

Executive Summary: US Economic Outlook

July 2021



Contacts

Joel Prakken

VP & Co-Head US Economics
joel.prakken@ihsmarkit.com

Chris Varvares

VP & Co-Head US Economics
chris.varvares@ihsmarkit.com

Ben Herzon

Executive Director
ben.herzon@ihsmarkit.com

Ken Matheny

Executive Director
ken.matheny@ihsmarkit.com

Patrick Newport

Executive Director
patrick.newport@ihsmarkit.com

James Bohnaker

Director
james.bohnaker@ihsmarkit.com

Kathleen Navin

Director
kathleen.navin@ihsmarkit.com

David Deull

Associate Director
david.deull@ihsmarkit.com

Michael Konidaris

Associate Director
michael.konidaris@ihsmarkit.com

Mike Montgomery

Associate Director
mike.montgomery@ihsmarkit.com

Juan Turcios

Principal Economist
juan.turcios@ihsmarkit.com

Gordon Greer III

Senior Economist
gordon.greer@ihsmarkit.com

Lawrence Nelson

Senior Economist
lawrence.nelson@ihsmarkit.com

Akshat Goel

Economist
akshat.goel@ihsmarkit.com

William Magee

Economist
william.magee@ihsmarkit.com

Forecast overview

Downward revision in 2021 GDP growth, but recovery remains on solid footing

- Our forecast of real GDP growth for 2021 has been revised down from 7.4% to 6.6%.¹
- The revision was largely accounted for by a downward revision in our tracking estimate of second-quarter growth, from 11.6% to 8.0%, motivated by weaker-than-expected readings in May for PCE, housing activity, equipment spending, and inventory investment. Also, after reviewing CBO's July update to *The Budget & Economic Outlook*, we shifted some government spending from the second quarter to the second half of this year.²
- Nevertheless, the recovery remains on solid footing. Growth is projected at 7.9% over the second half of this year, partially reflecting the shift in government spending. In addition, we've revised up our forecast for GDP growth in 2022 from 4.8% to 5.0%, and in 2023 from 1.7% to 2.1%. By 2024 the level of GDP is little changed from last month's forecast.
- Given the downward revision in growth this year, and a small uptick in unemployment in June, the unemployment rate exceeds last month's path modestly, but decreasingly, through mid-2023 before reaching the same trough of 3.5%.
- Driving the recovery are unprecedented support from fiscal and monetary policies, the rising fully vaccinated share of the population (which now exceeds 50%), and states re-opening their economies. By 6 July, our index of US containment measures had fallen to nearly zero; 37 states have rescinded all restrictions on social gathering.
- The post-pandemic rebound in prices, exacerbated in sectors where demand is recovering faster than atrophied supply chains can satisfy, has been stronger than expected. Accordingly, we again revised up our projection of headline CPI inflation for 2021 and 2022, from 3.3% and 2.1% to 3.7% and 2.4%. As supply expands we expect core PCE inflation to retreat to near 2% in 2022-2023.
- In recognition of both the upward revision in the near-term inflation forecast and upside risks to that forecast, we have moved forward the Fed's "lift-off" of its policy rate from mid-2024 to the FOMC meeting of September 2023.

Q1 data: GDP unrevised; profits, wealth revised up

- BEA's third estimate of Q1 real GDP growth was unrevised at 6.4%; revisions to the composition of spending were minor and of no consequence for the forecast. BEA's second estimate of Q1 growth of corporate profits was revised up from 0% to 10%, still far short of the growth of S&P operating earnings that surged to 142%. S&P profits in Q1 were unusually elevated relative to NIPA profits—the result (we speculate) of timing differences in the recording of forgiven PPP loans—and we expect S&P earnings to ease in Q2. The Federal Reserve released data in the Q1 US Financial Accounts showing household net worth nearly \$1 trillion above our estimate, by itself a positive factor for consumers.

Q2 growth slips from 11.5% to 8.0%, mostly in PCE

- Weaker-than-expected retail sales in May and details of May's report on personal outlays encouraged us to revise down our estimate of PCE growth from 13.5% to 10.5%. Consumer spending on goods fell for the second consecutive month, likely portending a further shift towards services.

Low inventories, further Q2 decline portend strong growth

- We expect the ratio of real inventories to real sales to fall to a record cyclical low in Q2. This destocking reflects disruptions in supply chains scarred by the pandemic and portends a restocking that will boost domestic production later. We project inventory building to contribute 3 percentage points to GDP growth over the second half of the year.

Higher near-term inflation

- While we have again revised up our near-term forecast of inflation, we still expect recent inflation pressures to abate—or, in some instances, reverse—later this year as supply chains recover and workers return to the labor force. For example, this forecast includes an eventual reversal of the recent surge in the price index of motor vehicles & parts.

Infrastructure: talks progress, no resolution

- Negotiations continue on an infrastructure bill. A bipartisan effort has narrowed disagreements over the scope of a package and how to pay for it. The potential impact on our forecast depends on the unresolved issue of how much of any spending total is not already reflected in our base case. Given the uncertain outcome, we've yet to include an infrastructure package in our forecast—an upside risk.

Fed call: earlier lift-off, same pace of tightening

- We've moved up into 2023 the lift-off of the Fed's policy rate, but the subsequent pace of rate increases is about as before. The federal funds rate reaches its (unchanged) target range of 2½% – 2¾% in mid-2028, roughly a year earlier than in last month's forecast. The 10-year note yield rises to the same 3.06%, but also a year earlier than last month.

1. This forecast was issued on 6 July 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 (July 2021) 2021:Q2 - 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					
	2020.4	2021.1	2021.2	2021.3	2021.4	2022.1	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	4.3	6.4	8.0	7.5	8.2	3.8	-3.5	6.6	5.0	2.1	2.0	2.1	-2.4	7.5	3.0	1.8	2.1	2.2
Contributions to growth (% points):																		
Final sales to domestic purchasers	4.5	10.5	7.9	3.7	5.1	3.4	-2.7	7.1	3.9	2.3	2.2	2.4	-1.5	6.8	3.0	2.1	2.3	2.5
Net exports of goods & services	-1.5	-1.5	0.3	-0.1	0.9	0.3	-0.1	-1.1	0.3	0.1	-0.1	-0.2	-1.1	-0.1	0.1	0.1	-0.2	-0.3
Change in private inventories	1.4	-2.7	-0.2	4.0	2.2	0.1	-0.6	0.6	0.8	-0.4	-0.2	0.0	0.3	0.8	-0.2	-0.3	-0.1	0.0
Major components of real GDP																		
Personal consumption expend.	2.3	11.4	10.5	2.3	5.3	4.1	-3.9	7.6	4.4	2.9	2.4	2.7	-2.7	7.3	3.8	2.4	2.5	2.8
Nonres. fixed investment	13.1	11.7	4.7	8.8	8.4	6.3	-4.0	8.4	6.6	4.5	3.9	3.6	-1.4	8.4	5.6	4.0	3.8	3.5
Residential investment	36.6	13.1	-9.9	3.6	0.0	-5.7	6.1	11.1	-4.0	-3.8	0.3	0.4	14.3	1.4	-5.9	-1.9	0.8	0.3
Change in private inventories *	62.1	-87.0	-95.6	112.2	227.4	232.4	-77.4	39.3	216.8	136.8	95.2	85.4	62.1	227.4	188.8	110.5	89.9	85.8
Exports of goods & services	22.3	-2.1	9.8	7.0	11.2	10.2	-12.9	5.6	8.8	6.1	4.8	4.0	-10.9	6.3	7.8	5.5	4.4	3.8
Imports of goods & services	29.8	9.5	5.1	6.0	2.1	6.0	-9.3	12.7	4.7	4.0	4.3	5.0	-0.6	5.6	5.0	3.7	4.7	5.1
Gov't consump. & gross invest.	-0.8	5.7	3.8	3.9	1.7	0.9	1.1	2.1	1.1	-0.3	0.5	0.6	-0.5	3.8	-0.2	0.0	0.6	0.7
Pvt. housing starts (thous. units)																		
	1575	1599	1566	1601	1526	1487	1397	1573	1437	1347	1328	1317	1575	1526	1391	1341	1314	1311
Light vehicle sales (mil. units)																		
	16.1	16.9	17.0	16.5	16.6	16.7	14.4	16.7	16.8	16.9	16.7	16.7	16.1	16.6	16.8	16.9	16.7	16.8
Industrial production, total																		
	8.2	3.6	6.5	9.8	7.9	3.7	-7.2	6.4	4.8	1.5	1.2	1.5	-4.3	6.9	2.5	1.1	1.4	1.6
Industrial production, mfg																		
	11.1	2.2	5.6	9.6	10.5	4.4	-6.6	7.3	5.5	1.6	1.4	1.6	-2.5	6.9	2.8	1.3	1.5	1.6
Capacity utilization (mfg, %)																		
	74.0	74.4	75.4	77.2	78.7	79.0	71.1	76.4	78.9	77.9	76.9	76.1	74.0	78.7	78.6	77.4	76.6	75.9
Nonfarm payroll employ. (mil.)																		
	142.6	143.4	145.0	147.3	149.0	150.1	142.3	146.2	151.5	154.1	155.2	155.9	142.6	149.0	152.9	154.5	155.5	156.2
Average monthly chg. (thous.)																		
	213	518	567	820	380	370	-785	571	311	128	77	60	213	380	244	84	62	71
Private nonfarm hours																		
	9.9	3.0	5.5	5.1	4.7	3.0	-6.6	5.0	3.6	1.5	0.5	0.5	-5.0	4.6	2.6	0.8	0.5	0.5
Civilian unemployment rate (%)																		
	6.7	6.2	5.9	5.5	4.9	4.6	8.1	5.6	4.2	3.6	3.6	3.8	6.7	4.9	3.8	3.5	3.7	3.9
Prices, Productivity, & Costs																		
CPI, all items, all urban	2.4	3.7	7.7	2.8	1.8	2.0	1.2	3.7	2.4	2.1	2.1	2.1	1.2	4.0	2.0	2.1	2.1	2.1
CPI excl food & energy, all urban	1.8	1.2	7.3	3.4	2.3	2.2	1.7	3.0	2.7	2.2	2.3	2.3	1.6	3.5	2.2	2.2	2.3	2.3
PCE price index	1.5	3.7	6.2	2.6	1.6	1.8	1.2	3.1	2.1	1.8	2.0	2.0	1.2	3.5	1.8	1.9	2.0	2.0
PCE price excl food & energy	1.3	2.5	5.9	2.9	2.0	2.0	1.4	2.8	2.3	2.0	2.1	2.1	1.4	3.3	2.0	2.0	2.1	2.1
PPI finished goods	4.4	13.9	10.7	3.7	1.2	1.0	-1.3	6.7	2.1	1.5	1.7	1.8	-1.2	7.2	1.3	1.6	1.8	1.8
Compensation per hour	9.7	7.2	4.4	3.0	2.1	1.9	7.0	5.5	2.4	3.3	3.7	3.8	8.8	4.1	2.4	3.6	3.7	3.8
Output per hour	-3.8	5.4	3.7	3.3	4.6	1.2	2.6	3.2	2.0	0.8	1.7	2.0	2.6	4.2	0.7	1.1	1.8	2.1
Unit labor cost	14.0	1.7	0.7	-0.3	-2.4	0.6	4.3	2.3	0.4	2.5	2.0	1.8	6.1	-0.1	1.7	2.5	1.8	1.7
CoreLogic house price index **	3.6	3.7	2.0	1.4	1.4	1.3	6.1	10.9	5.5	4.3	3.9	3.8	9.1	8.7	5.0	4.0	3.9	3.7
Price of WTI crude oil (\$/barrel)	42.53	57.80	66.10	69.17	65.16	63.95	39.25	64.56	62.84	62.12	62.26	62.84	42.53	65.16	61.64	62.05	62.43	63.09
Price of Brent crude oil (\$/barrel)	44.29	60.82	68.79	71.67	68.17	67.17	41.77	67.36	66.13	65.54	65.79	66.56	44.29	68.17	65.00	65.50	66.03	66.86
Selected Financial Variables																		
Federal funds rate (%)	0.09	0.08	0.07	0.10	0.10	0.10	0.38	0.09	0.10	0.18	0.52	1.03	0.09	0.10	0.10	0.36	0.67	1.18
Yield on 10-Yr Treasury Notes (%)	0.86	1.32	1.59	1.58	1.65	1.75	0.89	1.53	1.89	2.16	2.38	2.64	0.86	1.65	2.02	2.22	2.49	2.73
Baa corporate bond yield (%)	3.36	3.54	3.61	3.50	3.65	3.83	3.69	3.57	4.00	4.30	4.54	4.78	3.36	3.65	4.11	4.38	4.64	4.85
Broad trade-wtd US\$ (Jan 2006=100)	114.2	112.6	112.1	111.7	111.8	111.8	117.9	112.0	112.0	112.9	113.7	114.7	114.2	111.8	112.2	113.2	114.1	115.0
S&P 500 stock index, period end	3756	3973	4297	4458	4481	4516	3756	4481	4744	4883	4811	4767	3756	4481	4744	4883	4811	4767
S&P 500 stock index, average	3554	3863	4183	4378	4469	4499	3219	4223	4603	4817	4853	4783	3554	4469	4712	4874	4821	4769
Incomes & Related Measures																		
Corporate profits w/ IVA & CCAAdj	-5.3	10.0	15.1	25.8	18.6	23.2	-5.8	18.5	12.8	-1.4	1.7	3.1	-0.7	17.2	4.5	-0.6	2.6	3.6
Real disposable personal income	-7.6	62.0	-28.0	-8.7	-0.6	1.1	6.0	3.4	-1.9	2.2	2.4	2.7	3.9	1.4	2.4	2.0	2.5	2.8
Personal saving rate (%)	13.6	21.5	12.7	10.2	8.7	8.1	16.2	13.3	7.9	7.3	7.3	7.4	13.6	8.7	7.5	7.2	7.3	7.3
Fed. surplus (unified, FY, bil. \$)	-2292	-4533	-3019	-1890	-1454	-1801	-3132	-2933	-1276	-951	-1064	-1128	-2292	-1454	-1240	-1340	-1400	-1480

* billions of chained 2012 \$

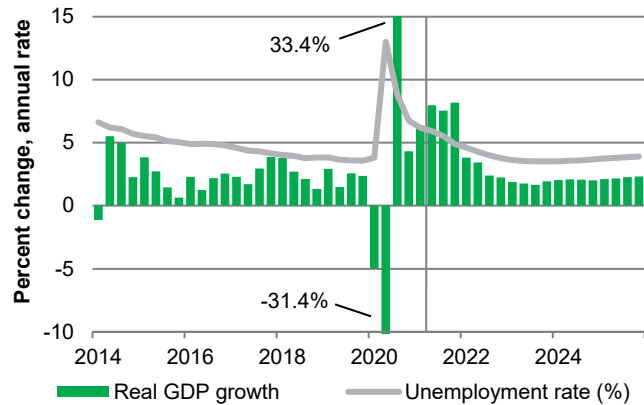
** % change, not annualized

Source: IHS Markit

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Forecast at a glance

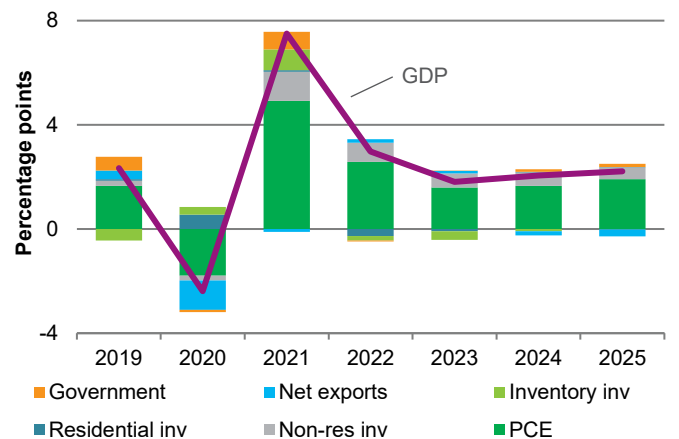
Recovery continued through Q2; we estimate GDP surpassed pre-pandemic peak



Source: IHS Markit, BEA, BLS

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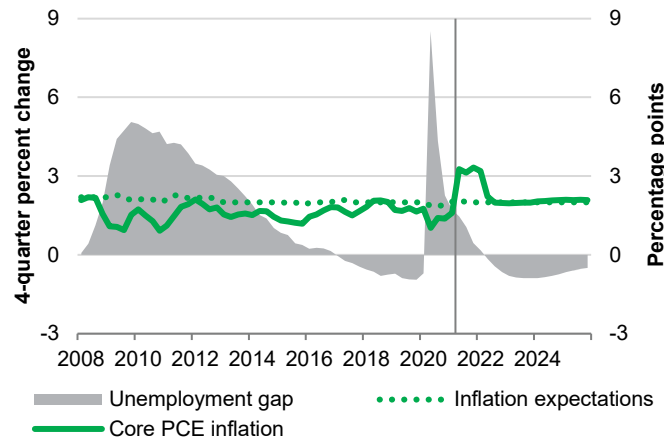
Contributions to GDP growth (Q4/Q4)



Source: IHS Markit, BEA

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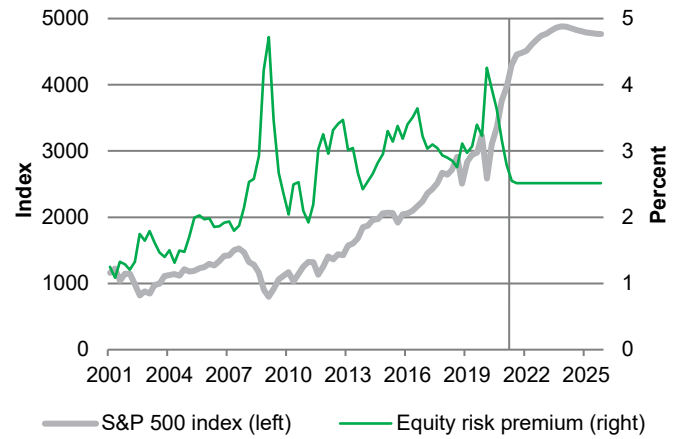
Core PCE inflation declines to 2% after surge



Source: IHS Markit, Philly Fed, BEA, BLS

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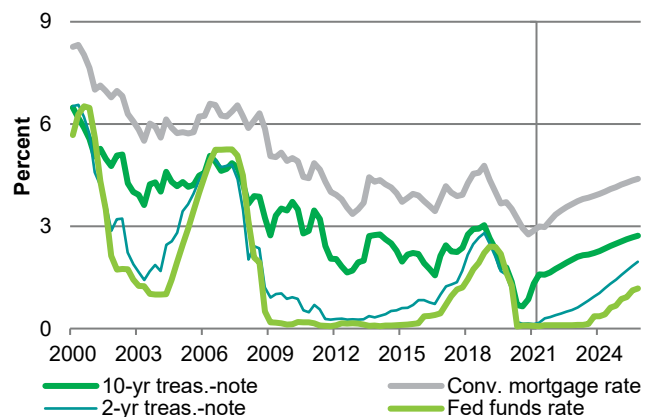
Equities to continue to rise through 2023



Source: IHS Markit, S&P

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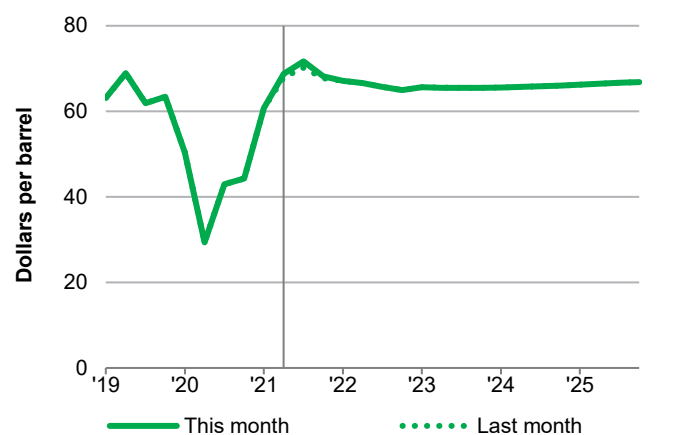
Fed keeps funds rate pinned at 0 until late-2023, term yields rise gradually



Source: IHS Markit, FRB

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Price of Brent crude oil



Source: IHS Markit

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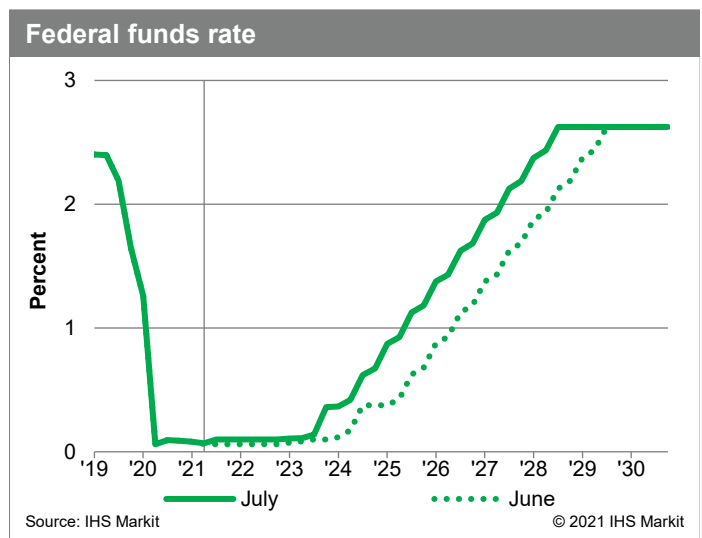
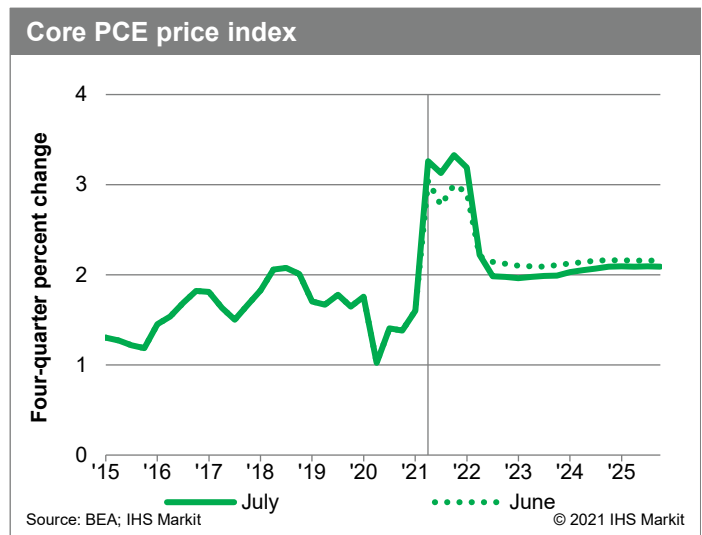
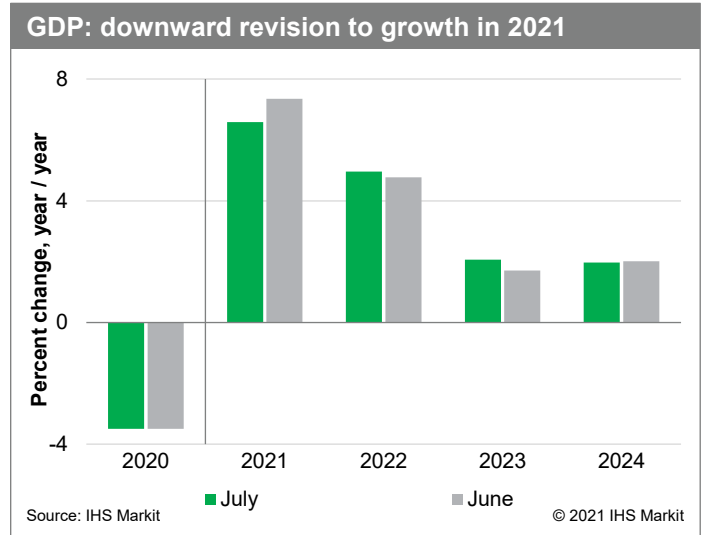
What's new

2021 GDP growth revised down, inflation up; Fed lift-off moved forward into 2023

We lowered our forecast of year-over-year real GDP growth in 2021 from 7.4% to 6.6% (chart, top), almost entirely due to a progressive downward revision in our tracking estimate for Q2 growth from 11.6% on 10 June to the current 8.0%. In particular, May readings on consumer spending, housing activity, business purchases of equipment, and inventory investment all were weaker than expected. In addition, after reviewing CBO's 2 July update of *The Economic & Budget Outlook*, we shifted some growth in government consumption & gross investment from the second quarter to the second half of this year. However, we revised up the forecast of GDP growth in 2022 and 2023, with the level of GDP nearing last month's path by 2024. With slower GDP growth in 2021 and an unexpected uptick in unemployment in June, the unemployment rate remains modestly, but decreasingly, above last month's line through mid-2023, before reaching the same 3.5% trough.

Revisions to the inflation forecast this month reflect conflicting forces. The four-quarter change in the core PCE price index for 2021 has been revised up from 3.0% to 3.3% (chart, middle) in recognition of recent inflationary pressures that have proved stronger and somewhat more persistent than expected. However, core inflation over the four quarters of both 2022 and 2023 has been revised down from 2.1% to 2.0%, for two reasons. First, as mentioned above, this month's path for the unemployment rate is modestly above last month's line through mid-2023. Second, following the recent surge in the PCE price index for motor vehicles & parts—which includes the soaring price for net purchases of used cars—to what we consider an unsustainable level, we have now incorporated into the forecast an outright 7.5% decline in this price by the end of 2023. The timing of the decline reflects our assessment of the potential easing of supply shortages—including for semiconductors—that have limited vehicle production. The decline in this price returns it to near the previous peak of mid-2015.

Our recent forecasts have been characterized by a two-year interval, from late 2022 to late 2024, during which the Fed's pre-conditions for "lift-off" of the federal funds rate from the near-zero bound arguably were met. Given the recent uptick in inflation, and considering upside inflation risks, we moved forward from late 2024 to September 2023 our assumed lift-off (chart, bottom). This better balances the risk around our Fed call, particularly as a majority of the FOMC now expect the first rate increase in 2023. The pace of rate increases is about as before. There have been no changes in our assumptions about the tapering of the Fed's asset purchases or the terminal federal funds rate. In anticipation of the earlier hike in the Fed's policy rate, term Treasury yields have been revised up in the intermediate term by as much as 22 basis points in 2024.



The view just ahead

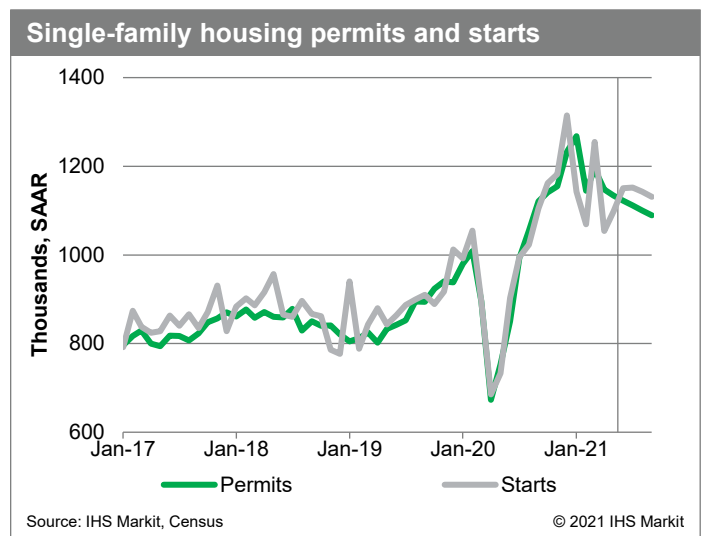
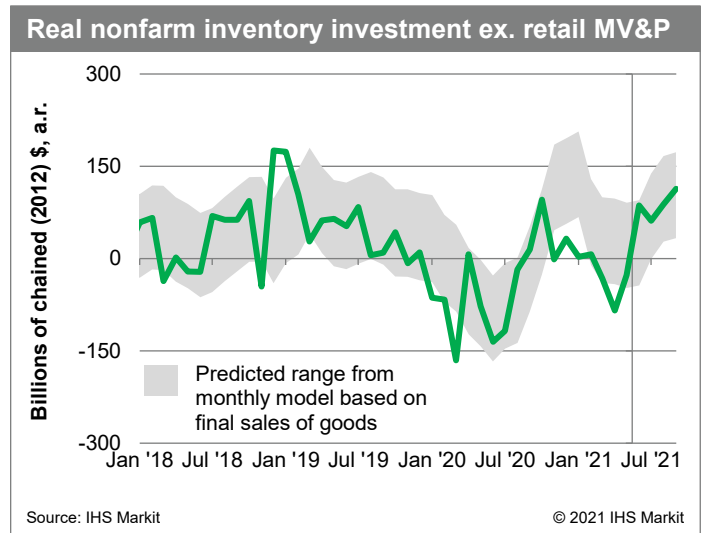
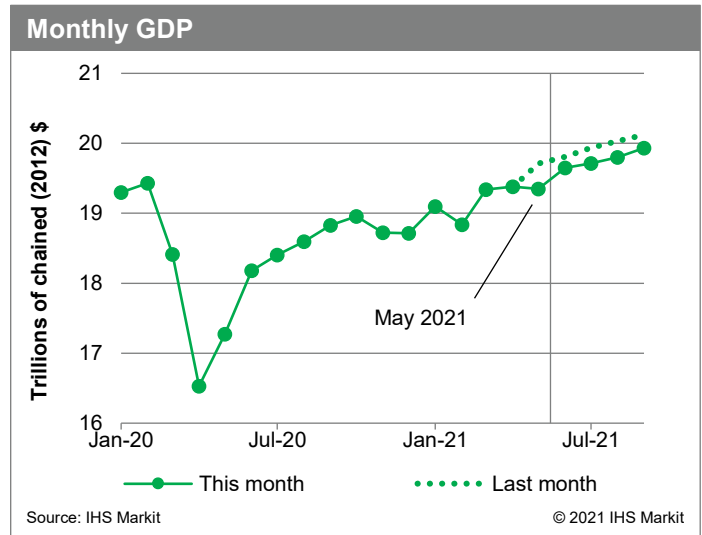
Increase in monthly GDP that was expected in May now slated for June

In last month's forecast, we had been anticipating a robust increase in monthly GDP in May. The 1.7% increase that we had penciled in comprised solid contributions from personal consumption expenditures (PCE) and nonfarm inventory investment. Monthly GDP, in fact, declined slightly in May, with roughly two-thirds of the downside surprise accounted for by an unexpected decline in PCE. In this month's forecast, we assume a solid gain in monthly GDP in June, with the largest contribution assumed to occur in nonfarm inventory investment. Moderate gains in components of monthly final sales round out an assumed 1.6% increase in monthly GDP in June, implying first-quarter annualized GDP growth of 8.0%.

In the third quarter, we look for 7.5% GDP growth. Roughly one-half of this growth is accounted for by a \$208 billion swing-around in inventory investment; inventories are estimated to have been pared at a \$96 billion annual rate in the second quarter and are forecast to accumulate at a \$112 billion annual rate in the third quarter. As forecast GDP growth is more or less steady from the second to the third quarter, the switch from inventory paring to inventory building reflects a sharp slowing in final sales, from an estimated 8.2% in the second quarter to 3.5% in the third quarter.

The slowing in final sales that we expect is mainly in PCE and, in particular, in spending on goods. Real consumer spending on goods surged 9.6% (not annualized) in March, aided by economic stimulus payments, and has been coming down since then (through May). Continued albeit slowing monthly declines in spending on goods through September underlie our forecast of a 12.1% annualized decline in real PCE on goods in the third quarter following 11.4% growth in the second quarter.

Outside of PCE, the near-term outlook for final sales is generally solid. Business fixed investment in structures is forecast to grow at a 5.2% annual rate in the third quarter, more than accounted for by rising investment in energy-related structures. Equipment spending is forecast to grow 9.4% in the third quarter and investment in intellectual property products is forecast to grow 10%. Residential investment is forecast to grow 3.6% in the third quarter, but this is likely the last quarterly gain we see for a while. Single-family housing permits appear to have peaked this past winter and are expected to slow to bring housing starts back in line with a pace suggested by the underlying demographics. To be sure, the housing market is hot—inventories are lean and prices are rising rapidly. But the current pace at which housing units are being added to the housing stock is elevated and should mitigate these pressures over the next few quarters.



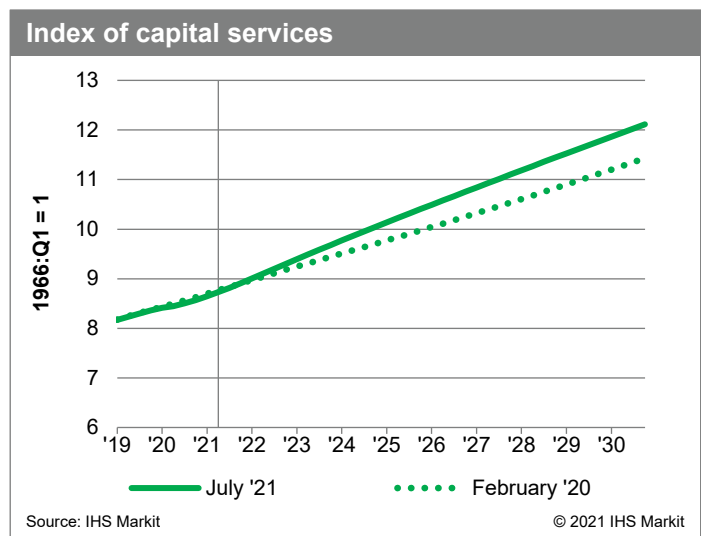
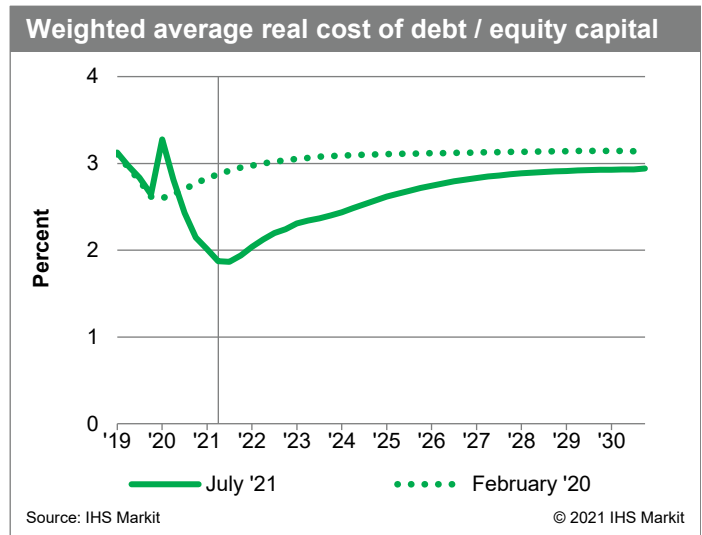
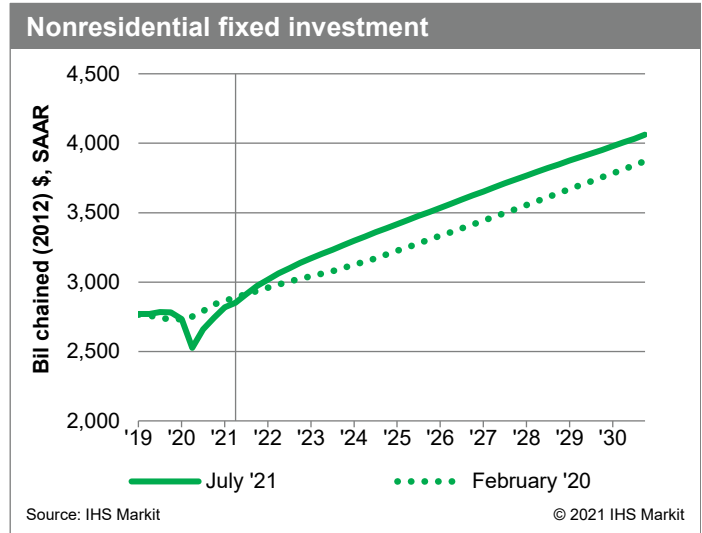
Growth

Labor shortfalls, plentiful capital?

Amid concerns that tight labor markets are restraining growth, another narrative—one about capital—is evolving more quietly. As of the first quarter, nonresidential fixed investment was 1% above the pre-pandemic peak reached in the fourth quarter of 2019. We expect investment to regain its rising pre-pandemic trend in the third quarter before moving more than 5% above that trend mid-decade (chart, top). Because growth of the capital stock depends on the level of investment, our current forecast shows a stronger contribution of capital deepening to productivity growth than we expected before the pandemic. By itself, this implies an upward revision to growth of potential GDP; more generally, it can offset the impact of labor shortages on secular growth.

Policy is the most important factor behind this revision. Before the pandemic the Fed was, and was expected to continue, tightening monetary policy. However, when the pandemic struck, the Fed quickly pivoted to an accommodating posture, resulting in a sharp and persistent reduction in financing costs. For a weighted average real cost of debt and equity capital that appears in our investment equations, the middle chart compares the current forecast to that of February 2020. Following an initial spike in early 2020 associated with the temporary drop in stock prices, the cost of capital has fallen nearly a percentage point below the earlier forecast and remains well below it for several years. With the output gap soon eliminated, lower capital costs will be a powerful incentive for capital expansion. In addition, the Fed has shifted policy emphasis from preempting any rise in inflation above 2% to *encouraging* intermediate-term inflation above 2%. By allowing the economy to run hotter for longer, the shift allows investment, which is subject to powerful “accelerator effects,” to remain cyclically stronger for longer. The effect of monetary policy on investment is now also being reinforced by expansive fiscal policy.

Not only will the level of investment soon surpass the earlier trend, the composition of expenditures has shifted towards high-productivity investment in information technologies and away from low-productivity investment in structures. Expenditures on computers & peripherals have exploded above the pre-pandemic trend (chart, middle). This does reflect a temporary acceleration of the secular trend, so we do expect some payback of investment mid-decade. Nevertheless, the shift in the mix of expenditures augments the impact on potential GDP of the policy-induced strength in total investment. The bottom chart shows the associated revisions to our index of capital services, reflecting growth of capital stocks, their relative importance, and their relative productivity. By 2030, the current forecast is more than 5% above the pre-pandemic line, enough by itself to add about 1.5% to the level of GDP.



Sector highlights

Consumer spending disappoints in May; labor demand outpaces supply; housing market is slowing

Consumer markets: According to the third estimate from BEA, real personal consumption expenditures (PCE) increased 11.4% (annual rate) in the first quarter of 2021. Consumer spending continued to recover strongly in the second quarter, but it suffered a setback in May and likely did so again in June as the impact of the spring stimulus faded. We estimate that real PCE grew at a robust 10.5% annual rate in the second quarter, a downward revision of three percentage points relative to last month's forecast. Annual growth in real PCE was downgraded 0.8 percentage point to 7.6%.

Retail sales data for May showed a moderation of sales in household durable goods categories such as furniture, electronics, and home improvement. This begins a pivot we had long been expecting as households realign their spending toward service-oriented consumption amid business openings and increasing vaccination rates. Over the four quarters beginning in the third quarter of 2021, real PCE on durable goods is forecast to decline 6.6% while real PCE on services is expected to increase 8.0%.

Labor markets: The recovery in labor markets continued into June, when nonfarm payroll employment rose 850 thousand. The increase was driven by large gains in leisure and hospitality (343 thousand) and in education services (268 thousand). Payroll gains outside of these sectors were unspectacular at 239 thousand. The unemployment rate rose 0.1 percentage point to 5.9%, reflecting a small decline in civilian employment reported in the household survey. The labor force participation rate was unchanged at 61.6%. The latest JOLTS report for May continues to signal robust labor demand. Job openings remained at a series high of 9.2 million. Job separations fell to 5.3 million, with layoffs and discharges falling to 1.4 million. The quits rate, a valuable indicator of the general health of the labor market, fell from a series high of 2.8% to 2.5%.

We project that payrolls will continue to increase at a robust pace in the coming months, rising by 2.3 and 1.7 million in the third and fourth quarters of 2021 (on a quarterly average basis), respectively. The unemployment rate is expected to decline, reaching an average of 4.9% by the end of the year.

Business investment: Real nonresidential (business) fixed investment is forecast to grow 8.5% this year and 6.3% next year before moderating to growth averaging 4.0% over the following three years. Robust growth this year mainly reflects the broadly recovering economy, as businesses resume adding capacity to keep pace with recovering sales. Borrowing costs are rising, but the Federal Reserve's commitment to keeping monetary policy accommodative for some time is preventing an otherwise sharper increase in interest rates, which is also

bolstering investment spending. The increase in overall investment spending this year reflects robust increases in equipment spending (14.3%) and intellectual property products (10.4%) that are partially offset by a 6.4% 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: The housing market is slowing. Home sales (the sum of new and existing sales) peaked last October, have declined for four straight months, and are approaching pre-pandemic levels. Single-family housing permits—the most reliable indicator of the state of the single-family housing market—may have crested in January. Home prices, however, are rising at unprecedented rates in many cities because inventories are low, and homes are selling quickly. The good news is that inventories have likely bottomed.

Projected housing starts are marginally different over the first two years of the forecast from last month, rising to a 15-year high of 1.57 million units in 2021 (previously 1.58 million units), peaking in the third quarter of 2021, and slipping to 1.44 million units in 2022 (unchanged from last month). Forecast home sales rise to a 14-year high of 6.6 million in 2021 (previously 6.8 million) and 2022. The forecast for home prices is higher in the second and third quarters, reflecting incoming data. Four-quarter growth of the CoreLogic HPI reaches 12.3% in the second quarter of 2021 (previously 11.6%) and 5.4% in the second quarter of 2022 (previously 4.5%).

International trade: The three-month moving average (3MMA) for real goods imports in May was about 11% above its pre-pandemic level and edging up, with consumer and capital goods driving the solid gains; real exports (3MMA) were about a percentage point below their pre-pandemic level. The non-petroleum goods deficit (3MMA) widened to a record high in May; the real petroleum deficit, which before the pandemic had been steadily shrinking since 2008 and approaching zero, has also widened. Import price inflation is still building: the three-month average of import goods prices accelerated to 16.0% (annualized rate) in May from three months earlier; nonfuel prices grew 9.9%, with industrial supplies and materials driving it upward.

Against this background, we look for continued strong growth in real exports and imports as global economies re-open. In the near term, strong domestic demand will drive import prices up 11.9% in the second quarter; an easing of bottlenecks and other disruptions will subsequently eliminate trade as a source of inflation. The broad dollar index appreciated 1.9% in June to 112.85; it gently edges up to 115.0 by the end of 2025 in the forecast.

Key forecast assumptions

Vaccinations facilitate return towards normal; waiting for outcome on infrastructure deliberations

COVID-19: Vaccinations outpace the spread of new strains of the virus. Sufficient inoculation of the population is achieved this summer to allow service-concept consumption to approach its historical, or “target”, relationship with income and wealth by late 2022 (chart, top).

Federal fiscal policy: The forecast reflects all pandemic relief measures of 2020 and the \$1.9 trillion American Recovery Plan (ARP) enacted in March. ARP includes stimulus checks of \$1,400 per qualifying person, extension of emergency unemployment programs through early September and including an enhanced unemployment benefit of \$300/week, \$350 billion of unrestricted aid to state and local governments, \$287 billion of support for education, \$194 billion in expanded tax credits and healthcare subsidies, \$125 billion for COVID-19 mitigation efforts, \$96 billion for transportation and infrastructure, and \$33 billion for agriculture and nutrition programs, veterans’ benefits, and aid for renters and entertainment venues. The forecast does not yet include any of the approximately \$4 trillion in spending and taxes in President Biden’s proposed American Jobs Plan (AJB) and American Families Plan (AFP).

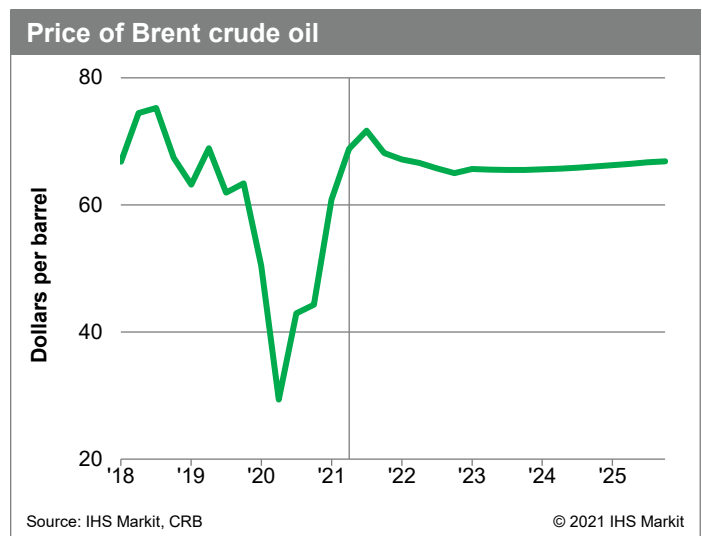
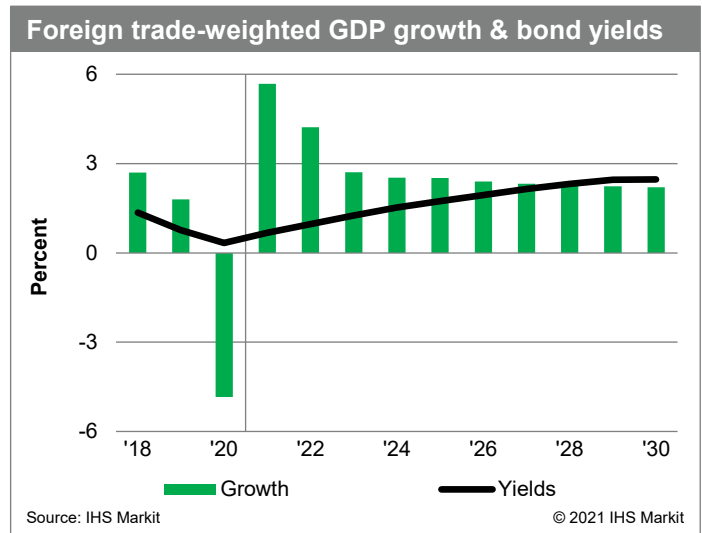
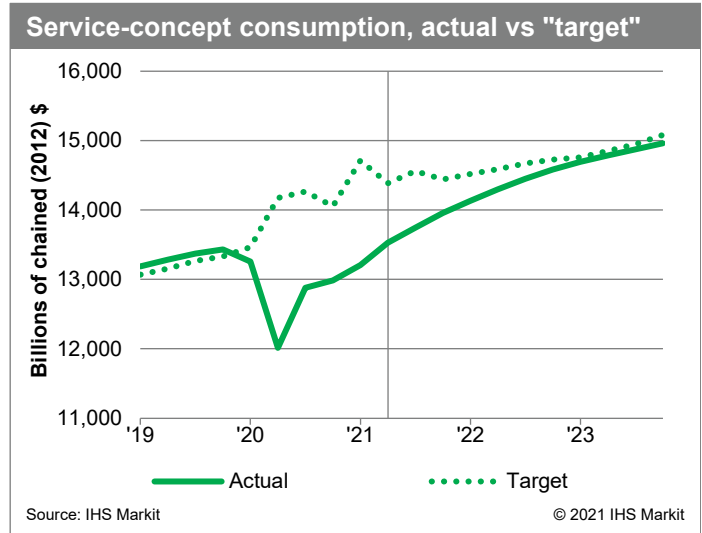
State and local fiscal policy: Strong revenues, reinforced by financial support provided under ARP, limit the usual cyclical state and local fiscal contraction. State and local employment rebounds in the fall as schools re-open. Half of states withdraw from federal emergency unemployment programs in June and July, before the programs’ formal terminations in September. States and localities receive unrestricted ARP funding in two tranches: the first in 2021:Q2, the second in 2022:Q2.

Monetary policy: The Fed purchases term Treasuries through yearend at the recent pace before “tapering” those purchases over 2022, 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 4.2% in 2022 as the COVID-19 pandemic recedes (chart, middle). The trade-weighted foreign 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 nearly \$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 remains unchanged from last month. Relative to our updated base forecast, we continue to see the risks as being tilted toward somewhat stronger growth as the recent strength in consumer spending, the possibility of more fiscal stimulus, and the large share of the population that is vaccinated allow for a high probability of returning to some sort of normalcy sooner than in the base forecast. However, the slowing pace of vaccinations impedes the approach to herd immunity, which, along with the emergence of new strains of the COVID-19 virus, could delay full reopening of schools and daycare centers and continue to pose (diminished) downside risks to our forecast. As a result, we assign a 50% probability to our baseline forecast, 20% to the Pessimistic, and 30% to the Optimistic scenario.

Pessimistic Scenario: Recovery stumbles as consumers slow spending splurge (20% probability)

This pessimistic scenario is characterized by a weaker recovery in consumer spending than in the baseline forecast. Underlying this narrative are two assumptions. First, a slowing in the pace of vaccinations delays the approach to herd immunity. Second, the appearance of new, more contagious strains contributes to more caution on the part of consumers, resulting in a slower rise of consumer spending than in the baseline over the next few quarters, lessening support for the recovery from that source and slowing the rise of production and employment more broadly.

In this scenario, a modest upturn in new cases delays the reopening of schools and daycares. That, in turn, keeps many workers on the sidelines. The rising cases also result in more caution on the part of consumers, slowing the rise in “socially dense” consumption. GDP increases at a 7.5% annualized rate in the second quarter and at a 5.5% rate during the second half of the year, compared to 8.0% and 7.9% rates of increase, respectively, in the baseline.

Overall business fixed investment growth averages 5.5% over the four quarters of 2021, modestly below the baseline. Computer and intellectual property investment accelerates while structures investment declines 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 4.1% by mid-2023, before gradually moving higher through the end of the forecast horizon.

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

As a result of the slower recovery, both GDP and personal consumption expenditures (PCE) remain on average roughly half a percentage point below baseline through 2025.

Optimistic Scenario: No containment measures, widespread vaccinations, and still more stimulus drive faster growth (30% 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 response to the recent \$1.9 trillion fiscal stimulus package is more robust than in the baseline. Second, new cases and deaths dwindle quickly in this scenario as a result of widespread vaccinations and greater adherence to guidelines for social distancing and masks among the unvaccinated. As a result, consumers approach pre-pandemic spending patterns more quickly than in the baseline.

The strength of this scenario early on is attributed to more front-loaded spending by households. This is in response to the prior stimulus and as consumers spend down some of the excess savings that accumulated over 2020. That rise in spending is reinforced by dwindling cases and deaths and a sense that the “all clear” has sounded. This allows consumer spending to rise 9.3% (4th-quarter-to-4th-quarter) over 2021 compared to 7.3% in the baseline.

Business fixed investment rises more quickly in the second quarter and remains elevated relative to baseline. Business fixed investment grows at a 6.2% annual rate in the second quarter and 11.9% over 2021 (4th-quarter-to-4th-quarter), compared to 4.7% and 8.4%, respectively, in the baseline.

GDP rises at a 8.5% annual rate in the second quarter and at a 10.7% pace in the second half of the year, compared to 8.0% and 7.9% rates of increase, respectively, in the baseline. The previous peak in GDP is passed in the second quarter of 2021, the same as 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 settles slightly above the FOMC’s target by mid-2022. 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 (20%)	Optimistic (30%)
GDP growth	Real GDP rises 6.6% in 2021 as the first quarter's 6.4% rate of growth is exceeded in the following three. The previous peak for GDP is exceeded during the second quarter. Growth slows to 5.0% in 2022 and 2.1% in 2023	Real GDP rises 6.0% in 2021, slowing to 4.4% in 2022 and 2.7% in 2023	Real GDP surges 7.3% in 2021, then continues at a robust 6.1% pace in 2022 and 2.2% in 2023
Consumer spending	Spending jumps 7.6% in 2021 as vaccinations and elevated savings enable a surge in services spending. Growth marks 4.4% in 2022 and 2.9% in 2023	Spread of variants prompts extra caution by consumers versus baseline. Spending recovers 6.9% in 2021 but falters, slipping to 3.8% in 2022 and 3.7% in 2023	Surges 8.4% in 2021 and rises 5.7% in 2022, slipping to 3.0% growth in 2023
Business fixed investment	Jumps 8.4% in 2021 and remains strong at 6.6% growth in 2022 and 4.5% in 2023	Grows 7.1% in 2021, 5.8% in 2022, and 5.2% in 2023	Rises 10.0% in 2021, 8.9% in 2022, and 5.2% in 2023
Housing	Housing starts rise from 1.40 million in 2020 to 1.57 million in 2021 before slipping to 1.44 million in 2022 and 1.35 million in 2023	Housing starts rise from 1.40 million in 2020 to 1.52 million in 2021 but fall to 1.33 million in 2022 and 1.26 million in 2023	Housing starts grow from 1.40 million in 2020 to 1.59 million in 2021 before settling back to 1.46 million in 2022 and 1.38 million in 2023
Exports	Recover 5.6% in 2021 and 8.8% in 2022, surpassing prior peak in mid-2022. Grow 6.1% in 2023	Grow 5.6% in 2021 and 8.3% in 2022	Rise 5.7% in 2021, 10.1% in 2022, and 5.7% again in 2023
Fiscal policy	\$1.9 trillion ARP included, as well as early termination by 25 states of pandemic-related unemployment programs. No infrastructure package yet included	Same fiscal assumptions as in baseline	Stimulus funds are spent earlier and 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 in mid-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	Rises from 2.6% in 2020 to 3.2% in 2021 with labor markets tight, slowing to 2.0% in 2022 and 0.8% in 2023	Edges up to 2.8% in 2021, slowing to 1.9%-1.7% in 2022-2023	Attains 3.6% in 2021 and 3.0% in 2022 before slipping to 1.2% in 2023
Consumer confidence	Rebounds strongly starting in the second quarter of 2021 and rivals prior highs by mid-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 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 19.3% in 2021, 5.9% in 2022, and 2.9% in 2023	The year-end value of the S&P 500 rises 15.0% in 2021, then its growth decelerates to 4.2% in 2022 and 2.2% in 2023	The year-end value of the S&P 500 surges 27.5% in 2021 and adds gains of 6.6% in 2022 and 1.3% in 2023
Inflation (PCE)	Core personal consumption (PCE) price inflation rises from 1.4% in 2020 to 2.8% in 2021 as supply chains are stretched, but ticks down to 2.3% in 2022 and 2.0% in 2023	Core PCE price inflation is 2.7% this year but slows to 1.5% in 2022 and 0.8% in 2023	Core PCE price inflation is 2.9% in 2021 and 2.7% in 2022, slowing to 2.2% in 2023 after interest rate increases begin
Foreign growth	Eurozone GDP rises 4.8% in 2021 and 4.4% in 2022 after a 6.6% 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	Bottoms in the third quarter of 2021 before resuming a gentle rise	The broad dollar strengthens slightly more than in the baseline

Alternative Scenarios of the US Economy

	Annual rates						Annual averages					Q4/Q4					
	2021.1	2021.2	2021.3	2021.4	2022.1	2022.2	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024

Pessimistic: Recovery stumbles as consumers slow spending splurge (Prob. = 20%)

Composition of Real GDP, Percent Change

Gross Domestic Product	6.4	7.5	5.0	6.0	3.6	3.5	-3.5	6.0	4.4	2.7	2.2	2.0	-2.4	6.2	3.4	2.3	2.1	2.0
Total Consumption	11.4	9.9	-0.7	3.0	4.0	4.3	-3.9	6.9	3.8	3.7	2.5	2.4	-2.7	5.8	4.4	3.0	2.4	2.5
Nonresidential Fixed Investment	11.7	3.3	2.9	4.3	7.3	7.6	-4.0	7.1	5.8	5.2	3.7	3.1	-1.4	5.5	6.9	4.3	3.4	3.0
Residential Fixed Investment	13.1	-10.3	-3.0	-7.7	-8.7	-7.9	6.1	9.6	-7.2	-3.4	0.1	0.4	14.3	-2.4	-6.8	-1.4	0.5	0.3
Exports	-2.1	9.8	7.3	9.0	9.7	7.6	-12.9	5.6	8.3	6.2	5.1	4.2	-10.9	5.9	7.6	5.7	4.7	4.0
Imports	9.5	4.0	0.7	-2.7	4.8	6.7	-9.3	11.4	3.6	5.6	3.8	4.2	-0.6	2.8	6.4	4.5	3.9	4.3
Federal Government	13.8	-6.8	-0.2	0.2	0.5	-1.9	4.3	1.9	-0.8	-0.9	0.0	0.5	2.4	1.5	-0.9	-0.5	0.3	0.5
State & Local Government	0.8	11.2	6.5	2.7	1.2	0.8	-0.8	2.2	2.2	0.0	0.7	0.7	-2.3	5.2	0.2	0.3	0.7	0.8

Prices & Wages, Percent Change

Consumer Prices	3.7	7.3	2.3	1.4	1.1	0.9	1.2	3.5	1.6	0.9	1.2	1.6	1.2	3.7	0.9	1.0	1.3	1.7
Producer Prices, Finished Goods	13.9	9.7	2.9	0.7	0.1	0.3	-1.3	6.4	1.2	0.3	0.8	1.2	-1.2	6.7	0.1	0.5	1.0	1.4
Compensation per hour	7.2	4.0	2.2	1.2	0.7	0.7	7.0	5.3	1.3	1.8	2.6	3.1	8.8	3.6	1.0	2.3	2.8	3.3

Other Key Measures, Percent Change

Productivity	5.4	3.2	1.3	3.7	1.0	1.4	2.6	2.8	1.9	1.7	2.0	1.8	2.6	3.4	1.4	1.9	1.9	1.7
Total Industrial Production	3.6	5.6	7.2	5.6	3.2	2.9	-7.2	5.8	4.1	2.1	1.5	1.3	-4.3	5.5	2.9	1.6	1.4	1.2
Payroll Employment	2.1	4.7	5.8	4.1	2.3	2.2	-5.7	2.6	3.2	1.5	0.6	0.5	-6.0	4.2	2.2	1.0	0.5	0.5

Incomes, Percent Change

Personal Income	60.1	-20.9	-6.5	-0.3	2.1	4.9	6.3	6.4	-0.3	3.5	3.7	4.2	4.7	4.2	3.6	3.4	3.9	4.3
After-Tax Profits (Four-qr.% change)	10.0	16.7	12.6	12.3	21.8	1.5	-5.8	16.7	10.6	0.5	1.5	1.5	-0.7	12.9	5.9	0.7	1.5	2.1

Levels

Annual averages

Q4 values

Other Key Measures

Brent Crude, Spot Price (\$/bbl)	60.82	68.79	70.13	66.45	65.31	64.74	41.77	66.55	64.30	63.73	63.90	64.55	44.29	66.45	63.20	63.69	64.09	64.83
Nonfarm Inven. Chg. (Bil.2012 \$)	-83.0	-91.5	107.5	208.3	197.1	204.7	-75.1	35.3	199.8	157.7	119.8	98.3	57.9	208.3	194.4	136.5	110.8	94.2
Light Vehicle Sales (Mil. units, saar)	16.9	17.0	15.9	15.9	16.0	16.1	14.4	16.4	16.2	16.6	16.5	16.4	16.1	15.9	16.4	16.7	16.4	16.4
Housing Starts (Mil. units, saar)	1.6	1.6	1.5	1.4	1.4	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 (%)	6.2	5.9	5.6	5.3	5.0	4.8	8.1	5.8	4.7	4.1	4.1	4.3	6.7	5.3	4.3	4.1	4.2	4.3
Federal Surplus (Unified, FY, bil. \$)	-4533.4	-3028.1	-1917.8	-1497.1	-1848.4	-789.3	-3348.2	-2744.1	-1272.0	-1010.5	-1094.5	-1138.8	-2291.6	-1497.1	-1287.9	-1372.2	-1412.7	-1463.0

Financial Markets, NSA, Quarter Average

Federal Funds Rate (%)	0.08	0.07	0.10	0.10	0.10	0.10	0.38	0.09	0.10	0.10	0.10	0.10	0.09	0.10	0.10	0.10	0.10	0.10
10-Year Treasury Note Yield (%)	1.32	1.59	1.55	1.56	1.57	1.58	0.89	1.50	1.59	1.68	1.87	2.13	0.86	1.56	1.61	1.74	1.98	2.21

Optimistic: No containment measures, widespread vaccinations, and still more stimulus drive faster growth (Prob. = 30%)

Composition of Real GDP, Percent Change

Gross Domestic Product	6.4	8.5	11.2	10.3	4.5	3.8	-3.5	7.3	6.1	2.2	1.8	1.7	-2.4	9.1	3.3	1.8	1.8	1.8
Total Consumption	11.4	11.1	6.6	8.0	4.7	4.6	-3.9	8.4	5.7	3.0	2.2	2.2	-2.7	9.3	4.2	2.3	2.2	2.3
Nonresidential Fixed Investment	11.7	6.2	17.3	12.5	7.1	6.6	-4.0	10.0	8.9	5.2	4.0	2.8	-1.4	11.9	6.3	4.6	3.6	2.5
Residential Fixed Investment	13.1	-8.9	6.5	0.6	-6.4	-7.7	6.1	11.8	-4.0	-3.9	0.5	0.9	14.3	2.5	-6.7	-1.5	0.9	0.8
Exports	-2.1	9.8	7.3	11.9	12.8	10.0	-12.9	5.7	10.1	5.7	4.4	3.6	-10.9	6.6	9.0	4.9	4.0	3.5
Imports	9.5	6.2	11.0	8.0	8.2	5.3	-9.3	14.0	7.1	3.3	4.2	4.6	-0.6	8.6	5.4	3.1	4.6	4.5
Federal Government	13.8	-6.8	-0.2	0.2	0.5	-1.9	4.3	1.9	-0.8	-0.9	0.0	0.5	2.4	1.5	-0.9	-0.5	0.3	0.5
State & Local Government	0.8	11.2	6.5	2.7	1.2	0.8	-0.8	2.2	2.2	0.0	0.7	0.7	-2.3	5.2	0.2	0.3	0.7	0.8

Prices & Wages, Percent Change

Consumer Prices	3.7	8.0	2.8	2.4	2.5	2.2	1.2	3.8	2.8	2.2	2.2	2.2	1.2	4.2	2.3	2.2	2.2	2.2
Producer Prices, Finished Goods	13.9	11.1	3.9	1.9	1.7	1.7	-1.3	6.9	2.5	1.7	1.8	1.9	-1.2	7.6	1.6	1.7	1.9	1.9
Compensation per hour	7.2	4.5	3.3	2.8	2.4	2.6	7.0	5.6	2.9	3.8	4.1	4.1	8.8	4.4	2.9	4.1	4.1	4.1

Other Key Measures, Percent Change

Productivity	5.4	4.2	5.0	6.3	1.8	1.6	2.6	3.6	3.0	1.2	1.6	1.6	2.6	5.2	1.3	1.3	1.7	1.6
Total Industrial Production	3.6	7.4	13.3	10.3	5.0	3.1	-7.2	7.2	6.1	1.7	1.1	1.1	-4.3	8.6	3.0	1.3	1.1	1.1
Payroll Employment	2.1	4.7	8.6	6.0	2.4	1.9	-5.7	3.1	3.8	1.5	0.7	0.4	-6.0	5.3	2.0	1.1	0.5	0.4

Incomes, Percent Change

Personal Income	60.1	-20.0	-2.5	3.1	4.7	6.5	6.3	7.3	2.1	4.7	4.5	4.6	4.7	6.5	5.3	4.4	4.5	4.7
Corporate profits w/ IVA & CCAAdj	10.0	17.5	40.1	28.6	21.8	1.5	-5.8	21.3	15.4	-2.3	-0.4	1.0	-0.7	23.5	3.6	-2.0	0.5	1.5

Levels

Annual averages

Q4 values

Other Key Measures

Brent Crude, Spot Price (\$/bbl)	60.82	68.79	72.09	69.68	68.57	67.78	41.77	67.84	67.36	66.40	66.66	67.37	44.29	69.68	66.17	66.36	66.90	67.65
Nonfarm Inven. Chg. (Bil.2012 \$)	-83.0	-92.0	115.9	247.8	263.1	258.7	-75.1	47.2	236.2	135.0	81.3	62.1	57.9	247.8	196.4	105.6	72.4	59.5
Light Vehicle Sales (Mil. units, saar)	16.9	17.0	17.1	17.2	17.3	17.4	14.4	17.0	17.4	17.4	17.2	17.0	16.1	17.2	17.4	17.4	17.1	17.0
Housing Starts (Mil. units, saar)	1.599	1.578	1.629	1.562	1.517	1.470	1.4	1.6	1.5	1.4	1.4	1.4	1.6	1.6	1.4	1.4	1.4	1.4
Unemployment Rate (%)	6.2	5.9	5.3	4.6	4.3	4.0	8.1	5.5	3.9	3.4	3.5	3.7	6.7	4.6	3.6	3.4	3.5	3.8
Federal Surplus (Unified, FY, bil. \$)	-4533.4	-3010.1	-1847.5	-1402.6	-1748.0	-689.8	-3348.2	-2698.4	-1175.9	-942.8	-1065.5	-1158.7	-2291.6	-1402.6	-1197.7	-1310.7	-1394.9	-1499.8

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	0.09	0.12	0.41	0.84	1.35	1.85
10-Year Treasury Note Yield (%)	1.32	1.59	1.67	1.78	1.91	2.03	0.89	1.59	2.07	2.36	2.55	2.76	0.86	1.78	2.22	2.41	2.63	2.82

Source: IHS Markit

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Monthly Economic Indicators

	May. 2020	Jun. 2020	Nov. 2020	Dec. 2020	Jan. 2021	Feb. 2021	Mar. 2021	Apr. 2021	May. 2021	Jun. 2021	2018	2019	2020
Industrial Markets													
Industrial Prod. Total (2017=100.0)	85.8	91.2	97.2	98.3	99.3	96.4	98.9	99.0	99.9		103.2	102.3	95.0
Percent Change	1.9	6.2	0.5	1.2	1.1	-2.9	2.6	0.1	0.8		3.2	-0.8	-7.2
Percent Change Year Earlier	-16.2	-11.0	-4.7	-3.3	-1.7	-4.8	1.5	17.6	16.3				
Capacity Utilization, Manufacturing (%)	63.7	68.3	74.0	74.4	75.5	72.8	75.0	74.9	75.6		77.7	75.8	71.1
Unemployment Rate (%)	13.3	11.1	6.7	6.7	6.3	6.2	6.0	6.1	5.8	5.9	3.9	3.7	8.1
Payroll Employment (Mil.)	132.994	137.840	142.809	142.503	142.736	143.272	144.057	144.326	144.909	145.759	148.893	150.900	142.252
Change (Mil.)	2.833	4.846	0.264	-0.306	0.233	0.536	0.785	0.269	0.583	0.850	2.298	2.007	-8.648
Leading Indicator (2016=1.000)	0.998	1.028	1.092	1.096	1.101	1.101	1.116	1.13	1.145		1.097	1.115	1.061
Percent Change	3.1	3.0	0.9	0.4	0.5	0.0	1.4	1.3	1.3		5.6	1.6	-4.9
New Orders, Mfg. (Bil. \$)	380.1	413.7	460.4	468.3	479.2	481.2	488.1	487.4	495.5		484.9	483.7	433.3
Percent Change	5.0	8.8	1.6	1.7	2.3	0.4	1.4	-0.1	1.7		5.7	-0.2	-10.4
Inv. Chg., Mfg. & Trade (Bil. \$)	-44.1	-20.5	11.9	12.0	11.0	12.6	4.7	-3.1			85.4	48.6	-52.3
Merchandise Trade Bal. (Bil. \$)	-76.0	-71.2	-85.4	-83.9	-85.6	-88.2	-91.9	-85.9	-88.2		-870.4	-850.9	-911.1
Consumer Markets													
Disposable Income (Bil. 2012\$)	16454	16150	15464	15512	17253	15864	19474	16524	16070		14566	14883	15771
Percent Change	-4.8	-1.8	-1.2	0.3	11.2	-8.1	22.8	-15.1	-2.8		3.6	2.2	6.0
Personal Income (Bil. \$)	20246	20033	19544	19677	21689	20196	24420	21219	20804		17852	18552	19728
Percent Change	-4.0	-1.1	-0.9	0.7	10.2	-6.9	20.9	-13.1	-2.0		5.3	3.9	6.3
Personal Saving Rate (%)	24.7	19.0	13.1	14.2	20.7	14.8	27.6	14.5	12.4		7.8	7.5	16.2
Consumer Expenditures (Bil. \$)	13165	14015	14533	14451	14921	14774	15515	15656	15659		13993	14545	14145
Percent Change	8.7	6.5	-0.6	-0.6	3.3	-1.0	5.0	0.9	0.0		4.9	3.9	-2.7
Retail Sales (Bil. \$)	484.0	526.9	542.6	536.0	576.5	560.0	623.1	628.7	620.2		5988.8	6185.4	6204.9
Percent Change	18.1	8.9	-1.4	-1.2	7.6	-2.9	11.3	0.9	-1.3		4.4	3.3	0.3
Non-Auto. Retail Sales (Bil. \$)	383.1	416.3	430.4	421.5	456.4	444.2	487.7	487.5	484.2		4784.0	4946.0	4961.4
Percent Change	12.1	8.7	-1.2	-2.1	8.3	-2.7	9.8	0.0	-0.7		5.1	3.4	0.3
New Light-Vehicle Sales (Mil.)	12.1	13.0	15.7	16.2	16.8	15.8	17.9	18.6	17.0	15.4	17.2	17.0	14.4
Housing Starts (Mil.)	1.046	1.273	1.551	1.661	1.625	1.447	1.725	1.517	1.572		1.247	1.292	1.397
New Home Sales (Mil.)	0.704	0.839	0.865	0.943	0.993	0.823	0.886	0.817	0.769		0.614	0.683	0.828
Existing Home Sales (Mil.)	4.010	4.770	6.590	6.650	6.660	6.240	6.010	5.850	5.800		5.334	5.327	5.658
Chg. Consumer Install. Credit (Bil. \$)	-14.7	19.9	10.7	11.0	-1.7	20.3	19.3	20.0	35.3		176.3	185.5	-6.5
Prices and Wages													
CPI, All Urban Consumers	2.559	2.573	2.609	2.616	2.622	2.632	2.648	2.668	2.686		2.511	2.557	2.588
Percent Change Year Earlier	0.2	0.7	1.1	1.3	1.4	1.7	2.6	4.2	4.9		2.4	1.8	1.2
Core Cons. Price Defl. (2012=100.0)	112.8	113.1	114.0	114.3	114.6	114.7	115.2	116.0	116.6		110.0	111.9	113.4
Percent Change Year Earlier	1.0	1.1	1.3	1.4	1.4	1.4	1.9	3.1	3.4		2.0	1.7	1.4
PPI, Finished Goods	2.004	2.012	2.045	2.056	2.084	2.116	2.143	2.149	2.172		2.041	2.057	2.030
Percent Change Year Earlier	-3.0	-2.1	-1.4	-0.9	0.3	2.5	6.0	9.4	8.4		3.1	0.8	-1.3
PPI, Industrial Commodities (NSA)	1.858	1.904	1.973	2.007	2.049	2.087	2.176	2.178	2.240		2.037	2.007	1.939
Percent Change Year Earlier	-8.4	-5.2	-1.0	0.9	2.8	6.0	12.9	17.9	20.6		5.2	-1.5	-3.4
Avg. Private Hourly Earnings (\$)	25.01	24.77	24.93	25.15	25.14	25.21	25.27	25.45	25.58	25.68	22.70	23.51	24.68
Percent Change Year Earlier	6.8	5.5	4.7	5.5	5.3	5.2	4.6	1.2	2.3	3.7	3.0	3.5	5.0
Brent Crude, Spot Price (\$/bbl.)	29.42	40.27	42.69	49.99	54.77	62.28	65.41	64.79	68.53	73.05	70.96	64.34	41.77
Percent Change Year Earlier	-58.7	-58.7	-32.5	-25.6	-13.9	11.8	104.9	250.9	133.0	81.4	29.4	-9.3	-35.1
Henry Hub Spot Natural Gas (\$/mmbtu)	1.75	1.63	2.61	2.58	2.71	5.35	2.62	2.66	2.91	3.26	3.17	2.57	2.03
Percent Change Year Earlier	-33.8	-32.0	-1.8	15.9	34.3	181.7	46.2	53.0	66.6	99.6	6.8	-18.9	-20.8
Financial Markets, Period Average													
Federal Funds Rate (%)	0.05	0.08	0.09	0.09	0.09	0.08	0.07	0.07	0.06	0.08	1.83	2.16	0.38
3-Month T-Bill Rate (%)	0.13	0.16	0.09	0.09	0.08	0.04	0.03	0.02	0.02	0.04	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 (%)	0.67	0.73	0.87	0.93	1.08	1.26	1.61	1.64	1.62	1.52	2.91	2.14	0.89
Conv. Mortgage Rate, FHLMC (%)	3.23	3.16	2.77	2.69	2.72	2.81	3.08	3.06	2.96	2.98	4.54	3.94	3.12
M1 Money Supply (Bil. \$)	16276	16602	17610	17835	18125	18416	18698	18945	19222		3680	3844	12805
Percent Change	241.0	2.0	1.4	1.3	1.6	1.6	1.5	1.3	1.5		4.4	4.5	233.1
M2 Money Supply (Bil. \$)	17893	18180	18960	19131	19395	19667	19913	20119	20370		14120	14840	17680
Percent Change	5.0	1.6	1.1	0.9	1.4	1.4	1.3	1.0	1.2		3.8	5.1	19.1

Source: IHS Markit

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Monthly Economic Indicators

	May. 2020	Jun. 2020	Nov. 2020	Dec. 2020	Jan. 2021	Feb. 2021	Mar. 2021	Apr. 2021	May. 2021	Jun. 2021	2018	2019	2020
Industrial Markets													
Industrial Prod. Total (2012=100.0)	85.8	91.2	97.2	98.3	99.3	96.4	98.9	99.0	99.9		103.2	102.3	95.0
Percent Change (Q4/Q4 for Annual Values)	1.9	6.2	0.5	1.2	1.1	-2.9	2.6	0.1	0.8		2.7	-2.1	-4.3
Percent Change Year Earlier	-16.2	-11.0	-4.7	-3.3	-1.7	-4.8	1.5	17.6	16.3				
Capacity Utilization, Manufacturing (%)	63.7	68.3	74.0	74.4	75.5	72.8	75.0	74.9	75.6		77.7	75.8	71.1
Unemployment Rate (%)	13.3	11.1	6.7	6.7	6.3	6.2	6.0	6.1	5.8	5.9	3.9	3.7	8.1
Payroll Employment (Mil.)	132.994	137.840	142.809	142.503	142.736	143.272	144.057	144.326	144.909	145.759	148.893	150.900	142.252
Change (Mil.)	2.833	4.846	0.264	-0.306	0.233	0.536	0.785	0.269	0.583	0.850	2.298	2.007	-8.648
Leading Indicator (2016=1.000)	0.998	1.028	1.092	1.096	1.101	1.101	1.116	1.13	1.145		1.097	1.115	1.061
Percent Change (Q4/Q4 for Annual Values)	3.1	3.0	0.9	0.4	0.5	0.0	1.4	1.3	1.3		4.7	0.3	-2.2
New Orders, Mfg. (Bil. \$)	380.1	413.7	460.4	468.3	479.2	481.2	488.1	487.4	495.5		484.9	483.7	433.3
Percent Change (Q4/Q4 for Annual Values)	5.0	8.8	1.6	1.7	2.3	0.4	1.4	-0.1	1.7		1.6	-0.7	-3.7
Inv. Chg., Mfg. & Trade (Bil. \$)	-44.1	-20.5	11.9	12.0	11.0	12.6	4.7	-3.1			85.4	48.6	-52.3
Merchandise Trade Bal. (Bil. \$)	-76.0	-71.2	-85.4	-83.9	-85.6	-88.2	-91.9	-85.9	-88.2		-870.4	-850.9	-911.1
Consumer Markets													
Disposable Income (Bil. 2012\$)	16454	16150	15464	15512	17253	15864	19474	16524	16070		14566	14883	15771
Percent Change (Q4/Q4 for Annual Values)	-4.8	-1.8	-1.2	0.3	11.2	-8.1	22.8	-15.1	-2.8		3.7	1.6	3.9
Personal Income (Bil. \$)	20246	20033	19544	19677	21689	20196	24420	21219	20804		17852	18552	19728
Percent Change (Q4/Q4 for Annual Values)	-4.0	-1.1	-0.9	0.7	10.2	-6.9	20.9	-13.1	-2.0		4.8	3.5	4.7
Personal Saving Rate (%)	24.7	19.0	13.1	14.2	20.7	14.8	27.6	14.5	12.4		7.8	7.5	16.2
Consumer Expenditures (Bil. \$)	13165	14015	14533	14451	14921	14774	15515	15656	15659		13993	14545	14145
Percent Change (Q4/Q4 for Annual Values)	8.7	6.5	-0.6	-0.6	3.3	-1.0	5.0	0.9	0.0		4.4	4.0	-1.5
Retail Sales (Bil. \$)	484.0	526.9	542.6	536.0	576.5	560.0	623.1	628.7	620.2		5988.8	6185.4	6204.9
Percent Change (Q4/Q4 for Annual Values)	18.1	8.9	-1.4	-1.2	7.6	-2.9	11.3	0.9	-1.3		2.9	3.9	3.9
Non-Auto. Retail Sales (Bil. \$)	383.1	416.3	430.4	421.5	456.4	444.2	487.7	487.5	484.2		4784.0	4946.0	4961.4
Percent Change (Q4/Q4 for Annual Values)	12.1	8.7	-1.2	-2.1	8.3	-2.7	9.8	0.0	-0.7		3.6	3.7	2.8
New Light-Vehicle Sales (Mil.)	12.1	13.0	15.7	16.2	16.8	15.8	17.9	18.6	17.0	15.4	17.2	17.0	14.4
Housing Starts (Mil.)	1.046	1.273	1.551	1.661	1.625	1.447	1.725	1.517	1.572		1.247	1.292	1.397
New Home Sales (Mil.)	0.704	0.839	0.865	0.943	0.993	0.823	0.886	0.817	0.769		0.614	0.683	0.828
Existing Home Sales (Mil.)	4.010	4.770	6.590	6.650	6.660	6.240	6.010	5.850	5.800		5.334	5.327	5.658
Chg. Consumer Install. Credit (Bil. \$)	-14.7	19.9	10.7	11.0	-1.7	20.3	19.3	20.0	35.3		176.3	185.5	-6.5
Prices and Wages													
CPI, All Urban Consumers	2.559	2.573	2.609	2.616	2.622	2.632	2.648	2.668	2.686		2.511	2.557	2.588
Percent Change Year Earlier (Q4/Q4 for Annual Values)	0.2	0.7	1.1	1.3	1.4	1.7	2.6	4.2	4.9		2.2	2.0	1.2
Core Cons. Price Defl. (2012=100.0)	112.8	113.1	114.0	114.3	114.6	114.7	115.2	116.0	116.6		110.0	111.9	113.4
Percent Change Year Earlier (Q4/Q4 for Annual Values)	1.0	1.1	1.3	1.4	1.4	1.4	1.9	3.1	3.4		2.0	1.6	1.4
PPI, Finished Goods	2.004	2.012	2.045	2.056	2.084	2.116	2.143	2.149	2.172		2.041	2.057	2.030
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-3.0	-2.1	-1.4	-0.9	0.3	2.5	6.0	9.4	8.4		2.3	0.9	-1.2
PPI, Industrial Commodities (NSA)	1.858	1.904	1.973	2.007	2.049	2.087	2.176	2.178	2.240		2.037	2.007	1.939
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-8.4	-5.2	-1.0	0.9	2.8	6.0	12.9	17.9	20.6		4.2	-2.8	-0.6
Avg. Private Hourly Earnings (\$)	25.01	24.77	24.93	25.15	25.14	25.21	25.27	25.45	25.58	25.68	22.70	23.51	24.68
Percent Change Year Earlier (Q4/Q4 for Annual Values)	6.8	5.5	4.7	5.5	5.3	5.2	4.6	1.2	2.3	3.7	3.4	3.5	4.9
Brent Crude, Spot Price (\$/bbl.)	29.42	40.27	42.69	49.99	54.77	62.28	65.41	64.79	68.53	73.05	70.96	64.34	41.77
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-58.7	-58.7	-32.5	-25.6	-13.9	11.8	104.9	250.9	133.0	81.4	9.6	-6.0	-30.1
Henry Hub Spot Natural Gas (\$/mmbtu)	1.75	1.63	2.61	2.58	2.71	5.35	2.62	2.66	2.91	3.26	3.17	2.57	2.03
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-33.8	-32.0	-1.8	15.9	34.3	181.7	46.2	53.0	66.6	99.6	30.5	-36.6	5.1
Financial Markets, Period Average													
Federal Funds Rate (%)	0.05	0.08	0.09	0.09	0.09	0.08	0.07	0.07	0.06	0.08	1.83	2.16	0.38
3-Month T-Bill Rate (%)	0.13	0.16	0.09	0.09	0.08	0.04	0.03	0.02	0.02	0.04	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 (%)	0.67	0.73	0.87	0.93	1.08	1.26	1.61	1.64	1.62	1.52	2.91	2.14	0.89
Conv. Mortgage Rate, FHLMC (%)	3.23	3.16	2.77	2.69	2.72	2.81	3.08	3.06	2.96	2.98	4.54	3.94	3.12
M1 Money Supply (Bil. \$)	16276	16602	17610	17835	18125	18416	18698	18945	19222		3680	3844	12805
Percent Change (Q4/Q4 for Annual Values)	241.0	2.0	1.4	1.3	1.6	1.6	1.5	1.3	1.5		3.2	6.2	344.1
M2 Money Supply (Bil. \$)	17893	18180	18960	19131	19395	19667	19913	20119	20370		14120	14840	17680
Percent Change (Q4/Q4 for Annual Values)	5.0	1.6	1.1	0.9	1.4	1.4	1.3	1.0	1.2		3.5	6.7	24.3

Source: IHS Markit

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Summary of the US Economy

	2020:4	2021:1	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	4.3	6.4	8.0	7.6	8.2	3.8	3.4	2.4	2.2	1.9	1.8	1.7	1.9
Final Sales of Domestic Product	2.9	9.2	8.1	3.4	5.9	3.7	3.5	2.8	2.7	2.3	2.1	2.0	2.2
Gross Domestic Income	19.4	7.6	0.0	12.7	7.4	3.2	2.9	2.0	1.9	1.6	1.5	1.4	1.7
Avg. of GDP and GDI	11.6	7.0	3.9	10.1	7.8	3.5	3.2	2.2	2.1	1.7	1.6	1.6	1.8
Total Consumption	2.3	11.4	10.5	2.3	5.3	4.1	4.2	3.7	3.3	2.7	2.4	2.2	2.2
Durables	-1.1	49.2	12.5	-21.4	-1.2	-2.3	0.3	0.7	0.9	1.9	2.1	2.5	3.4
Nondurables	-1.6	15.2	10.7	-6.0	-0.8	-0.5	0.5	1.2	1.6	1.7	1.4	1.2	1.4
Services	4.3	4.2	10.0	10.7	8.6	6.7	6.0	5.0	4.2	3.2	2.7	2.4	2.3
Nonresidential Fixed Investment	13.1	11.7	4.7	8.8	8.4	6.2	6.1	5.0	5.0	4.4	4.0	3.8	4.0
Equipment	25.4	15.0	1.7	9.4	8.1	6.3	6.2	4.4	3.9	3.3	3.0	2.8	3.2
Information Processing Equipment	13.0	29.3	-3.5	23.7	4.3	2.9	5.0	1.6	1.2	0.5	0.8	0.1	0.8
Industrial Equipment	24.5	6.6	28.1	-4.5	13.4	9.0	6.5	2.2	-7.8	-4.8	-1.4	-2.4	2.6
Transportation equipment	74.0	9.3	-33.0	22.6	2.2	7.0	4.1	14.0	39.0	30.3	23.6	21.3	6.1
Aircraft	329.8	-11.5	220.4	48.4	138.5	14.2	13.2	9.3	18.8	15.7	4.7	1.3	8.2
Other Equipment	10.8	6.6	27.9	-6.5	14.6	8.6	9.4	3.3	-6.1	-6.6	-7.8	-5.9	4.3
Intellectual Property Products	10.5	15.3	12.0	10.0	13.5	9.3	8.9	7.4	6.9	6.0	5.4	4.9	4.8
Structures	-6.2	-2.0	-1.9	5.2	-0.7	-0.2	0.5	1.5	3.5	3.4	3.5	3.7	4.0
Commercial & Health Care	-8.8	-6.3	3.9	-14.6	-8.5	-4.8	-8.2	-4.9	-10.4	3.5	4.7	4.9	6.9
Manufacturing	-25.3	12.6	-16.8	6.4	-3.8	-3.3	26.9	22.6	49.3	12.4	2.2	0.6	-5.0
Power & Communication	-13.4	-9.4	-25.6	-0.6	-3.9	-2.0	-2.1	-5.7	-1.8	2.6	3.7	1.0	3.3
Mining & Petroleum	87.0	60.5	71.9	78.3	33.3	4.3	-0.3	-0.2	-1.1	-4.3	-0.5	1.7	0.5
Other	-13.0	-20.4	-7.9	4.9	-8.2	8.1	4.0	9.7	9.6	4.9	6.4	9.3	10.7
Residential Fixed Investment	36.6	13.1	-9.9	3.6	0.0	-5.7	-7.1	-5.7	-5.1	-3.8	-2.7	-1.5	0.6
Exports	22.3	-2.1	9.8	7.0	11.2	10.2	7.7	6.8	6.4	6.0	5.7	5.3	5.0
Imports	29.8	9.5	5.3	6.5	2.3	5.9	4.8	4.8	4.2	3.7	3.8	3.3	3.8
Federal Government	-0.9	13.8	-6.8	-0.2	0.2	0.5	-1.9	-0.4	-1.7	-0.7	-0.7	-0.7	0.2
State & Local Government	-0.8	0.8	11.2	6.4	2.7	1.2	0.8	-1.5	0.2	-0.3	0.4	0.2	0.9
Billions of Dollars													
Real GDP	18794.4	19086.4	19456.5	19813.8	20206.4	20395.9	20569.0	20691.6	20807.0	20904.3	20995.6	21082.4	21183.4
Nominal GDP	21494.7	22061.5	22829.7	23431.3	23995.6	24330.7	24657.9	24928.7	25196.9	25448.9	25697.4	25941.4	26206.9
Prices & Wages, Percent Change, Annual Rate													
GDP Deflator	2.0	4.3	6.0	3.2	1.7	1.8	2.0	2.0	2.1	2.1	2.2	2.2	2.2
Consumer Prices	2.4	3.7	7.7	2.8	1.8	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0
Producer Prices, Finished Goods	4.4	13.9	10.7	3.7	1.2	1.0	1.4	1.4	1.3	1.7	1.6	1.6	1.7
Employment Cost Index - Total Comp.	3.2	4.0	4.5	4.0	3.9	3.7	3.7	3.8	3.8	3.6	3.5	3.4	3.2
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	44.29	60.82	68.79	71.67	68.17	67.17	66.58	65.75	65.00	65.65	65.53	65.47	65.50
Productivity (%ch., saar)	-3.8	5.4	3.7	3.3	4.6	1.2	0.9	0.2	0.5	0.7	1.0	1.2	1.7
Total Industrial Production (%ch., saar)	8.2	3.6	6.5	9.8	7.9	3.7	2.5	1.8	1.9	1.6	1.0	1.0	0.9
Factory Operating Rate	74.0	74.4	75.5	77.2	78.7	79.0	79.1	78.9	78.6	78.4	78.1	77.7	77.4
Nonfarm Inven. Chg. (Bil. 2012 \$)	57.9	-83.0	-91.7	111.8	219.4	222.3	222.9	202.4	179.5	156.9	137.8	119.5	104.5
Consumer Sentiment Index	79.8	80.2	85.6	89.9	93.1	95.5	96.7	97.8	98.7	99.4	100.0	100.0	99.4
Light Vehicle Sales (Mil. units, saar)	16.11	16.85	17.00	16.50	16.56	16.68	16.78	16.80	16.82	16.84	16.85	16.87	16.86
Housing Starts (Mil. units, saar)	1.575	1.599	1.566	1.601	1.526	1.487	1.450	1.419	1.391	1.366	1.346	1.336	1.341
Exist. House Sales (Total, Mil. saar)	6.657	6.303	5.557	5.536	5.870	5.952	5.905	5.827	5.783	5.735	5.685	5.674	5.658
Unemployment Rate (%)	6.7	6.2	5.9	5.5	4.9	4.6	4.3	4.0	3.8	3.6	3.6	3.5	3.5
Payroll Employment (%ch., saar)	5.1	2.1	4.7	6.6	4.7	2.9	2.8	2.5	2.1	1.6	1.2	0.9	0.7
Federal Surplus (Unified, nsa, bil. \$)	-572.9	-1133.4	-756.6	-442.7	-406.1	-462.1	-267.8	-348.1	-314.6	-387.1	-99.3	-299.6	-298.0
Current Account Balance (Bil. \$)	-700.3	-783.0	-796.6	-733.4	-672.4	-656.1	-638.5	-622.3	-600.7	-574.3	-549.5	-520.0	-497.1
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.08	0.07	0.10	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.14	0.36
3-Month Treasury Bill Rate (%)	0.09	0.05	0.03	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.09	0.14	0.32
10-Year Treasury Note Yield (%)	0.86	1.32	1.59	1.58	1.65	1.75	1.85	1.94	2.02	2.11	2.15	2.18	2.22
30-Year Fixed Mortgage Rate (%)	2.76	2.87	3.00	2.98	3.17	3.34	3.47	3.57	3.65	3.74	3.80	3.84	3.90
S&P 500 Stock Index	3554	3863	4183	4378	4469	4499	4560	4642	4712	4758	4796	4842	4874
(Four-Quarter % change)	15.2	25.8	42.8	31.8	25.7	16.5	9.0	6.0	5.4	5.8	5.2	4.3	3.4
Exchange Rate, Broad Index of Partners	1.247	1.229	1.223	1.219	1.220	1.221	1.221	1.223	1.225	1.227	1.231	1.234	1.236
(% change, annual rate)	-11.0	-5.7	-1.7	-1.5	0.4	0.2	0.0	0.8	0.5	0.8	1.1	1.0	0.8
Incomes													
Personal Income (% ch., saar)	-4.0	60.1	-20.3	-4.8	1.8	3.2	5.6	4.9	3.9	4.0	4.1	4.0	4.0
Real Disposable Income (%ch., saar)	-7.6	62.0	-28.0	-8.7	-0.6	1.1	3.7	3.0	1.9	2.0	2.1	2.0	2.1
Saving Rate (%)	13.6	21.5	12.7	10.2	8.7	8.1	8.0	7.8	7.5	7.4	7.3	7.3	7.2
After-Tax Profits (Billions of \$)	2083	2228	2284	2353	2408	2513	2523	2518	2498	2545	2540	2537	2543
(Four-quarter % change)	4.1	28.1	46.7	11.1	15.6	12.8	10.4	7.0	3.8	1.3	0.7	0.8	1.8

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	2.5	3.1	1.7	2.3	3.0	2.2	-3.5	6.6	5.0	2.1	2.0	2.1	2.3
Final Sales of Domestic Product	2.7	2.8	2.3	2.4	2.8	2.2	-2.9	5.9	4.1	2.4	2.2	2.2	2.3
Gross Domestic Income	3.2	2.7	0.9	2.5	2.6	1.8	-3.3	7.5	4.6	1.7	1.8	2.0	2.3
Avg. of GDP and GDI	2.9	2.9	1.3	2.4	2.8	2.0	-3.4	7.1	4.8	1.9	1.9	2.1	2.3
Total Consumption	3.0	3.8	2.8	2.6	2.7	2.4	-3.9	7.6	4.4	2.9	2.4	2.7	3.0
Durables	7.2	7.6	5.8	6.9	6.8	4.8	6.3	17.5	-2.9	1.7	3.6	4.6	5.3
Nondurables	2.6	3.4	2.5	2.6	2.7	3.1	2.6	6.9	-0.1	1.4	1.6	2.1	2.4
Services	2.4	3.3	2.4	2.0	2.1	1.8	-7.3	6.1	7.2	3.5	2.4	2.5	2.8
Nonresidential Fixed Investment	7.2	2.3	0.5	3.7	6.9	2.9	-4.0	8.4	6.6	4.5	3.9	3.6	3.4
Equipment	7.0	3.0	-1.7	3.2	8.0	2.1	-5.0	14.1	6.3	3.6	3.3	3.7	4.1
Information Processing Equipment	5.2	6.2	4.5	7.4	8.6	3.0	7.3	18.8	5.2	1.1	1.1	1.9	2.8
Industrial Equipment	3.9	0.1	-1.4	5.5	8.2	2.1	-4.3	11.6	6.6	-2.5	5.3	7.6	7.2
Transportation equipment	11.1	10.5	-5.8	-1.6	5.8	-0.4	-22.0	10.6	6.9	23.9	3.3	-3.7	-0.7
Aircraft	13.4	1.7	-10.6	33.6	8.7	-27.8	-43.8	53.7	40.6	10.8	1.5	0.2	5.2
Other Equipment	7.9	-6.6	-5.6	0.6	9.6	3.5	-3.7	12.0	7.2	-3.9	4.6	10.2	7.2
Intellectual Property Products	4.8	3.8	7.6	4.2	7.8	6.4	1.7	10.3	9.8	6.2	4.5	3.4	2.8
Structures	11.0	-0.9	-4.4	4.2	3.7	-0.6	-11.0	-6.4	0.8	3.1	3.9	3.6	3.1
Commercial & Health Care	12.9	12.1	16.7	3.2	1.3	-2.3	-1.8	-5.6	-7.3	-0.5	7.4	7.0	4.4
Manufacturing	12.9	34.4	-4.9	-13.4	-1.8	4.6	-14.2	-9.1	8.2	15.4	-2.7	-5.5	-2.2
Power & Communication	15.0	3.4	2.2	-4.6	-5.7	3.5	3.6	-12.4	-4.4	0.4	2.2	4.5	4.2
Mining & Petroleum	8.0	-28.6	-42.1	38.8	25.2	-2.1	-36.5	16.6	17.4	-1.2	-0.2	0.3	0.9
Other	8.3	10.5	7.2	3.8	1.3	-3.4	-14.9	-13.0	3.0	7.5	9.1	6.3	4.8
Residential Fixed Investment	3.8	10.2	6.6	4.0	-0.6	-1.7	6.1	11.1	-4.0	-3.8	0.3	0.4	-0.3
Exports	4.2	0.4	0.3	3.9	3.0	-0.1	-12.9	5.6	8.8	6.1	4.8	4.0	3.6
Imports	5.0	5.2	1.7	4.7	4.1	1.1	-9.3	12.8	4.8	4.0	4.3	5.0	5.1
Federal Government	-2.6	0.0	0.6	0.3	2.8	4.0	4.3	1.9	-0.8	-0.9	0.0	0.5	0.4
State & Local Government	0.2	2.9	2.6	1.2	1.2	1.3	-0.8	2.2	2.2	0.0	0.7	0.7	0.8
Billions of Dollars													
Real GDP	16912.0	17432.2	17730.5	18144.1	18687.8	19091.7	18426.1	19640.7	20615.9	21041.4	21455.2	21912.7	22420.9
Nominal GDP	17527.3	18238.3	18745.1	19543.0	20611.9	21433.2	20936.6	23079.5	24778.6	25823.6	26929.1	28141.3	29459.2
Prices & Wages, Percent Change													
GDP Deflator	1.8	1.0	1.0	1.9	2.4	1.8	1.2	3.4	2.3	2.1	2.3	2.3	2.3
Consumer Prices	1.6	0.1	1.3	2.1	2.4	1.8	1.2	3.7	2.4	2.1	2.1	2.1	2.1
Producer Prices, Finished Goods	1.9	-3.3	-1.0	3.2	3.1	0.8	-1.3	6.7	2.1	1.5	1.7	1.8	1.8
Employment Cost Index - Total Comp.	2.1	2.1	2.1	2.5	2.9	2.7	2.6	3.6	3.9	3.6	3.2	3.1	3.0
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	99.83	52.68	44.24	54.83	70.96	64.34	41.77	67.36	66.13	65.54	65.79	66.56	67.43
Productivity (%ch.)	0.8	1.6	0.4	1.2	1.4	1.8	2.6	3.2	2.0	0.8	1.7	2.0	2.0
Total Industrial Production (%ch.)	3.0	-1.4	-2.2	1.3	3.2	-0.8	-7.2	6.4	4.8	1.5	1.2	1.5	1.6
Factory Operating Rate	75.7	76.0	75.2	76.2	77.7	75.8	71.1	76.4	78.9	77.9	76.9	76.1	75.6
Nonfarm Inven. Chg. (Bil. 2012 \$)	90.1	136.5	30.2	21.0	59.3	62.2	-75.1	39.1	206.8	129.7	90.4	81.8	86.5
Consumer Sentiment Index	84.1	92.9	91.8	96.8	98.4	96.0	81.5	87.2	97.2	99.7	98.5	98.5	99.2
Light Vehicle Sales (Mil. units)	16.45	17.41	17.48	17.15	17.23	16.96	14.44	16.73	16.77	16.85	16.75	16.72	16.81
Housing Starts (Mil. units)	1.000	1.107	1.177	1.205	1.247	1.292	1.397	1.573	1.437	1.347	1.328	1.317	1.284
Exist. House Sales (Total, Mil. units)	4.923	5.228	5.437	5.527	5.334	5.327	5.658	5.817	5.867	5.688	5.516	5.423	5.441
Unemployment Rate (%)	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.6	4.2	3.6	3.6	3.8	3.9
Payroll Employment (%ch.)	1.9	2.1	1.8	1.6	1.6	1.3	-5.7	2.8	3.7	1.7	0.7	0.5	0.6
Federal Surplus (Unified, FY, bil. \$)	-487.4	-475.4	-581.6	-680.9	-873.0	-1022.0	-3348.2	-2738.7	-1392.7	-1084.0	-1015.7	-1120.8	-1191.4
Current Account Balance (Bil. \$)	-370.0	-408.9	-397.6	-361.7	-438.2	-472.1	-616.1	-746.3	-629.4	-535.2	-466.8	-470.4	-505.0
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.13	0.40	1.00	1.83	2.16	0.38	0.09	0.10	0.18	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	0.04	0.07	0.16	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	1.53	1.89	2.16	2.38	2.64	2.84
30-Year Fixed Mortgage Rate (%)	4.17	3.85	3.65	3.99	4.54	3.94	3.12	3.00	3.51	3.82	4.05	4.31	4.52
S&P 500 Stock Index	1931	2061	2092	2448	2745	2912	3219	4223	4603	4817	4853	4783	4778
(Percent change)	17.5	6.8	1.5	17.0	12.1	6.1	10.5	31.2	9.0	4.7	0.7	-1.4	-0.1
Exchange Rate, Broad Index of Partners	1.044	1.180	1.235	1.232	1.223	1.263	1.287	1.223	1.222	1.232	1.241	1.252	1.260
(% change, annual rate)	3.1	13.1	4.6	-0.3	-0.7	3.3	1.9	-5.0	0.0	0.8	0.8	0.8	0.7
Incomes													
Personal Income (% ch.)	5.7	4.9	2.8	4.9	5.3	3.9	6.3	6.9	0.9	4.2	4.4	4.7	5.0
Real Disposable Income (%ch.)	4.1	4.2	2.0	3.1	3.6	2.2	6.0	3.4	-1.9	2.2	2.4	2.7	2.9
Saving Rate (%)	7.4	7.6	6.9	7.2	7.9	7.6	16.2	13.3	7.9	7.3	7.3	7.4	7.3
After-Tax Profits (Billions of \$)	1857	1732	1749	1872	1904	1939	1874	2318	2513	2541	2641	2774	2933
(Percent change)	3.8	-6.8	1.0	7.0	1.7	1.8	-3.3	23.7	8.4	1.1	3.9	5.0	5.7

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	2.9	2.2	2.1	2.7	2.5	2.3	-2.4	7.5	3.0	1.8	2.1	2.2	2.4
Final Sales of Domestic Product	3.2	2.1	2.3	2.8	2.2	2.8	-2.7	6.6	3.2	2.2	2.2	2.2	2.3
Gross Domestic Income	4.2	1.4	1.2	2.9	2.4	1.9	-0.7	6.8	2.5	1.6	1.9	2.2	2.3
Avg. of GDP and GDI	3.5	1.8	1.6	2.8	2.4	2.1	-1.5	7.2	2.7	1.7	2.0	2.2	2.3
Total Consumption	3.8	3.1	2.7	2.9	2.4	2.5	-2.7	7.3	3.8	2.4	2.5	2.8	3.1
Durables	9.2	6.0	7.0	8.1	4.2	5.7	11.6	6.8	-0.1	2.5	4.1	5.0	5.4
Nondurables	3.2	2.8	2.0	3.7	2.3	2.7	4.1	4.4	0.7	1.4	1.9	2.2	2.5
Services	3.2	2.7	2.3	1.8	2.1	1.9	-6.8	8.3	5.5	2.6	2.4	2.7	2.9
Nonresidential Fixed Investment	6.9	-0.1	1.8	4.8	6.5	1.4	-1.4	8.4	5.6	4.0	3.8	3.5	3.4
Equipment	5.6	1.5	-2.2	7.5	7.0	-1.3	3.5	8.4	5.2	3.1	3.4	3.8	4.3
Information Processing Equipment	6.4	6.5	3.5	9.8	5.5	1.9	17.1	12.6	2.7	0.6	1.3	2.4	3.1
Industrial Equipment	4.3	1.0	-1.2	8.8	7.6	-2.6	1.7	10.3	2.3	-1.5	8.5	6.6	7.0
Transportation equipment	9.4	6.6	-7.4	4.4	6.5	-5.1	-10.6	-2.1	15.2	20.0	-2.8	-4.0	1.5
Aircraft	-0.9	-14.1	9.6	29.7	17.6	-41.7	-29.2	78.0	13.8	7.4	-0.6	1.8	6.2
Other Equipment	1.7	-10.1	-4.9	6.5	9.3	-0.3	2.0	9.9	3.6	-4.1	8.8	10.9	5.6
Intellectual Property Products	6.9	3.3	6.4	4.9	9.4	4.6	2.1	12.7	8.1	5.3	4.1	3.1	2.6
Structures	9.3	-7.3	3.5	0.0	1.2	1.9	-16.1	0.1	1.3	3.6	4.0	3.4	3.0
Commercial & Health Care	13.8	8.3	19.6	-2.7	-1.7	2.3	-4.8	-6.6	-7.1	5.0	8.1	5.6	4.4
Manufacturing	29.4	9.8	-7.1	-12.3	1.1	3.4	-20.5	-1.1	22.4	2.3	-3.1	-5.0	-3.6
Power & Communication	-16.1	20.0	13.2	-18.0	-6.4	20.5	-9.1	-10.4	-2.9	2.6	1.7	6.1	4.4
Mining & Petroleum	16.3	-44.2	-27.3	47.2	17.2	-11.0	-41.2	60.0	0.7	-0.7	-0.2	0.2	0.8
Other	12.5	4.7	8.8	1.5	-1.0	-3.7	-18.2	-8.3	7.8	7.8	8.6	5.1	4.5
Residential Fixed Investment	7.7	9.2	4.2	4.7	-3.9	1.6	14.3	1.4	-5.9	-1.9	0.8	0.3	-0.6
Exports	2.9	-1.5	1.5	5.8	0.5	0.4	-10.9	6.3	7.8	5.5	4.4	3.8	3.4
Imports	6.5	3.3	2.8	5.6	3.0	-1.9	-0.6	5.9	4.9	3.6	4.7	5.1	5.1
Federal Government	-1.1	1.3	0.1	1.2	3.0	4.8	2.4	1.5	-0.9	-0.5	0.3	0.5	0.3
State & Local Government	1.2	2.8	2.4	1.1	0.6	1.9	-2.3	5.2	0.2	0.3	0.7	0.8	0.9
Billions of Dollars													
Real GDP	16912.0	17432.2	17730.5	18144.1	18687.8	19091.7	18426.1	19640.7	20615.9	21041.4	21455.2	21912.7	22420.9
Nominal GDP	17527.3	18238.3	18745.1	19543.0	20611.9	21433.2	20936.6	23079.5	24778.6	25823.6	26929.1	28141.3	29459.2
Prices & Wages, Percent Change (Q4/Q4)													
GDP Deflator	1.5	0.8	1.5	2.0	2.3	1.6	1.3	3.8	2.0	2.2	2.3	2.3	2.3
Consumer Prices	1.2	0.4	1.8	2.1	2.2	2.0	1.2	4.0	2.0	2.1	2.1	2.1	2.2
Producer Prices, Finished Goods	0.6	-3.4	1.0	3.5	2.3	0.9	-1.2	7.2	1.3	1.6	1.8	1.8	1.9
Employment Cost Index - Total Comp.	2.3	1.8	2.2	2.6	3.0	2.7	2.6	4.1	3.8	3.4	3.2	3.0	3.0
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	99.83	52.68	44.24	54.83	70.96	64.34	41.77	67.36	66.13	65.54	65.79	66.56	67.43
Productivity (%ch.)	0.5	1.0	1.3	1.2	1.1	2.0	2.6	4.2	0.7	1.1	1.8	2.1	2.0
Total Industrial Production (%ch.)	3.0	-1.4	-2.2	1.3	3.2	-0.8	-7.2	6.4	4.8	1.5	1.2	1.5	1.6
Factory Operating Rate	75.7	76.0	75.2	76.2	77.7	75.8	71.1	76.4	78.9	77.9	76.9	76.1	75.6
Nonfarm Inven. Chg. (Bil. 2012 \$)	90.1	136.5	30.2	21.0	59.3	62.2	-75.1	39.1	206.8	129.7	90.4	81.8	86.5
Consumer Sentiment Index	84.1	92.9	91.8	96.8	98.4	96.0	81.5	87.2	97.2	99.7	98.5	98.5	99.2
Light Vehicle Sales (Mil. units)	16.45	17.41	17.48	17.15	17.23	16.96	14.44	16.73	16.77	16.85	16.75	16.72	16.81
Housing Starts (Mil. units)	1.000	1.107	1.177	1.205	1.247	1.292	1.397	1.573	1.437	1.347	1.328	1.317	1.284
Exist. House Sales (Total, Mil. units)	4.923	5.228	5.437	5.527	5.334	5.327	5.658	5.817	5.867	5.688	5.516	5.423	5.441
Unemployment Rate (%)	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.6	4.2	3.6	3.6	3.8	3.9
Payroll Employment (%ch.)	2.1	2.0	1.7	1.5	1.6	1.3	-6.0	4.5	2.6	1.1	0.6	0.5	0.6
Federal Surplus (Unified, FY, bil. \$)	-487.4	-475.4	-581.6	-680.9	-873.0	-1022.0	-3348.2	-2738.7	-1392.7	-1084.0	-1015.7	-1120.8	-1191.4
Current Account Balance (Bil. \$)	-370.0	-408.9	-397.6	-361.7	-438.2	-472.1	-616.1	-746.3	-629.4	-535.2	-466.8	-470.4	-505.0
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.13	0.40	1.00	1.83	2.16	0.38	0.09	0.10	0.18	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	0.04	0.07	0.16	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	1.53	1.89	2.16	2.38	2.64	2.84
30-Year Fixed Mortgage Rate (%)	4.17	3.85	3.65	3.99	4.54	3.94	3.12	3.00	3.51	3.82	4.05	4.31	4.52
S&P 500 Stock Index	1931	2061	2092	2448	2745	2912	3219	4223	4603	4817	4853	4783	4778
(Percent change, Q4/Q4)	13.6	2.0	6.4	19.2	3.3	14.7	15.2	25.7	5.4	3.4	-1.1	-1.1	0.5
Exchange Rate, Broad Index of Partners	1.044	1.180	1.235	1.232	1.223	1.263	1.287	1.223	1.222	1.232	1.241	1.252	1.260
(% change, Q4/Q4)	6.7	12.2	3.9	-4.2	4.3	0.6	-1.9	-2.1	0.4	0.9	0.7	0.8	0.5
Incomes													
Personal Income (%ch., Q4/Q4)	6.7	3.8	3.1	5.5	4.8	3.5	4.7	5.5	4.4	4.0	4.6	4.8	5.0
Real Disposable Income (%ch., Q4/Q4)	5.3	3.1	1.8	3.4	3.7	1.6	3.9	1.4	2.4	2.0	2.5	2.8	2.9
Saving Rate (%)	7.4	7.6	6.9	7.2	7.9	7.6	16.2	13.3	7.9	7.3	7.3	7.4	7.3
After-Tax Profits (Billions of \$)	1857	1732	1749	1872	1904	1939	1874	2318	2513	2541	2641	2774	2933
(Percent change, Q4/Q4)	2.2	-13.0	10.4	-2.1	7.4	5.3	4.1	15.6	3.8	1.8	4.7	5.5	5.8

Source: IHS Markit

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Alternative Scenarios of the US Economy

	2020:4	2021:1	2021:2	2021:3	2021:4	2022:1	2020	2021	2022	2023	2024	2025	2026
Pessimistic: Recovery stumbles as consumers slow spending splurge (Prob. = 20%)													
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	4.3	6.4	7.6	5.1	6.0	3.6	-3.5	6.1	4.4	2.7	2.2	2.0	2.1
Total Consumption	2.3	11.4	9.9	-0.7	3.0	4.0	-3.9	6.9	3.8	3.7	2.5	2.4	2.7
Nonresidential Fixed Investment	13.1	11.7	3.3	2.9	4.3	7.3	-4.0	7.1	5.8	5.2	3.7	3.1	3.0
Residential Fixed Investment	36.6	13.1	-10.3	-3.0	-7.7	-8.7	6.1	9.6	-7.2	-3.4	0.1	0.4	0.3
Exports	22.3	-2.1	9.8	7.3	9.0	9.7	-12.9	5.6	8.3	6.2	5.1	4.2	3.6
Imports	29.8	9.5	4.0	0.7	-2.7	4.8	-9.3	11.4	3.6	5.6	3.8	4.2	4.6
Federal Government	-0.9	13.8	-6.8	-0.2	0.1	0.5	4.3	1.9	-0.8	-0.9	0.0	0.5	0.4
State & Local Government	-0.8	0.8	11.2	6.5	2.7	1.2	-0.8	2.2	2.2	0.0	0.7	0.7	0.8
Prices & Wages, Percent Change, Annual Rate													
Consumer Prices	2.4	3.7	7.3	2.3	1.4	1.1	1.2	3.5	1.6	0.9	1.2	1.6	1.9
Producer Prices, Finished Goods	4.4	13.9	9.7	2.9	0.7	0.1	-1.3	6.4	1.2	0.3	0.8	1.2	1.6
Employment Cost Index - Total Comp.	3.2	4.0	4.3	3.6	3.3	3.1	2.6	3.5	3.2	2.5	1.9	1.7	1.8
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	44.29	60.82	68.79	70.13	66.45	65.31	41.77	66.55	64.30	63.73	63.90	64.55	65.38
Productivity (%ch., saar)	-3.8	5.4	3.2	1.3	3.7	1.0	2.6	2.8	1.9	1.7	2.0	1.8	1.7
Total Industrial Production (%ch., saar)	8.2	3.6	5.6	7.2	5.6	3.2	-7.2	5.8	4.1	2.1	1.5	1.3	1.3
Nonfarm Inven. Chg. (Bil. 2012 \$)	57.9	-83.0	-91.5	107.5	208.3	197.1	-75.1	35.3	199.8	157.7	119.8	98.3	93.8
Consumer Sentiment Index	79.8	80.2	85.6	87.4	88.8	90.2	81.5	85.5	92.6	97.1	96.2	96.2	96.9
Light Vehicle Sales (Mil. units, saar)	16.11	16.85	16.64	15.42	15.40	15.53	14.44	16.08	15.65	15.90	15.78	15.66	15.63
Housing Starts (Mil. units, saar)	1.575	1.599	1.558	1.504	1.425	1.376	1.397	1.521	1.333	1.264	1.236	1.221	1.214
Unemployment Rate (%)	6.7	6.2	5.9	5.6	5.3	5.0	8.1	5.8	4.7	4.1	4.1	4.3	4.3
Payroll Employment (%ch., saar)	5.1	2.1	4.7	5.8	4.1	2.3	-5.7	2.6	3.2	1.5	0.6	0.5	0.7
Federal Surplus (Unified, FY, bil. \$)	-572.9	-1133.4	-757.2	-449.8	-420.9	-478.7	-3131.9	-2913.2	-1553.1	-1154.3	-1011.6	-1085.5	-1108.5
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.08	0.07	0.10	0.10	0.10	0.38	0.09	0.10	0.10	0.10	0.10	0.18
10-Year Treasury Note Yield (%)	0.86	1.32	1.59	1.55	1.56	1.57	0.89	1.50	1.59	1.68	1.87	2.13	2.32
Incomes													
Personal Income (% ch., saar)	-4.0	60.1	-20.9	-6.6	-0.3	2.0	6.3	6.3	-0.3	3.5	3.7	4.1	4.6
After-Tax Profits (Four-qr.% change)	4.1	28.1	46.9	9.0	11.8	8.4	-3.3	22.1	5.6	1.9	3.4	3.6	5.4
Optimistic: No containment measures, vaccines, and still more stimulus drive faster growth (Prob. = 30%)													
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	4.3	6.4	8.5	11.6	10.3	4.4	-3.5	7.3	6.1	2.2	1.8	1.7	1.8
Total Consumption	2.3	11.4	11.1	6.6	8.0	4.7	-3.9	8.4	5.7	3.0	2.2	2.2	2.5
Nonresidential Fixed Investment	13.1	11.7	6.0	19.4	12.9	6.9	-4.0	10.2	9.3	5.5	4.0	2.5	2.0
Residential Fixed Investment	36.6	13.1	-8.9	6.5	0.6	-6.4	6.1	11.8	-4.0	-3.9	0.5	0.9	0.0
Exports	22.3	-2.1	9.8	7.3	11.9	12.8	-12.9	5.7	10.1	5.7	4.4	3.6	3.4
Imports	29.8	9.5	6.2	11.0	8.0	8.2	-9.3	14.0	7.1	3.3	4.2	4.6	4.6
Federal Government	-0.9	13.8	-6.8	-0.2	0.1	0.5	4.3	1.9	-0.8	-0.9	0.0	0.5	0.4
State & Local Government	-0.8	0.8	11.2	6.5	2.7	1.2	-0.8	2.2	2.2	0.0	0.7	0.7	0.8
Prices & Wages, Percent Change, Annual Rate													
Consumer Prices	2.4	3.7	8.0	2.8	2.4	2.5	1.2	3.8	2.8	2.2	2.2	2.2	2.2
Producer Prices, Finished Goods	4.4	13.9	11.1	3.9	1.9	1.7	-1.3	6.9	2.5	1.7	1.8	1.9	1.9
Employment Cost Index - Total Comp.	3.2	4.0	4.3	4.0	4.1	4.0	2.6	3.6	4.0	3.8	3.4	3.3	3.2
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	44.29	60.82	68.79	72.09	69.68	68.57	41.77	67.84	67.36	66.40	66.66	67.37	68.23
Productivity (%ch., saar)	-3.8	5.4	4.2	5.0	6.3	1.8	2.6	3.6	3.0	1.2	1.6	1.6	1.6
Total Industrial Production (%ch., saar)	8.2	3.6	7.4	13.3	10.3	5.0	-7.2	7.2	6.1	1.7	1.1	1.1	1.0
Nonfarm Inven. Chg. (Bil. 2012 \$)	57.9	-83.0	-92.0	115.9	247.8	263.1	-75.1	47.2	236.2	135.0	81.3	62.1	60.8
Consumer Sentiment Index	79.8	80.2	85.6	91.6	96.7	100.1	81.5	88.5	101.3	102.1	100.8	100.8	101.5
Light Vehicle Sales (Mil. units, saar)	16.11	16.85	16.97	17.22	17.34	17.42	14.44	17.10	17.59	17.84	17.63	17.23	16.96
Housing Starts (Mil. units, saar)	1.575	1.599	1.578	1.629	1.562	1.517	1.397	1.592	1.458	1.379	1.366	1.365	1.335
Unemployment Rate (%)	6.7	6.2	5.9	5.3	4.6	4.3	8.1	5.5	3.9	3.4	3.5	3.7	3.8
Payroll Employment (%ch., saar)	5.1	2.1	4.7	8.7	6.0	2.4	-5.7	3.1	3.8	1.5	0.7	0.4	0.5
Federal Surplus (Unified, FY, bil. \$)	-572.9	-1133.4	-755.5	-431.5	-388.0	-439.9	-3131.9	-2893.2	-1393.0	-1002.7	-918.5	-1051.5	-1167.3
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.08	0.07	0.11	0.12	0.30	0.38	0.09	0.35	0.66	1.12	1.63	2.13
10-Year Treasury Note Yield (%)	0.86	1.32	1.59	1.67	1.78	1.91	0.89	1.59	2.07	2.36	2.55	2.76	2.90
Incomes													
Personal Income (% ch., saar)	-4.0	60.1	-20.0	-2.3	3.0	4.7	6.3	7.4	2.1	4.7	4.5	4.6	4.8
After-Tax Profits (Four-qr.% change)	4.1	28.1	48.1	15.9	23.3	20.1	-3.3	27.5	11.8	0.3	1.8	2.4	3.3

Source: IHS Markit

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Alternative Scenarios of the US Economy

	2020:4	2021:1	2021:2	2021:3	2021:4	2022:1	2020	2021	2022	2023	2024	2025	2026
Pessimistic: Recovery stumbles as consumers slow spending splurge (Prob. = 20%)													
Composition of Real GDP, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Gross Domestic Product	4.3	6.4	7.6	5.1	6.0	3.6	-2.4	6.3	3.4	2.3	2.1	2.0	2.2
Total Consumption	2.3	11.4	9.9	-0.7	3.0	4.0	-2.7	5.8	4.4	3.0	2.4	2.5	2.9
Nonresidential Fixed Investment	13.1	11.7	3.3	2.9	4.3	7.3	-1.4	5.5	6.9	4.3	3.4	3.0	2.9
Residential Fixed Investment	36.6	13.1	-10.3	-3.0	-7.7	-8.7	14.3	-2.4	-6.8	-1.4	0.5	0.3	0.4
Exports	22.3	-2.1	9.8	7.3	9.0	9.7	-10.9	5.9	7.6	5.7	4.7	4.0	3.5
Imports	29.8	9.5	4.0	0.7	-2.7	4.8	-0.6	2.8	6.4	4.5	3.9	4.3	4.8
Federal Government	-0.9	13.8	-6.8	-0.2	0.1	0.5	2.4	1.4	-0.9	-0.5	0.3	0.5	0.3
State & Local Government	-0.8	0.8	11.2	6.5	2.7	1.2	-2.3	5.2	0.2	0.3	0.7	0.8	0.9
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Consumer Prices	2.4	3.7	7.3	2.3	1.4	1.1	1.2	3.7	0.9	1.0	1.3	1.7	2.0
Producer Prices, Finished Goods	4.4	13.9	9.7	2.9	0.7	0.1	-1.2	6.7	0.1	0.5	1.0	1.4	1.7
Employment Cost Index - Total Comp.	3.2	4.0	4.3	3.6	3.3	3.1	2.6	3.8	2.9	2.2	1.8	1.6	1.9
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	44.29	60.82	68.79	70.13	66.45	65.31	41.77	66.55	64.30	63.73	63.90	64.55	65.38
Productivity (%ch., saar)	-3.8	5.4	3.2	1.3	3.7	1.0	2.6	3.4	1.4	1.9	1.9	1.7	1.7
Total Industrial Production (%ch., saar)	8.2	3.6	5.6	7.2	5.6	3.2	-4.3	5.5	2.9	1.6	1.4	1.2	1.3
Nonfarm Inven. Chg. (Bil.2012 \$)	57.9	-83.0	-91.5	107.5	208.3	197.1	-75.1	35.3	199.8	157.7	119.8	98.3	93.8
Consumer Sentiment Index	79.8	80.2	85.6	87.4	88.8	90.2	81.5	85.5	92.6	97.1	96.2	96.2	96.9
Light Vehicle Sales (Mil. units, saar)	16.11	16.85	16.64	15.42	15.40	15.53	14.44	16.08	15.65	15.90	15.78	15.66	15.63
Housing Starts (Mil. units, saar)	1.575	1.599	1.558	1.504	1.425	1.376	1.397	1.521	1.333	1.264	1.236	1.221	1.214
Unemployment Rate (%)	6.7	6.2	5.9	5.6	5.3	5.0	8.1	5.8	4.7	4.1	4.1	4.3	4.3
Payroll Employment (%ch., saar)	5.1	2.1	4.7	5.8	4.1	2.3	-6.0	4.2	2.2	1.0	0.5	0.5	0.8
Federal Surplus (Unified, FY, bil. \$)	-572.9	-1133.4	-757.2	-449.8	-420.9	-478.7	-3131.9	-2913.2	-1553.1	-1154.3	-1011.6	-1085.5	-1108.5
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.08	0.07	0.10	0.10	0.10	0.38	0.09	0.10	0.10	0.10	0.10	0.18
10-Year Treasury Note Yield (%)	0.86	1.32	1.59	1.55	1.56	1.57	0.89	1.50	1.59	1.68	1.87	2.13	2.32
Incomes													
Personal Income (% ch., saar)	-4.0	60.1	-20.9	-6.6	-0.3	2.0	4.7	4.2	3.5	3.3	3.8	4.3	4.7
After-Tax Profits (Four-qr.% change)	4.1	28.1	46.9	9.0	11.8	8.4	4.1	11.8	3.4	2.3	3.6	4.2	6.0
Optimistic: No containment measures, vaccines, and still more stimulus drive faster growth (Prob. = 30%)													
Composition of Real GDP, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Gross Domestic Product	4.3	6.4	8.5	11.6	10.3	4.4	-2.4	9.2	3.3	1.9	1.8	1.7	1.9
Total Consumption	2.3	11.4	11.1	6.6	8.0	4.7	-2.7	9.3	4.2	2.3	2.2	2.3	2.7
Nonresidential Fixed Investment	13.1	11.7	6.0	19.4	12.9	6.9	-1.4	12.4	6.6	4.8	3.5	2.1	2.1
Residential Fixed Investment	36.6	13.1	-8.9	6.5	0.6	-6.4	14.3	2.5	-6.7	-1.5	0.9	0.8	-0.4
Exports	22.3	-2.1	9.8	7.3	11.9	12.8	-10.9	6.6	9.0	4.9	4.0	3.5	3.4
Imports	29.8	9.5	6.2	11.0	8.0	8.2	-0.6	8.7	5.4	3.1	4.6	4.5	4.8
Federal Government	-0.9	13.8	-6.8	-0.2	0.1	0.5	2.4	1.4	-0.9	-0.5	0.3	0.5	0.3
State & Local Government	-0.8	0.8	11.2	6.5	2.7	1.2	-2.3	5.2	0.2	0.3	0.7	0.8	0.9
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Consumer Prices	2.4	3.7	8.0	2.8	2.4	2.5	1.2	4.2	2.3	2.2	2.2	2.2	2.2
Producer Prices, Finished Goods	4.4	13.9	11.1	3.9	1.9	1.7	-1.2	7.6	1.6	1.7	1.9	1.9	1.9
Employment Cost Index - Total Comp.	3.2	4.0	4.3	4.0	4.1	4.0	2.6	4.1	3.9	3.6	3.4	3.2	3.1
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	44.29	60.82	68.79	72.09	69.68	68.57	41.77	67.84	67.36	66.40	66.66	67.37	68.23
Productivity (%ch., saar)	-3.8	5.4	4.2	5.0	6.3	1.8	2.6	5.2	1.3	1.3	1.7	1.6	1.7
Total Industrial Production (%ch., saar)	8.2	3.6	7.4	13.3	10.3	5.0	-4.3	8.6	3.0	1.3	1.1	1.1	1.0
Nonfarm Inven. Chg. (Bil. 2012 \$)	57.9	-83.0	-92.0	115.9	247.8	263.1	-75.1	47.2	236.2	135.0	81.3	62.1	60.8
Consumer Sentiment Index	79.8	80.2	85.6	91.6	96.7	100.1	81.5	88.5	101.3	102.1	100.8	100.8	101.5
Light Vehicle Sales (Mil. units, saar)	16.11	16.85	16.97	17.22	17.34	17.42	14.44	17.10	17.59	17.84	17.63	17.23	16.96
Housing Starts (Mil. units, saar)	1.575	1.599	1.578	1.629	1.562	1.517	1.397	1.592	1.458	1.379	1.366	1.365	1.335
Unemployment Rate (%)	6.7	6.2	5.9	5.3	4.6	4.3	8.1	5.5	3.9	3.4	3.5	3.7	3.8
Payroll Employment (%ch., saar)	5.1	2.1	4.7	8.7	6.0	2.4	-6.0	5.3	2.0	1.1	0.5	0.4	0.6
Federal Surplus (Unified, FY, bil. \$)	-572.9	-1133.4	-755.5	-431.5	-388.0	-439.9	-3131.9	-2893.2	-1393.0	-1002.7	-918.5	-1051.5	-1167.3
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.08	0.07	0.11	0.12	0.30	0.38	0.09	0.35	0.66	1.12	1.63	2.13
10-Year Treasury Note Yield (%)	0.86	1.32	1.59	1.67	1.78	1.91	0.89	1.59	2.07	2.36	2.55	2.76	2.90
Incomes													
Personal Income (% ch., saar)	-4.0	60.1	-20.0	-2.3	3.0	4.7	4.7	6.5	5.3	4.4	4.5	4.7	4.9
After-Tax Profits (Four-qr.% change)	4.1	28.1	48.1	15.9	23.3	20.1	4.1	23.3	3.2	0.6	2.3	2.5	3.9

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IHS Markit Customer Care

CustomerCare@ihsmarkit.com

Americas: +1 800 IHS CARE (+1 800 447 2273)

Europe, Middle East, and Africa: +44 (0) 1344 328 300

Asia and the Pacific Rim: +604 291 3600

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