

Executive Summary: US Economic Outlook

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Forecast overview

Record, upwardly revised Q3 nearly in the books; after the bounce: fade and slog

- Real GDP shrank 31.4% in the 2nd quarter, according to BEA's 3rd estimate, published 30 September.¹ This was little revised from the 2nd estimate of -31.7% in the aggregate or the detail, and was easily the sharpest quarterly decline on record.
- Based on data of all frequencies through September, we've revised up our estimate of Q3 growth from 29.6% to 33.2%, of Q4 growth from 2.5% to 3.7%, and of 2020 growth from -4.0% to -3.5%. The annual number is above the "Blue Chip" consensus of 10 September (-4.6%), but we expect that consensus to move up this month. Our upward revisions were in residential construction, business fixed investment, and inventory accumulation. Faster inventory investment in 2020 pulls growth forward from 2021.
- Following a record Q3 "bounce" we expect GDP growth to fade for three reasons: (1) catch-up spending and "accelerator effects" have pushed consumers' purchases of durable goods above the pre-pandemic trend. This overshoot will unwind over the next several quarters; (2) even with our assumed additional pandemic relief measures (see next), fiscal support of the expansion dwindles entering 2021; (3) the COVID-19 infection rate likely will increase this fall. In response, consumers and businesses will be reluctant to resume pre-pandemic behavior, and many states will remain cautious about re-opening their economies prematurely.
- Congress adjourned until 18 October without passing a new stimulus measure, but we assume new legislation eventually will fund both emergency unemployment benefits of \$300/week from October through December and a second round of stimulus checks, disbursed in the fourth quarter. This boosts our forecast of GDP growth in Q4 by 2-3 percentage points. However, given our assumptions about the pandemic, we believe the recovery can continue without additional fiscal support—albeit more slowly.
- Based on guidance from our Life Sciences team, we continue to assume a vaccine is available by mid-2021, and a significant percentage of the population is inoculated by mid-2022, allowing the economy to transition from a slog of a recovery to an expansion. We project growth of 3.7% in 2021 and 3.2% in 2022. GDP surpasses its previous peak late in 2021, and the economy regains full employment in mid-2023—both slightly earlier than in last month's forecast.

Most components of private demand up sharply in Q3

- For Q3, the forecast shows very strong growth in PCE² (38.5%), residential investment (60.4%), equipment spending (83.1%), exports (73.4%), and imports (90.3%). GDP growth will be restrained by declines in investment in intellectual property products (-1.8%), investment in nonresidential structures (-15.4%), and government consumption and gross investment (-1.5%). Rebounding inventory investment will contribute 5.6 percentage points to Q3 growth.

Inventory investment shifts growth from 2021 to 2020

- Inventory investment is recovering much faster than suggested by the historical relationship between GDP and inventories. This is likely because the lagging service sector requires fewer inventories than the rapidly rebounding goods sector. Accordingly, we've revised up our projected contribution of inventory investment to GDP growth over the four quarters of 2020 by 0.5 percentage point, and revised down that contribution for 2021 by a similar amount.

Another upward revision to near-term housing activity

- Residential investment, boosted by low mortgage rates and new demand for improved and larger units in suburban neighborhoods, has already surpassed its pre-pandemic peak. We've revised up our near-term projection of residential investment again, although underlying demographic trends suggest the near-term surge in demand will crest in mid-2021 before then beginning to fade.

GDP-goods has recovered; slower recovery for services

- Partly as a result of catch-up spending and accelerator effects, the forecast shows GDP-goods surpassing its previous peak in Q3. GDP-services will recover more slowly. Consumer spending on services other than housing and utilities—which includes activities most susceptible to social distancing—does not regain its previous peak until 2023.

Volatile relative prices, low overall inflation

- Idiosyncratic spikes in prices rebounding from pandemic-related declines, re-enforced by rebounding energy prices and a weakening dollar, will drive headline CPI inflation to an annual rate of 5.2% in the third quarter. However, with slack labor markets and firms competing for reduced business, inflation, measured by the rate of change in the "core" PCE price index, will average a tame 1.7% through 2025.

Fed to encourage low unemployment, inflation above 2%

- We expect the Fed to maintain the Fed funds rate at 0%–0.25% through late 2026 to encourage inflation temporarily above 2%, re-enforcing that the 2% inflation objective is an average, not a ceiling. Accordingly, the forecast shows the economy past full employment after 2023, with inflation then firming slightly above 2% over 2026-2030.

1. This forecast was issued on 5 October 2020. 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 (October 2020) 2020:Q3 - 2024:Q4

	Major economic indicators																	
	% change from prior quarter, annual rate						% change from prior year, or annual average						% change from fourth quarter of prior year, or fourth-quarter average					
	2020.1	2020.2	2020.3	2020.4	2021.1	2021.2	2019	2020	2021	2022	2023	2024	2019.4	2020.4	2021.4	2022.4	2023.4	2024.4
Key indicators of real activity																		
Real gross domestic product	-5.0	-31.4	33.2	3.7	3.4	2.5	2.2	-3.5	3.7	3.2	2.8	2.7	2.3	-2.6	2.8	3.4	2.6	2.6
Contributions to growth (% points):																		
Final sales to domestic purchasers	-4.8	-28.5	29.6	2.5	1.7	2.8	2.4	-2.9	3.0	2.6	2.5	2.6	2.4	-2.1	2.2	2.7	2.5	2.6
Net exports of goods & services	1.1	0.6	-2.0	0.1	1.1	-0.5	-0.2	0.1	-0.1	0.5	0.3	0.1	0.3	-0.5	0.3	0.6	0.2	0.0
Change in private inventories	-1.3	-3.5	5.6	1.2	0.6	0.3	0.0	-0.6	0.8	0.1	0.0	0.0	-0.4	0.2	0.2	0.1	-0.1	0.0
Major components of real GDP																		
Personal consumption expend.	-6.9	-33.2	38.5	3.5	2.1	4.2	2.4	-4.0	4.0	3.0	2.7	2.6	2.5	-2.8	3.0	2.9	2.6	2.6
Nonres. fixed investment	-6.7	-27.2	23.6	0.9	1.6	1.2	2.9	-4.6	1.8	4.3	5.2	5.3	1.4	-4.0	1.9	5.5	5.2	5.2
Residential investment	19.0	-35.6	60.4	15.3	0.6	-5.8	-1.7	4.6	4.0	-2.6	-1.2	0.0	1.6	9.1	-3.1	-1.7	-0.8	0.4
Change in private inventories *	-80.9	-287.0	-25.6	36.3	67.0	82.0	48.5	-89.3	82.3	104.1	101.8	95.3	-1.1	36.3	88.1	116.4	96.9	93.6
Exports of goods & services	-9.5	-64.4	73.4	17.1	18.7	2.0	-0.1	-12.3	10.0	8.9	6.7	5.5	0.4	-10.0	10.2	8.4	6.0	5.0
Imports of goods & services	-15.0	-54.1	90.3	12.2	5.4	5.7	1.1	-10.3	8.7	2.9	3.4	3.6	-1.9	-4.5	5.4	2.2	3.3	3.9
Gov't consump. & gross invest.	1.3	2.5	-1.5	-3.3	0.1	0.2	2.3	1.4	-0.5	0.3	0.2	0.7	3.0	-0.3	0.2	0.2	0.3	1.0
Pvt. housing starts (thous. units)	1484	1079	1452	1410	1361	1336	1295	1356	1332	1297	1278	1273	1433	1410	1309	1289	1273	1280
Light vehicle sales (mil. units)	15.0	11.3	15.4	15.0	15.1	15.3	17.0	14.2	15.4	15.7	15.9	16.1	16.8	15.0	15.6	15.8	15.9	16.1
Industrial production, total	-6.8	-43.2	38.3	2.2	4.4	1.4	0.9	-7.7	2.5	3.5	3.4	2.9	-0.7	-7.0	2.4	4.3	3.0	2.8
Industrial production, mfg	-5.5	-47.2	53.4	4.5	3.5	-0.7	-0.2	-7.5	2.8	2.6	3.1	2.9	-1.2	-5.4	0.9	3.9	2.8	2.9
Capacity utilization (mfg, %)	73.9	63.0	70.2	71.1	71.6	71.4	75.6	69.6	71.4	72.7	74.1	75.1	75.0	71.1	71.3	73.4	74.5	75.4
Nonfarm payroll employ. (mil.)	151.9	133.7	140.8	144.1	146.1	147.1	150.9	142.6	147.4	151.2	153.9	156.0	151.8	144.1	148.6	152.5	154.7	156.7
Average monthly chg. (thous.)	-303	-4427	1304	1198	367	315	178	-557	300	313	188	161	210	1198	296	200	195	149
Private nonfarm hours	-6.1	-42.9	30.4	11.1	7.1	3.1	0.7	-7.2	4.5	3.1	1.8	1.3	0.8	-6.1	3.7	3.1	1.4	1.1
Civilian unemployment rate (%)	3.8	13.0	8.8	7.3	6.7	6.5	3.7	8.2	6.4	5.0	4.3	3.7	3.5	7.3	6.0	4.6	4.1	3.6
Prices, Productivity, & Costs																		
CPI, all items, all urban	1.2	-3.5	5.2	2.2	3.2	2.7	1.8	1.3	2.6	2.3	1.8	1.9	2.0	1.2	2.8	2.1	1.7	2.0
CPI excl food & energy, all urban	2.0	-1.6	4.5	2.6	1.9	2.1	2.2	1.8	2.2	1.9	1.8	2.0	2.3	1.9	2.0	1.8	1.8	2.0
PCE price index	1.3	-1.6	4.2	1.6	2.3	2.1	1.5	1.3	2.1	1.9	1.6	1.7	1.5	1.3	2.2	1.7	1.6	1.8
PCE price excl food & energy	1.6	-0.8	4.0	1.8	1.6	1.8	1.7	1.5	1.9	1.7	1.6	1.7	1.6	1.7	1.7	1.6	1.6	1.8
PPI finished goods	-3.4	-10.9	6.8	2.3	2.8	3.5	0.8	-1.3	2.6	3.0	1.9	1.8	0.9	-1.5	3.5	2.4	1.7	1.9
Compensation per hour	9.2	20.0	-4.4	-1.8	1.1	1.6	3.6	5.8	1.2	2.6	2.8	3.3	3.3	5.3	1.8	2.7	3.0	3.6
Output per hour	-0.3	10.6	10.9	-7.1	-3.1	-0.4	1.7	3.2	-0.3	0.6	1.3	1.7	1.9	3.2	-0.7	0.9	1.5	1.8
Unit labor cost	9.5	8.5	-13.9	5.7	4.3	2.1	1.9	2.6	1.5	2.0	1.5	1.6	1.4	2.0	2.5	1.9	1.4	1.7
CoreLogic house price index **	1.2	1.4	0.4	0.4	0.7	0.8	3.6	4.1	2.7	3.0	3.0	3.0	3.7	3.5	3.0	3.0	3.0	3.0
Price of WTI crude oil (\$/barrel)	45.76	27.81	40.90	40.18	41.70	43.51	56.98	38.66	46.04	54.42	56.10	57.35	56.94	40.18	51.18	56.24	56.50	58.02
Price of Brent crude oil (\$/barrel)	50.42	29.38	43.01	42.42	44.00	46.00	64.34	41.31	48.58	57.65	57.75	59.35	63.38	42.42	54.00	59.50	57.95	60.35
Selected Financial Variables																		
Federal funds rate (%)	1.26	0.06	0.09	0.09	0.10	0.10	2.16	0.38	0.10	0.10	0.11	0.12	1.64	0.09	0.10	0.10	0.11	0.13
Yield on 10-Yr Treasury Notes (%)	1.38	0.69	0.65	0.67	0.81	0.85	2.14	0.85	0.90	1.20	1.44	1.56	1.79	0.67	1.00	1.32	1.47	1.63
Baa corporate bond yield (%)	3.89	3.91	3.32	3.37	3.47	3.53	4.38	3.62	3.48	3.54	3.77	3.87	3.91	3.37	3.45	3.67	3.79	3.92
Broad trade-wtd US\$ (Jan 2006=100)	117.8	122.2	117.7	116.4	115.0	111.0	115.7	118.5	110.3	104.7	104.3	104.9	116.4	116.4	106.7	104.1	104.5	105.2
S&P 500 stock index, period end	2585	3100	3363	3325	3229	3274	3231	3325	3408	3491	3625	3789	3231	3325	3408	3491	3625	3789
S&P 500 stock index, average	3069	2929	3322	3437	3369	3342	2912	3189	3394	3547	3649	3809	3086	3437	3468	3576	3706	3873
Incomes & Related Measures																		
Corporate profits w/ IVA & CCAAdj	-39.9	-35.2	617.2	-75.0	-14.2	0.3	0.3	-0.4	-9.3	1.4	4.0	4.9	1.3	-8.6	-4.6	3.7	4.5	4.8
Real disposable personal income	2.6	46.6	-19.7	20.7	-30.4	1.5	2.2	7.1	-5.3	2.4	2.8	2.6	1.6	9.9	-7.8	2.9	2.8	2.7
Personal saving rate (%)	9.6	25.7	15.2	18.4	10.0	9.4	7.6	17.2	9.3	8.7	8.9	8.9	7.3	18.4	8.6	8.7	8.8	9.0
Fed. surplus (unified, FY, bil. \$)	-1547	-8003	-4485	-3864	-2290	-727	-984	-3866	-2098	-1068	-946	-962	-1426	-3864	-1371	-1232	-1294	-1254

* billions of chained 2012 \$

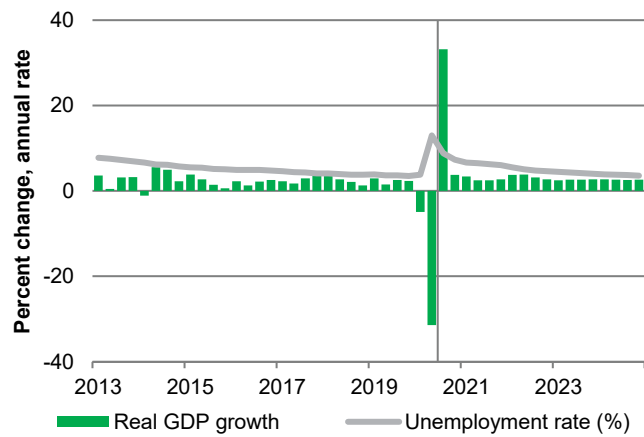
** % change, not annualized

Source: IHS Markit

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Forecast at a glance

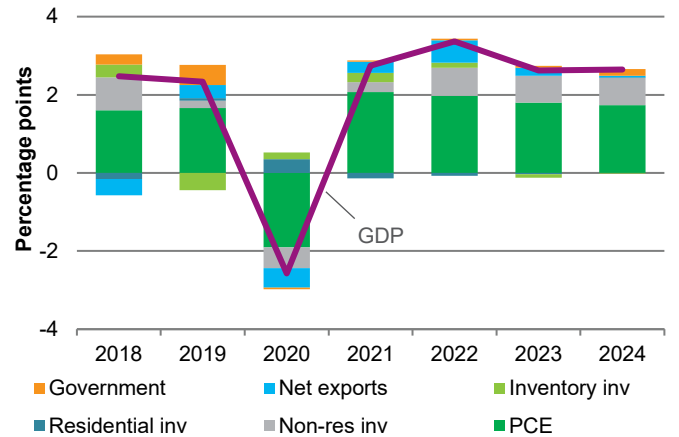
Historic contraction in 2020 Q2



Source: IHS Markit, BEA, BLS

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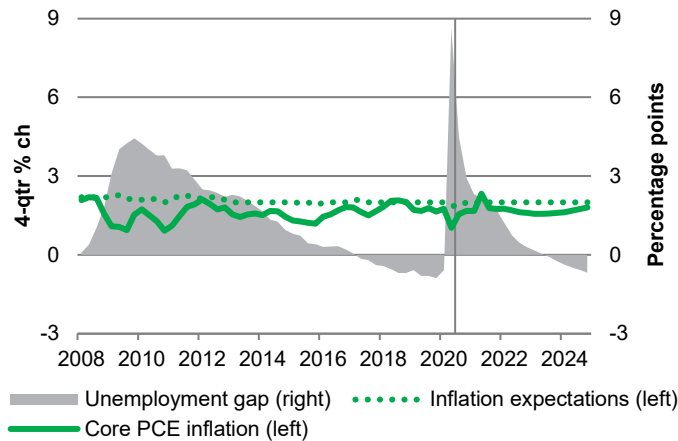
Contributions to GDP growth (Q4/Q4)



Source: IHS Markit, BEA

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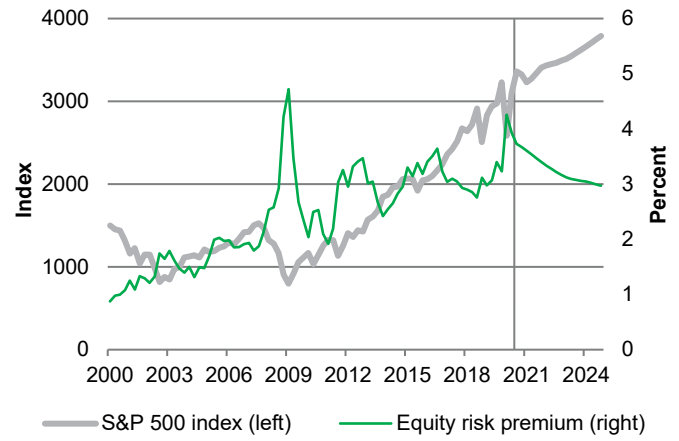
Core inflation to remain below 2% through 2024



Source: IHS Markit, Philly Fed, BEA, BLS

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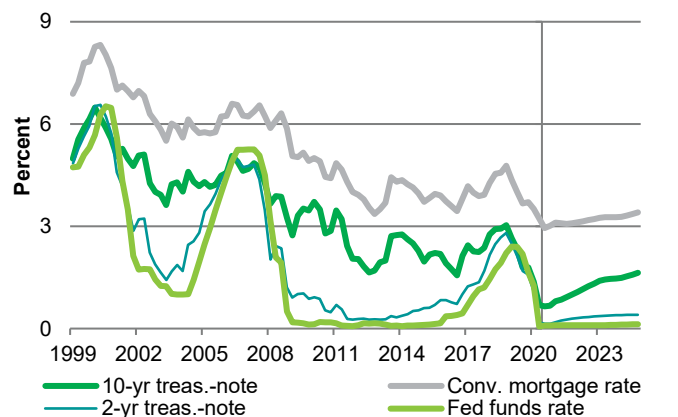
Equities to continue to rebound gradually



Source: IHS Markit, S&P

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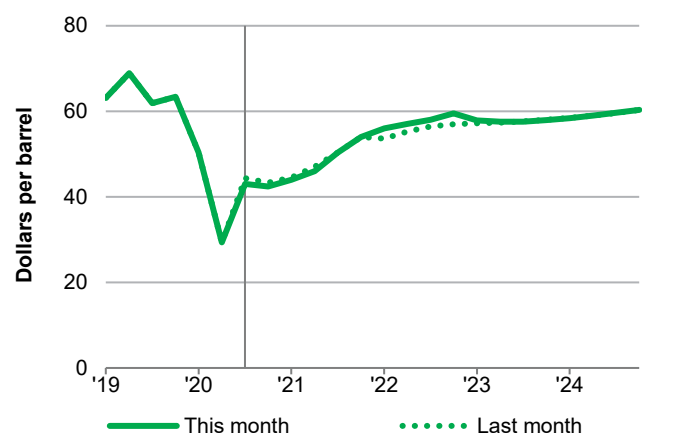
Fed keeps funds rate pinned at 0 through 2026, term yields rise gradually



Source: IHS Markit, FRB

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Price of Brent crude oil



Source: IHS Markit

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What's new

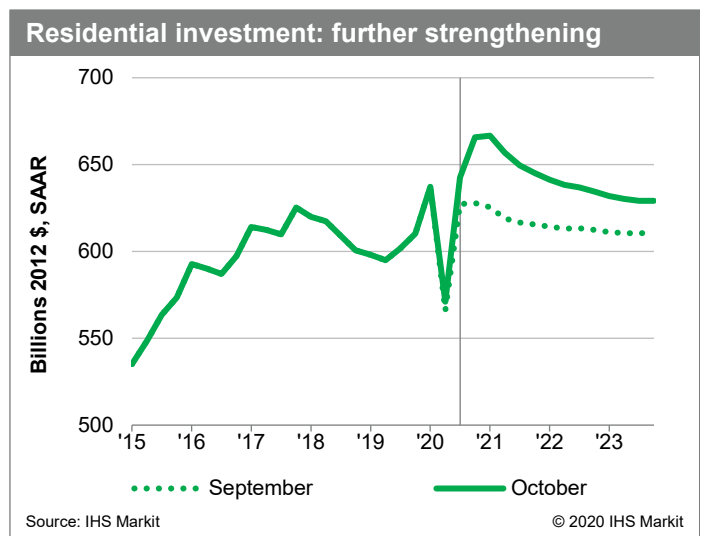
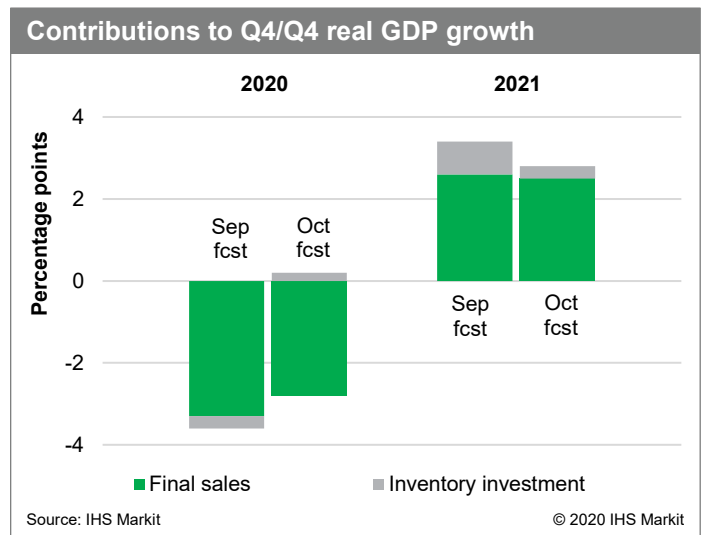
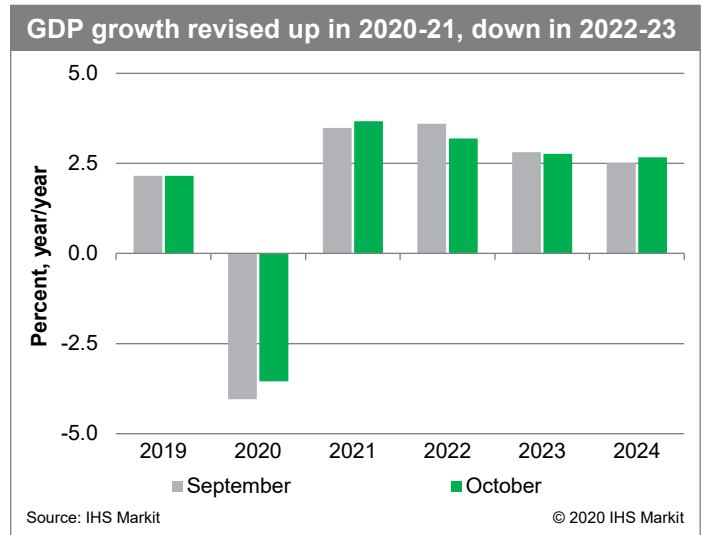
2020 revised up again; inventory investment shifts growth from 2022 to 2021; more housing strength

BEA's 3rd estimate showed GDP contracting -31.4% in Q2, little revised from the 2nd estimate of -31.7% and with the same composition of growth. However, higher-frequency data through September suggested an upward revision to our estimate of Q3 growth, from 29.6% to 33.2%, and of Q4 growth from 2.5% to 3.7%. Consequently, we've revised up our forecast of GDP growth for this year from -4.0% to -3.5%, and for next year from 3.5% to 3.7%, while revising projected growth down slightly in 2022 and 2023 (see chart). With these revisions, GDP regains its pre-pandemic peak in 2021:Q4, one quarter earlier than in last month's forecast. The upward revisions to GDP growth this year were centered on fixed investment and inventory accumulation.

This forecast includes updates to recent historical data from the Fed's "Flow of Funds" accounts on household balance sheet items. The Fed's new estimate of end-of-Q2 household net worth was quite close to our previous estimate and so had little bearing on our projections of consumer spending. The forecast also replaces our previous historical estimates of capital stocks with updated data from BEA consistent with July's five-year revisions to gross investment. Although this had little impact on the forecast, BEA's recent 4.5% downward revision in the stock of intellectual property was notable.

The upward revision to year/year GDP growth in 2021 is somewhat misleading. Because they occur in the second half of the year, our upward revisions to growth in 2020 raise the level of GDP in 2021 relative to 2020 even though the sequential growth rates of GDP over the four quarters of 2021 are lower than in last month's forecast. Indeed, measured from 4th quarter to 4th quarter, we revised GDP growth up by 1.1 percentage points in 2020 (from -3.6% to -2.5%) but down by 0.7 percentage point in 2021 (from 3.5% to 2.8%). The upward revision over 2020 is attributable to upward revisions in both final sales and inventory investment. The downward revision to GDP growth over 2021 results almost entirely from a shift of inventory investment from next year to this year (see chart).

Housing activity continues to benefit from historically low mortgage rates, a strong stock market, and an apparent shift in construction from urban to suburban neighborhoods. Recent data on single-family housing starts encouraged us to revise up our near-term projection of total starts. In addition, the value per unit started has exceeded expectations, improvements and realtors' fees are running stronger than anticipated, and consensus forecasts for house price inflation are ratcheting up. In response, we raised our near-term projection of residential investment (see chart) before allowing it to return towards a path determined by demographic fundamentals that have not changed (yet) in an obvious manner.



The view just ahead

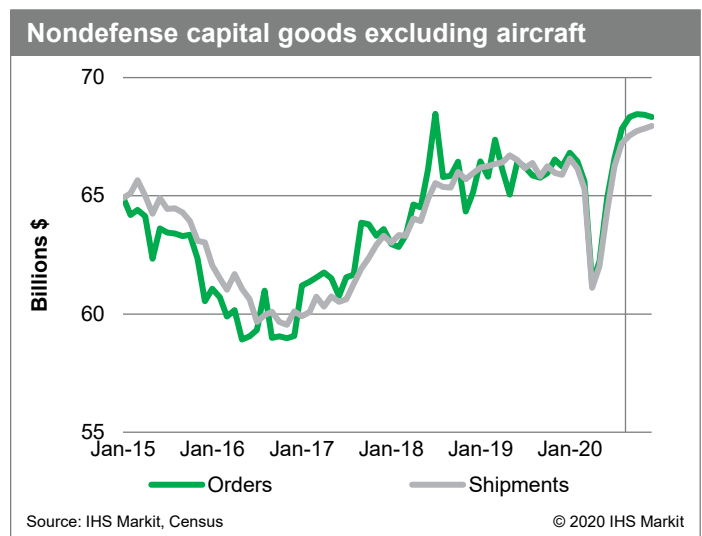
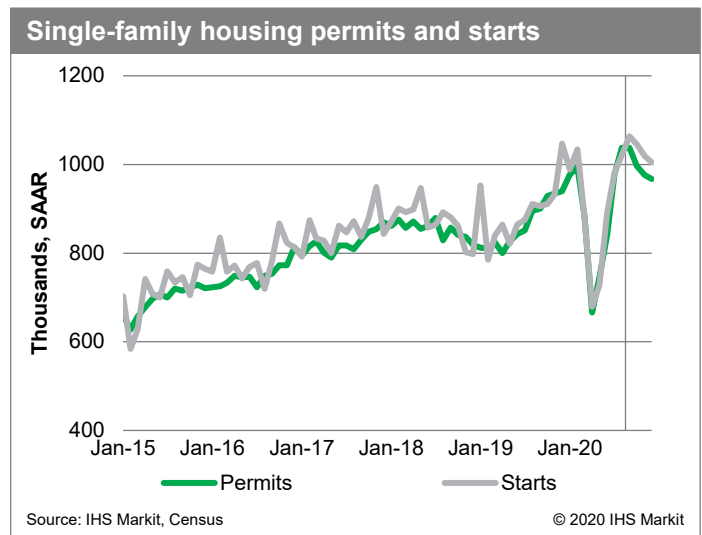
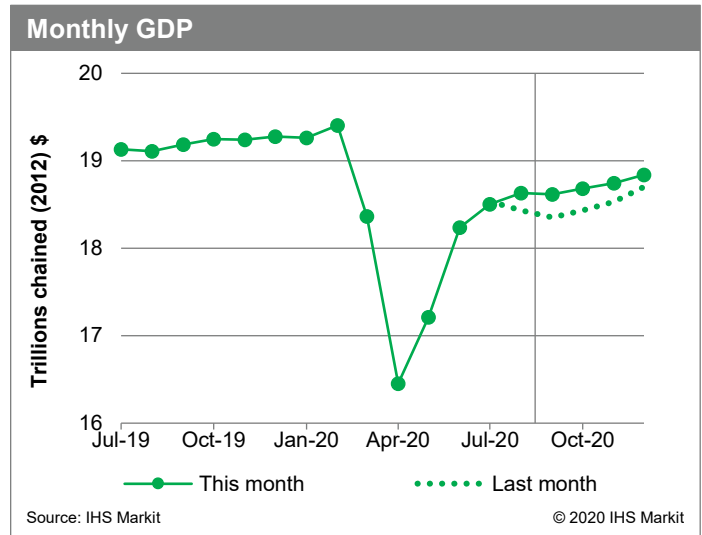
Housing and equipment spending areas of near-term strength; broad recovery has a ways to go

After reaching a trough in April, GDP rose sharply over May and June, reversing 60% of the spring decline—but the recovery slowed sharply after that. As of August, about 26% of the spring decline was yet to be reversed, and the momentum in monthly GDP is essentially gone. This in part reflects divergent performance across sectors during the recovery. Equipment spending and housing are two bright spots. As of August, orders and shipments of nondefense capital goods excluding aircraft had risen past their last pre-pandemic (February) levels, and real equipment spending in the third quarter is estimated to have fully reversed the sharp decline over the first and second quarters. This suggests that equipment investment plans were delayed by the pandemic rather than cancelled.

Housing activity has also recovered sharply over the summer. Aided by historically low mortgage rates, single-family housing permits have risen past the pre-pandemic peak, and single-family housing starts have nearly done so. Pending and existing home sales have surged in recent months, and retail sales at the building-materials group of stores (an indicator of residential remodeling activity) have risen well above the pre-pandemic trend. Taken together, these developments point to about 60% annualized growth of residential investment in the third quarter and 15% in the fourth quarter, leaving this component of GDP at the highest level since 2007.

Outside of these and a few other bright spots, activity is lagging. In particular, personal consumption expenditures (PCE) on services, the broad category of spending hit hardest and most directly by the pandemic, is recovering only slowly. As of August, real PCE on services was still 8.2% below February. Overall, monthly GDP is in the midst of a sharp deceleration. We expect essentially no change in monthly GDP in September and only modest growth over the three months of the fourth quarter.

The slowing pattern in output has been mirrored in employment. After rising 2.7 million in May and 4.8 million in June, payroll gains have slowed in each month since. We assume payroll gains average about 1.2 million per month over the three months of the fourth quarter. This leads to a continued downward trend in the unemployment rate, albeit at a slower pace than over the last several months. After reaching a peak of 14.7% in April, the unemployment rate has declined an average of 1.4 percentage points per month. Over the three months of the fourth quarter, we look for an average monthly decline of 0.3 percentage point per month, with the unemployment rate reaching 6.9% by December.



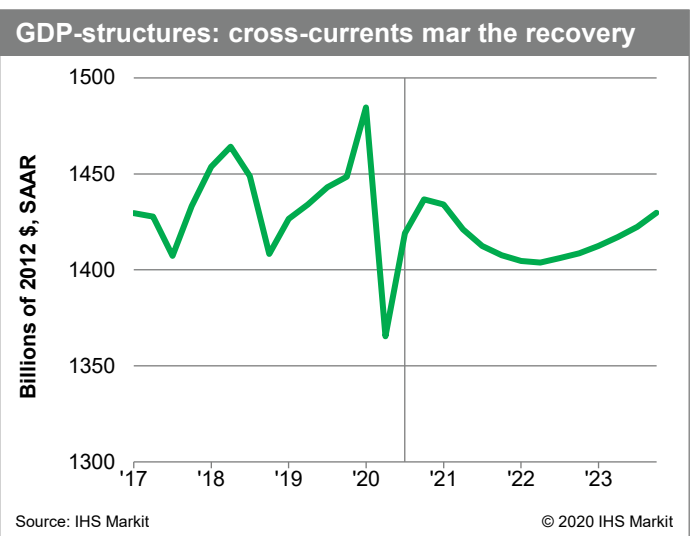
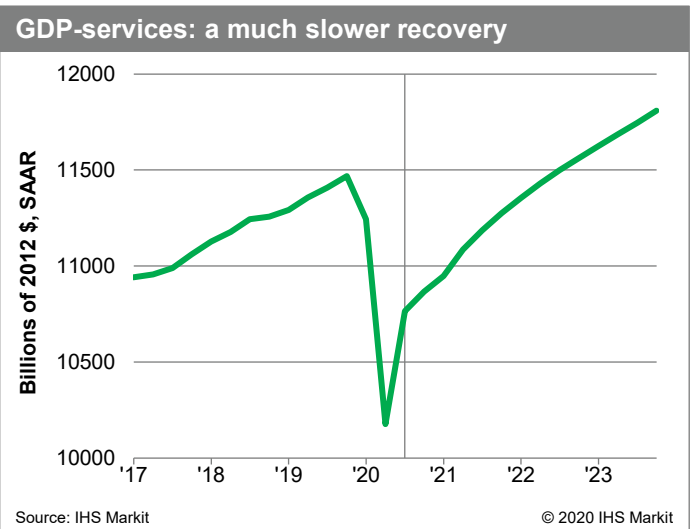
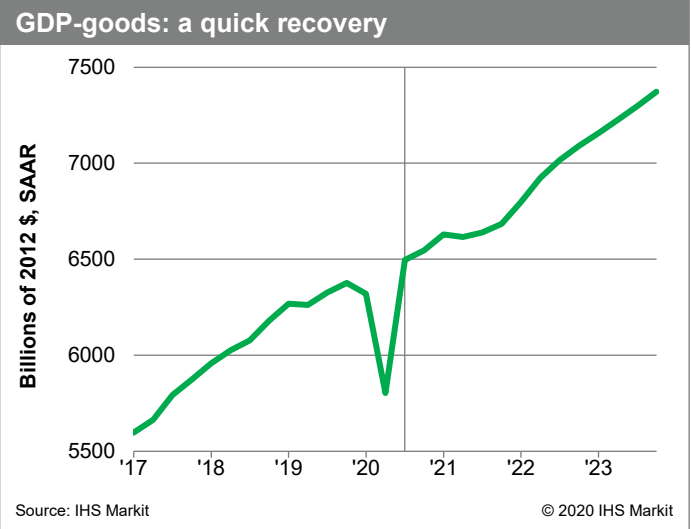
Growth

GDP to decelerate sharply after Q3; recovery uneven across sectors

The forecast shows strong (33.2%) GDP growth in Q3. With data now available through August, we estimate the average level of GDP over July and August was 32.7% above the Q2 level at an annual rate. Hence, our forecast assumes a slight *contraction* of output in September. Indeed, high-frequency data on spending, production, and employment reveal a sequential slowing of economic growth in the months since June. This deceleration won't be reflected in quarterly data until the fourth quarter, when we show GDP growth slowing to 3.7%.

Several factors contribute to the sharp deceleration of GDP in Q4 and into 2021. First, we expect the rate of COVID-19 infections to remain elevated as temperatures cool, activity moves indoors, and schools attempt to re-open with some in-person learning. Second, since mid-June certain states have paused efforts to re-open their economies. Our index of COVID-19 containment measures, which had eased from quite restrictive levels between April and June, has since been unchanged. Third, a combination of catch-up spending and accelerator effects has temporarily driven consumer spending on durable goods above the pre-pandemic trend. That overshoot will unwind over the next several quarters. Fourth, large contributions to GDP growth from inventory investment over the second half of this year will dissipate in 2021 as inventories regain their usual relationship to sales. Fifth, the economy slides over a “fiscal ledge” in January when our assumed emergency unemployment benefits expire and the benefit from a second round of stimulus checks fades.

The recovery, already uneven across sectors, will remain so. In Q3, production of goods will have fully recovered (chart, top). That strength partly reflects catch-up spending and accelerator effects. In addition, the production and consumption of goods is relatively immune to the disruptions and risks associated with the pandemic. Finally, spending on big-ticket consumer items, capital goods, and exports will benefit from the sharp drop in interest rates and decline in the dollar. The recovery in services will take much longer (chart, middle). Consumer spending on services other than housing and utilities—which includes expenditures on health care, travel, and entertainment—likely cannot return to a new normal until a vaccine is not just available, but a significant percentage of the population is vaccinated. The recovery in GDP-structures will reflect crosscurrents. Residential investment will surpass its previous peak this year as construction shifts from urban to suburban areas and homebuyers take advantage of historically lower mortgage rates. However, for currently assumed demographic trends, we expect the early surge in housing activity to fade, re-enforcing a decline in nonresidential construction that includes a 50% drop in spending on oil wells (chart, bottom).



Sector highlights

Consumer recovery has shown early strength but the outlook is for slower gains; housing remains red-hot

Consumer markets: Real personal consumption expenditures (PCE) is estimated to have increased 38.5% (annual rate) in the third quarter, but the consumer recovery is already shifting into a lower gear. High-frequency data show that consumer spending began to stall in late summer amid elevated numbers of COVID-19 cases, restrictions on mobility and shopping, and less federal income support for unemployed persons. Our forecast calls for real PCE growth of 3.5% in the fourth quarter of 2020 and 2.1% in the first quarter of next year. Still, the outlook for 2021 is slightly improved from last month as measures of consumer mood are finally climbing and home-buying sentiment is soaring. These are positive indications that many consumers—at least those who have maintained a sense of financial security—are prepared to spend more freely as health and business conditions normalize. Importantly, we also assume that emergency unemployment benefits of \$300/week and a second round of stimulus checks are disbursed during the fourth quarter. This would provide an important income buffer for lower-income households, which have been disproportionately affected by job loss due to COVID-19. Real PCE is forecast to surpass its pre-pandemic peak (as of fourth quarter 2019) in late 2021, one quarter earlier than in our previous forecast.

Labor markets: The recovery in payroll employment continued to slow in September with employment still well short of pre-pandemic peak. Nonfarm payroll employment rose 661 thousand, while the unemployment rate declined 0.5 percentage point to 7.9%. The gain in payrolls followed larger increases in prior months of the recovery, and the level of payroll employment was still 10.7 million below the February peak. Gains in overall payroll employment since April have reversed about one-half of the sharp drop in employment in the spring. Employment in accommodation and food services, hit hard by the pandemic, has reversed about 56% of its decline, and retail has reversed about 80% of its decline. Industries where the recovery has lagged include professional and business services (reversed only 40% of the spring decline) and financial activities (reversed only 42% of its decline). The unemployment rate continues to trend lower, as the participation rate has essentially stalled over the last four months near 61.4%, well shy of 63.4% over January and February.

We project that after shedding 18.2 million jobs, on balance, in the second quarter (on a quarterly average basis) and gaining 7.0 million jobs in the third quarter, payroll gains will slow to 3.3 million in the fourth quarter. We expect that after peaking in April at 14.7% the unemployment rate will continue to gradually decline over the coming years, reaching an average of 6.0% by the end of 2021.

Business investment: Real nonresidential (business) fixed investment is expected to fall 4.6% this year before turning up 1.8% next year and roughly 4%–5% over the following several years. The near-term weakness broadly reflects a downward adjustment to the rate of expansion of business capacity in light of recent weakness in sales; in our forecast, the level of final sales does not regain the pre-pandemic level for several years. Also contributing to the slowing more specifically is the early-year drop and incomplete recovery in oil prices, which is weighing on investment spending in the energy sector.

Housing and construction: Given the state of the economy and the course of the pandemic, housing's reversal of fortune is astonishing. What accounts for it? Record-low interest rates have played a key role; that social distancing is possible in building homes has also been instrumental. Payback for depressed numbers in March and April have also boosted the numbers. Finally, telework is playing a role that so far is hard to measure, but is a major upside risk for the housing market.

The housing forecast includes two near-term changes: housing starts and home price growth are both stronger in the early quarters of the forecast. Both changes reflect recent data and evolving market conditions. Housing starts are expected to total 1.356 million in 2020 (previously 1.328 million), and 1.332 million in 2021 (previously, 1.307 million). The CoreLogic home price index is expected to slow from 4.1% (revised up from 3.4%) four-quarter growth in the first quarter to 3.0% (previously 2.2%) in the first quarter of 2021. Growth eventually edges up, settling in the 2.8–3.0% range (nominal) in the outer years, about 0.2% higher than previously.

International trade: According to BEA's third estimate, exports and imports plummeted in the second quarter of 2020, with net exports adding 0.6 percentage point to GDP growth. Weakness in second-quarter exports and imports reflected disruptions related to the global pandemic, including sharp declines in trade of travel and transport services, as air travel was all but shut down during March and April. Following sharp declines this spring, monthly data on exports and imports of goods and services have turned up in June through August.

After hitting a peak of 126.5 on 23 March, the nominal, broad dollar has since given back much of its appreciation, with a reading of 117.1 as of 2 October. We expect the greenback to depreciate further over the first couple years of the forecast, falling to 104.1 by the end of 2022 before edging up to 105.2 by the end of 2024. Recoveries in both exports and imports take shape in the third quarter of this year, with exports supported by an easing dollar and positive foreign growth and imports driven by strengthening domestic demand.

Key forecast assumptions

New stimulus delayed and scaled back through 2020; accommodative Fed policy; vaccine available in 2021

COVID-19: The forecast assumes rates of infection and death, while below July’s peak, remain elevated until a vaccine becomes available in mid-2021. Until then, faced with sporadic regional outbreaks of the virus, states haltingly attempt to re-open their economies. PCE-services excluding housing and utilities regains the previous peak early in 2023 (see chart).

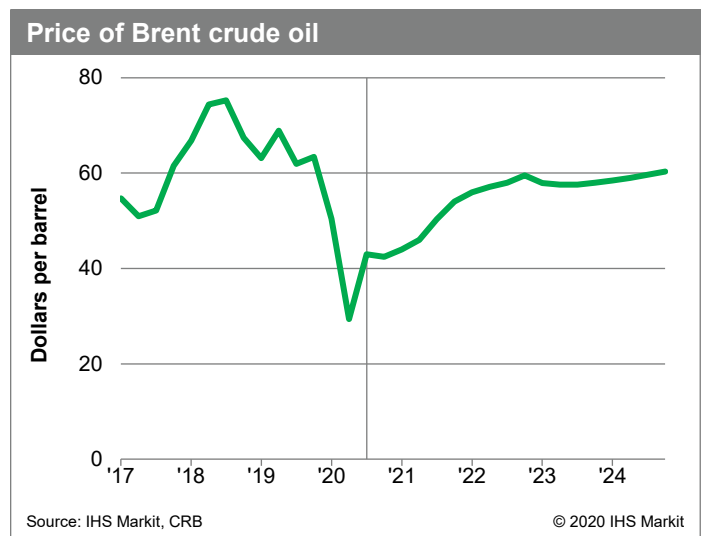
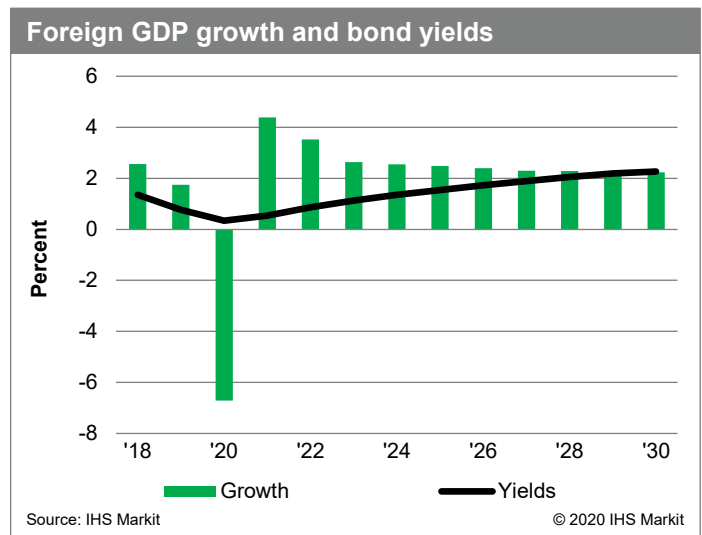
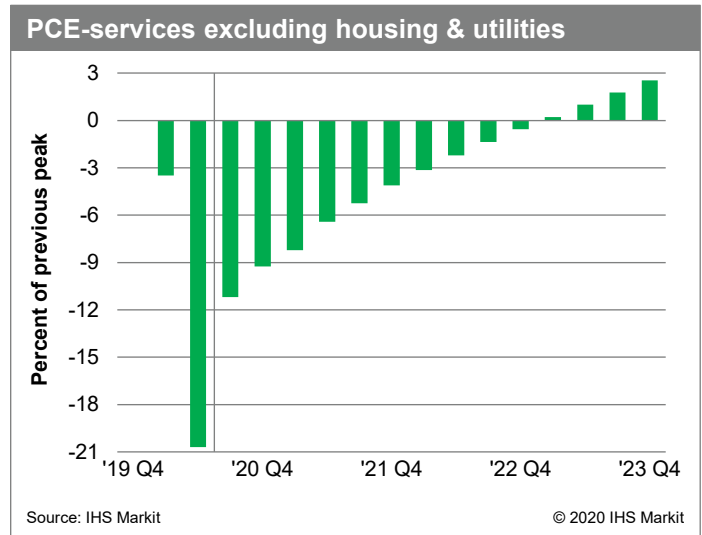
Fiscal policy: The forecast assumes: (a) the four pandemic relief measures enacted so far this year; (b) the short-term spending bill signed by the President on 30 September is extended after 11 December if/as necessary to prevent a government shutdown; (c) the debt ceiling is suspended (again) in March; (d) student loan forbearance is extended through December under the President’s Executive Order (EO) of 8 August; (e) \$42 billion is diverted from FEMA to replace lost wages under an EO of 8 August, with most of the funds disbursed in September; (f) new legislation funds emergency unemployment benefits of \$300/week from October through December and \$270 billion of stimulus checks distributed during the fourth quarter. State and local governments are assumed to restrain growth of spending sufficiently through 2022 to prevent a deterioration of their deficits as a share of GDP.

Monetary policy: The Fed maintains its policy rate near 0% until late 2026 when the economy is beyond full employment with inflation having exceeded 2%. The Fed has resurrected several credit facilities from 2008-09 and created new ones to support the economy and ensure normal functioning of financial markets. We assume the facilities are utilized, prove effective in narrowing credit spreads, and that the Fed quickly expands its holding of term Treasuries by nearly \$2 trillion. In addition, based on recent Fed communication, we assume the Fed tolerates inflation modestly above 2% after 2025 in order to establish its 2% objective as an average rather than a ceiling.

Tariffs: The forecast includes those tariffs enacted by the US and China since 2017 and still in effect.

Global growth: Growth of real, trade-weighted foreign GDP contracts 6.7% (year/year) in 2020 before rebounding to 4.4% in 2021 as the COVID-19 pandemic recedes (see chart). The trade-weighted foreign bond yield dips to 0.3% in 2020 before gradually climbing to 2.3% by 2030.

Oil prices: The price of Brent crude oil dropped to \$29/barrel in Q2 as the global recession and price war between Saudi Arabia and Russia created an unprecedented surplus of oil. As global demand rebounds, OPEC+ countries restrict output, and US shale oil production slips, the price gradually recovers, reaching \$50 by late 2021—the approximate level at which US drilling and production stabilize (see chart).



Alternative scenarios

Two alternative outcomes for the US economy

Our assessment of the impact of the continued threat from COVID-19, as reflected in the baseline forecast and these alternative scenarios, remains similar to last month. The probabilities associated with these alternative scenarios continue to reflect that the risks remain tilted to the downside as a result of the stubbornly high trend in new COVID-19 cases. We assign a 50% probability to our baseline forecast, a 30% probability to the pessimistic, and a 20% probability to the optimistic scenario.

Recovery stumbles as trend in new cases remains stubbornly high, rebounding early next year (30% 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, that as a result of an upturn in new cases, the pace of “opening up” and/or its success in promoting economic activity is less than assumed in the baseline. Second, that this development results in some retrenchment in consumer spending late in the year, providing little fuel to the economic recovery. This slows the recovery of spending and production and worsens the hand-off to 2021, which shows a lag in consumer spending relative to the baseline forecast. Moreover, the recovery is assumed to be hampered by the failure to maintain a steady decline in new cases and deaths. The resulting persistence of the threat keeps many consumers from resuming previous spending habits as quickly as in the baseline forecast, thereby restraining the vigor of the recovery.

Surging cases lead to some consumer retrenchment and consumer spending stalls at the end of the year, slightly declining in the fourth quarter, compared to very solid increases in the base forecast. GDP rises at a 25.0% annualized rate in the third quarter but remains flat in the fourth quarter, compared to a 33.2% and 3.7% rate of increase in the base forecast.

Business fixed investment, driven by the unprecedented collapse of output, rises at a 10.9% pace in the third quarter, but contracts at a 2.9% annual rate in the fourth and first quarters, respectively, compared with a 23.6% and a 0.9% increase in the baseline. It subsequently rebounds sharply and returns to baseline by mid-2029. This forecast assumes the same fiscal package as in the baseline.

The unemployment rate peaked at 13.0% in second quarter, and declines at a slower pace than in the baseline, not falling below 5.0% until early 2024. Inflation slumps. Core PCE is pinned below 1.0% through 2023 before rising thereafter, but remains below the FOMC’s 2% target through mid-2028.

The recovery takes significantly longer than in the baseline. The previous peak in GDP is not passed until mid-2022, almost one year later than in the base forecast.

Faster recovery from COVID-19-induced recession (20% probability)

The optimistic scenario is characterized by a quicker recovery than in the baseline. Underlying this scenario is the assumption that the spread of COVID-19 and its health ramifications remain less threatening than in the base forecast. More specifically, this scenario assumes the daily number of new cases starts declining faster than in the baseline. Guidelines for social distancing are mostly observed, which enables government officials to resume the reopening of the economy by relaxing capacity limits for businesses that were affected by the lockdown, thereby allowing a quicker rise in economic activity than in the baseline.

Another potential catalyst for optimism on the healthcare front is the possibility that an effective treatment for the virus is discovered. A vaccine for limited use by frontline workers is assumed to come this fall, with widespread use by next spring. Treatments are progressing as well. Further convincing progress, especially if it leads to reduced mortality rates, would promote a faster “re-opening” of the economy and a more rapid rebound in spending, as consumers resume pre-COVID spending patterns.

In this scenario better COVID containment keeps economic activity above levels observed in the baseline. The previous peak in GDP is passed by mid-2021, half a year sooner than in the base forecast. The unemployment rate spiked to 13.0% in the second quarter, but quickly falls to below 4.5% by late 2022. Core PCE inflation remains slightly below the FOMC’s target until late 2024 and only slightly overshoots it after mid-2026, despite several years of aggressive recession-fighting monetary policy. As the unemployment rate declines below the NAIRU by early 2023 and inflation continues moving higher, the Fed begins to raise the federal funds rate in early 2024, almost three years earlier than in the baseline forecast.

This scenario assumes the same fiscal stimulus as the baseline forecast, which includes the CARES Act and other fiscal measures including the extension we newly incorporated in the baseline. This scenario also assumes that both the fiscal and monetary measures are more effective in mitigating the damage to corporate and household balance sheets, allowing for a quicker recovery in private sector demand.

US Macro Forecast Snapshot

	Baseline (50%)	Pessimistic (30%)	Optimistic (20%)
GDP growth	GDP contracts 3.5% in 2020 as growth in the fourth quarter slows to a 3.7% rate. Growth rebounds 3.7% in 2021 and 3.2% in 2022. GDP crosses previous peak level in late 2021	GDP falls 4.5% in 2020 as the recovery stalls in the fourth quarter. GDP grows 2.3% in 2021 and 3.5% in 2022. GDP crosses previous peak level in 2022	GDP contracts 3.2% in 2020 as fourth-quarter GDP growth scores a 6.5% rate. Growth rebounds 5.0% in 2021 and 2.7% in 2022. GDP crosses previous peak level in early 2021
Consumer spending	Spending falls 4.0% in 2020 before bouncing back 4.0% in 2021 and 3.0% in 2022	Spending plunges 5.2% in 2020 before bouncing back 3.1% in 2021 and 3.4% in 2022	Falls 3.6% in 2020 and rises 6.0% in 2021 and 2.8% in 2022
Business fixed investment	Falls 4.6% in 2020. Recovers 1.8% in 2021 and grows 4.3% in 2022	Plummets 6.1% in 2020 and falls 1.0% in 2021. Recovers 5.8% in 2022	Drops 4.6% in 2020, then increases by 2.5% in 2021 and 4.4% in 2022
Housing	Housing starts grow from 1.30 million in 2019 to 1.36 million in 2020 and edge down to 1.33 million in 2021	Housing starts grow from 1.30 million in 2019 to 1.35 million in 2020 and fall to 1.28 in 2021	Housing starts grow from 1.30 million in 2019 to 1.36 million in 2020 and inch down to 1.35 million in 2021
Exports	Fall 12.3% in 2020 before rebounding 10.0% in 2021 and 8.9% in 2022	Fall 13.1% in 2020 before rebounding 6.5% in 2021 and 11.1% in 2022	Fall 12.5% in 2020 before rebounding 9.8% in 2021 and 10.7% in 2022
Fiscal policy	CARES Act and other stimulus measures total approximately \$3 trillion through FY 2021	Same assumptions as in baseline	Same assumptions as in baseline
Monetary policy	Fed keeps the federal funds rate at the zero bound through late 2026; aggressive “quantitative easing” and liquidity enhancement measures	Fed keeps the federal funds rate at the zero bound through 2029; aggressive “quantitative easing” and liquidity enhancement measures	Fed keeps the federal funds rate at the zero bound until mid-2024; aggressive “quantitative easing” and liquidity enhancement measures
Credit conditions	Continued tightening, then gradual easing starting in 2021	Continued tightening, then gradual easing starting in 2022	Continued tightening, then gradual easing starting in 2021
Productivity growth	Rises to 3.2% in 2020 before falling to -0.3% in 2021; rebounds to 0.6% in 2022	Rises to 2.4% in 2020 before falling to -0.3% in 2021; recovers to 0.8% in 2022	Rises to 3.5% in 2020 and slips to 0.8% in 2021 and 0.4% in 2022
Consumer confidence	After a sharp decline in 2020 Q2, remains muted in Q3 and recovers moderately in Q4, continuing to climb gradually through 2023	Remains below the baseline over the entire forecast interval	Outperforms baseline over the entire forecast interval
Oil prices (Dollars/barrel)	Brent crude oil averages \$41 in 2020, \$49 in 2021, and \$58 in 2022	Brent crude oil averages \$41 in 2020, \$45 in 2021, and \$52 in 2022	Brent crude oil averages \$42 in 2020, \$51 in 2021, and \$61 in 2022
Stock markets	The S&P 500 (end-of-period) rises 3.3% in 2020, 7.1% in 2021, and 4.5% in 2022	The S&P 500 rises 2.4% in 2020 and 2021; rises 3.5% in 2022	The S&P 500 rises 3.5% in 2020 and accelerates to 9.4% in 2021 and 3.8% in 2022
Inflation (PCE)	Core personal consumption (PCE) price inflation is 1.5% in 2020, 1.9% in 2021, and 1.7% in 2022	Core personal consumption (PCE) price inflation is 1.5% in 2020, 1.1% in 2021, and 0.5% in 2022	Core personal consumption (PCE) price inflation is 1.5% in 2020 and accelerates to 2.0% in 2021 and 1.9% in 2022
Foreign growth	In 2020, Eurozone GDP declines 8.5%, while China's growth slows to 1.7%	Global economy suffers a more severe recession	Global economy experiences a recession that is less severe than in the baseline
US dollar	The real dollar depreciates from Q3 2020 through 2023 Q1 and gradually rises thereafter	Depreciates from Q3 2020 through 2023 Q1 and gradually rises thereafter	Depreciates from Q3 2020 through late 2022 and thereafter appreciates through the end of forecast

Alternative Scenarios of the US Economy

	Annual rates					Annual averages					Q4/Q4				
	2020:2	2020:3	2020:4	2021:1	2021:2	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Pessimistic: Recovery stumbles as trend in new cases remains stubbornly high, rebounding early next year (Prob. = 30%)															
Composition of Real GDP, Percent Change															
Gross Domestic Product	-31.4	25.1	0.0	2.9	3.0	2.2	-4.5	2.3	3.5	3.5	2.3	-5.0	3.1	3.7	3.3
Total Consumption	-33.2	27.9	-0.5	5.6	4.2	2.4	-5.2	3.1	3.4	3.5	2.5	-5.7	3.9	3.7	3.1
Nonresidential Fixed Investment	-27.2	10.9	-2.9	-1.1	-0.1	2.9	-6.1	-1.0	5.8	6.7	1.4	-7.5	1.6	7.0	6.8
Residential Fixed Investment	-35.6	60.4	19.1	-2.8	-12.3	-1.7	4.9	1.6	-4.3	0.2	1.6	10.0	-7.3	-1.6	0.7
Exports	-64.4	66.8	9.2	7.1	8.6	-0.1	-13.1	6.5	11.1	10.7	0.4	-12.5	9.1	11.9	9.4
Imports	-54.1	78.7	-12.8	1.1	7.0	1.1	-12.5	2.2	8.4	9.1	-1.9	-11.7	5.0	10.3	7.0
Federal Government	16.4	3.3	-10.8	1.2	1.6	4.0	4.9	-0.1	0.0	-1.5	4.8	2.2	0.9	-0.5	-1.8
State & Local Government	-5.4	-4.4	0.4	-1.8	-0.8	1.3	-0.8	-1.2	1.2	1.9	1.9	-2.1	-0.1	1.5	2.1
Prices & Wages, Percent Change															
Consumer Prices	-3.5	5.2	1.0	2.7	1.6	1.8	1.2	1.9	1.3	1.0	2.0	0.9	1.9	1.1	1.0
Producer Prices, Finished Goods	-10.9	6.8	-0.7	3.0	3.2	0.8	-1.5	1.8	2.2	1.0	0.9	-2.2	2.8	1.6	0.9
Employment Cost Index - Total Comp.	1.7	1.6	0.9	1.0	1.3	2.7	2.4	1.3	1.9	1.8	2.7	1.8	1.5	1.9	1.8
Other Key Measures, Percent Change															
Productivity	10.7	2.6	-3.4	-0.5	0.2	1.7	2.4	0.3	0.8	1.1	1.9	2.3	0.1	1.1	1.1
Total Industrial Production	-43.2	38.3	-3.5	2.4	2.2	0.9	-8.0	1.6	4.8	3.9	-0.7	-8.3	3.5	4.3	4.4
Payroll Employment	-40.0	22.9	4.3	1.1	0.3	1.4	-5.8	1.0	3.7	3.2	1.4	-6.3	2.0	3.8	3.4
Incomes, Percent Change															
Personal Income	34.2	-13.4	13.9	-27.3	3.6	3.9	6.9	-4.2	3.5	3.9	3.5	8.4	-5.4	3.7	4.0
After-Tax Profits (Four-qr.% change)	-19.7	24.4	-13.5	-1.2	10.6	1.8	-4.4	-7.6	1.6	9.4	5.3	-13.5	-2.0	5.4	9.2
	Levels					Annual averages					Q4 values				
Other Key Measures															
Brent Crude, Spot Price (\$/bbl)	29.38	43.01	43.00	43.90	44.70	64.34	41.45	45.43	51.77	56.32	63.38	43.00	47.20	54.70	56.82
Nonfarm Inven. Chg. (Bil.2012 \$)	-280.8	-21.3	-118.4	-173.7	-135.5	62.2	-122.9	-114.6	-23.0	29.3	11.5	-118.4	-63.2	9.5	39.6
Consumer Sentiment Index	74.1	74.1	55.8	48.6	52.1	96.0	75.2	55.5	66.4	75.9	97.2	55.8	62.3	68.5	81.2
Light Vehicle Sales (Mil. units, saar)	11.28	15.92	14.88	14.23	14.29	16.95	14.27	14.39	14.61	13.76	16.85	14.88	14.59	14.30	13.55
Housing Starts (Mil. units, saar)	1.079	1.452	1.388	1.328	1.279	1.295	1.351	1.277	1.226	1.236	1.433	1.388	1.242	1.230	1.238
Unemployment Rate (%)	13.0	8.8	8.3	8.0	7.8	3.7	8.5	7.7	6.6	5.3	3.5	8.3	7.3	6.0	5.0
Federal Surplus (Unified, FY, bil. \$)	-2000.9	-1000.3	-939.7	-529.3	-215.6	-984.4	-3744.6	-2067.9	-1424.9	-1218.8	-356.6	-939.7	-421.9	-349.5	-311.5
Financial Markets, NSA, Quarter Average															
Federal Funds Rate (%)	0.06	0.09	0.09	0.10	0.10	2.16	0.38	0.10	0.10	0.11	1.64	0.09	0.10	0.10	0.11
10-Year Treasury Note Yield (%)	0.69	0.65	0.63	0.68	0.72	2.14	0.84	0.74	0.86	0.93	1.79	0.63	0.81	0.89	0.96
	Annual rates					Annual averages					Q4/Q4				
Optimistic: Faster recovery from COVID-19-induced recession (Prob. = 20%)															
Composition of Real GDP, Percent Change															
Gross Domestic Product	-31.4	35.3	6.5	5.2	3.0	2.2	-3.2	5.0	2.7	2.6	2.3	-1.5	3.4	2.7	2.6
Total Consumption	-33.2	41.6	6.1	5.8	5.4	2.4	-3.6	6.0	2.8	2.1	2.5	-1.7	4.4	2.3	2.0
Nonresidential Fixed Investment	-27.2	23.6	1.3	1.5	2.4	2.9	-4.6	2.5	4.4	5.3	1.4	-3.9	3.1	4.7	5.5
Residential Fixed Investment	-35.6	60.4	19.7	-2.2	-7.4	-1.7	4.9	3.9	-2.5	-1.5	1.6	10.1	-3.7	-1.8	-1.1
Exports	-64.4	73.4	13.6	15.6	5.1	-0.1	-12.5	9.8	10.7	7.7	0.4	-10.7	11.7	9.4	7.2
Imports	-54.1	90.2	5.2	1.3	3.3	1.1	-10.7	5.8	4.0	3.1	-1.9	-6.0	3.5	3.5	3.2
Federal Government	16.4	3.3	-10.9	0.7	0.7	4.0	4.9	-0.6	-0.8	-2.2	4.8	2.1	0.1	-1.3	-2.4
State & Local Government	-5.4	-4.4	1.8	-0.4	-0.5	1.3	-0.7	-0.7	0.6	1.5	1.9	-1.8	-0.1	1.0	1.7
Prices & Wages, Percent Change															
Consumer Prices	-3.5	5.2	2.5	3.0	3.1	1.8	1.3	2.8	2.6	2.2	2.0	1.3	3.0	2.4	2.1
Producer Prices, Finished Goods	-10.9	6.8	2.5	4.1	4.7	0.8	-1.3	3.3	3.3	2.0	0.9	-1.5	4.3	2.6	1.9
Employment Cost Index - Total Comp.	1.7	1.6	1.9	2.6	2.7	2.7	2.5	2.4	3.7	3.8	2.7	2.1	3.0	3.8	3.7
Other Key Measures, Percent Change															
Productivity	10.7	12.9	-5.2	-1.7	0.5	1.7	3.5	0.8	0.4	1.2	1.9	4.3	-0.2	0.6	1.5
Total Industrial Production	-43.2	39.3	8.5	3.6	1.3	0.9	-7.2	3.7	4.1	3.8	-0.7	-5.4	2.7	4.6	3.5
Payroll Employment	-40.0	22.9	10.6	7.3	0.9	1.4	-5.5	3.2	2.3	2.2	1.4	-4.9	2.3	3.1	1.8
Incomes, Percent Change															
Personal Income	34.2	-12.6	22.3	-25.8	4.3	3.9	7.5	-1.9	4.7	4.8	3.5	10.5	-4.1	4.8	4.8
After-Tax Profits (Four-qr.% change)	-19.7	40.1	0.6	18.7	35.6	1.8	3.2	4.9	-0.2	6.4	5.3	0.6	3.9	0.9	8.0
	Levels					Annual averages					Q4 values				
Other Key Measures															
Brent Crude, Spot Price (\$/bbl)	29.38	43.01	44.00	46.00	49.00	64.34	41.70	51.22	60.70	60.81	63.38	44.00	56.86	62.65	61.02
Nonfarm Inven. Chg. (Bil. 2012 \$)	-280.8	-23.4	48.0	31.2	-6.0	62.2	-81.8	-17.6	-63.3	-38.6	11.5	48.0	-58.0	-57.6	-25.0
Consumer Sentiment Index	74.1	75.7	81.1	83.6	84.8	96.0	81.9	86.6	92.8	95.3	97.2	81.1	89.6	93.7	95.8
Light Vehicle Sales (Mil. units, saar)	11.28	15.38	15.06	15.21	15.63	16.95	14.18	15.42	15.88	16.26	16.85	15.06	15.46	16.07	16.43
Housing Starts (Mil. units, saar)	1.079	1.452	1.422	1.375	1.351	1.295	1.359	1.346	1.313	1.294	1.433	1.422	1.326	1.305	1.289
Unemployment Rate (%)	13.0	8.8	7.1	6.4	6.2	3.7	8.2	6.0	4.7	4.0	3.5	7.1	5.4	4.4	3.9
Federal Surplus (Unified, FY, bil. \$)	-2000.9	-988.4	-910.0	-489.3	-172.0	-984.4	-3732.7	-1908.0	-1247.6	-1081.6	-356.6	-910.0	-374.0	-308.5	-283.4
Financial Markets, NSA, Quarter Average															
Federal Funds Rate (%)	0.06	0.09	0.10	0.10	0.11	2.16	0.38	0.11	0.12	0.12	1.64	0.10	0.11	0.12	0.13
10-Year Treasury Note Yield (%)	0.69	0.65	0.71	0.84	0.91	2.14	0.85	0.96	1.35	1.69	1.79	0.71	1.09	1.51	1.75

Source: IHS Markit

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Monthly Economic Indicators

	Aug. 2019	Sep. 2019	Feb. 2020	Mar. 2020	Apr. 2020	May. 2020	Jun. 2020	Jul. 2020	Aug. 2020	Sep. 2020	2017	2018	2019
Industrial Markets													
Industrial Prod. Total (2012=100.0)	109.9	109.5	109.3	104.5	91.0	91.9	97.5	101.0	101.4		104.4	108.6	109.5
Percent Change	0.7	-0.3	0.1	-4.4	-12.9	1.0	6.1	3.5	0.4		2.3	3.9	0.9
Percent Change Year Earlier	0.3	-0.2	-0.2	-4.7	-16.5	-15.9	-10.7	-7.4	-7.7				
Capacity Utilization, Manufacturing (%)	75.7	75.1	75.2	71.4	59.9	62.2	66.9	69.5	70.2		75.1	76.6	75.6
Unemployment Rate (%)	3.7	3.5	3.5	4.4	14.7	13.3	11.1	10.2	8.4	7.9	4.3	3.9	3.7
Payroll Employment (Mil.)	151.160	151.368	152.463	151.090	130.303	133.028	137.809	139.570	141.059	141.720	146.589	148.891	150.935
Change (Mil.)	0.207	0.208	0.251	-1.373	-20.787	2.725	4.781	1.761	1.489	0.661	2.260	2.302	2.045
Leading Indicator (2016=1.000)	1.118	1.116	1.118	1.035	0.97	1	1.031	1.052	1.065		1.039	1.098	1.115
Percent Change	-0.2	-0.2	-0.2	-7.4	-6.3	3.1	3.1	2.0	1.2		3.9	5.7	1.6
New Orders, Mfg. (Bil. \$)	497.0	494.4	496.5	441.8	382.3	411.7	438.2	466.9	470.1		464.3	495.8	495.1
Percent Change	0.0	-0.5	0.2	-11.0	-13.5	7.7	6.4	6.5	0.7		5.9	6.8	-0.1
Inv. Chg., Mfg. & Trade (Bil. \$)	-4.5	-1.7	-9.0	-6.8	-27.3	-46.5	-20.9	1.9			58.9	93.2	37.2
Merchandise Trade Bal. (Bil. \$)	-73.7	-71.1	-58.9	-64.9	-70.7	-75.4	-71.0	-80.0	-83.1		-792.4	-872.0	-854.4
Consumer Markets													
Disposable Income (Bil. 2012\$)	14912	14934	15163	14949	17259	16398	16071	16065	15503		14061	14566	14883
Percent Change	0.5	0.1	0.6	-1.4	15.5	-5.0	-2.0	0.0	-3.5		3.1	3.6	2.2
Personal Income (Bil. \$)	18617	18645	19116	18763	21062	20183	19944	20036	19493		16949	17852	18552
Percent Change	0.5	0.2	0.8	-1.8	12.2	-4.2	-1.2	0.5	-2.7		4.9	5.3	3.9
Personal Saving Rate (%)	7.3	7.3	8.3	12.9	33.6	24.5	18.7	17.7	14.1		7.2	7.8	7.5
Consumer Expenditures (Bil. \$)	14651	14673	14877	13878	12112	13165	14015	14229	14370		13340	13993	14545
Percent Change	0.3	0.2	0.0	-6.7	-12.7	8.7	6.5	1.5	1.0		4.5	4.9	3.9
Retail Sales (Bil. \$)	524.1	522.3	527.3	483.9	412.8	488.2	530.0	534.6	537.5		5750.5	6004.8	6216.2
Percent Change	0.4	-0.3	-0.4	-8.2	-14.7	18.3	8.6	0.9	0.6		4.7	4.4	3.5
Non-Auto. Retail Sales (Bil. \$)	418.9	418.3	422.0	406.0	344.3	386.7	419.2	424.9	427.7		4575.9	4813.3	4979.7
Percent Change	0.1	-0.1	-0.5	-3.8	-15.2	12.3	8.4	1.3	0.7		5.0	5.2	3.5
New Light-Vehicle Sales (Mil.)	17.1	17.1	16.8	11.4	8.7	12.1	13.0	14.6	15.2	16.3	17.1	17.2	17.0
Housing Starts (Mil.)	1.377	1.274	1.567	1.269	0.934	1.038	1.265	1.492	1.416		1.207	1.248	1.295
New Home Sales (Mil.)	0.706	0.726	0.716	0.612	0.57	0.698	0.841	0.965	1.011		0.616	0.614	0.685
Existing Home Sales (Mil.)	5.430	5.410	5.760	5.270	4.330	3.910	4.700	5.860	6.000		5.527	5.334	5.330
Chg. Consumer Install. Credit (Bil. \$)	15.5	10.9	20.3	-15.9	-63.2	-12.0	16.9	14.7	-7.2		192.3	185.1	182.4
Prices and Wages													
CPI, All Urban Consumers	2.563	2.566	2.591	2.580	2.559	2.558	2.572	2.587	2.597		2.451	2.511	2.557
Percent Change Year Earlier	1.7	1.7	2.3	1.5	0.4	0.2	0.7	1.0	1.3		2.1	2.4	1.8
Core Cons. Price Defl. (2012=100.0)	112.2	112.3	113.1	113.0	112.5	112.8	113.1	113.6	114.0		107.9	110.0	111.9
Percent Change Year Earlier	1.9	1.7	1.9	1.7	0.9	1.0	1.1	1.4	1.6		1.7	2.0	1.7
PPI, Finished Goods	2.055	2.052	2.06	2.024	1.963	2.012	2.012	2.027	2.026		1.981	2.041	2.057
Percent Change Year Earlier	0.3	0.0	1.3	-1.6	-5.0	-2.6	-2.1	-1.7	-1.4		3.2	3.0	0.8
PPI, Industrial Commodities (NSA)	2.002	1.995	1.969	1.928	1.847	1.867	1.907	1.930	1.943		1.937	2.037	2.007
Percent Change Year Earlier	-2.9	-3.4	-1.7	-4.6	-9.1	-8.0	-5.1	-4.2	-2.9		4.9	5.2	-1.5
Avg. Private Hourly Earnings (\$)	23.64	23.7	23.96	24.1	25.12	24.97	24.73	24.64	24.78	24.79	22.05	22.70	23.51
Percent Change Year Earlier	3.7	3.7	3.3	3.5	7.7	6.6	5.4	4.7	4.8	4.6	2.3	3.0	3.5
Brent Crude, Spot Price (\$/bbl.)	59.04	62.83	55.70	31.93	18.47	29.42	40.27	43.24	44.76	40.91	54.83	70.96	64.34
Percent Change Year Earlier	-18.6	-18.6	-12.9	-51.7	-74.1	-58.7	-37.4	-32.3	-24.2	-34.9	23.9	29.4	-9.3
Henry Hub Spot Natural Gas (\$/mmbtu)	2.80	2.81	3.28	4.15	3.96	3.12	2.69	2.95	2.64	2.64	2.24	2.99	2.94
Percent Change Year Earlier	-9.0	-9.6	13.8	37.6	40.8	-20.3	1.0	9.3	-5.5	-6.0	-28.6	33.9	-1.8
Financial Markets, Period Average													
Federal Funds Rate (%)	2.13	2.04	1.58	0.65	0.05	0.05	0.08	0.09	0.10	0.09	1.00	1.83	2.16
3-Month T-Bill Rate (%)	1.95	1.89	1.52	0.29	0.14	0.13	0.16	0.13	0.10	0.11	0.93	1.94	2.06
Commercial Bank Prime Rate (%)	5.25	5.15	4.75	3.78	3.25	3.25	3.25	3.25	3.25	3.25	4.10	4.90	5.28
10-Year Treasury Note Yield (%)	1.63	1.70	1.50	0.87	0.66	0.67	0.73	0.62	0.65	0.68	2.33	2.91	2.14
Conv. Mortgage Rate, FHLMC (%)	3.62	3.61	3.47	3.45	3.33	3.23	3.16	3.02	2.94	2.89	3.99	4.54	3.94
M1 Money Supply (Bil. \$)	3853	3903	4003	4257	4798	5032	5210	5330	5395		3524	3678	3841
Percent Change	-0.1	1.3	0.7	6.3	12.7	4.9	3.5	2.3	1.2		7.8	3.8	6.0
M2 Money Supply (Bil. \$)	14933	15023	15447	15990	17021	17870	18167	18327	18412		13583	14107	14828
Percent Change	0.5	0.6	0.3	3.5	6.4	5.0	1.7	0.9	0.5		4.7	3.7	6.5

Source: IHS Markit

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Monthly Economic Indicators

	Aug. 2019	Sep. 2019	Feb. 2020	Mar. 2020	Apr. 2020	May. 2020	Jun. 2020	Jul. 2020	Aug. 2020	Sep. 2020	2017	2018	2019
Industrial Markets													
Industrial Prod. Total (2012=100.0)	109.9	109.5	109.3	104.5	91.0	91.9	97.5	101.0	101.4		104.4	108.6	109.5
Percent Change (Q4/Q4 for Annual Values)	0.7	-0.3	0.1	-4.4	-12.9	1.0	6.1	3.5	0.4		3.6	4.0	-0.7
Percent Change Year Earlier	0.3	-0.2	-0.2	-4.7	-16.5	-15.9	-10.7	-7.4	-7.7				
Capacity Utilization, Manufacturing (%)	75.7	75.1	75.2	71.4	59.9	62.2	66.9	69.5	70.2		75.1	76.6	75.6
Unemployment Rate (%)	3.7	3.5	3.5	4.4	14.7	13.3	11.1	10.2	8.4	7.9	4.3	3.9	3.7
Payroll Employment (Mil.)	151.160	151.368	152.463	151.090	130.303	133.028	137.809	139.570	141.059	141.720	146.589	148.891	150.935
Change (Mil.)	0.207	0.208	0.251	-1.373	-20.787	2.725	4.781	1.761	1.489	0.661	2.260	2.302	2.045
Leading Indicator (2016=1.000)	1.118	1.116	1.118	1.035	0.97	1	1.031	1.052	1.065		1.039	1.098	1.115
Percent Change (Q4/Q4 for Annual Values)	-0.2	-0.2	-0.2	-7.4	-6.3	3.1	3.1	2.0	1.2		5.5	4.7	0.2
New Orders, Mfg. (Bil. \$)	497.0	494.4	496.5	441.8	382.3	411.7	438.2	466.9	470.1		464.3	495.8	495.1
Percent Change (Q4/Q4 for Annual Values)	0.0	-0.5	0.2	-11.0	-13.5	7.7	6.4	6.5	0.7		7.0	3.9	-0.7
Inv. Chg., Mfg. & Trade (Bil. \$)	-4.5	-1.7	-9.0	-6.8	-27.3	-46.5	-20.9	1.9			58.9	93.2	37.2
Merchandise Trade Bal. (Bil. \$)	-73.7	-71.1	-58.9	-64.9	-70.7	-75.4	-71.0	-80.0	-83.1		-792.4	-872.0	-854.4
Consumer Markets													
Disposable Income (Bil. 2012\$)	14912	14934	15163	14949	17259	16398	16071	16065	15503		14061	14566	14883
Percent Change (Q4/Q4 for Annual Values)	0.5	0.1	0.6	-1.4	15.5	-5.0	-2.0	0.0	-3.5		3.4	3.7	1.6
Personal Income (Bil. \$)	18617	18645	19116	18763	21062	20183	19944	20036	19493		16949	17852	18552
Percent Change (Q4/Q4 for Annual Values)	0.5	0.2	0.8	-1.8	12.2	-4.2	-1.2	0.5	-2.7		5.5	4.8	3.5
Personal Saving Rate (%)	7.3	7.3	8.3	12.9	33.6	24.5	18.7	17.7	14.1		7.2	7.8	7.5
Consumer Expenditures (Bil. \$)	14651	14673	14877	13878	12112	13165	14015	14229	14370		13340	13993	14545
Percent Change (Q4/Q4 for Annual Values)	0.3	0.2	0.0	-6.7	-12.7	8.7	6.5	1.5	1.0		4.7	4.4	4.0
Retail Sales (Bil. \$)	524.1	522.3	527.3	483.9	412.8	488.2	530.0	534.6	537.5		5750.5	6004.8	6216.2
Percent Change (Q4/Q4 for Annual Values)	0.4	-0.3	-0.4	-8.2	-14.7	18.3	8.6	0.9	0.6		5.4	3.0	4.0
Non-Auto. Retail Sales (Bil. \$)	418.9	418.3	422.0	406.0	344.3	386.7	419.2	424.9	427.7		4575.9	4813.3	4979.7
Percent Change (Q4/Q4 for Annual Values)	0.1	-0.1	-0.5	-3.8	-15.2	12.3	8.4	1.3	0.7		6.1	3.6	3.7
New Light-Vehicle Sales (Mil.)	17.1	17.1	16.8	11.4	8.7	12.1	13.0	14.6	15.2	16.3	17.1	17.2	17.0
Housing Starts (Mil.)	1.377	1.274	1.567	1.269	0.934	1.038	1.265	1.492	1.416		1.207	1.248	1.295
New Home Sales (Mil.)	0.706	0.726	0.716	0.612	0.57	0.698	0.841	0.965	1.011		0.616	0.614	0.685
Existing Home Sales (Mil.)	5.430	5.410	5.760	5.270	4.330	3.910	4.700	5.860	6.000		5.527	5.334	5.330
Chg. Consumer Install. Credit (Bil. \$)	15.5	10.9	20.3	-15.9	-63.2	-12.0	16.9	14.7	-7.2		192.3	185.1	182.4
Prices and Wages													
CPI, All Urban Consumers	2.563	2.566	2.591	2.580	2.559	2.558	2.572	2.587	2.597		2.451	2.511	2.557
Percent Change Year Earlier (Q4/Q4 for Annual Values)	1.7	1.7	2.3	1.5	0.4	0.2	0.7	1.0	1.3		2.1	2.2	2.0
Core Cons. Price Defl. (2012=100.0)	112.2	112.3	113.1	113.0	112.5	112.8	113.1	113.6	114.0		107.9	110.0	111.9
Percent Change Year Earlier (Q4/Q4 for Annual Values)	1.9	1.7	1.9	1.7	0.9	1.0	1.1	1.4	1.6		1.7	2.0	1.6
PPI, Finished Goods	2.055	2.052	2.06	2.024	1.963	2.012	2.012	2.027	2.026		1.981	2.041	2.057
Percent Change Year Earlier (Q4/Q4 for Annual Values)	0.3	0.0	1.3	-1.6	-5.0	-2.6	-2.1	-1.7	-1.4		3.5	2.3	0.9
PPI, Industrial Commodities (NSA)	2.002	1.995	1.969	1.928	1.847	1.867	1.907	1.930	1.943		1.937	2.037	2.007
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-2.9	-3.4	-1.7	-4.6	-9.1	-8.0	-5.1	-4.2	-2.9		4.9	4.2	-2.8
Avg. Private Hourly Earnings (\$)	23.64	23.7	23.96	24.1	25.12	24.97	24.73	24.64	24.78	24.79	22.05	22.70	23.51
Percent Change Year Earlier (Q4/Q4 for Annual Values)	3.7	3.7	3.3	3.5	7.7	6.6	5.4	4.7	4.8	4.6	2.3	3.4	3.5
Brent Crude, Spot Price (\$/bbl.)	59.04	62.83	55.70	31.93	18.47	29.42	40.27	43.24	44.76	40.91	54.83	70.96	64.34
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-18.6	-18.6	-12.9	-51.7	-74.1	-58.7	-37.4	-32.3	-24.2	-34.9	20.3	9.6	-6.0
Henry Hub Spot Natural Gas (\$/mmbtu)	2.80	2.81	3.28	4.15	3.96	3.12	2.69	2.95	2.64	2.64	2.24	2.99	2.94
Percent Change Year Earlier (Q4/Q4 for Annual Values)	-9.0	-9.6	13.8	37.6	40.8	-20.3	1.0	9.3	-5.5	-6.0	-2.5	7.6	0.0
Financial Markets, Period Average													
Federal Funds Rate (%)	2.13	2.04	1.58	0.65	0.05	0.05	0.08	0.09	0.10	0.09	1.00	1.83	2.16
3-Month T-Bill Rate (%)	1.95	1.89	1.52	0.29	0.14	0.13	0.16	0.13	0.10	0.11	0.93	1.94	2.06
Commercial Bank Prime Rate (%)	5.25	5.15	4.75	3.78	3.25	3.25	3.25	3.25	3.25	3.25	4.10	4.90	5.28
10-Year Treasury Note Yield (%)	1.63	1.70	1.50	0.87	0.66	0.67	0.73	0.62	0.65	0.68	2.33	2.91	2.14
Conv. Mortgage Rate, FHLMC (%)	3.62	3.61	3.47	3.45	3.33	3.23	3.16	3.02	2.94	2.89	3.99	4.54	3.94
M1 Money Supply (Bil. \$)	3853	3903	4003	4257	4798	5032	5210	5330	5395		3524	3678	3841
Percent Change (Q4/Q4 for Annual Values)	-0.1	1.3	0.7	6.3	12.7	4.9	3.5	2.3	1.2		8.1	3.0	6.1
M2 Money Supply (Bil. \$)	14933	15023	15447	15990	17021	17870	18167	18327	18412		13583	14107	14828
Percent Change (Q4/Q4 for Annual Values)	0.5	0.6	0.3	3.5	6.4	5.0	1.7	0.9	0.5		4.9	3.5	6.7

Source: IHS Markit

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Summary of the US Economy

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	-5.0	-31.4	33.2	3.7	3.4	2.5	2.5	2.7	3.7	3.8	3.2	2.7	2.5
Final Sales of Domestic Product	-3.6	-28.1	26.3	2.5	2.8	2.2	2.3	2.8	3.8	3.7	2.9	2.7	2.7
Gross Domestic Income	-2.5	-33.5	33.5	3.9	3.5	2.6	2.5	2.8	3.8	3.9	3.2	2.7	2.6
Avg. of GDP and GDI	-3.7	-32.5	33.3	3.8	3.4	2.6	2.5	2.7	3.8	3.9	3.2	2.7	2.5
Total Consumption	-6.9	-33.2	38.5	3.5	2.1	4.2	2.7	3.1	3.0	3.0	2.8	2.7	2.6
Durables	-12.5	-1.7	73.2	-7.0	-2.0	2.9	1.8	4.0	3.9	4.1	3.8	3.8	3.7
Nondurables	7.1	-15.0	26.8	0.3	-0.3	-0.8	-0.9	0.7	1.7	2.0	2.3	2.1	2.1
Services	-9.8	-41.8	37.0	6.5	3.7	6.1	4.0	3.8	3.3	3.1	2.8	2.7	2.6
Nonresidential Fixed Investment	-6.7	-27.2	23.6	0.8	1.5	1.2	1.8	3.1	5.1	6.1	5.6	5.1	5.0
Equipment	-15.2	-35.9	83.0	4.4	2.1	0.5	0.1	1.3	3.7	5.1	4.2	3.2	2.8
Information Processing Equipment	-13.2	29.3	24.5	-2.0	2.1	4.5	3.4	4.0	1.9	3.7	2.2	-0.5	-0.3
Industrial Equipment	-5.5	-23.0	72.5	29.5	-8.4	-17.9	0.4	4.3	0.0	-5.7	1.5	0.9	4.6
Transportation equipment	-31.1	-84.9	244.7	-10.1	60.8	-6.9	15.1	9.8	8.4	21.3	-1.8	13.6	12.7
Aircraft	4.4	-99.1	440.2	548.8	731.7	-7.1	-2.2	-0.2	14.8	9.7	5.4	8.8	6.1
Other Equipment	-7.2	-34.4	117.2	4.6	-22.6	24.1	-16.1	-12.0	5.8	3.8	16.5	1.6	-3.5
Intellectual Property Products	2.4	-11.4	-1.8	1.2	3.2	3.3	4.5	6.3	8.3	8.8	8.0	7.4	7.1
Structures	-3.7	-33.6	-15.4	-7.4	-2.8	-1.0	0.6	1.3	2.5	3.5	4.3	5.1	5.7
Commercial & Health Care	-0.7	-8.9	-7.5	-9.3	-17.6	2.5	-3.0	1.1	2.6	-0.5	-2.9	0.7	12.1
Manufacturing	-16.8	-22.4	11.0	-30.0	4.3	-9.5	-4.3	8.2	31.2	19.3	21.7	40.9	13.4
Power & Communication	2.6	-16.5	0.9	28.1	7.2	-5.8	-6.2	-12.2	-23.4	-11.7	-6.1	-16.3	-12.9
Mining & Petroleum	8.7	-82.1	-79.7	-43.7	46.6	35.7	48.5	47.7	29.2	24.3	16.8	15.1	10.7
Other	-16.5	-27.8	1.7	-7.7	-9.1	-8.4	-0.2	-4.6	10.4	7.5	9.3	8.4	8.4
Residential Fixed Investment	19.0	-35.6	60.4	15.3	0.6	-5.8	-4.4	-2.7	-2.4	-1.8	-0.8	-1.6	-1.6
Exports	-9.5	-64.4	73.4	17.1	18.7	2.0	10.2	10.7	10.1	8.3	7.7	7.4	6.5
Imports	-15.0	-54.1	91.1	12.2	5.4	5.8	5.1	5.5	0.1	0.2	4.6	4.1	3.3
Federal Government	1.6	16.4	3.1	-10.8	0.9	1.0	0.5	-0.9	-0.6	-1.0	-0.6	-2.4	-2.3
State & Local Government	1.1	-5.4	-4.4	1.9	-0.4	-0.3	0.6	0.6	0.8	1.0	1.2	1.4	1.7
Billions of Dollars													
Real GDP	19010.8	17302.5	18587.6	18758.1	18913.5	19031.0	19146.9	19274.0	19452.0	19636.4	19791.2	19923.8	20048.0
Nominal GDP	21561.1	19520.1	21163.3	21438.8	21696.6	21903.1	22126.2	22364.4	22660.6	22966.3	23240.8	23499.6	23751.4
Prices & Wages, Percent Change, Annual Rate													
GDP Deflator	1.4	-1.8	3.6	1.5	1.5	1.3	1.6	1.7	1.6	1.6	1.6	1.8	1.8
Consumer Prices	1.2	-3.5	5.2	2.2	3.2	2.7	2.9	2.7	2.2	2.1	1.8	2.1	1.6
Producer Prices, Finished Goods	-3.4	-10.9	6.8	2.3	2.8	3.5	3.9	3.8	2.8	2.3	2.1	2.2	1.7
Employment Cost Index - Total Comp.	3.2	1.7	1.8	2.1	2.5	2.6	2.6	3.3	3.8	3.8	3.5	3.5	3.5
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	50.42	29.38	43.01	42.42	44.00	46.00	50.33	54.00	56.00	57.08	58.00	59.50	57.89
Productivity (%ch., saar)	-0.3	10.7	10.9	-7.1	-3.1	-0.4	0.3	0.5	0.5	0.7	1.0	1.3	1.4
Total Industrial Production (%ch., saar)	-6.8	-43.2	38.3	2.2	4.4	1.4	1.5	2.1	4.5	5.2	4.2	3.5	3.1
Factory Operating Rate	73.9	63.0	70.2	71.1	71.6	71.4	71.3	71.8	72.5	73.1	73.4	73.4	73.7
Nonfarm Inven. Chg. (Bil. 2012 \$)	-70.9	-280.8	-23.4	37.2	60.9	73.7	83.5	80.0	80.7	91.2	106.6	110.0	103.4
Consumer Sentiment Index	96.6	74.1	74.1	79.3	81.9	83.2	86.5	87.8	89.9	90.6	91.5	91.9	92.8
Light Vehicle Sales (Mil. units, saar)	14.99	11.28	15.38	15.05	15.15	15.26	15.53	15.57	15.61	15.67	15.70	15.77	15.81
Housing Starts (Mil. units, saar)	1.484	1.079	1.452	1.410	1.361	1.336	1.320	1.309	1.304	1.300	1.295	1.289	1.284
Exist. House Sales (Total, Mil. saar)	5.483	4.313	6.081	6.101	6.062	6.119	6.190	6.201	6.178	6.160	6.112	6.041	5.951
Unemployment Rate (%)	3.8	13.0	8.8	7.3	6.7	6.5	6.3	6.0	5.5	5.1	4.8	4.6	4.5
Payroll Employment (%ch., saar)	0.4	-40.0	22.9	9.7	5.6	2.7	2.1	2.1	3.1	3.2	2.4	1.8	1.5
Federal Surplus (Unified, nsa, bil. \$)	-386.9	-2000.9	-989.1	-916.3	-500.2	-183.9	-349.1	-386.6	-444.9	-131.2	-319.3	-314.8	-393.9
Current Account Balance (Bil. \$)	-446.1	-682.2	-781.1	-753.1	-689.4	-745.9	-746.1	-746.4	-699.6	-657.2	-644.9	-628.4	-595.4
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	1.26	0.06	0.09	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
3-Month Treasury Bill Rate (%)	1.11	0.14	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09
10-Year Treasury Note Yield (%)	1.38	0.69	0.65	0.67	0.81	0.85	0.92	1.00	1.08	1.16	1.25	1.32	1.40
30-Year Fixed Mortgage Rate (%)	3.51	3.24	2.95	3.01	3.11	3.09	3.07	3.09	3.12	3.14	3.18	3.21	3.25
S&P 500 Stock Index	3069	2929	3322	3437	3368	3342	3399	3468	3517	3540	3556	3576	3599
(Four-Quarter % change)	12.8	1.6	12.3	11.4	9.7	14.1	2.3	0.9	4.4	5.9	4.6	3.1	2.3
Exchange Rate, Broad Index of Partners	1.286	1.334	1.284	1.270	1.255	1.211	1.184	1.165	1.151	1.143	1.139	1.136	1.136
(% change, annual rate)	4.7	15.8	-14.0	-4.3	-4.7	-13.2	-8.8	-6.3	-4.8	-2.6	-1.4	-1.1	0.0
Incomes													
Personal Income (% ch., saar)	4.1	34.2	-13.2	20.6	-25.5	3.8	3.8	3.2	5.6	4.8	4.4	4.2	4.9
Real Disposable Income (%ch., saar)	2.6	46.6	-19.7	20.7	-30.4	1.5	1.4	1.0	3.6	2.9	2.7	2.4	3.4
Saving Rate (%)	9.6	25.7	15.2	18.4	9.9	9.4	9.1	8.6	8.8	8.8	8.7	8.7	8.8
After-Tax Profits (Billions of \$)	1739	1557	2645	1885	1818	1830	1846	1827	1837	1851	1866	1882	1947
(Four-quarter % change)	-8.2	-19.7	37.7	-5.8	4.5	17.5	-30.2	-3.1	1.0	1.1	1.1	3.0	6.0

Source: IHS Markit

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Summary of the US Economy

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Composition of Real GDP, Percent Change													
Gross Domestic Product	1.8	2.5	3.1	1.7	2.3	3.0	2.2	-3.5	3.7	3.2	2.8	2.7	2.6
Final Sales of Domestic Product	1.6	2.7	2.8	2.3	2.4	2.8	2.2	-2.9	2.9	3.1	2.8	2.7	2.6
Gross Domestic Income	1.3	3.2	2.7	0.9	2.5	2.6	1.8	-3.5	3.6	3.3	2.8	2.7	2.6
Avg. of GDP and GDI	1.6	2.9	2.9	1.3	2.4	2.8	2.0	-3.5	3.6	3.2	2.8	2.7	2.6
Total Consumption	1.5	3.0	3.8	2.8	2.6	2.7	2.4	-4.0	4.0	3.0	2.7	2.6	2.7
Durables	6.1	7.2	7.6	5.8	6.9	6.8	4.8	5.1	5.9	3.6	4.0	4.3	4.5
Nondurables	1.8	2.6	3.4	2.5	2.6	2.7	3.1	2.3	1.7	1.2	2.1	2.0	2.1
Services	0.6	2.4	3.3	2.4	2.0	2.1	1.8	-7.3	4.5	3.5	2.7	2.5	2.5
Nonresidential Fixed Investment	4.1	7.2	2.3	0.5	3.7	6.9	2.9	-4.6	1.8	4.3	5.3	5.3	5.1
Equipment	4.7	7.0	3.0	-1.7	3.2	8.0	2.1	-5.1	6.3	2.9	3.4	3.7	4.1
Information Processing Equipment	6.2	5.2	6.2	4.5	7.4	8.6	3.0	3.9	6.0	2.8	0.5	1.2	2.4
Industrial Equipment	-1.4	3.9	0.1	-1.4	5.5	8.2	2.1	0.8	4.3	-1.2	3.4	10.7	10.2
Transportation equipment	10.8	11.1	10.5	-5.8	-1.6	5.8	-0.4	-25.6	14.0	9.7	9.8	-0.5	-3.2
Aircraft	5.5	13.4	1.7	-10.6	33.6	8.7	-27.8	-42.9	98.6	5.8	5.7	3.3	4.9
Other Equipment	2.2	7.9	-6.6	-5.6	0.6	9.6	3.5	-0.1	2.3	0.9	1.6	4.4	7.1
Intellectual Property Products	5.4	4.8	3.8	7.6	4.2	7.8	6.4	-0.1	1.6	7.1	7.4	6.8	6.0
Structures	1.3	11.0	-0.9	-4.4	4.2	3.7	-0.6	-10.8	-6.8	2.4	5.4	5.8	5.3
Commercial & Health Care	3.6	12.9	12.1	16.7	3.2	1.3	-2.3	-2.7	-7.8	0.2	6.6	6.8	5.5
Manufacturing	4.2	12.9	34.4	-4.9	-13.4	-1.8	4.6	-11.5	-7.6	16.4	15.4	2.1	-0.1
Power & Communication	-4.4	15.0	3.4	2.2	-4.6	-5.7	3.5	7.3	2.7	-13.5	-8.4	5.2	6.3
Mining & Petroleum	1.6	8.0	-28.6	-42.1	38.8	25.2	-2.1	-42.5	-22.6	31.1	9.8	2.7	6.6
Other	3.3	8.3	10.5	7.2	3.8	1.3	-3.4	-12.8	-7.4	4.1	8.8	9.4	7.3
Residential Fixed Investment	12.4	3.8	10.2	6.6	4.0	-0.6	-1.7	4.6	4.0	-2.6	-1.2	0.0	0.4
Exports	3.6	4.2	0.4	0.3	3.9	3.0	-0.1	-12.3	10.0	8.9	6.7	5.5	4.4
Imports	1.5	5.0	5.2	1.7	4.7	4.1	1.1	-10.3	8.8	2.9	3.4	3.6	4.2
Federal Government	-5.5	-2.6	0.0	0.6	0.3	2.8	4.0	4.9	-0.4	-0.6	-2.0	-1.3	-0.1
State & Local Government	-0.3	0.2	2.9	2.6	1.2	1.2	1.3	-0.7	-0.6	0.8	1.6	2.0	1.3
Billions of Dollars													
Real GDP	16495.4	16912.0	17432.2	17730.5	18144.1	18687.8	19091.7	18414.8	19091.4	19700.8	20245.6	20785.5	21315.7
Nominal GDP	16784.9	17527.3	18238.3	18745.1	19543.0	20611.9	21433.2	20920.8	22022.6	23091.8	24152.0	25282.3	26488.8
Prices & Wages, Percent Change													
GDP Deflator	1.8	1.8	1.0	1.0	1.9	2.4	1.8	1.1	1.5	1.6	1.8	2.0	2.2
Consumer Prices	1.5	1.6	0.1	1.3	2.1	2.4	1.8	1.3	2.6	2.3	1.8	1.9	2.2
Producer Prices, Finished Goods	1.2	1.9	-3.3	-1.0	3.2	3.0	0.8	-1.3	2.6	3.0	1.9	1.8	2.1
Employment Cost Index - Total Comp.	1.9	2.1	2.1	2.1	2.5	2.9	2.7	2.5	2.4	3.4	3.5	3.3	3.2
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	108.74	99.83	52.68	44.24	54.83	70.96	64.34	41.31	48.58	57.65	57.75	59.35	62.65
Productivity (%ch.)	0.5	0.9	1.6	0.3	1.2	1.4	1.7	3.2	-0.3	0.6	1.3	1.7	2.0
Total Industrial Production (%ch.)	2.0	3.1	-1.0	-2.0	2.3	3.9	0.9	-7.7	2.5	3.5	3.4	2.9	2.6
Factory Operating Rate	74.4	75.2	75.3	74.2	75.1	76.6	75.6	69.6	71.4	72.7	74.1	75.1	75.7
Nonfarm Inven. Chg. (Bil. 2012 \$)	98.2	90.1	136.5	30.2	21.0	59.3	62.2	-84.5	74.5	97.1	96.6	91.5	91.1
Consumer Sentiment Index	79.2	84.1	92.9	91.8	96.8	98.4	96.0	81.0	84.8	91.0	93.4	93.6	93.8
Light Vehicle Sales (Mil. units)	15.53	16.45	17.40	17.46	17.14	17.21	16.95	14.18	15.38	15.69	15.88	16.06	16.27
Housing Starts (Mil. units)	0.928	1.000	1.107	1.177	1.207	1.248	1.295	1.356	1.332	1.297	1.278	1.273	1.287
Exist. House Sales (Total, Mil. units)	5.078	4.923	5.228	5.437	5.527	5.334	5.330	5.495	6.143	6.123	5.904	5.770	5.787
Unemployment Rate (%)	7.4	6.2	5.3	4.9	4.4	3.9	3.7	8.2	6.4	5.0	4.3	3.7	3.5
Payroll Employment (%ch.)	1.6	1.9	2.1	1.8	1.6	1.6	1.4	-5.5	3.3	2.6	1.8	1.4	0.9
Federal Surplus (Unified, FY, bil. \$)	-559.5	-487.7	-478.0	-581.7	-680.9	-873.0	-1022.0	-4293.1	-1419.9	-1210.3	-1078.8	-900.7	-935.7
Current Account Balance (Bil. \$)	-336.9	-367.8	-407.4	-394.9	-365.3	-449.7	-480.2	-665.6	-731.9	-657.5	-543.4	-430.5	-377.9
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.11	0.09	0.13	0.40	1.00	1.83	2.16	0.38	0.10	0.10	0.11	0.12	0.13
3-Month Treasury Bill Rate (%)	0.06	0.03	0.05	0.32	0.93	1.94	2.06	0.37	0.10	0.09	0.09	0.11	0.11
10-Year Treasury Note Yield (%)	2.35	2.54	2.14	1.84	2.33	2.91	2.14	0.85	0.90	1.20	1.44	1.56	1.77
30-Year Fixed Mortgage Rate (%)	3.98	4.17	3.85	3.65	3.99	4.54	3.94	3.18	3.09	3.16	3.26	3.34	3.51
S&P 500 Stock Index	1643	1931	2061	2092	2448	2745	2912	3189	3394	3547	3649	3809	3989
(Percent change)	19.1	17.5	6.8	1.5	17.0	12.1	6.1	9.5	6.4	4.5	2.9	4.4	4.7
Exchange Rate, Broad Index of Partners	1.012	1.044	1.180	1.235	1.231	1.222	1.263	1.293	1.204	1.142	1.138	1.145	1.153
(% change, annual rate)	1.2	3.1	13.1	4.6	-0.3	-0.7	3.3	2.4	-6.9	-5.1	-0.3	0.6	0.7
Incomes													
Personal Income (% ch.)	1.2	5.7	4.9	2.8	4.9	5.3	3.9	7.4	-2.4	4.4	4.5	4.4	4.8
Real Disposable Income (%ch.)	-1.3	4.1	4.2	2.0	3.1	3.6	2.2	7.1	-5.3	2.4	2.8	2.6	2.8
Saving Rate (%)	6.4	7.4	7.6	6.9	7.2	7.9	7.6	17.2	9.2	8.7	8.9	8.9	9.1
After-Tax Profits (Billions of \$)	1789	1857	1732	1749	1872	1904	1939	1956	1830	1859	1976	2126	2286
(Percent change)	-1.8	3.8	-6.8	1.0	7.0	1.7	1.8	0.9	-6.4	1.6	6.3	7.6	7.5

Source: IHS Markit

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Summary of the US Economy

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Composition of Real GDP, Percent Change (Q4/Q4)													
Gross Domestic Product	2.6	2.9	2.2	2.1	2.7	2.5	2.3	-2.6	2.8	3.4	2.6	2.6	2.5
Final Sales of Domestic Product	2.0	3.2	2.1	2.3	2.8	2.2	2.8	-2.7	2.5	3.3	2.7	2.7	2.5
Gross Domestic Income	1.5	4.2	1.4	1.2	2.9	2.4	1.9	-2.7	2.8	3.4	2.7	2.7	2.5
Avg. of GDP and GDI	2.0	3.5	1.8	1.6	2.8	2.4	2.1	-2.6	2.8	3.4	2.6	2.7	2.5
Total Consumption	1.9	3.8	3.1	2.7	2.9	2.4	2.5	-2.8	3.0	2.9	2.6	2.6	2.7
Durables	5.0	9.2	6.0	7.0	8.1	4.2	5.7	8.5	1.6	3.9	4.1	4.3	4.6
Nondurables	2.8	3.2	2.8	2.0	3.7	2.3	2.7	3.7	-0.3	2.0	2.1	2.0	2.2
Services	1.1	3.2	2.7	2.3	1.8	2.1	1.9	-6.4	4.4	3.0	2.6	2.4	2.6
Nonresidential Fixed Investment	5.4	6.9	-0.1	1.8	4.8	6.5	1.4	-4.1	1.9	5.5	5.2	5.2	4.9
Equipment	5.4	5.6	1.5	-2.2	7.5	7.0	-1.3	1.0	1.0	4.1	3.3	3.8	4.2
Information Processing Equipment	5.8	6.4	6.5	3.5	9.8	5.5	1.9	8.2	3.5	1.8	0.4	1.5	2.9
Industrial Equipment	-2.7	4.3	1.0	-1.2	8.8	7.6	-2.6	12.9	-5.8	-0.8	6.2	12.4	8.5
Transportation equipment	10.8	9.4	6.6	-7.4	4.4	6.5	-5.1	-24.7	17.3	10.0	7.5	-2.6	-4.3
Aircraft	22.9	-0.9	-14.1	9.6	29.7	17.6	-41.7	-23.8	65.7	9.6	4.7	3.3	5.0
Other Equipment	6.8	1.7	-10.1	-4.9	6.5	9.3	-0.3	8.4	-8.2	6.8	0.5	4.6	9.3
Intellectual Property Products	4.5	6.9	3.3	6.4	4.9	9.4	4.6	-2.5	4.3	8.2	7.1	6.6	5.6
Structures	6.7	9.3	-7.3	3.5	0.0	1.2	1.9	-15.9	-0.5	3.8	5.9	5.6	5.1
Commercial & Health Care	8.7	13.8	8.3	19.6	-2.7	-1.7	2.3	-6.7	-4.6	0.0	11.0	4.6	5.9
Manufacturing	4.4	29.4	9.8	-7.1	-12.3	1.1	3.4	-15.8	-0.6	28.0	4.9	2.6	-1.2
Power & Communication	14.6	-16.1	20.0	13.2	-18.0	-6.4	20.5	2.6	-4.5	-14.6	-3.4	7.0	6.3
Mining & Petroleum	2.0	16.3	-44.2	-27.3	47.2	17.2	-11.0	-61.4	44.5	21.2	4.2	5.0	6.5
Other	4.5	12.5	4.7	8.8	1.5	-1.0	-3.7	-13.3	-5.6	8.9	9.5	8.6	6.7
Residential Fixed Investment	7.1	7.7	9.2	4.2	4.7	-3.9	1.6	9.1	-3.1	-1.7	-0.8	0.4	-0.3
Exports	6.0	2.9	-1.5	1.5	5.8	0.5	0.4	-10.0	10.2	8.4	6.0	5.0	4.1
Imports	3.0	6.5	3.3	2.8	5.6	3.0	-1.9	-4.4	5.5	2.2	3.3	3.9	4.3
Federal Government	-6.1	-1.1	1.3	0.1	1.2	3.0	4.8	2.1	0.4	-1.1	-2.2	-0.7	-0.1
State & Local Government	0.2	1.2	2.8	2.4	1.1	0.6	1.9	-1.7	0.1	1.1	1.8	2.0	0.9
Billions of Dollars													
Real GDP	16495.4	16912.0	17432.2	17730.5	18144.1	18687.8	19091.7	18414.8	19091.4	19700.8	20245.6	20785.5	21315.7
Nominal GDP	16784.9	17527.3	18238.3	18745.1	19543.0	20611.9	21433.2	20920.8	22022.6	23091.8	24152.0	25282.3	26488.8
Prices & Wages, Percent Change (Q4/Q4)													
GDP Deflator	1.8	1.5	0.8	1.5	2.0	2.3	1.6	1.2	1.5	1.6	1.8	2.0	2.2
Consumer Prices	1.2	1.2	0.4	1.8	2.1	2.2	2.0	1.2	2.8	2.1	1.7	2.0	2.2
Producer Prices, Finished Goods	0.9	0.6	-3.4	1.0	3.5	2.3	0.9	-1.5	3.5	2.4	1.7	1.9	2.2
Employment Cost Index - Total Comp.	2.0	2.3	1.8	2.2	2.7	3.0	2.7	2.2	2.8	3.6	3.4	3.2	3.2
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	108.74	99.83	52.68	44.24	54.83	70.96	64.34	41.31	48.58	57.65	57.75	59.35	62.65
Productivity (%ch.)	1.5	0.5	1.0	1.1	1.2	1.2	1.9	3.3	-0.7	0.9	1.5	1.8	2.1
Total Industrial Production (%ch.)	2.0	3.1	-1.0	-2.0	2.3	3.9	0.9	-7.7	2.5	3.5	3.4	2.9	2.6
Factory Operating Rate	74.4	75.2	75.3	74.2	75.1	76.6	75.6	69.6	71.4	72.7	74.1	75.1	75.7
Nonfarm Inven. Chg. (Bil. 2012 \$)	98.2	90.1	136.5	30.2	21.0	59.3	62.2	-84.5	74.5	97.1	96.6	91.5	91.1
Consumer Sentiment Index	79.2	84.1	92.9	91.8	96.8	98.4	96.0	81.0	84.8	91.0	93.4	93.6	93.8
Light Vehicle Sales (Mil. units)	15.53	16.45	17.40	17.46	17.14	17.21	16.95	14.18	15.38	15.69	15.88	16.06	16.27
Housing Starts (Mil. units)	0.928	1.000	1.107	1.177	1.207	1.248	1.295	1.356	1.332	1.297	1.278	1.273	1.287
Exist. House Sales (Total, Mil. units)	5.078	4.923	5.228	5.437	5.527	5.334	5.330	5.495	6.143	6.123	5.904	5.770	5.787
Unemployment Rate (%)	7.4	6.2	5.3	4.9	4.4	3.9	3.7	8.2	6.4	5.0	4.3	3.7	3.5
Payroll Employment (%ch.)	1.8	2.1	2.0	1.7	1.5	1.6	1.4	-5.1	3.1	2.6	1.5	1.3	0.7
Federal Surplus (Unified, FY, bil. \$)	-559.5	-487.7	-478.0	-581.7	-680.9	-873.0	-1022.0	-4293.1	-1419.9	-1210.3	-1078.8	-900.7	-935.7
Current Account Balance (Bil. \$)	-336.9	-367.8	-407.4	-394.9	-365.3	-449.7	-480.2	-665.6	-731.9	-657.5	-543.4	-430.5	-377.9
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.11	0.09	0.13	0.40	1.00	1.83	2.16	0.38	0.10	0.10	0.11	0.12	0.13
3-Month Treasury Bill Rate (%)	0.06	0.03	0.05	0.32	0.93	1.94	2.06	0.37	0.10	0.09	0.09	0.11	0.11
10-Year Treasury Note Yield (%)	2.35	2.54	2.14	1.84	2.33	2.91	2.14	0.85	0.90	1.20	1.44	1.56	1.77
30-Year Fixed Mortgage Rate (%)	3.98	4.17	3.85	3.65	3.99	4.54	3.94	3.18	3.09	3.16	3.26	3.34	3.51
S&P 500 Stock Index	1643	1931	2061	2092	2448	2745	2912	3189	3394	3547	3649	3809	3989
(Percent change, Q4/Q4)	24.8	13.6	2.0	6.4	19.2	3.3	14.7	11.4	0.9	3.1	3.6	4.5	4.8
Exchange Rate, Broad Index of Partners	1.012	1.044	1.180	1.235	1.231	1.222	1.263	1.293	1.204	1.142	1.138	1.145	1.153
(% change, Q4/Q4)	2.3	6.6	12.2	3.9	-4.2	4.3	0.6	-0.1	-8.3	-2.5	0.4	0.6	0.7
Incomes													
Personal Income (%ch., Q4/Q4)	-0.3	6.7	3.8	3.1	5.5	4.8	3.5	10.0	-4.6	4.8	4.5	4.6	4.7
Real Disposable Income (%ch., Q4/Q4)	-2.5	5.3	3.1	1.8	3.4	3.7	1.6	9.9	-7.8	2.9	2.8	2.7	2.7
Saving Rate (%)	6.4	7.4	7.6	6.9	7.2	7.9	7.6	17.2	9.2	8.7	8.9	8.9	9.1
After-Tax Profits (Billions of \$)	1789	1857	1732	1749	1872	1904	1939	1956	1830	1859	1976	2126	2286
(Percent change, Q4/Q4)	3.0	2.2	-13.0	10.4	-2.1	7.4	5.3	-5.8	-3.1	3.0	6.7	7.6	7.5

Source: IHS Markit

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Alternative Scenarios of the US Economy

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2019	2020	2021	2022	2023	2024	2025
Pessimistic: Recovery stumbles as trend in new cases remains stubbornly high, rebounding early next year (Prob. = 30%)													
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	-5.0	-31.4	25.1	0.0	2.9	3.0	2.2	-4.5	2.3	3.5	3.5	3.3	2.7
Total Consumption	-6.9	-33.2	27.9	-0.5	5.6	4.2	2.4	-5.2	3.1	3.4	3.5	2.7	2.6
Nonresidential Fixed Investment	-6.7	-27.2	10.9	-2.9	-1.1	-0.1	2.9	-6.1	-1.0	5.8	6.7	6.6	5.2
Residential Fixed Investment	19.0	-35.6	60.4	19.1	-2.8	-12.3	-1.7	4.9	1.6	-4.3	0.2	1.1	0.8
Exports	-9.5	-64.4	66.8	9.2	7.1	8.6	-0.1	-13.1	6.5	11.1	10.7	8.1	5.8
Imports	-15.0	-54.1	78.7	-12.8	1.1	7.0	1.1	-12.5	2.2	8.4	9.1	5.0	5.0
Federal Government	1.6	16.4	3.3	-10.8	1.2	1.6	4.0	4.9	-0.1	0.0	-1.5	-1.0	0.1
State & Local Government	1.1	-5.4	-4.4	0.4	-1.8	-0.8	1.3	-0.8	-1.2	1.2	1.9	2.2	1.4
Prices & Wages, Percent Change, Annual Rate													
Consumer Prices	1.2	-3.5	5.2	1.0	2.7	1.6	1.8	1.2	1.9	1.3	1.0	1.2	1.6
Producer Prices, Finished Goods	-3.4	-10.9	6.8	-0.7	3.0	3.2	0.8	-1.5	1.8	2.2	1.0	1.0	1.4
Employment Cost Index - Total Comp.	3.2	1.7	1.6	0.9	1.0	1.3	2.7	2.4	1.3	1.9	1.8	1.7	1.7
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	50.42	29.38	43.01	43.00	43.90	44.70	64.34	41.45	45.43	51.77	56.32	57.39	57.76
Productivity (%ch., saar)	-0.3	10.7	2.6	-3.4	-0.5	0.2	1.7	2.4	0.3	0.8	1.1	1.5	1.7
Total Industrial Production (%ch., saar)	-6.8	-43.2	38.3	-3.5	2.4	2.2	0.9	-8.0	1.6	4.8	3.9	3.7	1.6
Nonfarm Inven. Chg. (Bil. 2012 \$)	-70.9	-280.8	-21.3	-118.4	-173.7	-135.5	62.2	-122.9	-114.6	-23.0	29.3	55.4	80.3
Consumer Sentiment Index	96.6	74.1	74.1	55.8	48.6	52.1	96.0	75.2	55.5	66.4	75.9	86.6	90.8
Light Vehicle Sales (Mil. units, saar)	14.99	11.28	15.92	14.88	14.23	14.29	16.95	14.27	14.39	14.61	13.76	13.50	13.92
Housing Starts (Mil. units, saar)	1.484	1.079	1.452	1.388	1.328	1.279	1.295	1.351	1.277	1.226	1.236	1.238	1.234
Unemployment Rate (%)	3.8	13.0	8.8	8.3	8.0	7.8	3.7	8.5	7.7	6.6	5.3	4.5	4.0
Payroll Employment (%ch., saar)	0.4	-40.0	22.9	4.3	1.1	0.3	1.4	-5.8	1.0	3.7	3.2	3.2	1.5
Federal Surplus (Unified, FY, bil. \$)	-386.9	-2000.9	-1000.3	-939.7	-529.3	-215.6	-984.4	-3744.6	-2067.9	-1424.9	-1218.8	-974.4	-965.1
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	1.26	0.06	0.09	0.09	0.10	0.10	2.16	0.38	0.10	0.10	0.11	0.12	0.13
10-Year Treasury Note Yield (%)	1.38	0.69	0.65	0.63	0.68	0.72	2.14	0.84	0.74	0.86	0.93	1.04	1.25
Incomes													
Personal Income (% ch., saar)	4.1	34.2	-13.4	13.9	-27.3	3.6	3.9	6.9	-4.2	3.5	3.9	3.8	4.2
After-Tax Profits (Four-qr.% change)	-8.2	-19.7	24.4	-13.5	-1.2	10.6	1.8	-4.4	-7.6	1.6	9.4	11.6	9.3
Optimistic: Faster recovery from COVID-19-induced recession (Prob. = 20%)													
Composition of Real GDP, Percent Change, Annual Rate													
Gross Domestic Product	-5.0	-31.4	35.3	6.5	5.2	3.0	2.2	-3.2	5.0	2.7	2.6	2.7	2.4
Total Consumption	-6.9	-33.2	41.6	6.1	5.8	5.4	2.4	-3.6	6.0	2.8	2.1	2.3	2.4
Nonresidential Fixed Investment	-6.7	-27.2	23.6	1.3	1.5	2.4	2.9	-4.6	2.5	4.4	5.3	5.2	4.7
Residential Fixed Investment	19.0	-35.6	60.4	19.7	-2.2	-7.4	-1.7	4.9	3.9	-2.5	-1.5	-0.2	0.2
Exports	-9.5	-64.4	73.4	13.6	15.6	5.1	-0.1	-12.5	9.8	10.7	7.7	6.0	4.0
Imports	-15.0	-54.1	90.2	5.2	1.3	3.3	1.1	-10.7	5.8	4.0	3.1	4.0	4.5
Federal Government	1.6	16.4	3.3	-10.9	0.7	0.7	4.0	4.9	-0.6	-0.8	-2.2	-1.5	-0.3
State & Local Government	1.1	-5.4	-4.4	1.8	-0.4	-0.5	1.3	-0.7	-0.7	0.6	1.5	1.9	1.2
Prices & Wages, Percent Change, Annual Rate													
Consumer Prices	1.2	-3.5	5.2	2.5	3.0	3.1	1.8	1.3	2.8	2.6	2.2	2.2	2.5
Producer Prices, Finished Goods	-3.4	-10.9	6.8	2.5	4.1	4.7	0.8	-1.3	3.3	3.3	2.0	2.2	2.4
Employment Cost Index - Total Comp.	3.2	1.7	1.6	1.9	2.6	2.7	2.7	2.5	2.4	3.7	3.8	3.6	3.5
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	50.42	29.38	43.01	44.00	46.00	49.00	64.34	41.70	51.22	60.70	60.81	62.49	65.97
Productivity (%ch., saar)	-0.3	10.7	12.9	-5.2	-1.7	0.5	1.7	3.5	0.8	0.4	1.2	1.9	1.8
Total Industrial Production (%ch., saar)	-6.8	-43.2	39.3	8.5	3.6	1.3	0.9	-7.2	3.7	4.1	3.8	3.2	2.4
Nonfarm Inven. Chg. (Bil. 2012 \$)	-70.9	-280.8	-23.4	48.0	31.2	-6.0	62.2	-81.8	-17.6	-63.3	-38.6	-0.3	32.8
Consumer Sentiment Index	96.6	74.1	75.7	81.1	83.6	84.8	96.0	81.9	86.6	92.8	95.3	95.5	95.6
Light Vehicle Sales (Mil. units, saar)	14.99	11.28	15.38	15.06	15.21	15.63	16.95	14.18	15.42	15.88	16.26	16.58	16.62
Housing Starts (Mil. units, saar)	1.484	1.079	1.452	1.422	1.375	1.351	1.295	1.359	1.346	1.313	1.294	1.289	1.303
Unemployment Rate (%)	3.8	13.0	8.8	7.1	6.4	6.2	3.7	8.2	6.0	4.7	4.0	3.6	3.4
Payroll Employment (%ch., saar)	0.4	-40.0	22.9	10.6	7.3	0.9	1.4	-5.5	3.2	2.3	2.2	1.2	0.5
Federal Surplus (Unified, FY, bil. \$)	-386.9	-2000.9	-988.4	-910.0	-489.3	-172.0	-984.4	-3732.7	-1908.0	-1247.6	-1081.6	-886.9	-941.0
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	1.26	0.06	0.09	0.10	0.10	0.11	2.16	0.38	0.11	0.12	0.12	0.39	0.90
10-Year Treasury Note Yield (%)	1.38	0.69	0.65	0.71	0.84	0.91	2.14	0.85	0.96	1.35	1.69	1.88	2.12
Incomes													
Personal Income (% ch., saar)	4.1	34.2	-12.6	22.3	-25.8	4.3	3.9	7.5	-1.9	4.7	4.8	4.8	5.2
After-Tax Profits (Four-qr.% change)	-8.2	-19.7	40.1	0.6	18.7	35.6	1.8	3.2	4.9	-0.2	6.4	8.7	6.0

Source: IHS Markit

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Alternative Scenarios of the US Economy

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2019	2020	2021	2022	2023	2024	2025
Pessimistic: Recovery stumbles as trend in new cases remains stubbornly high, rebounding early next year (Prob. = 30%)													
Composition of Real GDP, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Gross Domestic Product	-5.0	-31.4	25.1	0.0	2.9	3.0	2.3	-5.0	3.1	3.7	3.3	3.1	2.5
Total Consumption	-6.9	-33.2	27.9	-0.5	5.6	4.2	2.5	-5.7	3.9	3.7	3.1	2.6	2.6
Nonresidential Fixed Investment	-6.7	-27.2	10.9	-2.9	-1.1	-0.1	1.4	-7.5	1.6	7.0	6.8	6.1	4.8
Residential Fixed Investment	19.0	-35.6	60.4	19.1	-2.8	-12.3	1.6	10.0	-7.3	-1.6	0.7	1.2	0.1
Exports	-9.5	-64.4	66.8	9.2	7.1	8.6	0.4	-12.5	9.1	11.9	9.4	7.2	5.2
Imports	-15.0	-54.1	78.7	-12.8	1.1	7.0	-1.9	-11.7	5.0	10.3	7.0	4.7	4.9
Federal Government	1.6	16.4	3.3	-10.8	1.2	1.6	4.8	2.2	0.9	-0.5	-1.8	-0.4	0.2
State & Local Government	1.1	-5.4	-4.4	0.4	-1.8	-0.8	1.9	-2.1	-0.1	1.5	2.1	2.2	1.0
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Consumer Prices	1.2	-3.5	5.2	1.0	2.7	1.6	2.0	0.9	1.9	1.1	1.0	1.4	1.7
Producer Prices, Finished Goods	-3.4	-10.9	6.8	-0.7	3.0	3.2	0.9	-2.2	2.8	1.6	0.9	1.2	1.5
Employment Cost Index - Total Comp.	3.2	1.7	1.6	0.9	1.0	1.3	2.7	1.8	1.5	1.9	1.8	1.7	1.9
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	50.42	29.38	43.01	43.00	43.90	44.70	64.34	41.45	45.43	51.77	56.32	57.39	57.76
Productivity (%ch., saar)	-0.3	10.7	2.6	-3.4	-0.5	0.2	1.9	2.3	0.1	1.1	1.1	1.6	1.8
Total Industrial Production (%ch., saar)	-6.8	-43.2	38.3	-3.5	2.4	2.2	-0.7	-8.3	3.5	4.3	4.4	2.7	1.5
Nonfarm Inven. Chg. (Bil. 2012 \$)	-70.9	-280.8	-21.3	-118.4	-173.7	-135.5	62.2	-122.9	-114.6	-23.0	29.3	55.4	80.3
Consumer Sentiment Index	96.6	74.1	74.1	55.8	48.6	52.1	96.0	75.2	55.5	66.4	75.9	86.6	90.8
Light Vehicle Sales (Mil. units, saar)	14.99	11.28	15.92	14.88	14.23	14.29	16.95	14.27	14.39	14.61	13.76	13.50	13.92
Housing Starts (Mil. units, saar)	1.484	1.079	1.452	1.388	1.328	1.279	1.295	1.351	1.277	1.226	1.236	1.238	1.234
Unemployment Rate (%)	3.8	13.0	8.8	8.3	8.0	7.8	3.7	8.5	7.7	6.6	5.3	4.5	4.0
Payroll Employment (%ch., saar)	0.4	-40.0	22.9	4.3	1.1	0.3	1.4	-6.3	2.0	3.8	3.4	2.8	0.7
Federal Surplus (Unified, FY, bil. \$)	-386.9	-2000.9	-1000.3	-939.7	-529.3	-215.6	-984.4	-3744.6	-2067.9	-1424.9	-1218.8	-974.4	-965.1
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	1.26	0.06	0.09	0.09	0.10	0.10	2.16	0.38	0.10	0.10	0.11	0.12	0.13
10-Year Treasury Note Yield (%)	1.38	0.69	0.65	0.63	0.68	0.72	2.14	0.84	0.74	0.86	0.93	1.04	1.25
Incomes													
Personal Income (% ch., saar)	4.1	34.2	-13.4	13.9	-27.3	3.6	3.5	8.4	-5.4	3.7	4.0	3.9	4.3
After-Tax Profits (Four-qr.% change)	-8.2	-19.7	24.4	-13.5	-1.2	10.6	5.3	-13.5	-2.0	5.4	9.2	12.2	7.9
Optimistic: Faster recovery from COVID-19-induced recession (Prob. = 20%)													
Composition of Real GDP, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Gross Domestic Product	-5.0	-31.4	35.3	6.5	5.2	3.0	2.3	-1.5	3.4	2.7	2.6	2.6	2.2
Total Consumption	-6.9	-33.2	41.6	6.1	5.8	5.4	2.5	-1.7	4.4	2.3	2.0	2.4	2.4
Nonresidential Fixed Investment	-6.7	-27.2	23.6	1.3	1.5	2.4	1.4	-3.9	3.1	4.7	5.5	4.9	4.6
Residential Fixed Investment	19.0	-35.6	60.4	19.7	-2.2	-7.4	1.6	10.1	-3.7	-1.8	-1.1	0.2	-0.5
Exports	-9.5	-64.4	73.4	13.6	15.6	5.1	0.4	-10.7	11.7	9.4	7.2	5.1	3.6
Imports	-15.0	-54.1	90.2	5.2	1.3	3.3	-1.9	-6.0	3.5	3.5	3.2	4.3	4.6
Federal Government	1.6	16.4	3.3	-10.9	0.7	0.7	4.8	2.1	0.1	-1.3	-2.4	-0.9	-0.2
State & Local Government	1.1	-5.4	-4.4	1.8	-0.4	-0.5	1.9	-1.8	-0.1	1.0	1.7	1.9	0.8
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)													
Consumer Prices	1.2	-3.5	5.2	2.5	3.0	3.1	2.0	1.3	3.0	2.4	2.1	2.4	2.5
Producer Prices, Finished Goods	-3.4	-10.9	6.8	2.5	4.1	4.7	0.9	-1.5	4.3	2.6	1.9	2.3	2.5
Employment Cost Index - Total Comp.	3.2	1.7	1.6	1.9	2.6	2.7	2.7	2.1	3.0	3.8	3.7	3.5	3.5
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	50.42	29.38	43.01	44.00	46.00	49.00	64.34	41.70	51.22	60.70	60.81	62.49	65.97
Productivity (%ch., saar)	-0.3	10.7	12.9	-5.2	-1.7	0.5	1.9	4.3	-0.2	0.6	1.5	2.0	1.7
Total Industrial Production (%ch., saar)	-6.8	-43.2	39.3	8.5	3.6	1.3	-0.7	-5.4	2.7	4.6	3.5	2.8	2.1
Nonfarm Inven. Chg. (Bil. 2012 \$)	-70.9	-280.8	-23.4	48.0	31.2	-6.0	62.2	-81.8	-17.6	-63.3	-38.6	-0.3	32.8
Consumer Sentiment Index	96.6	74.1	75.7	81.1	83.6	84.8	96.0	81.9	86.6	92.8	95.3	95.5	95.6
Light Vehicle Sales (Mil. units, saar)	14.99	11.28	15.38	15.06	15.21	15.63	16.95	14.18	15.42	15.88	16.26	16.58	16.62
Housing Starts (Mil. units, saar)	1.484	1.079	1.452	1.422	1.375	1.351	1.295	1.359	1.346	1.313	1.294	1.289	1.303
Unemployment Rate (%)	3.8	13.0	8.8	7.1	6.4	6.2	3.7	8.2	6.0	4.7	4.0	3.6	3.4
Payroll Employment (%ch., saar)	0.4	-40.0	22.9	10.6	7.3	0.9	1.4	-4.9	2.3	3.1	1.8	0.9	0.3
Federal Surplus (Unified, FY, bil. \$)	-386.9	-2000.9	-988.4	-910.0	-489.3	-172.0	-984.4	-3732.7	-1908.0	-1247.6	-1081.6	-886.9	-941.0
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	1.26	0.06	0.09	0.10	0.10	0.11	2.16	0.38	0.11	0.12	0.12	0.39	0.90
10-Year Treasury Note Yield (%)	1.38	0.69	0.65	0.71	0.84	0.91	2.14	0.85	0.96	1.35	1.69	1.88	2.12
Incomes													
Personal Income (% ch., saar)	4.1	34.2	-12.6	22.3	-25.8	4.3	3.5	10.5	-4.1	4.8	4.8	5.0	5.1
After-Tax Profits (Four-qr.% change)	-8.2	-19.7	40.1	0.6	18.7	35.6	5.3	0.6	3.9	0.9	8.0	8.1	5.4

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