

Executive Summary: US Economic Outlook

September 2021



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Forecast overview

New COVID concerns, continuing supply issues shift growth from 2021 to 2022; IIJA a modest stimulus

- Our forecast of real GDP growth for 2021 has been revised down for the third month in a row, from 6.1% to 5.7%.¹ The revision was more than accounted for by a downward revision to our projection for Q3 growth, from 6.1% to 3.4%, mainly reflecting a deceleration in PCE-services in response to the rapid spread of the delta strain of the coronavirus, a downward revision in projected sales and assemblies of vehicles as the impact of chip shortages in the auto industry has intensified, and a downward revision in inventory investment as, more generally, production has been impeded by supply-chain disruptions.²
- The resolution of supply-chain issues and continued progress on vaccinations will shift growth lost in 2021 into 2022. Our forecast for GDP growth in 2022 has been revised up from 4.4% to 4.5%. However, that apparently modest revision is misleading. Measured fourth-quarter-to fourth quarter, GDP growth is revised down 0.6 percentage point over 2021, from 6.2% to 5.6%, and up that same 0.6 percentage point over 2022, from 3.0% to 3.6%.
- After several months of upward revisions, our forecasts of inflation have stabilized. We project headline CPI inflation for 2021 at 4.2%, unrevised from last month's forecast. As prices of food, energy, and motor vehicles retreat with recovering supplies, and with long-run inflation expectations anchored near the Fed's long-term 2% objective, we expect CPI inflation to subside to 2.4% in 2022, also unrevised.
- The Infrastructure Investment and Jobs Act (IIJA) has advanced to the House and its passage is now likely enough that we have included it in the September forecast. The peak effect, reached in 2025-26, is to raise the level of real GDP by 0.5% and employment by 750,000. These impacts wane after 2026 as the temporary increase in spending unwinds.
- Hurricane Ida devastated parts of Louisiana, knocking out power in New Orleans and temporarily shuttering parts of the energy industry. The forecast does not include a full adjustment for the storm's negative effects—or the subsequent rebuilding—but our regional team estimates the impact to be at most 0.1-0.2 percentage point off third-quarter GDP growth.

Q2 growth of real gross domestic income just 1.6%

- BEA's second estimate of Q2 real GDP growth was little revised at 6.6%, but its first estimate of Q2 growth in real GDI was notably slower at 1.6%. The average of GDP and GDI, which BEA reports as a supplementary measure of US economic activity, grew 4.0%, suggesting a less robust economy than implied by the expenditure data alone.

Rapid spread of delta strain undermines PCE

- A downward revision to Q2 PCE-services, monthly data on PCE through July, and higher frequency data through August, all suggest the recent surge in COVID cases is slowing the recovery in consumer spending. That conclusion is reinforced by our own analysis showing the emergence, after June, of a significant inverse relationship between infections and spending across 1,900 counties in the US. Based on this, we revised down our forecast for second-half growth of PCE-services by 0.5 percentage point.

Later, but lower, trough in unemployment

- The employment report for August was weaker than expected, and downward revisions to GDP growth in 2021 imply upward revisions to unemployment through 2022. However, wealth effects from healthy corporate earnings and recent rapid increases in house prices will re-enforce stimulus from IIJA to push the unemployment rate to a trough of 3.3% in 2024-25. In last month's forecast, the trough in the unemployment rate was 3.6% in 2022.

Price reversals to restrain inflation in 2022-23

- We expect inflation to ease later this year as supply chains recover and workers return to the labor force. A sharp reversal in the price of motor vehicles and parts helps restrain core PCE inflation close to 2% in 2022-23, while reversals of recent sharp increases in the prices of farm products and crude oil push headline inflation below core inflation.

IIJA a modest stimulus after 2022

- The impact of IIJA on the forecast is modest because: most of "new" contract authority for the highway trust fund was assumed in previous forecasts; other new appropriations are spread over five years; the spend-out of each year's authority itself is spread out over several years; the rescission of some COVID relief funds offsets some of the stimulus from infrastructure investments in 2022 and 2023.

Fed call: earlier taper, same lift-off

- Based on Fed chatter, we now anticipate the Fed to taper its large scale asset purchases starting in November rather than January, but with minimal impact on either term yields or the GDP forecast. We still expect the Fed to begin raising its policy rate in September of 2023. The federal funds rate reaches its terminal range of 2½% – 2¾% in mid-2028.

1. This forecast was issued on 7 September 2021. Unless otherwise noted, all quarterly growth rates are stated as compound annual rates, all expenditure components of GDP are 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 (September 2021) 2021:Q3 - 2025: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					
	2021.1	2021.2	2021.3	2021.4	2022.1	2022.2	2020	2021	2022	2023	2024	2025	2020.4	2021.4	2022.4	2023.4	2024.4	2025.4
Key indicators of real activity																		
Real gross domestic product	6.3	6.6	3.4	6.2	4.8	4.0	-3.4	5.7	4.5	2.7	2.9	2.6	-2.3	5.6	3.6	2.7	2.8	2.5
Contributions to growth (% points):																		
Final sales to domestic purchasers	10.5	8.1	2.5	4.3	2.8	2.3	-2.6	7.1	3.1	2.1	2.4	2.5	-1.3	6.4	2.3	2.2	2.5	2.5
Net exports of goods & services	-1.6	-0.4	-0.2	0.7	0.2	0.3	-0.3	-1.2	0.2	0.3	0.0	-0.1	-1.2	-0.4	0.3	0.2	-0.1	-0.2
Change in private inventories	-2.6	-1.1	3.8	0.9	1.8	0.1	-0.5	0.0	0.9	-0.2	-0.1	0.0	0.3	-0.1	0.4	-0.2	0.0	0.0
Major components of real GDP																		
Personal consumption expend.	11.4	11.9	0.7	4.3	2.9	2.8	-3.8	7.8	3.3	2.6	3.1	3.1	-2.4	7.0	2.6	2.8	3.2	3.1
Nonres. fixed investment	12.9	9.3	0.9	9.9	8.2	6.7	-5.3	7.7	6.8	4.6	4.8	4.1	-3.8	8.1	6.2	4.4	4.7	3.9
Residential investment	13.3	-11.5	-9.1	-9.6	-4.4	-3.5	6.8	8.3	-5.9	-1.6	1.5	0.9	15.7	-4.7	-3.0	-0.6	1.8	0.5
Change in private inventories *	-88.3	-169.4	-58.3	-6.6	79.1	141.1	-42.3	-80.6	138.6	146.4	138.5	120.7	88.8	-6.6	165.2	139.6	134.0	114.4
Exports of goods & services	-2.9	6.6	4.1	8.4	7.9	8.0	-13.6	4.8	7.5	7.5	5.6	4.4	-10.7	3.9	8.1	6.7	5.0	4.2
Imports of goods & services	9.3	6.7	-1.0	-0.9	7.3	6.7	-8.9	11.9	4.3	5.2	5.1	5.0	0.3	3.5	6.4	4.7	5.4	4.9
Gov't consump. & gross invest.	4.2	-1.9	2.5	1.9	2.7	1.7	2.5	1.0	1.9	1.5	1.2	0.9	1.2	1.7	1.9	1.5	0.9	1.0
Pvt. housing starts (thous. units)	1599	1586	1510	1470	1439	1415	1397	1541	1405	1340	1339	1331	1575	1470	1372	1342	1329	1324
Light vehicle sales (mil. units)	16.8	16.9	13.8	15.1	16.5	16.8	14.5	15.7	16.7	16.9	16.7	16.7	16.2	15.1	16.8	16.9	16.7	16.8
Industrial production, total	3.9	6.1	5.5	3.7	5.1	4.7	-7.2	5.6	4.5	2.7	2.4	2.0	-4.3	4.8	4.0	2.3	2.3	1.9
Industrial production, mfg	2.8	5.1	6.6	5.3	5.8	5.6	-6.6	6.6	5.3	3.0	2.7	2.3	-2.5	4.9	4.7	2.6	2.7	2.1
Capacity utilization (mfg, %)	74.5	75.4	76.6	77.5	78.2	78.7	71.1	76.0	78.7	78.8	78.5	77.8	74.0	77.5	79.0	78.7	78.3	77.5
Nonfarm payroll employ. (mil.)	143.4	145.1	147.2	148.5	149.6	150.7	142.3	146.0	151.1	153.7	155.6	156.9	142.6	148.5	152.4	154.4	156.2	157.3
Average monthly chg. (thous.)	518	615	565	435	342	359	-785	533	312	160	146	88	213	435	244	154	120	81
Private nonfarm hours	4.0	5.9	5.7	3.3	3.4	3.3	-6.6	5.2	3.6	1.7	1.2	0.9	-5.0	4.7	2.9	1.2	1.2	0.7
Civilian unemployment rate (%)	6.2	5.9	5.3	5.0	4.6	4.3	8.1	5.6	4.2	3.6	3.3	3.3	6.7	5.0	3.8	3.5	3.3	3.3
Prices, Productivity, & Costs																		
CPI, all items, all urban	3.7	8.4	6.1	1.2	1.7	1.2	1.2	4.2	2.4	1.8	2.1	2.2	1.2	4.8	1.5	2.0	2.2	2.3
CPI excl food & energy, all urban	1.2	8.1	5.5	2.1	2.4	2.4	1.7	3.4	3.0	2.3	2.4	2.5	1.6	4.2	2.3	2.3	2.4	2.5
PCE price index	3.8	6.5	4.9	1.6	1.6	1.5	1.2	3.5	2.2	1.7	2.0	2.1	1.2	4.2	1.5	1.8	2.1	2.2
PCE price excl food & energy	2.7	6.1	4.4	2.2	2.1	2.2	1.4	3.1	2.7	2.1	2.1	2.2	1.4	3.8	2.1	2.0	2.2	2.2
PPI finished goods	14.1	11.3	7.4	0.4	0.4	1.1	-1.3	7.3	2.2	1.5	1.8	2.0	-1.2	8.2	1.0	1.6	1.9	2.0
Compensation per hour	1.4	3.4	4.2	4.1	3.5	3.3	7.0	4.0	3.7	3.8	4.0	4.2	8.5	3.3	3.5	4.0	4.1	4.2
Output per hour	4.3	2.1	-2.4	3.7	2.2	1.4	2.4	1.9	1.5	1.4	2.1	2.1	2.5	1.9	1.3	1.9	2.1	2.2
Unit labor cost	-2.8	1.3	6.8	0.4	1.3	1.9	4.5	2.1	2.2	2.4	1.9	2.0	5.8	1.4	2.2	2.0	2.0	2.0
CoreLogic house price index **	3.7	5.1	3.6	1.5	1.4	1.3	6.1	14.7	7.5	4.1	3.6	3.4	9.1	14.5	5.1	3.7	3.6	3.3
Price of WTI crude oil (\$/barrel)	57.80	66.09	69.00	65.09	63.94	63.34	39.25	64.49	62.84	62.03	62.16	62.70	42.53	65.09	61.63	61.94	62.32	62.94
Price of Brent crude oil (\$/barrel)	60.82	68.83	71.82	68.17	67.17	66.58	41.77	67.41	66.13	65.53	65.79	66.56	44.29	68.17	65.00	65.50	66.03	66.86
Selected Financial Variables																		
Federal funds rate (%)	0.08	0.07	0.10	0.09	0.10	0.10	0.38	0.08	0.10	0.17	0.52	1.03	0.09	0.09	0.10	0.36	0.68	1.18
Yield on 10-Yr Treasury Notes (%)	1.32	1.59	1.32	1.42	1.56	1.68	0.89	1.41	1.73	2.06	2.32	2.62	0.86	1.42	1.90	2.13	2.45	2.71
Baa corporate bond yield (%)	3.54	3.61	3.31	3.43	3.54	3.74	3.69	3.47	3.80	4.21	4.43	4.68	3.36	3.43	3.99	4.28	4.53	4.76
Broad trade-wtd US\$ (Jan 2006=100)	112.6	112.1	113.7	114.2	114.3	113.9	117.9	113.1	114.0	113.8	113.5	113.7	114.2	114.2	113.9	113.8	113.5	113.9
S&P 500 stock index, period end	3973	4297	4600	4501	4427	4413	3756	4501	4503	4781	4815	4824	3756	4501	4503	4781	4815	4824
S&P 500 stock index, average	3863	4183	4460	4550	4464	4420	3219	4264	4446	4639	4810	4817	3554	4550	4473	4750	4815	4821
Incomes & Related Measures																		
Corporate profits w/ IVA & CCAdj	22.0	42.1	-17.6	14.5	12.2	3.8	-5.2	19.6	5.8	0.2	3.9	3.6	0.9	13.1	2.9	1.9	3.9	3.9
Real disposable personal income	54.7	-31.0	-7.0	-4.3	0.0	4.3	6.2	1.4	-2.7	3.0	3.3	3.1	4.0	-1.3	2.6	3.0	3.2	3.0
Personal saving rate (%)	20.5	10.3	8.5	6.5	5.7	6.0	16.4	11.5	6.1	6.5	6.7	6.7	13.6	6.5	6.4	6.6	6.7	6.6
Fed. surplus (unified, FY, bil. \$)	-4533	-2127	-1937	-1406	-1557	-629	-3132	-2722	-1109	-666	-725	-734	-2292	-1406	-968	-1026	-1024	-1061

* billions of chained 2012 \$

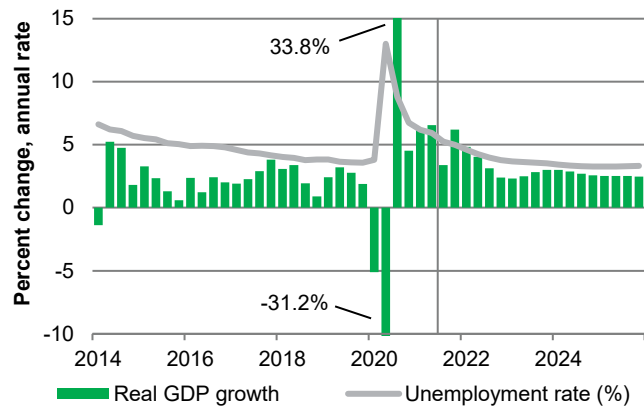
** % change, not annualized

Source: IHS Markit

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Forecast at a glance

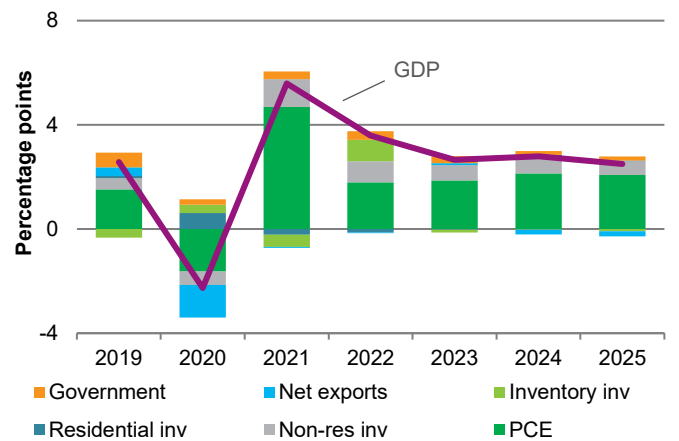
Recovery continued through Q2; GDP has surpassed pre-pandemic peak



Source: IHS Markit, BEA, BLS

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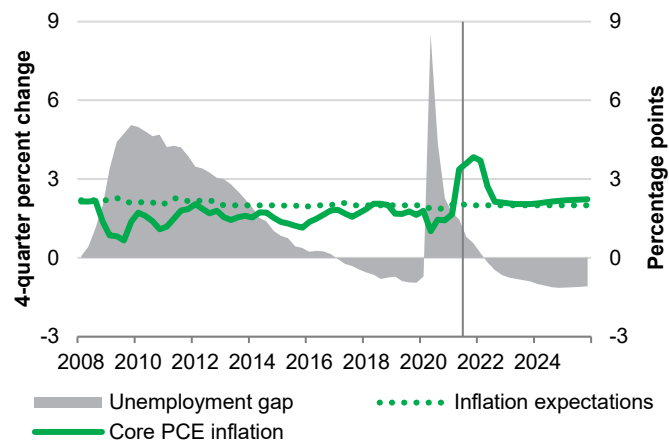
Contributions to GDP growth (Q4/Q4)



Source: IHS Markit, BEA

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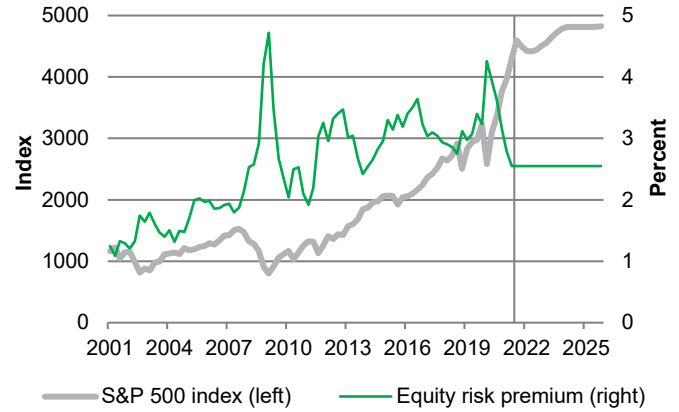
Core PCE inflation declines to 2% after surge



Source: IHS Markit, Philly Fed, BEA, BLS

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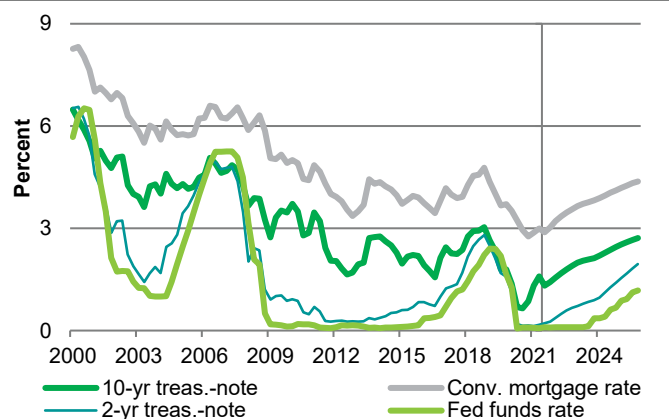
Equities to decline through mid-2022 before rising gradually



Source: IHS Markit, S&P

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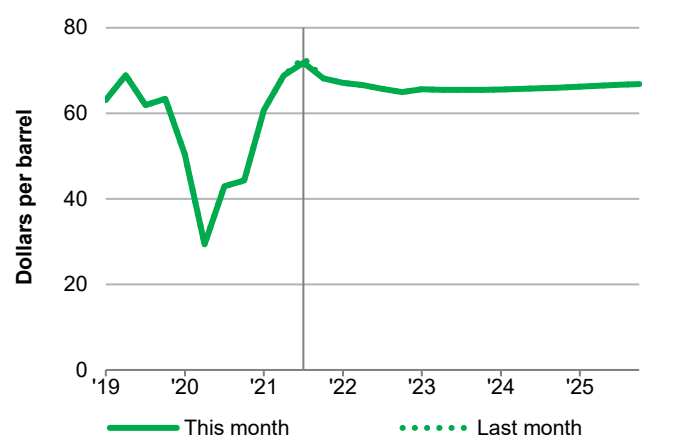
Fed keeps funds rate pinned at 0 until fall 2023, term yields rise gradually



Source: IHS Markit, FRB

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Price of Brent crude oil



Source: IHS Markit

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What's new

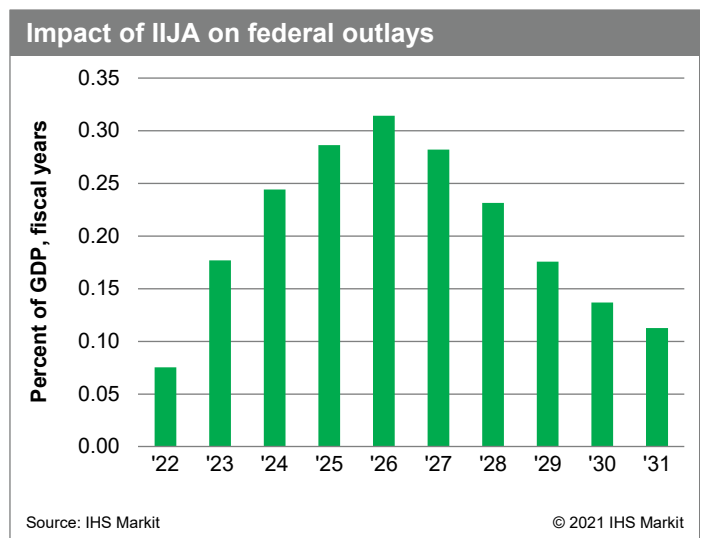
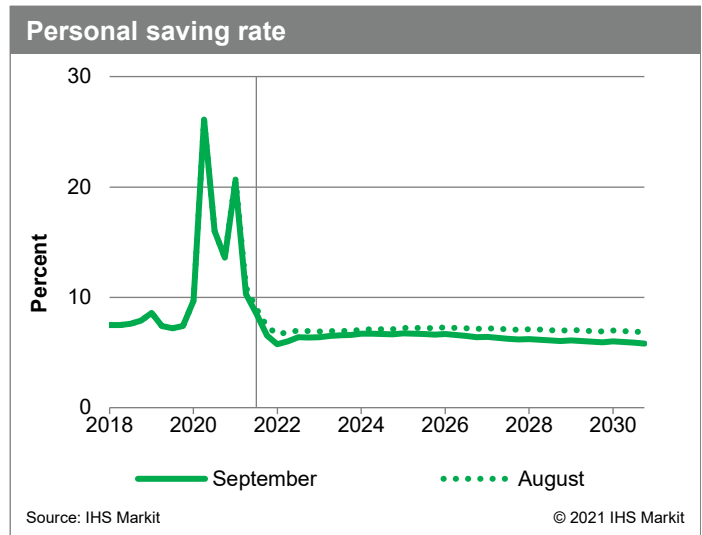
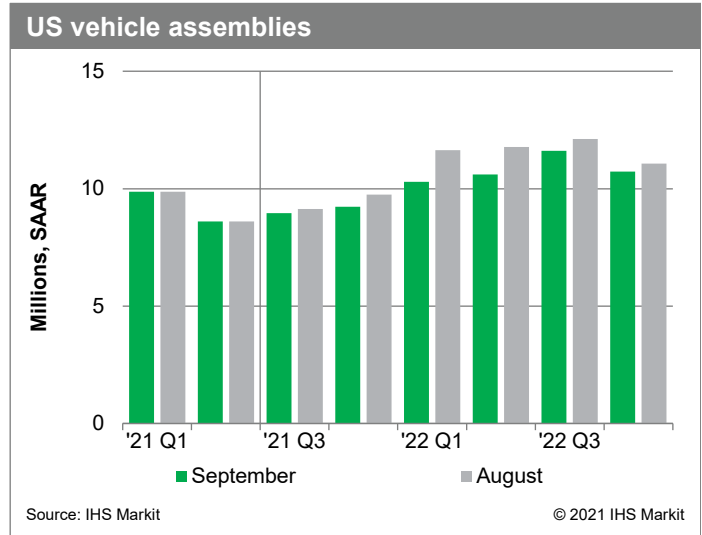
Lower vehicle assemblies; lower saving rate; inclusion of IIJA

BEA's second estimate of Q2 GDP growth was 6.6%, revised up slightly from the initial estimate of 6.5% and with little consequence for the forecast. It also included the first estimate of real Gross Domestic Income, which grew a slower 1.6%. The average of GDP and GDI, which BEA reports as a supplementary measure of US economic activity, grew 4.0%, suggesting a less robust economy than implied by the expenditure data alone. Recent profits appear robust. BEA's initial estimate is that Q2 corporate profits grew 42%, nearly twice our estimate; and, with nearly all companies now reporting, S&P 500 operating earnings are estimated to have grown 45.2%. This forecast reflects BEA's revised historical estimates of capital stocks and productivity and costs consistent with the July annual revision of the National Accounts. These data replaced our own estimates that proved close to the mark, so there was little consequence for the forecast.

Our forecast for Q3 GDP growth has been revised down from 6.1% to 3.4%, with the displaced growth recouped over 2022 as more people are vaccinated and current supply shortages are resolved. Driving the downward revision were further cuts to vehicle production in the face of ongoing shortages of computer chips, and a recent deceleration in PCE evident in high-frequency data. We attribute part of the softening in spending on services to consumers' renewed caution in response to the recent rapid spread of the delta strain of the coronavirus. Given ongoing shortages of chips, our automotive team has become more pessimistic about the prospective rebound in vehicle assemblies, pushing the full recovery well into 2022 (chart, top).

There has been a notable downward revision in our projection of the personal saving rate, attributable to two factors (chart, middle). First, BEA reported a sizable upward revision in personal taxes back to January that reduced disposable income and personal saving. Second, strong recent profits (see above) and house prices resulted in an upward revision in household net worth that bolstered consumption relative to income. Note that the lower saving rate does NOT reflect new assumptions about the disposition of recent "excess" savings. However, it did contribute to the strengthening of GDP in the middle of this decade relative to last month's forecast.

The September forecast is the first to include the Infrastructure Investment and Jobs Act (IIJA). Relative to our previous fiscal assumptions, we estimate that IIJA will result in approximately \$300 billion of additional spending over the next five fiscal years, with the peak increase reaching approximately 0.3% of GDP in 2026 (chart, bottom) before gradually tapering off. We estimate the peak macro impact is to raise the level of real GDP by 0.5% by 2025-26 and employment by 750,000, before the effects wane as the spending winds down.



The view just ahead

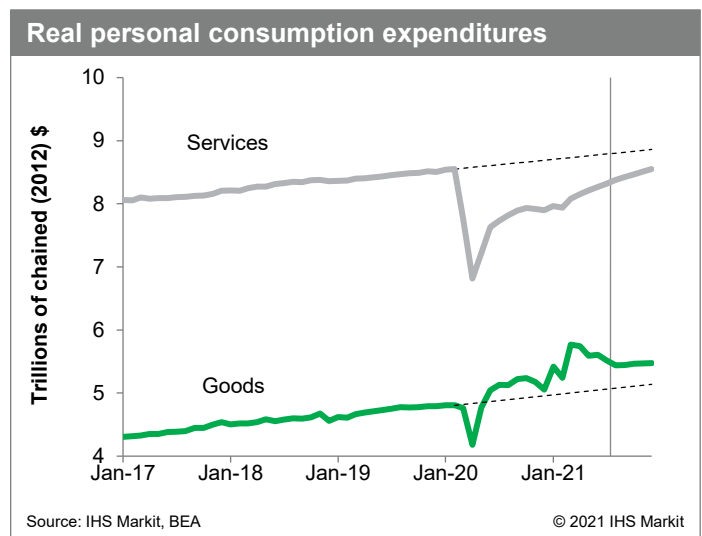
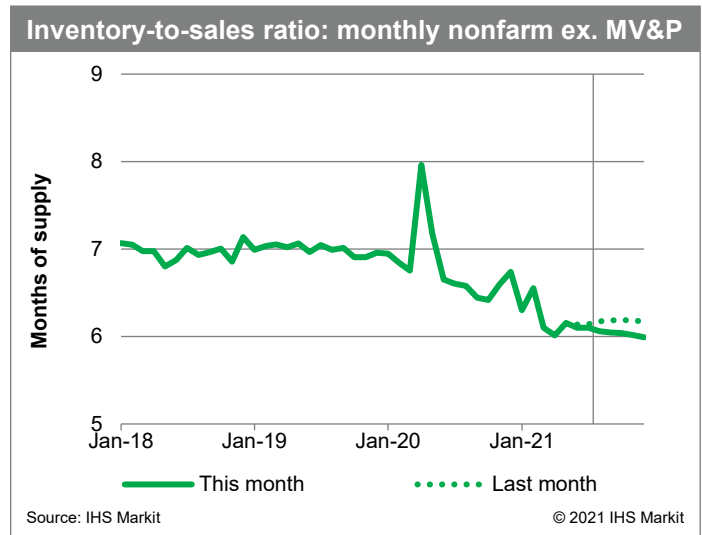
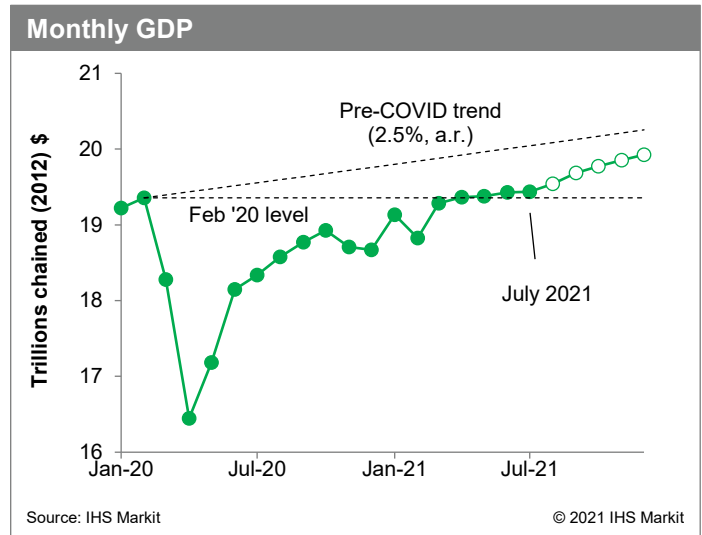
Supply constraints and delta hamper expansion in the second half

Factoring in all available source data at the time we completed our forecast, monthly GDP was estimated to have been flat in July, below the initial estimate of a 0.2% increase issued on 1 September and even further below the 0.8% increase that was assumed in our prior base forecast. The flat reading in July put the average monthly increase from May to July at 0.1% per month and put the level of GDP in July only 0.9% above the second-quarter average at an annual rate. Implicit in our forecast of 3.4% GDP growth in the third quarter are average monthly increases over August and September of 0.6% per month, somewhat below the average monthly increases of 0.7% per month in last month's forecast.

The markdown to GDP growth over August and September was in part a judgmental one that better aligns our projection for nonfarm, nonautomotive inventories with the recent trend, which has been pulled lower by supply issues. The inventory-to-sales ratio for these inventories (expressed as months of supply) has been fairly steady around 7 months (+/- about 12 days of supply) in data going back at least 10 years. Beginning with the pandemic, though, months of supply of these inventories began trending lower and, by April, reached 6 months. Our previous base forecast included paths for inventory investment and final sales that stabilized this measure of months of supply and even contributed to a moderate increase. In light of ongoing supply issues, though, we decided to lower our near-term projection for nonfarm, nonautomotive inventories to affect a continued downward drift in months supply. This better balances the risks around our second-half forecast.

Elsewhere in the near-term forecast, light-vehicle production is assumed to remain depressed, owing to ongoing shortages of semiconductors. Regarding light vehicle sales, we think some of the weakness in August (13.1 million units, SAAR) reflected some pull-forward of sales into last spring, so we do show a moderate recovery over the next couple of months. The pace of light-vehicle sales that we assume for the fourth quarter (15.1 million units), though, remains well below the first-half average pace of 16.8 million units.

Real personal consumption expenditures (PCE) on services have been gradually rising in recent months, and we assume that trend continues through the second half. Prior forecasts showed a stronger recovery in services, but the recent spread of the delta variant along with our own research identifying a (negative) link between delta and spending has led us to be more cautious with our projection for services. PCE on goods was boosted recently above the pre-COVID trend by fiscal stimulus and by substitution away from services but more recently has been trending lower. Over the second half, services remain below the pre-COVID trend and goods remain above.



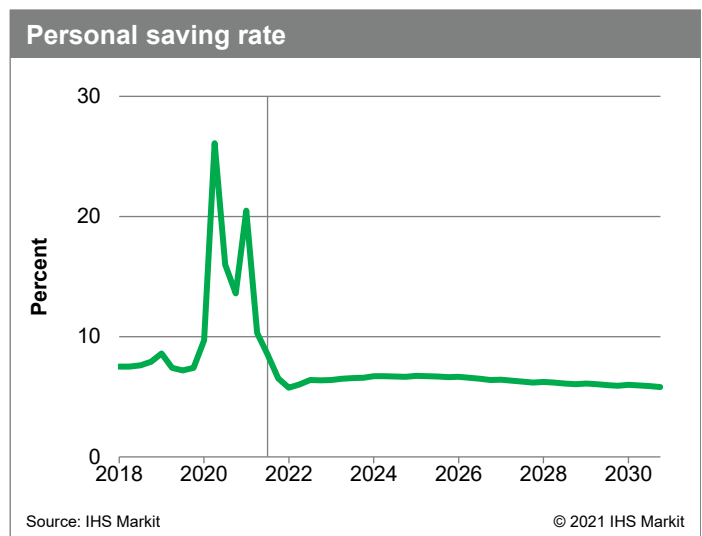
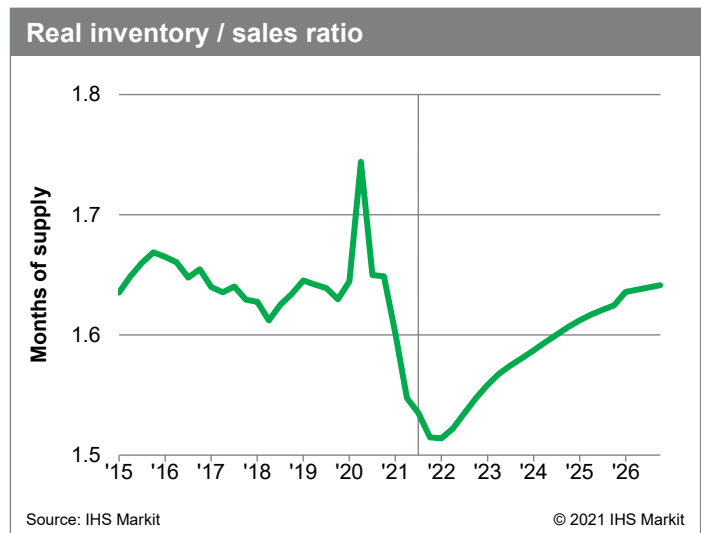
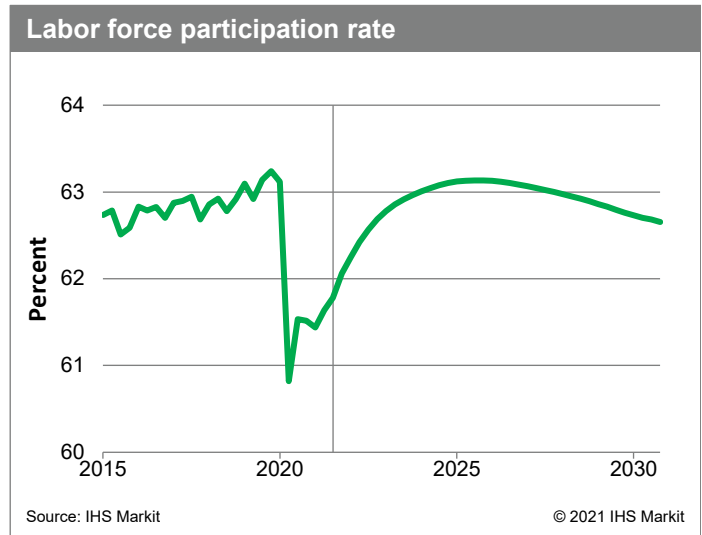
Growth

Slow recovery in participation; gradual restoration of inventories; slow spend-out of “excess savings”

While much of the recent discussion of supply-chain disruptions has focused on shortages of certain commodities, labor is part of the supply chain as well. During the pandemic the participation rate fell far more than could be accounted for by normal cyclical variation, for several reasons: concern about safety in the workplace; the sudden lack of availability of day-care services; the shift of schools to virtual learning; and emergency unemployment benefits that may have discouraged work. We expect participation to recover, but progress has been halting. Over the summer, half the states dropped out of the emergency unemployment programs, and in early September those programs expired for all states. Yet early evidence suggests termination of these programs may not result in a surge in hiring. Daycare services remain unavailable to many. Concerns about workplace safety persist as the delta strain of the coronavirus spreads. Some elderly or medically vulnerable persons may retire rather than return to the workforce. Finally, during the pandemic some people may have reassessed their view of the work-leisure trade-off. In the forecast it takes two more years for the participation rate to approach its pre-pandemic level (chart, top), before resuming a secular decline driven by the aging of the population.

An important issue in the forecast is the extent to which supply shortages are constraining current growth, and how quickly those shortages will resolve. One manifestation of supply shortages has been a sharp drawdown of inventories that has pushed the aggregate inventory/sales ratio to record low levels (chart, middle). The forecast shows inventory investment making a positive contribution to GDP growth in 2022 as firms raise production and start rebuilding depleted stocks. However, the extent to which supply shortages linger is partially reflected in the time required — several years — to restore inventories to their pre-pandemic relationship with sales.

The personal saving rate jumped sharply during the pandemic as social distancing — mandated and voluntary — reduced consumption while emergency COVID fiscal relief supported disposable income. An important issue in the forecast is how quickly “excess savings” accumulated during the pandemic will be spent. If spent rapidly, the result would be a large but temporary decline in the saving rate below the pre-pandemic average of around 7.5%. Our modeling of consumption is based on a “life-cycle” theory suggesting that, through a modest “wealth effect”, these savings will be spent gradually over the remaining lifetime of consumers, implying a small but persistent decline in the saving rate below the pre-pandemic norm. Hence, our forecast shows the saving rate falling slightly below the pre-pandemic level and remaining there for several years thereafter (chart, bottom).



Sector highlights

Consumer spending recovery continued thru Q2; labor markets cooled in August as delta variant surged

Consumer markets: According to the second estimate from BEA, real personal consumption expenditures (PCE) increased 11.9% (annual rate) in the second quarter of 2021. Consumer spending continued to recover strongly in the second quarter, but the pace of recovery is poised to slow in the third quarter as the income boost from earlier stimulus unwinds and concerns about the delta variant weigh on consumer behaviors. High-frequency data on travel and dining out indicate that renewed caution may have caused households to pause or even pull back on the resumption of services consumption in August. We expect this hesitancy to result in slower growth of PCE on services over the remainder of the year, while PCE for goods is unlikely to pick up the slack amid supply chain bottlenecks that are leading to higher prices and limited retail inventories. We estimate that real PCE growth will slow to an average rate of 2.5% over the second half of the year, 0.6 percentage point lower than in last month's forecast. On an annual average basis, we expect real PCE to grow 7.8% in 2021 and 3.3% in 2022.

Labor markets: Labor markets cooled off in August as the delta variant surged. Nonfarm payroll employment rose only 235 thousand in August, well short of expectations, and the unemployment rate declined 0.2 point to 5.2%. The deceleration in payroll employment in August was concerning but was not as bad as it seemed; part of it was a seasonal issue. One-third of the slowdown was in public education services. Before seasonal adjustment, there was an increase in public education that was not too far from the recent August norm. By contrast, over June and July, there were declines that were much smaller than normal. This artificially raised seasonally adjusted employment gains in June and July, setting up a sharp slowdown in August. About one-half of the deceleration in payrolls, however, was in accommodation and food services, suggesting that the surge of new COVID-19 infections is taking a toll on real activity. Another concern is the participation rate, which has been rising but only slowly and is still well below the pre-pandemic level. The relative paucity of persons willing to work is perhaps the most restrictive supply constraint now. We project that payrolls gains will firm in the coming months and that the unemployment rate will decline to a quarterly average of 5.0% by the end of the year.

Business investment: Real nonresidential (business) fixed investment is forecast to grow 7.7% this year and 6.8% next year before moderating to growth averaging 4.5% over the following three years. The latter is nearly a full percentage point above last month's forecast. Borrowing costs are rising, but the Federal Reserve's commitment to keeping monetary policy accommodative for some time is preventing an other-

wise sharper increase in interest rates, which is bolstering investment spending. The increase in overall investment spending this year reflects robust increases in equipment spending (12.4%) and intellectual property products (11.1%) that are partially offset by a 7.1% decline in structures spending. After this year, all three major categories of business fixed investment exhibit positive growth for the foreseeable future.

Housing and construction: Housing starts and home sales have cooled. Single-family housing permits are down 17% from a cyclical January peak. And home sales, the sum of new and existing home sales, have skid 12% from January. Projected housing starts are marginally different over the first two years of the forecast from last month, rising to a 15-year high of 1.54 million units in 2021 (previously 1.57 million), slipping to 1.40 million units in 2022 (previously 1.42 million). We forecast home sales rise to a 14-year high of 6.7 million in 2021 (previously 6.8 million) and 6.6 million in 2022 (unchanged).

According to the second quarter FHFA report, forty-seven states and ninety-seven metro areas saw double-digit growth. In 13 states and 25 metropolitan areas (of the largest 100), home prices grew by more than 20%. When will this unprecedented surge end? Inflection points are difficult to time, but we expect a cooling in the second half as more homes are listed and the protection of forbearance ends. The four-quarter growth of the CoreLogic HPI reaches 16.9% in the third quarter of 2021 (previously 14.5%) and 5.5% in the third quarter of 2022 (previously 5.2%).

International trade: The pandemic import surge is past. Real goods imports, which remain 11% above the February 2020 pre-pandemic level, have been edging down since March. The slide will continue—in the forecast, imports decline in both the third and fourth quarters—before resuming growth. Import price inflation is also receding. The import price deflator, which grew at a 13% annual rate in both the first and second quarters, is expected to slow to a rounded 5% in the third quarter; an easing of bottlenecks and other disruptions will subsequently eliminate trade as a source of inflation. Real exports bounced halfway back from the pandemic last year and then sputtered. Progress over the next few quarters will be a slog—in the forecast, real exports attain pre-pandemic levels in the fourth quarter of 2022. With imports outpacing exports this year, net exports are expected to deduct 1.1 percentage points off GDP growth in 2021; in 2022, net exports contribute 0.2 percentage point to GDP growth. Finally, we expect the dollar trade-weighted index, which has meandered around 113 since last November, to remain near that level through 2025.

Key forecast assumptions

COVID emergency relief waning; infrastructure bill now included in forecast; taper begins in November

COVID-19: Rising COVID-19 virus infections among the unvaccinated and re-imposition of some social restrictions are growing downside risks to the forecast. This outbreak will moderate the recovery in consumer spending on services and exacerbate supply issues, including labor force participation. However, we do not expect a recurrence of the national lockdown that precipitated the 2020 recession.

Federal fiscal policy: The forecast reflects all pandemic relief measures of 2020 and the \$1.9 trillion American Recovery Plan (ARP) enacted in March. The support to incomes from these measures, which averaged \$2.7 trillion (annual rate) over the first half of 2021, will drop sharply to \$0.7 trillion over the second half of the year (chart, top). For the first time, the forecast includes the Infrastructure Investment and Jobs Act (IIJA), which is nearing enactment (see What’s New); it does not yet include the still-evolving \$3.5 trillion partisan reconciliation bill on “social infrastructure.”

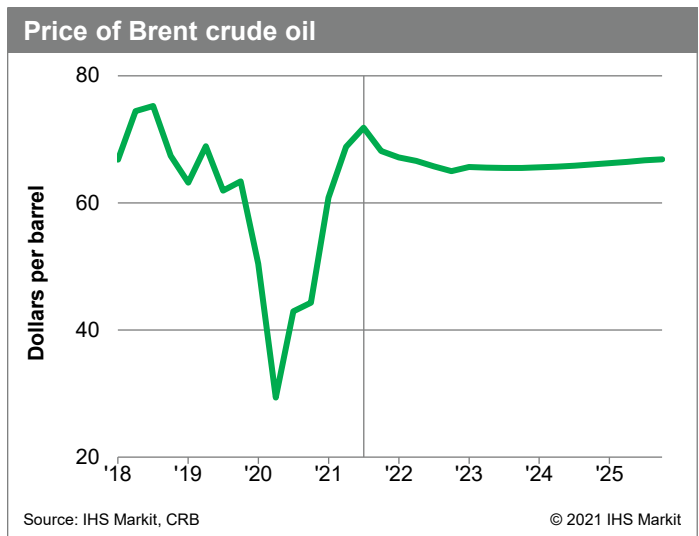
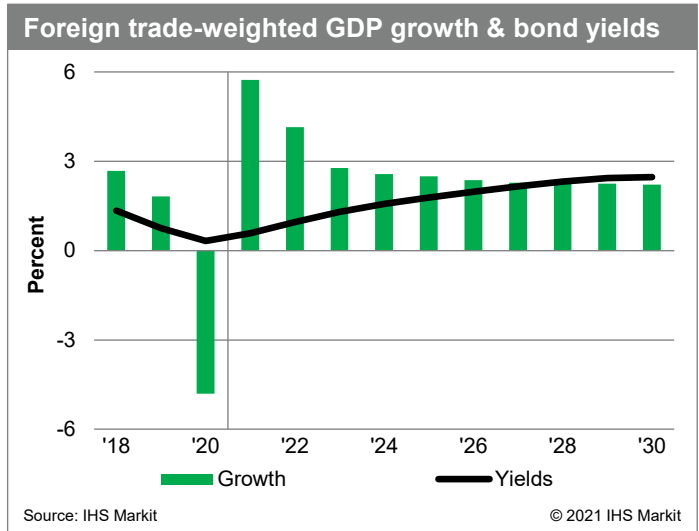
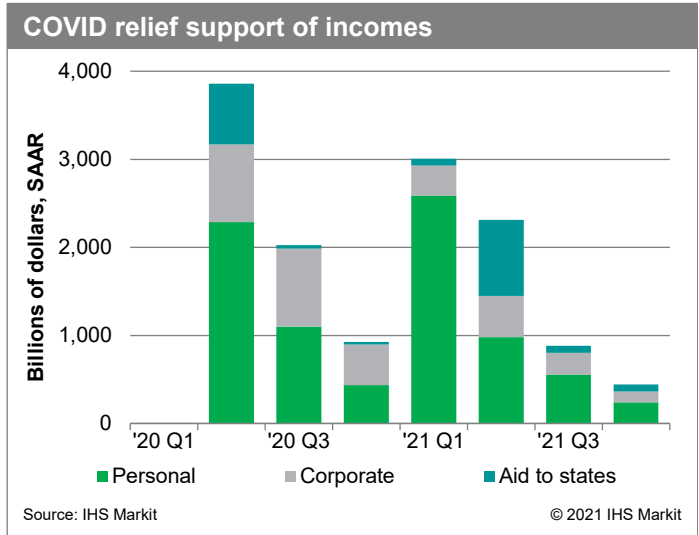
State and local fiscal policy: Strong revenues, reinforced by financial support provided under ARP, limit the usual cyclical state and local fiscal contraction. State and local employment rebounds this summer as schools re-open. Half of states withdrew from federal emergency unemployment programs in June and July, before the programs’ formal termination in September. States and localities receive unrestricted ARP funding in two tranches: the first in 2021 Q2, the second in 2022 Q2. The portion of IIJA funding that passes through to states and localities is reflected in state and local gross investment.

Monetary policy: The Fed continues its Large Scale Asset Purchases through October at the recent pace before “tapering” them to zero over the following twelve months, begins raising its policy rate in September 2023, and tolerates inflation modestly above 2% after 2023 to affirm its long-run 2% objective is an average, not a ceiling.

Tariffs and trade: The forecast includes tariffs and trade agreements enacted by the US and China since 2017 that remain in effect.

Global growth: Real, trade-weighted foreign GDP contracted 4.8% in 2020 but rebounds to grow 5.7% in 2021 and 4.1% in 2022 as the COVID-19 pandemic recedes (chart, middle). The trade-weighted foreign government bond yield dipped to 0.3% in 2020 but gradually climbs to 2.5% by 2030.

Oil prices: With the rebound in global growth, the price of Brent crude oil surges to \$72/barrel in the third quarter of this year, then eases to \$65 by late 2022, before resuming a gradual secular rise (chart, bottom).



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 has edged toward the downside compared to last month. Relative to our updated base forecast, we now see the risks as being tilted to the downside. Posing upside risks are the recent strength in consumer spending, the passage by the Senate of more fiscal stimulus, and a large share of the population that is vaccinated, potentially facilitating a full return to pre-pandemic in-person services consumption sooner than in the base forecast. Downside risks stem largely from the alarming rise in cases and hospitalizations due to the delta variant of the coronavirus that could lead to some pull-back in socially-dense consumer spending and delay full reopening of schools and daycare centers. As a result, we assign a 50% probability to our baseline forecast, 30% to the Pessimistic, and 20% to the Optimistic scenario.

Pessimistic Scenario: Recovery stumbles as consumers slow spending splurge (30% probability)

This pessimistic scenario is characterized by a weaker recovery in consumer spending than in the baseline forecast. Underlying this narrative is the assumption that a resurgent virus and alarming rise in cases and hospitalizations leads to more caution on the part of consumers, as they increasingly refrain from what we term as socially-dense consumer activities.

In addition, the potential delay in opening daycare centers and difficulties maintaining in-person learning could directly impact employment and make it difficult for others to return to work. As a result, consumer spending increases 7.2% and 1.5% in 2021 and 2022, respectively, versus 7.8% and 3.3% in the base case, measured year-over-year.

GDP increases at a 2.0% annualized rate in both the third and fourth quarters of 2021, compared to 3.4% and 6.2% rates of increase, respectively, in the baseline. On an annual basis, GDP grows 5.3% and 2.9% in 2021 and 2022, respectively, versus 5.7% and 4.5% in the base case.

Evidence of consumer hesitancy leads businesses to scale back investment plans. Overall business fixed investment growth averages 4.9% over the four quarters of 2021, well below the baseline. Intellectual property investment rises while computer investment and investment in structures decline in 2021.

The unemployment rate peaked at 13.0% in the second quarter of 2020 and declined to 5.9% in the second quarter of 2021. It is expected to continue to decline, but at a slower pace than in the baseline, reaching 3.7% by early 2025, where it remains through the end of the forecast horizon.

Core PCE inflation starts out elevated, but declines below 1.0% through 2023 before gradually rising again. Nevertheless, it remains below the FOMC's 2% target through 2025.

As a result of the slower recovery, GDP remains 1.2% below the base case and personal consumption expenditures remain 1.6% lower than the baseline in 2025.

Optimistic Scenario: Return to "normal" and still more stimulus drive faster growth (20% probability)

The optimistic scenario is characterized by a quicker recovery of consumer spending than in the baseline. Underlying this narrative are two assumptions. First, we assume the consumer and business response to the prior and upcoming fiscal stimulus packages is more robust than in the baseline. Second, despite the spread of the delta variant, accelerated vaccinations and greater adherence to guidelines for social distancing and masks allows continued strong growth in consumer spending. As a result, consumers approach pre-pandemic spending patterns more quickly than in the baseline.

This scenario assumes that the impact of the Infrastructure Investment and Jobs Act is more robust, which constitutes another source of modest upside risk, potentially adding several tenths of a point to growth over 2023–2026.

The strength of this scenario early on is attributed to more front-loaded spending by households. This is in response to the prior and upcoming stimulus and as consumers spend down some of the excess savings that accumulated over 2020. This allows consumer spending to rise 8.7% (4th-quarter-to-4th-quarter) over 2021 compared to 7.0% in the baseline.

Business fixed investment rises more quickly and remains elevated relative to baseline partly due to more fiscal stimulus. Business fixed investment grows at a 6.5% annual rate in the third quarter and 11.1% over 2021 (4th-quarter-to-4th-quarter), compared to 0.9% and 8.1%, respectively, in the baseline.

GDP rises at a 6.0% annual rate in the third quarter and at a 9.0% pace in the fourth, compared to 3.4% and 6.2% rates of increase, respectively, in the baseline.

As a result of the faster growth of GDP, the unemployment rate quickly falls to below 4.0% by mid-2022. Core PCE inflation declines to slightly above the FOMC's target by mid-2023. The Fed begins to raise the federal funds rate in early 2022, nearly two years earlier than in the base forecast.

US Macro Forecast Snapshot

	Baseline (50%)	Pessimistic (30%)	Optimistic (20%)
GDP growth	Real GDP rises 5.7% in 2021 as annualized growth slows from 6.6% in the second quarter to 6.2% by the fourth. Growth slows to 4.5% in 2022 and 2.7% in 2023	Real GDP rises 5.3% in 2021 as return of pandemic-related hesitancy inhibits vigor of rebound. Growth slows to 2.9% in 2022 and 2023	Real GDP surges 6.2% in 2021 and 2022. Growth eases to 3.1% in 2023
Consumer spending	Spending jumps 7.8% in 2021 thanks to surges of more than 11% at annual rates in the first and second quarters. Growth slows to 3.3% in 2022 and 2.6% in 2023	Spread of variants prompts extra caution by consumers versus baseline. Spending declines slightly in third quarter but rises 7.2% in 2021 overall, slipping to 1.5% and 2.9% in 2022-2023	Surges 8.5% in 2021 and rises 5.4% in 2022, moderating to 3.1% growth in 2023
Business fixed investment	Jumps 7.7% in 2021 and remains strong at 6.8% growth in 2022 and 4.6% in 2023	Grows 6.7% in 2021, 3.9% in 2022, and 4.6% in 2023	Rises 8.9% in 2021, 10.1% in 2022, and 5.9% in 2023
Housing	Housing starts rise from 1.40 million in 2020 to 1.54 million in 2021 before slipping to 1.41 million in 2022 and 1.34 million in 2023	Housing starts rise from 1.40 million in 2020 to 1.53 million in 2021 but fall to 1.51 million in 2022 and 1.29 million in 2023	Housing starts grow from 1.40 million in 2020 to 1.55 million in 2021 before settling back to 1.44 million in 2022 and 1.38 million in 2023
Exports	Recover 4.8% in 2021 and 7.5% in 2022, surpassing prior peak in the fourth quarter of 2022 as the pandemic inhibits global trade. Exports rise 7.5% in 2023	Grow 4.8% in 2021 and 6.9% in 2022	Rise 4.8% in 2021, 8.6% in 2022, and 7.5% in 2023
Fiscal policy	\$1.9 trillion ARP included. Income support drops from \$2.7 trillion (annualized) in first half of 2021 to \$0.7 trillion in second half. Forecast also includes the proposed infrastructure package	Same fiscal assumptions as in baseline	Consumers spend stimulus income to a greater degree than in the baseline
Monetary policy	Fed keeps the funds rate at the zero bound through September 2023; current pace of asset purchases maintained through 2021 before tapering over 2022	Fed keeps the federal funds rate at the zero bound through late 2026; aggressive "quantitative easing" and liquidity enhancement measures	Fed raises the federal funds rate at the start of 2022 in response to sustained inflation well above 2%
Credit conditions	Rapidly ease in 2021 before stabilizing at a gentle pace of easing in 2022-2023	Remain slightly tighter than in baseline	Slightly looser than in baseline
Productivity growth	Slips from 2.4% in 2020 to 1.9% in 2021 with labor markets tight, slowing to 1.5% in 2022 and 1.4% in 2023	Decreases down to 1.6% in 2021 and slows to 0.5% in 2022 before picking up to 1.7% in 2023	Attains 2.2% in 2021 and 2.9% in 2022 before slipping back to 2.2% in 2023
Consumer confidence	Retrenches slightly in Q3 of 2021 before resuming a steady rise that takes it to pre-pandemic levels by late 2025	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 rises from \$42/barrel in 2020 to \$67 in 2021 and \$66 in 2022 and 2023	Brent crude oil averages \$67 in 2021, and \$64 in 2022 and 2023	Brent crude oil averages \$68 in 2021 and \$67 in 2022, slipping to \$66 in 2023
Stock markets	The year-end value of the S&P 500 rose 16.3% in 2020. It rises 19.8% in 2021, is flat in 2022, and gains 6.2% in 2023	The year-end value of the S&P 500 rises 15.6% in 2021, then contracts 1.7% in 2022 before picking up 5.5% in 2023	The year-end value of the S&P 500 surges 24.6% in 2021 and adds gains of 4.3% in 2022
Inflation (PCE)	Core personal consumption (PCE) price inflation rises from 1.4% in 2020 to 3.1% in 2021 as supply chains are stretched, but ticks down to 2.7% in 2022 and 2.1% in 2023	Core PCE price inflation is 3.0% this year but slows to 2.0% in 2022 and 0.9% in 2023	Core PCE price inflation is 3.1% in 2021 and 2.9% in 2022, slowing to 2.3% in 2023 after interest rate increases begin
Foreign growth	Eurozone GDP rises 5.0% in 2021 and 4.3% in 2022 after a 6.4% drop in 2020, while China's growth rises from 2.3% to 8.5% in 2021 and slows to 5.8% in 2022	Global economy continues to suffer COVID-19-related setbacks	Global economy recovers more quickly than in baseline
US dollar	The broad dollar appreciates gently through 2026 but does not regain pandemic-era highs	Falls slightly from 2022 through 2024 before increasing slowly through 2026 and leveling out in 2027	The broad dollar strengthens slightly more than in the baseline

Alternative Scenarios of the US Economy																		
	Annual rates							Annual averages					Q4/Q4					
	2021.2	2021.3	2021.4	2022.1	2022.2	2022.3	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024	2025
Pessimistic: Recovery stumbles as consumers slow spending splurge (Prob. = 30%)																		
Composition of Real GDP, Percent Change																		
Gross Domestic Product	6.6	2.0	2.0	2.6	3.9	2.9	-3.4	5.3	2.9	2.9	3.1	2.7	-2.3	4.2	3.0	3.0	3.0	2.6
Total Consumption	11.9	-1.0	-0.7	0.5	2.8	1.9	-3.8	7.2	1.5	2.9	3.4	3.3	-2.4	5.2	1.9	3.3	3.4	3.2
Nonresidential Fixed Investment	9.3	-2.5	0.4	4.1	8.4	5.8	-5.3	6.7	3.9	4.6	4.7	4.2	-3.8	4.9	5.6	4.3	4.7	4.0
Residential Fixed Investment	-11.5	-11.0	-17.0	-11.7	-6.0	-2.7	6.8	7.4	-10.0	-1.3	1.7	0.9	15.7	-7.2	-5.8	0.5	1.6	0.6
Exports	6.6	4.1	8.7	5.8	7.5	8.0	-13.6	4.8	6.9	7.5	5.9	4.7	-10.7	4.0	7.4	7.0	5.4	4.3
Imports	6.7	-3.0	-8.5	0.8	6.1	8.3	-8.9	11.1	1.1	6.8	5.2	4.7	0.3	0.9	5.5	6.1	5.0	4.6
Federal Government	-5.2	-0.2	-1.4	2.6	-0.1	0.5	5.0	1.5	0.0	0.0	0.7	0.8	3.1	1.0	0.4	0.3	0.9	0.8
State & Local Government	0.3	4.3	4.1	2.8	2.9	2.7	0.9	0.7	3.1	2.5	1.5	0.9	0.0	2.1	2.8	2.3	1.0	1.1
Prices & Wages, Percent Change																		
Consumer Prices	8.4	5.7	0.7	1.2	0.3	0.3	1.2	4.1	1.8	0.7	1.2	1.6	1.2	4.6	0.6	0.9	1.4	1.8
Producer Prices, Finished Goods	11.3	6.5	-0.4	0.0	0.2	0.0	-1.3	7.1	1.4	0.3	0.8	1.3	-1.2	7.7	0.1	0.5	1.0	1.5
Compensation per hour	3.4	3.8	3.3	2.6	2.1	2.0	7.0	3.9	2.7	2.3	2.9	3.4	8.5	3.0	2.2	2.6	3.1	3.6
Other Key Measures, Percent Change																		
Productivity	2.1	-3.2	0.3	0.9	1.7	0.8	2.4	1.6	0.5	1.7	2.5	2.2	2.5	0.8	1.1	2.2	2.3	2.2
Total Industrial Production	6.1	2.7	1.1	3.7	5.5	5.1	-7.2	5.1	3.7	3.4	2.7	1.9	-4.3	3.5	4.5	2.8	2.4	1.7
Payroll Employment	4.8	5.8	3.0	2.5	2.3	2.0	-5.7	2.6	3.0	1.5	1.1	0.8	-6.0	3.9	2.1	1.2	1.1	0.7
Incomes, Percent Change																		
Personal Income	-21.8	-1.7	-3.7	0.1	4.7	4.9	6.5	6.0	-0.8	4.3	4.8	4.8	4.8	3.8	3.3	4.4	4.8	4.8
After-Tax Profits (Four-qr.% change)	42.1	-20.6	-7.6	4.9	4.2	-3.6	-5.2	17.5	-1.1	-1.2	3.9	4.0	0.9	6.2	-0.3	1.4	4.0	4.6
Other Key Measures																		
Levels																		
Brent Crude, Spot Price (\$/bbl)	68.83	70.82	66.63	65.45	64.73	63.91	41.77	66.77	64.32	63.72	63.93	64.58	44.29	66.63	63.18	63.69	64.13	64.83
Nonfarm Inven. Chg. (Bil.2012 \$)	-150.2	-40.8	-6.2	43.1	81.5	124.4	-35.3	-67.9	97.7	142.5	152.8	137.6	90.2	-6.2	141.7	146.1	151.2	130.4
Light Vehicle Sales (Mil. units, saar)	16.9	13.7	14.6	15.8	16.1	16.1	14.5	15.5	16.1	16.5	16.5	16.4	16.2	14.6	16.3	16.6	16.5	16.4
Housing Starts (Mil. units, saar)	1.6	1.5	1.4	1.3	1.3	1.3	1.4	1.5	1.3	1.3	1.2	1.2	1.6	1.4	1.3	1.3	1.2	1.2
Unemployment Rate (%)	5.9	5.4	5.4	5.3	5.0	4.8	8.1	5.7	4.9	4.3	3.9	3.7	6.7	5.4	4.6	4.2	3.8	3.7
Federal Surplus (Unified, FY, bil. \$)	-2126.8	-1952.5	-1434.5	-1601.8	-681.5	-900.8	-3348.2	-2511.8	-1051.6	-722.7	-748.1	-744.7	-2291.6	-1434.5	-1022.3	-1066.1	-1045.7	-1056.0
Financial Markets, NSA, Quarter Average																		
Federal Funds Rate (%)	0.07	0.09	0.09	0.10	0.10	0.10	0.38	0.08	0.10	0.09	0.10	0.10	0.09	0.09	0.10	0.10	0.10	0.10
10-Year Treasury Note Yield (%)	1.59	1.30	1.39	1.47	1.51	1.54	0.89	1.40	1.52	1.60	1.82	2.10	0.86	1.39	1.55	1.65	1.93	2.19
Optimistic: Return to "normal" and still more stimulus drive faster growth (Prob. = 20%)																		
Composition of Real GDP, Percent Change																		
Gross Domestic Product	6.6	6.0	9.0	7.0	5.1	4.0	-3.4	6.2	6.2	3.1	2.8	2.2	-2.3	6.9	4.7	2.9	2.5	2.1
Total Consumption	11.9	3.9	7.8	5.4	4.1	3.4	-3.8	8.5	5.4	3.1	3.0	2.8	-2.4	8.7	3.9	3.0	2.9	2.7
Nonresidential Fixed Investment	9.3	6.5	16.0	11.5	9.0	6.9	-5.3	8.9	10.1	5.9	5.1	3.7	-3.8	11.1	8.2	5.5	4.7	3.1
Residential Fixed Investment	-11.5	-7.1	-7.5	-4.1	-3.9	-1.8	6.8	8.7	-5.2	-1.8	1.3	1.4	15.7	-3.6	-2.9	-0.8	1.6	1.1
Exports	6.6	4.2	8.7	8.6	10.6	10.4	-13.6	4.8	8.6	7.5	5.2	4.0	-10.7	4.0	9.8	6.0	4.7	3.8
Imports	6.7	2.2	5.4	11.8	9.1	7.5	-8.9	12.8	7.6	5.0	4.8	4.8	0.3	5.9	8.5	3.9	5.2	4.5
Federal Government	-5.2	-0.2	-1.4	2.6	-0.2	0.5	5.0	1.5	0.0	-0.1	0.6	0.8	3.1	1.0	0.4	0.3	0.8	0.8
State & Local Government	0.3	4.3	4.1	2.8	2.9	2.7	0.9	0.7	3.1	2.5	1.5	0.9	0.0	2.1	2.8	2.3	1.0	1.1
Prices & Wages, Percent Change																		
Consumer Prices	8.4	6.4	1.2	2.3	1.7	1.7	1.2	4.2	2.8	2.0	2.2	2.3	1.2	4.9	1.9	2.1	2.3	2.4
Producer Prices, Finished Goods	11.3	7.8	0.6	1.1	1.7	1.4	-1.3	7.4	2.6	1.7	1.9	2.0	-1.2	8.3	1.4	1.8	2.0	2.1
Compensation per hour	3.4	4.4	4.5	4.1	3.8	3.9	7.0	4.1	4.1	4.3	4.5	4.5	8.5	3.4	4.0	4.5	4.5	4.5
Other Key Measures, Percent Change																		
Productivity	2.1	-0.7	4.9	4.0	2.7	2.4	2.4	2.2	2.9	2.2	2.2	1.9	2.5	2.6	2.8	2.3	1.9	1.8
Total Industrial Production	6.1	8.7	6.1	7.1	5.8	4.2	-7.2	6.2	6.2	2.9	2.3	1.6	-4.3	6.2	4.9	2.5	2.0	1.5
Payroll Employment	4.8	7.6	3.9	4.3	2.4	1.7	-5.7	2.9	3.8	1.4	1.2	0.8	-6.0	4.6	2.5	1.2	1.1	0.6
Incomes, Percent Change																		
Personal Income	-21.8	0.4	0.7	3.4	7.3	6.4	6.5	6.5	1.9	5.5	5.5	5.2	4.8	5.5	5.5	5.4	5.4	5.1
Corporate profits w/ IVA & CCAAdj	42.1	-5.3	21.2	21.8	7.6	3.7	-5.2	22.2	12.4	1.6	2.1	1.7	0.9	18.8	7.5	1.8	1.6	1.9
Other Key Measures																		
Levels																		
Brent Crude, Spot Price (\$/bbl)	68.83	72.80	68.59	68.68	67.98	66.95	41.77	67.76	67.45	66.47	66.65	67.39	44.29	68.59	66.18	66.36	66.90	67.65
Nonfarm Inven. Chg. (Bil.2012 \$)	-150.2	-42.3	20.3	118.3	171.5	195.8	-35.3	-61.6	167.9	154.0	128.3	98.4	90.2	20.3	185.9	141.4	117.8	88.8
Light Vehicle Sales (Mil. units, saar)	16.9	13.9	15.7	17.1	17.4	17.4	14.5	15.8	17.3	17.5	17.3	17.1	16.2	15.7	17.4	17.5	17.2	17.0
Housing Starts (Mil. units, saar)	1.586	1.528	1.501	1.475	1.446	1.433	1.4	1.6	1.4	1.4	1.4	1.4	1.6	1.5	1.4	1.4	1.4	1.4
Unemployment Rate (%)	5.9	5.2	4.6	4.2	3.9	3.7	8.1	5.5	3.9	3.5	3.2	3.2	6.7	4.6	3.6	3.4	3.2	3.2
Federal Surplus (Unified, FY, bil. \$)	-2126.8	-1924.3	-1371.0	-1504.8	-575.3	-795.7	-3348.2	-2488.9	-949.6	-643.2	-704.4	-747.0	-2291.6	-1371.0	-922.7	-990.7	-1012.1	-1073.2
Financial Markets, NSA, Quarter Average																		
Federal Funds Rate (%)	0.07	0.11	0.12	0.30	0.33	0.36	0.38	0.09	0.35	0.66	1.12	1.63	0.09	0.12	0.41	0.84	1.35	1.85
10-Year Treasury Note Yield (%)	1.59	1.34	1.51	1.69	1.85	1.98	0.89	1.44	1.90	2.26	2.50	2.74	0.86	1.51	2.09	2.33	2.60	2.82

Source: IHS Markit

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Monthly Economic Indicators

	Jul. 2020	Aug. 2020	Jan. 2021	Feb. 2021	Mar. 2021	Apr. 2021	May. 2021	Jun. 2021	Jul. 2021	Aug. 2021	2018	2019	2020
Industrial Markets													
Industrial Prod. Total (2017=100.0)	94.9	95.9	99.4	96.4	99.1	99.2	100.0	100.2	101.1		103.2	102.3	95.0
Percent Change	4.1	1.1	1.1	-3.0	2.8	0.0	0.8	0.2	0.9		3.2	-0.8	-7.2
Percent Change Year Earlier	-7.0	-6.6	-1.7	-4.9	1.7	17.8	16.5	9.9	6.6				
Capacity Utilization, Manufacturing (%)	71.2	72.3	75.6	72.8	75.2	75.0	75.8	75.5	76.6		77.7	75.8	71.1
Unemployment Rate (%)	10.2	8.4	6.3	6.2	6.0	6.1	5.8	5.9	5.4	5.2	3.9	3.7	8.1
Payroll Employment (Mil.)	139.566	141.149	142.736	143.272	144.057	144.326	144.940	145.902	146.955	147.190	148.893	150.900	142.252
Change (Mil.)	1.726	1.583	0.233	0.536	0.785	0.269	0.614	0.962	1.053	0.235	2.298	2.007	-8.648
Leading Indicator (2016=1.000)	1.049	1.065	1.101	1.101	1.115	1.13	1.144	1.15	1.16		1.097	1.115	1.061
Percent Change	2.0	1.5	0.5	0.0	1.3	1.3	1.2	0.5	0.9		5.6	1.6	-4.9
New Orders, Mfg. (Bil. \$)	438.3	444.4	479.2	481.2	488.1	487.4	498.6	506.1	508.1		484.9	483.7	433.3
Percent Change	5.9	1.4	2.3	0.4	1.4	-0.1	2.3	1.5	0.4		5.7	-0.2	-10.4
Inv. Chg., Mfg. & Trade (Bil. \$)	2.2	10.3	11.0	12.6	4.7	1.3	12.2	16.9			85.4	48.6	-52.3
Merchandise Trade Bal. (Bil. \$)	-80.0	-82.2	-85.6	-88.2	-91.9	-85.9	-88.1	-92.0	-86.8		-870.4	-850.9	-911.1
Consumer Markets													
Disposable Income (Bil. 2012\$)	16152	15554	16989	15548	19119	16070	15556	15472	15580		14429	14756	15677
Percent Change	0.6	-3.7	10.4	-8.5	23.0	-16.0	-3.2	-0.5	0.7		3.4	2.3	6.2
Personal Income (Bil. \$)	20123	19534	21505	19955	24142	20848	20405	20442	20668		17706	18424	19628
Percent Change	0.9	-2.9	9.9	-7.2	21.0	-13.6	-2.1	0.2	1.1		5.1	4.1	6.5
Personal Saving Rate (%)	18.7	15.0	19.9	13.5	26.6	12.3	9.8	8.8	9.6		7.6	7.6	16.3
Consumer Expenditures (Bil. \$)	14129	14271	14858	14700	15459	15615	15623	15790	15832		13914	14429	14048
Percent Change	1.7	1.0	3.3	-1.1	5.2	1.0	0.1	1.1	0.3		5.1	3.7	-2.6
Retail Sales (Bil. \$)	533.5	538.6	576.5	560.0	623.1	628.8	620.1	624.7	617.7		5988.8	6185.4	6203.7
Percent Change	1.4	1.0	7.6	-2.9	11.3	0.9	-1.4	0.7	-1.1		4.4	3.3	0.3
Non-Auto. Retail Sales (Bil. \$)	424.0	428.5	456.4	444.2	487.7	487.4	485.3	492.8	491.0		4784.0	4946.0	4960.3
Percent Change	2.0	1.1	8.3	-2.7	9.8	-0.1	-0.4	1.6	-0.4		5.1	3.4	0.3
New Light-Vehicle Sales (Mil.)	14.7	15.2	16.8	15.9	17.6	18.3	16.9	15.5	14.6	13.1	17.2	17.0	14.5
Housing Starts (Mil.)	1.497	1.376	1.625	1.447	1.725	1.514	1.594	1.65	1.534		1.247	1.292	1.397
New Home Sales (Mil.)	0.972	0.977	0.993	0.823	0.873	0.796	0.72	0.701	0.708		0.614	0.683	0.828
Existing Home Sales (Mil.)	5.900	5.970	6.660	6.240	6.010	5.850	5.780	5.870	5.990		5.334	5.327	5.658
Chg. Consumer Install. Credit (Bil. \$)	13.0	-11.2	-1.7	20.2	19.3	18.3	35.0	37.9	17.0		176.3	185.1	-7.2
Prices and Wages													
CPI, All Urban Consumers	2.586	2.595	2.622	2.632	2.648	2.668	2.686	2.710	2.723		2.511	2.557	2.588
Percent Change Year Earlier	1.0	1.3	1.4	1.7	2.6	4.2	4.9	5.3	5.3		2.4	1.8	1.2
Core Cons. Price Defl. (2012=100.0)	113.6	114.0	114.7	114.9	115.4	116.1	116.8	117.3	117.7		110.1	112.0	113.6
Percent Change Year Earlier	1.3	1.5	1.5	1.5	2.0	3.1	3.5	3.6	3.6		2.0	1.7	1.4
PPI, Finished Goods	2.021	2.024	2.084	2.118	2.144	2.149	2.172	2.197	2.21		2.041	2.057	2.030
Percent Change Year Earlier	-1.9	-1.5	0.3	2.6	6.0	9.4	8.4	9.2	9.4		3.1	0.8	-1.3
PPI, Industrial Commodities (NSA)	1.930	1.947	2.049	2.112	2.160	2.178	2.240	2.284	2.330		2.037	2.007	1.939
Percent Change Year Earlier	-4.2	-2.7	2.8	7.3	12.0	17.9	20.6	20.0	20.7		5.2	-1.5	-3.4
Avg. Private Hourly Earnings (\$)	24.67	24.81	25.14	25.21	25.27	25.45	25.6	25.72	25.85	25.99	22.70	23.51	24.68
Percent Change Year Earlier	4.8	4.9	5.3	5.2	4.6	1.2	2.4	3.8	4.8	4.8	3.0	3.5	5.0
Brent Crude, Spot Price (\$/bbl.)	43.24	44.76	54.77	62.28	65.41	64.79	68.53	73.16	75.12	70.85	70.96	64.34	41.77
Percent Change Year Earlier	-32.3	-32.3	-13.9	11.8	104.9	250.9	133.0	81.7	73.7	58.3	29.4	-9.3	-35.1
Henry Hub Spot Natural Gas (\$/mmbtu)	1.76	2.30	2.71	5.35	2.62	2.66	2.91	3.26	3.84	4.07	3.17	2.57	2.03
Percent Change Year Earlier	-25.4	3.7	34.3	181.7	46.2	53.0	66.6	99.7	117.6	77.0	6.8	-18.9	-20.8
Financial Markets, Period Average													
Federal Funds Rate (%)	0.09	0.10	0.09	0.08	0.07	0.07	0.06	0.08	0.10	0.09	1.83	2.16	0.38
3-Month T-Bill Rate (%)	0.13	0.10	0.08	0.04	0.03	0.02	0.02	0.04	0.05	0.05	1.94	2.06	0.37
Commercial Bank Prime Rate (%)	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	4.90	5.28	3.54
10-Year Treasury Note Yield (%)	0.62	0.65	1.08	1.26	1.61	1.64	1.62	1.52	1.32	1.28	2.91	2.14	0.89
Conv. Mortgage Rate, FHLMC (%)	3.02	2.94	2.72	2.81	3.08	3.06	2.96	2.98	2.87	2.84	4.54	3.94	3.12
M1 Money Supply (Bil. \$)	16774	16887	18101	18389	18669	18916	19193	19238	19402		3680	3844	12793
Percent Change	1.1	0.7	1.6	1.6	1.5	1.3	1.5	0.2	0.9		4.4	4.5	232.8
M2 Money Supply (Bil. \$)	18317	18379	19393	19666	19914	20123	20373	20387	20535		14116	14836	17677
Percent Change	0.8	0.3	1.4	1.4	1.3	1.1	1.2	0.1	0.7		3.8	5.1	19.1

Source: IHS Markit

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Monthly Economic Indicators

	Jul. 2020	Aug. 2020	Jan. 2021	Feb. 2021	Mar. 2021	Apr. 2021	May. 2021	Jun. 2021	Jul. 2021	Aug. 2021	2018	2019	2020
Industrial Markets													
Industrial Prod. Total (2012=100.0)	94.9	95.9	99.4	96.4	99.1	99.2	100.0	100.2	101.1		103.2	102.3	95.0
Percent Change (Q4/Q4 for Annual Values)	4.1	1.1	1.1	-3.0	2.8	0.0	0.8	0.2	0.9		2.7	-2.1	-4.3
Percent Change Year Earlier	-7.0	-6.6	-1.7	-4.9	1.7	17.8	16.5	9.9	6.6				
Capacity Utilization, Manufacturing (%)	71.2	72.3	75.6	72.8	75.2	75.0	75.8	75.5	76.6		77.7	75.8	71.1
Unemployment Rate (%)	10.2	8.4	6.3	6.2	6.0	6.1	5.8	5.9	5.4	5.2	3.9	3.7	8.1
Payroll Employment (Mil.)	139.566	141.149	142.736	143.272	144.057	144.326	144.940	145.902	146.955	147.190	148.893	150.900	142.252
Change (Mil.)	1.726	1.583	0.233	0.536	0.785	0.269	0.614	0.962	1.053	0.235	2.298	2.007	-8.648
Leading Indicator (2016=1.000)	1.049	1.065	1.101	1.101	1.115	1.13	1.144	1.15	1.16		1.097	1.115	1.061
Percent Change (Q4/Q4 for Annual Values)	2.0	1.5	0.5	0.0	1.3	1.3	1.2	0.5	0.9		4.7	0.3	-2.2
New Orders, Mfg. (Bil. \$)	438.3	444.4	479.2	481.2	488.1	487.4	498.6	506.1	508.1		484.9	483.7	433.3
Percent Change (Q4/Q4 for Annual Values)	5.9	1.4	2.3	0.4	1.4	-0.1	2.3	1.5	0.4		1.6	-0.7	-3.7
Inv. Chg., Mfg. & Trade (Bil. \$)	2.2	10.3	11.0	12.6	4.7	1.3	12.2	16.9			85.4	48.6	-52.3
Merchandise Trade Bal. (Bil. \$)	-80.0	-82.2	-85.6	-88.2	-91.9	-85.9	-88.1	-92.0	-86.8		-870.4	-850.9	-911.1
Consumer Markets													
Disposable Income (Bil. 2012\$)	16152	15554	16989	15548	19119	16070	15556	15472	15580		14429	14756	15677
Percent Change (Q4/Q4 for Annual Values)	0.6	-3.7	10.4	-8.5	23.0	-16.0	-3.2	-0.5	0.7		3.7	1.7	4.0
Personal Income (Bil. \$)	20123	19534	21505	19955	24142	20848	20405	20442	20668		17706	18424	19628
Percent Change (Q4/Q4 for Annual Values)	0.9	-2.9	9.9	-7.2	21.0	-13.6	-2.1	0.2	1.1		4.8	3.6	4.8
Personal Saving Rate (%)	18.7	15.0	19.9	13.5	26.6	12.3	9.8	8.8	9.6		7.6	7.6	16.3
Consumer Expenditures (Bil. \$)	14129	14271	14858	14700	15459	15615	15623	15790	15832		13914	14429	14048
Percent Change (Q4/Q4 for Annual Values)	1.7	1.0	3.3	-1.1	5.2	1.0	0.1	1.1	0.3		4.6	3.8	-1.3
Retail Sales (Bil. \$)	533.5	538.6	576.5	560.0	623.1	628.8	620.1	624.7	617.7		5988.8	6185.4	6203.7
Percent Change (Q4/Q4 for Annual Values)	1.4	1.0	7.6	-2.9	11.3	0.9	-1.4	0.7	-1.1		2.9	3.9	3.9
Non-Auto. Retail Sales (Bil. \$)	424.0	428.5	456.4	444.2	487.7	487.4	485.3	492.8	491.0		4784.0	4946.0	4960.3
Percent Change (Q4/Q4 for Annual Values)	2.0	1.1	8.3	-2.7	9.8	-0.1	-0.4	1.6	-0.4		3.6	3.7	2.8
New Light-Vehicle Sales (Mil.)	14.7	15.2	16.8	15.9	17.6	18.3	16.9	15.5	14.6	13.1	17.2	17.0	14.5
Housing Starts (Mil.)	1.497	1.376	1.625	1.447	1.725	1.514	1.594	1.65	1.534		1.247	1.292	1.397
New Home Sales (Mil.)	0.972	0.977	0.993	0.823	0.873	0.796	0.72	0.701	0.708		0.614	0.683	0.828
Existing Home Sales (Mil.)	5.900	5.970	6.660	6.240	6.010	5.850	5.780	5.870	5.990		5.334	5.327	5.658
Chg. Consumer Install. Credit (Bil. \$)	13.0	-11.2	-1.7	20.2	19.3	18.3	35.0	37.9	17.0		176.3	185.1	-7.2
Prices and Wages													
CPI, All Urban Consumers	2.586	2.595	2.622	2.632	2.648	2.668	2.686	2.710	2.723		2.511	2.557	2.588
Percent Change Year Earlier (Q4/Q4 for Annual Values)	1.0	1.3	1.4	1.7	2.6	4.2	4.9	5.3	5.3		2.2	2.0	1.2
Core Cons. Price Defl. (2012=100.0)	113.6	114.0	114.7	114.9	115.4	116.1	116.8	117.3	117.7		110.1	112.0	113.6
Percent Change Year Earlier (Q4/Q4 for Annual Values)	1.3	1.5	1.5	1.5	2.0	3.1	3.5	3.6	3.6		2.0	1.6	1.4
PPI, Finished Goods	2.021	2.024	2.084	2.118	2.144	2.149	2.172	2.197	2.21		2.041	2.057	2.030
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-1.9	-1.5	0.3	2.6	6.0	9.4	8.4	9.2	9.4		2.3	0.9	-1.2
PPI, Industrial Commodities (NSA)	1.930	1.947	2.049	2.112	2.160	2.178	2.240	2.284	2.330		2.037	2.007	1.939
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-4.2	-2.7	2.8	7.3	12.0	17.9	20.6	20.0	20.7		4.2	-2.8	-0.6
Avg. Private Hourly Earnings (\$)	24.67	24.81	25.14	25.21	25.27	25.45	25.6	25.72	25.85	25.99	22.70	23.51	24.68
Percent Change Year Earlier (Q4/Q4 for Annual Values)	4.8	4.9	5.3	5.2	4.6	1.2	2.4	3.8	4.8	4.8	3.4	3.5	4.9
Brent Crude, Spot Price (\$/bbl.)	43.24	44.76	54.77	62.28	65.41	64.79	68.53	73.16	75.12	70.85	70.96	64.34	41.77
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-32.3	-32.3	-13.9	11.8	104.9	250.9	133.0	81.7	73.7	58.3	9.6	-6.0	-30.1
Henry Hub Spot Natural Gas (\$/mmbtu)	1.76	2.30	2.71	5.35	2.62	2.66	2.91	3.26	3.84	4.07	3.17	2.57	2.03
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-25.4	3.7	34.3	181.7	46.2	53.0	66.6	99.7	117.6	77.0	30.5	-36.6	5.1
Financial Markets, Period Average													
Federal Funds Rate (%)	0.09	0.10	0.09	0.08	0.07	0.07	0.06	0.08	0.10	0.09	1.83	2.16	0.38
3-Month T-Bill Rate (%)	0.13	0.10	0.08	0.04	0.03	0.02	0.02	0.04	0.05	0.05	1.94	2.06	0.37
Commercial Bank Prime Rate (%)	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	4.90	5.28	3.54
10-Year Treasury Note Yield (%)	0.62	0.65	1.08	1.26	1.61	1.64	1.62	1.52	1.32	1.28	2.91	2.14	0.89
Conv. Mortgage Rate, FHLMC (%)	3.02	2.94	2.72	2.81	3.08	3.06	2.96	2.98	2.87	2.84	4.54	3.94	3.12
M1 Money Supply (Bil. \$)	16774	16887	18101	18389	18669	18916	19193	19238	19402		3680	3844	12793
Percent Change (Q4/Q4 for Annual Values)	1.1	0.7	1.6	1.6	1.5	1.3	1.5	0.2	0.9		3.2	6.2	343.5
M2 Money Supply (Bil. \$)	18317	18379	19393	19666	19914	20123	20373	20387	20535		14116	14836	17677
Percent Change (Q4/Q4 for Annual Values)	0.8	0.3	1.4	1.4	1.3	1.1	1.2	0.1	0.7		3.5	6.7	24.3

Source: IHS Markit

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Summary of the US Economy

	2021:1	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	6.3	6.6	3.4	6.2	4.8	4.0	3.1	2.4	2.3	2.5	2.8	3.0	3.0
Final Sales of Domestic Product	9.1	7.9	1.1	5.1	3.1	2.8	2.6	2.5	2.5	2.7	3.0	3.1	3.0
Gross Domestic Income	6.3	1.6	3.3	6.1	4.8	4.0	3.1	2.4	2.3	2.4	2.8	3.0	3.0
Avg. of GDP and GDI	6.3	4.0	3.3	6.1	4.8	4.0	3.1	2.4	2.3	2.5	2.8	3.0	3.0
Total Consumption	11.4	11.9	0.7	4.3	2.9	2.8	2.5	2.4	2.5	2.6	2.9	3.1	3.3
Durables	50.0	11.3	-26.5	1.7	-2.4	-0.4	-0.6	-0.2	0.5	1.4	2.7	3.7	4.7
Nondurables	15.9	13.7	-2.1	-0.8	-1.9	-1.0	-0.2	0.6	1.4	2.1	2.3	2.6	2.8
Services	3.9	11.3	8.2	6.6	5.4	4.6	3.8	3.4	3.1	3.0	3.1	3.2	3.2
Nonresidential Fixed Investment	12.9	9.3	0.9	9.8	8.2	6.7	5.4	4.3	4.0	4.1	4.6	4.9	5.0
Equipment	14.1	11.6	-10.1	11.9	11.7	9.1	7.0	5.6	4.9	5.0	5.6	6.1	6.1
Information Processing Equipment	26.0	-8.3	21.1	-1.2	3.3	7.6	3.4	2.7	3.1	3.9	3.9	4.6	4.4
Industrial Equipment	7.2	32.9	5.8	-2.5	-28.0	8.5	8.2	-4.7	0.7	5.1	5.8	9.5	11.0
Transportation equipment	7.6	50.1	-73.2	120.7	261.9	16.3	6.0	33.9	23.0	14.6	12.1	1.0	-2.1
Aircraft	5.1	119.0	3.6	128.2	23.1	21.3	16.9	16.9	14.2	4.3	1.2	7.5	-3.2
Other Equipment	7.6	3.3	4.4	5.1	-22.3	5.3	13.3	-5.4	-6.4	-3.8	0.5	12.1	15.0
Intellectual Property Products	15.6	14.6	13.0	12.0	8.3	7.4	6.2	4.9	4.5	4.4	4.6	4.6	4.5
Structures	5.4	-5.4	2.1	1.3	0.7	0.3	0.1	0.4	0.9	1.5	2.2	2.9	3.7
Commercial & Health Care	0.8	-7.1	-1.8	-8.7	-10.3	-13.8	-13.8	-12.7	-2.9	-1.1	2.4	5.2	6.3
Manufacturing	18.4	-2.4	-17.2	4.0	-1.6	25.8	19.7	17.0	8.7	-0.9	-1.6	-6.7	1.3
Power & Communication	-6.4	-12.8	-13.5	4.0	3.6	-2.0	-0.7	1.9	-2.1	-0.4	-1.0	2.0	2.2
Mining & Petroleum	81.5	32.5	61.7	21.3	10.2	8.7	2.4	2.6	2.0	5.9	1.9	0.9	-3.4
Other	-15.7	-19.3	1.2	-2.0	10.9	5.4	10.3	6.6	3.2	4.7	8.5	10.0	10.2
Residential Fixed Investment	13.3	-11.5	-9.1	-9.6	-4.4	-3.5	-2.1	-1.9	-2.4	-1.4	-0.4	1.8	2.4
Exports	-2.9	6.6	4.1	8.4	7.9	8.0	8.1	8.3	7.8	6.9	6.4	5.9	5.4
Imports	9.3	6.7	-0.6	-0.7	7.4	6.8	6.2	5.4	5.2	4.5	4.0	4.9	5.5
Federal Government	11.3	-5.2	-0.1	-1.4	2.6	-0.2	0.5	-1.2	0.1	0.3	0.1	0.7	0.7
State & Local Government	-0.1	0.3	4.2	4.1	2.8	2.9	2.7	2.8	2.5	2.4	2.3	1.9	1.2
Billions of Dollars													
Real GDP	19055.7	19360.6	19521.9	19817.3	20052.3	20251.7	20408.7	20530.2	20648.5	20775.6	20920.8	21076.4	21233.3
Nominal GDP	22038.2	22731.4	23230.0	23753.8	24145.3	24488.8	24783.1	25047.5	25313.8	25598.2	25912.8	26249.7	26599.7
Prices & Wages, Percent Change, Annual Rate													
GDP Deflator	4.3	6.1	5.0	3.0	1.8	1.7	1.7	1.9	2.0	2.0	2.1	2.2	2.4
Consumer Prices	3.7	8.4	6.1	1.2	1.7	1.2	1.4	1.8	2.0	1.9	2.0	2.0	2.1
Producer Prices, Finished Goods	14.1	11.3	7.4	0.4	0.4	1.1	1.1	1.3	1.6	1.6	1.6	1.8	1.9
Employment Cost Index - Total Comp.	4.0	3.1	4.7	4.2	4.1	4.2	4.2	4.0	3.7	3.6	3.5	3.4	3.5
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	60.82	68.83	71.82	68.17	67.17	66.58	65.75	65.00	65.63	65.52	65.47	65.50	65.58
Productivity (%ch., saar)	4.3	2.1	-2.4	3.7	2.2	1.4	0.9	0.7	1.2	1.7	2.2	2.3	2.2
Total Industrial Production (%ch., saar)	3.9	6.1	5.5	3.7	5.1	4.7	3.8	2.6	2.3	2.2	2.3	2.5	2.5
Factory Operating Rate	74.5	75.4	76.6	77.5	78.2	78.7	79.0	78.9	78.8	78.8	78.7	78.7	78.6
Nonfarm Inven. Chg. (Bil. 2012 \$)	-74.4	-150.2	-41.6	3.4	73.2	129.0	155.1	151.1	143.3	135.2	129.9	128.8	130.5
Consumer Sentiment Index	80.2	85.6	72.2	75.3	80.0	84.2	90.5	92.1	93.0	93.9	94.7	95.3	95.6
Light Vehicle Sales (Mil. units, saar)	16.78	16.89	13.85	15.12	16.51	16.78	16.80	16.82	16.84	16.85	16.87	16.86	16.83
Housing Starts (Mil. units, saar)	1.599	1.586	1.510	1.470	1.439	1.415	1.394	1.372	1.352	1.337	1.331	1.341	1.347
Exist. House Sales (Total, Mil. saar)	6.303	5.833	5.897	5.845	5.817	5.893	5.850	5.824	5.794	5.765	5.759	5.750	5.733
Unemployment Rate (%)	6.2	5.9	5.3	5.0	4.6	4.3	4.0	3.8	3.7	3.6	3.6	3.5	3.4
Payroll Employment (%ch., saar)	2.1	4.8	6.2	3.4	3.0	2.9	2.6	2.1	1.6	1.3	1.2	1.2	1.3
Federal Surplus (Unified, nsa, bil. \$)	-1133.4	-531.7	-455.0	-394.8	-402.1	-241.4	-282.1	-247.8	-317.6	-28.5	-225.9	-220.8	-286.2
Current Account Balance (Bil. \$)	-783.0	-763.5	-712.5	-604.2	-606.5	-614.3	-614.7	-604.6	-596.4	-581.9	-561.5	-549.3	-539.6
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.08	0.07	0.10	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.13	0.36	0.36
3-Month Treasury Bill Rate (%)	0.05	0.03	0.06	0.07	0.08	0.08	0.08	0.09	0.09	0.09	0.11	0.32	0.32
10-Year Treasury Note Yield (%)	1.32	1.59	1.32	1.42	1.56	1.68	1.80	1.90	1.99	2.05	2.09	2.13	2.20
30-Year Fixed Mortgage Rate (%)	2.87	3.00	2.88	3.02	3.21	3.35	3.46	3.56	3.65	3.72	3.77	3.82	3.88
S&P 500 Stock Index	3863	4183	4460	4550	4464	4420	4428	4473	4530	4598	4679	4750	4795
(Four-Quarter % change)	25.8	42.8	34.3	28.0	15.6	5.7	-0.7	-1.7	1.5	4.0	5.7	6.2	5.9
Exchange Rate, Broad Index of Partners	1.229	1.223	1.241	1.246	1.247	1.243	1.244	1.244	1.243	1.241	1.242	1.242	1.241
(% change, annual rate)	-5.7	-1.7	6.0	1.6	0.4	-1.3	0.2	-0.1	-0.1	-0.6	0.1	0.0	-0.2
Incomes													
Personal Income (% ch., saar)	56.8	-21.8	-0.5	-1.6	2.2	5.9	5.6	4.2	4.5	5.0	5.2	5.2	5.8
Real Disposable Income (%ch., saar)	54.7	-31.0	-7.1	-4.3	0.0	4.3	4.1	2.3	2.6	3.1	3.2	3.2	3.8
Saving Rate (%)	20.5	10.3	8.5	6.5	5.7	6.0	6.3	6.3	6.4	6.5	6.5	6.6	6.7
After-Tax Profits (Billions of \$)	2368	2671	2466	2454	2484	2500	2502	2483	2541	2553	2581	2610	2701
(Four-quarter % change)	35.8	69.3	14.8	13.4	4.9	-6.4	1.5	1.2	2.3	2.1	3.2	5.1	6.3

Source: IHS Markit

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Summary of the US Economy

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Composition of Real GDP, Percent Change													
Gross Domestic Product	2.3	2.7	1.7	2.3	2.9	2.3	-3.4	5.7	4.5	2.7	2.9	2.6	2.4
Final Sales of Domestic Product	2.4	2.4	2.2	2.3	2.8	2.2	-2.9	5.7	3.4	2.7	2.9	2.7	2.4
Gross Domestic Income	3.1	2.5	0.9	2.4	2.9	2.0	-2.9	6.3	4.1	2.6	2.8	2.5	2.3
Avg. of GDP and GDI	2.7	2.6	1.3	2.3	2.9	2.1	-3.2	6.0	4.3	2.7	2.8	2.5	2.3
Total Consumption	2.7	3.3	2.5	2.4	2.9	2.2	-3.8	7.8	3.3	2.6	3.1	3.1	3.1
Durables	7.2	7.6	5.4	6.3	7.0	4.3	7.7	17.6	-3.6	0.8	4.0	4.9	5.2
Nondurables	2.6	3.4	2.5	2.7	2.5	2.9	3.1	8.4	-0.3	1.2	2.7	2.8	2.7
Services	2.0	2.6	2.0	1.8	2.4	1.7	-7.5	5.9	5.8	3.3	3.1	3.0	2.9
Nonresidential Fixed Investment	7.2	2.3	0.9	4.1	6.4	4.3	-5.3	7.7	6.8	4.6	4.8	4.1	3.4
Equipment	7.0	3.0	-1.8	2.8	6.4	3.3	-8.3	12.4	7.3	5.7	5.9	5.4	4.8
Information Processing Equipment	5.2	6.2	4.4	6.8	7.6	3.7	6.8	15.6	4.5	3.7	4.1	3.5	3.4
Industrial Equipment	3.9	0.1	-1.5	4.2	5.8	2.2	-4.9	12.7	-3.9	3.0	9.9	8.2	7.2
Transportation equipment	11.1	10.5	-5.6	-1.0	4.9	2.8	-35.2	7.6	46.0	17.7	0.8	-2.8	-0.3
Aircraft	13.4	1.7	-10.7	36.2	-6.5	-11.8	-36.2	41.4	37.2	11.3	1.4	0.2	4.8
Other Equipment	7.9	-6.6	-5.8	0.0	6.9	4.3	-1.6	10.2	-2.4	-0.8	11.2	14.9	9.5
Intellectual Property Products	4.8	3.8	8.8	5.7	8.1	7.2	2.8	11.1	9.2	4.9	4.3	3.1	2.1
Structures	11.0	-0.9	-4.3	4.2	4.0	2.0	-12.5	-7.1	0.4	1.1	3.3	3.6	3.2
Commercial & Health Care	12.9	12.1	16.7	3.2	1.3	1.5	-1.4	-7.6	-10.0	-5.6	6.7	7.8	5.1
Manufacturing	12.9	34.4	-4.8	-13.4	-1.8	5.6	-13.4	-4.3	5.6	8.1	-3.9	-5.8	-2.2
Power & Communication	15.0	3.4	2.2	-4.6	-5.7	7.4	-4.7	-13.7	-1.4	-0.5	1.7	4.8	4.2
Mining & Petroleum	8.0	-28.6	-41.8	39.0	26.9	-1.6	-37.5	18.1	16.6	3.2	-0.5	-0.8	0.0
Other	8.3	10.5	7.2	3.9	1.4	-0.5	-13.8	-16.0	3.7	6.2	8.8	6.2	4.7
Residential Fixed Investment	3.8	10.2	6.6	4.0	-0.6	-0.9	6.8	8.3	-5.9	-1.6	1.5	0.9	-0.4
Exports	3.9	0.3	0.4	4.1	2.8	-0.1	-13.6	4.8	7.5	7.5	5.6	4.4	3.8
Imports	5.2	5.2	1.5	4.4	4.1	1.2	-8.9	12.0	4.4	5.2	5.1	5.0	4.9
Federal Government	-2.6	0.0	0.5	0.3	3.0	3.8	5.0	1.5	0.0	-0.1	0.6	0.8	0.5
State & Local Government	0.2	3.0	2.8	0.6	0.4	1.3	0.9	0.7	3.1	2.5	1.5	0.9	1.0
Billions of Dollars													
Real GDP	16932.1	17390.3	17680.3	18079.1	18606.8	19032.7	18384.7	19438.9	20310.7	20855.3	21452.6	22003.6	22523.3
Nominal GDP	17550.7	18206.0	18695.1	19479.6	20527.2	21372.6	20893.7	22938.4	24616.2	25768.6	27117.0	28489.5	29886.4
Prices & Wages, Percent Change													
GDP Deflator	1.9	1.0	1.0	1.9	2.4	1.8	1.3	3.8	2.7	1.9	2.3	2.4	2.5
Consumer Prices	1.6	0.1	1.3	2.1	2.4	1.8	1.2	4.2	2.4	1.8	2.1	2.2	2.3
Producer Prices, Finished Goods	1.9	-3.3	-1.0	3.2	3.1	0.8	-1.3	7.3	2.2	1.5	1.8	2.0	2.0
Employment Cost Index - Total Comp.	2.1	2.1	2.1	2.5	2.9	2.7	2.6	3.4	4.2	3.8	3.5	3.5	3.4
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	99.83	52.68	44.24	54.83	70.96	64.34	41.77	67.41	66.13	65.53	65.79	66.56	67.43
Productivity (%ch.)	0.7	1.2	0.4	1.2	1.5	2.0	2.4	1.9	1.5	1.4	2.1	2.1	2.2
Total Industrial Production (%ch.)	3.0	-1.4	-2.2	1.3	3.2	-0.8	-7.2	5.6	4.5	2.7	2.4	2.0	1.6
Factory Operating Rate	75.7	76.0	75.2	76.2	77.7	75.8	71.1	76.0	78.7	78.8	78.5	77.8	76.9
Nonfarm Inven. Chg. (Bil. 2012 \$)	90.1	136.5	41.2	38.6	72.7	89.0	-35.3	-65.7	127.1	134.3	129.4	114.0	100.7
Consumer Sentiment Index	84.1	92.9	91.8	96.8	98.4	96.0	81.5	78.3	86.7	94.2	95.8	96.4	97.0
Light Vehicle Sales (Mil. units)	16.45	17.41	17.48	17.15	17.22	16.96	14.47	15.66	16.73	16.86	16.75	16.73	16.81
Housing Starts (Mil. units)	1.000	1.107	1.177	1.205	1.247	1.292	1.397	1.541	1.405	1.340	1.339	1.331	1.291
Exist. House Sales (Total, Mil. units)	4.923	5.228	5.437	5.527	5.334	5.327	5.658	5.970	5.846	5.767	5.650	5.440	5.397
Unemployment Rate (%)	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.6	4.2	3.6	3.3	3.3	3.4
Payroll Employment (%ch.)	1.9	2.1	1.8	1.6	1.6	1.3	-5.7	2.7	3.5	1.8	1.2	0.9	0.6
Federal Surplus (Unified, FY, bil. \$)	-487.4	-475.4	-581.6	-680.9	-873.0	-1022.0	-3348.2	-2514.8	-1173.3	-792.7	-666.8	-721.5	-758.8
Current Account Balance (Bil. \$)	-370.0	-408.9	-397.6	-361.7	-438.2	-472.1	-616.1	-715.8	-610.0	-572.3	-540.4	-544.6	-562.9
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.13	0.40	1.00	1.83	2.16	0.38	0.08	0.10	0.17	0.52	1.03	1.53
3-Month Treasury Bill Rate (%)	0.03	0.05	0.32	0.93	1.94	2.06	0.37	0.05	0.08	0.15	0.46	0.92	1.37
10-Year Treasury Note Yield (%)	2.54	2.14	1.84	2.33	2.91	2.14	0.89	1.41	1.73	2.06	2.32	2.62	2.83
30-Year Fixed Mortgage Rate (%)	4.17	3.85	3.65	3.99	4.54	3.94	3.12	2.94	3.40	3.74	4.00	4.29	4.51
S&P 500 Stock Index	1931	2061	2092	2448	2745	2912	3219	4264	4446	4639	4810	4817	4848
(Percent change)	17.5	6.8	1.5	17.0	12.1	6.1	10.5	32.5	4.3	4.3	3.7	0.2	0.6
Exchange Rate, Broad Index of Partners	1.044	1.180	1.235	1.232	1.223	1.263	1.287	1.235	1.245	1.242	1.239	1.241	1.245
(% change, annual rate)	3.1	13.1	4.6	-0.3	-0.7	3.3	1.9	-4.1	0.8	-0.2	-0.3	0.2	0.3
Incomes													
Personal Income (% ch.)	5.5	4.7	2.6	4.7	5.1	4.1	6.5	6.3	0.6	4.9	5.4	5.3	5.2
Real Disposable Income (%ch.)	3.8	4.0	1.8	2.8	3.4	2.3	6.2	1.4	-2.7	3.0	3.3	3.1	2.9
Saving Rate (%)	7.0	7.5	7.0	7.3	7.6	7.7	16.4	11.4	6.1	6.5	6.7	6.7	6.5
After-Tax Profits (Billions of \$)	1857	1732	1758	1882	1977	1952	1908	2490	2492	2571	2742	2898	3060
(Percent change)	3.8	-6.8	1.5	7.1	5.0	-1.3	-2.3	30.5	0.1	3.2	6.6	5.7	5.6

Source: IHS Markit

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Summary of the US Economy

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Composition of Real GDP, Percent Change (Q4/Q4)													
Gross Domestic Product	2.6	1.9	2.0	2.7	2.3	2.6	-2.3	5.6	3.6	2.7	2.8	2.5	2.2
Final Sales of Domestic Product	2.8	1.8	2.2	2.8	2.1	2.9	-2.6	5.8	2.8	2.8	2.8	2.6	2.3
Gross Domestic Income	4.0	1.2	1.2	2.9	2.9	1.8	-0.2	4.3	3.5	2.6	2.7	2.5	2.2
Avg. of GDP and GDI	3.3	1.5	1.6	2.8	2.6	2.2	-1.2	4.9	3.6	2.6	2.8	2.5	2.2
Total Consumption	3.5	2.6	2.3	2.8	2.6	2.3	-2.4	7.0	2.6	2.8	3.2	3.1	3.1
Durables	9.2	6.0	6.3	7.9	3.9	5.8	13.5	5.7	-0.9	2.1	4.6	5.1	5.2
Nondurables	3.2	2.8	2.0	3.7	2.0	2.7	4.7	6.4	-0.6	2.1	2.8	2.7	2.7
Services	2.7	2.1	1.8	1.8	2.5	1.6	-6.9	7.5	4.3	3.1	3.1	2.9	2.9
Nonresidential Fixed Investment	6.9	-0.1	2.5	4.7	6.1	3.1	-3.8	8.1	6.2	4.4	4.7	3.9	3.2
Equipment	5.6	1.5	-2.2	6.4	6.0	-0.9	-0.3	6.4	8.3	5.4	5.8	5.2	4.7
Information Processing Equipment	6.4	6.5	3.3	9.2	4.8	2.9	15.4	8.4	4.2	3.9	3.8	3.5	3.3
Industrial Equipment	4.3	1.0	-1.7	6.6	5.7	-2.1	1.3	10.1	-5.2	5.2	10.9	6.5	7.1
Transportation equipment	9.4	6.6	-6.4	4.3	6.6	-6.2	-26.2	-1.2	56.4	12.4	-3.0	-2.5	1.7
Aircraft	-0.9	-14.1	17.2	21.1	4.2	-22.1	-26.8	52.7	19.5	6.7	-0.5	1.6	5.7
Other Equipment	1.7	-10.1	-5.3	4.8	7.7	1.1	5.3	5.1	-3.2	0.4	15.2	14.4	7.0
Intellectual Property Products	6.9	3.3	8.4	5.8	9.2	6.3	2.5	13.8	6.7	4.5	3.9	2.7	1.8
Structures	9.3	-7.3	3.6	0.0	1.8	5.8	-20.0	0.8	0.4	1.9	3.8	3.5	3.0
Commercial & Health Care	13.8	8.3	19.9	-2.6	-1.6	8.4	-9.9	-4.3	-12.7	0.8	8.6	6.6	5.0
Manufacturing	29.4	9.8	-6.3	-12.4	1.4	3.0	-16.6	-0.1	14.8	-0.3	-3.5	-5.2	-3.7
Power & Communication	-16.1	20.0	12.3	-18.1	-5.9	27.8	-21.1	-7.4	0.7	-0.4	2.0	6.2	4.4
Mining & Petroleum	16.3	-44.2	-27.0	47.5	19.0	-10.8	-38.8	47.3	5.9	2.7	-1.5	-0.7	0.0
Other	12.5	4.7	8.9	1.7	-0.7	0.7	-20.7	-9.4	8.3	6.5	8.7	4.9	4.5
Residential Fixed Investment	7.7	9.2	4.0	4.5	-3.9	2.2	15.7	-4.7	-3.0	-0.6	1.8	0.5	-1.0
Exports	2.4	-1.5	1.3	5.9	0.2	0.3	-10.7	3.9	8.1	6.7	5.0	4.2	3.5
Imports	6.5	3.3	2.2	5.1	3.4	-2.0	0.3	3.6	6.4	4.7	5.4	4.9	4.8
Federal Government	-1.0	1.2	0.1	1.3	3.0	4.3	3.1	1.0	0.4	0.3	0.8	0.8	0.2
State & Local Government	1.2	2.8	2.5	0.4	-0.3	2.5	0.0	2.1	2.8	2.3	1.0	1.1	0.9
Billions of Dollars													
Real GDP	16932.1	17390.3	17680.3	18079.1	18606.8	19032.7	18384.7	19438.9	20310.7	20855.3	21452.6	22003.6	22523.3
Nominal GDP	17550.7	18206.0	18695.1	19479.6	20527.2	21372.6	20893.7	22938.4	24616.2	25768.6	27117.0	28489.5	29886.4
Prices & Wages, Percent Change (Q4/Q4)													
GDP Deflator	1.5	0.8	1.5	2.1	2.3	1.6	1.5	4.6	1.8	2.1	2.4	2.4	2.5
Consumer Prices	1.2	0.4	1.8	2.1	2.2	2.0	1.2	4.8	1.5	2.0	2.2	2.3	2.3
Producer Prices, Finished Goods	0.6	-3.4	1.0	3.5	2.3	0.9	-1.2	8.2	1.0	1.6	1.9	2.0	2.1
Employment Cost Index - Total Comp.	2.3	1.8	2.2	2.6	3.0	2.7	2.6	4.0	4.1	3.5	3.6	3.5	3.4
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	99.83	52.68	44.24	54.83	70.96	64.34	41.77	67.41	66.13	65.53	65.79	66.56	67.43
Productivity (%ch.)	0.3	0.7	1.3	1.2	1.0	2.3	2.5	1.9	1.3	1.9	2.1	2.2	2.2
Total Industrial Production (%ch.)	3.0	-1.4	-2.2	1.3	3.2	-0.8	-7.2	5.6	4.5	2.7	2.4	2.0	1.6
Factory Operating Rate	75.7	76.0	75.2	76.2	77.7	75.8	71.1	76.0	78.7	78.8	78.5	77.8	76.9
Nonfarm Inven. Chg. (Bil. 2012 \$)	90.1	136.5	41.2	38.6	72.7	89.0	-35.3	-65.7	127.1	134.3	129.4	114.0	100.7
Consumer Sentiment Index	84.1	92.9	91.8	96.8	98.4	96.0	81.5	78.3	86.7	94.2	95.8	96.4	97.0
Light Vehicle Sales (Mil. units)	16.45	17.41	17.48	17.15	17.22	16.96	14.47	15.66	16.73	16.86	16.75	16.73	16.81
Housing Starts (Mil. units)	1.000	1.107	1.177	1.205	1.247	1.292	1.397	1.541	1.405	1.340	1.339	1.331	1.291
Exist. House Sales (Total, Mil. units)	4.923	5.228	5.437	5.527	5.334	5.327	5.658	5.970	5.846	5.767	5.650	5.440	5.397
Unemployment Rate (%)	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.6	4.2	3.6	3.3	3.3	3.4
Payroll Employment (%ch.)	2.1	2.0	1.7	1.5	1.6	1.3	-6.0	4.1	2.7	1.3	1.2	0.7	0.5
Federal Surplus (Unified, FY, bil. \$)	-487.4	-475.4	-581.6	-680.9	-873.0	-1022.0	-3348.2	-2514.8	-1173.3	-792.7	-666.8	-721.5	-758.8
Current Account Balance (Bil. \$)	-370.0	-408.9	-397.6	-361.7	-438.2	-472.1	-616.1	-715.8	-610.0	-572.3	-540.4	-544.6	-562.9
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.13	0.40	1.00	1.83	2.16	0.38	0.08	0.10	0.17	0.52	1.03	1.53
3-Month Treasury Bill Rate (%)	0.03	0.05	0.32	0.93	1.94	2.06	0.37	0.05	0.08	0.15	0.46	0.92	1.37
10-Year Treasury Note Yield (%)	2.54	2.14	1.84	2.33	2.91	2.14	0.89	1.41	1.73	2.06	2.32	2.62	2.83
30-Year Fixed Mortgage Rate (%)	4.17	3.85	3.65	3.99	4.54	3.94	3.12	2.94	3.40	3.74	4.00	4.29	4.51
S&P 500 Stock Index	1931	2061	2092	2448	2745	2912	3219	4264	4446	4639	4810	4817	4848
(Percent change, Q4/Q4)	13.6	2.0	6.4	19.2	3.3	14.7	15.2	28.0	-1.7	6.2	1.4	0.1	1.0
Exchange Rate, Broad Index of Partners	1.044	1.180	1.235	1.232	1.223	1.263	1.287	1.235	1.245	1.242	1.239	1.241	1.245
(% change, Q4/Q4)	6.7	12.2	3.9	-4.2	4.3	0.6	-1.9	0.0	-0.2	-0.2	-0.2	0.3	0.3
Incomes													
Personal Income (%ch., Q4/Q4)	6.6	3.5	3.0	5.3	4.8	3.6	4.8	4.7	4.5	5.0	5.4	5.2	5.1
Real Disposable Income (%ch., Q4/Q4)	5.2	2.8	1.6	3.1	3.7	1.7	4.0	-1.3	2.6	3.0	3.2	3.0	2.8
Saving Rate (%)	7.0	7.5	7.0	7.3	7.6	7.7	16.4	11.4	6.1	6.5	6.7	6.7	6.5
After-Tax Profits (Billions of \$)	1857	1732	1758	1882	1977	1952	1908	2490	2492	2571	2742	2898	3060
(Percent change, Q4/Q4)	2.2	-13.0	11.5	-2.7	13.0	-2.1	10.2	13.4	1.2	5.1	6.4	5.8	5.4

Source: IHS Markit

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Alternative Scenarios of the US Economy

	2021:1	2021:2	2021:3	2021:4	2022:1	2022:2	2020	2021	2022	2023	2024	2025	2026
Pessimistic: Recovery stumbles as consumers slow spending splurge (30% probability)													
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	6.3	6.6	2.0	2.1	2.6	3.9	-3.4	5.3	2.9	2.9	3.1	2.7	2.4
Total Consumption	11.4	11.9	-1.0	-0.7	0.5	2.8	-3.8	7.2	1.5	2.9	3.4	3.3	3.1
Nonresidential Fixed Investment	12.9	9.3	-2.7	0.4	4.1	8.4	-5.3	6.7	3.9	4.6	4.7	4.2	3.6
Residential Fixed Investment	13.3	-11.5	-11.0	-17.0	-11.7	-6.0	6.8	7.4	-10.0	-1.3	1.7	0.9	-0.1
Exports	-2.9	6.6	4.1	8.7	5.8	7.5	-13.6	4.8	6.9	7.5	5.9	4.7	3.9
Imports	9.3	6.7	-3.0	-8.5	0.8	6.1	-8.9	11.1	1.1	6.8	5.2	4.7	4.6
Federal Government	11.3	-5.2	-0.1	-1.4	2.6	-0.2	5.0	1.5	0.0	0.0	0.7	0.8	0.5
State & Local Government	-0.1	0.3	4.3	4.1	2.8	2.9	0.9	0.7	3.1	2.5	1.5	0.9	0.9
Prices & Wages, Percent Change, Annual Rate													
Consumer Prices	3.7	8.4	5.7	0.7	1.2	0.3	1.2	4.1	1.8	0.7	1.2	1.6	2.0
Producer Prices, Finished Goods	14.1	11.3	6.5	-0.4	0.0	0.2	-1.3	7.1	1.4	0.3	0.8	1.3	1.7
Employment Cost Index - Total Comp.	4.0	3.1	4.4	3.6	3.3	3.3	2.6	3.4	3.5	2.6	2.1	2.1	2.1
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	60.82	68.83	70.82	66.63	65.45	64.73	41.77	66.77	64.32	63.72	63.93	64.58	65.39
Productivity (%ch., saar)	4.3	2.1	-3.2	0.3	0.9	1.7	2.4	1.6	0.5	1.7	2.5	2.2	2.1
Total Industrial Production (%ch., saar)	3.9	6.1	2.7	1.1	3.7	5.5	-7.2	5.1	3.7	3.4	2.7	1.9	1.3
Nonfarm Inven. Chg. (Bil. 2012 \$)	-74.4	-150.2	-40.8	-6.2	43.1	81.5	-35.3	-67.9	97.7	142.5	152.8	137.6	118.7
Consumer Sentiment Index	80.2	85.6	67.6	68.3	72.5	76.3	81.5	75.4	79.2	91.9	94.4	94.9	95.6
Light Vehicle Sales (Mil. units, saar)	16.78	16.89	13.49	14.37	15.61	15.88	14.47	15.38	15.86	16.18	16.02	15.80	15.69
Housing Starts (Mil. units, saar)	1.599	1.586	1.480	1.357	1.326	1.296	1.397	1.505	1.292	1.254	1.248	1.239	1.212
Unemployment Rate (%)	6.2	5.9	5.4	5.4	5.3	5.0	8.1	5.7	4.9	4.3	3.9	3.7	3.7
Payroll Employment (%ch., saar)	2.1	4.8	5.8	3.0	2.5	2.3	-5.7	2.6	3.0	1.5	1.1	0.8	0.6
Federal Surplus (Unified, FY, bil. \$)	-1133.4	-531.7	-459.3	-408.5	-423.3	-265.7	-3131.9	-2697.2	-1407.4	-924.2	-736.6	-757.8	-743.5
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.08	0.07	0.09	0.09	0.10	0.10	0.38	0.08	0.10	0.09	0.10	0.10	0.18
10-Year Treasury Note Yield (%)	1.32	1.59	1.30	1.39	1.47	1.51	0.89	1.40	1.52	1.60	1.82	2.10	2.31
Incomes													
Personal Income (% ch., saar)	56.8	-21.8	-1.8	-3.7	0.1	4.6	6.5	6.0	-0.8	4.2	4.7	4.7	4.7
After-Tax Profits (Four-qr.% change)	35.8	69.3	13.1	6.2	-3.4	-14.1	-2.3	27.9	-7.1	0.7	6.3	6.3	7.4
Optimistic: Return to "normal" and still more stimulus drive faster growth (20% probability)													
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	6.3	6.6	5.8	9.2	7.1	5.1	-3.4	6.2	6.3	3.2	2.8	2.2	1.8
Total Consumption	11.4	11.9	3.9	7.8	5.3	4.1	-3.8	8.5	5.4	3.1	3.0	2.8	2.5
Nonresidential Fixed Investment	12.9	9.3	4.6	18.0	12.6	9.0	-5.3	8.7	10.6	6.1	5.3	3.4	1.9
Residential Fixed Investment	13.3	-11.5	-7.1	-7.5	-4.1	-3.9	6.8	8.7	-5.2	-1.8	1.3	1.4	-0.1
Exports	-2.9	6.6	4.2	8.7	8.6	10.6	-13.6	4.8	8.6	7.5	5.2	4.0	3.5
Imports	9.3	6.7	2.2	5.4	11.8	9.1	-8.9	12.8	7.6	5.0	4.8	4.8	4.2
Federal Government	11.3	-5.2	-0.1	-1.4	2.6	-0.2	5.0	1.5	0.0	-0.1	0.6	0.8	0.5
State & Local Government	-0.1	0.3	4.3	4.1	2.8	2.9	0.9	0.7	3.1	2.5	1.5	0.9	1.0
Prices & Wages, Percent Change, Annual Rate													
Consumer Prices	3.7	8.4	6.4	1.2	2.3	1.7	1.2	4.2	2.8	2.0	2.2	2.3	2.4
Producer Prices, Finished Goods	14.1	11.3	7.8	0.6	1.1	1.7	-1.3	7.4	2.6	1.7	1.9	2.0	2.1
Employment Cost Index - Total Comp.	4.0	3.1	4.6	4.3	4.3	4.4	2.6	3.4	4.3	3.9	3.7	3.7	3.6
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	60.82	68.83	72.80	68.59	68.68	67.98	41.77	67.76	67.45	66.47	66.65	67.39	68.23
Productivity (%ch., saar)	4.3	2.1	-0.7	4.9	4.0	2.7	2.4	2.2	2.9	2.2	2.2	1.9	1.6
Total Industrial Production (%ch., saar)	3.9	6.1	8.7	6.1	7.1	5.8	-7.2	6.2	6.2	2.9	2.3	1.6	1.1
Nonfarm Inven. Chg. (Bil. 2012 \$)	-74.4	-150.2	-42.3	20.3	118.3	171.5	-35.3	-61.6	167.9	154.0	128.3	98.4	74.1
Consumer Sentiment Index	80.2	85.6	76.9	80.2	84.3	88.0	81.5	80.7	89.9	96.7	98.4	98.9	99.6
Light Vehicle Sales (Mil. units, saar)	16.78	16.89	13.79	15.67	17.18	17.42	14.47	15.78	17.41	17.72	17.62	17.27	16.98
Housing Starts (Mil. units, saar)	1.599	1.586	1.528	1.501	1.475	1.446	1.397	1.554	1.441	1.378	1.375	1.380	1.343
Unemployment Rate (%)	6.2	5.9	5.2	4.6	4.2	3.9	8.1	5.5	3.9	3.5	3.2	3.2	3.3
Payroll Employment (%ch., saar)	2.1	4.8	7.6	3.9	4.3	2.4	-5.7	2.9	3.8	1.4	1.2	0.8	0.5
Federal Surplus (Unified, FY, bil. \$)	-1133.4	-531.7	-450.2	-381.6	-381.7	-215.8	-3131.9	-2688.2	-1231.3	-691.3	-545.6	-622.0	-692.5
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.08	0.07	0.11	0.12	0.30	0.33	0.38	0.09	0.35	0.66	1.12	1.63	2.13
10-Year Treasury Note Yield (%)	1.32	1.59	1.34	1.51	1.69	1.85	0.89	1.44	1.90	2.26	2.50	2.74	2.91
Incomes													
Personal Income (% ch., saar)	56.8	-21.8	0.4	0.7	3.5	7.3	6.5	6.5	1.9	5.5	5.5	5.2	5.0
After-Tax Profits (Four-qr.% change)	35.8	69.3	17.9	18.8	12.8	1.7	-2.3	32.9	7.2	4.6	4.8	3.2	2.3

Source: IHS Markit

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Alternative Scenarios of the US Economy

	2021:1	2021:2	2021:3	2021:4	2022:1	2022:2	2020	2021	2022	2023	2024	2025	2026
Pessimistic: Recovery stumbles as consumers slow spending splurge (30% probability)													
Composition of Real GDP, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Gross Domestic Product	6.3	6.6	2.0	2.1	2.6	3.9	-2.3	4.2	3.0	3.0	3.0	2.6	2.3
Total Consumption	11.4	11.9	-1.0	-0.7	0.5	2.8	-2.4	5.2	1.9	3.3	3.4	3.2	3.1
Nonresidential Fixed Investment	12.9	9.3	-2.7	0.4	4.1	8.4	-3.8	4.8	5.6	4.3	4.6	4.0	3.4
Residential Fixed Investment	13.3	-11.5	-11.0	-17.0	-11.7	-6.0	15.7	-7.2	-5.8	0.5	1.6	0.6	-0.3
Exports	-2.9	6.6	4.1	8.7	5.8	7.5	-10.7	4.0	7.4	7.0	5.4	4.3	3.6
Imports	9.3	6.7	-3.0	-8.5	0.8	6.1	0.3	0.9	5.5	6.1	5.0	4.6	4.6
Federal Government	11.3	-5.2	-0.1	-1.4	2.6	-0.2	3.1	1.0	0.4	0.3	0.9	0.8	0.2
State & Local Government	-0.1	0.3	4.3	4.1	2.8	2.9	0.0	2.1	2.8	2.2	1.0	1.1	0.8
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Consumer Prices	3.7	8.4	5.7	0.7	1.2	0.3	1.2	4.6	0.6	0.9	1.4	1.8	2.1
Producer Prices, Finished Goods	14.1	11.3	6.5	-0.4	0.0	0.2	-1.2	7.7	0.1	0.5	1.0	1.5	1.9
Employment Cost Index - Total Comp.	4.0	3.1	4.4	3.6	3.3	3.3	2.6	3.8	3.2	2.3	2.1	2.0	2.2
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	60.82	68.83	70.82	66.63	65.45	64.73	41.77	66.77	64.32	63.72	63.93	64.58	65.39
Productivity (%ch., saar)	4.3	2.1	-3.2	0.3	0.9	1.7	2.5	0.8	1.1	2.2	2.3	2.2	2.1
Total Industrial Production (%ch., saar)	3.9	6.1	2.7	1.1	3.7	5.5	-4.3	3.5	4.5	2.8	2.4	1.7	1.1
Nonfarm Inven. Chg. (Bil. 2012 \$)	-74.4	-150.2	-40.8	-6.2	43.1	81.5	-35.3	-67.9	97.7	142.5	152.8	137.6	118.7
Consumer Sentiment Index	80.2	85.6	67.6	68.3	72.5	76.3	81.5	75.4	79.2	91.9	94.4	94.9	95.6
Light Vehicle Sales (Mil. units, saar)	16.78	16.89	13.49	14.37	15.61	15.88	14.47	15.38	15.86	16.18	16.02	15.80	15.69
Housing Starts (Mil. units, saar)	1.599	1.586	1.480	1.357	1.326	1.296	1.397	1.505	1.292	1.254	1.248	1.239	1.212
Unemployment Rate (%)	6.2	5.9	5.4	5.4	5.3	5.0	8.1	5.7	4.9	4.3	3.9	3.7	3.7
Payroll Employment (%ch., saar)	2.1	4.8	5.8	3.0	2.5	2.3	-6.0	3.9	2.1	1.2	1.1	0.7	0.6
Federal Surplus (Unified, FY, bil. \$)	-1133.4	-531.7	-459.3	-408.5	-423.3	-265.7	-3131.9	-2697.2	-1407.4	-924.2	-736.6	-757.8	-743.5
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.08	0.07	0.09	0.09	0.10	0.10	0.38	0.08	0.10	0.09	0.10	0.10	0.18
10-Year Treasury Note Yield (%)	1.32	1.59	1.30	1.39	1.47	1.51	0.89	1.40	1.52	1.60	1.82	2.10	2.31
Incomes													
Personal Income (% ch., saar)	56.8	-21.8	-1.8	-3.7	0.1	4.6	4.8	3.8	3.3	4.3	4.7	4.7	4.7
After-Tax Profits (Four-qr.% change)	35.8	69.3	13.1	6.2	-3.4	-14.1	10.2	6.2	-3.1	3.8	6.4	6.8	7.8
Optimistic: Return to "normal" and still more stimulus drive faster growth (20% probability)													
Composition of Real GDP, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Gross Domestic Product	6.3	6.6	5.8	9.2	7.1	5.1	-2.3	7.0	4.8	2.9	2.5	2.0	1.7
Total Consumption	11.4	11.9	3.9	7.8	5.3	4.1	-2.4	8.7	3.9	3.0	2.9	2.7	2.4
Nonresidential Fixed Investment	12.9	9.3	4.6	18.0	12.6	9.0	-3.8	11.1	8.8	5.7	4.7	2.7	1.6
Residential Fixed Investment	13.3	-11.5	-7.1	-7.5	-4.1	-3.9	15.7	-3.6	-2.9	-0.8	1.6	1.1	-0.8
Exports	-2.9	6.6	4.2	8.7	8.6	10.6	-10.7	4.0	9.8	6.0	4.7	3.8	3.4
Imports	9.3	6.7	2.2	5.4	11.8	9.1	0.3	5.9	8.5	3.9	5.2	4.5	4.1
Federal Government	11.3	-5.2	-0.1	-1.4	2.6	-0.2	3.1	1.0	0.4	0.3	0.8	0.8	0.2
State & Local Government	-0.1	0.3	4.3	4.1	2.8	2.9	0.0	2.1	2.8	2.3	1.0	1.1	0.9
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Consumer Prices	3.7	8.4	6.4	1.2	2.3	1.7	1.2	4.9	1.9	2.1	2.3	2.4	2.4
Producer Prices, Finished Goods	14.1	11.3	7.8	0.6	1.1	1.7	-1.2	8.3	1.4	1.8	2.0	2.1	2.1
Employment Cost Index - Total Comp.	4.0	3.1	4.6	4.3	4.3	4.4	2.6	4.0	4.3	3.7	3.8	3.7	3.5
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	60.82	68.83	72.80	68.59	68.68	67.98	41.77	67.76	67.45	66.47	66.65	67.39	68.23
Productivity (%ch., saar)	4.3	2.1	-0.7	4.9	4.0	2.7	2.5	2.6	2.8	2.3	1.9	1.8	1.6
Total Industrial Production (%ch., saar)	3.9	6.1	8.7	6.1	7.1	5.8	-4.3	6.2	4.9	2.5	2.0	1.5	0.9
Nonfarm Inven. Chg. (Bil. 2012 \$)	-74.4	-150.2	-42.3	20.3	118.3	171.5	-35.3	-61.6	167.9	154.0	128.3	98.4	74.1
Consumer Sentiment Index	80.2	85.6	76.9	80.2	84.3	88.0	81.5	80.7	89.9	96.7	98.4	98.9	99.6
Light Vehicle Sales (Mil. units, saar)	16.78	16.89	13.79	15.67	17.18	17.42	14.47	15.78	17.41	17.72	17.62	17.27	16.98
Housing Starts (Mil. units, saar)	1.599	1.586	1.528	1.501	1.475	1.446	1.397	1.554	1.441	1.378	1.375	1.380	1.343
Unemployment Rate (%)	6.2	5.9	5.2	4.6	4.2	3.9	8.1	5.5	3.9	3.5	3.2	3.2	3.3
Payroll Employment (%ch., saar)	2.1	4.8	7.6	3.9	4.3	2.4	-6.0	4.6	2.5	1.2	1.1	0.6	0.4
Federal Surplus (Unified, FY, bil. \$)	-1133.4	-531.7	-450.2	-381.6	-381.7	-215.8	-3131.9	-2688.2	-1231.3	-691.3	-545.6	-622.0	-692.5
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.08	0.07	0.11	0.12	0.30	0.33	0.38	0.09	0.35	0.66	1.12	1.63	2.13
10-Year Treasury Note Yield (%)	1.32	1.59	1.34	1.51	1.69	1.85	0.89	1.44	1.90	2.26	2.50	2.74	2.91
Incomes													
Personal Income (% ch., saar)	56.8	-21.8	0.4	0.7	3.5	7.3	4.8	5.5	5.5	5.4	5.4	5.1	4.9
After-Tax Profits (Four-qr.% change)	35.8	69.3	17.9	18.8	12.8	1.7	10.2	18.8	6.6	4.9	3.8	3.1	2.3

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