data since the Fed's methodology for measuring payments is based on historical rates and terms and makes no adjustment for forbearance—even the government-mandated forbearance following the pandemic.

In total, when the economy slumps into recession, both required debt payments and after-tax income fall, so the direction of movement of the debt service ratio is not theoretically determined. Historically, it has



fallen in downturns more often than it has risen, but both have occurred. And in nearly every case, burdens have fallen during the early stages of recovery from the recession.

## Obligations

For financial obligations, the result is similar, though more mixed. This is because debt payments make up more than two-thirds of total obligations. However, other obligations—including rent payments, property tax and insurance, and auto leases—are less likely to fall during downturns (see Charts 3 and 4). In fact, to the extent the homeownership rate declines, rent payments could increase because there are more renters, though this will come at the expense of reduced mortgage payments.

It is important to note that the results discussed here are an aggregate. Burdens will move differently for different demographic groups, though even there it can be difficult to make generalizations. Burdens will soar for households that lose income because of a job loss, unless government support fully replaces the lost income. It is tempting to hypothesize that lower-income households are more likely to see burdens rise because they are more likely to have reduced incomes. However, it is also more likely that they will benefit from both government support and interest rate reductions because more of their debt is variable rate. This actually suggests that homeowners with fixed-rate mortgages may be at particular risk.

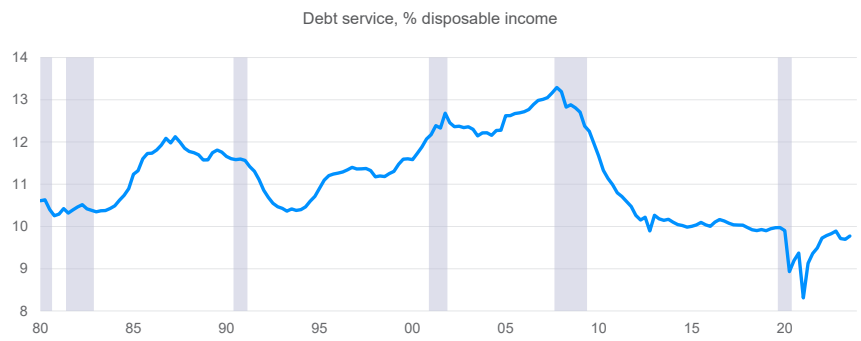
## Outlook

Real consumer spending growth will soften this spring and only gradually gather momentum next year. On the plus side, inflation will slow and jobs will remain available. However, job and wage gains are slowing, inflation remains a drag, the excess savings drawdown will decline, and wealth is unlikely to rise consistently. Real consumer spending rose 2.5% in 2022 and 2.2% last year, but despite weakening growth into the summer, the strong end to 2023 will lift growth to 2.5% in 2024 before it drops back to around 2% in the next two years.

## Risks

Uncertainty about the spending outlook remains elevated. The threat of another spike in oil prices is the biggest risk, along with financial market turmoil, global unrest, and policy mistakes. Upside risks include faster-than-expected job or wage increases from improved productivity or labor supply and more willingness on the part of consumers to spend their nest eggs.

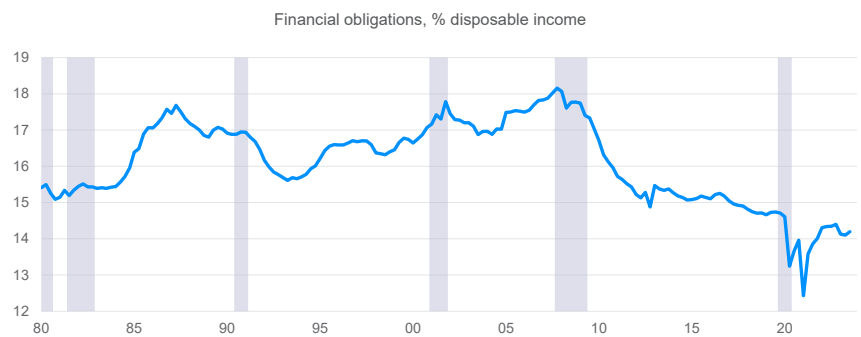
### Burdens Rarely Rise During Recessions



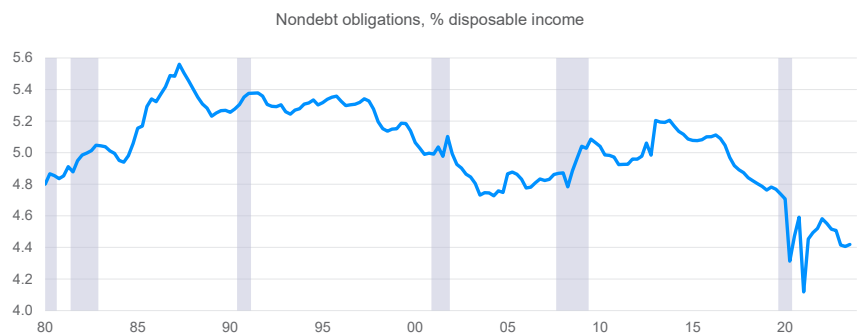
### Income Growth Falls During Recessions



### Obligations Also Rarely Rise During Recessions



### Nondebt Obligations More Likely to Rise During Recessions



# New-Home Market Fares Better Than Existing-Home Market

BY SHANNON BROBST

## Recent Performance

The U.S. housing market started the year on the wrong foot. Pending home sales tumbled in January to one of the lowest levels on record, which reflects poor affordability and limited supply. Purchase applications remain soft and are likely to remain subdued through at least the first half of the year given mortgage rates ticked up in February and continue to hover just below 7%.

Although the number of existing single-family homes on the market continues to edge upward, inventories remain below pre-pandemic levels. Residential construction also came in much weaker than expected in January, a negative for future supply. The extremely tight supply of housing weighs on sale volumes and drives house prices higher.

Though the Moody's Analytics House Price Index continues to hit record highs, the pace of house price growth has slowed in recent quarters because of weak demand. Low affordability and high mortgage rates limit what would otherwise be strong housing demand given positive demographics.

## Existing-home market challenges

The number of existing homes for sale remains restricted, with only three months' supply of housing, which is half that of a healthy and balanced market. Supply challenges in the existing-home market will persist, exerting upward pressure on prices and contributing to poor affordability.

The limited number of existing homes on the market is partly because of the lock-in effect. The bulk of homeowners locked into ultra-low mortgage rates in the past three years. The 30-year fixed mortgage rate has been flirting with 7% in recent quarters. This provides little incentive for homeowners to move and incur a much higher rate, which could add hundreds of dollars in interest to a monthly mortgage payment.

Consequently, many homeowners are choosing to renovate their current home and update it for future needs rather than sell and buy another home. This further weighs

on inventories and decreases the chance that potential buyers can find a home with their desired characteristics.

Home sales remain extremely low compared with the historical average. The market is being sustained by cash buyers, high-income earners who can afford the elevated mortgage rates, and current homeowners moving from areas with high living costs to areas with lower costs. Cash buyers made up 32% of sales in January compared with around 20% of sales pre-pandemic.

## New-home market performs better

The new-home market is in better shape than the existing-home market. New-home inventories are hovering slightly above eight months' supply. Further, new-home sales were up 1.8% from a year earlier in January.

New homes are usually more expensive than existing homes, which is typically why first-time homebuyers are less likely to buy a new home. However, recent existing-home price increases have significantly decreased the gap between the price of new homes and existing homes. The median price of a new home was about \$420,000 in the fourth quarter, while the median price of an existing home was only \$400,000 (see Chart 1). The decade average before the pandemic had a \$63,000 difference compared with the current \$20,000 gap.

Furthermore, homebuilders are offering interest rate buydowns, effectively cutting prices. The typical agreement is that homebuilders offer to cover 3 percentage points of mortgage interest the first year, 2 percentage points of interest the second year, and 1 percentage point of interest the third year. Many buyers find this deal appealing as mortgage rates are forecast to fall short term, allowing them to refinance at a lower fixed rate before the three years are up.

The existing-home shortage has pushed many potential homebuyers who have struggled to find a home with desired characteristics into the new-home market, boosting demand for this sector.

The outlook for homebuilders is improving. Homebuilder confidence is nearing positive territory and is a good indication of the short-term construction trend. This suggests permitting will start to pick up in the latter part of 2024, which is in line with the Moody's Analytics baseline forecast.

However, homebuilders continue to contend with challenges of their own, such as escalating material and labor costs. The number of profitable lots in highly desired areas has also declined as homebuilders continue to pick the low-hanging fruit. Builder financing loans have also become more difficult to obtain given bank tightening.

Regionally, new residential construction in the Midwest and West is weaker than in the South and Northeast. The Northeast has a below-average number of housing units under construction, giving builders in the Northeast more room to run.

## Demand hinges on Fed

High mortgage rates continue to erode affordability and limit housing demand. Demographics remain positive, with millennials in their prime homebuying age. Thankfully, the Federal Reserve is at the end of its tightening cycle and is poised to lower interest rates this year.

The forecast calls for the Fed to cut the fed funds rate, which indirectly affects mortgage rates, by 25 basis points each quarter starting in June. The 30-year fixed mortgage rate peaked last year at just less than 8% and has fallen into the upper-6% range. Once interest rates begin to trend down, mortgage rates will follow.

Additionally, the spread between the 10-year Treasury yield and the 30-year fixed mortgage rate is well above average. The historical spread is typically around 175 basis points, but it peaked at nearly 300 basis points in mid-2023 and still hovers around 285 basis points (see Chart 2).

The gap widens when interest rate volatility increases prepayment risk or when investors leave the market. Lenders expect

mortgage rates to fall during the coming years and the bulk of current buyers to refinance once rates drop. Also, the Fed was a big buyer of mortgage-backed securities during the pandemic but is now letting them fall off their books. With the Fed no longer a key buyer in the market, rates had to rise to entice new buyers into the market.

More investors will enter the market and bid down rates short term. This will effectively decrease the gap between the 10-year Treasury yield and the 30-year fixed mortgage rate and allow the spread to normalize. Even so, the decline in mortgage rates will be slow, with the 30-year fixed mortgage rate forecast to fall only to 6.3% by the end of 2024 and 6.1% by the end of 2025.

While this rate decrease will not cause a home-buying frenzy, it will slowly start to improve affordability (see Chart 3) and pull potential homebuyers off the sideline. Once buyers accept mortgage rates are not returning to pandemic lows soon and life events such as deaths and childbirth occur, potential buyers will be more likely to accept a 6% rate and adjust their budget accordingly.

## Outlook

The Moody's Analytics baseline expects house prices to move sideways for most of 2024. Limited supply will keep a floor under house prices despite affordability issues and high mortgage rates. However, house prices will endure a minor correction, falling 1.2% to 3.9% in the following two years (see Chart 4). Regional economies with significantly overvalued homes will experience larger house price declines.

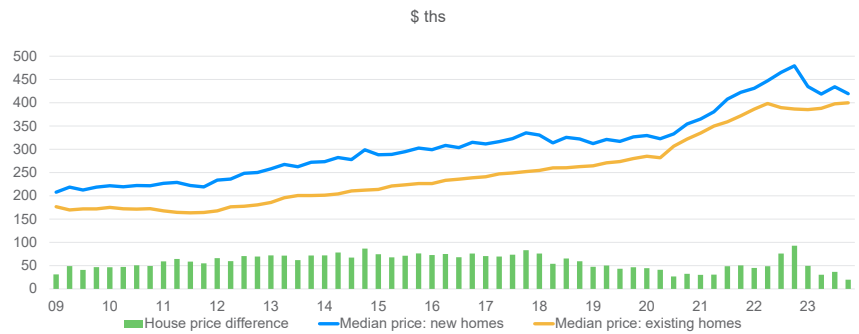
Home sales are projected to begin rebounding this year, though the pace will be slow, as mortgage rates start to creep down. New-home sales will fare slightly better as inventories for new homes are not as tight.

Residential construction will remain at current levels this year before accelerating in 2025 and 2026. Lower interest rates short term will be a plus for builder financing.

## Risks

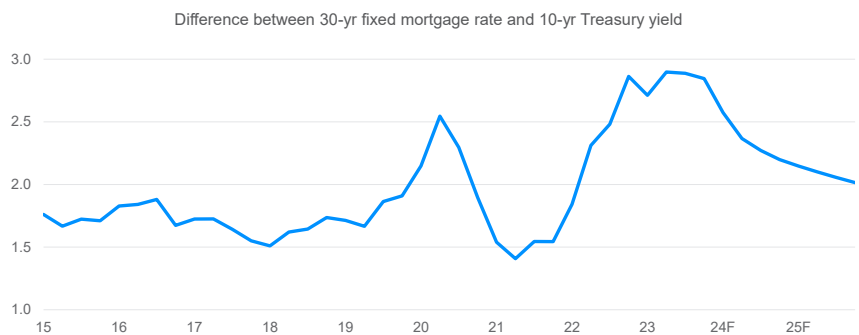
The biggest risk to the housing market outlook is higher mortgage rates. Higher rates would further deteriorate affordability and buyers' purchasing power. The lock-in effect would strengthen, limiting existing-home inventories even more. Another risk would be a sharp increase in the jobless rate and decrease in consumer confidence. This combination would result in weaker housing demand, thereby exerting downward pressure on both sale volumes and house prices.

### Gap Between New and Existing Homes Has Narrowed



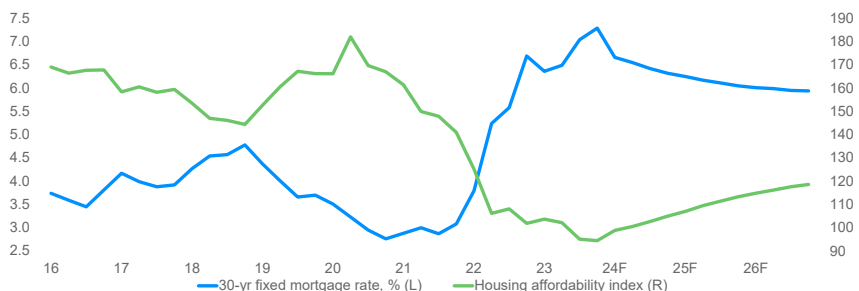
Sources: Census Bureau, NAR, Moody's Analytics

### The Spread Will Narrow Short Term



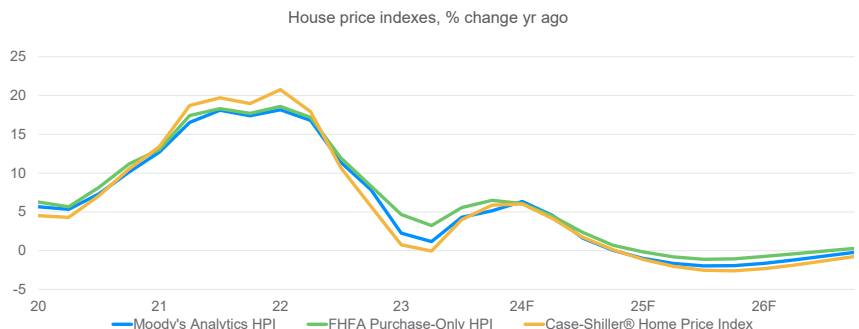
Sources: Federal Reserve, Freddie Mac, Moody's Analytics

### Affordability Will Improve as Mortgage Rates Decline



Sources: Freddie Mac, NAR, Moody's Analytics

### House Prices Will Endure a Minor Correction Short Term



Sources: FHFA, CoreLogic, Moody's Analytics

# Worries About Quantitative Tightening Are Exaggerated

BY MARTIN A. WURM

## Recent Performance

Officials stuck to their course at the Federal Open Market Committee's March meeting. Policymakers noted that while prices are moving in the right direction, they wish to see more data to confirm that inflation is on a sustainable path before rate cuts are in play. With only a few inflation reports before the Fed's May meeting, this effectively rules out cuts prior to June.

Indeed, consumer price inflation in January came in ahead of expectations and remained elevated in February, largely due to sticky shelter prices (see Chart 1). On a year-ago basis, headline inflation rose from 3.1% to 3.2% from January to February and core inflation accelerated from 3.7% to 3.8%. Recent hiring trends also point up rather than down, with the economy adding an average of 265,000 payrolls in the past three months, up by 50,000 from December.

Financial markets, meanwhile, took the Fed announcement positively, as officials did not signal a tighter stance due to recent inflation news. The 10-year Treasury yield remained roughly flat after the meeting at 4.25%, up 25 basis points from January. Equities continued a bullish streak, with the Standard & Poor's 500 hitting an all-time high after the March FOMC meeting.

Concerns, meanwhile, linger in the banking sector, where yield curve inversion will weigh more on profit margins the longer rates remain high. Public worry also surrounds quantitative tightening—that is, the Fed shrinking its balance sheet—as QT reduces the amount of liquidity reserves in the already-strained bank sector.

## QT is not reverse QE

The Fed started quantitative easing—that is, the purchase of long-term Treasuries and other assets such as mortgage-backed securities—during the global financial crisis in 2008 (see Chart 2). By 2022, the Fed had grown its balance sheet by more than fourfold. The intention was to provide ad-

ditional stimulus when the fed funds rate had dropped to zero during the crisis and then again during the COVID-19 pandemic. By buying long-term securities, the Fed signaled its commitment to a low-rate policy and tried to lower long-term yields. After inflation resurged in 2021, the Fed began to slowly reduce its balance sheet for only the second time after 2017-2019.

From their peak in 2022, securities held by the Fed fell from \$8.5 trillion to \$7 trillion, with Treasuries accounting for about 80% of this decline. The reduction is uneven because the Fed is not outright selling assets. Instead, it is letting securities mature and only reinvests proceeds above \$60 billion a month in Treasuries and \$35 billion in MBS. Since most MBS in its portfolio have long maturities, the Fed has mostly rolled off shorter-term Treasuries. Undoing QE, instead, would require the Fed to sell long-term assets, a step it has not seriously considered to date.

Consequently, the maturity structure of the Fed's portfolio differs from the pre-2008 world, when 90% of assets were Treasuries with maturities of fewer than 10 years. Now, long-term Treasuries and MBS account for more than 50%. The impact of the Fed's acquisition of long-term securities on their respective yields will, thus, not be fully undone by the time the Fed stops QT.

## Policy regime shifts

During the crisis, the Fed also changed how it establishes the policy rate. In the previous, reserve-constrained system, banks had to hold a fraction of their deposits in reserves. Banks that fell short on their requirements would borrow overnight from other market participants, most notably in the fed funds market at the fed funds rate. Since daily demand could be volatile, the Fed actively managed reserves to stabilize the policy rate.

In 2008, the Fed switched to an ample reserves system, providing banks with more reserves than required to operate deposits

(see Chart 3). To establish a lower bound for the policy rate, the Fed since pays interest on reserves and keep enough reserves in the system to prevent the rate from rising above the target range. This approach also implies a limit for QT, which drains system reserves. While we do not know exactly how many reserves banks require before overnight borrowing costs will spiral, the Fed has signaled that system reserves will roughly equal 10% of GDP when QT stops; in 2019, such pressures arose when reserves approached 7% of GDP. Even if this estimate were wrong, however, QT would not pose a lasting threat to bank stability: The Fed can simply buy securities to add reserves as part of normal monetary operations.

Currently, bank reserves are about 12% of GDP, which conservatively suggests that the Fed can roll off another half trillion of assets. However, the supply of reserves also depends on other players such as money market mutual funds, which can lend in the overnight markets. These additional buffers may well allow the Fed to reduce assets by more than \$1 trillion before the end of QT.

## Asymmetric effects

Plumbing concerns are, thus, overstated, even though policymakers will try to avoid a repeat of 2019, aware of psychological knock-on effects in the fragile banking sector. To the extent that QT dampens economic activity, it instead works through signaling and financial channels. For instance, initial QE announcement effects are thought to have lowered the 10-year Treasury yield by up to 50 basis points in previous QE rounds. Marginal effects are smaller. An increase in the Fed's balance sheet by 1% of GDP is thought to reduce the 10-year yield by only up to 5 basis points.

There are reasons to believe that QT has even smaller effects. QE is typically deployed in times of economic uncertainty and, if successful, quells economic fears. However, QT occurs when the economy is performing well. Further, since the Fed's

portfolio duration increased during QT, its effect on long-term yields should be smaller. By the Fed's estimates, a balance sheet reduction by \$2.5 trillion would have an impact only equivalent to raising the fed funds rate by 50 basis points. Similarly, Du, Forbes and Lucetti (2024) find that recent QT announcements raised government yields by only 4 to 8 basis points over a year.

These are small effects and it is doubtful whether the Fed could ever undo QE at all. Markets expect that policymakers will use the tool again if needed, and asset prices will reflect this anticipation, barring a stark policy shift.

### Who will step in for the Fed?

QT is a new tool and may have larger effects going forward. For now, the Fed will continue its slow approach, focusing on the difficult task of fighting inflation with the policy rate. Drastic changes to its portfolio are, thus, unlikely. However, the Fed's footprint in the Treasury market is still shrinking (see Chart 4). At its peak in 2021, the Fed absorbed 25% of public debt held outside government agencies; today, the figure has fallen to 18%. Lower Fed absorption may contribute to future price pressures and volatility in the Treasury market. Conventional intermediaries such as banks or insurance companies have not stepped in since 2021, in part due to a challenging rate environment. Instead, a larger share is now held by other investors, which include individuals and corporations but also more opaque actors such as hedge funds. As fiscal debt keeps expanding, higher rate volatility may result unless the Fed ultimately steps back in more forcefully.

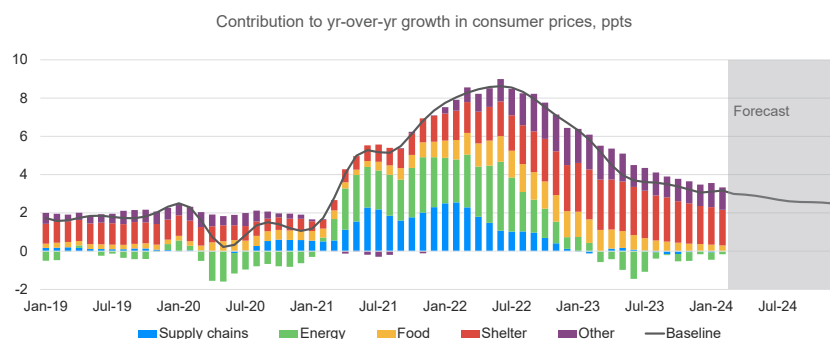
### Outlook

We expect the Fed will cut the policy rate three times this year from its current target range of 5.25% to 5.5% by 25 basis points each. We anticipate the first cut in June, followed by cuts in September and December. Policymakers will subsequently relax monetary policy slowly, cutting rates by 25 basis points per quarter until reaching 3% by late 2026 and 2.5% by 2030.

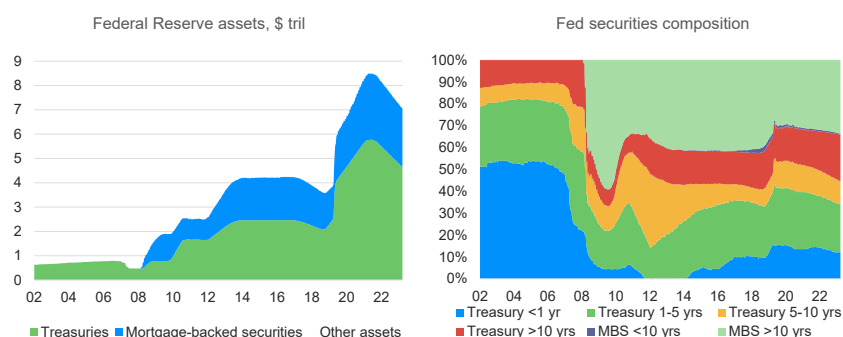
### Risks

Risks have shifted to the downside. Policy error by the Fed is a bigger risk to the outlook. If rates remain high for too long, the Fed risks unveiling fault lines in the liquidity-constrained financial system and choking the expansion. At the same time, upside risks have also come into view—if recent positive productivity trends continue or labor force participation came in better than expected.

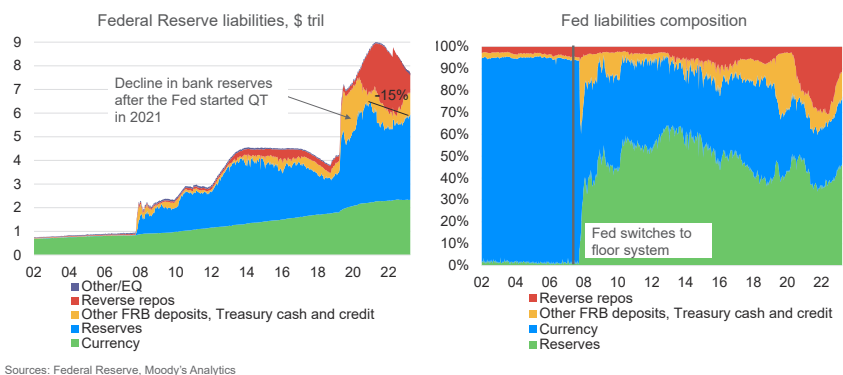
### Shelter Keeps Inflation Too High for the Fed's Comfort



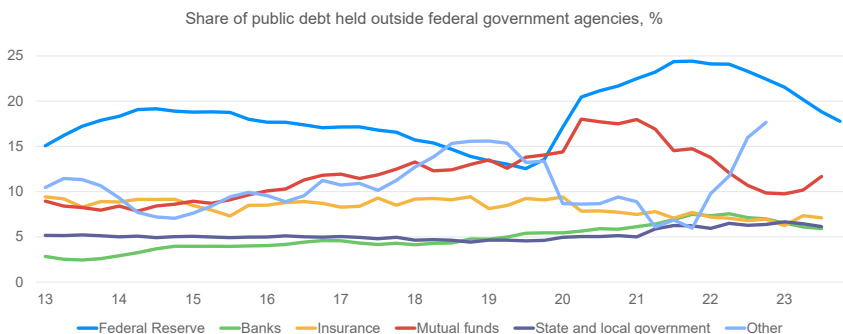
### QE Has Altered the Fed's Balance Sheet Composition in Lasting Ways



### Bank Reserves Are Not the Only Source of Supply in the Money Markets



### The Fed Is Reducing Its Footprint in the Treasuries Market





# Budget Battle Breakthrough

BY BRENDAN LACERDA

## Recent Performance

Five months into the fiscal year, the federal government's fiscal deficit is on course for a worse performance than last year. The Treasury recorded a budget deficit of \$296.3 billion in February, an increase of more than \$30 billion from the same month last year (see Chart 1). Higher interest expenses on the debt, up 65% from February 2023, are feeding an 8.2% year-over-year increase in outlays. Revenues, up 3.4%, cannot keep pace.

Funding for the federal government's fiscal 2024 appropriations took a major step forward in the past month. The president signed into law a minibuss package covering six of the 12 appropriations bills. Congressional leaders moved the package under a suspension of rules, narrowly beating the deadline for a partial government shutdown.

## Trimming the budget

Nearly halfway through fiscal 2024, Congress has finally passed, and the president signed, six of the necessary 12 appropriations bills. Funding for agriculture; commerce, justice and science; energy and water; interior and environment; military construction and Veterans Affairs; and transportation and housing and urban development has been authorized through September.

Notably, these budget items cover less than a third of total discretionary outlays. The Department of Defense, representing roughly half of discretionary spending, and the other five remaining appropriations are operating under a continuing resolution that expires on March 22.

With defense getting a 3% increase in fiscal 2024 and a handshake deal among party leaders to hold top-line discretionary spending almost flat, nondefense programs are bearing the cuts. From an approximately \$800 billion base, the increase in defense implies an additional \$24 billion in outlays in need of offsets.

In the six appropriations passed so far, Congress netted nearly \$10 billion in savings (see Chart 2). The Department of Justice got the largest haircut, a 10% reduction, but some accounting gimmicks will soften the effective decrease. For example, the FBI's 2023 budget was inflated by onetime construction costs and 2024's budget was already anticipated to be lower. Nevertheless, the department will need to trim expenses (see Chart 3).

Science-related agencies, including NASA, the EPA, and the Department of the Interior, are also seeing slight funding reductions. However, a few portions of the executive branch are getting a boost. The Department of Energy is getting more money for renewable energy research, the FAA is getting additional funds for air traffic control, and Veterans Affairs is getting more support for mental health and homelessness.

## Subsiding shutdown risks

Though the remaining appropriations bills comprise some of the more contentious line items, the odds of a shutdown appear to be diminishing. First and foremost, Republican lawmakers who were previously pushing the most aggressive spending cuts have moderated their demands.

Second, given Democratic control of the Senate and the presidency and their own thin majority, House Republicans' proposals always faced long odds to passage.

Third, by successfully moving the six appropriations bills under suspension of rules and garnering a 339-85 overall margin and a 132-85 edge among Republicans, House leadership has demonstrated there is enough internal party support to move the remaining bills and avoid a discharge petition.

Last, with the primary season wrapping up, lawmakers' attention is increasingly turning toward the general election in November and appetites for an electorally risky shutdown are diminishing.

## Legislative limbo

While the appropriations process makes sudden progress after stalling for months, nearly all other substantive legislation has come to a standstill.

With Senate Republicans abandoning the national defense supplemental spending bill with enhanced border security measures, the chances for any immigration package in this Congress is close to nil. The stripped-down supplemental funding for Ukraine, Israel and Asia-Pacific allies passed the Senate, but House leadership remains steadfast in its promise to withhold a floor vote.

Conversely, the Tax Relief for American Families and Workers Act of 2024, which passed the House, has hit roadblocks in the Senate. Republican senators want to pair consideration with the broader tax debate in the fall, when the Tax Cut and Jobs Act faces expiration. The law's changes to the child tax credit would have significantly boosted transfers to poor households this tax season. Further, tech startups are warning of layoffs as the bill would have let smaller companies avoid a steep increase in their tax bills by extending deductions for research and development.

Given that divided control of government requires bipartisanship to pass any new spending and because the impending election is diminishing each side's willingness to concede to a compromise, our baseline forecast anticipates no major spending or policy changes this year.

## The SOTU and TCJA

President Biden's State of the Union Address left little doubt about Democrats' positioning in the upcoming debate over the expiration of 2018's TCJA. To preserve the tax cuts for households making less than \$400,000, Biden proposed a 25% minimum tax on the highest-income earners and increasing the corporate tax rate to 28%. The proposal draws a sharp contrast to Trump's plan to lower the corporate rate from 21% to 15%. The TCJA permanently cut the rate from 35% to 21%. However, the bill's per-



sonal income tax cuts are expiring at the end of the year as designed to comply with reconciliation rules used to pass the law.

### Forecast change

The latest baseline forecast incorporates marginal changes to the composition of federal revenue and spending, but the budget balance and debt outlook were little changed. On the revenue side, the projection for the effective tax rate for social insurance contributions—that is, payroll taxes for Social Security and Medicare—is now assumed to follow a slightly higher trajectory over the coming years. Increases to the Social Security base wage—that is, the income cap on payroll taxes—are expected to accelerate faster than incomes, pulling up the effective tax rate.

On the expenditure side, the outlook for federal subsidies, a relatively small component of total outlays, is also now projected to decline more gradually over the short run. The budget component has started to stabilize after surging during the pandemic. Much of the pandemic-era stimulus was categorized as subsidies, temporarily swelling the category.

### Outlook

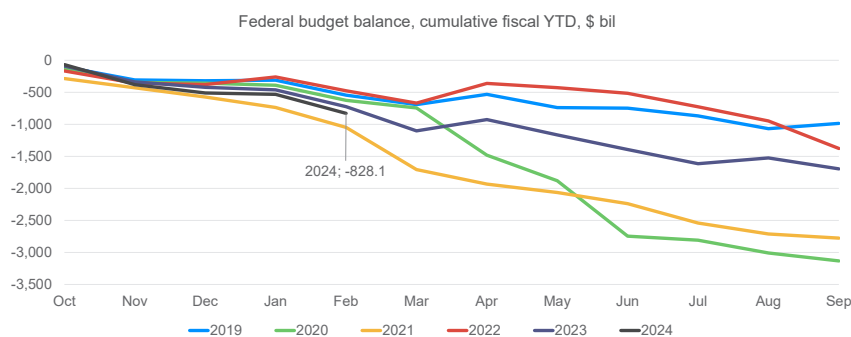
The federal budget deficit should narrow in the coming years, easing from 6.3% in fiscal 2023 to 5.8% of GDP in 2024, as policymakers mostly hold the line on discretionary spending. The deficit further shrinks to 5.3% by 2027 as we allow for the expiration of some TCJA tax cuts (see Chart 4). Problematically, in the ensuing years an aging population will increase federal outlays for Social Security and Medicare, while weighing on the payroll taxes that finance them. Meanwhile, interest payments as a share of GDP will track higher. Thus, the deficit steadily worsens to 6.3% by the mid-2030s. These protracted deficits push the federal debt-to-GDP ratio from just less than 100% of GDP in fiscal 2024 to around 114% during the next 10 years.

### Risks

The federal government faces a multitude of short- and long-run challenges that threaten economic growth. The shutdown risk remains until Congress passes all 12 appropriations. The scope for further continuing resolutions is narrowing as any extension beyond April triggers automatic cuts.

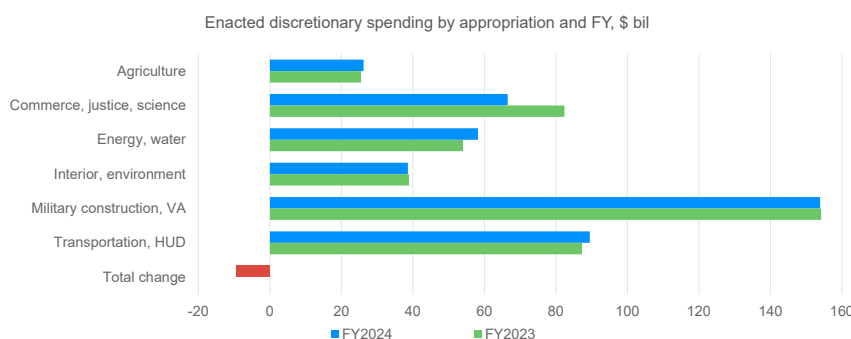
Posing the most lethal threat, the debt ceiling suspension expires on January 1. Down-to-the-wire negotiations during the last deadline heighten concerns of a default. The repeated standoffs also raise the risk of further downgrades to the nation's credit rating and, in turn, higher interest rates on the national debt.

### U.S. Deficit on Poor Track for 2024



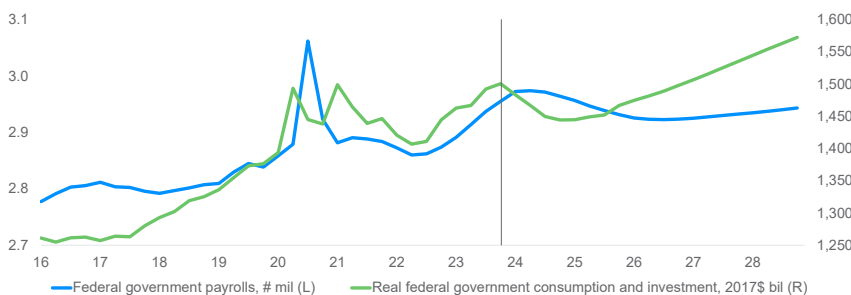
Sources: U.S. Department of the Treasury, Moody's Analytics

### Department of Justice Takes Relatively Large Funding Cut



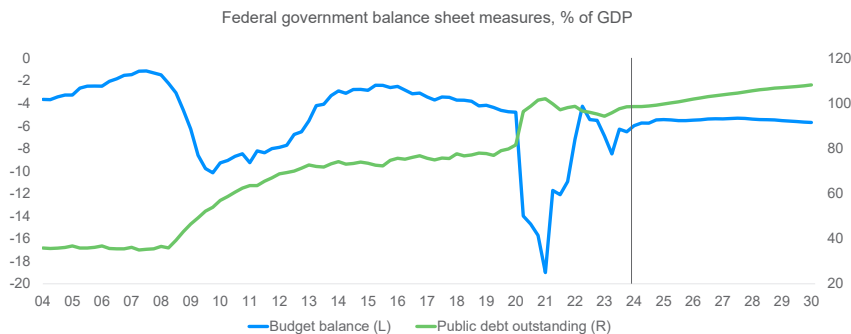
Sources: Committee for a Responsible Federal Budget, Moody's Analytics

### Real Spending Cuts Trim Federal Government Payrolls



Sources: BLS, BEA, Moody's Analytics

### Deeper and Deeper in Debt



Sources: U.S. Department of the Treasury, Moody's Analytics

# Budget Time!

BY EMILY MANDEL

## Recent Performance

State and local output growth continues to accelerate, reaching an annualized rate of 5.4% in the fourth quarter. After a slow start coming out of the pandemic, it has now outpaced total real GDP for the past year and a half. While state and local consumption expenditures are climbing at a steady clip, the acceleration has mainly come from increased investment (see Chart 1). Real investment has surged since 2022 as postponed projects get off the ground and federal grants fuel additional spending. This has been reflected in construction put in place, with spending on highways, utilities and educational facilities soaring.

Job creation among state and local governments also remains on a roll. Payrolls pressed higher in February, gaining 43,000 positions on net. Meanwhile, revisions to gains in the previous two months were also positive, adding an additional 49,000 jobs in total. All major cross-sections are benefiting from the growth, with gains in both state and local government, and in both education and noneducation positions. Only local education payrolls remain below their pre-pandemic level, and that gap is on track to close within the next month or two.

Higher wages are magnifying the economic impact of these new jobs. According to the employment cost index, state and local government wages are rising at the fastest pace in three decades. Wage growth was particularly strong in the third quarter as negotiated raises kicked in with the start of most states' fiscal year, and wages continued to press higher in the fourth quarter.

## Revenues stabilize

Nationally, state tax revenues saw their first gain in more than a year in the fourth quarter. Total tax revenues rebounded, increasing 5.6% and reversing course from declines in the previous four quarters (see Chart 2). Stronger income tax collections from both the individual and

corporate sides largely drove the stronger performance. Meanwhile, general sales tax collections accelerated slightly as holiday spending at the end of last year exceeded expectations.

While revenues climbed overall, performance across the states was mixed with just more than half experiencing gains. Energy states fared the worst as severance tax revenues retrenched following massive gains in 2022. Severance tax revenues move in sync with oil prices, and lower prices for petroleum products have reduced revenues in energy-centric states, including Alaska, Wyoming, West Virginia and Oklahoma. However, even accounting for recent declines, severance tax revenues remain above their historical trend.

Sales taxes have been the most stable revenue source over the past year thanks to the strong labor market and rising incomes buoying spending. Only a dozen states experienced declines in sales tax revenues in the fourth quarter. Meanwhile, substantial declines were limited to states that had recently cut their sales tax rates or reduced their scope, indicating that consumer demand remains resilient. Kansas, Alabama and Virginia, all states that recently reduced their sales tax rate on groceries, experienced the largest sales tax revenue declines of the quarter. Nationally, sales tax revenue growth will remain relatively slow in the near term as weaker pricing pressure on taxable goods will reduce nominal gains.

Individual income tax revenue increased 9.4% in the fourth quarter, but this large gain is misleading. Of net gains, 96% can be credited to California, where revenues received a substantial boost from income tax collections delayed from April 2023. Excluding California, individual income tax revenues were only slightly higher than a year earlier—an improvement from the preceding year's declines but not a stellar performance (see Chart 3). Near-term prospects are stronger as last year's

rebound in equity markets points to higher final tax payments this filing season.

## Budgeting

Budget makers are bracing for slower revenue growth as they work to nail down spending levels for the coming fiscal year. This task will be complicated by the slew of tax cuts passed over the past few years, some of which have yet to fully phase in. Policymakers in many states will face difficult choices this year as federal stimulus funds are increasingly depleted but higher costs persist for labor and capital projects.

Governors in only three states have signed fiscal 2025 budgets into law. An additional 17 states will continue operating under biennial budgets passed last year, although legislatures in some of these will meet to pass appropriation bills or adjust their budgets. That leaves 30 states still on the hook to enact fiscal 2025 budgets. Fortunately, with one exception, they have plenty of time left to do so since most states' fiscal years begin in July. Only New York has entered crunch time with an April 1 deadline. It will have to hash out how to reconcile a \$13 billion gap in spending plans between the governor's and legislature's proposals.

Although uncertainty around tax revenues and costs remains elevated, states have done an admirable job of bulking up rainy-day funds. This will provide a substantial cushion of reserves available to tap if revenues come in below expectations or unexpected expenses arise.

## Medicaid

Medicaid is one area facing particular uncertainty around expenditures. As the enhanced federal match has phased out, federal Medicaid grants to state governments have begun to decline. Meanwhile, increased reimbursement rates necessitated by rising healthcare costs are also raising the budgetary burden of the program in some states. These weights will be offset, at least

in the near term, by the rapid reduction in enrollment states are experiencing as they reassess enrollees' eligibility after a multiyear pause during the pandemic. Medicaid and CHIP enrollment peaked in April 2023 after having jumped by a third since March 2020 and will continue to decline through midyear as the unwinding process wraps up.

Social benefit spending, dominated by Medicaid, constitutes nearly a third of total state expenditures, and this share is expected to continue to rise (see Chart 4). In addition to higher costs for healthcare, recent trends toward broadening the benefits provided under Medicaid will also raise costs. For example, nearly every state has increased postpartum coverage to 12 months since federal legislation allowing the extension was passed in 2021. Additional states have also adopted Medicaid expansion, most recently South Dakota and North Carolina.

## Outlook

State and local governments' contribution to economic growth will slow over the coming year as lawmakers attempt to rein in discretionary spending to stave off deficits. Government investment will continue to increase as federally funded infrastructure projects get off the ground. Persistently high costs for raw materials will raise capital costs, while labor costs also mount as governments take on more expensive contracts.

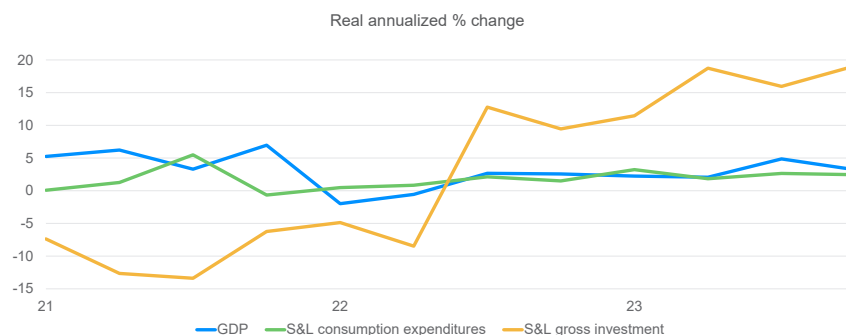
States' success in keeping expense growth under control will be vital for avoiding a funding cliff as revenue growth slows and federal aid dries up. Budgetary pressures from mandatory expenses will also be central since states are now on the hook for a larger share of Medicaid expenses. Even as the economy avoids recession, a cooling labor market will increase the utilization of social services, incurring additional costs to states.

## Risks

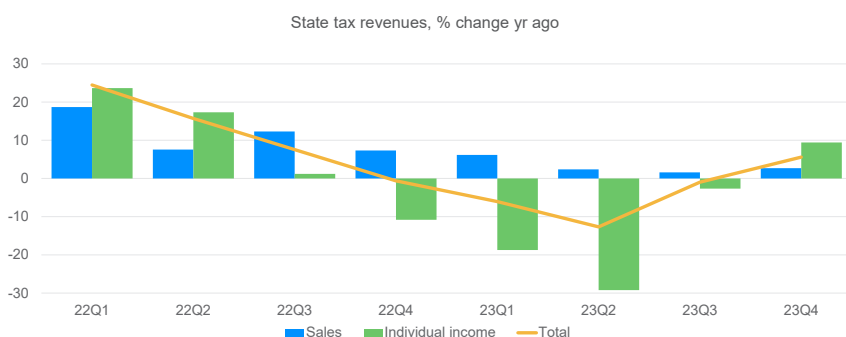
Recession remains the main risk to state and local governments. A pullback in consumer spending would reduce sales tax revenues, while weaker performance in the labor and equity markets would reduce income tax revenues. Demand for social benefits, particularly unemployment benefits and Medicaid, would rise, increasing states' expenses.

Most state and local governments are in an excellent position to weather a recession thanks to their healthy rainy-day balances and improved pension funding ratios. Even so, some governments could be forced to take extraordinary fiscal actions to balance budgets, particularly if they have recently instituted substantial tax cuts.

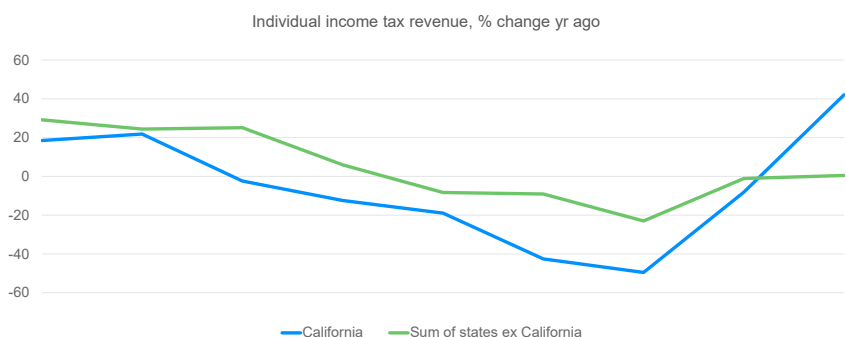
### State and Local Government Investment Making Strides



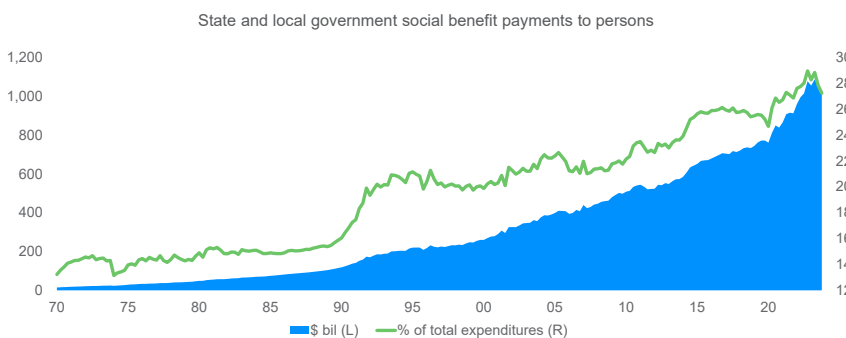
### Tax Revenues Finally Gain Ground



### California Drives Income Tax Rebound



### Social Benefits Increasingly Costly for States



## U.S. FORECAST DETAIL TABLES ♦ National Income & Product Accounts

	Units	23Q1	23Q2	23Q3	23Q4	2019	2020	2021	2022	2023
<b>Composition of Economic Activity, SAAR</b>										
Gross domestic product	CW\$ bil	22,112.3	22,225.4	22,490.7	22,669.0	20,692.1	20,234.1	21,407.7	21,822.0	22,374.3
Change	%AR	2.2	2.1	4.9	3.2	2.5	-2.2	5.8	1.9	2.5
Final sales	CW\$ bil	22,054.3	22,167.1	22,362.5	22,556.0	20,620.5	20,260.8	21,380.6	21,661.2	22,285.0
Change	%AR	4.6	2.1	3.6	3.5	2.4	-1.7	5.5	1.3	2.9
Final domestic sales	CW\$ bil	22,970.4	23,082.6	23,280.0	23,458.3	21,238.5	20,926.8	22,306.1	22,692.4	23,197.8
Change	%AR	3.8	2.0	3.5	3.1	2.4	-1.5	6.6	1.7	2.2
<b>Personal Expenditures</b>										
Consumption	CW\$ bil	15,312.9	15,343.6	15,461.4	15,574.9	13,928.3	13,577.0	14,718.2	15,090.8	15,423.2
Change	%AR	3.8	0.8	3.1	3.0	2.0	-2.5	8.4	2.5	2.2
Durables	CW\$ bil	2,022.5	2,020.9	2,053.9	2,069.9	1,558.9	1,683.1	1,964.9	1,960.0	2,041.8
Change	%AR	14.0	-0.3	6.7	3.2	3.3	8.0	16.7	-0.3	4.2
Motor vehicles	CW\$ bil	614.1	599.6	597.8	594.6	540.6	533.5	613.4	572.6	601.5
Change	%AR	32.4	-9.1	-1.2	-2.1	-1.7	-1.3	15.0	-6.7	5.0
Nondurables	CW\$ bil	3,327.8	3,335.4	3,367.3	3,394.5	2,951.8	3,049.6	3,307.5	3,327.5	3,356.3
Change	%AR	0.5	0.9	3.9	3.3	2.9	3.3	8.5	0.6	0.9
Services	CW\$ bil	9,998.9	10,023.1	10,078.7	10,149.5	9,420.1	8,867.6	9,483.4	9,836.1	10,062.5
Change	%AR	3.1	1.0	2.2	2.8	1.5	-5.9	6.9	3.7	2.3
<b>Investment</b>										
Fixed investment	CW\$ bil	3,905.9	3,955.9	3,981.3	4,005.8	3,708.5	3,630.1	3,887.3	3,939.3	3,962.2
Change	%AR	3.1	5.2	2.6	2.5	2.7	-2.1	7.1	1.3	0.6
Nonresidential	CW\$ bil	3,214.5	3,272.7	3,284.5	3,303.7	2,950.1	2,810.6	2,975.5	3,131.6	3,268.9
Change	%AR	5.7	7.4	1.4	2.4	3.7	-4.7	5.9	5.2	4.4
Structures	CW\$ bil	596.6	619.3	635.9	647.6	644.8	583.4	564.8	552.9	624.8
Change	%AR	30.3	16.1	11.2	7.5	2.5	-9.5	-3.2	-2.1	13.0
Equipment	CW\$ bil	1,236.4	1,259.6	1,245.5	1,240.1	1,241.7	1,116.3	1,187.4	1,249.2	1,245.4
Change	%AR	-4.1	7.7	-4.4	-1.7	1.1	-10.1	6.4	5.2	-0.3
Intellectual property	CW\$ bil	1,384.9	1,394.0	1,400.4	1,411.8	1,063.5	1,111.0	1,226.6	1,338.7	1,397.8
Change	%AR	3.8	2.7	1.8	3.3	7.8	4.5	10.4	9.1	4.4
Residential	CW\$ bil	731.1	727.1	738.9	744.2	761.3	816.2	903.8	822.6	735.3
Change	%AR	-5.3	-2.2	6.7	2.9	-0.9	7.2	10.7	-9.0	-10.6
Single-family	CW\$ bil	248.7	249.5	265.0	273.9	260.1	276.1	338.3	310.6	259.3
Change	%AR	-19.6	1.2	27.3	14.0	-6.3	6.2	22.5	-8.2	-16.5
Multifamily	CW\$ bil	97.6	100.3	102.1	101.5	75.6	83.6	93.4	89.7	100.4
Change	%AR	16.0	11.4	7.4	-2.5	4.3	10.5	11.8	-3.9	11.9
Other	CW\$ bil	371.8	364.4	358.5	355.3	410.3	440.6	455.1	406.2	362.5
Change	%AR	0.9	-7.7	-6.3	-3.6	1.7	7.4	3.3	-10.7	-10.8
Inventory change	CW\$ bil	27.2	14.9	77.8	66.3	71.3	-29.9	12.5	128.1	46.5
Nonfarm	CW\$ bil	28.8	14.8	78.5	69.9	86.3	-18.5	14.5	142.2	48.0
Farm	CW\$ bil	-1.5	0.2	-0.2	-2.8	-16.0	-12.1	-2.3	-15.2	-1.1
<b>Trade</b>										
Net exports	CW\$ bil	-935.1	-928.2	-930.7	-914.9	-617.5	-663.4	-933.8	-1,051.0	-927.2
Exports	CW\$ bil	2,525.4	2,464.7	2,497.3	2,536.2	2,469.0	2,144.8	2,280.9	2,439.6	2,505.9
Change	%AR	6.8	-9.3	5.4	6.4	0.5	-13.1	6.3	7.0	2.7
Merchandise	CW\$ bil	1,730.5	1,656.8	1,687.7	1,707.6	1,614.9	1,452.6	1,563.2	1,653.3	1,695.7
Change	%AR	12.0	-16.0	7.7	4.8	0.2	-10.0	7.6	5.8	2.6
Services	CW\$ bil	798.5	810.7	812.8	831.7	854.0	694.3	720.6	790.0	813.4
Change	%AR	-3.5	6.2	1.0	9.6	1.2	-18.7	3.8	9.6	3.0
Imports	CW\$ bil	3,460.5	3,392.9	3,428.0	3,451.1	3,086.5	2,808.2	3,214.7	3,490.6	3,433.1
Change	%AR	1.3	-7.6	4.2	2.7	1.2	-9.0	14.5	8.6	-1.6
Merchandise	CW\$ bil	2,851.6	2,804.3	2,844.7	2,854.1	2,505.4	2,358.0	2,701.8	2,886.2	2,838.7
Change	%AR	1.9	-6.5	5.9	1.3	0.6	-5.9	14.6	6.8	-1.6
Services	CW\$ bil	611.5	591.8	587.6	600.5	580.9	453.4	516.6	607.0	597.8
Change	%AR	-1.2	-12.2	-2.8	9.1	4.0	-21.9	13.9	17.5	-1.5
<b>Government</b>										
Expenditures and investment	CW\$ bil	3,758.8	3,789.8	3,843.4	3,883.3	3,601.4	3,715.5	3,704.7	3,670.4	3,818.8
Change	%AR	4.8	3.3	5.8	4.2	3.9	3.2	-0.3	-0.9	4.0
Federal defense	CW\$ bil	815.4	820.1	836.8	837.7	815.9	838.8	823.0	800.1	827.5
Change	%AR	1.9	2.3	8.4	0.4	5.3	2.8	-1.9	-2.8	3.4
Federal nondefense	CW\$ bil	647.4	646.7	655.5	663.0	544.3	603.7	639.3	620.6	653.2
Change	%AR	9.5	-0.4	5.5	4.7	1.7	10.9	5.9	-2.9	5.2
State & local	CW\$ bil	2,296.5	2,323.0	2,351.4	2,382.6	2,241.3	2,273.8	2,244.3	2,249.6	2,338.4
Change	%AR	4.6	4.7	5.0	5.4	4.0	1.4	-1.3	0.2	3.9
<b>Government Balance</b>										
NIPA basis	\$ bil	-1,673.7	-1,665.7	-1,664.1	-1,634.5	-1,044.4	-2,894.4	-2,739.9	-1,062.2	-1,659.5
Unified budget	\$ bil	-679.3	-291.9	-302.5	-509.9	-1,022.0	-3,348.2	-2,580.4	-1,419.2	-1,783.7

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

# U.S. FORECAST DETAIL TABLES ♦ National Income & Product Accounts

	Units	24Q1	24Q2	24Q3	24Q4	2024	2025	2026	2027	2028
<b>Composition of Economic Activity, SAAR</b>										
Gross domestic product	CW\$ bil	22,806.3	22,890.1	22,974.4	23,050.3	22,930.3	23,270.5	23,704.7	24,217.9	24,791.9
Change	%AR	2.4	1.5	1.5	1.3	2.5	1.5	1.9	2.2	2.4
Final sales	CW\$ bil	22,703.6	22,773.6	22,837.8	22,915.2	22,807.5	23,157.3	23,602.9	24,114.0	24,677.5
Change	%AR	2.6	1.2	1.1	1.4	2.3	1.5	1.9	2.2	2.3
Final domestic sales	CW\$ bil	23,616.5	23,720.4	23,808.7	23,904.5	23,762.5	24,166.3	24,599.4	25,059.8	25,570.8
Change	%AR	2.7	1.8	1.5	1.6	2.4	1.7	1.8	1.9	2.0
<b>Personal Expenditures</b>										
Consumption	CW\$ bil	15,689.3	15,764.0	15,841.2	15,923.4	15,804.5	16,116.6	16,432.1	16,764.3	17,120.9
Change	%AR	3.0	1.9	2.0	2.1	2.5	2.0	2.0	2.0	2.1
Durables	CW\$ bil	2,074.6	2,083.2	2,097.4	2,110.2	2,091.3	2,135.5	2,162.8	2,174.5	2,183.7
Change	%AR	0.9	1.7	2.7	2.5	2.4	2.1	1.3	0.5	0.4
Motor vehicles	CW\$ bil	588.1	589.7	598.0	606.7	595.6	625.1	639.2	638.4	637.2
Change	%AR	-4.3	1.1	5.8	6.0	-1.0	4.9	2.3	-0.1	-0.2
Nondurables	CW\$ bil	3,409.3	3,419.4	3,428.4	3,436.9	3,423.5	3,458.2	3,498.1	3,545.7	3,605.1
Change	%AR	1.8	1.2	1.1	1.0	2.0	1.0	1.2	1.4	1.7
Services	CW\$ bil	10,244.4	10,300.4	10,354.4	10,415.3	10,328.6	10,561.9	10,810.2	11,083.1	11,371.1
Change	%AR	3.8	2.2	2.1	2.4	2.6	2.3	2.4	2.5	2.6
<b>Investment</b>										
Fixed investment	CW\$ bil	4,052.3	4,094.8	4,125.3	4,149.0	4,105.4	4,206.0	4,287.6	4,395.1	4,516.2
Change	%AR	4.7	4.3	3.0	2.3	3.6	2.5	1.9	2.5	2.8
Nonresidential	CW\$ bil	3,345.8	3,368.6	3,394.8	3,407.9	3,379.3	3,423.2	3,460.1	3,547.6	3,651.6
Change	%AR	5.2	2.8	3.1	1.5	3.4	1.3	1.1	2.5	2.9
Structures	CW\$ bil	655.0	658.9	661.5	662.7	659.5	658.7	662.4	690.7	719.0
Change	%AR	4.7	2.4	1.6	0.7	5.5	-0.1	0.6	4.3	4.1
Equipment	CW\$ bil	1,263.2	1,275.4	1,294.3	1,302.5	1,283.8	1,313.6	1,322.4	1,345.8	1,375.5
Change	%AR	7.7	3.9	6.1	2.5	3.1	2.3	0.7	1.8	2.2
Intellectual property	CW\$ bil	1,423.2	1,430.0	1,434.8	1,438.5	1,431.6	1,446.6	1,471.0	1,506.9	1,552.8
Change	%AR	3.3	1.9	1.3	1.0	2.4	1.0	1.7	2.4	3.0
Residential	CW\$ bil	748.7	768.3	772.6	783.3	768.3	825.0	869.7	889.6	906.8
Change	%AR	2.4	10.9	2.3	5.6	4.5	7.4	5.4	2.3	1.9
Single-family	CW\$ bil	284.0	300.2	304.9	307.7	299.2	324.3	351.5	357.9	352.3
Change	%AR	15.7	24.7	6.4	3.8	15.4	8.4	8.4	1.8	-1.6
Multifamily	CW\$ bil	94.3	92.3	87.8	88.3	90.7	89.9	91.5	93.4	94.7
Change	%AR	-25.5	-7.9	-18.4	2.6	-9.7	-0.8	1.8	2.1	1.4
Other	CW\$ bil	356.7	361.8	365.8	373.0	364.3	396.1	411.3	422.6	443.8
Change	%AR	1.6	5.9	4.5	8.0	0.5	8.7	3.8	2.8	5.0
Inventory change	CW\$ bil	55.0	68.9	88.9	87.4	75.1	65.5	54.1	56.2	66.7
Nonfarm	CW\$ bil	57.3	69.6	91.1	89.3	76.8	67.1	55.4	57.5	68.0
Farm	CW\$ bil	-2.3	-0.7	-2.1	-1.9	-1.8	-1.5	-1.3	-1.2	-1.3
<b>Trade</b>										
Net exports	CW\$ bil	-912.9	-946.8	-971.0	-989.3	-955.0	-1,009.0	-996.6	-945.8	-893.3
Exports	CW\$ bil	2,547.5	2,548.4	2,549.2	2,550.9	2,549.0	2,573.2	2,651.3	2,775.8	2,901.6
Change	%AR	1.8	0.1	0.1	0.3	1.7	0.9	3.0	4.7	4.5
Merchandise	CW\$ bil	1,718.0	1,716.7	1,716.7	1,717.4	1,717.2	1,728.5	1,774.6	1,854.4	1,934.0
Change	%AR	2.5	-0.3	0.0	0.2	1.3	0.7	2.7	4.5	4.3
Services	CW\$ bil	832.5	834.7	835.5	836.6	834.8	847.7	879.7	924.4	970.6
Change	%AR	0.4	1.0	0.4	0.5	2.6	1.5	3.8	5.1	5.0
Imports	CW\$ bil	3,460.4	3,495.2	3,520.2	3,540.2	3,504.0	3,582.2	3,647.9	3,721.6	3,794.8
Change	%AR	1.1	4.1	2.9	2.3	2.1	2.2	1.8	2.0	2.0
Merchandise	CW\$ bil	2,856.5	2,887.2	2,908.1	2,924.6	2,894.1	2,960.5	3,017.3	3,082.8	3,147.7
Change	%AR	0.3	4.4	2.9	2.3	2.0	2.3	1.9	2.2	2.1
Services	CW\$ bil	607.4	611.5	615.6	619.1	613.4	625.2	634.1	642.2	650.7
Change	%AR	4.7	2.7	2.7	2.3	2.6	1.9	1.4	1.3	1.3
<b>Government</b>										
Expenditures and investment	CW\$ bil	3,869.0	3,855.7	3,836.4	3,826.2	3,846.8	3,837.9	3,874.0	3,894.6	3,927.8
Change	%AR	-1.5	-1.4	-2.0	-1.1	0.7	-0.2	0.9	0.5	0.9
Federal defense	CW\$ bil	831.4	826.6	820.9	819.0	824.5	834.1	854.5	869.5	890.0
Change	%AR	-3.0	-2.3	-2.8	-0.9	-0.4	1.2	2.4	1.8	2.4
Federal nondefense	CW\$ bil	652.0	640.2	628.9	625.5	636.6	619.2	631.4	651.4	668.6
Change	%AR	-6.5	-7.0	-6.9	-2.2	-2.5	-2.7	2.0	3.2	2.6
State & local	CW\$ bil	2,385.6	2,388.8	2,386.5	2,381.7	2,385.7	2,384.6	2,388.0	2,373.7	2,369.1
Change	%AR	0.5	0.5	-0.4	-0.8	2.0	-0.0	0.1	-0.6	-0.2
<b>Government Balance</b>										
NIPA basis	\$ bil	-1,545.7	-1,519.0	-1,476.9	-1,446.3	-1,497.0	-1,479.1	-1,545.8	-1,673.3	-1,799.8
Unified budget	\$ bil	-553.3	-250.8	-321.2	-442.7	-1,568.0	-1,640.6	-1,657.2	-1,716.4	-1,836.4

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.



## U.S. FORECAST DETAIL TABLES ♦ Consumers

	Units	23Q1	23Q2	23Q3	23Q4	2019	2020	2021	2022	2023
<b>Household Sector</b>										
Median household income	\$	78,738	79,464	80,181	80,913	65,712	67,340	69,717	74,755	79,824
Change	% yr ago	9.5	8.0	6.0	3.9	6.1	2.5	3.5	7.2	6.8
Personal income, SAAR	CW\$ tril	19.0	19.0	19.1	19.2	17.7	18.8	19.7	18.8	19.1
Change	% yr ago	0.7	1.6	1.5	1.8	3.2	5.8	4.8	-4.2	1.4
Disposable income, SAAR	CW\$ tril	16.7	16.8	16.8	16.9	15.6	16.6	17.1	16.1	16.8
Change	% yr ago	3.7	4.9	4.1	4.1	3.1	6.4	3.2	-6.0	4.2
Dividends	\$ bil	1,832.7	1,847.8	1,830.2	1,853.0	1,346.5	1,403.5	1,699.2	1,804.5	1,840.9
Change	% yr ago	2.3	2.5	1.3	1.9	9.0	4.2	21.1	6.2	2.0
Interest	\$ bil	1,744.3	1,754.8	1,776.4	1,812.4	1,603.4	1,510.3	1,515.5	1,627.5	1,772.0
Change	% yr ago	12.5	9.4	7.8	6.2	3.2	-5.8	0.3	7.4	8.9
Rent	\$ bil	945.8	961.1	974.4	988.1	684.5	756.1	814.2	878.3	967.3
Change	% yr ago	13.0	9.8	9.1	8.9	1.9	10.5	7.7	7.9	10.1
Personal saving rate	%	4.8	5.1	4.3	3.9	7.4	15.3	11.3	3.3	4.5
Household financial assets	\$ tril	111.9	114.9	113.3	118.8	93.6	105.0	117.9	109.0	118.8
Change	% yr ago	-3.8	5.8	6.1	9.1	13.5	12.1	12.3	-7.6	9.1
Consumer confidence	1985=100	104.5	105.4	109.0	102.7	128.3	101.0	112.7	104.5	105.4
<b>Consumer Spending, SAAR</b>										
Retail sales & food services	\$ bil	8,261.6	8,257.2	8,397.0	8,452.2	6,167.7	6,223.7	7,356.4	8,068.9	8,342.0
Change	% yr ago	5.1	1.6	3.2	3.7	3.1	0.9	18.2	9.7	3.4
Retail sales & food services less autos	\$ bil	6,679.2	6,667.5	6,787.5	6,840.3	4,930.8	5,014.2	5,874.4	6,538.8	6,743.6
Change	% yr ago	5.8	1.1	2.5	3.1	3.2	1.7	17.2	11.3	3.1
Building materials, garden equip. & supply	\$ bil	389.2	390.2	391.0	391.5	371.0	372.7	378.6	385.5	390.5
Change	% yr ago	1.5	1.4	1.2	1.0	0.9	0.5	1.6	1.8	1.3
General merchandise	\$ bil	1,040.3	1,051.0	1,062.3	1,073.8	873.3	919.0	965.4	1,011.5	1,056.9
Change	% yr ago	4.6	4.5	4.5	4.4	6.3	5.2	5.1	4.8	4.5
Food & beverage stores	\$ bil	845.2	848.9	853.1	857.2	772.7	792.0	813.7	833.4	851.1
Change	% yr ago	2.3	2.2	2.1	2.0	2.4	2.5	2.7	2.4	2.1
Clothing & clothing accessories	\$ bil	316.4	317.5	318.8	320.1	296.9	300.9	306.7	312.8	318.2
Change	% yr ago	1.8	1.7	1.7	1.7	2.3	1.3	1.9	2.0	1.7
Food services & drinking places	\$ bil	872.7	880.7	889.0	897.3	757.0	785.8	817.0	850.6	884.9
Change	% yr ago	4.1	4.1	4.0	3.9	4.6	3.8	4.0	4.1	4.0
Vehicle sales, SAAR	mil	15.0	15.8	15.7	15.7	17.0	14.5	14.9	13.8	15.5
Car sales	mil	3.0	3.2	3.2	3.1	4.7	3.4	3.4	2.9	3.1
Light truck sales	mil	12.0	12.6	12.5	12.6	12.2	11.1	11.6	10.9	12.4
<b>Debt Burden</b>										
Debt service burden, total	%	9.7	9.7	9.8	9.8	9.9	9.3	9.1	9.8	9.8
Consumer	%	5.8	5.8	5.8	5.7	5.8	5.4	5.3	5.8	5.8
Mortgage	%	3.9	3.9	4.0	4.1	4.2	3.9	3.7	4.0	4.0
<b>Consumer Credit Outstanding</b>										
Total	\$ tril	4.9	5.0	5.0	5.0	4.3	4.3	4.5	4.9	5.0
Change	% yr ago	6.7	5.2	3.6	2.6	4.5	-0.3	5.5	7.6	2.6
Revolving	\$ tril	1.2	1.3	1.3	1.3	1.1	1.0	1.1	1.2	1.3
Change	% yr ago	13.1	11.1	10.3	8.8	3.6	-11.0	6.6	15.1	8.8
Nonrevolving	\$ tril	3.7	3.7	3.7	3.7	3.2	3.3	3.5	3.7	3.7
Change	% yr ago	4.7	3.4	1.4	0.5	4.8	3.4	5.2	5.3	0.5

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

## U.S. FORECAST DETAIL TABLES ♦ Consumers

	Units	24Q1	24Q2	24Q3	24Q4	2024	2025	2026	2027	2028
<b>Household Sector</b>										
Median household income	\$	81,599	82,325	83,012	83,678	82,654	85,341	88,184	91,204	94,296
Change	% yr ago	3.6	3.6	3.5	3.4	3.5	3.3	3.3	3.4	3.4
Personal income, SAAR	CW\$ tril	19.4	19.6	19.7	19.8	19.6	20.0	20.4	20.9	21.4
Change	% yr ago	2.2	2.7	3.0	2.9	2.7	2.0	2.1	2.3	2.4
Disposable income, SAAR	CW\$ tril	17.1	17.2	17.3	17.4	17.2	17.6	17.9	18.3	18.7
Change	% yr ago	2.3	2.3	2.7	2.6	2.5	2.0	2.0	2.2	2.3
Dividends	\$ bil	1,926.9	1,953.5	1,973.9	1,984.8	1,959.8	2,019.0	2,078.1	2,145.7	2,247.9
Change	% yr ago	5.1	5.7	7.9	7.1	6.5	3.0	2.9	3.3	4.8
Interest	\$ bil	1,840.5	1,879.1	1,913.7	1,939.4	1,893.2	1,998.5	2,088.0	2,170.5	2,252.4
Change	% yr ago	5.5	7.1	7.7	7.0	6.8	5.6	4.5	3.9	3.8
Rent	\$ bil	1,010.3	1,020.5	1,032.0	1,045.3	1,027.0	1,079.5	1,141.2	1,219.3	1,299.1
Change	% yr ago	6.8	6.2	5.9	5.8	6.2	5.1	5.7	6.8	6.5
Personal saving rate	%	4.0	4.3	4.5	4.4	4.3	4.5	4.6	4.9	5.1
Household financial assets	\$ tril	121.4	122.7	123.4	124.0	124.0	127.6	132.3	137.4	142.5
Change	% yr ago	8.5	6.8	8.9	4.3	4.3	2.9	3.6	3.9	3.7
Consumer confidence	1985=100	108.6	110.2	109.9	111.8	110.1	111.9	106.9	105.6	103.6
<b>Consumer Spending, SAAR</b>										
Retail sales & food services	\$ bil	8,455.7	8,508.6	8,578.5	8,649.0	8,548.0	8,833.2	9,134.3	9,426.7	9,746.2
Change	% yr ago	2.4	3.0	2.2	2.3	2.5	3.3	3.4	3.2	3.4
Retail sales & food services less autos	\$ bil	6,840.5	6,888.1	6,933.3	6,974.4	6,909.1	7,086.0	7,293.8	7,531.3	7,807.1
Change	% yr ago	2.4	3.3	2.1	2.0	2.5	2.6	2.9	3.3	3.7
Building materials, garden equip. & supply	\$ bil	392.1	392.3	392.7	392.9	392.5	393.6	395.8	399.0	403.4
Change	% yr ago	0.7	0.5	0.4	0.4	0.5	0.3	0.6	0.8	1.1
General merchandise	\$ bil	1,085.6	1,096.5	1,107.9	1,119.6	1,102.4	1,149.6	1,198.3	1,250.3	1,304.9
Change	% yr ago	4.4	4.3	4.3	4.3	4.3	4.3	4.2	4.3	4.4
Food & beverage stores	\$ bil	861.5	864.9	868.8	872.7	867.0	882.6	898.5	915.0	932.0
Change	% yr ago	1.9	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.9
Clothing & clothing accessories	\$ bil	321.5	322.5	323.9	325.4	323.3	329.0	335.1	341.2	347.3
Change	% yr ago	1.6	1.6	1.6	1.6	1.6	1.8	1.8	1.8	1.8
Food services & drinking places	\$ bil	906.0	913.8	922.0	930.4	918.1	952.4	987.9	1,023.7	1,060.8
Change	% yr ago	3.8	3.8	3.7	3.7	3.7	3.7	3.7	3.6	3.6
Vehicle sales, SAAR	mil	15.5	15.9	16.3	16.7	16.1	17.3	17.7	17.7	17.7
Car sales	mil	3.1	3.2	3.2	3.3	3.2	3.3	3.2	3.2	3.1
Light truck sales	mil	12.4	12.8	13.1	13.4	12.9	14.0	14.4	14.6	14.6
<b>Debt Burden</b>										
Debt service burden, total	%	10.0	10.1	10.2	10.2	10.1	10.3	10.2	10.1	10.1
Consumer	%	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.6	5.6
Mortgage	%	4.3	4.4	4.5	4.5	4.4	4.6	4.5	4.5	4.5
<b>Consumer Credit Outstanding</b>										
Total	\$ tril	5.1	5.1	5.1	5.1	5.1	5.2	5.3	5.5	5.6
Change	% yr ago	2.2	2.1	2.5	2.1	2.1	2.0	2.2	2.4	2.7
Revolving	\$ tril	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.6
Change	% yr ago	7.3	6.0	4.2	2.7	2.7	2.5	3.4	4.0	4.4
Nonrevolving	\$ tril	3.7	3.7	3.8	3.8	3.8	3.8	3.9	4.0	4.1
Change	% yr ago	0.5	0.7	1.9	1.9	1.9	1.9	1.8	1.8	2.1

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

## U.S. FORECAST DETAIL TABLES ◆ Money Markets

	Units	23Q1	23Q2	23Q3	23Q4	2019	2020	2021	2022	2023
<b>Monetary Aggregates</b>										
M1	\$ tril	18.94	18.49	18.16	18.09	4.02	17.83	20.49	19.82	18.09
Change	%AR	-16.7	-9.1	-6.9	-1.7	6.6	343.3	15.0	-3.3	-8.8
M2	\$ tril	20.86	20.84	20.72	20.83	15.32	19.11	21.55	21.35	20.83
Change	%AR	-8.8	-0.5	-2.1	2.0	6.7	24.8	12.7	-0.9	-2.4
<b>Money Market Rates</b>										
Federal funds	%	4.52	4.99	5.26	5.33	2.16	0.37	0.08	1.68	5.03
Prime rate	%	7.69	8.16	8.43	8.50	5.29	3.54	3.25	4.85	8.20
Discount rate	%	4.69	5.16	5.43	5.50	2.78	0.65	0.25	1.85	5.19
91-day CP	%	4.71	5.03	5.34	5.38	2.18	0.57	0.07	1.95	5.11
91-day Eurodollar	%	na	na	na	na	na	na	na	na	na
91-day Libor	%	4.92	5.40	5.63	5.64	2.33	0.65	0.16	2.39	5.40
<b>Mortgage Rates</b>										
Primary market (FHLMC)										
Fixed: U.S.	%	6.36	6.49	7.04	7.29	3.93	3.11	2.96	5.33	6.80
Adjustable: U.S.	%	5.56	5.72	6.35	6.52	3.57	3.08	2.61	4.26	6.04
FHFB composite rate	%	6.67	6.78	7.40	7.60	4.15	3.51	3.27	5.72	7.11
Fixed	%	6.58	6.54	6.88	7.20	4.44	3.85	3.79	4.99	6.80
<b>Adjustable Rates</b>										
Federal Cost of Funds Index	%	3.13	3.44	3.69	3.84	2.21	1.27	0.80	1.56	3.52
National contract rate	%	5.40	5.40	5.95	6.28	4.36	4.03	3.88	4.73	5.76
<b>Mortgage Spreads</b>										
FHLMC fixed - 10-yr Treasury	DIFF	2.71	2.90	2.89	2.85	1.79	2.22	1.51	2.37	2.84
FHLMC ARM - 1-yr Treasury	DIFF	0.80	0.77	0.96	1.29	1.52	2.70	2.51	1.46	0.96
FHLMC fixed - ARM	DIFF	0.80	0.77	0.69	0.78	0.36	0.04	0.35	1.07	0.76
Federal COF - fed funds	DIFF	-1.40	-1.55	-1.58	-1.49	0.04	0.90	0.72	-0.13	-1.50
Federal COF - 1-yr Treasury	DIFF	-1.63	-1.51	-1.70	-1.39	0.15	0.90	0.69	-1.24	-1.56

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

## U.S. FORECAST DETAIL TABLES ♦ Money Markets

	Units	24Q1	24Q2	24Q3	24Q4	2024	2025	2026	2027	2028
<b>Monetary Aggregates</b>										
M1	\$ tril	18.02	18.29	18.55	18.82	18.82	20.02	21.37	22.71	24.14
Change	%AR	-1.5	6.2	5.7	6.2	4.1	6.3	6.8	6.3	6.3
M2	\$ tril	20.84	21.16	21.46	21.78	21.78	23.08	24.49	25.90	27.39
Change	%AR	0.2	6.4	5.8	6.1	4.6	6.0	6.1	5.8	5.8
<b>Money Market Rates</b>										
Federal funds	%	5.33	5.33	5.13	4.82	5.15	4.25	3.26	2.95	2.76
Prime rate	%	8.49	8.50	8.30	7.99	8.32	7.42	6.43	6.12	5.93
Discount rate	%	5.49	5.48	5.28	4.97	5.31	4.41	3.42	3.10	2.92
91-day CP	%	5.32	5.28	5.04	4.74	5.10	4.20	3.33	3.02	2.86
91-day Eurodollar	%	na	na	na	na	na	na	na	na	na
91-day Libor	%	5.56	5.38	5.12	4.82	5.22	4.30	3.44	3.14	2.98
<b>Mortgage Rates</b>										
Primary market (FHLMC)										
Fixed: U.S.	%	6.66	6.55	6.42	6.32	6.49	6.14	5.97	5.92	5.86
Adjustable: U.S.	%	6.19	6.05	5.91	5.74	5.98	5.50	5.35	5.32	5.30
FHFB composite rate	%	6.93	6.86	6.80	6.65	6.81	6.53	6.40	6.32	6.27
Fixed	%	7.35	7.11	6.95	6.82	7.06	6.63	6.43	6.33	6.26
<b>Adjustable Rates</b>										
Federal Cost of Funds Index	%	3.97	4.16	4.15	4.05	4.08	3.81	3.35	3.12	3.02
National contract rate	%	6.16	6.09	6.00	5.88	6.03	5.72	5.62	5.60	5.59
<b>Mortgage Spreads</b>										
FHLMC fixed - 10-yr Treasury	DIFF	2.57	2.37	2.27	2.20	2.35	2.08	1.93	1.87	1.85
FHLMC ARM - 1-yr Treasury	DIFF	1.35	1.25	1.23	1.28	1.28	1.43	1.91	2.10	2.22
FHLMC fixed - ARM	DIFF	0.47	0.49	0.51	0.58	0.51	0.64	0.62	0.60	0.56
Federal COF - fed funds	DIFF	-1.36	-1.17	-0.98	-0.77	-1.07	-0.44	0.09	0.17	0.26
Federal COF - 1-yr Treasury	DIFF	-0.88	-0.65	-0.53	-0.41	-0.62	-0.27	-0.09	-0.09	-0.06

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

# U.S. FORECAST DETAIL TABLES ♦ Financial Markets

	Units	23Q1	23Q2	23Q3	23Q4	2019	2020	2021	2022	2023
<b>Treasury Bill Rates</b>										
91-day T-bill	%	4.6	5.1	5.3	5.3	2.1	0.4	0.0	2.0	5.1
182-day T-bill	%	4.7	5.0	5.3	5.2	2.1	0.4	0.1	2.4	5.1
365-day T-bill	%	4.8	4.9	5.4	5.2	2.1	0.4	0.1	2.8	5.1
<b>Treasury Bill Spreads</b>										
91-day - fed funds	DIFF	0.1	0.1	0.0	-0.0	-0.1	-0.0	-0.0	0.3	0.0
T-bill: 182-day - 91-day	DIFF	0.1	-0.1	-0.0	-0.1	-0.0	0.0	0.0	0.4	-0.0
T-bill: 365-day - 182-day	DIFF	0.0	-0.1	0.1	-0.0	-0.0	0.0	0.0	0.4	0.0
<b>Treasury Yield Curve</b>										
91-day T-bill, EBY	%	4.8	5.2	5.4	5.4	2.1	0.4	0.0	2.1	5.2
182-day T-bill, EBY	%	4.9	5.2	5.5	5.4	2.1	0.4	0.1	2.5	5.3
365-day T-bill, EBY	%	5.1	5.3	5.8	5.6	2.1	0.4	0.1	2.9	5.4
Treasury: 1-yr	%	4.8	4.9	5.4	5.2	2.1	0.4	0.1	2.8	5.1
Treasury: 2-yr	%	4.3	4.3	4.9	4.8	2.0	0.4	0.3	3.0	4.6
Treasury: 3-yr	%	4.1	3.9	4.6	4.6	1.9	0.4	0.5	3.1	4.3
Treasury: 5-yr	%	3.8	3.7	4.3	4.4	2.0	0.5	0.9	3.0	4.1
Treasury: 7-yr	%	3.7	3.6	4.2	4.5	2.0	0.7	1.2	3.0	4.0
Treasury: 10-yr	%	3.6	3.6	4.1	4.4	2.1	0.9	1.4	3.0	4.0
Treasury: 30-yr	%	3.7	3.8	4.2	4.6	2.6	1.6	2.1	3.1	4.1
<b>Corporate Rates</b>										
Corporate: Aaa	%	4.5	4.6	4.9	5.2	3.4	2.5	2.7	4.1	4.8
Corporate: Aa	%	4.8	5.0	5.3	5.6	3.5	2.6	2.8	4.3	5.2
Corporate: A	%	5.2	5.2	5.5	5.8	3.8	3.0	3.0	4.6	5.4
Corporate: Baa	%	5.6	5.7	6.0	6.2	4.4	3.6	3.4	5.1	5.9
Utility: Aa	%	5.1	5.2	5.5	5.8	3.6	2.8	3.0	4.5	5.4
Utility: A	%	5.3	5.3	5.7	5.9	3.8	3.0	3.1	4.7	5.5
Utility: Baa	%	5.6	5.6	6.0	6.2	4.2	3.4	3.4	5.0	5.8
<b>Corporate Spreads</b>										
Aa corp. - 10-yr Treasury	DIFF	1.2	1.4	1.2	1.1	1.4	1.7	1.4	1.4	1.2
Baa corp. - 10-yr Treasury	DIFF	2.0	2.1	1.8	1.7	2.2	2.7	1.9	2.1	1.9
Corp.: Baa - Aa	DIFF	0.8	0.7	0.7	0.6	0.8	1.0	0.5	0.8	0.7
Aa utility - 10-yr Treasury	DIFF	1.5	1.6	1.4	1.3	1.5	1.9	1.5	1.6	1.4
Baa utility - 10-yr Treasury	DIFF	1.9	2.0	1.8	1.7	2.0	2.5	1.9	2.1	1.9
Utility: Baa - Aa	DIFF	0.5	0.5	0.4	0.4	0.6	0.6	0.4	0.5	0.4
<b>Stock Market</b>										
S&P 500	1941-43=10	4,003.0	4,204.3	4,458.2	4,471.5	2,912.5	3,218.5	4,266.8	4,100.7	4,284.2
Change	%YA	-10.4	2.3	12.2	16.1	6.1	10.5	32.6	-3.9	4.5
Dow Jones	index	41,136.6	44,411.5	42,788.7	47,787.5	33,035.4	39,219.6	48,634.3	38,520.6	47,787.5
Change	% yr ago	-10.3	16.9	18.5	24.1	28.4	18.7	24.0	-20.8	24.1
<b>Exchange Rates</b>										
Japanese yen	¥/\$	132.4	137.3	144.5	147.8	109.0	106.8	109.8	131.5	140.5
Euro	\$/€	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1
Canadian dollar	C\$/US\$	1.4	1.3	1.3	1.4	1.3	1.3	1.3	1.3	1.3
<b>International Sector</b>										
FRB 10-country index (nominal)	Jan97=100	120.3	119.6	120.2	121.8	115.7	117.7	113.1	120.7	120.5
Change	%YA	4.2	0.5	-2.7	-2.4	3.3	1.7	-3.9	6.7	-0.2
Current account	\$ bil	-857.9	-867.2	-801.2	-840.5	-441.8	-597.1	-831.4	-971.6	-841.7
Merchandise trade	\$ bil	-1,053.1	-1,102.0	-1,043.8	-1,093.4	-857.3	-912.9	-1,083.5	-1,183.0	-1,073.1

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.



## U.S. FORECAST DETAIL TABLES ♦ Financial Markets

	Units	24Q1	24Q2	24Q3	24Q4	2024	2025	2026	2027	2028
<b>Treasury Bill Rates</b>										
91-day T-bill	%	5.2	5.1	4.9	4.6	5.0	4.0	3.1	2.8	2.7
182-day T-bill	%	5.1	5.0	4.8	4.5	4.9	4.0	3.2	2.9	2.8
365-day T-bill	%	4.8	4.8	4.7	4.5	4.7	4.1	3.4	3.2	3.1
<b>Treasury Bill Spreads</b>										
91-day - fed funds	DIFF	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1
T-bill: 182-day - 91-day	DIFF	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.1
T-bill: 365-day - 182-day	DIFF	-0.2	-0.2	-0.1	-0.1	-0.2	0.1	0.2	0.3	0.3
<b>Treasury Yield Curve</b>										
91-day T-bill, EBY	%	5.4	5.3	5.0	4.7	5.1	4.1	3.2	2.9	2.7
182-day T-bill, EBY	%	5.3	5.2	5.0	4.7	5.0	4.2	3.3	3.0	2.8
365-day T-bill, EBY	%	5.2	5.1	5.0	4.7	5.0	4.3	3.6	3.4	3.2
Treasury: 1-yr	%	4.8	4.8	4.7	4.5	4.7	4.1	3.4	3.2	3.1
Treasury: 2-yr	%	4.4	4.5	4.5	4.3	4.4	4.0	3.6	3.4	3.3
Treasury: 3-yr	%	4.2	4.3	4.3	4.2	4.3	4.0	3.7	3.5	3.4
Treasury: 5-yr	%	4.1	4.1	4.1	4.1	4.1	4.0	3.8	3.8	3.7
Treasury: 7-yr	%	4.1	4.2	4.1	4.1	4.1	4.1	4.0	3.9	3.9
Treasury: 10-yr	%	4.1	4.2	4.2	4.1	4.1	4.1	4.0	4.0	4.0
Treasury: 30-yr	%	4.3	4.4	4.5	4.5	4.4	4.5	4.5	4.6	4.6
<b>Corporate Rates</b>										
Corporate: Aaa	%	5.0	5.2	5.6	5.6	5.3	5.6	5.5	5.5	5.5
Corporate: Aa	%	5.2	5.5	5.8	5.9	5.6	5.8	5.8	5.7	5.7
Corporate: A	%	5.4	5.7	6.0	6.1	5.8	6.0	6.0	6.0	5.9
Corporate: Baa	%	5.7	6.1	6.4	6.5	6.2	6.5	6.5	6.5	6.5
Utility: Aa	%	5.4	5.8	6.2	6.2	5.9	6.2	6.1	6.1	6.1
Utility: A	%	5.5	5.9	6.2	6.3	6.0	6.2	6.2	6.2	6.1
Utility: Baa	%	5.8	6.3	6.7	6.7	6.4	6.7	6.6	6.6	6.5
<b>Corporate Spreads</b>										
Aa corp. - 10-yr Treasury	DIFF	1.1	1.3	1.7	1.7	1.5	1.8	1.7	1.7	1.7
Baa corp. - 10-yr Treasury	DIFF	1.6	1.9	2.3	2.4	2.1	2.5	2.5	2.5	2.5
Corp.: Baa - Aa	DIFF	0.5	0.6	0.6	0.7	0.6	0.7	0.8	0.8	0.8
Aa utility - 10-yr Treasury	DIFF	1.3	1.6	2.0	2.1	1.8	2.1	2.1	2.0	2.0
Baa utility - 10-yr Treasury	DIFF	1.7	2.1	2.5	2.6	2.2	2.6	2.6	2.5	2.5
Utility: Baa - Aa	DIFF	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
<b>Stock Market</b>										
S&P 500	1941-43=10	4,953.1	5,037.3	5,052.5	5,066.9	5,027.4	5,126.6	5,350.5	5,674.7	5,998.6
Change	%YA	23.7	19.8	13.3	13.3	17.3	2.0	4.4	6.1	5.7
Dow Jones	index	52,184.6	50,551.2	50,754.5	50,963.5	50,963.5	52,501.8	55,324.1	58,981.0	62,196.1
Change	% yr ago	26.9	13.8	18.6	6.6	6.6	3.0	5.4	6.6	5.5
<b>Exchange Rates</b>										
Japanese yen	¥/\$	147.8	145.3	141.8	137.2	143.0	128.9	121.1	116.4	113.5
Euro	\$/€	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2
Canadian dollar	C\$/US\$	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2
<b>International Sector</b>										
FRB 10-country index (nominal)	Jan97=100	120.6	118.1	115.3	113.9	117.0	112.1	111.4	111.0	110.6
Change	%YA	0.2	-1.3	-4.1	-6.5	-2.9	-4.2	-0.6	-0.4	-0.3
Current account	\$ bil	-762.6	-778.4	-802.4	-825.6	-792.2	-818.7	-781.4	-738.7	-712.4
Merchandise trade	\$ bil	-1,026.4	-1,060.7	-1,107.4	-1,148.7	-1,085.8	-1,184.7	-1,207.4	-1,210.2	-1,213.4

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

# U.S. FORECAST DETAIL TABLES ♦ Demographics & Labor Markets

	Units	23Q1	23Q2	23Q3	23Q4	2019	2020	2021	2022	2023
<b>Labor Markets</b>										
Total nonfarm employment, U.S.	mil	155.0	155.8	156.4	157.1	150.9	142.2	146.3	152.5	156.1
Change	% yr ago	2.8	2.5	2.1	1.9	1.3	-5.8	2.9	4.3	2.3
Natural resources and mining	mil	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6
Change	% yr ago	8.7	6.6	5.1	2.9	-0.1	-17.5	-6.5	8.0	5.8
Construction	mil	7.9	8.0	8.0	8.1	7.5	7.3	7.4	7.8	8.0
Change	% yr ago	3.7	3.2	3.1	3.1	2.8	-3.2	2.5	4.4	3.3
Manufacturing	mil	12.9	12.9	12.9	12.9	12.8	12.2	12.4	12.8	12.9
Change	% yr ago	2.2	1.2	0.5	0.1	1.0	-5.1	1.6	3.7	1.0
Trade	mil	21.7	21.7	21.7	21.7	21.4	20.4	21.0	21.5	21.7
Change	% yr ago	1.3	1.2	0.9	0.9	-0.6	-4.6	2.6	2.4	1.1
Transportation and utilities	mil	7.2	7.2	7.1	7.1	6.2	6.2	6.7	7.2	7.1
Change	% yr ago	0.8	-0.4	-0.9	-0.8	3.9	-0.6	8.2	7.2	-0.3
Information	mil	3.1	3.0	3.0	3.0	2.9	2.7	2.9	3.1	3.0
Change	% yr ago	1.9	-0.3	-2.8	-3.3	0.9	-5.0	5.0	7.2	-1.1
Financial activities	mil	9.1	9.2	9.2	9.2	8.8	8.7	8.8	9.1	9.2
Change	% yr ago	1.9	1.6	1.5	1.0	1.9	-0.6	1.2	2.9	1.5
Professional and business services	mil	22.8	22.9	22.9	22.9	21.3	20.4	21.4	22.5	22.8
Change	% yr ago	2.1	1.8	1.0	0.6	1.6	-4.5	5.0	5.4	1.4
Education and health services	mil	25.0	25.2	25.5	25.7	24.2	23.3	23.6	24.3	25.3
Change	% yr ago	4.1	4.2	4.1	4.2	2.2	-3.7	1.6	2.9	4.1
Leisure and hospitality	mil	16.4	16.5	16.7	16.8	16.6	13.1	14.1	15.8	16.6
Change	% yr ago	6.3	5.5	4.3	3.6	1.8	-20.8	7.6	11.9	4.9
Other services	mil	5.8	5.8	5.8	5.9	5.9	5.3	5.5	5.7	5.8
Change	% yr ago	2.7	2.4	2.3	1.8	1.0	-9.6	2.4	4.3	2.3
Government	mil	22.5	22.7	22.8	23.0	22.6	22.0	22.0	22.2	22.8
Change	% yr ago	2.2	2.7	2.6	3.0	0.7	-2.8	-0.1	1.0	2.6
Northeast	mil	27.7	27.7	27.8	27.9	27.6	25.2	26.1	27.2	27.8
Change	% yr ago	2.8	2.2	1.7	1.5	1.0	-8.6	3.3	4.5	2.0
Midwest	mil	33.3	33.4	33.5	33.5	33.1	31.1	31.9	32.9	33.4
Change	% yr ago	2.1	1.9	1.4	1.3	0.5	-6.2	2.5	3.1	1.7
South	mil	58.0	58.3	58.6	58.8	55.3	52.7	54.5	56.9	58.4
Change	% yr ago	3.4	2.9	2.3	2.1	1.6	-4.7	3.4	4.5	2.7
West	mil	36.3	36.5	36.6	36.7	34.9	32.8	34.0	35.7	36.5
Change	% yr ago	3.0	2.5	2.0	1.8	1.8	-6.2	3.7	5.1	2.3
<b>Labor force, U.S.</b>										
Total	mil	166.3	166.8	167.6	167.8	163.5	160.8	161.2	164.3	167.1
Change	% yr ago	1.5	1.7	1.9	1.9	0.9	-1.7	0.3	1.9	1.7
Northeast	mil	28.9	29.1	29.1	29.1	29.3	28.7	28.6	28.9	29.1
Change	% yr ago	0.4	0.5	0.9	1.0	0.8	-2.0	-0.3	0.8	0.7
Midwest	mil	34.9	35.1	35.3	35.3	35.3	34.7	34.5	34.8	35.1
Change	% yr ago	0.2	0.6	1.2	1.4	0.6	-1.7	-0.3	0.9	0.9
South	mil	62.1	62.7	63.2	63.4	60.4	59.6	60.5	61.7	62.9
Change	% yr ago	1.0	1.5	2.1	2.6	1.4	-1.2	1.4	2.1	1.8
West	mil	39.6	39.8	39.8	39.8	38.9	38.4	38.6	39.3	39.7
Change	% yr ago	1.2	1.2	1.2	1.0	1.4	-1.2	0.6	1.7	1.1
<b>Unemployment rate, U.S.</b>										
Total	%	3.5	3.6	3.7	3.7	3.7	8.1	5.4	3.6	3.6
Northeast	%	3.9	3.6	3.5	3.8	3.7	9.2	6.3	4.0	3.7
Midwest	%	3.5	3.2	3.3	3.7	3.6	7.6	4.7	3.5	3.4
South	%	3.3	3.2	3.2	3.4	3.5	7.3	4.8	3.4	3.3
West	%	4.0	4.0	4.0	4.4	3.9	9.0	6.2	3.9	4.1
<b>Demographics</b>										
<b>Population, U.S.</b>										
Total	mil	334.5	334.9	335.3	335.7	330.6	331.6	332.2	333.5	335.1
Change	% yr ago	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.4	0.5
Northeast	mil	57.0	57.0	57.0	57.0	57.4	57.4	57.2	57.0	57.0
Change	% yr ago	-0.2	-0.1	0.0	0.1	0.1	-0.1	-0.3	-0.3	-0.0
Midwest	mil	68.9	68.9	68.9	69.0	69.0	69.0	68.8	68.8	68.9
Change	% yr ago	0.1	0.2	0.2	0.2	0.0	-0.1	-0.2	-0.1	0.2
South	mil	129.8	130.1	130.4	130.7	125.8	126.6	127.5	128.9	130.3
Change	% yr ago	1.1	1.1	1.1	1.0	0.7	0.6	0.8	1.1	1.1
West	mil	78.9	78.9	78.9	79.0	78.3	78.6	78.6	78.8	78.9
Change	% yr ago	0.2	0.2	0.1	0.1	0.6	0.4	-0.0	0.2	0.2
<b>Households, U.S.</b>										
Total	mil	129.6	129.8	129.9	130.1	127.2	126.7	127.6	129.2	129.9
Change	% yr ago	0.6	0.5	0.5	0.5	0.7	-0.4	0.7	1.2	0.5
Northeast	mil	22.3	22.3	22.3	22.3	22.6	22.3	22.2	22.3	22.3
Change	% yr ago	0.2	-0.0	-0.0	-0.0	-0.3	-1.4	-0.4	0.7	0.0
Midwest	mil	27.8	27.8	27.8	27.8	27.8	27.5	27.6	27.8	27.8
Change	% yr ago	0.2	0.1	0.1	0.1	0.2	-0.9	0.1	0.8	0.1
South	mil	50.9	51.0	51.1	51.2	48.6	48.7	49.5	50.5	51.0
Change	% yr ago	1.2	1.0	1.0	1.0	1.1	0.1	1.6	2.1	1.0
West	mil	28.9	28.9	29.0	29.0	28.3	28.3	28.4	28.7	28.9
Change	% yr ago	0.9	0.9	0.8	0.8	1.1	0.0	0.5	1.1	0.8

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

# U.S. FORECAST DETAIL TABLES ♦ Demographics & Labor Markets

	Units	24Q1	24Q2	24Q3	24Q4	2024	2025	2026	2027	2028
<b>Labor Markets</b>										
Total nonfarm employment, U.S.	mil	157.8	158.2	158.4	158.6	158.2	159.0	159.5	160.0	160.5
Change	% yr ago	1.8	1.5	1.3	1.0	1.4	0.5	0.3	0.3	0.3
Natural resources and mining	mil	0.6	0.6	0.7	0.7	0.6	0.7	0.7	0.7	0.6
Change	% yr ago	1.0	1.1	1.0	1.8	1.2	1.5	-0.3	-0.8	-1.0
Construction	mil	8.2	8.2	8.2	8.2	8.2	8.3	8.3	8.2	8.2
Change	% yr ago	2.7	2.6	2.0	1.3	2.2	0.9	0.0	-0.7	-0.6
Manufacturing	mil	13.0	13.0	13.0	13.1	13.0	13.1	13.0	13.0	13.0
Change	% yr ago	0.3	0.6	0.7	0.9	0.6	0.4	-0.2	-0.2	-0.4
Trade	mil	21.8	21.8	21.9	21.9	21.9	21.9	22.0	22.0	22.1
Change	% yr ago	0.7	0.7	0.7	0.7	0.7	0.4	0.3	0.2	0.1
Transportation and utilities	mil	7.1	7.1	7.1	7.2	7.1	7.2	7.3	7.3	7.4
Change	% yr ago	-0.8	-0.5	0.1	0.7	-0.1	1.1	0.9	0.7	0.5
Information	mil	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Change	% yr ago	-1.2	-0.7	0.9	1.3	0.1	0.3	-0.0	-0.2	-0.3
Financial activities	mil	9.2	9.2	9.3	9.3	9.3	9.3	9.3	9.4	9.4
Change	% yr ago	0.9	0.6	0.4	0.5	0.6	0.4	0.5	0.6	0.5
Professional and business services	mil	23.0	23.0	23.0	23.0	23.0	23.1	23.4	23.7	24.0
Change	% yr ago	0.8	0.5	0.6	0.6	0.6	0.7	1.2	1.3	1.3
Education and health services	mil	26.0	26.1	26.1	26.2	26.1	26.3	26.4	26.5	26.5
Change	% yr ago	4.1	3.5	2.6	1.8	3.0	0.7	0.4	0.2	0.2
Leisure and hospitality	mil	16.9	16.9	17.0	17.0	16.9	17.0	17.0	17.0	17.1
Change	% yr ago	3.0	2.4	1.7	1.1	2.0	0.2	0.0	0.1	0.4
Other services	mil	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.9	5.9
Change	% yr ago	1.6	1.2	0.4	-0.0	0.8	-0.5	-0.1	0.2	0.3
Government	mil	23.2	23.2	23.2	23.3	23.2	23.2	23.2	23.3	23.3
Change	% yr ago	2.7	2.2	1.7	1.0	1.9	0.1	-0.1	0.1	0.4
Northeast	mil	28.0	28.0	28.1	28.1	28.1	28.2	28.2	28.1	28.1
Change	% yr ago	1.1	1.1	0.9	0.7	1.0	0.4	0.0	-0.1	-0.1
Midwest	mil	33.6	33.7	33.8	33.8	33.7	33.8	33.9	33.9	33.9
Change	% yr ago	1.2	1.0	0.9	0.7	0.9	0.4	0.1	0.0	0.0
South	mil	59.0	59.2	59.4	59.5	59.3	59.8	60.1	60.4	60.8
Change	% yr ago	1.8	1.6	1.4	1.2	1.5	0.8	0.6	0.5	0.6
West	mil	36.9	37.0	37.0	37.1	37.0	37.3	37.5	37.6	37.8
Change	% yr ago	1.5	1.3	1.2	1.0	1.3	0.7	0.5	0.5	0.5
<b>Labor force, U.S.</b>										
Total	mil	167.4	168.0	168.3	168.5	168.1	168.9	169.4	170.0	170.6
Change	% yr ago	0.7	0.7	0.4	0.4	0.6	0.5	0.3	0.4	0.4
Northeast	mil	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1
Change	% yr ago	0.7	0.4	0.2	0.2	0.4	-0.0	-0.1	-0.0	-0.1
Midwest	mil	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3
Change	% yr ago	1.2	0.6	0.2	0.1	0.6	0.0	-0.1	0.0	-0.0
South	mil	63.6	63.7	63.8	63.9	63.7	64.2	64.5	64.9	65.4
Change	% yr ago	2.3	1.5	1.1	0.8	1.4	0.7	0.6	0.6	0.6
West	mil	39.9	39.9	39.9	40.0	39.9	40.1	40.3	40.5	40.7
Change	% yr ago	0.7	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.6
<b>Unemployment rate, U.S.</b>										
Total	%	3.8	4.0	4.0	4.0	3.9	4.1	4.0	4.0	4.0
Northeast	%	3.9	4.0	4.0	4.1	4.0	4.1	4.1	4.1	4.1
Midwest	%	3.8	4.0	4.2	4.2	4.1	4.3	4.2	4.2	4.2
South	%	3.5	3.7	3.8	3.9	3.7	3.9	3.9	3.8	3.7
West	%	4.3	4.4	4.4	4.4	4.4	4.4	4.3	4.2	4.2
<b>Demographics</b>										
<b>Population, U.S.</b>										
Total	mil	336.1	336.4	336.8	337.1	336.6	337.9	339.2	340.4	341.6
Change	% yr ago	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Northeast	mil	57.0	57.0	57.0	57.0	57.0	57.0	57.0	56.9	56.8
Change	% yr ago	0.1	0.1	0.0	0.0	0.1	-0.0	-0.1	-0.1	-0.1
Midwest	mil	69.0	69.0	69.0	69.0	69.0	69.0	69.0	68.9	68.9
Change	% yr ago	0.2	0.1	0.1	0.0	0.1	0.0	-0.0	-0.0	-0.1
South	mil	131.0	131.3	131.6	131.8	131.4	132.4	133.3	134.1	135.0
Change	% yr ago	0.9	0.9	0.9	0.8	0.9	0.7	0.7	0.7	0.7
West	mil	79.0	79.1	79.2	79.2	79.1	79.5	79.9	80.3	80.7
Change	% yr ago	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5
<b>Households, U.S.</b>										
Total	mil	130.4	130.7	131.0	131.3	130.8	132.0	133.0	133.9	134.9
Change	% yr ago	0.6	0.7	0.8	0.9	0.7	0.9	0.8	0.7	0.7
Northeast	mil	22.3	22.4	22.4	22.4	22.4	22.4	22.5	22.5	22.5
Change	% yr ago	0.0	0.2	0.3	0.3	0.2	0.3	0.2	0.1	0.1
Midwest	mil	27.8	27.9	27.9	27.9	27.9	28.0	28.1	28.2	28.2
Change	% yr ago	0.1	0.3	0.4	0.5	0.3	0.4	0.3	0.2	0.2
South	mil	51.4	51.6	51.8	51.9	51.7	52.4	53.0	53.6	54.1
Change	% yr ago	1.0	1.2	1.3	1.4	1.2	1.3	1.2	1.1	1.1
West	mil	29.1	29.2	29.3	29.4	29.2	29.6	29.9	30.2	30.5
Change	% yr ago	0.8	0.9	1.0	1.1	1.0	1.2	1.1	1.0	1.0

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

# U.S. FORECAST DETAIL TABLES ♦ Real Estate Markets

	Units	23Q1	23Q2	23Q3	23Q4	2019	2020	2021	2022	2023
<b>Housing, SAAR</b>										
Housing starts, U.S.	mil	1.39	1.45	1.37	1.48	1.29	1.40	1.61	1.55	1.42
Change	% yr ago	-5.6	19.9	-20.1	37.2	3.6	8.2	14.9	-3.4	-8.3
Single-family	mil	0.83	0.93	0.97	1.05	0.89	1.00	1.13	1.00	0.95
Change	% yr ago	-7.3	54.6	17.2	39.5	2.0	12.8	12.8	-11.3	-5.9
Multifamily	mil	0.55	0.52	0.40	0.43	0.40	0.39	0.47	0.55	0.48
Change	% yr ago	-2.8	-21.1	-63.8	31.6	7.2	-2.2	20.4	15.4	-12.8
<b>Existing-home sales, U.S.</b>										
Existing-home sales, U.S.	mil	3.88	3.75	3.59	3.47	4.75	5.06	5.43	4.53	3.67
Change	% yr ago	7.2	-12.4	-16.3	-12.4	0.2	6.5	7.3	-16.4	-19.0
Northeast	mil	0.42	0.43	0.41	0.40	0.58	0.60	0.63	0.53	0.41
Change	% yr ago	-21.7	3.2	-17.5	-3.8	0.0	4.3	5.3	-16.8	-21.4
Midwest	mil	0.97	0.94	0.90	0.84	1.17	1.26	1.31	1.13	0.91
Change	% yr ago	-4.0	-11.8	-15.97	-25.0	-0.9	7.3	4.4	-14.0	-19.2
South	mil	1.79	1.77	1.64	1.50	2.01	2.17	2.36	2.02	1.67
Change	% yr ago	32.0	-5.1	-26.3	-30.0	1.9	7.8	8.8	-14.5	-17.1
West	mil	0.71	0.68	0.65	0.66	0.98	1.03	1.11	0.86	0.68
Change	% yr ago	39.5	-17.5	-14.9	9.4	-1.7	4.3	8.4	-23.1	-21.0
<b>Existing-condo sales, U.S.</b>										
Existing-condo sales, U.S.	mil	0.44	0.43	0.43	0.41	0.58	0.58	0.71	0.55	0.43
Change	% yr ago	-13.91	-3.02	-3.04	-20.00	-3.20	0.00	22.30	-21.88	-22.89
<b>New-home sales, SAAR</b>										
New-home sales, SAAR	ths	0.64	0.69	0.69	0.64	0.69	0.83	0.77	0.64	0.67
Change	% yr ago	29.3	37.3	1.6	-26.2	11.6	21.5	-7.6	-17.2	4.6
<b>House Prices</b>										
Existing homes, median, U.S.	\$ ths	385.3	388.2	397.6	399.9	272.3	298.9	353.9	390.2	392.8
Change	% yr ago	-0.3	-2.6	2.1	3.5	5.0	9.7	18.4	10.2	0.7
Existing condos, median, U.S.	\$ ths	335.7	339.6	351.8	359.6	248.7	264.7	301.3	331.6	346.6
Change	% yr ago	3.6	0.7	5.9	8.1	3.6	6.5	13.8	10.1	4.5
New homes, median, U.S.	\$ ths	440.6	426.4	431.4	409.5	319.2	334.8	393.6	455.5	427.0
Change	% yr ago	1.1	-6.4	-6.7	-12.6	-1.2	4.9	17.6	15.7	-6.3
Northeast, existing median	\$ ths	425.5	438.6	452.0	457.7	298.9	330.5	389.2	423.4	443.5
Change	% yr ago	1.8	2.3	6.8	8.1	3.8	10.6	17.8	8.8	4.8
Midwest, existing median	\$ ths	256.4	261.5	267.5	268.3	190.5	207.6	234.6	254.0	263.4
Change	% yr ago	3.1	1.6	4.7	5.4	5.2	9.0	13.0	8.3	3.7
South, existing median	\$ ths	342.3	345.0	350.8	352.4	231.6	253.6	298.2	339.4	347.6
Change	% yr ago	3.0	0.3	3.2	3.2	4.1	9.5	17.6	13.8	2.4
West, existing median	\$ ths	596.8	608.4	628.1	632.5	423.0	465.2	565.9	625.9	616.4
Change	% yr ago	-5.8	-5.5	1.4	4.2	2.8	10.0	21.6	10.6	-1.5
<b>Affordability index</b>										
Affordability index	index	103.7	102.2	95.1	94.4	161.7	171.2	150.1	110.3	98.8
Change	% yr ago	-17.2	-3.8	-12.1	-7.3	9.4	5.9	-12.4	-26.5	-10.4
<b>Rental vacancy rate</b>										
Rental vacancy rate	%	6.2	6.4	6.5	6.8	6.7	6.3	6.1	5.8	6.5
<b>Mortgage Originations, SAAR</b>										
Total originations	\$ tril	1.62	1.69	1.67	1.67	2.22	4.07	4.47	2.28	1.66
Change	% yr ago	-49.6	-32.8	-7.2	5.3	32.7	83.4	9.7	-48.9	-27.1
Purchase originations	\$ tril	1.35	1.32	1.33	1.37	1.22	1.48	1.86	1.60	1.34
Refi originations	\$ tril	0.28	0.37	0.34	0.29	1.00	2.59	2.61	0.69	0.32
Refi share	%	17.2	22.0	20.5	17.7	45.2	63.7	58.3	30.1	19.4
<b>ARM share</b>										
ARM share	%	10.2	9.0	9.7	11.3	8.4	4.6	4.5	11.0	10.1
<b>Construction Put in Place, SAAR</b>										
Total private construction	\$ bil	1,486.1	1,513.7	1,555.9	1,607.4	1,046.0	1,130.7	1,295.5	1,471.5	1,540.8
Change	% yr ago	1.9	0.3	5.8	11.0	2.2	8.1	14.6	13.6	4.7
Private residential	\$ bil	850.1	846.5	866.7	891.8	546.1	634.9	799.1	917.6	863.8
Change	% yr ago	-8.7	-12.2	-4.7	3.0	-2.1	16.3	25.9	14.8	-5.9
Single-family	\$ bil	375.4	372.1	398.5	419.3	279.8	310.0	422.8	453.8	391.3
Change	% yr ago	-21.7	-24.2	-10.2	4.5	-3.3	10.8	36.4	7.3	-13.8
Multifamily	\$ bil	125.7	131.1	135.3	134.8	82.3	91.5	106.2	110.0	131.8
Change	% yr ago	19.6	22.4	24.4	13.3	6.0	11.2	16.1	3.6	19.8
Private nonresidential	\$ bil	636.0	667.2	689.2	715.6	499.8	495.8	496.4	553.9	677.0
Change	% yr ago	20.8	22.4	22.7	22.8	7.3	-0.8	0.1	11.6	22.2
Office	\$ bil	82.1	83.1	85.0	85.8	77.5	80.6	77.6	78.5	84.0
Change	% yr ago	7.7	6.5	8.6	5.3	15.9	4.1	-3.8	1.2	7.0
Commercial	\$ bil	122.7	124.1	130.9	130.6	80.2	85.5	93.5	117.1	127.1
Change	% yr ago	12.0	7.7	8.9	5.7	-3.3	6.7	9.3	25.2	8.5
Manufacturing	\$ bil	169.9	195.5	201.1	214.9	80.6	75.1	81.5	113.7	195.4
Change	% yr ago	71.9	80.6	68.2	67.8	11.9	-6.8	8.5	39.6	71.8
Lodging	\$ bil	22.3	22.9	24.0	23.5	32.3	27.5	18.6	19.3	23.2
Change	% yr ago	31.9	23.9	20.8	7.4	6.1	-15.0	-32.3	3.7	20.2
Educational	\$ bil	20.9	22.3	23.5	24.7	21.6	18.8	16.7	19.0	22.9
Change	% yr ago	12.7	18.1	26.5	23.5	-3.3	-13.2	-11.1	13.9	20.3
Healthcare	\$ bil	48.1	49.2	50.4	53.4	36.8	39.0	40.3	43.4	50.3
Change	% yr ago	14.1	13.2	16.9	19.2	8.1	6.2	3.2	7.8	15.9
Infrastructure	\$ bil	148.6	148.4	150.6	157.5	149.4	150.7	149.7	141.5	151.3
Change	% yr ago	3.7	5.0	7.3	11.5	9.2	0.9	-0.7	-5.5	6.9
Other	\$ bil	18.2	18.5	19.6	20.6	19.6	17.0	16.8	18.9	19.2
Change	% yr ago	-2.5	-4.6	4.2	9.5	1.8	-13.1	-1.3	12.8	1.6
Public	\$ bil	389.4	407.4	426.6	457.9	331.3	354.4	343.8	361.5	420.3
Change	% yr ago	10.9	14.7	17.0	22.2	11.2	7.0	-3.0	5.2	16.3

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

# U.S. FORECAST DETAIL TABLES ♦ Real Estate Markets

	Units	24Q1	24Q2	24Q3	24Q4	2024	2025	2026	2027	2028
<b>Housing, SAAR</b>										
Housing starts, U.S.	mil	1.34	1.37	1.38	1.41	1.37	1.48	1.58	1.59	1.55
Change	% yr ago	-33.3	8.1	3.4	8.0	-3.5	8.1	6.7	0.4	-2.4
Single-family	mil	0.99	1.01	1.02	1.03	1.01	1.10	1.20	1.20	1.17
Change	% yr ago	-21.3	8.5	2.3	6.9	7.1	8.8	8.8	0.5	-2.7
Multifamily	mil	0.35	0.36	0.36	0.37	0.36	0.38	0.38	0.38	0.38
Change	% yr ago	-56.9	7.0	6.7	11.3	-24.5	6.2	0.7	0.0	-1.5
<b>Existing-home sales, U.S.</b>										
Existing-home sales, U.S.	mil	3.60	3.65	3.75	3.90	3.73	4.29	4.60	4.82	5.00
Change	% yr ago	15.4	5.7	11.4	17.0	1.4	15.1	7.4	4.7	3.8
Northeast	mil	0.44	0.46	0.49	0.51	0.47	0.55	0.58	0.61	0.63
Change	% yr ago	48.2	14.4	24.4	20.6	14.4	15.4	6.6	4.4	3.2
Midwest	mil	0.89	0.91	0.95	0.99	0.94	1.07	1.14	1.19	1.23
Change	% yr ago	30.1	6.3	19.9	19.0	2.7	14.0	6.9	4.6	3.4
South	mil	1.58	1.60	1.66	1.73	1.64	1.86	1.98	2.08	2.16
Change	% yr ago	24.1	3.8	18.0	17.7	-1.8	13.1	6.8	4.9	3.9
West	mil	0.74	0.78	0.84	0.89	0.81	0.98	1.06	1.12	1.17
Change	% yr ago	57.6	22.1	31.9	27.0	20.6	20.3	8.5	5.7	4.5
<b>Existing-condo sales, U.S.</b>										
Existing-condo sales, U.S.	mil	0.41	0.44	0.45	0.47	0.44	0.51	0.55	0.58	0.60
Change	% yr ago	0.8	32.2	11.4	17.1	3.1	16.7	7.3	4.6	3.9
<b>New-home sales, SAAR</b>										
New-home sales, SAAR	ths	0.66	0.68	0.69	0.71	0.68	0.75	0.80	0.80	0.79
Change	% yr ago	11.23	12.68	7.90	7.90	2.80	9.27	7.08	0.27	-2.16
<b>House Prices</b>										
Existing homes, median, U.S.	\$ ths	406.41	407.84	407.97	406.57	407.20	402.06	399.47	404.46	417.26
Change	% yr ago	5.5	5.1	2.6	1.7	3.7	-1.3	-0.6	1.2	3.2
Existing condos, median, U.S.	\$ ths	355.35	355.70	355.04	353.31	354.85	348.77	346.29	350.98	362.73
Change	% yr ago	5.9	4.8	0.9	-1.7	2.4	-1.7	-0.7	1.4	3.3
New homes, median, U.S.	\$ ths	422.18	424.99	427.14	428.49	425.70	431.28	437.65	447.73	462.34
Change	% yr ago	-4.2	-0.3	-1.0	4.6	-0.3	1.3	1.5	2.3	3.3
Northeast, existing median	\$ ths	463.45	468.19	471.56	473.18	469.09	475.96	484.94	501.54	526.17
Change	% yr ago	8.9	6.7	4.3	3.4	5.8	1.5	1.9	3.4	4.9
Midwest, existing median	\$ ths	269.08	269.20	268.57	267.00	268.46	262.86	259.83	261.95	269.14
Change	% yr ago	5.0	2.9	0.4	-0.5	1.9	-2.1	-1.2	0.8	2.7
South, existing median	\$ ths	353.64	353.86	352.90	350.56	352.74	344.00	337.82	338.62	346.67
Change	% yr ago	3.3	2.6	0.6	-0.5	1.5	-2.5	-1.8	0.2	2.4
West, existing median	\$ ths	636.69	639.17	639.57	637.45	638.22	630.25	625.56	632.35	650.94
Change	% yr ago	6.7	5.1	1.8	0.8	3.5	-1.2	-0.7	1.1	2.9
<b>Affordability index</b>										
Affordability index	index	98.8	100.5	102.6	105.0	101.7	110.3	116.8	120.1	121.0
Change	% yr ago	-4.68	-1.6	8.0	11.1	2.9	8.4	5.9	2.8	0.8
<b>Rental vacancy rate</b>										
Rental vacancy rate	%	6.8	6.8	6.9	7.0	6.9	7.2	7.6	7.6	7.6
<b>Mortgage Originations, SAAR</b>										
Total originations	\$ tril	1.69	1.75	1.83	1.92	1.80	2.16	2.51	2.97	3.44
Change	% yr ago	3.95	3.36	9.38	15.31	8.01	19.93	16.52	18.30	15.74
Purchase originations	\$ tril	1.40	1.46	1.51	1.57	1.49	1.73	1.86	1.96	2.04
Refi originations	\$ tril	0.29	0.29	0.32	0.35	0.31	0.43	0.65	1.01	1.40
Refi share	%	17.13	16.58	17.30	18.24	17.33	19.95	25.97	34.12	40.72
<b>ARM share</b>										
ARM share	%	9.66	10.91	10.03	9.30	9.97	8.65	8.77	9.24	9.41
<b>Construction Put in Place, SAAR</b>										
Total private construction	\$ bil	1628.3	1653.5	1655.7	1661.3	1649.7	1697.5	1781.5	1872.8	1953.4
Change	% yr ago	9.6	9.2	6.4	3.3	7.1	2.9	4.9	5.1	4.3
Private residential	\$ bil	906.5	934.4	942.7	954.8	934.6	1005.2	1085.9	1138.4	1176.2
Change	% yr ago	6.6	10.4	8.8	7.1	8.2	7.6	8.0	4.8	3.3
Single-family	\$ bil	437.3	463.0	471.1	475.9	461.8	502.3	550.4	570.9	574.9
Change	% yr ago	16.5	24.4	18.2	13.5	18.0	8.8	9.6	3.7	0.7
Multifamily	\$ bil	133.6	130.9	125.2	126.0	128.9	129.4	138.3	147.7	153.5
Change	% yr ago	6.3	-0.2	-7.5	-6.6	-2.2	0.4	6.9	6.8	3.9
Private nonresidential	\$ bil	721.9	719.2	713.0	706.5	715.1	692.3	695.6	734.4	777.2
Change	% yr ago	13.5	7.8	3.5	-1.3	5.6	-3.2	0.5	5.6	5.8
Office	\$ bil	85.9	85.3	84.7	84.6	85.1	84.8	88.3	94.9	101.6
Change	% yr ago	4.7	2.8	-0.3	-1.4	1.4	-0.4	4.2	7.5	7.0
Commercial	\$ bil	127.7	126.5	125.3	124.9	126.1	125.2	129.5	137.8	146.1
Change	% yr ago	4.1	2.0	-4.3	-4.3	-0.7	-0.7	3.5	6.4	6.0
Manufacturing	\$ bil	222.7	221.7	218.6	215.8	219.7	206.4	195.8	201.3	209.7
Change	% yr ago	31.1	13.4	8.7	0.4	12.5	-6.1	-5.1	2.8	4.2
Lodging	\$ bil	23.3	23.8	24.2	24.3	23.9	24.5	27.0	31.4	35.4
Change	% yr ago	4.6	4.0	0.8	3.5	3.2	2.6	9.8	16.5	12.8
Educational	\$ bil	24.7	23.9	22.9	22.3	23.5	21.3	21.5	23.4	25.7
Change	% yr ago	18.2	7.0	-2.4	-9.9	2.6	-9.3	0.9	8.8	9.9
Healthcare	\$ bil	53.3	52.6	52.0	51.9	52.5	52.2	53.4	55.7	58.1
Change	% yr ago	10.8	7.0	3.2	-2.8	4.3	-0.5	2.2	4.3	4.4
Infrastructure	\$ bil	158.7	159.6	159.4	156.7	158.6	152.6	155.6	164.9	174.9
Change	% yr ago	6.8	7.5	5.8	-0.5	4.8	-3.8	2.0	6.0	6.1
Other	\$ bil	20.4	20.5	20.7	20.9	20.6	20.7	20.3	20.5	21.1
Change	% yr ago	12.0	10.9	5.5	1.7	7.3	0.5	-2.2	1.1	3.0
Public	\$ bil	462.9	468.7	471.4	472.6	468.9	476.5	483.2	491.0	501.8
Change	% yr ago	18.9	15.0	10.5	3.2	11.6	1.6	1.4	1.6	2.2

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.



## U.S. FORECAST DETAIL TABLES ♦ Prices

	Units	23Q1	23Q2	23Q3	23Q4	2019	2020	2021	2022	2023
<b>Consumer Prices</b>										
GDP chain price deflator	2012=100	121.3	121.8	122.8	123.3	104.0	105.4	110.2	118.0	122.3
Change	%AR	3.9	1.7	3.3	1.6	1.7	1.3	4.6	7.1	3.6
Consumer price index	1982-84=100	301.2	303.5	306.0	308.1	255.7	258.8	271.0	292.6	304.7
Change	%AR	3.8	3.0	3.4	2.7	1.8	1.2	4.7	8.0	4.1
Less food & energy	1982-84=100	304.0	307.5	309.7	312.3	263.2	267.7	277.2	294.3	308.4
Change	%AR	4.9	4.7	3.0	3.4	2.2	1.7	3.6	6.2	4.8
Shelter	1982-84=100	372.4	378.3	383.5	388.4	318.0	325.9	334.6	354.2	380.6
Change	%AR	8.7	6.5	5.6	5.2	3.4	2.5	2.7	5.9	7.5
Food	1982-84=100	320.4	321.8	323.7	325.9	258.3	267.2	277.7	305.4	323.0
Change	%AR	5.1	1.6	2.4	2.8	1.9	3.4	3.9	10.0	5.8
Food away from home	1982-84=100	347.8	352.8	356.1	360.3	284.4	293.9	307.3	330.8	354.3
Change	%AR	6.8	5.8	3.9	4.7	3.1	3.4	4.5	7.7	7.1
Medical care	1982-84=100	549.1	547.7	547.5	552.0	498.4	518.9	525.2	546.5	549.1
Change	%AR	-2.4	-1.0	-0.2	3.3	2.8	4.1	1.2	4.1	0.5
<b>Producer Prices</b>										
All commodities	1982=100	258.7	254.8	256.8	252.7	199.8	194.4	227.3	264.5	255.7
Change	%AR	-5.1	-5.8	3.2	-6.3	-1.0	-2.7	17.0	16.3	-3.3
Finished goods	1982=100	255.6	252.2	256.0	254.6	205.8	203.0	221.1	250.8	254.6
Change	%AR	-0.3	-5.1	6.2	-2.2	0.8	-1.3	8.9	13.4	1.5
Intermediate goods	1982=100	262.8	256.5	257.4	256.1	198.2	192.6	230.0	267.8	258.2
Change	%AR	-5.1	-9.2	1.4	-2.1	-1.4	-2.8	19.4	16.5	-3.6
Crude goods	1982=100	269.5	248.3	254.2	249.4	185.9	167.8	242.4	316.7	255.3
Change	%AR	-31.1	-27.9	9.7	-7.4	-7.1	-9.7	44.4	30.7	-19.4
Industrial commodities	1982=100	258.9	254.7	258.2	254.0	200.7	193.9	228.4	265.9	256.5
Change	%AR	-4.6	-6.3	5.6	-6.5	-1.5	-3.4	17.8	16.4	-3.5
Ind. commodities ex energy	1982=100	257.6	258.3	256.5	256.4	207.2	207.2	232.9	256.3	257.2
Change	%AR	3.2	1.0	-2.7	-0.2	0.3	-0.0	12.4	10.1	0.3
Iron & steel	1982=100	332.3	350.9	330.1	319.2	222.2	208.3	356.7	380.5	333.1
Change	%AR	3.9	24.3	-21.7	-12.5	-6.5	-6.3	71.3	6.7	-12.5
Lumber & wood products	1982=100	306.0	302.4	300.5	295.5	236.7	254.5	315.5	337.8	301.1
Change	%AR	-8.5	-4.5	-2.5	-6.5	-2.9	7.5	24.0	7.1	-10.9
Construction equipment	1982=100	294.0	295.9	301.0	303.3	232.6	236.6	248.1	274.4	298.6
Change	%AR	16.2	2.7	7.0	3.2	4.3	1.7	4.9	10.6	8.8
Transportation equipment	1982=100	202.4	203.2	203.9	205.3	182.9	183.8	188.7	197.8	203.7
Change	%AR	3.3	1.6	1.4	2.6	0.9	0.5	2.6	4.9	3.0
<b>Energy Prices</b>										
West Texas Intermediate	\$/Bbl	76.0	73.6	82.2	78.5	57.0	39.5	68.0	94.4	77.6
Change	%AR	-28.4	-12.2	56.1	-16.8	-12.0	-30.7	72.1	38.8	-17.8
PPI - energy	1982=100	243.8	227.4	244.5	229.6	168.7	144.0	200.1	272.8	236.3
Change	%AR	-23.2	-24.3	33.5	-22.2	-7.1	-14.6	38.9	36.3	-13.4
PPI - coal	1982=100	286.7	279.1	279.3	286.3	199.9	189.0	189.5	279.5	282.8
Change	%AR	-14.3	-10.1	0.2	10.4	0.1	-5.5	0.3	47.5	1.2
PPI - electric power	1982=100	261.5	263.4	277.8	265.3	214.0	213.7	222.8	248.2	267.0
Change	%AR	16.9	3.0	23.8	-16.9	0.3	-0.2	4.3	11.4	7.6
PPI - refined petrol. products	1982=100	309.1	291.0	316.6	281.9	194.3	144.1	240.8	363.6	299.7
Change	%AR	-34.8	-21.4	40.1	-37.1	-9.0	-25.9	67.2	51.0	-17.6
PPI - utility natural gas	1982=100	310.8	260.4	261.2	270.0	188.6	187.0	235.8	301.4	275.6
Change	%AR	2.8	-50.7	1.3	14.1	-3.4	-0.8	26.1	27.8	-8.5

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

## U.S. FORECAST DETAIL TABLES ♦ Prices

	Units	24Q1	24Q2	24Q3	24Q4	2024	2025	2026	2027	2028
<b>Consumer Prices</b>										
GDP chain price deflator	2012=100	124.2	124.8	125.3	125.9	125.1	127.5	130.1	132.7	135.4
Change	%AR	3.0	2.1	1.6	1.8	2.3	2.0	2.0	2.0	2.0
Consumer price index	1982-84=100	310.3	312.2	314.1	315.9	313.1	320.5	327.7	334.8	342.0
Change	%AR	2.9	2.5	2.4	2.4	2.8	2.3	2.3	2.2	2.1
Less food & energy	1982-84=100	315.1	317.2	319.3	321.3	318.2	326.3	334.0	341.4	348.8
Change	%AR	3.6	2.7	2.6	2.6	3.2	2.5	2.4	2.2	2.2
Shelter	1982-84=100	393.9	397.8	401.5	405.1	399.6	413.4	425.8	438.1	451.6
Change	%AR	5.8	4.1	3.8	3.6	5.0	3.5	3.0	2.9	3.1
Food	1982-84=100	328.3	329.9	331.5	333.4	330.8	338.6	346.9	355.1	363.3
Change	%AR	3.0	1.9	2.0	2.3	2.4	2.4	2.5	2.4	2.3
Food away from home	1982-84=100	363.7	365.5	367.3	369.3	366.4	375.2	384.4	393.4	402.5
Change	%AR	3.9	1.9	2.0	2.3	3.4	2.4	2.5	2.4	2.3
Medical care	1982-84=100	558.1	562.8	567.7	572.7	565.3	585.4	605.9	626.9	648.4
Change	%AR	4.5	3.4	3.5	3.6	3.0	3.5	3.5	3.5	3.4
<b>Producer Prices</b>										
All commodities	1982=100	250.0	249.9	251.4	252.3	250.9	253.8	256.4	259.8	263.5
Change	%AR	-4.1	-0.2	2.5	1.4	-1.9	1.2	1.0	1.3	1.4
Finished goods	1982=100	254.7	255.6	257.3	258.3	256.5	260.6	264.6	268.8	273.1
Change	%AR	0.2	1.4	2.7	1.5	0.7	1.6	1.5	1.6	1.6
Intermediate goods	1982=100	253.5	253.1	254.0	255.1	254.0	257.1	258.3	260.6	264.4
Change	%AR	-3.9	-0.6	1.4	1.8	-1.6	1.2	0.5	0.9	1.5
Crude goods	1982=100	237.9	241.2	251.3	257.3	246.9	265.2	267.7	271.4	276.9
Change	%AR	-17.1	5.6	17.9	10.0	-3.3	7.4	0.9	1.4	2.0
Industrial commodities	1982=100	251.4	251.2	252.7	253.8	252.3	255.0	257.2	260.5	264.1
Change	%AR	-4.0	-0.2	2.4	1.7	-1.6	1.1	0.9	1.3	1.4
Ind. commodities ex energy	1982=100	258.1	258.7	259.5	260.7	259.2	262.7	266.0	270.0	274.3
Change	%AR	2.6	0.9	1.3	1.8	0.8	1.3	1.3	1.5	1.6
Iron & steel	1982=100	337.2	333.1	331.4	334.1	333.9	328.2	326.3	330.1	335.3
Change	%AR	24.4	-4.8	-2.0	3.3	0.2	-1.7	-0.6	1.2	1.6
Lumber & wood products	1982=100	298.0	304.1	303.9	302.9	302.2	307.4	314.4	319.2	322.0
Change	%AR	3.4	8.4	-0.2	-1.4	0.4	1.7	2.3	1.5	0.9
Construction equipment	1982=100	306.8	308.3	309.8	311.3	309.1	315.0	321.4	329.1	337.9
Change	%AR	4.7	2.0	1.9	2.0	3.5	1.9	2.0	2.4	2.7
Transportation equipment	1982=100	205.9	206.4	207.1	210.9	207.6	213.1	218.4	223.6	228.6
Change	%AR	1.2	1.1	1.3	7.5	1.9	2.7	2.5	2.4	2.2
<b>Energy Prices</b>										
West Texas Intermediate	\$/Bbl	75.7	79.1	81.2	78.9	78.8	74.0	71.0	71.0	71.3
Change	%AR	-13.6	19.3	11.0	-10.9	1.5	-6.0	-4.1	0.1	0.3
PPI - energy	1982=100	215.2	212.7	215.9	216.4	215.0	214.8	213.0	213.9	214.8
Change	%AR	-22.8	-4.6	6.1	0.9	-9.0	-0.1	-0.8	0.4	0.4
PPI - coal	1982=100	288.4	286.9	286.5	286.7	287.1	288.8	293.6	304.6	315.5
Change	%AR	3.0	-2.1	-0.6	0.3	1.5	0.6	1.7	3.7	3.6
PPI - electric power	1982=100	266.9	269.9	279.2	268.8	271.2	275.4	279.2	283.3	287.7
Change	%AR	2.4	4.5	14.6	-14.0	1.6	1.6	1.4	1.5	1.5
PPI - refined petrol. products	1982=100	254.4	269.7	269.7	257.1	262.8	247.4	238.0	235.5	233.5
Change	%AR	-33.7	26.3	0.0	-17.5	-12.3	-5.8	-3.8	-1.0	-0.8
PPI - utility natural gas	1982=100	271.0	260.5	271.1	285.7	272.1	310.0	325.7	334.5	342.8
Change	%AR	1.5	-14.6	17.3	23.4	-1.3	13.9	5.1	2.7	2.5

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## U.S. FORECAST DETAIL TABLES ♦ Producers

	Units	23Q1	23Q2	23Q3	23Q4	2019	2020	2021	2022	2023
<b>Industrial Production</b>										
All industries	2017=100	102.6	102.8	103.2	102.6	102.4	95.1	99.2	102.6	102.8
Change	% yr ago	0.9	0.0	-0.1	-0.1	-0.7	-7.2	4.4	3.4	0.2
Manufacturing	2017=100	99.9	100.2	100.0	99.5	99.5	93.0	97.7	100.5	99.9
Change	% yr ago	-0.2	-0.7	-0.9	-0.5	-1.9	-6.5	5.0	2.9	-0.6
Nondurables	2017=100	99.3	98.8	98.3	98.3	98.7	94.9	98.5	100.0	98.7
Change	% yr ago	-1.1	-1.7	-1.9	-0.7	-0.9	-3.9	3.9	1.5	-1.4
Durables	2017=100	100.6	101.5	101.7	100.7	100.2	91.2	96.8	101.0	101.1
Change	% yr ago	0.7	0.3	0.0	-0.3	-2.8	-8.9	6.1	4.3	0.2
Motor vehicles & parts	2017=100	103.8	111.1	110.8	104.7	102.3	88.1	94.4	101.7	107.6
Change	% yr ago	6.4	9.2	7.1	0.7	-1.7	-13.9	7.1	7.8	5.8
Capacity utilization	%	78.1	78.1	77.7	77.0	77.3	72.6	77.1	79.2	77.7
<b>Agriculture</b>										
Prices received by farmers										
All farm products	2011=100	126.6	128.4	124.3	113.5	90.7	88.4	104.5	129.7	123.2
Change	% yr ago	5.8	-4.4	-6.1	-14.4	0.0	-2.5	18.2	24.2	-5.0
All crops	2011=100	119.2	122.1	116.9	101.9	86.1	88.3	104.0	122.3	115.0
Change	% yr ago	5.3	-1.5	-7.9	-18.6	-0.3	2.6	17.7	17.6	-6.0
Livestock and products	2011=100	136.0	134.8	133.3	132.2	95.6	88.8	105.2	139.2	134.1
Change	% yr ago	6.1	-7.0	-4.3	-8.5	1.4	-7.1	18.4	32.3	-3.7
PPI farm products	1982=100	243.3	237.7	223.0	214.0	161.5	157.9	198.0	250.7	229.5
Change	% yr ago	4.1	-9.4	-10.6	-16.8	0.4	-2.2	25.4	26.6	-8.5
<b>Productivity and Costs</b>										
Compensation per hr	2012=100	130.0	131.8	133.3	134.5	107.8	117.1	122.3	126.8	132.4
Change	% yr ago	3.5	4.8	4.2	5.1	4.2	8.6	4.5	3.7	4.4
Output per hr	2012=100	109.1	109.9	111.2	112.1	104.0	109.8	111.2	109.1	110.6
Change	% yr ago	-0.7	1.2	2.3	2.6	2.4	5.6	1.3	-1.9	1.3
Unit labor costs	2012=100	119.1	119.9	119.9	120.0	103.7	106.6	110.0	116.2	119.7
Change	% yr ago	4.1	3.6	1.9	2.5	1.7	2.8	3.1	5.7	3.0
Private industry wages & salaries	Dec2005=100	159.5	161.1	162.8	164.3	137.3	141.4	147.0	154.8	161.9
Change	% yr ago	5.1	4.6	4.5	4.3	2.9	2.9	4.0	5.3	4.6
Compensation-civilian workers	Dec2005=100	157.4	159.0	160.7	162.1	137.5	141.1	145.8	152.9	159.8
Change	% yr ago	4.9	4.5	4.4	4.2	2.7	2.6	3.3	4.9	4.5
<b>Corporate Profits</b>										
Profits with IVA & CCA	\$ bil	3,165.1	3,172.1	3,280.7	3,321.1	2,470.3	2,383.3	2,922.8	3,208.7	3,234.7
Change	% yr ago	4.6	-2.7	-0.6	2.2	4.4	-3.5	22.6	9.8	0.8
IV & CC adjustments	\$ bil	-292.4	-301.1	-319.9	-363.2	95.3	-111.6	-326.4	-314.3	-319.2
After-tax profits	\$ bil	2,881.0	2,902.9	3,017.8	3,106.8	2,077.6	2,187.4	2,844.5	2,980.5	2,977.1
Change	% yr ago	-1.0	-7.8	0.1	9.0	2.8	5.3	30.0	4.8	-0.1
Cash flow	\$ bil	3,525.2	3,556.9	3,753.7	3,574.1	2,441.0	2,452.5	2,897.0	3,188.8	3,602.5
Change	% yr ago	18.6	8.8	13.4	11.6	-13.0	0.5	18.1	10.1	13.0

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## U.S. FORECAST DETAIL TABLES ♦ Producers

	Units	24Q1	24Q2	24Q3	24Q4	2024	2025	2026	2027	2028
<b>Industrial Production</b>										
All industries	2017=100	102.9	103.4	103.9	104.3	103.6	105.0	105.6	107.0	108.8
Change	% yr ago	0.3	0.6	0.7	1.7	0.8	1.3	0.6	1.3	1.7
Manufacturing	2017=100	99.6	100.3	100.9	101.2	100.5	101.7	102.3	104.1	106.4
Change	% yr ago	-0.3	0.2	0.9	1.8	0.6	1.2	0.6	1.7	2.2
Nondurables	2017=100	97.5	97.7	97.8	97.9	97.7	97.5	96.9	96.6	96.8
Change	% yr ago	-1.8	-1.1	-0.4	-0.4	-0.9	-0.3	-0.6	-0.3	0.2
Durables	2017=100	101.8	102.9	103.9	104.6	103.3	105.9	107.7	111.4	115.8
Change	% yr ago	1.2	1.4	2.1	3.8	2.1	2.5	1.7	3.5	3.9
Motor vehicles & parts	2017=100	111.2	112.8	114.8	116.5	113.8	119.9	121.5	125.3	129.1
Change	% yr ago	7.1	1.5	3.6	11.2	5.7	5.4	1.3	3.2	3.1
Capacity utilization	%	76.9	77.3	77.6	77.7	77.3	77.6	77.3	77.7	78.4
<b>Agriculture</b>										
Prices received by farmers										
All farm products	2011=100	112.4	112.4	114.0	114.6	113.4	117.2	120.7	123.5	126.4
Change	% yr ago	-11.2	-12.5	-8.3	0.9	-8.0	3.4	3.0	2.3	2.3
All crops	2011=100	99.1	99.9	101.2	101.6	100.5	103.3	106.0	108.2	110.2
Change	% yr ago	-16.8	-18.2	-13.4	-0.3	-12.7	2.9	2.6	2.0	1.9
Livestock and products	2011=100	135.7	134.4	136.5	137.4	136.0	141.3	146.2	149.9	154.1
Change	% yr ago	-0.2	-0.3	2.4	3.9	1.4	3.9	3.4	2.6	2.8
PPI farm products	1982=100	211.8	210.6	208.5	210.9	210.4	214.6	218.6	222.1	226.0
Change	% yr ago	-13.0	-11.4	-6.5	-1.5	-8.3	2.0	1.9	1.6	1.8
<b>Productivity and Costs</b>										
Compensation per hr	2012=100	135.6	136.5	137.4	138.2	136.9	140.0	143.1	146.6	150.5
Change	% yr ago	4.4	3.6	3.0	2.7	3.4	2.3	2.2	2.5	2.6
Output per hr	2012=100	112.4	112.6	112.9	113.2	112.8	114.2	116.3	118.8	121.7
Change	% yr ago	3.1	2.4	1.5	1.0	2.0	1.2	1.8	2.2	2.4
Unit labor costs	2012=100	120.6	121.2	121.7	122.1	121.4	122.6	123.0	123.4	123.7
Change	% yr ago	1.3	1.1	1.5	1.7	1.4	1.0	0.3	0.3	0.3
Private industry wages & salaries	Dec2005=100	165.7	167.0	168.4	169.7	167.7	172.8	177.7	182.8	188.0
Change	% yr ago	3.9	3.7	3.4	3.3	3.6	3.0	2.9	2.9	2.8
Compensation-civilian workers	Dec2005=100	163.4	164.6	165.8	167.0	165.2	169.8	174.5	179.5	184.6
Change	% yr ago	3.8	3.5	3.2	3.0	3.4	2.8	2.8	2.8	2.9
<b>Corporate Profits</b>										
Profits with IVA & CCA	\$ bil	3,407.0	3,413.4	3,390.0	3,354.8	3,391.3	3,276.9	3,269.7	3,408.0	3,618.4
Change	% yr ago	7.6	7.6	3.3	1.0	4.8	-3.4	-0.2	4.2	6.2
IV & CC adjustments	\$ bil	-304.9	-274.7	-259.6	-261.5	-275.2	-272.3	-275.4	-278.7	-284.0
After-tax profits	\$ bil	3,137.1	3,119.7	3,088.6	3,064.3	3,102.4	3,013.9	3,020.8	3,165.8	3,363.4
Change	% yr ago	8.9	7.5	2.3	-1.4	4.2	-2.9	0.2	4.8	6.2
Cash flow	\$ bil	3,485.7	3,431.5	3,390.6	3,356.5	3,416.0	3,290.8	3,284.0	3,425.2	3,623.5
Change	% yr ago	-1.1	-3.5	-9.7	-6.1	-5.2	-3.7	-0.2	4.3	5.8

Units: ths = thousands; mil = millions; bil = billions; tril = trillions; % = percent change; %AR = percent annualized rate; SAAR = seasonally adjusted annualized rate; CW = chain-weighted.

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