

Executive Summary

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Forecast overview

Remarkable resilience as recession fears ebb

- S&P Global Market Intelligence revised up its forecast of real GDP growth for 2023 from 1.8% to 2.2%, and for 2024 from 1.2% to 1.4%.¹ However, the upward revision for 2024 reflects the revised timing of growth within 2023. Measured 4th-quarter-to-4th-quarter, the forecast for 2024 is revised *down* from 1.3% to 1.1%, and for 2025 from 1.6% to 1.4%.
- For 2023, the upward revision mainly reflects newly reported unexpected strength in the middle quarters of the year. On July 27, the Bureau of Economic Analysis reported GDP grew 2.4% in the second quarter, 0.9 percentage point above last month's forecast. High frequency data implying a firm "handoff" from the second to the third quarter encouraged us to revise up our forecast of third-quarter growth from 1.3% to 2.2%, but with some upside risk to that estimate. For example, the Atlanta Fed's "GDPNow" is predicting a stunning 4.1% for third-quarter growth!
- The twelve-month change in the price of core PCE² — the Federal Reserve's preferred measure — dropped 0.5 percentage point in June to 4.1% but remains intolerably above the Federal Reserve's 2% objective. Furthermore, the labor market remained tight through July, with evidence that average hourly earnings, already growing faster than consistent with 2% price inflation, are accelerating, especially — but not only — in the goods-producing sector.
- The Federal Open Market Committee (FOMC) met in July and decided to raise its policy rate to the range of 5.25% - 5.5% while maintaining a tightening bias. Chair Powell again discouraged expectations of an early reversal in policy.
- Given above-trend growth this year, elevated inflation, and the outcome of July's FOMC meeting, we expect the Fed to raise its policy rate to a peak range of 5.5% - 5.75% in November. However, we consider the September meeting "live," with the outcome dependent on the several inflation reports to be published before then. An increase in the policy rate to 5.75% - 6% by yearend cannot be ruled out.

Strong growth to delay labor market easing

- The upward revision to our forecast of GDP this year is qualitatively important because it raises our projection from trend-like to above-trend growth. Given the usual lags from GDP to employment, it now seems unlikely there can be much easing of tight labor markets until 2024. Indeed, in July the unemployment rate declined for the second consecutive month, to 3.5%, just one tenth above the low for this cycle, and well below levels that historically have proved sustainable and consistent with low, stable inflation. Furthermore, job openings, while declining in June, remain elevated relative to unemployment. Given the upward revision to our forecast of growth and July's decline in unemployment, this month we're showing a slower initial rise in the unemployment rate to an unrevised peak of 4.8% by 2026.

Welcome inflation news in June, but...

- June's inflation reports were better than expected and that's certainly welcome news. In our inflation models, disinflationary "shocks" have momentum effects that, by themselves, could encourage a downward revision to our inflation forecast. However, the legacy effects of June's welcome inflation surprise are limited by the downward revision in our forecast of the unemployment rate. Consequently, we made little change to our forecast that core PCE price inflation will subside sequentially to 2% by mid-2025.

2% inflation requires higher unemployment

- Following declines in prices of energy and agricultural commodities, headline inflation has fallen convincingly below core inflation. And, the resolution of supply chain issues has allowed decelerations or, in some cases, declines in prices of certain core goods. However, while the economy's resilience has tempered concerns of an imminent recession, a period of below-trend growth and an accompanying increase in the unemployment rate will be necessary to reduce wage growth to a range consistent with core PCE inflation near the Fed's 2% objective within a time frame acceptable to the Fed.

Fed not done yet

- The recent resilience in spending and employment, persistently strong wage gains, and still-elevated core inflation signal the need for tighter financial conditions to slow growth enough to contain inflation. Further interest rate hikes from the Fed likely will be necessary to maintain financial conditions tight enough to achieve the requisite economic slowdown. We expect the Fed to raise its policy rate to 5.5% - 5.75% in November, but an increase to 5.75% to 6% by yearend, while not our base case, is certainly possible.

1. This forecast was issued on August 7, 2023. Unless otherwise noted, all quarterly growth rates are stated as compound annual rates, all expenditure components of GDP are in chained 2012 dollars, and all annual growth rates are full-year over full-year percent changes.

2. PCE is the acronym for personal consumption expenditures.

Forecast at a glance

Base forecast (August 2023) 2023:Q3 - 2027:Q4

Major economic indicators

	% ch. from prior quarter, annual rate						% ch. from prior year, or annual average						% ch. from fourth quarter of prior year, or fourth-quarter average					
	2023.1	2023.2	2023.3	2023.4	2024.1	2024.2	2022	2023	2024	2025	2026	2027	2022.4	2023.4	2024.4	2025.4	2026.4	2027.4
Key indicators of real activity																		
Real gross domestic product	2.0	2.4	2.2	1.6	1.1	1.0	2.1	2.2	1.4	1.3	1.6	1.8	0.9	2.1	1.1	1.4	1.7	1.8
Contributions to growth (% points):																		
Final sales to domestic purchasers	3.6	2.4	1.9	1.8	1.1	1.1	1.7	2.1	1.4	1.2	1.6	1.9	1.0	2.4	1.1	1.4	1.7	1.9
Net exports of goods & services	0.6	-0.1	0.2	-0.2	-0.2	-0.1	-0.4	0.6	-0.1	0.0	-0.1	-0.1	0.3	0.1	-0.1	0.0	-0.1	-0.1
Change in private inventories	-2.1	0.1	0.1	0.1	0.1	0.1	0.7	-0.5	0.1	0.1	0.0	0.0	-0.3	-0.5	0.1	0.1	0.0	0.0
Major components of real GDP																		
Personal consumption expend.	4.2	1.6	1.8	1.9	1.3	1.2	2.7	2.3	1.5	1.4	2.0	2.3	1.7	2.4	1.3	1.6	2.2	2.4
Nonres. fixed investment	0.6	7.7	0.3	2.6	0.9	0.3	3.9	3.3	1.3	0.5	1.0	1.7	4.5	2.8	0.4	0.7	1.2	1.9
Residential investment	-4.0	-4.2	7.2	-1.6	-0.7	1.4	-10.6	-11.2	1.0	3.0	1.5	0.8	-18.8	-0.7	1.7	2.7	0.8	1.1
Change in private inventories *	3.5	9.3	16.9	20.9	27.5	34.1	125.0	12.7	37.5	58.6	66.9	72.0	136.5	20.9	48.3	63.3	69.2	73.3
Exports of goods & services	7.8	-10.8	4.9	6.1	6.0	4.8	7.1	2.5	4.3	5.0	4.1	3.6	4.6	1.7	5.2	4.8	3.9	3.4
Imports of goods & services	2.0	-7.8	2.6	6.7	6.4	4.9	8.1	-2.2	4.4	4.2	3.7	3.6	1.5	0.7	5.0	4.0	3.7	3.5
Gov't consump. & gross invest.	5.0	2.6	2.3	1.5	0.9	0.7	-0.6	3.2	1.2	0.6	0.5	0.2	0.9	2.8	0.7	0.6	0.4	0.1
Pvt. housing starts (thous. units)	1385	1447	1438	1400	1379	1381	1551	1418	1385	1404	1397	1383	1405	1400	1393	1407	1386	1378
Light vehicle sales (mil. units)	15.3	15.6	15.4	15.5	15.2	15.5	13.8	15.4	15.6	16.5	16.6	16.4	14.3	15.5	16.2	16.6	16.6	16.2
Industrial production, total	-0.2	0.7	-0.4	-2.5	-1.2	-0.9	3.4	-0.1	-1.0	0.3	0.8	1.0	1.8	-0.6	-0.6	0.6	0.9	1.1
Industrial production, mfg	-0.2	1.5	-1.5	-2.7	-0.7	0.0	2.7	-0.6	-0.7	0.7	1.0	1.2	0.6	-0.7	0.1	0.9	1.0	1.2
Capacity utilization (mfg. %)	78.2	78.3	77.7	76.9	76.4	76.1	79.2	77.8	76.1	75.6	75.3	75.2	78.5	76.9	75.8	75.4	75.3	75.2
Nonfarm payroll employ. (mil.)	155.2	155.9	156.5	156.8	156.9	156.8	152.6	156.1	156.8	156.4	156.4	157.0	154.3	156.8	156.6	156.3	156.6	157.3
Average monthly chg. (thous.)	312	228	149	86	7	-21	399	194	-25	-24	29	66	284	86	-45	-4	46	76
Private nonfarm hours	2.6	-1.3	0.8	0.5	0.0	-0.2	4.0	1.2	0.0	-0.2	0.2	0.6	2.5	0.6	-0.2	-0.1	0.4	0.7
Civilian unemployment rate (%)	3.5	3.5	3.5	3.6	3.6	3.8	3.6	3.5	3.9	4.5	4.8	4.7	3.6	3.6	4.1	4.6	4.8	4.6
Prices, Productivity, & Costs																		
CPI, all items, all urban	3.8	2.7	3.1	2.8	1.7	2.8	8.0	4.1	2.5	2.6	2.3	2.3	7.1	3.1	2.3	2.6	2.2	2.3
CPI excl food & energy, all urban	5.0	4.7	3.6	3.6	2.9	2.8	6.1	4.9	3.2	2.4	2.2	2.2	6.0	4.2	2.7	2.3	2.2	2.2
PCE price index	4.1	2.6	2.8	2.6	2.1	2.6	6.3	3.7	2.4	2.3	2.0	2.0	5.7	3.0	2.3	2.2	2.0	2.0
PCE price excl food & energy	4.9	3.8	3.3	3.2	2.7	2.6	5.0	4.2	2.8	2.2	2.0	2.0	4.8	3.8	2.5	2.1	2.0	2.0
PPI finished goods	0.6	-6.3	1.7	1.1	-0.2	1.7	13.4	1.1	0.6	1.8	1.8	1.8	10.2	-0.8	1.1	2.0	1.7	1.9
Compensation per hour	2.1	5.4	4.4	3.9	4.1	4.1	4.4	3.4	4.1	3.8	3.6	3.7	3.0	3.9	4.0	3.7	3.7	3.8
Output per hour	-1.2	3.7	1.3	0.8	0.7	1.0	-1.7	0.8	1.2	1.5	1.5	1.4	-1.8	1.2	1.1	1.5	1.5	1.4
Unit labor cost	3.3	1.6	3.1	3.0	3.3	3.0	6.1	2.5	2.9	2.3	2.1	2.3	4.9	2.8	2.8	2.1	2.1	2.4
Fed Financial Accounts house price index **	-2.3	0.3	0.3	0.3	0.4	0.5	15.8	-3.3	1.6	2.6	2.7	2.4	8.5	-1.4	2.0	2.8	2.6	2.3
Price of WTI crude oil (\$/barrel)	76.08	73.76	78.18	75.72	69.23	72.47	94.78	75.93	71.92	78.65	82.22	85.40	82.79	75.72	71.74	80.72	83.37	86.30
Price of Brent crude oil (\$/barrel)	81.27	78.39	82.63	80.67	74.00	77.00	100.72	80.74	76.58	85.57	89.45	91.62	88.58	80.67	76.33	88.17	90.33	92.07
Selected Financial Variables																		
Federal funds rate (%)	4.52	4.99	5.26	5.50	5.60	5.39	1.68	5.07	5.06	3.47	2.65	2.63	3.65	5.50	4.38	3.07	2.63	2.63
Yield on 10-Yr Treasury Notes (%)	3.65	3.59	4.00	3.95	3.80	3.70	2.95	3.80	3.66	3.35	3.23	3.21	3.83	3.95	3.53	3.29	3.22	3.21
Baa corporate bond yield (%)	5.65	5.76	5.91	5.90	5.82	5.81	5.14	5.81	5.77	5.61	5.49	5.38	5.99	5.90	5.71	5.57	5.44	5.35
Broad trade-wtd US\$ (Jan 2006=100)	120.3	119.7	118.9	118.9	118.9	118.7	120.7	119.5	118.4	116.7	115.3	114.4	124.8	118.9	117.8	116.0	114.9	114.3
S&P 500 stock index, period end	4109	4450	4596	4497	4373	4266	3839	4497	4293	4417	4630	4827	3839	4497	4293	4417	4630	4827
S&P 500 stock index, average	4003	4204	4523	4546	4435	4319	4101	4319	4326	4344	4528	4726	3852	4546	4282	4396	4607	4801
Incomes & Related Measures																		
Corporate profits w/ IVA & CCAAdj	-15.5	21.3	12.5	7.0	0.3	-1.2	6.6	0.9	3.5	1.1	3.5	3.8	2.6	5.4	-1.0	2.9	3.7	3.7
Real disposable personal income	8.5	2.5	2.2	2.7	4.2	2.9	-6.2	3.7	2.9	2.2	2.2	2.5	-1.9	3.9	2.9	1.9	2.4	2.5
Personal saving rate (%)	4.3	4.4	4.3	4.3	4.9	5.3	3.5	4.3	5.4	6.1	6.3	6.4	3.4	4.3	5.8	6.0	6.2	6.4
Fed. surplus (unified, FY, bil. \$)	-2717	-1168	-1335	-1764	-2342	-578	-1375	-1726	-1585	-1791	-1879	-1948	-1686	-1764	-2066	-2151	-2228	-2412

* billions of chained 2012 \$

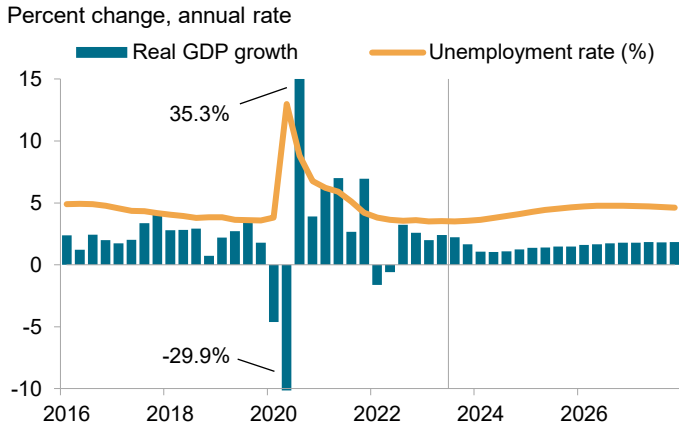
** % change, not annualized

Source: S&P Global Market Intelligence

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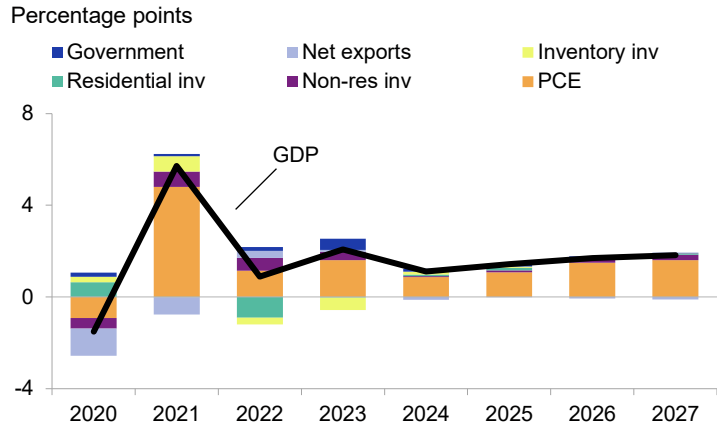
Forecast at a glance

Above-trend growth in 2023



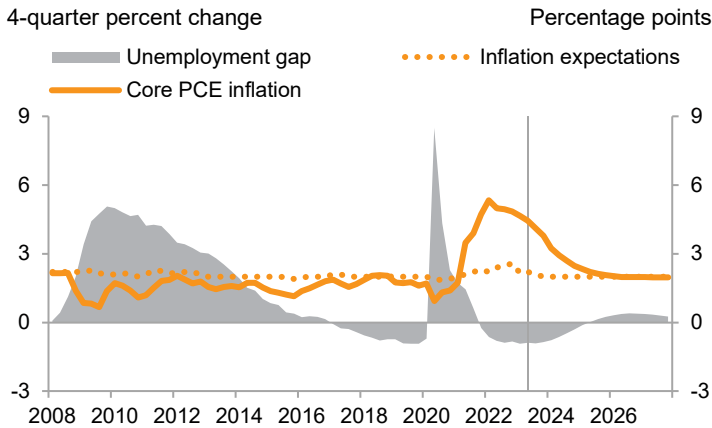
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Contributions to GDP growth (Q4/Q4)



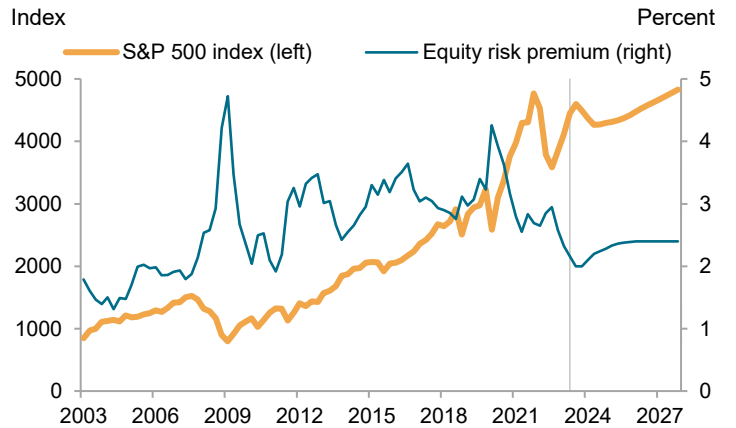
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Core PCE inflation declines gradually to 2% after surge



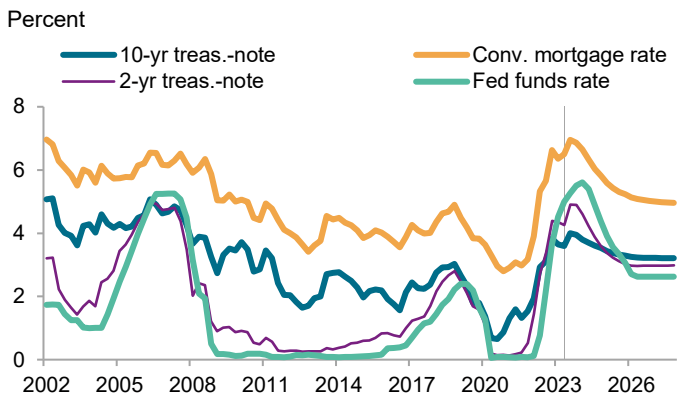
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Equities decline over Q4'23-Q2'24, then recover



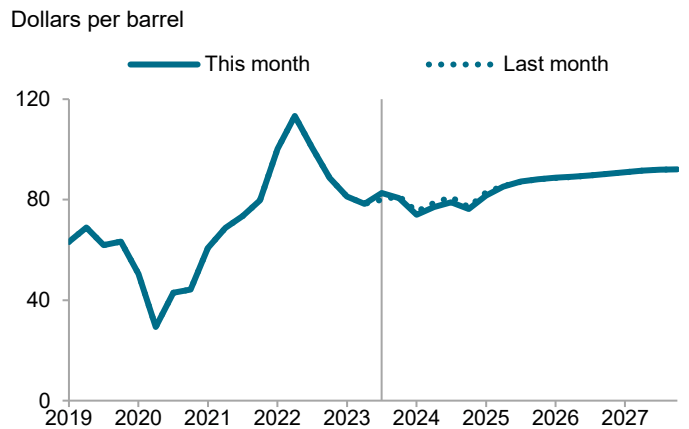
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Fed hikes for last time in November, then pauses until April 2024; term yields flatten after rapid rise



As of Aug. 7, 2023.
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Price of Brent crude oil



As of Aug. 7, 2023.
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What's New

Upside Q2 surprise encourages upward revision to 2023 growth; new immigration line

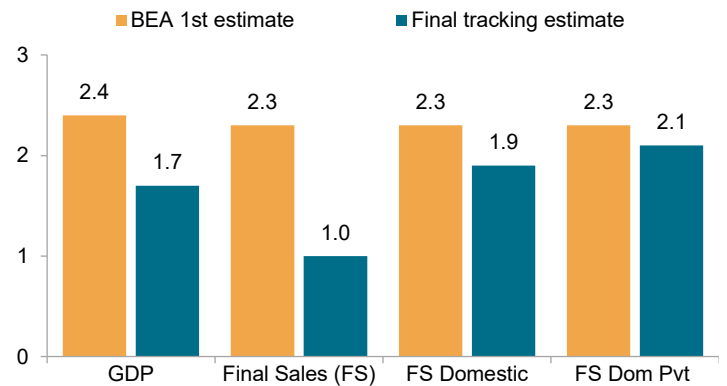
BEA's first estimate is that real GDP grew 2.4% in the second quarter, 0.9 percentage point above July's forecast and 0.7 point above our final "tracking estimate" of 1.7% (chart, top). Final sales of domestic product, final sales to domestic purchasers, and final sales to private domestic purchasers all grew 2.3%. A small positive contribution to growth from inventory investment (0.14 percentage point) was roughly offset by a small negative contribution (-0.12 point) from net exports. Personal consumption expenditures decelerated sharply, their growth slowing from 4.2% in the first quarter to 1.6% in the second, mainly reflecting a partial reversal of the first-quarter surge in spending on new motor vehicles. Nonresidential fixed investment grew 7.7% with all the three major components — structures (9.7%), equipment (10.8%), and intellectual property products (3.9%) — posting solid gains. Residential investment contracted 4.2%, about the same as in the first quarter. Government consumption and investment grew 2.6%.

Not only did second-quarter GDP growth surprise to the upside, the mix of growth — stronger sales, lower inventory investment — was more favorable for third-quarter growth than we expected, as was the "handoff" from the second to the third quarter suggested by available high frequency data. This encouraged us to revise up our forecast for third quarter growth from 1.3% to 2.2%, with some of the extra momentum spilling into the fourth quarter as well. Consequently, we revised our forecast for GDP growth in 2023 up from 1.8% to 2.2%. Despite that upward revision, our narrative remains that a period of below-trend growth and a rise in unemployment are necessary to lower inflation to 2% within a time frame acceptable to the Fed. Hence, the forecast shows downward revisions in the quarterly growth rates of GDP starting in the first quarter of next year and extending through 2026 (chart, middle).

The Census Bureau has published detail through July 1, 2022, on population by age, gender, and ethnicity consistent with totals of population already reported. We used this as an opportunity to revisit our in-house projections of population by age and gender used in our modeling of the labor force and the number of households. In particular, issuances of visas and the number of new arrivals obtaining permanent legal status so far this year are running 20% - 30% above the pace recorded over the comparable period a year ago. Accordingly, we raised our assumption for net international migration for the year ending July 1, 2023 by 182 thousand (to 1.2 million), and for the year ending July 1, 2024 by 91 thousand (to 1.1 million), before immigration then returns to the July baseline of about 1 million per year (chart, bottom).

Real GDP growth, 2023:Q2

Percent change annual rate



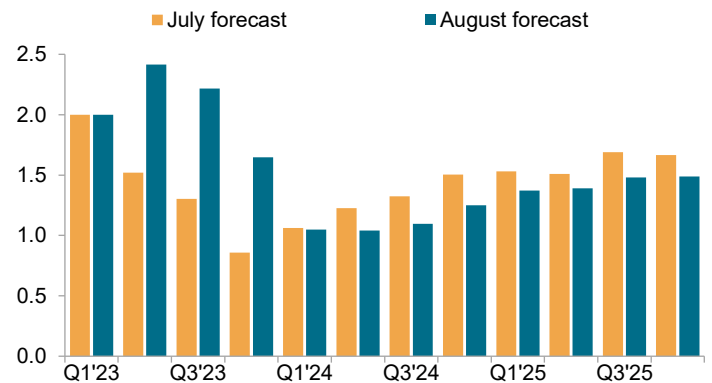
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Real GDP growth

Percent change annual rate



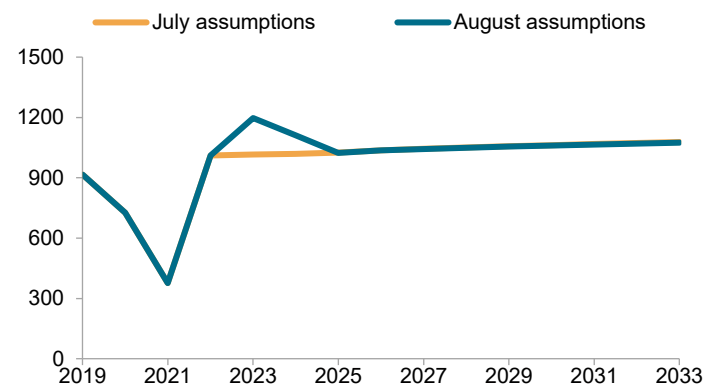
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Net international migration

Thousands



As of Aug. 7, 2023.

Sources: S&P Global Market Intelligence; Census Bureau.

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The view just ahead

Strong “handoff” helps to prop up GDP growth in the third quarter

In this month's forecast, we look for 2.2% GDP growth in the third quarter, 0.9 percentage point above last month's forecast. This upward revision is more than accounted for by improved momentum leading into the third quarter from unexpected strength of monthly GDP in June. Implicit in last month's forecast were assumptions for key monthly indicators that implied a level of monthly GDP in June that was only 0.7% above the second-quarter average at an annual rate. As it turned out, monthly GDP for June came in materially stronger than we had assumed, reflecting unexpected strength in PCE, net exports, and inventories, and is now 2.2% above the second quarter average at an annual rate. That is, the unexpected strength in the June data raised the jump-off level for third-quarter GDP enough to add 1.5 percentage points to our forecast of third-quarter GDP growth.

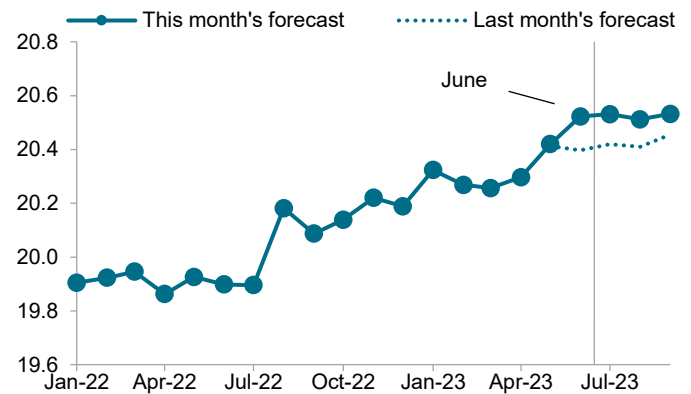
Residential investment is also helping to prop up third-quarter GDP growth. After reaching a trough last December and January, single-family housing permits have been trending higher, increasing each month from February through June. And while single-family starts did decline in June, it was from an elevated level, and the trend in single-family starts is firming along with permits. As a result, after declining for just over two years, residential investment is forecast to rise in the third quarter of this year.

Elsewhere germane to the near-term outlook, light vehicle sales held steady in July at 15.7 million units, in line with a broadly firming trend. The firming trend in sales has reflected a rising share of sales to the business sector (mainly leases and fleet sales), providing near-term support to business fixed investment in transportation equipment. Nominal orders and shipment of nondefense capital goods excluding aircraft both increased over the three months ending in June, but in real terms, they are both trending lower, implying weak business spending on equipment outside of transportation.

In the labor market, payroll gains have been slowing but have nevertheless been sufficient to keep the labor force fully employed. In July, payrolls expanded by 187 thousand, while over the six months ending in July, they expanded at an average monthly rate of 223 thousand per month. The trend in payroll gains (measured this way) has been steadily declining since late 2021. We assume this declining trend continues in the coming months. The unemployment rate was 3.5% in July, in line with averages in recent months. In our near-term forecast, the continued slowdown in the trend in payroll gains begins to set the unemployment rate on a gradually rising trend.

Monthly GDP "off to the races" through June

Trillions of chained (2012) dollars



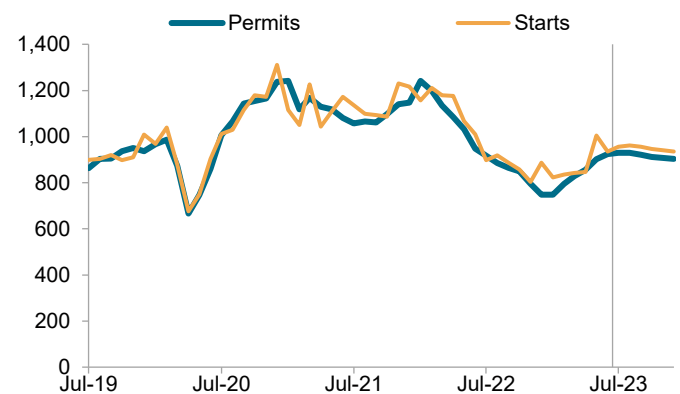
As of Aug. 7, 2023.

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Single-family housing activity to boost Q3 growth

Thousands of units, SAAR



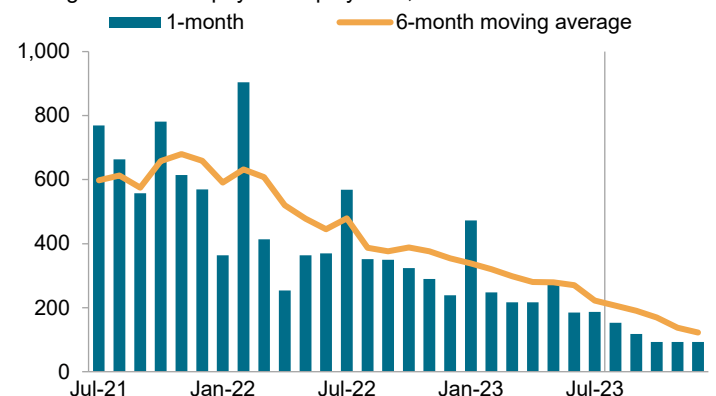
As of Aug. 7, 2023.

Sources: S&P Global Market Intelligence; Census Bureau.

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Trend in payroll gains is slowing but still healthy

Change in nonfarm payroll employment, thousands



As of Aug. 7, 2023.

Sources: S&P Global Market Intelligence; BLS.

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Growth

Some easing of financial conditions as IJA and CHIPS Acts boost public and private investment

The US economy has exhibited remarkable resilience in the face of a 525-basis point rise in the Federal Reserve’s policy rate over the last eighteen months. This is partly due to special factors that have offset some of the drag associated with the monetary tightening. For example, vehicle sales and production have remained firm despite rising auto loan rates, given the industry’s need to accommodate demand pent up during the pandemic while rebuilding inventories depleted by a shortage of chips. And, state and local gross investment, which initially languished during the pandemic, is now receiving a significant boost from monies appropriated under the Infrastructure Investment and Jobs Act (chart, top).

Even more notable is a renaissance in manufacturing spurred partly by incentives included in the Inflation Reduction and CHIPS Acts. In particular, the CHIPS Act included a 25% investment tax credit (ITC) on facilities with, according to IRS guidelines, “the primary purpose of manufacturing semiconductors or semiconductor equipment and are integral to the operation of that facility.” The credit is available on projects begun after enactment of the CHIPS Act on August 9, 2022, and placed into service after December 31, 2022. In investment theory, and all else equal, the ITC reduces the “user cost” of capital by 25%. To put this in perspective: past ITCs have been only on equipment, not structures, and the largest general ITC on equipment has been 10%. So, the credit on semiconductor facilities is a huge incentive, and is encouraging a surge in the category of construction that includes such investments (chart, middle) when the recent rise in interest rates would otherwise be discouraging capital expansions.

Furthermore, recent increases in equity prices, a decline in the dollar, and a narrowing of credit spreads have blunted the impact of the increase in the Fed’s policy rate. Relatedly, with the end of the tightening cycle approaching, the level of real term yields is stabilizing so that the drag from past increases will soon wane. And, earlier concerns that turmoil in the banking sector would precipitate an expansion-ending tightening of credit have subsided. These factors are reflected in our Financial Conditions Index (FCI, chart bottom), which measures their impact on GDP growth. The FCI shows that financial conditions swung from adding more than 4 points to growth during the early recovery from the pandemic to subtracting more than 2 points from growth by the second quarter of this year. However, over the second half of 2023 year we expect the drag from tightening financial conditions to weaken, allowing the economy to avoid the outright recession that has been the consensus forecast for months.

State and local government gross investment

Billions of 2012 dollars, seasonally adjusted annual rate



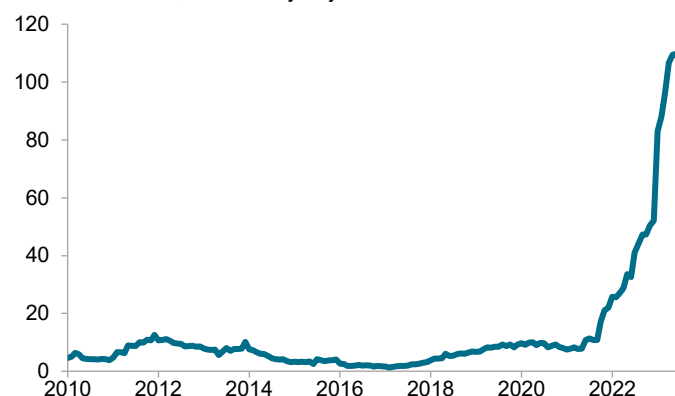
As of Aug. 7, 2023.

Sources: S&P Global Market Intelligence; Bureau of Economic Analysis.

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Construction: mfg computers, electronic, electrical

Billions of dollars, seasonally adjusted annual rate



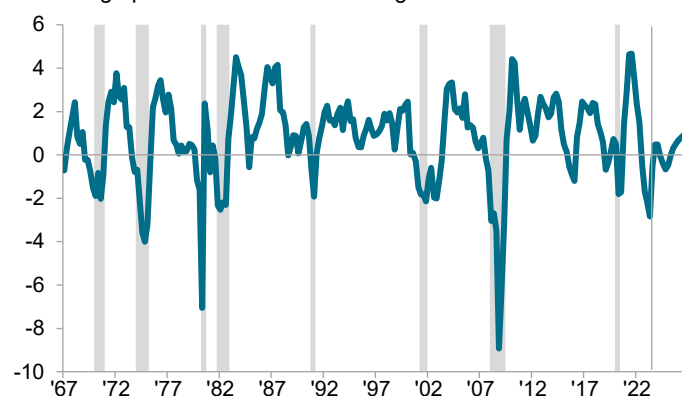
As of Aug. 7, 2023.

Source: Census Bureau.

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Financial Conditions Index

Percentage points of annualized GDP growth



As of Aug. 7, 2023.

Source: S&P Global Market Intelligence.

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Sector highlights

Income growth continues to support spending thru June; labor markets remained tight thru July

Consumer markets: Personal income grew a robust 4.3% at an annual rate in the second quarter, supported by strong growth of wages and salaries, and helping to sustain the 1.6% growth in consumer spending. In June, retail sales rose 0.2%, with growth of core sales beating our expectations, and following strong growth in May that was revised higher. Consumer sentiment continued to recover in July, with expectations for growth of income a main driver. Likewise, there's little evidence of financial distress in recent reports on consumer credit and household debt. Taken together, recent data suggest more resilience than anticipated following a first quarter where growth of personal consumption expenditures (PCE) reached a blistering 4.2%. Yet solid income gains this year have allowed consumers to maintain strong growth of spending. Real disposable income grew at an annual rate of 2.5% in the second quarter, and was 4.7% higher than the prior June, suggesting still solid near-term support for PCE heading into the third quarter. Core PCE inflation however remains stubbornly high, at 3.8%, and while a welcome improvement from a peak of 6.0% two years ago, when combined with the strength in employment, income, and spending, additional rate hikes this year remain likely. In our forecast, core PCE inflation slows to 4.2% this year, before falling to 2.8% in 2024.

Labor markets: Payroll employment continued to expand in July but at a slowing pace. Nonfarm payroll employment rose 187 thousand in July, and the unemployment rate declined 0.1 percentage point to 3.5%. The gain in payrolls was about as expected. The decline in the unemployment rate was not expected; it remains near historic lows. The decline in the unemployment rate reflected a solid increase in civilian employment (268 thousand) that outpaced a moderate increase in the civilian labor force (152 thousand). Recent gains in the labor force have generally been moderate, averaging 138 thousand per month over the last three months. This reflects a labor-force participation rate that appears to have reached a peak, rounding to 62.6% in each of the last five months. If the participation rate has truly peaked, payroll gains will have to slow further to prevent further declines in the unemployment rate. We estimate that payroll gains just shy of 100 thousand per month would do the trick. The July employment report is consistent with our view that the Fed is not done tightening. We look for one more hike in the funds rate target range, with the timing of that hike dependent on the next few readings on inflation.

Business investment: Following 3.9% growth last year, business fixed investment (BFI) growth is forecast to slow

to 3.3% this year and 1.3% next year. The near-term outlook for BFI in this month's forecast is somewhat stronger than last month, reflecting an improved near-term outlook for output and sales. Still, financial and credit conditions remain relatively unsupportive of capital investment, and we look for year-over-year growth of BFI to remain subdued (below 2.0%) from 2024 through 2027. The deceleration in BFI this year reflects weakening equipment spending (from 4.3% growth last year to a 0.1% decline this year) and intellectual property products (from 8.8% growth last year to 4.5% growth this year) partially offset by an acceleration in spending on structures (from a 6.6% decline last year to 7.3% growth this year).

Housing and construction: The single-family housing market has never been tighter. The homeowner vacancy rate — the proportion of the homeowner inventory that is vacant for sale — which the Census has tracked since 1956, fell to an all-time low of 0.7% in the second quarter. The lack of lived-in homes for sale is driving up home prices, reviving the market for new construction. This housing market season will be remembered as one in which much higher mortgage rates — by locking in homeowners to their current homes — led to rising levels of housing starts. The housing starts forecast is marginally stronger from last month: housing starts are expected to drop from 1.55 million in 2022 to 1.42 million in 2023 and to 1.39 million in 2024. Total home sales are projected to fall from 5.72 million in 2022 to 4.90 million in 2023 and edge up to 4.93 million in 2024. Nominal house prices are forecast to grow just below the rate of inflation, thus, real prices decline modestly over the next five years.

International trade: US exporters had a tough second quarter, particularly those selling foods, feeds, and beverages (FF&B), which fell for the third straight quarter, plunging an annualized 30.8% to a level last seen in 2014, according to the June trade report. Industrial supplies (down 20.5%) and capital goods (down an annualized 28%) also saw massive declines; autos, on the other hand, climbed 11.7%, their fifth straight quarterly advance. The Federal Reserve's broad dollar exchange rate index declined 3.6% in the first quarter and 0.5% in the second, making the second quarter decline in goods exports all the more surprising. In the forecast, real exports finally reap the gains of the weaker dollar, increasing 4.9% and 6.2% in the third and fourth quarters; for the year, real exports advance 2.5%. Real goods imports, down 4.8% from a year earlier in the second quarter, are slowly descending. Real imports are expected to rise in the third and fourth quarters, but drop 2.2% for the year.

Key forecast assumptions

Fed raises policy rate to peak range of 5.5% - 5.75%; Medicaid rolls decline

Federal fiscal policy: Under the Fiscal Responsibility Act of 2023 (FRA23) the debt ceiling is suspended through 2024 but is assumed raised without incident before then. Discretionary budget authority is governed through fiscal year 2025 by statutory caps established by FRA23 and is assumed to grow at the rate of inflation after 2025. A FY24 budget is passed in time to avoid a government shutdown in October. The pandemic-era expansion of the Child Tax Credit expired in January. The pandemic-era 15% increase in SNAP benefits expired in March. The 6.2 percentage point increase in the Medicaid FMAP is phased out over 2023. Personal taxes are governed by current policy, including extension beyond the scheduled expiration in 2026 of provisions in the 2017 Tax Act. Corporate taxes are governed by current law, including the Inflation Reduction Act and the scheduled phase outs of provisions of the 2017 Tax Act. Student loan forbearance expires August 31, and the Supreme Court has ruled against the White House plan to cancel some student debt. Scheduled Social Security and Medicare benefits are paid beyond the projected exhaustion of those trust funds.

State & local fiscal policy: Firm revenues, reinforced by federal pandemic relief monies and funding under the Infrastructure Investment & Jobs Act (IIJA), limit cyclical state and local fiscal contractions. IIJA spending is reflected in state and local gross investment. Pandemic-era expansion of Medicaid eligibility expired with the Public Health Emergency on May 11. The pandemic-era policy of continuous enrollment in Medicaid expired in April, and states are assumed to trim Medicaid rolls aggressively through 2025.

Monetary policy: The Fed raises its policy rate to 5.50% - 5.75% by yearend, temporarily overshooting the terminal range of 2.5% - 2.75%, and allows its balance sheet to decline by about one third through 2024.

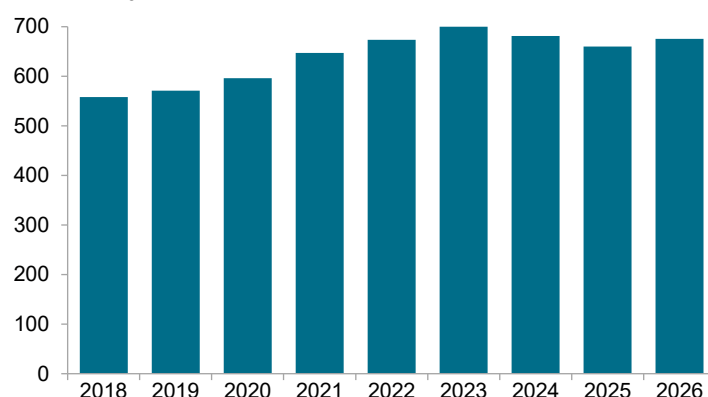
Tariffs and trade: Tariffs enacted by the US and China since 2017 remain in effect.

Global growth: Growth of real, trade-weighted foreign GDP slows from 3.3% in 2022 to 2.1% in 2023 then rebounds to 2.5% by 2025. Foreign CPI inflation jumped from 2.8% in 2021 to 5.9% in 2022 but recedes to 2.4% by 2026. Foreign sovereign bond yields climb from 0.3% in 2020 to 2.7% in 2023 as central banks around much of the world tighten monetary policy, then ease to 2.5% by 2026.

Oil prices: The price of Brent crude drops from \$101 per barrel in 2022 to \$77 in 2024, rebounds to \$89 by 2026, then rises at roughly the rate of inflation.

State and local medical social benefits to persons

Billions of 2012 dollars

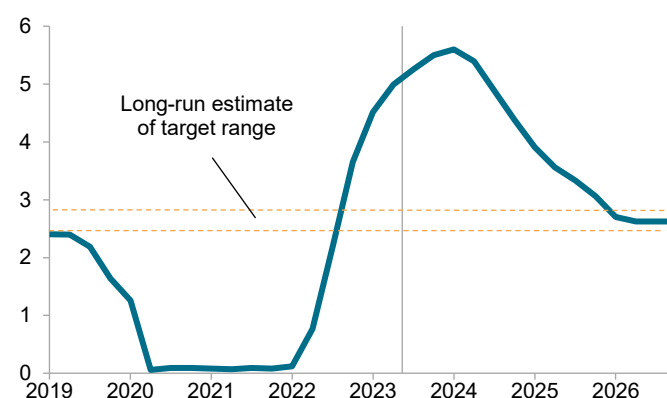


As of Aug. 7, 2023.

Sources: S&P Global Market Intelligence; Bureau of Economic Analysis.
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Federal funds rate

Percent

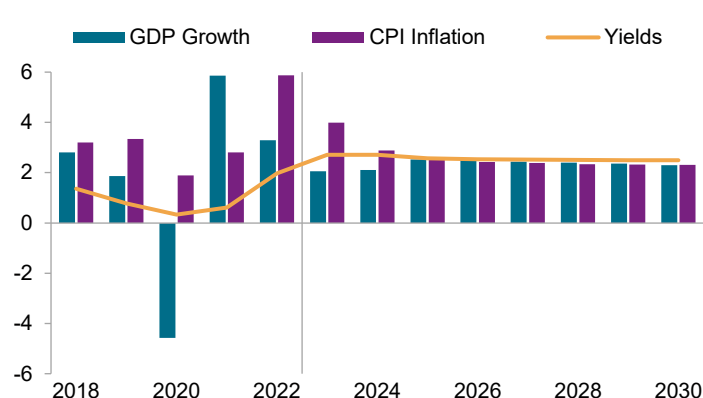


As of Aug. 7, 2023.

Sources: S&P Global Market Intelligence; Federal Reserve Board.
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Foreign growth, inflation, term gov't bond yields

Percent



As of Aug. 7, 2023.

Source: S&P Global Market Intelligence.
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Alternative scenarios

Two alternative outcomes for the US economy

Our assessment of the economic risks around the baseline forecast as reflected in these alternative scenarios remains unchanged compared to last month. Relative to our updated base forecast, we continue to see risks as being tilted to the downside. Downside risks stem largely from the tightening of lending standards by financial institutions leading to a decline in consumer spending and business activity, in addition to a deterioration in the Russia-Ukraine conflict. Posing upside risks are a muted response by financial institutions to the recent banking sector turmoil, more resilience on the part of consumers, and a quicker end to the Russia-Ukraine conflict, which would allow for a modest decline in energy prices. As a result, we assign a 55% probability to our baseline forecast, 25% to the Pessimistic, and 20% to the Optimistic scenario.

Pessimistic Scenario: Pause in growth hits as tightening lending standards restrain spending and production (25% probability)

The pessimistic scenario is characterized by weaker consumer spending and a pause in growth compared to a growth slowdown in the baseline. Underlying this narrative is the assumption that the recent turmoil in the banking sector leads financial institutions to severely tighten lending standards and curtail credit expansion. As a result, credit-dependent consumer spending and small business activity suffer the most. Moreover, higher energy prices due to an intensification in the Russia-Ukraine conflict continue to weigh heavily on businesses and households.

As a result, PCE declines in late 2023 and in early 2024, versus a modest increase in the baseline. Annually, PCE rises 2.1% in 2023 and 0.4% in 2024, versus increases of 2.3% and 1.5% in the base case, respectively, measured year-over-year.

GDP remains flat in late 2023 and early 2024, versus an average increase of 1.3% in the baseline, and remains subdued relative to the base through 2025. On an annual basis, GDP rises a modest 2.0% in 2023 and a less impressive 0.6% in 2024, versus growth of 2.2% and 1.4%, respectively, in the base case.

Slumping consumer demand and tighter credit lead businesses to scale back investment plans. Overall business fixed investment rises 2.8% over 2023, but declines 1.6% over 2024 and 2.4% over 2025.

The unemployment rate in this scenario rises from 3.5% in the second quarter of 2023 to 6.4% by mid-2025, before declining to 5.6% by the end of the forecast horizon.

The price of Brent oil rises to \$99 per barrel by the fourth quarter of 2023, \$18 higher than the baseline, then rises gradually to \$108 per barrel by the end of the forecast horizon. PCE inflation is higher than the baseline early in the scenario, but subsequently falls below baseline in late 2024 and remains soft through 2027, as a result of the elevated slack in labor markets.

Optimistic Scenario: Banking sector remains resilient, funding robust growth (20% probability)

The optimistic scenario is characterized by stronger growth of consumer spending and stronger productivity relative to the baseline. We assume that the recent turmoil in the banking sector is successfully managed and that fears of contagion remain contained, allowing financial institutions to continue to support the economy through solid growth of credit. Moreover, a cessation of active fighting in the Russia-Ukraine conflict allows for a lower path of energy prices, while firms are able to effect large productivity gains, improving corporate profitability.

This scenario assumes that the impact of the IJA is greater than in the base forecast. Moreover, it constitutes another source of modest upside risk over 2023–2027.

GDP growth remains well above trend through the rest of the year aided in part by the recent agreement to raise the debt ceiling. GDP rises 2.3% in 2023, year-over-year, compared to an increase of 2.2% in the baseline.

The strength of the scenario early is due to a robust re-acceleration in consumer spending, thanks to a lower path of energy prices and to strong credit expansion. The price of Brent oil stays \$4 below baseline through the remainder of 2023 before converging to baseline. Consumer spending rises 2.4% over 2023 and 2.2% over 2024, versus increases of 2.3% and 1.5% in the base forecast.

Business fixed investment remains elevated relative to the baseline thanks to strong demand faced by businesses and elevated cashflows. Business fixed investment rises 3.6% over 2023, compared to 3.3% in the baseline.

The unemployment rate edges down to 3.3% in late 2023, but then rises as a result of the below-trend growth of GDP. PCE inflation exceeds the baseline through mid-2025, and then hovers just barely above the FOMC's 2% target through the end of the forecast horizon. The federal funds rate follows the baseline through 2023, but then rises above the baseline path for as long as core inflation remains elevated.

US Macro Forecast Snapshot

	Baseline (55%)	Pessimistic (25%)	Optimistic (20%)
GDP growth	Real GDP rises 2.2% in 2023 as the aggressive recovery following the pandemic-induced downturn moderates. Growth continues at 1.4% in 2024 and 1.3% in 2025.	Real GDP rises 2.0% in 2023. Growth then slows to 0.6% in 2024 before rising to 1.0% in 2025.	Real GDP grows 2.3% in 2023 as the relative strength in consumer spending supports growth. Growth persists at 2.1% in 2024 and 1.7% in 2025.
Consumer spending	Consumption drops from 2.7% in 2022 to 2.3% in 2023. Growth continues at 1.5% in 2024 and 1.4% in 2025.	Spending rises 2.1% in 2023, 0.4% in 2024, and 1.2% in 2025.	Spending rises 2.4% in 2023, 2.2% in 2024, and 1.9% in 2025.
Business fixed investment	Increases 3.3% in 2023, 1.3% in 2024, and 0.5% in 2025.	Rises 2.8% in 2023 before falling by 1.6% in 2024 and 2.4% in 2025.	Rises 3.6% in 2023, 2.7% in 2024, and 1.9% in 2025.
Housing	Housing starts shrink from 1.55 million in 2022 to 1.42 million in 2023 before ticking down to 1.39 million in 2024 and rising to 1.40 million in 2025.	Housing starts drop from 1.55 million in 2022 to 1.41 million in 2023 and 1.28 million in 2024 before rising to 1.29 million in 2025.	Housing starts fall from 1.55 million in 2022 to 1.43 million in 2023. Housing starts then tick down to 1.42 million in 2024 before edging up to 1.44 million in 2025.
Exports	Rise 2.5% in 2023 and jump 4.3% in 2024 and 5.0% in 2025.	Jump 2.4% in 2023, 3.4% in 2024, and 5.5% in 2025.	Rise 2.4% in 2023, 5.7% in 2024, and 4.7% in 2025.
Fiscal policy	Student loan forbearance ends August 31; government shutdown avoided in October; spending limited by caps through 2025.	Same fiscal assumptions as in baseline.	Same fiscal assumptions as in baseline.
Monetary policy	We expect that the upper end of the federal funds rate target to reach 5.60% by early 2024.	The federal funds rate reaches an upper limit of 5.60% in early 2024.	Similar path to baseline but with a higher long-run federal funds rate over 2023–2026.
Credit conditions	Eased in 2021 but tighten throughout the forecast amidst high interest rates.	Remain slightly tighter than in baseline.	Slightly looser than in baseline.
Productivity growth	Moves up from -1.7% in 2022 to 0.8% in 2023. Growth continues at 1.2% in 2024 and 1.5% in 2025.	Rises 1.3% in 2023, 2.5% in 2024, and 1.7% in 2025.	Rises 0.7% in 2023, before picking up to 1.6% in 2024 and 1.9% in 2025.
Consumer confidence	Dipped in the second quarter of 2023 and gently escalates through 2023.	Remains below the baseline over the entire forecast interval.	Outperforms baseline over the entire forecast interval.
Oil prices (Dollars/barrel)	Average price of Brent crude oil falls from \$101/barrel in 2022 to \$81 in 2023 and \$77 in 2024 before rising to \$86 in 2025.	Brent crude oil averages \$86 in 2023, \$93 in 2024, and \$102 in 2025.	Brent crude oil averages \$79 in 2023 and \$77 in 2024 before jumping to \$86 in 2025.
Stock markets	The year-end value of the S&P 500 fell 19.4% in 2022. The index grows 17.1% over 2023 but falls 4.5% in 2024, before amping back up to 2.9% in 2025.	The year-end value of the S&P 500 fell 19.4% in 2022 then rises 14.1% in 2023. Falls 7.3% in 2024 before rising back up to 2.7% in 2025.	The year-end value of the S&P 500 fell -19.4% in 2022, but jumps 20.8% in 2023, before falling 2.7% in 2024 and rising 3.6% in 2025.
Inflation (PCE)	Core personal consumption (PCE) price inflation falls from 5.0% in 2022 to 4.2% in 2023, 2.8% in 2024, and 2.2% in 2025.	Core PCE price inflation slows to 4.3% in 2023, 3.1% in 2024, and 1.8% in 2025.	Core PCE price inflation falls from 5.0% in 2022 to 4.2% in 2023, 3.1% in 2024, and 2.3% in 2025.
Foreign growth	Eurozone GDP slips from 3.5% in 2022 to 0.7% in 2023, while China's growth rises from 3.0% in 2022 to 5.2% in 2023.	Global economy suffers from Russia-Ukraine conflict, and COVID-19-related setbacks endure.	Global economy recovers more quickly than in baseline amid a faster resolution to the Russia-Ukraine conflict.
US dollar	The broad real dollar gently falls through the end of 2029 before resuming to rise.	Decreases slowly through the forecast through 2028 before resuming to rise.	The broad dollar strengthens slightly more than in the baseline.

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Alternative Scenarios of the US Economy

	Annual rates						Annual averages						Q4/Q4					
	2023.2	2023.3	2023.4	2024.1	2024.2	2024.3	2022	2023	2024	2025	2026	2027	2022	2023	2024	2025	2026	2027
Pessimistic Scenario: Shallow recession hits as tightening lending standards restrain spending and production (Prob. = 25%)																		
Composition of Real GDP, Percent Change																		
Gross Domestic Product	2.4	1.8	0.0	0.0	0.4	0.7	2.1	2.0	0.6	1.0	1.7	1.9	0.9	1.6	0.5	1.3	1.9	1.9
Total Consumption	1.6	1.4	-0.3	-0.3	0.5	0.8	2.7	2.1	0.4	1.2	2.2	2.6	1.7	1.7	0.5	1.5	2.6	2.4
Nonresidential Fixed Investment	7.7	-1.0	-1.9	-1.5	-2.9	-3.4	3.9	2.8	-1.6	-2.4	0.0	1.8	4.5	1.3	-2.7	-1.8	1.1	2.0
Residential Fixed Investment	-4.2	6.6	-3.7	-6.1	-3.2	2.0	-10.6	-11.4	-2.0	3.2	2.2	0.5	-18.8	-1.4	-1.4	4.1	1.0	0.7
Exports	-10.8	4.7	4.5	4.8	3.8	4.3	7.1	2.4	3.4	5.5	4.4	3.8	4.6	1.3	4.5	5.6	4.0	3.6
Imports	-7.8	2.0	3.6	2.3	2.0	2.1	8.1	-2.4	1.8	3.2	4.2	4.0	1.5	-0.2	2.2	3.7	4.5	3.5
Federal Government	0.9	2.9	0.4	0.4	0.4	0.4	-2.5	3.4	0.7	0.4	0.3	-0.2	0.1	2.5	0.4	0.4	0.2	-0.4
State & Local Government	3.6	1.8	1.7	0.8	0.6	0.5	0.7	3.0	1.2	0.8	0.9	0.8	1.3	2.9	0.7	1.0	0.8	0.8
Prices & Wages, Percent Change																		
Consumer Prices	2.7	3.8	4.8	3.3	3.5	3.3	8.0	4.3	3.5	2.4	1.8	1.7	7.1	3.8	3.0	2.2	1.7	1.7
Producer Prices, Finished Goods	-6.3	2.8	2.8	1.0	2.4	2.6	13.4	1.3	1.5	1.5	1.3	1.2	10.2	-0.1	1.7	1.4	1.2	1.2
Compensation per hour	5.4	4.6	4.5	4.5	4.0	3.5	4.4	3.4	4.2	2.9	2.7	2.8	3.0	4.1	3.8	2.6	2.7	2.8
Other Key Measures, Percent Change																		
Productivity	3.7	2.3	6.5	0.8	1.6	1.7	-1.7	1.3	2.5	1.7	1.3	0.9	-1.8	2.8	1.4	1.6	1.3	0.6
Total Industrial Production	0.7	-1.2	-3.2	-4.1	-4.1	-3.3	3.4	-0.2	-3.0	-1.4	0.6	1.6	1.8	-1.0	-3.4	-0.3	1.2	1.8
Payroll Employment	1.8	1.1	-3.2	-3.1	-1.5	-1.2	4.3	2.0	-1.6	-0.8	0.1	0.8	3.4	0.5	-1.6	-0.5	0.4	1.0
Incomes, Percent Change																		
Personal Income	4.3	3.2	3.5	5.1	3.8	3.3	2.3	4.9	3.9	4.1	4.5	4.4	5.1	4.0	3.9	4.4	4.5	4.3
After-Tax Profits (Four-qr.% change)	21.3	12.5	17.8	-6.2	-6.5	-3.7	6.6	1.6	2.1	-0.7	3.7	3.3	2.6	7.9	-5.1	1.4	5.2	2.4
	Levels						Annual averages						Q4 values					
Other Key Measures																		
Brent Crude, Spot Price (\$/bbl)	78.39	86.00	99.33	89.75	93.50	95.76	100.72	86.25	92.95	101.54	105.12	107.25	88.58	99.33	92.80	103.92	105.98	107.65
Nonfarm Inven. Chg. (Bil.2012 \$)	10.7	15.4	33.9	53.5	68.1	78.3	137.6	17.5	72.0	99.1	111.1	114.9	147.7	33.9	88.2	105.4	116.6	110.0
Light Vehicle Sales (Mil. units, saar)	15.6	15.3	14.7	14.0	13.9	13.8	13.8	15.2	13.9	14.4	14.7	14.9	14.3	14.7	14.0	14.6	14.8	14.9
Housing Starts (Mil. units, saar)	1.4	1.4	1.4	1.3	1.3	1.3	1.6	1.4	1.3	1.3	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.3
Unemployment Rate (%)	3.5	3.6	5.2	5.5	5.7	5.9	3.6	4.0	5.8	6.3	6.2	5.8	3.6	5.2	6.0	6.3	6.1	5.6
Federal Surplus (Unified, FY, bil. \$)	-1167.7	-1334.4	-1777.8	-2376.5	-635.1	-1734.3	-1419.2	-1749.3	-1725.4	-1919.4	-1963.6	-1987.1	-1685.6	-1777.8	-2155.6	-2250.2	-2271.3	-2378.6
Financial Markets, NSA, Quarter Average																		
Federal Funds Rate (%)	4.99	5.24	5.50	5.60	5.29	4.17	1.68	5.06	4.53	1.60	0.68	0.62	3.65	5.50	3.06	1.12	0.63	0.62
10-Year Treasury Note Yield (%)	3.59	3.95	3.74	3.50	3.35	3.15	2.95	3.73	3.24	2.66	2.37	2.27	3.83	3.74	2.98	2.51	2.32	2.26
	Levels						Annual averages						Q4/Q4					
Optimistic Scenario: Banking sector remains resilient, funding robust growth (Prob. = 20%)																		
Composition of Real GDP, Percent Change																		
Gross Domestic Product	2.4	2.7	2.8	2.0	1.7	1.6	2.1	2.3	2.1	1.7	1.7	1.6	0.9	2.5	1.7	1.7	1.6	1.7
Total Consumption	1.6	2.3	2.9	2.4	1.8	1.7	2.7	2.4	2.2	1.9	1.9	2.1	1.7	2.7	1.9	2.0	2.0	2.2
Nonresidential Fixed Investment	7.7	1.9	4.2	2.2	2.0	1.3	3.9	3.6	2.7	1.9	1.6	1.7	4.5	3.6	1.8	1.9	1.5	1.8
Residential Fixed Investment	-4.2	7.9	-0.2	0.1	2.3	3.6	-10.6	-11.1	1.8	3.1	1.5	1.3	-18.8	-0.2	2.3	2.7	0.8	1.4
Exports	-10.8	2.9	8.0	8.6	7.3	5.9	7.1	2.4	5.7	4.7	4.0	3.3	4.6	1.7	6.8	4.1	3.8	3.2
Imports	-7.8	3.3	7.7	7.3	6.2	5.7	8.1	-2.0	5.3	4.9	3.7	3.4	1.5	1.1	6.0	4.4	3.4	3.5
Federal Government	0.9	3.0	0.5	0.5	0.6	0.4	-2.5	3.4	0.8	0.3	0.2	-0.4	0.1	2.6	0.4	0.3	0.1	-0.6
State & Local Government	3.6	3.3	1.9	0.6	1.1	0.9	0.7	3.2	1.5	0.8	0.7	0.5	1.3	3.3	0.8	0.8	0.6	0.5
Prices & Wages, Percent Change																		
Consumer Prices	2.7	1.1	3.7	4.1	3.0	2.9	8.0	3.9	3.1	2.8	2.4	2.4	7.1	2.8	3.1	2.8	2.3	2.3
Producer Prices, Finished Goods	-6.3	-2.6	1.8	2.7	2.1	2.0	13.4	0.6	1.0	2.0	1.8	1.9	10.2	-1.7	2.0	2.1	1.8	1.9
Compensation per hour	5.4	4.5	4.0	5.5	4.8	4.3	4.4	3.4	4.7	4.2	4.0	4.0	3.0	4.0	4.7	4.1	4.0	4.0
Other Key Measures, Percent Change																		
Productivity	3.7	0.1	2.0	1.2	1.8	2.2	-1.7	0.7	1.6	1.9	1.7	1.4	-1.8	1.2	1.7	1.8	1.5	1.4
Total Industrial Production	0.7	1.2	-3.4	0.2	0.8	0.7	3.4	0.1	-0.1	1.5	1.3	0.8	1.8	-0.4	0.7	1.7	1.1	0.8
Payroll Employment	1.8	1.9	1.0	0.1	-0.1	-0.4	4.3	2.4	0.5	-0.2	0.1	0.3	3.4	1.8	-0.2	-0.1	0.2	0.4
Incomes, Percent Change																		
Personal Income	4.3	6.0	4.6	6.6	5.4	4.8	2.3	5.3	5.4	4.8	4.3	4.5	5.1	5.0	5.4	4.5	4.4	4.5
Corporate profits w/ IVA & CCAadj	21.3	10.2	15.0	2.0	0.1	1.8	6.6	1.1	5.9	3.3	3.7	3.4	2.6	6.8	1.2	4.5	3.1	4.0
	Levels						Annual averages						Q4 values					
Other Key Measures																		
Brent Crude, Spot Price (\$/bbl)	78.39	78.00	77.00	74.00	77.00	79.00	100.72	78.66	76.58	85.57	89.45	91.62	88.58	77.00	76.33	88.17	90.33	92.07
Nonfarm Inven. Chg. (Bil.2012 \$)	10.7	17.2	19.1	28.0	28.5	35.6	137.6	14.3	33.7	54.6	69.8	72.2	147.7	19.1	42.6	63.7	72.0	75.1
Light Vehicle Sales (Mil. units, saar)	15.6	15.5	15.6	15.4	15.9	16.3	13.8	15.5	16.1	17.0	17.0	16.8	14.3	15.6	16.7	17.1	17.0	16.7
Housing Starts (Mil. units, saar)	1.447	1.448	1.421	1.409	1.407	1.423	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Unemployment Rate (%)	3.5	3.5	3.3	3.4	3.5	3.7	3.6	3.5	3.6	4.2	4.5	4.5	3.6	3.3	3.9	4.4	4.5	4.4
Federal Surplus (Unified, FY, bil. \$)	-1167.7	-1323.0	-1727.9	-2283.8	-517.1	-1599.9	-1419.2	-1734.0	-1602.9	-1774.4	-1876.8	-1997.2	-1685.6	-1727.9	-2010.6	-2114.7	-2214.8	-2423.7
Financial Markets, NSA, Quarter Average																		
Federal Funds Rate (%)	4.99	5.28	5.50	5.60	5.39	5.11	1.68	5.07	5.18	3.69	2.90	2.67	3.65	5.50	4.61	3.29	2.88	2.63
10-Year Treasury Note Yield (%)	3.59	4.05	4.10	3.97	3.91	3.81	2.95	3.85	3.85	3.50	3.32	3.26	3.83	4.10	3.72	3.42	3.29	3.24

Source: S&P Global Market Intelligence

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Monthly Economic Indicators

	Jun. 2022	Jul. 2022	Dec. 2022	Jan. 2023	Feb. 2023	Mar. 2023	Apr. 2023	May. 2023	Jun. 2023	Jul. 2023	2020	2021	2022
Industrial Markets													
Industrial Prod. Total (2017=100.0)	102.7	103.1	101.5	102.5	102.6	102.7	103.3	102.8	102.2		95.1	99.2	102.6
Percent Change	-0.1	0.4	-1.5	1.0	0.0	0.1	0.6	-0.5	-0.5		-7.2	4.4	3.4
Percent Change Year Earlier	3.2	3.0	0.6	1.5	0.9	0.2	0.5	0.0	-0.4				
Capacity Utilization, Manufacturing (%)	79.2	79.3	77.1	78.3	78.5	77.8	78.5	78.3	78.0		72.6	77.1	79.2
Unemployment Rate (%)	3.6	3.5	3.5	3.4	3.6	3.5	3.4	3.7	3.6	3.5	8.1	5.4	3.6
Payroll Employment (Mil.)	152.412	152.980	154.535	155.007	155.255	155.472	155.689	155.970	156.155	156.342	142.153	146.281	152.625
Change (Mil.)	0.370	0.568	0.239	0.472	0.248	0.217	0.217	0.281	0.185	0.187	-8.738	4.128	6.344
Leading Indicator (2016=1.000)	1.151	1.144	1.107	1.102	1.096	1.083	1.075	1.069	1.061		1.067	1.138	1.148
Percent Change	-0.7	-0.6	-0.7	-0.5	-0.5	-1.2	-0.7	-0.6	-0.7		-4.6	6.6	0.9
New Orders, Mfg. (Bil. \$)	593.1	583.4	580.9	581.0	571.3	574.9	576.4	578.6	592.0		428.9	513.9	578.2
Percent Change	1.6	-1.6	1.0	0.0	-1.7	0.6	0.3	0.4	2.3		-7.5	19.8	12.5
Inv. Chg., Mfg. & Trade (Bil. \$)	29.2	12.5	9.3	-1.5	1.7	-6.0	2.2	3.9			-51.3	268.6	284.3
Merchandise Trade Bal. (Bil. \$)	-98.7	-89.6	-91.1	-90.4	-91.2	-82.5	-97.5	-91.9			-901.5	-1071.1	-1177.4
Consumer Markets													
Disposable Income (Bil. 2012\$)	14973	15100	15251	15505	15545	15599	15593	15656	15684		15836	16130	15127
Percent Change	-0.4	0.8	0.1	1.7	0.3	0.3	0.0	0.4	0.2		6.2	1.9	-6.2
Personal Income (Bil. \$)	21687	21852	22282	22432	22521	22605	22663	22767	22836		19832	21295	21777
Percent Change	0.5	0.8	0.2	0.7	0.4	0.4	0.3	0.5	0.3		6.7	7.4	2.3
Personal Saving Rate (%)	2.7	3.5	3.7	4.0	4.3	4.6	4.3	4.6	4.3		16.8	11.8	3.6
Consumer Expenditures (Bil. \$)	17437	17420	17736	18077	18124	18139	18250	18283	18383		14116	15903	17357
Percent Change	1.2	-0.1	0.0	1.9	0.3	0.1	0.6	0.2	0.5		-1.9	12.7	9.1
Retail Sales (Bil. \$)	679.4	675.7	673.6	692.5	687.9	681.7	684.6	688.2	689.5		6223.7	7356.4	8071.8
Percent Change	0.7	-0.5	-0.7	2.8	-0.7	-0.9	0.4	0.5	0.2		0.9	18.2	9.7
Non-Auto. Retail Sales (Bil. \$)	552.9	551.9	549.2	559.7	556.6	552.0	553.9	555.4	556.3		5014.2	5874.4	6540.7
Percent Change	0.8	-0.2	-0.5	1.9	-0.5	-0.8	0.3	0.3	0.2		1.7	17.2	11.3
New Light-Vehicle Sales (Mil.)	13.0	13.3	13.4	16.0	14.9	14.9	16.0	15.1	15.7	15.7	14.5	14.9	13.8
Housing Starts (Mil.)	1.561	1.371	1.357	1.34	1.436	1.38	1.348	1.559	1.434		1.397	1.606	1.551
New Home Sales (Mil.)	0.563	0.543	0.636	0.649	0.625	0.64	0.671	0.715	0.697		0.833	0.769	0.637
Existing Home Sales (Mil.)	5.130	4.880	4.030	4.000	4.550	4.430	4.290	4.300	4.160		5.636	6.128	5.081
Chg. Consumer Install. Credit (Bil. \$)	33.6	26.7	19.3	21.1	11.4	19.8	22.3	9.5	17.8		-7.3	364.1	346.1
Prices and Wages													
CPI, All Urban Consumers	2.947	2.946	2.990	3.005	3.016	3.018	3.029	3.033	3.038		2.589	2.710	2.926
Percent Change Year Earlier	8.9	8.4	6.4	6.3	6.0	5.0	5.0	4.1	3.1		1.3	4.7	8.0
Core Cons. Price Defl. (2012=100.0)	123.3	123.4	125.7	126.4	126.8	127.3	127.7	128.1	128.3		113.5	117.4	123.3
Percent Change Year Earlier	5.0	4.7	4.6	4.7	4.7	4.6	4.6	4.6	4.1		1.3	3.5	5.0
PPI, Finished Goods	2.58377	2.54234	2.54047	2.578	2.56727	2.53356	2.5441	2.50113	2.5102		2.030	2.211	2.508
Percent Change Year Earlier	17.8	15.0	8.8	8.9	6.3	3.1	2.5	-0.7	-2.8		-1.3	8.9	13.4
PPI, Industrial Commodities (NSA)	2.836	2.744	2.568	2.604	2.592	2.570	2.569	2.540	2.537		1.939	2.284	2.659
Percent Change Year Earlier	23.9	17.6	5.6	4.9	1.8	-1.7	-3.5	-7.7	-10.5		-3.4	17.8	16.4
Avg. Private Hourly Earnings (\$)	27.53	27.64	28.21	28.29	28.41	28.52	28.61	28.72	28.83	28.96	24.69	25.91	27.56
Percent Change Year Earlier	6.7	6.6	5.4	5.2	5.3	5.2	4.9	4.9	4.7	4.8	5.0	4.9	6.4
Brent Crude, Spot Price (\$/bbl.)	121.99	111.93	81.00	82.54	82.84	78.43	84.74	75.59	74.84	80.11	41.77	70.70	100.72
Percent Change Year Earlier	66.7	66.7	8.8	-4.6	-14.4	-33.1	-19.2	-33.2	-38.7	-28.4	-35.1	69.3	42.5
Henry Hub Spot Natural Gas (\$/mmbtu)	7.69	7.28	5.53	3.27	2.38	2.31	2.16	2.15	2.20		2.03	3.91	6.42
Percent Change Year Earlier	136.1	89.8	47.2	-25.3	-49.1	-52.9	-67.2	-73.6	-71.4		-20.8	92.3	64.2
Financial Markets, Period Average													
Federal Funds Rate (%)	1.21	1.68	4.10	4.33	4.57	4.65	4.83	5.06	5.08	5.12	0.38	0.08	1.68
3-Month T-Bill Rate (%)	1.49	2.23	4.25	4.54	4.65	4.69	4.92	5.14	5.16	5.25	0.37	0.04	2.02
Commercial Bank Prime Rate (%)	4.38	4.85	7.27	7.50	7.74	7.82	8.00	8.23	8.25	8.29	3.54	3.25	4.85
10-Year Treasury Note Yield (%)	3.14	2.90	3.62	3.53	3.75	3.66	3.46	3.57	3.75	3.90	0.89	1.44	2.95
Conv. Mortgage Rate, FHLMC (%)	2.87	3.06	4.05	4.92	5.23	5.48	5.47	5.22	6.11	6.90	3.72	2.96	3.17
M1 Money Supply (Bil. \$)	20608	20589	19822	19555	19312	18938	18595	18570	18506		12785	19381	20403
Percent Change	-0.2	-0.1	-0.7	-1.3	-1.2	-1.9	-1.8	-0.1	-0.3		232.4	51.6	5.3
M2 Money Supply (Bil. \$)	21666	21704	21359	21222	21100	20875	20712	20842	20890		17651	20526	21577
Percent Change	0.0	0.2	-0.2	-0.6	-0.6	-1.1	-0.8	0.6	0.2		19.1	16.3	5.1

Monthly Economic Indicators

	Jun. 2022	Jul. 2022	Dec. 2022	Jan. 2023	Feb. 2023	Mar. 2023	Apr. 2023	May. 2023	Jun. 2023	Jul. 2023	2020	2021	2022
Industrial Markets													
Industrial Prod. Total (2017=100.0)	102.7	103.1	101.5	102.5	102.6	102.7	103.3	102.8	102.2		95.1	99.2	102.6
Percent Change (Q4/Q4 for Annual Values)	-0.1	0.4	-1.5	1.0	0.0	0.1	0.6	-0.5	-0.5		-4.7	3.8	1.8
Percent Change Year Earlier	3.2	3.0	0.6	1.5	0.9	0.2	0.5	0.0	-0.4				
Capacity Utilization, Manufacturing (%)	79.2	79.3	77.1	78.3	78.5	77.8	78.5	78.3	78.0		72.6	77.1	79.2
Unemployment Rate (%)	3.6	3.5	3.5	3.4	3.6	3.5	3.4	3.7	3.6	3.5	8.1	5.4	3.6
Payroll Employment (Mil.)	152.412	152.980	154.535	155.007	155.255	155.472	155.689	155.970	156.155	156.342	142.153	146.281	152.625
Change (Mil.)	0.370	0.568	0.239	0.472	0.248	0.217	0.217	0.281	0.185	0.187	-8.738	4.128	6.344
Leading Indicator (2016=1.000)	1.151	1.144	1.107	1.102	1.096	1.083	1.075	1.069	1.061		1.067	1.138	1.148
Percent Change (Q4/Q4 for Annual Values)	-0.7	-0.6	-0.7	-0.5	-0.5	-1.2	-0.7	-0.6	-0.7		-2.4	7.9	-4.6
New Orders, Mfg. (Bil. \$)	593.1	583.4	580.9	581.0	571.3	574.9	576.4	578.6	592.0		428.9	513.9	578.2
Percent Change (Q4/Q4 for Annual Values)	1.6	-1.6	1.0	0.0	-1.7	0.6	0.3	0.4	2.3		0.9	19.1	7.1
Inv. Chg., Mfg. & Trade (Bil. \$)	29.2	12.5	9.3	-1.5	1.7	-6.0	2.2	3.9			-51.3	268.6	284.3
Merchandise Trade Bal. (Bil. \$)	-98.7	-89.6	-91.1	-90.4	-91.2	-82.5	-97.5	-91.6	-88.8		-901.5	-1071.1	-1177.4
Consumer Markets													
Disposable Income (Bil. 2012\$)	14973	15100	15251	15505	15545	15599	15593	15656	15684		15836	16130	15127
Percent Change (Q4/Q4 for Annual Values)	-0.4	0.8	0.1	1.7	0.3	0.3	0.0	0.4	0.2		3.7	-0.4	-1.9
Personal Income (Bil. \$)	21687	21852	22282	22432	22521	22605	22663	22767	22836		19832	21295	21777
Percent Change (Q4/Q4 for Annual Values)	0.5	0.8	0.2	0.7	0.4	0.4	0.3	0.5	0.3		5.1	6.9	5.1
Personal Saving Rate (%)	2.7	3.5	3.7	4.0	4.3	4.6	4.3	4.6	4.3		16.8	11.8	3.6
Consumer Expenditures (Bil. \$)	17437	17420	17736	18077	18124	18139	18250	18283	18383		14116	15903	17357
Percent Change (Q4/Q4 for Annual Values)	1.2	-0.1	0.0	1.9	0.3	0.1	0.6	0.2	0.5		-0.2	13.2	7.5
Retail Sales (Bil. \$)	679.4	675.7	673.6	692.5	687.9	681.7	684.6	688.2	689.5		6223.7	7356.4	8071.8
Percent Change (Q4/Q4 for Annual Values)	0.7	-0.5	-0.7	2.8	-0.7	-0.9	0.4	0.5	0.2		4.9	15.9	7.0
Non-Auto. Retail Sales (Bil. \$)	552.9	551.9	549.2	559.7	556.6	552.0	553.9	555.4	556.3		5014.2	5874.4	6540.7
Percent Change (Q4/Q4 for Annual Values)	0.8	-0.2	-0.5	1.9	-0.5	-0.8	0.3	0.3	0.2		4.6	17.0	8.1
New Light-Vehicle Sales (Mil.)	13.0	13.3	13.4	16.0	14.9	14.9	16.0	15.1	15.7	15.7	14.5	14.9	13.8
Housing Starts (Mil.)	1.561	1.371	1.357	1.34	1.436	1.38	1.348	1.559	1.434		1.397	1.606	1.551
New Home Sales (Mil.)	0.563	0.543	0.636	0.649	0.625	0.64	0.671	0.715	0.697		0.833	0.769	0.637
Existing Home Sales (Mil.)	5.130	4.880	4.030	4.000	4.550	4.430	4.290	4.300	4.160		5.636	6.128	5.081
Chg. Consumer Install. Credit (Bil. \$)	33.6	26.7	19.3	21.1	11.4	19.8	22.3	9.5	17.8		-7.3	364.1	346.1
Prices and Wages													
CPI, All Urban Consumers	2.947	2.946	2.990	3.005	3.016	3.018	3.029	3.033	3.038		2.589	2.710	2.926
Percent Change Year Earlier (Q4/Q4 for Annual Values)	8.9	8.4	6.4	6.3	6.0	5.0	5.0	4.1	3.1		1.2	6.8	7.1
Core Cons. Price Defl. (2012=100.0)	123.3	123.4	125.7	126.4	126.8	127.3	127.7	128.1	128.3		113.5	117.4	123.3
Percent Change Year Earlier (Q4/Q4 for Annual Values)	5.0	4.7	4.6	4.7	4.7	4.6	4.6	4.6	4.1		1.4	4.7	4.8
PPI, Finished Goods	2.58377	2.54234	2.54047	2.578	2.56727	2.53356	2.5441	2.50113	2.5102		2.030	2.211	2.508
Percent Change Year Earlier (Q4/Q4 for Annual Values)	17.8	15.0	8.8	8.9	6.3	3.1	2.5	-0.7	-2.8		-1.1	13.1	10.2
PPI, Industrial Commodities (NSA)	2.836	2.744	2.568	2.604	2.592	2.570	2.569	2.540	2.537		1.939	2.284	2.659
Percent Change Year Earlier (Q4/Q4 for Annual Values)	23.9	17.6	5.6	4.9	1.8	-1.7	-3.5	-7.7	-10.5		-0.6	23.4	7.3
Avg. Private Hourly Earnings (\$)	27.53	27.64	28.21	28.29	28.41	28.52	28.61	28.72	28.83	28.96	24.69	25.91	27.56
Percent Change Year Earlier (Q4/Q4 for Annual Values)	6.7	6.6	5.4	5.2	5.3	5.2	4.9	4.9	4.7	4.8	4.9	6.4	5.6
Brent Crude, Spot Price (\$/bbl.)	121.99	111.93	81.00	82.54	82.84	78.43	84.74	75.59	74.84	80.11	41.77	70.70	100.72
Percent Change Year Earlier (Q4/Q4 for Annual Values)	66.7	66.7	8.8	-4.6	-14.4	-33.1	-19.2	-33.2	-38.7	-28.4	-30.1	79.9	11.2
Henry Hub Spot Natural Gas (\$/mmbtu)	7.69	7.28	5.53	3.27	2.38	2.31	2.16	2.15	2.18	2.56	2.03	3.91	6.42
Percent Change Year Earlier (Q4/Q4 for Annual Values)	136.1	89.8	47.2	-25.3	-49.1	-52.9	-67.2	-73.6	-71.7	-64.8	5.1	89.0	16.4
Financial Markets, Period Average													
Federal Funds Rate (%)	1.21	1.68	4.10	4.33	4.57	4.65	4.83	5.06	5.08	5.12	0.38	0.08	1.68
3-Month T-Bill Rate (%)	1.49	2.23	4.25	4.54	4.65	4.69	4.92	5.14	5.16	5.25	0.37	0.04	2.02
Commercial Bank Prime Rate (%)	4.38	4.85	7.27	7.50	7.74	7.82	8.00	8.23	8.25	8.29	3.54	3.25	4.85
10-Year Treasury Note Yield (%)	3.14	2.90	3.62	3.53	3.75	3.66	3.46	3.57	3.75	3.90	0.89	1.44	2.95
Conv. Mortgage Rate, FHLMC (%)	2.87	3.06	4.05	4.92	5.23	5.48	5.47	5.22	6.11	6.90	3.72	2.96	3.17
M1 Money Supply (Bil. \$)	20608	20589	19822	19555	19312	18938	18595	18570	18506		12785	19381	20403
Percent Change (Q4/Q4 for Annual Values)	-0.2	-0.1	-0.7	-1.3	-1.2	-1.9	-1.8	-0.1	-0.3		343.5	15.1	-1.5
M2 Money Supply (Bil. \$)	21666	21704	21359	21222	21100	20875	20712	20842	20890		17651	20526	21577
Percent Change (Q4/Q4 for Annual Values)	0.0	0.2	-0.2	-0.6	-0.6	-1.1	-0.8	0.6	0.2		24.3	12.7	0.3

Summary of the US Economy

	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	3.2	2.9	-1.3	-0.2	0.7	1.8	1.9	2.0	1.9	2.1	1.9	2.0	1.9
Final Sales of Domestic Product	4.5	1.4	0.1	0.3	1.4	1.6	1.5	1.7	1.7	1.9	1.8	1.9	1.8
Gross Domestic Income	0.8	2.9	-1.3	-0.2	0.7	1.8	1.9	2.0	1.9	2.1	1.9	2.0	1.9
Avg. of GDP and GDI	2.0	2.9	-1.3	-0.2	0.7	1.8	1.9	2.0	1.9	2.1	1.9	2.0	1.9
Total Consumption	2.3	2.1	-0.1	0.4	0.7	1.0	1.0	1.3	1.5	1.7	1.6	1.8	1.7
Durables	-0.8	0.5	-3.4	-1.5	1.8	3.6	2.7	3.8	4.5	4.7	3.6	3.7	3.7
Nondurables	-0.1	1.5	-2.0	-3.0	0.1	0.2	0.5	0.6	0.5	0.8	0.7	0.9	0.8
Services	3.7	2.6	1.2	1.8	0.7	0.9	0.8	1.2	1.2	1.5	1.5	1.7	1.6
Nonresidential Fixed Investment	6.2	0.7	-1.5	-1.5	-0.1	1.3	1.5	1.5	1.4	1.7	1.7	1.7	1.7
Equipment	10.6	-3.7	-5.6	-3.9	-0.1	2.1	2.8	3.0	2.8	3.3	3.4	3.2	3.1
Information Processing Equipment	9.2	-23.4	13.5	-1.7	-0.7	-0.1	-1.2	0.9	1.8	1.5	2.7	5.2	5.2
Industrial Equipment	-11.2	2.2	-1.1	-5.4	-7.8	1.0	3.3	0.8	3.5	3.4	4.4	1.8	2.8
Transportation equipment	90.4	31.0	-36.2	17.1	5.6	3.8	1.5	5.5	2.6	0.9	2.5	3.4	2.7
Aircraft	295.9	120.9	-78.5	14.0	17.7	3.7	-5.3	1.9	-0.1	-2.5	0.1	-1.2	5.0
Other Equipment	-9.0	-4.6	0.2	-22.9	3.9	4.7	10.4	5.9	4.1	8.9	4.5	1.3	1.0
Intellectual Property Products	6.8	5.3	1.0	-0.6	-0.5	0.9	0.8	0.7	0.5	0.7	0.4	0.5	0.3
Structures	-3.6	0.4	1.6	1.1	0.9	0.6	0.6	0.2	0.4	0.7	1.1	1.4	1.6
Commercial & Health Care	-12.4	-6.4	0.5	-3.3	-13.1	-7.8	-1.6	-0.8	2.1	-1.9	-0.6	-4.8	2.3
Manufacturing	22.3	10.6	-4.7	-4.3	-1.3	-6.2	-15.4	-1.6	-14.4	-13.0	-7.6	-1.1	-2.0
Power & Communication	-15.4	-6.6	4.8	6.2	5.3	-3.3	-0.8	-7.5	2.1	0.5	0.9	4.9	-1.2
Mining & Petroleum	-2.3	11.0	5.3	7.5	31.1	34.8	26.5	13.5	4.3	9.0	5.0	3.8	3.2
Other	8.6	4.4	3.5	5.4	6.5	1.1	-1.5	-1.3	4.6	8.7	6.9	8.5	4.0
Residential Fixed Investment	-27.1	-26.7	-14.6	-15.8	-4.3	4.4	8.8	10.3	10.7	11.4	7.7	5.3	4.1
Exports	14.6	-1.3	-1.3	3.6	6.6	6.7	5.6	5.5	5.8	5.2	4.7	4.6	4.5
Imports	-7.3	-4.6	-4.2	-1.4	-1.4	2.2	3.4	4.0	4.7	4.5	3.5	2.8	2.7
Federal Government	3.7	6.2	4.9	0.2	0.2	0.0	0.4	0.5	0.3	0.8	0.2	0.5	0.8
State & Local Government	3.7	2.3	1.3	2.1	1.5	1.3	1.2	1.1	1.0	0.9	1.0	0.9	1.0
Billions of Dollars													
Real GDP	20054.7	20198.1	20132.4	20121.8	20156.2	20247.6	20342.7	20443.3	20538.3	20645.9	20743.3	20845.9	20942.5
Nominal GDP	25723.9	26132.5	26172.5	26341.5	26559.9	26845.3	27126.3	27402.6	27682.0	27977.6	28263.4	28548.9	28837.9
Prices & Wages, Percent Change, Annual Rate													
GDP Deflator	4.4	3.5	2.0	2.8	2.7	2.5	2.3	2.1	2.2	2.2	2.2	2.1	2.2
Consumer Prices	5.7	3.1	3.2	3.5	3.1	2.9	1.8	1.3	2.4	2.4	2.3	2.0	2.2
Producer Prices, Finished Goods	-0.5	2.5	2.5	4.3	1.4	1.6	0.3	0.0	1.3	1.5	1.4	1.4	1.4
Employment Cost Index - Total Comp.	4.3	4.0	4.6	4.4	4.3	4.5	4.3	4.2	4.0	3.6	3.7	3.7	3.7
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	100.77	88.58	85.00	86.50	88.50	91.17	86.00	83.00	85.50	86.83	87.72	88.91	89.67
Productivity (%ch., saar)	1.0	2.6	-5.3	1.0	2.8	2.9	2.2	1.9	1.7	1.8	1.6	1.7	1.5
Total Industrial Production (%ch., saar)	1.8	-1.7	-5.5	0.6	-2.0	0.1	1.3	1.4	1.5	1.8	1.6	1.5	1.6
Factory Operating Rate	79.2	78.5	76.7	76.3	75.9	76.0	76.2	76.5	76.6	76.8	77.0	77.0	77.1
Nonfarm Inven. Chg. (Bil. 2012 \$)	55.5	145.4	65.2	31.3	-18.1	-10.4	10.0	26.5	36.9	47.4	55.5	61.2	64.5
Consumer Sentiment Index	56.1	58.8	60.8	61.6	63.2	67.3	71.6	77.1	82.8	88.3	89.8	91.7	93.3
Light Vehicle Sales (Mil. units, saar)	13.40	14.33	14.24	14.47	15.01	15.51	15.74	15.82	15.93	16.02	16.16	16.27	16.34
Housing Starts (Mil. units, saar)	1.450	1.403	1.235	1.186	1.158	1.156	1.184	1.221	1.272	1.332	1.357	1.377	1.384
Exist. House Sales (Total, Mil. saar)	4.770	4.177	4.022	3.997	4.042	3.657	3.748	3.915	4.125	4.302	4.410	4.404	4.410
Unemployment Rate (%)	3.5	3.6	3.4	3.7	4.2	4.4	4.5	4.6	4.6	4.6	4.6	4.6	4.5
Payroll Employment (%ch., saar)	3.4	2.5	2.3	-0.5	-1.7	-1.0	-0.4	0.0	0.1	0.2	0.2	0.3	0.3
Federal Surplus (Unified, nsa, bil. \$)	-860.4	-421.4	-424.6	-152.3	-374.6	-400.0	-495.8	-210.3	-405.0	-467.3	-548.6	-251.4	-439.5
Current Account Balance (Bil. \$)	-868.4	-852.0	-849.4	-818.8	-799.0	-816.8	-822.4	-823.3	-836.7	-849.2	-849.1	-840.0	-826.0
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	2.19	3.65	4.52	4.99	5.08	5.09	5.07	4.64	4.13	3.63	3.33	3.06	2.84
3-Month Treasury Bill Rate (%)	2.66	4.04	4.64	4.84	4.84	4.79	4.73	4.30	3.80	3.32	3.04	2.78	2.57
10-Year Treasury Note Yield (%)	3.11	3.83	3.59	3.65	3.59	3.54	3.46	3.37	3.31	3.26	3.23	3.22	3.22
30-Year Fixed Mortgage Rate (%)	5.66	6.63	6.29	6.35	6.24	6.11	5.93	5.68	5.48	5.34	5.21	5.12	5.07
S&P 500 Stock Index	3974	3852	4075	4134	4164	4156	4105	4045	4034	4068	4103	4138	4165
(Four-Quarter % change)	-10.1	-16.3	-8.8	0.6	4.8	7.9	0.7	-2.2	-3.1	-2.1	0.0	2.3	3.2
Exchange Rate, Broad Index of Partners	1.350	1.364	1.326	1.294	1.284	1.273	1.266	1.262	1.253	1.242	1.235	1.229	1.225
(% change, annual rate)	16.2	4.4	-10.7	-9.5	-3.0	-3.4	-2.1	-1.4	-2.8	-3.5	-2.3	-1.7	-1.4
Incomes													
Personal Income (% ch., saar)	5.4	5.8	4.2	2.0	3.5	4.3	5.3	4.5	4.5	4.6	5.2	4.6	4.5
Real Disposable Income (%ch., saar)	1.0	3.3	5.1	0.6	2.8	3.6	4.4	3.6	2.6	2.6	3.2	2.8	2.4
Saving Rate (%)	2.7	2.9	4.1	4.1	4.4	5.0	5.8	6.3	6.5	6.7	7.1	7.3	7.5
After-Tax Profits (Billions of \$)	2891	2956	2839	2931	2906	2905	2957	2944	2951	2956	3032	3036	3048
(Four-quarter % change)	2.3	7.1	0.2	-3.7	0.5	-1.7	4.2	0.4	1.5	1.7	2.5	3.1	3.3

Summary of the US Economy

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Composition of Real GDP, Percent Change													
Gross Domestic Product	1.7	2.2	2.9	2.3	-2.8	5.9	2.1	0.7	1.6	2.0	1.8	1.6	1.7
Final Sales of Domestic Product	2.2	2.2	2.8	2.3	-2.2	5.7	1.4	1.2	1.5	1.8	1.8	1.7	1.7
Gross Domestic Income	0.9	2.3	2.9	2.2	-2.3	5.5	2.3	0.4	1.6	1.9	1.8	1.6	1.7
Avg. of GDP and GDI	1.3	2.3	2.9	2.3	-2.5	5.7	2.2	0.6	1.6	1.9	1.8	1.6	1.7
Total Consumption	2.5	2.4	2.9	2.0	-3.0	8.3	2.8	1.0	1.1	1.7	1.9	2.1	2.3
Durables	5.4	6.4	6.8	3.8	10.0	18.5	-0.3	-0.9	3.1	4.0	3.9	4.1	4.6
Nondurables	2.5	2.6	2.5	2.8	2.7	8.8	-0.4	-0.9	0.2	0.8	1.0	1.3	1.5
Services	2.0	1.7	2.4	1.5	-6.6	6.3	4.5	2.0	1.0	1.5	1.8	2.1	2.2
Nonresidential Fixed Investment	0.9	4.1	6.5	3.6	-4.9	6.4	3.6	0.3	1.1	1.6	1.7	1.7	1.9
Equipment	-1.8	2.8	6.6	1.3	-10.5	10.3	4.3	-1.6	1.9	3.2	3.1	3.1	3.0
Information Processing Equipment	4.4	7.1	7.8	2.6	1.3	9.8	5.3	-1.6	0.0	3.2	4.5	3.7	3.3
Industrial Equipment	-1.5	4.5	5.9	3.4	-8.2	11.9	5.3	-3.7	0.4	3.1	2.4	3.2	2.9
Transportation equipment	-5.6	-1.4	5.1	-3.2	-30.6	15.7	4.8	6.0	4.2	2.5	0.7	0.7	1.3
Aircraft	-10.7	36.2	-6.5	-41.6	34.5	29.0	16.6	-3.4	2.3	0.3	2.9	4.3	3.0
Other Equipment	-5.8	0.1	7.1	2.6	-7.0	5.5	0.9	-5.9	4.4	4.2	4.4	5.0	4.5
Intellectual Property Products	8.8	5.6	8.1	7.3	4.8	9.7	8.7	2.5	0.5	0.5	0.3	0.4	0.9
Structures	-4.3	4.4	4.1	2.3	-10.1	-6.4	-7.4	-0.5	0.6	1.0	1.5	1.5	1.5
Commercial & Health Care	16.7	3.2	1.3	1.5	3.2	-7.6	-13.2	-6.3	-3.9	-0.8	2.5	2.9	4.7
Manufacturing	-4.8	-13.5	-1.8	5.6	-9.5	-0.7	4.1	1.0	-8.5	-6.8	-1.3	-5.5	-4.0
Power & Communication	2.2	-4.6	-5.7	7.4	-1.7	-8.4	-19.6	-3.0	-1.0	0.9	-0.6	3.5	2.8
Mining & Petroleum	-41.8	40.4	27.8	-0.3	-38.4	14.0	15.3	10.5	20.4	5.6	3.9	2.2	0.0
Other	7.2	3.9	1.4	-0.6	-12.9	-17.8	-5.2	4.3	1.8	6.0	1.5	1.2	0.3
Residential Fixed Investment	6.6	4.0	-0.6	-1.0	7.2	10.7	-10.7	-17.1	5.2	7.6	3.1	0.7	0.8
Exports	0.4	4.3	2.8	0.5	-13.2	6.1	7.2	3.9	5.8	4.9	3.9	3.3	2.8
Imports	1.5	4.5	4.2	1.1	-9.0	14.1	8.1	-3.0	2.6	3.6	2.9	3.1	3.5
Federal Government	0.5	0.4	3.0	3.9	6.2	2.3	-2.5	2.6	0.3	0.5	0.4	-0.2	-0.5
State & Local Government	2.8	0.4	0.9	3.0	0.4	-0.5	0.6	1.8	1.3	1.0	0.9	0.6	0.6
Billions of Dollars													
Real GDP	17680.3	18076.7	18609.1	19036.1	18509.1	19609.8	20018.0	20164.5	20492.6	20893.7	21269.0	21618.4	21988.2
Nominal GDP	18695.1	19477.3	20533.1	21381.0	21060.5	23315.1	25461.3	26479.8	27547.1	28697.9	29859.3	31040.8	32287.5
Prices & Wages, Percent Change													
GDP Deflator	1.0	1.9	2.4	1.8	1.3	4.5	7.0	3.2	2.4	2.2	2.2	2.3	2.3
Consumer Prices	1.3	2.1	2.4	1.8	1.2	4.7	8.0	4.0	2.3	2.2	2.1	2.2	2.1
Producer Prices, Finished Goods	-1.0	3.2	3.0	0.8	-1.3	8.9	13.5	3.4	1.1	1.3	1.5	1.7	1.6
Employment Cost Index - Total Comp.	2.1	2.5	2.9	2.7	2.7	3.6	5.1	4.5	4.2	3.7	3.7	3.6	3.6
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	44.24	54.83	70.96	64.34	41.77	70.70	100.72	87.79	85.33	89.07	90.62	93.16	94.40
Productivity (%ch.)	0.5	1.3	1.5	1.9	4.4	2.3	-1.5	-0.3	2.2	1.7	1.5	1.5	1.5
Total Industrial Production (%ch.)	-2.2	1.4	3.2	-0.7	-7.0	4.9	3.9	-1.3	0.7	1.6	1.4	1.1	1.1
Factory Operating Rate	75.4	76.2	78.1	76.9	72.4	77.1	79.1	76.2	76.5	77.1	77.0	76.4	76.0
Nonfarm Inven. Chg. (Bil. 2012 \$)	41.2	41.7	73.8	88.3	-46.9	-16.0	137.0	17.0	30.2	62.1	67.4	61.1	62.2
Consumer Sentiment Index	91.8	96.8	98.4	96.0	81.5	77.6	59.0	63.2	80.0	92.4	97.7	96.5	94.1
Light Vehicle Sales (Mil. units)	17.48	17.15	17.22	16.96	14.47	14.95	13.79	14.81	15.88	16.29	16.38	16.21	16.04
Housing Starts (Mil. units)	1.177	1.205	1.247	1.291	1.395	1.605	1.555	1.184	1.252	1.377	1.403	1.391	1.387
Exist. House Sales (Total, Mil. units)	5.437	5.527	5.334	5.325	5.638	6.127	5.094	3.929	4.022	4.433	4.926	5.633	5.760
Unemployment Rate (%)	4.9	4.4	3.9	3.7	8.1	5.4	3.6	3.9	4.6	4.5	4.4	4.4	4.3
Payroll Employment (%ch.)	1.8	1.6	1.6	1.3	-5.8	2.9	4.3	1.3	-0.5	0.2	0.4	0.3	0.4
Federal Surplus (Unified, FY, bil. \$)	-581.6	-680.9	-873.0	-1022.0	-3348.2	-2580.4	-1419.2	-1351.5	-1578.4	-1729.4	-1815.1	-1922.7	-2027.1
Current Account Balance (Bil. \$)	-396.2	-361.0	-439.8	-446.0	-619.7	-846.4	-951.4	-821.0	-832.9	-831.3	-782.4	-748.9	-732.0
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.40	1.00	1.83	2.16	0.38	0.08	1.68	4.92	4.37	2.96	2.63	2.63	2.63
3-Month Treasury Bill Rate (%)	0.32	0.93	1.94	2.06	0.37	0.04	2.02	4.78	4.04	2.69	2.37	2.37	2.37
10-Year Treasury Note Yield (%)	1.84	2.33	2.91	2.14	0.89	1.44	2.95	3.59	3.35	3.22	3.20	3.19	3.18
30-Year Fixed Mortgage Rate (%)	3.76	4.09	4.64	4.08	3.18	3.03	5.38	6.25	5.61	5.11	4.98	4.94	4.90
S&P 500 Stock Index	2092	2448	2745	2912	3219	4267	4101	4132	4063	4150	4285	4444	4606
(Percent change)	1.5	17.0	12.1	6.1	10.5	32.6	-3.9	0.8	-1.7	2.1	3.3	3.7	3.7
Exchange Rate, Broad Index of Partners	1.235	1.232	1.223	1.263	1.285	1.235	1.319	1.294	1.256	1.228	1.218	1.216	1.220
(% change, annual rate)	4.6	-0.3	-0.7	3.3	1.7	-3.9	6.8	-1.9	-3.0	-2.2	-0.8	-0.2	0.3
Incomes													
Personal Income (% ch.)	2.6	4.6	5.0	5.1	6.7	7.4	2.1	4.2	4.4	4.7	4.6	4.6	4.5
Real Disposable Income (%ch.)	1.8	2.7	3.3	3.5	6.2	1.9	-6.4	2.6	3.3	2.8	2.6	2.6	2.5
Saving Rate (%)	7.0	7.3	7.6	8.8	16.8	11.9	3.3	4.4	6.3	7.4	8.1	8.5	8.7
After-Tax Profits (Billions of \$)	1758	1897	1960	2007	2111	2750	2931	2895	2952	3045	3157	3286	3363
(Percent change)	1.5	7.9	3.3	2.4	5.2	30.3	6.6	-1.2	2.0	3.2	3.7	4.1	2.3

Summary of the US Economy

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Composition of Real GDP, Percent Change (Q4/Q4)													
Gross Domestic Product	2.0	2.8	2.3	2.6	-1.5	5.7	1.0	0.2	2.0	1.9	1.7	1.7	1.7
Final Sales of Domestic Product	2.2	2.9	2.1	3.0	-1.8	4.8	1.3	0.8	1.7	1.9	1.7	1.7	1.7
Gross Domestic Income	1.2	2.9	2.9	2.1	0.1	4.1	0.9	0.2	1.9	1.9	1.7	1.7	1.7
Avg. of GDP and GDI	1.6	2.8	2.6	2.3	-0.7	4.9	0.9	0.2	2.0	1.9	1.7	1.7	1.7
Total Consumption	2.3	2.8	2.5	2.2	-1.4	7.2	1.9	0.5	1.4	1.7	2.0	2.2	2.3
Durables	6.3	8.2	3.7	5.7	16.2	7.0	1.1	0.1	3.9	3.7	4.1	4.2	4.8
Nondurables	2.0	3.7	2.2	2.4	4.6	7.2	-1.4	-1.2	0.6	0.9	1.1	1.4	1.5
Services	1.8	1.7	2.4	1.6	-5.8	7.2	3.2	1.1	1.2	1.7	1.9	2.1	2.2
Nonresidential Fixed Investment	2.5	5.2	5.7	2.6	-3.5	5.0	3.7	-0.5	1.5	1.7	1.6	1.8	1.9
Equipment	-2.2	7.0	5.1	-3.1	-2.7	4.7	3.8	-1.9	3.0	3.2	3.1	3.2	2.9
Information Processing Equipment	3.3	9.5	4.6	0.4	9.3	6.2	-2.1	2.6	0.7	4.5	4.1	3.4	3.4
Industrial Equipment	-1.7	6.9	6.6	-2.2	-2.3	13.0	-1.0	-3.4	2.7	2.9	2.7	3.2	2.5
Transportation equipment	-6.4	5.8	2.4	-8.7	-20.8	-2.0	28.0	-4.9	2.6	2.4	0.2	0.5	2.4
Aircraft	17.2	28.0	-14.0	-32.2	51.9	-7.0	71.7	-26.1	-1.5	2.0	3.0	4.2	2.7
Other Equipment	-5.3	5.0	7.8	-2.6	0.1	-0.3	-0.5	-4.3	7.3	2.4	5.1	5.8	3.1
Intellectual Property Products	8.4	5.8	9.3	6.9	3.8	10.8	7.9	0.2	0.7	0.4	0.3	0.6	1.1
Structures	3.6	0.8	1.7	6.6	-16.0	-5.2	-5.2	1.0	0.5	1.4	1.5	1.5	1.5
Commercial & Health Care	19.9	-2.5	-1.5	8.6	-3.1	-10.5	-11.2	-6.0	-0.6	-0.3	3.6	3.0	4.7
Manufacturing	-6.3	-11.1	0.8	3.2	-9.9	2.3	6.5	-4.1	-11.3	-2.5	-3.0	-5.6	-3.1
Power & Communication	12.3	-16.9	-6.3	28.5	-15.5	-12.5	-17.5	3.2	-1.5	1.2	-0.2	3.9	4.2
Mining & Petroleum	-27.0	49.6	19.0	-7.9	-41.4	37.6	10.3	18.9	13.0	3.8	3.5	1.8	-1.7
Other	8.9	1.9	-0.8	0.9	-19.0	-15.3	0.9	4.1	2.5	5.1	0.8	1.0	0.2
Residential Fixed Investment	4.0	4.6	-3.8	2.0	16.4	-0.3	-19.3	-7.9	10.3	5.0	2.0	0.6	0.9
Exports	1.3	6.2	0.2	0.8	-10.0	6.5	5.3	3.9	5.5	4.6	3.4	3.2	2.5
Imports	2.2	5.3	3.3	-2.0	0.4	10.1	1.7	-1.2	4.1	3.0	2.9	3.3	3.5
Federal Government	0.1	1.3	3.2	4.0	5.4	0.4	0.2	1.3	0.5	0.6	0.1	-0.4	-0.5
State & Local Government	2.5	0.3	0.6	4.0	-1.6	0.6	1.3	1.6	1.1	1.0	0.7	0.6	0.5
Billions of Dollars													
Real GDP	17680.3	18076.7	18609.1	19036.1	18509.1	19609.8	20018.0	20164.5	20492.6	20893.7	21269.0	21618.4	21988.2
Nominal GDP	18695.1	19477.3	20533.1	21381.0	21060.5	23315.1	25461.3	26479.8	27547.1	28697.9	29859.3	31040.8	32287.5
Prices & Wages, Percent Change (Q4/Q4)													
GDP Deflator	1.5	2.0	2.3	1.6	1.6	6.1	6.3	2.5	2.2	2.2	2.2	2.3	2.3
Consumer Prices	1.8	2.1	2.2	2.0	1.2	6.7	7.1	3.2	2.0	2.2	2.1	2.2	2.1
Producer Prices, Finished Goods	1.0	3.6	2.3	0.9	-1.2	13.0	10.2	2.4	0.8	1.5	1.5	1.8	1.6
Employment Cost Index - Total Comp.	2.2	2.6	3.0	2.6	2.6	4.4	5.1	4.4	4.0	3.7	3.6	3.6	3.5
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	44.24	54.83	70.96	64.34	41.77	70.70	100.72	87.79	85.33	89.07	90.62	93.16	94.40
Productivity (%ch.)	1.3	1.4	0.9	2.6	4.6	1.6	-1.6	0.3	1.9	1.6	1.4	1.5	1.5
Total Industrial Production (%ch.)	-2.2	1.4	3.2	-0.7	-7.0	4.9	3.9	-1.3	0.7	1.6	1.4	1.1	1.1
Factory Operating Rate	75.4	76.2	78.1	76.9	72.4	77.1	79.1	76.2	76.5	77.1	77.0	76.4	76.0
Nonfarm Inven. Chg. (Bil. 2012 \$)	41.2	41.7	73.8	88.3	-46.9	-16.0	137.0	17.0	30.2	62.1	67.4	61.1	62.2
Consumer Sentiment Index	91.8	96.8	98.4	96.0	81.5	77.6	59.0	63.2	80.0	92.4	97.7	96.5	94.1
Light Vehicle Sales (Mil. units)	17.48	17.15	17.22	16.96	14.47	14.95	13.79	14.81	15.88	16.29	16.38	16.21	16.04
Housing Starts (Mil. units)	1.177	1.205	1.247	1.291	1.395	1.605	1.555	1.184	1.252	1.377	1.403	1.391	1.387
Exist. House Sales (Total, Mil. units)	5.437	5.527	5.334	5.325	5.638	6.127	5.094	3.929	4.022	4.433	4.926	5.633	5.760
Unemployment Rate (%)	4.9	4.4	3.9	3.7	8.1	5.4	3.6	3.9	4.6	4.5	4.4	4.4	4.3
Payroll Employment (%ch.)	1.7	1.5	1.6	1.3	-6.0	4.6	3.4	-0.3	0.0	0.3	0.3	0.3	0.4
Federal Surplus (Unified, FY, bil. \$)	-581.6	-680.9	-873.0	-1022.0	-3348.2	-2580.4	-1419.2	-1351.5	-1578.4	-1729.4	-1815.1	-1922.7	-2027.1
Current Account Balance (Bil. \$)	-396.2	-361.0	-439.8	-446.0	-619.7	-846.4	-951.4	-821.0	-832.9	-831.3	-782.4	-748.9	-732.0
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.40	1.00	1.83	2.16	0.38	0.08	1.68	4.92	4.37	2.96	2.63	2.63	2.63
3-Month Treasury Bill Rate (%)	0.32	0.93	1.94	2.06	0.37	0.04	2.02	4.78	4.04	2.69	2.37	2.37	2.37
10-Year Treasury Note Yield (%)	1.84	2.33	2.91	2.14	0.89	1.44	2.95	3.59	3.35	3.22	3.20	3.19	3.18
30-Year Fixed Mortgage Rate (%)	3.76	4.09	4.64	4.08	3.18	3.03	5.38	6.25	5.61	5.11	4.98	4.94	4.90
S&P 500 Stock Index	2092	2448	2745	2912	3219	4267	4101	4132	4063	4150	4285	4444	4606
(Percent change, Q4/Q4)	6.4	19.2	3.3	14.7	15.2	29.4	-16.3	7.9	-2.1	3.1	3.6	3.8	3.4
Exchange Rate, Broad Index of Partners	1.235	1.232	1.223	1.263	1.285	1.235	1.319	1.294	1.256	1.228	1.218	1.216	1.220
(% change, Q4/Q4)	3.9	-4.2	4.3	0.6	-2.1	0.9	8.7	-6.7	-2.4	-1.6	-0.4	0.0	0.4
Incomes													
Personal Income (%ch., Q4/Q4)	3.0	5.1	5.2	4.5	5.1	6.9	4.8	3.5	4.7	4.7	4.5	4.6	4.4
Real Disposable Income (%ch., Q4/Q4)	1.6	3.0	4.1	2.8	3.7	-0.4	-2.3	3.0	3.3	2.7	2.6	2.6	2.4
Saving Rate (%)	7.0	7.3	7.6	8.8	16.8	11.9	3.3	4.4	6.3	7.4	8.1	8.5	8.7
After-Tax Profits (Billions of \$)	1758	1897	1960	2007	2111	2750	2931	2895	2952	3045	3157	3286	3363
(Percent change, Q4/Q4)	11.5	-2.4	11.4	4.5	10.6	20.5	7.1	-1.7	1.7	3.7	3.6	4.4	2.5

Alternative Scenarios of the US Economy

	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2022	2023	2024	2025	2026	2027	2028
Pessimistic: Recovery stumbles as Russia Ukraine conflict intensifies, grinds on (25% probability)													
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	3.2	2.9	-2.6	-1.4	-0.2	1.2	2.1	0.0	1.1	1.8	1.9	1.8	1.8
Total Consumption	2.3	2.1	-1.2	-0.3	-0.3	0.4	2.8	0.4	0.7	1.5	2.2	2.2	2.2
Nonresidential Fixed Investment	6.2	0.7	-6.2	-7.5	-1.4	-1.9	3.6	-2.4	-2.0	-0.5	0.9	2.8	3.1
Residential Fixed Investment	-27.1	-26.7	-15.4	-17.1	-10.1	-1.4	-10.7	-18.5	3.1	8.9	3.2	0.5	1.1
Exports	14.6	-1.3	-1.4	1.8	3.4	3.6	7.2	2.9	4.5	5.5	4.1	3.4	2.8
Imports	-7.3	-4.6	-5.3	-3.0	-3.8	-1.3	8.1	-4.1	0.4	3.3	3.5	3.1	3.2
Federal Government	3.7	6.2	4.8	0.1	0.0	-0.1	-2.5	2.6	0.3	0.6	0.4	-0.1	-0.4
State & Local Government	3.7	2.3	1.3	1.7	1.2	1.2	0.6	1.7	1.1	1.1	1.1	0.9	0.9
Prices & Wages, Percent Change, Annual Rate													
Consumer Prices	5.7	3.1	3.7	5.4	4.7	3.4	8.0	4.7	2.8	1.8	1.7	1.6	1.6
Producer Prices, Finished Goods	-0.5	2.5	3.4	5.8	2.5	2.1	13.5	4.0	1.5	0.9	1.0	1.1	1.1
Employment Cost Index - Total Comp.	4.3	4.0	4.4	3.4	3.3	3.7	5.1	4.0	3.4	2.6	2.5	2.5	2.5
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	100.77	88.58	90.00	106.83	107.83	109.32	100.72	103.50	101.70	105.05	106.31	108.70	109.67
Productivity (%ch., saar)	1.0	2.6	-5.2	4.8	3.8	3.8	-1.5	0.6	3.3	1.6	1.0	0.6	0.5
Total Industrial Production (%ch., saar)	1.8	-1.7	-5.1	0.1	-5.2	-3.5	3.9	-2.0	-1.9	0.7	1.6	1.7	1.5
Nonfarm Inven. Chg. (Bil.2012 \$)	55.5	145.4	65.8	39.8	6.0	25.7	137.0	34.3	57.6	88.5	95.0	81.2	72.7
Consumer Sentiment Index	56.1	58.8	59.5	55.4	57.2	61.7	59.0	58.4	74.0	86.4	92.9	93.3	92.7
Light Vehicle Sales (Mil. units, saar)	13.40	14.33	13.84	12.95	13.11	13.08	13.79	13.24	12.73	12.68	12.75	13.45	14.03
Housing Starts (Mil. units, saar)	1.450	1.403	1.228	1.162	1.076	1.045	1.555	1.128	1.134	1.270	1.295	1.294	1.301
Unemployment Rate (%)	3.5	3.6	3.6	4.8	5.7	6.1	3.6	5.1	6.5	6.3	5.8	5.3	4.8
Payroll Employment (%ch., saar)	3.4	2.5	1.9	-3.9	-3.5	-2.2	4.3	0.2	-1.8	0.0	0.6	0.9	1.1
Federal Surplus (Unified, FY, bil. \$)	-860.4	-421.4	-429.6	-161.2	-388.8	-421.1	-1375.5	-1400.9	-1631.0	-1820.7	-1861.7	-1886.8	-1908.8
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	2.19	3.65	4.52	4.99	5.08	4.99	1.68	4.89	2.98	1.01	0.63	0.63	0.63
10-Year Treasury Note Yield (%)	3.11	3.83	3.54	3.44	3.29	3.19	2.95	3.37	2.78	2.43	2.29	2.24	2.25
Incomes													
Personal Income (% ch., saar)	5.4	5.8	3.8	0.8	2.2	2.7	2.1	3.6	3.2	4.6	4.6	4.3	4.0
After-Tax Profits (Four-qr.% change)	2.3	7.1	-0.6	-3.0	1.8	-1.0	6.6	-0.7	2.2	2.0	3.3	2.8	2.1
Optimistic: Faster resolution to the Russia Ukraine conflict and improving supply issues drive faster growth (20% probability)													
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	3.2	2.9	0.2	1.3	1.5	1.9	2.1	1.5	1.8	2.0	1.7	1.4	1.7
Total Consumption	2.3	2.1	1.5	2.0	1.5	1.1	2.8	1.8	1.3	1.7	1.7	1.8	2.2
Nonresidential Fixed Investment	6.2	0.7	1.2	0.9	0.7	1.8	3.6	1.6	1.8	2.5	1.9	1.4	1.8
Residential Fixed Investment	-27.1	-26.7	-13.3	-14.1	-3.7	4.8	-10.7	-16.4	5.5	7.7	3.2	0.7	0.8
Exports	14.6	-1.3	-0.7	5.5	9.0	8.9	7.2	4.8	6.5	4.4	3.7	3.0	2.7
Imports	-7.3	-4.6	-2.4	1.3	-0.3	2.5	8.1	-1.9	2.8	3.8	2.9	2.9	3.6
Federal Government	3.7	6.2	5.0	0.1	0.1	0.0	-2.5	2.6	0.3	0.5	0.3	-0.3	-0.5
State & Local Government	3.7	2.3	2.8	1.9	0.9	1.7	0.6	2.1	1.2	1.0	0.9	0.6	0.6
Prices & Wages, Percent Change, Annual Rate													
Consumer Prices	5.7	3.1	-1.1	4.2	5.6	3.1	8.0	3.3	2.9	2.3	2.2	2.3	2.2
Producer Prices, Finished Goods	-0.5	2.5	-2.1	4.8	4.3	2.0	13.5	2.7	1.7	1.4	1.5	1.8	1.7
Employment Cost Index - Total Comp.	4.3	4.0	4.5	4.0	4.1	4.5	5.1	4.3	4.2	3.9	3.8	3.7	3.7
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	100.77	88.58	80.00	84.83	88.50	91.17	100.72	86.12	85.33	89.08	90.63	93.17	94.41
Productivity (%ch., saar)	1.0	2.6	-4.1	1.4	3.2	3.0	-1.5	0.2	2.2	1.7	1.5	1.4	1.6
Total Industrial Production (%ch., saar)	1.8	-1.7	-3.3	0.2	-0.6	1.4	3.9	-0.6	1.5	2.3	1.5	0.7	0.5
Nonfarm Inven. Chg. (Bil. 2012 \$)	55.5	145.4	66.8	40.8	1.4	-2.8	137.0	26.6	22.2	57.1	67.3	62.9	71.7
Consumer Sentiment Index	56.1	58.8	65.0	68.3	70.0	72.2	59.0	68.9	83.0	95.1	100.4	98.8	95.9
Light Vehicle Sales (Mil. units, saar)	13.40	14.33	14.06	14.26	14.92	15.47	13.79	14.68	16.04	16.62	16.62	16.52	16.27
Housing Starts (Mil. units, saar)	1.450	1.403	1.249	1.210	1.188	1.180	1.555	1.207	1.285	1.411	1.441	1.439	1.437
Unemployment Rate (%)	3.5	3.6	3.3	3.5	4.0	4.2	3.6	3.7	4.3	4.2	4.2	4.2	4.2
Payroll Employment (%ch., saar)	3.4	2.5	2.7	0.3	-1.4	-1.1	4.3	1.6	-0.5	0.3	0.3	0.2	0.3
Federal Surplus (Unified, FY, bil. \$)	-860.4	-421.4	-420.1	-141.2	-359.4	-383.2	-1375.5	-1342.1	-1438.6	-1612.6	-1698.3	-1811.0	-1944.2
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	2.19	3.65	4.52	4.99	5.08	5.09	1.68	4.92	4.59	3.20	2.80	2.63	2.63
10-Year Treasury Note Yield (%)	3.11	3.83	3.64	3.80	3.76	3.75	2.95	3.74	3.53	3.34	3.27	3.22	3.19
Incomes													
Personal Income (% ch., saar)	5.4	5.8	4.2	3.6	4.8	5.0	2.1	4.7	5.0	4.9	4.5	4.4	4.4
After-Tax Profits (Four-qr.% change)	2.3	7.1	1.8	-2.0	3.0	0.1	6.6	0.7	1.7	3.4	2.7	3.2	2.6

Alternative Scenarios of the US Economy

	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2022	2023	2024	2025	2026	2027	2028
Pessimistic: Recovery stumbles as Russia Ukraine conflict intensifies, grinds on (25% probability)													
Composition of Real GDP, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Gross Domestic Product	3.2	2.9	-2.6	-1.4	-0.2	1.2	1.0	-0.7	1.7	1.7	1.8	1.9	1.8
Total Consumption	2.3	2.1	-1.2	-0.3	-0.3	0.4	1.9	-0.4	1.2	1.7	2.2	2.2	2.3
Nonresidential Fixed Investment	6.2	0.7	-6.2	-7.5	-1.4	-1.9	3.7	-4.3	-1.1	-0.3	1.7	3.2	3.1
Residential Fixed Investment	-27.1	-26.7	-15.4	-17.1	-10.1	-1.4	-19.3	-11.2	10.8	5.9	1.8	0.8	1.0
Exports	14.6	-1.3	-1.4	1.8	3.4	3.6	5.3	1.9	5.6	5.0	3.6	3.3	2.5
Imports	-7.3	-4.6	-5.3	-3.0	-3.8	-1.3	1.7	-3.3	2.7	3.2	3.4	3.1	3.3
Federal Government	3.7	6.2	4.8	0.1	0.0	-0.1	0.2	1.2	0.5	0.7	0.2	-0.3	-0.4
State & Local Government	3.7	2.3	1.3	1.7	1.2	1.2	1.3	1.3	1.0	1.2	1.0	0.9	0.8
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Consumer Prices	5.7	3.1	3.7	5.4	4.7	3.4	7.1	4.3	2.0	1.7	1.6	1.6	1.6
Producer Prices, Finished Goods	-0.5	2.5	3.4	5.8	2.5	2.1	10.2	3.4	0.7	1.0	1.0	1.2	1.1
Employment Cost Index - Total Comp.	4.3	4.0	4.4	3.4	3.3	3.7	5.1	3.7	3.1	2.5	2.5	2.5	2.5
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	100.77	88.58	90.00	106.83	107.83	109.32	100.72	103.50	101.70	105.05	106.31	108.70	109.67
Productivity (%ch., saar)	1.0	2.6	-5.2	4.8	3.8	3.8	-1.6	1.7	2.6	1.2	0.9	0.6	0.5
Total Industrial Production (%ch., saar)	1.8	-1.7	-5.1	0.1	-5.2	-3.5	2.4	-3.5	-0.6	1.1	1.7	1.8	1.4
Nonfarm Inven. Chg. (Bil.2012 \$)	55.5	145.4	65.8	39.8	6.0	25.7	137.0	34.3	57.6	88.5	95.0	81.2	72.7
Consumer Sentiment Index	56.1	58.8	59.5	55.4	57.2	61.7	59.0	58.4	74.0	86.4	92.9	93.3	92.7
Light Vehicle Sales (Mil. units, saar)	13.40	14.33	13.84	12.95	13.11	13.08	13.79	13.24	12.73	12.68	12.75	13.45	14.03
Housing Starts (Mil. units, saar)	1.450	1.403	1.228	1.162	1.076	1.045	1.555	1.128	1.134	1.270	1.295	1.294	1.301
Unemployment Rate (%)	3.5	3.6	3.6	4.8	5.7	6.1	3.6	5.1	6.5	6.3	5.8	5.3	4.8
Payroll Employment (%ch., saar)	3.4	2.5	1.9	-3.9	-3.5	-2.2	3.4	-2.0	-0.9	0.3	0.7	1.0	1.1
Federal Surplus (Unified, FY, bil. \$)	-860.4	-421.4	-429.6	-161.2	-388.8	-421.1	-1375.5	-1400.9	-1631.0	-1820.7	-1861.7	-1886.8	-1908.8
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	2.19	3.65	4.52	4.99	5.08	4.99	1.68	4.89	2.98	1.01	0.63	0.63	0.63
10-Year Treasury Note Yield (%)	3.11	3.83	3.54	3.44	3.29	3.19	2.95	3.37	2.78	2.43	2.29	2.24	2.25
Incomes													
Personal Income (% ch., saar)	5.4	5.8	3.8	0.8	2.2	2.7	4.8	2.4	3.9	4.8	4.4	4.3	3.9
After-Tax Profits (Four-qr.% change)	2.3	7.1	-0.6	-3.0	1.8	-1.0	7.1	-1.0	1.7	2.4	2.9	3.5	2.5
Optimistic: Faster resolution to the Russia Ukraine conflict and improving supply issues drive faster growth (20% probability)													
Composition of Real GDP, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Gross Domestic Product	3.2	2.9	0.2	1.3	1.5	1.9	1.0	1.2	2.0	2.0	1.5	1.5	1.7
Total Consumption	2.3	2.1	1.5	2.0	1.5	1.1	1.9	1.5	1.5	1.7	1.7	2.0	2.3
Nonresidential Fixed Investment	6.2	0.7	1.2	0.9	0.7	1.8	3.7	1.2	2.3	2.3	1.5	1.5	1.8
Residential Fixed Investment	-27.1	-26.7	-13.3	-14.1	-3.7	4.8	-19.3	-6.9	10.2	5.0	2.6	0.1	0.9
Exports	14.6	-1.3	-0.7	5.5	9.0	8.9	5.3	5.6	5.0	4.5	3.1	2.9	2.6
Imports	-7.3	-4.6	-2.4	1.3	-0.3	2.5	1.7	0.3	3.9	3.3	2.7	3.2	3.6
Federal Government	3.7	6.2	5.0	0.1	0.1	0.0	0.2	1.3	0.5	0.5	0.0	-0.5	-0.5
State & Local Government	3.7	2.3	2.8	1.9	0.9	1.7	1.3	1.8	1.0	1.0	0.7	0.6	0.5
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Consumer Prices	5.7	3.1	-1.1	4.2	5.6	3.1	7.1	2.9	2.3	2.2	2.2	2.3	2.2
Producer Prices, Finished Goods	-0.5	2.5	-2.1	4.8	4.3	2.0	10.2	2.2	1.0	1.5	1.6	1.8	1.7
Employment Cost Index - Total Comp.	4.3	4.0	4.5	4.0	4.1	4.5	5.1	4.3	4.1	3.8	3.8	3.8	3.6
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	100.77	88.58	80.00	84.83	88.50	91.17	100.72	86.12	85.33	89.08	90.63	93.17	94.41
Productivity (%ch., saar)	1.0	2.6	-4.1	1.4	3.2	3.0	-1.6	0.8	1.8	1.7	1.3	1.5	1.6
Total Industrial Production (%ch., saar)	1.8	-1.7	-3.3	0.2	-0.6	1.4	2.4	-0.6	2.2	2.1	1.1	0.5	0.4
Nonfarm Inven. Chg. (Bil. 2012 \$)	55.5	145.4	66.8	40.8	1.4	-2.8	137.0	26.6	22.2	57.1	67.3	62.9	71.7
Consumer Sentiment Index	56.1	58.8	65.0	68.3	70.0	72.2	59.0	68.9	83.0	95.1	100.4	98.8	95.9
Light Vehicle Sales (Mil. units, saar)	13.40	14.33	14.06	14.26	14.92	15.47	13.79	14.68	16.04	16.62	16.62	16.52	16.27
Housing Starts (Mil. units, saar)	1.450	1.403	1.249	1.210	1.188	1.180	1.555	1.207	1.285	1.411	1.441	1.439	1.437
Unemployment Rate (%)	3.5	3.6	3.3	3.5	4.0	4.2	3.6	3.7	4.3	4.2	4.2	4.2	4.2
Payroll Employment (%ch., saar)	3.4	2.5	2.7	0.3	-1.4	-1.1	3.4	0.1	0.0	0.3	0.3	0.2	0.3
Federal Surplus (Unified, FY, bil. \$)	-860.4	-421.4	-420.1	-141.2	-359.4	-383.2	-1375.5	-1342.1	-1438.6	-1612.6	-1698.3	-1811.0	-1944.2
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	2.19	3.65	4.52	4.99	5.08	5.09	1.68	4.92	4.59	3.20	2.80	2.63	2.63
10-Year Treasury Note Yield (%)	3.11	3.83	3.64	3.80	3.76	3.75	2.95	3.74	3.53	3.34	3.27	3.22	3.19
Incomes													
Personal Income (% ch., saar)	5.4	5.8	4.2	3.6	4.8	5.0	4.8	4.4	5.1	4.7	4.4	4.5	4.4
After-Tax Profits (Four-qr.% change)	2.3	7.1	1.8	-2.0	3.0	0.1	7.1	0.1	1.8	3.4	2.5	4.0	2.9

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