

# Executive Summary: US Economic Outlook

November 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

#### **Michael Konidaris**

Associate Director michael.konidaris@ihsmarkit.com

#### **Mike Montgomery**

Associate Director mike.montgomery@ihsmarkit.com

#### **Juan Turcios**

Principal Economist juan.turcios@ihsmarkit.com

#### **Akshat Goel**

Senior Economist akshat.goel@ihsmarkit.com

#### **Gordon Greer III**

Senior Economist gordon.greer@ihsmarkit.com

#### **Lawrence Nelson**

Senior Economist lawrence.nelson@ihsmarkit.com

#### William Magee

Economist william.magee@ihsmarkit.com

#### Forecast overview

#### Delta, supply issues slow Q3 growth, but recovery remains on track; transition to restocking in 2022

- Our updated forecast of real GDP growth for 2021 is 5.5%, and for 2022 is 4.3%, both little changed from last month. <sup>1</sup>
- GDP growth slowed from 6.7% in Q2 to 2.0% in Q3. Third-quarter growth was more than accounted for by an increase in inventory investment. While still declining, inventories did so at a slower rate than in Q2. Final sales (-0.1%) declined outright as sales to domestic purchasers decelerated sharply and net exports posted a large decline.
- PCE-services at risk of COVID decelerated during the summer surge of infections. Vehicle sales, constrained by low inventories, fell from 16.9 million to 13.3 million units in Q3, and tumbling motor vehicle output, constrained by chip shortages, subtracted 1.4 percentage points from Q3 growth.
- A subsiding rate of COVID infections, anticipated further progress on vaccinations (including vaccinations of children), the gradual resolution of supply disruptions and labor shortages, and accommodative financial conditions will support the resumption of firm growth heading into 2022. We expect the unemployment rate, which fell to 4.6% in October, to reach 3.5% by late 2022.
- We revised up our forecast of CPI inflation for 2021 from 4.3% to 4.5%, and for 2022 from 3.0% to 3.3%, mostly the result of higher projected near-term energy costs. As supply chains mend, and with long-run inflation expectations anchored near the Fed's 2% objective, we expect core PCE inflation to subside to moderately above 2% by 2023.
- The FOMC met on 2–3 November and, as expected, announced it will begin tapering its purchases of assets this month at a pace that will complete the taper by mid-2022. We continue to assume "lift off" of the federal funds rate in March of 2023.
- The House passed the Infrastructure Investment and Jobs Act (IIJA) and sent it to President Biden's desk for signing. This was as we previously assumed, with no new impact on the forecast. We estimate the peak effect of IIJA, reached in 2025-26, is to raise the level of real GDP 0.5% and employment 750,000. These impacts wane after 2026 as the increase in spending unwinds.

#### Rebound in motor vehicle output to boost Q4 growth

We project GDP growth to tick up to 4.4% in Q4. Our automotive group sees Q3 as the trough in unit vehicle production, and we project that growth of motor vehicle output, after subtracting 1.4 points from Q3 GDP growth, will add 0.6 point to Q4 growth, accounting for nearly all our projected acceleration of overall GDP.

#### 2022: transition to restocking

• The forecast shows GDP growth, measured Q4-to-Q4, slowing from 4.8% this year to 4.1% in 2022. Growth of final sales slows more dramatically, from 5.1% to 3.2%, as demand approaches its pre-pandemic trend. However, with inventories near record low levels relative to sales, and shortages in certain industries starting easing, restocking of inventories will add 1.0 percentage point to growth in 2022.

#### Near-term price pressures to ease by 2023

 We expect inflation to ease late next year and into 2023 as supply chains recover and workers return to the labor force.
 A softening of vehicle prices helps restrain core PCE inflation close to 2.2% in 2023-24. Partial reversals of recent surges in the prices of farm product and crude oil push headline inflation below core inflation in both 2022 and 2023.

#### Taper begins without a tantrum

 The Fed announced it will reduce its current rate of asset purchases (\$120 billion per month) by \$15 billion per month (\$10 billIon of Treasury issues, \$5 billion of mortgage-backed securities). This would reduce purchases to zero by the end of next June. The taper was well-signaled, so there was little market reaction to the announcement. The timing and pace of the taper was as we had assumed, so the announcement had no implications for our forecast.

#### IIJA a modest stimulus

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

#### **Build Back Better update**

To secure the vote of progressives on IIJA, Speaker Pelosi
promised a House vote on BBB by 15 November. Moderates insist they will not vote on it without a score. CBO has
not yet produced a cost. Informal estimates suggest a 10year cost near \$2 trillion. While the odds that some version
of BBB will be enacted this year have risen, we still consider it too uncertain to assume it in our base forecast.

<sup>1.</sup> This forecast was issued on 8 November 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.

<sup>2.</sup> PCE is the acronym for personal consumption expenditures.

# Forecast at a glance

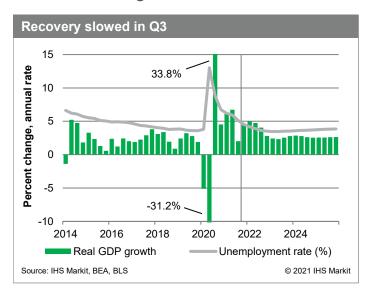
Base forecast (November 2021) 202					N	lajor ec	onomic	indicato	ors									
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	2021.2	2021.3	2021.4	2022.1	2022.2	2022.3	2020	2021	2022	2023	2024	2025	2020.4	2021.4	2022.4	2023.4	2024.4	2025.4
Key indicators of real activity																		
Real gross domestic product	6.7	2.0	4.4	5.0	4.7	4.0	-3.4	5.5	4.3	2.9	2.7	2.6	-2.3	4.8	4.1	2.5	2.7	2.6
Contributions to growth (% points):																		
Final sales to domestic purchasers	8.2	1.1	3.5	3.8	3.1	2.9	-2.6	6.9	3.3	2.4	2.8	2.8	-1.3	5.8	3.0	2.4	2.8	2.9
Net exports of goods & services	-0.2	-1.1	0.1	0.0	0.3	0.2	-0.3	-1.3	0.0	0.2	0.0	-0.2	-1.2		0.2	0.2	-0.1	-0.2
Change in private inventories	-1.3	2.1	0.8	1.2	1.3	0.9	-0.5	-0.2	1.0	0.2	-0.1	-0.1	0.3	-0.6	1.0	-0.1	0.0	
Major components of real GDP																		
Personal consumption expend.	12.0	1.6	4.5	2.9	2.5	2.4	-3.8	8.0	3.4	2.3	2.9	3.2	-2.4	7.3	2.4	2.5	3.1	3.3
Nonres fixed investment	9.2	1.8	5.9	9.3	7.5	6.9	-5.3	7.6	6.8	5.1	4.5	4.0	-3.8	7.4	7.3	4.4	4.4	3.8
Residential investment	-11.7	-7.7	-8.1	-6.9	-1.3	-1.4	6.8	8.5	-5.6	-2.2	0.4	0.1	15.7	-4.0	-3.1	-1.6	0.8	-0.2
Change in private inventories *	-168.5	-77.7	-34.4	28.0	93.3	142.6	-42.3	-92.2	107.1	154.6	140.7	124.2	88.8		164.8	144.9	135.8	119.1
Exports of goods & services	7.6	-2.5	2.4	5.6	9.3	9.7	-13.6	3.7	5.5	8.3	5.9	4.8	-10.7	1.1	8.5	7.2	5.4	4.5
Imports of goods & services	7.1	6.1	1.0	4.1	4.7	5.7	-8.9	13.1	4.3	4.5	4.5	4.9	0.3		4.9	4.1	4.9	4.9
Gov't consump. & gross invest.	-2.0	0.1	0.1	5.0	2.6	2.2	2.5	0.6	2.0	1.3	0.9	0.9	1.2		2.7	1.1	0.8	1.0
Pvt. housing starts (thous. units)	1588	1566	1533	1493	1454	1415	1397	1571	1435	1333	1327	1329	1575	1533	1377	1332	1321	1325
Light vehicle sales (mil. units)	16.9	13.3	12.8	13.7	15.1	16.1	14.5	14.9	15.3	17.1	17.7	17.5	16.2	12.8	16.4	17.4	17.8	17.2
Industrial production, total	6.4	4.3	2.7	4.5	5.1	5.0	-7.2	5.5	4.4	3.2	2.2	1.9	-4.3	4.3	4.6	2.4	2.1	1.9
Industrial production, mfg	5.0	5.3	3.9	4.9	6.3	6.0	-6.6	6.3	5.1	3.7	2.6	2.2	-2.5	4.2	5.4	2.7	2.5	2.1
Capacity utilization (mfg, %)	75.4	76.4	77.0	77.9	78.6	79.2	71.1	75.8	78.8	79.2	78.7	77.8	74.0	77.0	79.4	79.0	78.4	77.5
Nonfarm payroll employ. (mil.)	145.1	147.4	148.7	150.1	151.4	152.6	142.3	146.1	151.9	154.7	156.1	157.1	142.6	148.7	153.5	155.3	156.6	157.4
Average monthly chg. (thous.)	615	629	453	477	405	369	-785	554	380	139	105	69	213	453	269	109	81	75
Private nonfarm hours	5.9	7.0	3.2	3.7	3.7	3.3	-6.6	5.4	4.0	1.7	0.8	0.6	-5.0	5.0	3.2	0.9	0.8	0.5
Civilian unemployment rate (%)	5.9	5.1	4.5	4.2	3.9	3.6	8.1	5.4	3.8	3.5	3.6	3.8	6.7	4.5	3.5	3.5	3.7	3.8
Prices, Productivity, & Costs																		
CPI, all items, all urban	8.4	6.6	4.6	1.4	2.1	2.2	1.2	4.5	3.3	2.1	2.2	2.2	1.2	5.8	1.9	2.1	2.2	2.2
CPI excl food & energy, all urban	8.1	5.3	2.6	2.7	2.8	2.6	1.7	3.4	3.3	2.5	2.5	2.5	1.6		2.6	2.5	2.5	
PCE price index	6.5	5.3	3.6	1.8	2.0	2.1	1.2	3.7	2.9	1.9	2.1	2.1	1.2		1.9	1.9	2.2	
PCE price excl food & energy	6.1	4.5	2.6	2.7	2.5	2.4	1.4	3.1	3.0	2.3	2.2	2.2	1.4	3.9	2.5	2.2	2.3	
PPI finished goods	11.6	11.9	11.6	1.2	0.7	2.0	-1.3	8.7	5.0	1.4	1.8	1.8	-1.2		1.4	1.5	1.9	1.8
Compensation per hour	3.5	2.9	3.0	4.2	4.0	4.3	7.0	3.8	3.7	4.5	4.5	4.4	8.5		4.2	4.6	4.4	
Output per hour	2.4	-5.0	1.5	1.9	1.7	1.4	2.4	1.5	0.8	1.5	2.4	2.4	2.5		1.5	2.0	2.4	
Unit labor cost	1.1	8.3	1.5	2.2	2.3	2.8	4.5	2.3	2.9	2.9	2.0	2.0	5.8		2.7	2.6	2.0	
CoreLogic house price index **	5.7	4.2	2.2	2.2	1.8	1.6	6.2	16.0	10.0	4.5	2.3	1.3	8.6			3.3	1.8	1.2
Price of WTI crude oil (\$/barrel)	66.09	70.64	81.39	75.44	72.76	74.36	39.25	68.98	73.80	67.26	64.98	62.96	42.53		72.63	65.86	64.12	
Price of Brent crude oil (\$/barrel)	68.83	73.49	84.34	78.67	76.00	77.67	41.77	71.87	77.08	70.65	68.59	66.82	44.29	84.34	76.00	69.33	67.83	66.66
Selected Financial Variables																		
Federal funds rate (%)	0.07	0.09	0.09	0.09	0.09	0.09	0.38	0.08	0.09	0.37	0.97	1.66	0.09	0.09	0.09	0.61	1.18	1.93
Yield on 10-Yr Treasury Notes (%)	1.59	1.32	1.63	1.70	1.76	1.91	0.89	1.47	1.85	2.25	2.55	2.80	0.86		2.03	2.35	2.66	2.87
Baa corporate bond yield (%)	3.61	3.30	3.46	3.55	3.68	3.86	3.69	3.47	3.77	4.28	4.62	4.87	3.36	3.46	3.98	4.41	4.73	4.93
Broad trade-wtd US\$ (Jan 2006=100)	112.1	113.6	114.4	114.5	113.8	113.0	117.9	113.2	113.4	111.9	111.2	111.3	114.2		112.4	111.7	111.2	
S&P 500 stock index, period end	4297	4308	4704	4705	4730	4639	3756	4704	4596	4632	4611	4639	3756		4596	4632	4611	4639
S&P 500 stock index, average	4183	4421	4615	4705	4718	4685	3219	4270	4681	4593	4618	4619	3554			4622	4608	
Incomes & Related Measures																		
Corporate profits w/ IVA & CCAdj	49.1	-9.9	-22.6	16.4	8.9	4.6	-5.2	19.2	2.2	1.4	4.4	4.5	0.9	6.2	6.7	1.9	4.8	4.6
Real disposable personal income	-30.2	-5.6	-5.8	-0.1	3.6	3.6	6.2	1.7	-3.0	2.9	3.1	3.1	4.0		2.3	2.9	3.1	3.2
Personal saving rate (%)	10.5	8.9	6.5	5.7	5.9	6.2	16.4	11.6	6.0	6.5	6.6	6.6	13.6		6.2	6.5	6.6	
Fed. surplus (unified, FY, bil. \$)	-2127			-1613	-667	-869	-3132	-2772	-1156	-707	-789	-819	-2292		-995	-1085		-1164
* hillions of sheined 2012 C	-1-1	2107	. 47.0	.510	307	300	0102		. 100	, , ,	. 00	5.0		.470		.000		. 10-7

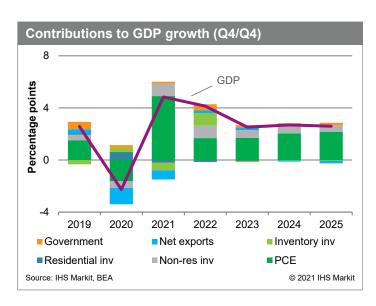
<sup>\*</sup> billions of chained 2012 \$

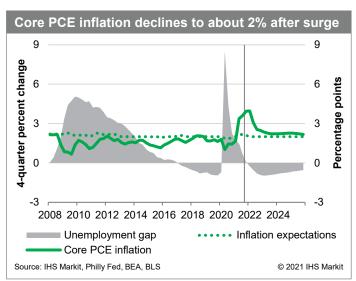
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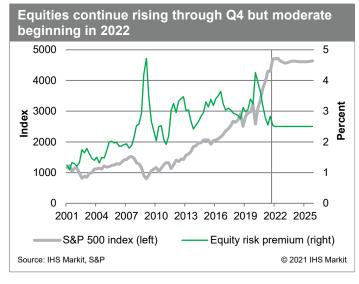
<sup>\*\* %</sup> change, not annualized Source: IHS Markit

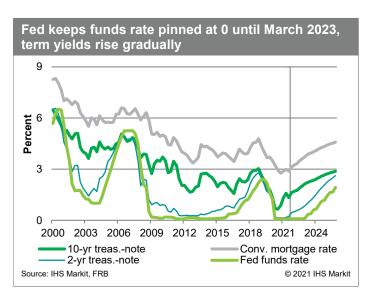
# Forecast at a glance

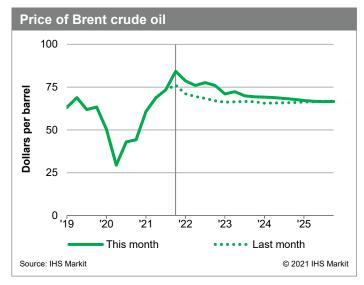












#### What's new

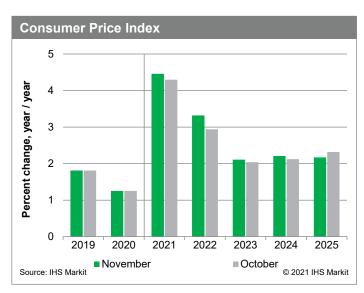
#### Q3 review; higher oil prices boost inflation; higher foreign yields lower USD; policy assumptions validated

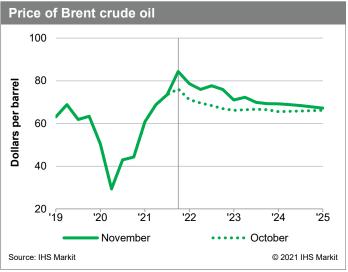
The November forecast is the first to include the third quarter as history for the National Accounts. BEA estimates real GDP grew 2.0% in Q3 after advancing at a 6.5% rate over the first half of the year. This was 0.6 percentage point above our October forecast and 0.4 percentage point above our final tracking estimate, but 1.6 percentage points below the October Blue Chip consensus. Final sales contracted (-0.1%) as growth of sales to domestic purchasers slowed sharply, from 8.0% in Q2 to 1.0% in Q3, while net exports subtracted 1.1 points from GDP growth as exports declined (-2.5%) and imports rose firmly (6.1%). Spending on consumer durables plunged (-26.2%) as light vehicle sales, constrained by lean inventories, tumbled from 16.9 million units in Q2 to 13.3 million units in Q3. PCE for services other than healthcare, housing, and utilities continued to recover, growing 13%. However, spending on activities at risk to COVID decelerated sharply, partly in response to the summer wave of infections. Expenditures on business equipment (-3.2%), nonresidential structures (-7.3%), and residential investment (-7.7%) all declined outright. Investment in intellectual property products was a bright spot, growing 12.2%. Inventories continued declining, but more slowly than in Q2. Consequently, inventory investment contributed 2.1 points to Q3 growth, more than accounting for the rise in GDP. Motor vehicle output, constrained by chip shortages, contracted 41.6%, subtracting 1.4 points from GDP growth. The GDP price index rose at a 5.7% pace.

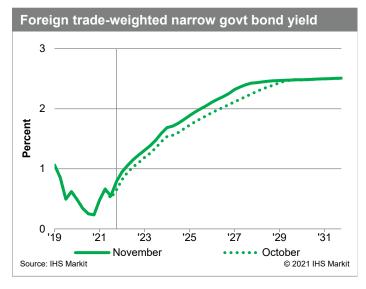
Our forecast for core consumer inflation is little changed this month, but our projection for headline CPI inflation in 2021 is revised from 4.3% to 4.5%, and in 2022 from 3.0% to 3.3% (chart, top). This results partly from an upward revision in our energy group's projection of the price of crude oil (chart, middle) to reflect market sentiment that soaring natural gas prices in Europe and Asia may induce switching to oil that might draw down inventories of crude. However, we also adjusted upwards modestly our projection of headline CPI inflation relative to the core rate.

Most of our country analysts have raised their projections of interest rates for the countries they cover (chart, bottom). This is in response to the global uptick in inflation that has fostered expectations of an earlier, and perhaps faster, removal of monetary accommodation by the world's major central banks. The most notable consequence is a downward revision of the US dollar averaging of 2% - 3% over the 10 years of the forecast.

Finally, two of our longstanding policy assumptions were validated when the Fed, following the recent FOMC meeting, announced the "taper" will begin this month, and the House passed the Infrastructure Investment and Jobs Act, sending it to President Biden for enactment within weeks.







## The view just ahead

#### Pick-up in Q4 growth tied to weakness in July; trend in monthly GDP does not firm until Q1

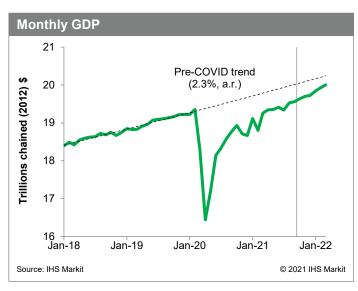
GDP growth picks up in our near-term forecast from 2.0% in the third quarter to 4.4% and 5.0% in the fourth and first quarters, respectively. The step-up in growth from the third to the fourth quarters, though, is not so much about what happens in the fourth quarter but rather what happened in July, as the Delta wave of new infections was ramping up. After rising an average of 0.3% per month from April through June, monthly GDP declined 0.4% in July before rebounding 1.0% in August, setting monthly GDP back on the prior trend. In our near-term forecast, monthly GDP then rises an average of 0.3% per month from September through December, exactly the trend along which GDP was rising prior to July. The divot in activity in July had the effect of lowering third-quarter growth and boosting fourth-quarter growth.

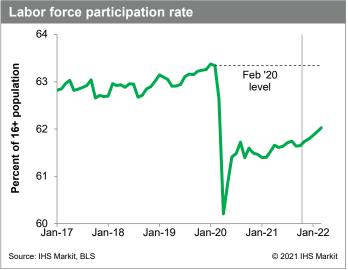
The trend in monthly GDP growth doesn't pick up in our near-term forecast until the first quarter of next year, when GDP advances at an average monthly rate of 0.5% per month. On the demand side, the primary driver of this acceleration is inventory investment, which turns from negative to positive in the first quarter. On the supply side, we assume that after trending generally sideways since mid-2020, the labor-force participation rate turns up in the forecast. Combined with the implicit assumption of mitigation of other supply-chain constraints, this helps to put monthly GDP on a stronger trend.

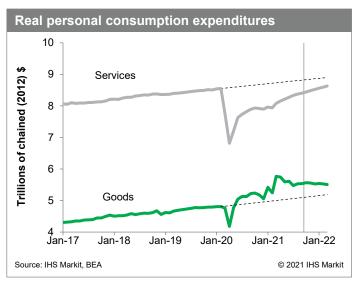
Contributing to the amelioration of supply conditions in our near-term forecast is a continued "re-normalization" of consumer spending patterns, as spending on goods drifts lower, giving way to rising spending on services. By March, real PCE on goods remains above the pre-pandemic trend, but to a lesser extent than recently, easing pressure on the supply chains that are supporting the production and distributions of these goods.

Following increases averaging 442 thousand per month over the last three months, payroll gains are assumed to average 452 thousand per month from November through March (2022). Even with a rising labor-force participation rate, this is sufficient to keep the unemployment rate on a downward track; we assume the unemployment rate declines from 4.6% in October to 4.0% by March.

Following outsized increases in the spring, the core PCE price index has decelerated in recent months, with one-month increases declining steadily from 0.6% in April and May to 0.2% by September. Going forward, this forecast assumes that monthly increases remain around 0.2% per month (although the October CPI report suggests a larger October gain). This keeps core PCE inflation on a twelve-month change basis close to 4.0% from November through March.







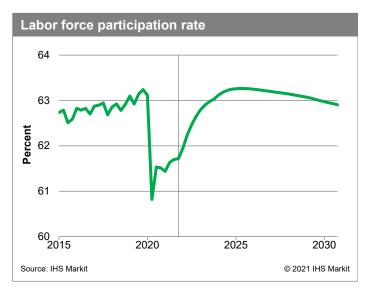
#### Growth

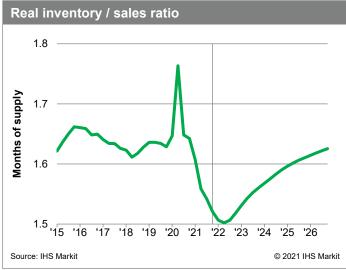
#### Gradual recovery in participation, rebuilding of inventories; chip shortage in auto sector eases by 2023

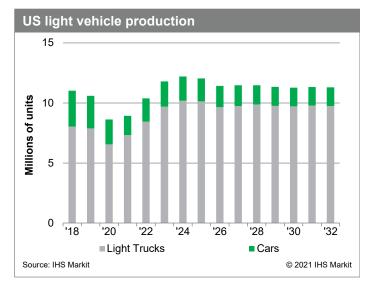
While much of the recent discussion of supply-chain disruptions has focused on shortages of certain commodities, labor is part of the supply chain as well. During the pandemic the participation rate fell far more than could be accounted for by normal cyclical variation. Among the reasons for this are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

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

One sector experiencing significant supply disruptions is the automotive industry, where shortages of microprocessors have sharply curtailed production. Early in the pandemic domestic sales and assemblies both fell, but sales then recovered quickly as auto loan rates fell and demand shifted from public to private transportation. In the meantime, the surging tech sector absorbed much of the available supply of chips, supply that itself was constrained by labor shortages in producing countries. In addition, the production of microprocessors shifted towards high-margin chips favored by the tech industry. As a result, 2021 will witness only a modest rise in US light vehicle production, from 8.6 million to 8.9 million units. We do not expect a full recovery until 2023, when a rising supply of chips will allow assemblies temporarily to exceed the pre-pandemic pace as producers rebuild depleted stocks (chart, bottom).







## Sector highlights

#### Consumer spending slowed in Q3; October employment report surprised to the upside

Consumer markets: According to the first estimate from BEA, real personal consumption expenditures (PCE) increased 1.6% in Q3, a sharp slowdown from 12.0% in Q2. Consumer spending sputtered over the summer months as the fading impact of fiscal stimulus coincided with a worrying spread of the Delta variant. High-frequency indicators on consumer activities such as air travel and hotel revenues remained subdued in October, suggesting some ongoing hesitancy on behalf of consumers. According to the Opportunity Insights Economic tracker, average consumer credit- and debit-card spending during the week ending 17 October was 23.0% above the January 2020 level, which was up materially from September and early October, setting up October for a healthy increase in retail and food services sales. As a result, we expect a solid rebound in real PCE growth of 4.5% in Q4, even though supply chain bottlenecks and high prices for some goods may disrupt retail trade over the holiday shopping period. On an annual average basis, we expect real PCE to grow 8.0% in 2021 and 3.4% in 2022.

Labor markets: The October employment report surprised to the upside, setting the labor market on a solid trajectory early in Q4. Nonfarm payroll employment rose 531 thousand in October, beating expectations, and the unemployment rate declined 0.2 percentage point to 4.6%. Combined with upward revisions to payroll gains for prior months, these developments reveal a labor market on a solid footing. The gain in overall payroll employment was more than accounted for by a 604 thousand increase in private payrolls. Notable gains there included leisure and hospitality (164 thousand), professional and business services (100 thousand), manufacturing (60 thousand), and transportation and warehousing (54 thousand). The recovery in payroll employment has come a long way, but the count of jobs remains 4.2 million below the February 2020 level and further below the rising pre-pandemic trend. This is not for a lack of trying, at least on the part of businesses, as labor demand remains strong. As of August, there were considerably more job openings than job seekers, and the laborforce participation rate has barely budged since spring. The labor force participation rate remained at 61.6% in October, down from 63.3% in February 2020. At some point, continued robust job growth will likely require a rising labor-force participation rate.

**Business investment:** Real nonresidential (business) fixed investment is forecast to grow 7.6% this year and 6.8% next year before moderating to growth averaging 4.5% over the following three years. The ongoing expansion and easing bank lending standards are supporting investment spending. Borrowing costs are rising, but they would be higher throughout

the forecast were it not for accommodative monetary policy, also helping to support the investment outlook. The increase in overall investment spending this year reflects robust increases in equipment spending (13.1%) and intellectual property products (10.7%) that are partially offset by an 8.1% decline in investment in structures. Beginning in 2023, all three major components of investment spending are forecast to rise.

Housing and construction: Builders, facing headwinds that show no signs of letting up, are putting up new houses at a furious pace. In September, the number of homes under construction moved up to 1.426 million (seasonally adjusted), the highest total since January 1974. The headwinds include rising material costs, labor shortages, and issues with the supply chain for building materials—on top of the pre-pandemic headwinds: lack of buildable lots and skilled labor.

Single-family permits have slid 18% since January; their year-to-date totals, nonetheless, are the highest since 2007. Multifamily permits totaled 600 thousand in Q3, the highest since Q4 1986. Despite steady declines from January and headwinds, total housing starts and single-family housing starts are on track for having their strongest year since 2006. Multifamily starts will post their highest totals since 1986. The four-quarter growth of the CoreLogic HPI reaches 18.5% in Q3 2021 (previously 18.6%) and 7.9% in Q3 2022 (previously 7.1%). We forecast home sales to rise to a 14-year high of 6.9 million in 2021 (previously 6.8 million) and 6.7 million in 2022 (previously 6.5 million).

International trade: The broad trade-weighted foreign exchange rate index is weaker in this month's forecast than in October's starting with the first quarter of 2022; by 2026, it is 3% lower. An upward revision in foreign government bond yields (relative to those in the US) is behind this change. Real imports in services and non-petroleum goods products—are also weaker; slower domestic growth accounts for this revision. The import price index, which grew at a 13% annual rate in both the first and second quarters, is expected to slow to a rounded 4% in the fourth quarter; an easing of bottlenecks and other disruptions will subsequently eliminate trade as a source of inflation.

Despite a weaker dollar, we downgraded the near-term outlook for exports: real exports grow 3.7% this year (previously 4.3%) and 5.5% in 2022 (previously 7.3%.) Slower economic growth abroad is behind this downgrade. Progress for real exports over the next few quarters will be a slog—in the forecast, real exports, which bounced halfway back from the pandemic last year and then sputtered, attain pre-pandemic levels in Q2 2023.

## Key forecast assumptions

#### COVID emergency relief waning; IIJA passes; taper begins November, Fed "lift-off" in March of 2023

COVID-19: The summer surge of coronavirus infections, while now slowing, delays the recovery in consumer spending on services and exacerbates supply issues, including labor force participation. We do not expect a recurrence of the national lockdown that precipitated the 2020 recession, nor a complete vanquishing of COVID. Rather, US society moves towards managing the risks of living alongside the virus for an extended period.

Federal fiscal policy: The forecast reflects all pandemic relief measures of 2020 and the \$1.9 trillion American Recovery Plan (ARP) enacted in March. The support to incomes from these measures, which averaged \$2.7 trillion (annual rate) over the first half of 2021, drops sharply to less than \$0.5 trillion by the fourth quarter of the year (chart, top), and even less in 2022. The forecast includes the Infrastructure Investment and Jobs Act (IIJA) now awaiting the President's signature; it does not yet include the "Build Back Better" reconciliation bill, the size, scope, and timing of which remain uncertain.

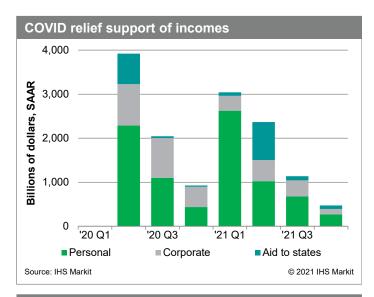
**State and local fiscal policy:** Strong revenues, reinforced by financial support provided under ARP, limit the usual cyclical state and local fiscal contraction. State and local employment rebounds unevenly with the re-opening of schools. States and localities receive unrestricted ARP funding in two tranches: the first in 2021 Q2, the second in 2022 Q2. The portion of IIJA funding that passes through to states and localities is reflected in state and local gross investment. The temporary 6 point increase in the Federal Medical Assistance Percentage for Medicaid ends in the fourth quarter of 2022.

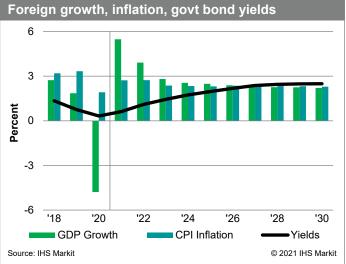
**Monetary policy:** the Fed tapers it purchases of Treasury and mortgage-backed securities to zero by mid-2022; begins raising its policy rate in March of 2023; and tolerates inflation modestly above 2% after 2023 to affirm its long-run 2% objective is an average, not a ceiling.

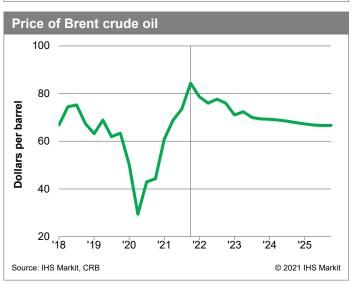
**Tariffs and trade:** Tariffs and trade agreements enacted by the US and China since 2017 remain in effect.

**Global growth:** Real, trade-weighted foreign GDP contracted 4.8% in 2020 but rebounds to grow 5.5% in 2021 and 3.9% in 2022 as the COVID-19 pandemic recedes (chart, middle). Foreign CPI inflation recedes from 2.7% in 2021-22 to 2.4% by 2024. The foreign government bond yield dipped to 0.3% in 2020 but gradually climbs to 2.5% by 2028.

Oil prices: With the rebound in global growth, the price of Brent crude oil surges to \$84/barrel in the fourth quarter of this year, then eases unevenly to \$67 by early 2025, before resuming a gradual secular rise (chart, bottom).







#### Alternative scenarios

#### Two alternative outcomes for the US economy

Our assessment of the economic risks around the baseline forecast as reflected in these alternative scenarios has not changed compared to last month. Relative to our updated base forecast, we continue to see the risks as being tilted to the downside. Posing upside risks are the persistent rise in productivity that firms achieved during the pandemic, the possible passage of more fiscal stimulus, and a growing share of the population that is vaccinated, potentially facilitating a full return to pre-pandemic in-person services consumption sooner than in the base forecast. Downside risks stem largely from a potential fall/winter resurgence in cases and hospitalizations due to the Delta or other variant of the coronavirus along with the possibility that the supply-chain issues persist for an extended period of time. As a result, we assign a 50% probability to our baseline forecast, 30% to the Pessimistic, and 20% to the Optimistic scenario.

# Pessimistic Scenario: Recovery stumbles as supply issues persist and consumers slow spending (30% probability)

This pessimistic scenario is characterized by a weaker recovery in consumer spending than in the baseline forecast. Underlying this narrative is the assumption that a resurgent virus this fall and winter, with an alarming rise in cases and hospitalizations leads to more caution on the part of consumers, as they increasingly refrain from socially-dense consumer activities. In addition, worsening of ongoing supply-chain issues leads to a prolonged delay in the production and shipment of consumer durable goods. As a result, consumer spending increases 7.7% and 2.4% in 2021 and 2022, respectively, versus 8.0% and 3.4% in the base case, measured year-over-year.

GDP increases at a 1.3% annualized rate in the fourth quarter and 3.1% in the first quarter of 2022, compared to 4.4% and 5.0% rates of increase, respectively, in the baseline. On an annual basis, GDP grows 3.1% and 3.0% in 2022 and 2023, respectively, versus 4.3% and 2.9% in the base case.

Evidence of consumer hesitancy and a persistence of supplychain issues lead businesses to scale back investment plans. Overall business fixed investment growth averages 5.5% over the four quarters of 2021, well below the baseline. Intellectual property investment rises while computer investment and investment in structures decline in 2021.

The unemployment rate peaked at 13.0% in the second quarter of 2020 and declined to 5.9% in the second quarter of 2021. It is expected to continue to decline, but at a slower pace than in the baseline, reaching 4.1% by late 2022, approximately where it remains through the end of the forecast horizon.

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

As a result of the slower recovery, GDP remains 0.7% below the base case and personal consumption expenditures remain 0.6% lower than the baseline in 2025.

# Optimistic Scenario: Return to "normal", still more stimulus, and improving supply issues drive faster growth (20% probability)

The optimistic scenario is characterized by a quicker recovery of consumer spending and by stronger productivity relative to the baseline. We assume the consumer and business response to the upcoming Infrastructure Investment and Jobs act is more robust than in the baseline, while an effective response to the delta variant allows for continued strong growth in consumer spending. Furthermore, we assume that firms continue to capitalize on the productivity gains that they achieved during the pandemic, which improves corporate profitability.

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

GDP rises at a 7.2% annual rate in the fourth quarter of 2021 and at a 5.3% average pace over the four quarters of 2022, compared to 4.4% and 4.1% rates of increase, respectively, in the baseline.

The strength of this scenario early on is partly attributed to more front-loaded spending by households. This is in response to the prior stimulus, as consumers spend down some of the excess savings that accumulated over 2020, and a less threatening COVID environment. This allows consumer spending to rise 4.9% over 2022 compared to 3.4% in the baseline.

Business fixed investment rises more quickly and remains elevated relative to baseline thanks to an acceleration in productivity. Business fixed investment grows 9.3% over the four quarters of 2022, compared to 7.3% in the baseline.

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

US Macro Forecas	st Snapshot		
	Baseline (50%)	Pessimistic (30%)	Optimistic (20%)
GDP growth	Real GDP rises 5.5% in 2021 as annualized growth increases from 2.0% in the third quarter to 4.4% in the fourth. Growth slows to 4.3% in 2022 and 2.9% in 2023.	Real GDP rises 5.3% in 2021 as return of pandemic-related hesitancy inhibits vigor of the rebound. Growth slows to 3.1% in 2022 and 3.0% in 2023.	Real GDP surges 5.7% in 2021 and 2022. Growth moderates to 3.5% in 2023.
Consumer spending	Spending jumps 8.0% in 2021 thanks to surges of more than 11% at annual rates in the first and second quarters. Growth slows to 3.4% in 2022 and 2.3% in 2023.	Spread of variants prompts extra caution by consumers versus baseline. Spending declines slightly in third quarter but rises 7.7% in 2021, before slipping to 2.4% in 2022 and 2.9% in 2023.	Surges 8.2% in 2021 and rises 4.9% in 2022, easing to 3.2% growth in 2023.
Business fixed investment	Jumps 7.6% in 2021 and remains strong at 6.8% growth in 2022 and 5.1% in 2023.	Grows 7.1% in 2021, 5.2% in 2022, and 5.5% in 2023.	Rises 8.0% in 2021, 9.3% in 2022, and 6.9% in 2023.
Housing	Housing starts rise from 1.40 million in 2020 to 1.57 million in 2021 before slipping to 1.43 million in 2022 and 1.33 million in 2023.	Housing starts rise from 1.40 million in 2020 to 1.56 million in 2021 but fall to 1.32 million in 2022 and 1.24 million in 2023.	Housing starts grow from 1.40 million in 2020 to 1.58 million in 2021 before settling back to 1.47 million in 2022 and 1.37 million in 2023.
Exports	Recover 3.7% in 2021 and 5.5% in 2022, surpassing prior peak in the second quarter of 2023 as the pandemic inhibits global trade. Exports rise 8.3% in 2023.	Grows 3.7% in 2021, 2.6% in 2022, and 6.9% in 2023.	Rise 3.8% in 2021, 6.7% in 2022, and 8.2% in 2023.
Fiscal policy	\$1.9 trillion ARP included. Income support drops from \$2.7 trillion (annualized) in first half of 2021 to \$0.7 trillion in second half. Forecast also includes the proposed infrastructure package.	Same fiscal assumptions as in baseline.	Consumers spend stimulus income to a greater degree than in the baseline.
Monetary policy	Fed keeps the funds rate at the zero bound through March 2023; current pace of asset purchases maintained through 2021 before tapering over 2022.	Fed keeps the federal funds rate at the zero bound till mid-2026; aggressive "quantitative easing" and liquidity enhancement measures.	Fed raises the federal funds rate at the start of 2022 in response to sustained inflation well above 2%.
Credit conditions	Rapidly ease in 2021 before stabilizing at a gentle pace of easing in 2022-2023.	Remain slightly tighter than in baseline.	Slightly looser than in baseline.
Productivity growth	Slips from 2.4% in 2020 to 1.5% in 2021 with labor markets tight, slowing to 0.8% in 2022 and 1.5% in 2023.	Decreases down to 1.4% in 2021 and slows to 0.3% in 2022 before picking up to 1.8% in 2023.	Falls to 1.5% in 2021 and remains there in 2022 before rising to 2.5% in 2023.
Consumer confidence	Rises steadily through the fourth quarter of 2022 before leveling out around prepandemic levels through late 2025.	Remains below the baseline over the entire forecast interval.	Outperforms baseline over the entire forecast interval.
Oil prices (Dollars/ barrel)	Average price of Brent crude oil rises from \$42/barrel in 2020 to \$72 in 2021, \$77 in 2022, and \$71 in 2023.	Brent crude oil averages \$71 in 2021, \$75 in 2022, and \$69 in 2023.	Brent crude oil averages \$72 in 2021, \$79 in 2022, falling back to \$72 in 2023.
Stock markets	The year-end value of the S&P 500 rose 16.3% in 2020. It rises 25.2% in 2021, falls 2.3% in 2022, and increases 0.8% in 2023.	The year-end value of the S&P 500 rises 24.5% in 2021, then contracts 6.7% in 2022 before edging up 0.4% in 2023.	The year-end value of the S&P 500 surges 26.6% in 2021, with smaller gains of 4.8% in 2022 and slight decline of 0.3% in 2023.
Inflation (PCE)	Core personal consumption (PCE) price inflation rises from 1.4% in 2020 to 3.1% in 2021 as supply chains are stretched, but ticks down to 3.0% in 2022 and 2.3% in 2023.	Core PCE price inflation rises to 3.1% in 2021 but slows to 2.5% in 2022 and 1.1% in 2023.	Core PCE price inflation rises to 3.2% and remains there in 2022, slowing to 2.5% in 2023.
Foreign growth	Eurozone GDP rises 5.0% in 2021 and 4.0% in 2022 after a 6.4% drop in 2020, while China's growth rises from 2.3% to 8.2% in 2021 and slows to 5.7% in 2022	Global economy continues to suffer COVID-19-related setbacks.	Global economy recovers more quickly than in baseline.
US dollar	The broad dollar increases slightly through 2022Q1, then depreciates gently through 2025.	Falls gently from 2022 through the end of the forecast.	The broad dollar strengthens slightly more than in the baseline.

Alternative Scenarios of the l			Annual	rates					Annual av	erages					Q4/	Q4		
	2021.3	2021.4	2022.1	2022.2	2022.3	2022.4	2020	2021	2022	2023	2024	2025	2020	2021	2022	2023	2024	202
Pessimistic: Recovery stumbl																		
Composition of Real GDP, Pe		• •	•				•											
Gross Domestic Product	2.0	1.3	3.1	4.1	3.7	3.0	-3.4	5.3	3.1	3.0	3.0	2.8	-2.3	4.0	3.5	2.9	2.9	2
Total Consumption	1.6	0.7	1.0	2.8	3.1	2.7	-3.8	7.7	2.4	2.9	3.0	3.2	-2.4	6.3	2.4	2.9	3.0	3
Nonresidential Fixed Investment	1.8	-1.2	6.4	8.5	8.3	7.1	-5.3	7.1	5.2	5.5	4.1	3.8	-3.8	5.5	7.6	4.1	4.0	3
Residential Fixed Investment	-7.7	-9.8	-14.0	-8.7	-4.5	-3.8	6.8	8.4	-9.5	-3.0	0.9	0.0	15.7	-4.5	-7.9	-0.8	0.7	-0
Exports	-2.5	1.9	0.4	4.7	5.8	6.1	-13.6	3.7	2.6	6.9	7.5	5.9	-10.7	0.9	4.2	7.6	7.0	5
Imports	6.1	-2.7	-2.7	3.6	7.7	7.9	-8.9	12.8	2.1	6.2	4.1	4.6	0.3	4.8	4.0	5.1	4.2	4
Federal Government	-4.7	-0.7	5.7	-0.3	0.4	-1.3	5.0	0.9	0.2	-0.1	0.6	0.9	3.1	-0.1	1.1	0.3	0.8	0
State & Local Government	4.4	0.6	4.5	4.5	3.3	2.7	0.9	0.5	3.2	2.2	1.1	0.9	0.0	1.2	3.7	1.5	0.8	1
Prices & Wages, Percent Cha																		
Consumer Prices	6.6	4.2	0.9	1.7	1.3	1.0	1.2	4.4	2.9	1.0	1.2	1.5	1.2	5.7	1.2	1.0	1.3	1
Producer Prices, Finished Goods	11.9 2.9	10.7 2.6	0.4 3.3	0.3	1.1	0.6 2.8	-1.3 7.0	8.6 3.8	4.4	0.4 3.0	0.8	1.1 3.6	-1.2 8.5	12.1	0.6	0.3	1.0	1
Other Key Magazine Baroant		2.0	3.3	3.2	3.1	2.0	7.0	3.0	3.0	3.0	3.3	3.0	0.5	2.6	3.1	3.1	3.4	3
Other Key Measures, Percent		0.7	1.0	0.1	4.7	4.0	0.4	4.4		4.0	0.0	0.0	0.5		4.5	0.0		
Productivity Total Industrial Production	-5.0 4.3	-0.7 -0.1	1.0 1.9	2.1	1.7 5.8	1.2 4.9	2.4 -7.2	1.4 5.3	0.3	1.8 3.9	2.6 2.6	2.6 1.9	2.5 -4.3	0.2 3.6	1.5 4.1	2.2 3.0	2.6	2
Payroll Employment	6.7	3.0	3.5	3.0	2.5	1.8	-7.2	2.7	3.6	1.6	0.8	0.5	-6.0	4.1	2.7	1.0	0.7	0
Incomes, Percent Change	0.7	3.0	3.3	5.0	2.0	1.0	-0.7	۷.1	3.0	1.0	0.0	0.0	-0.0	4.1	2.1	1.0	J.1	- 0
Personal Income	0.9	-3.4	0.6	3.9	4.4	3.3	6.5	6.4	-0.5	4.1	4.6	4.7	4.8	4.6	3.1	4.3	4.7	4
After-Tax Profits (Four-qtr.% change)	-9.9	-33.7	12.3	15.1	5.7	-1.2	-5.2	18.1	-0.5	1.9	4.4	5.0	0.9	2.1	7.8	1.5	5.2	5
(	0.0		Lev		٠		0.2		Annual av			3.0	0.0		Q4 va		3.2	3
Other Key Measures																		
Brent Crude, Spot Price (\$/bbl)	73.49	82.34	76.78	74.29	75.81	74.16	41.77	71.37	75.26	68.83	66.75	64.87	44.29	82.34	74.16	67.52	65.96	64.6
Nonfarm Inven. Chg. (Bil.2012 \$)	-53.7	-16.6	20.5	62.2	95.3	126.1	-35.3	-73.1	76.0	144.4	152.4	141.7	90.2	-16.6	126.1	146.7	151.8	136
Light Vehicle Sales (Mil. units, saar)	13.3	12.6	13.3	14.4	15.4	15.7	14.5	14.9	14.7	16.7	17.5	17.2	16.2	12.6	15.7	17.1	17.6	16
Housing Starts (Mil. units, saar)	1.6	1.5	1.4	1.3	1.3	1.3	1.4	1.6	1.3	1.2	1.2	1.2	1.6	1.5	1.3	1.3	1.2	1
Unemployment Rate (%)	5.1	4.7	4.5	4.3	4.2	4.1	8.1	5.5	4.3	4.1	4.2	4.2	6.7	4.7	4.1	4.1	4.2	4
Federal Surplus (Unified, FY, bil. \$)	-2136.9	-1485.3	-1641.8	-712.0	-923.4	-1052.8	-3348.2	-2570.6	-1082.5	-779.2	-827.8	-850.3	-2291.6	-1485.3	-1052.8	-1134.2	-1143.6	-1181
Financial Markets, NSA, Quai	rter Avera	age																
Federal Funds Rate (%)	0.09	0.09	0.10	0.10	0.10	0.10	0.38	0.08	0.10	0.10	0.10	0.10	0.09	0.09	0.10	0.10	0.10	0.1
10-Year Treasury Note Yield (%)	1.32	1.57	1.62	1.68	1.74	1.81	0.89	1.45	1.71	1.93	2.14	2.37	0.86	1.57	1.81	1.99	2.22	2.4
			Annual						Annual av						Q4/	Q4		
Optimistic: Return to "normal	", still m	ore stin	nulus, a	nd imp	roving s	supply is	ssues dr	ive fast	er grow	th (Prob	o. = 20%	<u>)                                    </u>						
Composition of Real GDP, Pe	rcent Ch	ange																
Gross Domestic Product	2.0	7.2	7.2	5.8	4.9	3.3	-3.4	5.7	5.7	3.5	2.7	2.4	-2.3	5.5	5.3	3.0	2.6	2
Total Consumption	1.6	7.8	5.3	3.4	3.6	2.8	-3.8	8.2	4.9	3.2	2.9	2.9	-2.4	8.1	3.8	3.2	2.8	2
Nonresidential Fixed Investment	1.8	11.7	13.2	7.9	9.2	7.0	-5.3	8.0	9.3	6.9	4.9	3.9	-3.8	8.8	9.3	6.0	4.6	3
Residential Fixed Investment	-7.7	-6.1	-5.2	-1.2	-0.8	-2.4	6.8	8.7	-4.7	-1.9	0.3	0.4	15.7	-3.5	-2.5	-1.5	0.7	0
Exports	-2.5	3.1	7.2	11.1	12.3	10.2	-13.6	3.8	6.7	8.2	5.6	4.5	-10.7	1.2	10.2	6.2	5.5	4
Imports Federal Government	6.1 -4.7	4.2 -0.8	9.5 5.7	6.7 -0.3	6.8 0.4	6.6 -1.3	-8.9 5.0	13.3	6.9 0.2	5.4 -0.2	4.0	4.8 0.8	0.3 3.1	6.6	7.4	4.3 0.2	4.3 0.8	0.
State & Local Government	4.4	0.6	4.5	4.5	3.3	2.7	0.9	0.5	3.2	2.2	0.6 1.1	0.8	0.0	-0.1 1.2	1.1 3.7	1.5	0.8	1.
Prices & Wages, Percent Cha		0.0	4.0	4.5	0.0	2.1	0.5	0.5	0.2	2.2	1.1	0.9	0.0	1.2	3.7	1.5	0.5	- 1
Consumer Prices	6.6	4.9	1.4	2.7	2.6	2.3	1.2	4.5	3.6	2.4	2.3	2.3	1.2	5.9	2.3	2.3	2.3	2.
Producer Prices, Finished Goods	11.9	12.0	1.4	1.4	2.5	1.9	-1.3	8.7	5.3	1.7	1.9	1.9	-1.2	12.4	1.8	1.6	2.0	1.
Compensation per hour	2.9	3.1	4.5	4.7	4.8	4.7	7.0	3.8	4.1	5.0	4.9	4.8	8.5	2.7	4.7	5.1	4.8	4
Other Key Measures, Percent	Change																	
Productivity	-5.0	1.9	3.3	2.2	2.9	1.5	2.4	1.5	1.5	2.5	2.6	2.4	2.5	0.8	2.5	2.8	2.4	2
Total Industrial Production	4.3	4.3	7.1	7.3	6.4	4.3	-7.2	5.6	5.9	3.8	2.3	1.6	-4.3	4.7	6.2	2.8	2.0	1
Payroll Employment	6.7	4.4	4.8	4.8	2.6	1.5	-5.7	2.8	4.5	1.5	0.9	0.5	-6.0	4.5	3.4	1.0	0.8	0
Incomes, Percent Change																		
Personal Income	0.9	0.5	4.3	7.0	7.2	5.2	6.5	6.6	2.2	5.9	5.6	5.4	4.8	5.7	5.9	5.6	5.6	5.
Corporate profits w/ IVA & CCAdj	-9.9	-14.0	20.5	9.6	8.9	-2.4	-5.2	19.9	5.8	2.8	1.8	2.4	0.9	9.0	8.8	2.4	1.9	2.
			Lev	els					Annual av	erages					Q4 va	alues		
Other Key Measures																		
Brent Crude, Spot Price (\$/bbl)	73.49	86.34	80.89	78.20	79.07	77.20	41.77	72.37	78.84	71.66	69.45	67.67	44.29	86.34	77.20	70.20	68.70	67.4
	-53.7	-15.9	52.2	132.3	162.2	175.4	-35.3	-72.9	130.5	160.6	130.5	113.2	90.2	-15.9	175.4	146.9	122.7	107
Nonfarm Inven. Chg. (Bil.2012 \$)	13.3	13.7	14.3	15.7	16.7	17.0	14.5	15.2	15.9	17.7	18.3	17.9	16.2	13.7	17.0	18.0	18.3	17
Light Vehicle Sales (Mil. units, saar)		1.551	1.521	1.484	1.443	1.416	1.4	1.6	1.5	1.4	1.4	1.4	1.6	1.6	1.4	1.4	1.4	1
Light Vehicle Sales (Mil. units, saar) Housing Starts (Mil. units, saar)	1.566							F 4	2 5	3.1	3.4	3.6	6.7	4.3	2.4	0.0	3.5	3
Nonfarm Inven. Chg. (Bil.2012 \$) Light Vehicle Sales (Mil. units, saar) Housing Starts (Mil. units, saar) Unemployment Rate (%)	5.1	4.3	3.9	3.6	3.3	3.1	8.1	5.4	3.5						3.1	3.3		
Light Vehicle Sales (Mil. units, saar) Housing Starts (Mil. units, saar) Unemployment Rate (%) Federal Surplus (Unified, FY, bil. \$)	5.1 -2136.9	4.3 -1462.9		3.6 -615.2	3.3 -815.0	3.1 -943.8		-2565.0	-988.3	-688.4	-769.4	-828.8		-1462.9	-943.8			
Light Vehicle Sales (Mil. units, saar) Housing Starts (Mil. units, saar) Unemployment Rate (%) Federal Surplus (Unified, FY, bil. \$) Financial Markets, NSA, Qual	5.1 -2136.9 rter Avera	4.3 -1462.9 age	-1579.3	-615.2	-815.0	-943.8	-3348.2	-2565.0	-988.3	-688.4	-769.4	-828.8	-2291.6	-1462.9	-943.8	-1046.0	-1093.4	-1168
Light Vehicle Sales (Mil. units, saar) Housing Starts (Mil. units, saar) Unemployment Rate (%) Federal Surplus (Unified, FY, bil. \$)	5.1 -2136.9	4.3 -1462.9																

Monthly Economic Indicators													
	Sep.	Oct.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.			
	2020	2020	2021	2021	2021	2021	2021	2021	2021	2021	2018	2019	2020
Industrial Markets	05.6	06.6	00.0	00.0	00.0	100.4	101.4	101.0	100.0		100.0	100.0	
Industrial Prod. Total (2017=100.0)	95.6	96.6	99.2	99.2	99.9	100.4	101.4	101.3	100.0		103.2	102.3	95.0
Percent Change	-0.3	1.1	2.9	0.1	0.7	0.5	1.0	-0.1	-1.3		3.2	-0.8	-7.2
Percent Change Year Earlier	-6.6	-4.7	1.8	17.9	16.4	10.2	6.9	5.7	4.6				
Capacity Utilization, Manufacturing (%)	72.4	73.5	75.3	75.1	75.7	75.5	76.8	76.5	75.9		77.7	75.8	71.1
Unemployment Rate (%)	7.8	6.9	6.0	6.1	5.8	5.9	5.4	5.2	4.8	4.6	3.9	3.7	8.1
Payroll Employment (Mil.)	141.865	142.545	144.057	144.326	144.940	145.902	146.993	147.476	147.788	148.319	148.893	150.900	142.252
Change (Mil.)	0.716	0.680	0.785	0.269	0.614	0.962	1.091	0.483	0.312	0.531	2.298	2.007	-8.648
Leading Indicator (2016=1.000)	1.075	1.082	1.115	1.131	1.146	1.154	1.164	1.173	1.175		1.097	1.115	1.061
Percent Change	0.9	0.7	1.3	1.4	1.3	0.7	0.9	0.8	0.2		5.6	1.6	-4.9
New Orders, Mfg. (Bil. \$)	449.1	453.1	488.1	487.4	498.6	506.1	509.5	514.6	515.9		484.9	483.7	433.3
Percent Change	1.0	0.9	1.4	-0.1	2.3	1.5	0.7	1.0	0.2		5.7	-0.2	-10.4
Inv. Chg., Mfg. & Trade (Bil. \$)	16.8	17.4	4.7	1.3	12.2	18.6	11.4	13.4			85.4	48.6	-52.3
Merchandise Trade Bal. (Bil. \$)	-80.2	-81.1	-91.9	-85.9	-88.1	-92.0	-86.9	-88.0	-97.0		-870.4	-850.9	-911.1
Consumer Markets													
Disposable Income (Bil. 2012\$)	15643	15568	19119	16103	15598	15518	15618	15587	15335		14429	14756	15677
Percent Change	0.6	-0.5	23.0	-15.8	-3.1	-0.5	0.6	-0.2	-1.6		3.4	2.3	6.2
Personal Income (Bil. \$)	19675	19629	24142	20863	20414	20449	20667	20709	20493		17706	18424	19628
Percent Change	0.7	-0.2	21.0	-13.6	-2.2	0.2	1.1	0.2	-1.0		5.1	4.1	6.5
Personal Saving Rate (%)	14.3	13.6	26.6	12.4	10.0	9.0	9.9	9.2	7.5		7.6	7.6	16.3
Consumer Expenditures (Bil. \$)	14482	14546	15459	15619	15624	15802	15812	15967	16060		13914	14429	14048
Percent Change	1.5	0.4	5.2	1.0	0.0	1.1	0.1	1.0	0.6		5.1	3.7	-2.6
Retail Sales (Bil. \$)	548.9	550.0	623.1	628.8	620.1	625.4	615.3	620.9	625.4		5988.8	6185.4	6202.4
Percent Change	2.0	0.2	11.3	0.9	-1.4	0.9	-1.6	0.9	0.7		4.4	3.3	0.3
Non-Auto. Retail Sales (Bil. \$)	434.9	435.8	487.7	487.4	485.3	493.4	488.9	498.7	502.6		4784.0	4946.0	4959.8
Percent Change	1.6	0.2	9.8	-0.1	-0.4	1.7	-0.9	2.0	0.8		5.1	3.4	0.3
New Light-Vehicle Sales (Mil.)	16.3	16.4	17.6	18.3	16.9	15.5	14.7	13.1	12.2	13.0	17.2	17.0	14.5
Housing Starts (Mil.)	1.448	1.514	1.725	1.514	1.594	1.657	1.562	1.58	1.555		1.247	1.292	1.397
New Home Sales (Mil.)	0.971	0.969	0.873	0.796	0.733	0.683	0.712	0.702	0.8		0.614	0.683	0.828
Existing Home Sales (Mil.)	6.440	6.730	6.010	5.850	5.780	5.870	6.000	5.880	6.290		5.334	5.327	5.658
Chg. Consumer Install. Credit (Bil. \$)	16.8	-0.2	19.4	16.1	32.7	35.5	16.6	13.8	29.9		176.3	185.1	-7.3
Prices and Wages													
CPI, All Urban Consumers	2.601	2.605	2.648	2.668	2.686	2.710	2.723	2.730	2.741	2.767	2.511	2.557	2.588
Percent Change Year Earlier	1.4	1.2	2.6	4.2	4.9	5.3	5.3	5.2	5.4	6.2	2.4	1.8	1.2
Core Cons. Price Defl. (2012=100.0)	114.1	114.1	115.4	116.1	116.8	117.3	117.7	118.0	118.3		110.1	112.0	113.6
Percent Change Year Earlier	1.6	1.4	2.0	3.1	3.5	3.6	3.6	3.6	3.6		2.0	1.7	1.4
PPI, Finished Goods	2.029	2.039	2.144	2.153	2.172	2.201	2.21	2.232	2.266	2.293	2.041	2.057	2.030
Percent Change Year Earlier	-1.1	-1.2	6.0	9.6	8.4	9.4	9.4	10.3	11.7	12.5	3.1	0.8	-1.3
PPI, Industrial Commodities (NSA)	1.956	1.957	2.160	2.181	2.244	2.289	2.330	2.341	2.372	2.432	2.037	2.007	1.939
Percent Change Year Earlier	-2.0	-1.7	12.0	18.1	20.8	20.2	20.7	20.2	21.3	24.3	5.2	-1.5	-3.4
Avg. Private Hourly Earnings (\$)	24.79	24.83	25.27	25.45	25.6	25.72	25.86	26.01	26.16	26.26	22.70	23.51	24.68
Percent Change Year Earlier	4.6	4.5	4.6	1.2	2.4	3.8	4.8	4.8	5.5	5.8	3.0	3.5	5.0
Brent Crude, Spot Price (\$/bbl.)	40.91	40.19	65.41	64.79	68.53	73.16	75.12	70.87	74.49	83.54	70.96	64.34	41.77
Percent Change Year Earlier	-34.9	-34.9	104.9	250.9	133.0	81.7	73.7	58.3	82.1	107.9	29.4	-9.3	-35.1
Henry Hub Spot Natural Gas (\$/mmbtu)	1.92	2.39	2.62	2.66	2.91	3.26	3.84	4.07	5.16	5.53	3.17	2.57	2.03
Percent Change Year Earlier	-24.9	2.5	46.2	53.0	66.6	99.7	117.6	77.0	168.5	131.4	6.8	-18.9	-20.8
Financial Markets, Period Average													
Federal Funds Rate (%)	0.09	0.09	0.07	0.07	0.06	0.08	0.10	0.09	0.08	0.08	1.83	2.16	0.38
3-Month T-Bill Rate (%)	0.11	0.10	0.03	0.02	0.02	0.04	0.05	0.05	0.04	0.05	1.94	2.06	0.37
Commercial Bank Prime Rate (%)	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	4.90	5.28	3.54
10-Year Treasury Note Yield (%)	0.68	0.79	1.61	1.64	1.62	1.52	1.32	1.28	1.37	1.58	2.91	2.14	0.89
Conv. Mortgage Rate, FHLMC (%)	2.89	2.83	3.08	3.06	2.96	2.98	2.87	2.84	2.87	3.06	4.54	3.94	3.12
M1 Money Supply (Bil. \$)	17157	17347	18669	18918	19197	19244	19408	19682	19862		3680	3844	12793
Percent Change	1.6	1.1	1.5	1.3	1.5	0.2	0.9	1.4	0.9		4.4	4.5	232.8
M2 Money Supply (Bil. \$)	18602	18748	19913	20129	20391	20418	20567	20820	20983		14116	14836	17677
Percent Change	1.2	0.8	1.3	1.1	1.3	0.1	0.7	1.2	0.8		3.9	5.1	19.1
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Summary of the US Economy													
	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4	2024:1	2024:2
Composition of Real GDP, Percent Change, Annua													
Gross Domestic Product	6.7	2.0	4.4	5.0	4.7	4.0	2.8	2.4	2.3	2.5	2.8	2.9	2.8
Final Sales of Domestic Product	8.1	-0.1	3.5	3.7	3.4	3.1	2.4	2.4	2.5	2.7	2.9	2.9	2.8
Gross Domestic Income	2.3	1.4	4.8	4.9	4.7	4.0	2.7	2.4	2.3	2.5	2.7	2.8	2.7
Avg. of GDP and GDI	4.5	1.5	4.9	4.9	4.7 2.5	4.0	2.8	2.4	2.3	2.5	2.8 2.9	2.8 3.0	2.8
Total Consumption Durables	12.0 11.6	1.6 -26.2	4.5 1.5	2.9 -1.0	-1.0	2.4 -0.7	1.9 -1.8	2.1 -0.9	2.4 0.9	2.6 1.5	3.0	3.0	3.0 4.0
Nondurables	13.9	2.6	3.4	-1.0	-1.0	-0.7	0.3	1.4	1.9	2.3	2.4	2.6	2.8
Services	11.5	7.9	5.4	5.5	4.5	3.9	3.1	2.9	2.8	3.0	3.0	3.0	3.0
Nonresidential Fixed Investment	9.2	1.8	5.9	9.3	7.5	6.9	5.4	4.5	4.2	4.4	4.7	4.7	4.6
Equipment	12.1	-3.2	4.8	9.6	10.5	9.7	7.7	6.1	5.6	5.7	6.0	5.9	6.0
Information Processing Equipment	-7.8	-5.8	6.7	9.2	9.2	3.8	4.7	3.4	4.2	2.3	3.3	3.4	2.5
Industrial Equipment	32.9	11.2	-6.7	-4.3	22.2	22.7	4.8	5.8	13.3	12.3	6.3	6.4	3.7
Transportation equipment	52.1	-18.6	27.2	77.8	-15.6	0.8	23.4	7.2	6.2	4.9	6.8	3.5	12.8
Aircraft	119.1	-9.1	57.2	37.7	35.6	29.3	27.3	6.9	4.6	1.9	6.8	-3.5	2.9
Other Equipment	3.3	0.5	-1.2	-16.3	29.7	15.0	2.2	9.5	-0.5	4.4	9.4	11.9	7.5
Intellectual Property Products	12.5	12.2	12.0	12.0	7.7	7.0	5.3	4.5	4.0	4.0	4.1	4.0	3.6
Structures	-3.0	-7.3	-3.9	3.0	0.5	0.2	0.5	0.9	1.5	2.1	2.8	3.5	3.7
Commercial & Health Care	-3.5	-8.9	-8.4	-8.9	-14.4	-13.2	-13.5	-5.4	-0.9	2.4	5.7	6.5	13.1
Manufacturing	12.7	-13.6	-20.2	-4.6	23.1	18.0	13.5	6.6	0.3	-2.3	-6.5	1.3	-10.8
Power & Communication	-12.3	-13.0	-10.2	1.8	-1.8	-1.0	0.1	-3.9	-0.2	-2.1	1.6	2.0	3.4
Mining & Petroleum	29.2	21.7	23.3	37.8	18.2	8.8	14.7	9.9	3.0	5.0	0.9	-2.7	-1.7
Other	-20.8	-13.9	3.7	5.2	2.1	6.6	2.2	3.1	6.7	6.5	9.1	9.1	6.3
Residential Fixed Investment	-11.7	-7.7	-8.1	-6.8	-1.3	-1.4	-2.9	-3.0	-2.6	-1.6	0.8	1.5	1.0
Exports	7.6	-2.5	2.4	5.6	9.3	9.7	9.4	8.4	7.5	6.6	6.1	5.7	5.6
Imports	7.1	6.0	1.3	4.3	4.7	5.8	5.1	4.5	3.9	3.6	4.1	4.6	5.0
Federal Government	-5.3	-4.7	-0.7	5.7	-0.3	0.4	-1.3	0.0	0.3	0.0	0.7	0.7	0.7
State & Local Government	0.2	4.4	0.6	4.5	4.5	3.3	2.7	2.0	1.5	1.5	1.2	1.1	1.1
Billions of Dollars													
Real GDP	19368.3	19465.2	19676.9	19918.1	20150.1	20350.6	20491.2	20613.7	20732.5	20863.3	21007.2	21155.4	21300.9
Nominal GDP	22741.0	23173.5	23661.5	24127.0	24546.0	24923.1	25226.9	25517.6	25812.5	26120.1	26460.0	26815.5	27169.2
Prices & Wages, Percent Change, Annual Rate													
GDP Deflator	6.1	5.7	3.6	3.0	2.3	2.2	2.1	2.2	2.3	2.2	2.5	2.6	2.5
Consumer Prices	8.4	6.6	4.6	1.4	2.1	2.2	2.1	2.0	2.3	2.0	2.2	2.3	2.2
Producer Prices, Finished Goods	11.6	11.9	11.6	1.2	0.7	2.0	1.7	0.9	1.8	1.5	1.7	1.9	1.9
Employment Cost Index - Total Comp.	3.1	5.7	5.8	5.6	5.3	5.2	4.8	4.4	4.3	4.1	4.1	4.0	4.0
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	68.83	73.49	84.34	78.67	76.00	77.67	76.00	71.00	72.33	69.92	69.33	69.21	68.88
Productivity (%ch., saar)	2.4	-5.0	1.5	1.9	1.7	1.4	0.9	1.3	1.7	2.3	2.6	2.5	2.4
Total Industrial Production (%ch., saar)	6.4	4.3	2.7	4.5	5.1	5.0	3.6	2.9	2.3	2.1	2.2	2.3	2.2
Factory Operating Rate	75.4	76.4	77.0	77.9	78.6	79.2	79.4	79.4	79.3	79.1	79.0	78.9	78.8
Nonfarm Inven. Chg. (Bil. 2012 \$)	-147.7	-53.7	-17.4	28.1	82.7	128.6	149.9	151.7	143.1	137.3	133.0	132.5	132.5
Consumer Sentiment Index	85.6	74.8	77.6	83.2	86.9 15.06	93.1	95.8	95.7 16.70	95.6 16.00	95.7 17.22	95.2 17.20	94.4	94.1
Light Vehicle Sales (Mil. units, saar)	16.89	13.32	12.75	13.69	15.06	16.05	16.42	16.70	16.99	17.22	17.39	17.53	17.69
Housing Starts (Mil. units, saar) Exist. House Sales (Total, Mil. saar)	1.588 5.833	1.566 6.057	1.533	1.493 6.072	1.454	1.415 5.894	1.378 5.801	1.348 5.691	1.331 5.587	1.323 5.576	1.332	1.335 5.522	1.326
Unemployment Rate (%)	5.833	5.1	6.118 4.5	4.2	6.002 3.9	5.894 3.6	3.5	3.5	3.5	3.5	5.558 3.5	3.6	5.442 3.6
Payroll Employment (%ch., saar)	4.8	6.7	3.6	3.6	3.9	3.0	2.4	1.7	1.2	0.9	0.8	1.0	0.9
Federal Surplus (Unified, nsa, bil. \$)	-531.7	-534.2	-411.7	-416.4	-251.1	-288.3	-254.5	-328.3	-39.8	-238.7	-235.6	-302.2	0.9
Current Account Balance (Bil. \$)	-761.1	-782.7	-783.9	-743.2	-715.8	-713.7	-700.8	-674.6	-655.4	-626.8	-604.6	-586.0	-577.1
Financial Markets, NSA, Quarter Average	, 01.1	, , , , ,	,	, 13.2	, , , , , ,	,	,	0, 1.0	JJ0.7	020.0	UU T.U	555.5	
Federal Funds Rate (%)	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.14	0.35	0.38	0.61	0.66	0.91
3-Month Treasury Bill Rate (%)	0.07	0.05	0.09	0.09	0.09	0.09	0.09	0.14	0.33	0.33	0.54	0.59	0.91
10-Year Treasury Note Yield (%)	1.59	1.32	1.63	1.70	1.76	1.91	2.03	2.15	2.23	2.29	2.35	2.43	2.51
30-Year Fixed Mortgage Rate (%)	3.00	2.86	3.13	3.24	3.34	3.50	3.63	3.76	3.88	3.95	4.02	4.10	4.19
S&P 500 Stock Index	4183	4421	4615	4705	4718	4685	4618	4580	4573	4597	4622	4630	4622
(Four-Quarter % change)	42.8	33.1	29.8	21.8	12.8	6.0	0.1	-2.7	-3.1	-1.9	0.1	1.1	1.1
Exchange Rate, Broad Index of Partners	1.223	1.240	1.249	1.249	1.242	1.234	1.227	1.226	1.221	1.220	1.219	1.217	1.213
(% change, annual rate)	-1.7	5.5	3.0	0.0	-2.3	-2.7	-2.2	-0.4	-1.4	-0.3	-0.3	-0.7	-1.3
Incomes													
Personal Income (% ch., saar)	-21.6	0.9	-1.3	2.4	5.8	6.0	4.2	4.9	5.0	4.9	5.0	5.7	5.3
Real Disposable Income (%ch., saar)	-30.2	-5.6	-6.0	-0.1	3.6	3.6	2.0	2.9	2.7	3.0	2.8	3.5	3.0
Saving Rate (%)	10.5	8.9	6.5	5.7	5.9	6.2	6.2	6.4	6.4	6.5	6.5	6.6	6.6
After-Tax Profits (Billions of \$)	2690	2560	2404	2412	2430	2457	2441	2489	2504	2525	2556	2656	2690
(Four-quarter % change)	70.5	19.2	11.1	1.9	-9.7	-4.0	1.6	3.2	3.0	2.8	4.7	6.7	7.4
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Summary of the US Economy	,												
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Composition of Real GDP, Percent Change													
Gross Domestic Product	2.3	2.7	1.7	2.3	2.9	2.3	-3.4	5.5	4.3	2.9	2.7	2.6	2.6
Final Sales of Domestic Product	2.4	2.4	2.2	2.3	2.8	2.2	-2.9	5.4	3.2	2.6	2.8	2.7	2.6
Gross Domestic Income	3.1	2.5	0.9	2.4	2.9	2.0	-2.9	6.2	4.0	2.8	2.7	2.5	2.5
Avg. of GDP and GDI Total Consumption	2.7 2.7	2.6 3.3	1.3 2.5	2.3 2.4	2.9 2.9	2.1 2.2	-3.2 -3.8	5.8 8.0	4.2 3.4	2.8 2.3	2.7 2.9	2.6 3.2	2.5 3.3
Durables	7.2	7.6	5.4	6.3	7.0	4.3	-3.6 7.7	17.7	-3.4	-0.2	3.3	4.6	5.3
Nondurables	2.6	3.4	2.5	2.7	2.5	2.9	3.1	9.3	0.9	1.0	2.6	2.9	2.9
Services	2.0	2.6	2.0	1.8	2.4	1.7	-7.5	5.8	5.6	3.2	3.0	3.0	3.1
Nonresidential Fixed Investment	7.2	2.3	0.9	4.1	6.4	4.3	-5.3	7.6	6.8	5.1	4.5	4.0	3.5
Equipment	7.0	3.0	-1.8	2.8	6.4	3.3	-8.3	13.1	7.3	6.9	5.8	5.3	5.0
Information Processing Equipment	5.2	6.2	4.4	6.8	7.6	3.7	6.8	12.6	4.7	4.0	3.0	4.0	4.5
Industrial Equipment	3.9	0.1	-1.5	4.2	5.8	2.2	-4.9	13.1	7.6	10.8	6.4	4.1	3.3
Transportation equipment	11.1	10.5	-5.6	-1.0	4.9	2.8	-35.2	19.1	18.7	7.1	7.3	7.0	5.5
Aircraft	13.4	1.7	-10.7	36.2	-6.5	-11.8	-36.2	35.2	35.5	13.3	1.3	0.2	4.6
Other Equipment	7.9	-6.6	-5.8	0.0	6.9	4.3	-1.6	9.2	2.5	7.2	8.1	7.0	7.2
Intellectual Property Products Structures	4.8 11.0	3.8 -0.9	8.8 -4.3	5.7 4.2	8.1 4.0	7.2 2.0	2.8 -12.5	10.7 -8.1	10.1 -1.0	5.0 1.1	3.8 3.1	2.8 3.4	2.2 3.1
Commercial & Health Care	12.9	12.1	16.7	3.2	1.3	1.5	-12.5	-7.8	-10.3	-6.3	6.8	7.7	5.2
Manufacturing	12.9	34.4	-4.8	-13.4	-1.8	5.6	-13.4	-7.8	0.3	6.8	-3.7	-5.2	-2.0
Power & Communication	15.0	3.4	2.2	-4.6	-5.7	7.4	-4.7	-14.3	-4.6	-1.4	1.5	5.1	4.3
Mining & Petroleum	8.0	-28.6	-41.8	39.0	26.9	-1.6	-37.5	13.3	23.3	8.5	-0.4	-3.1	-1.4
Other	8.3	10.5	7.2	3.9	1.4	-0.5	-13.8	-17.7	-0.1	4.7	8.1	7.0	5.1
Residential Fixed Investment	3.8	10.2	6.6	4.0	-0.6	-0.9	6.8	8.5	-5.6	-2.2	0.4	0.1	-0.7
Exports	3.9	0.3	0.4	4.1	2.8	-0.1	-13.6	3.7	5.5	8.3	5.9	4.8	4.2
Imports	5.2	5.2	1.5	4.4	4.1	1.2	-8.9	13.1	4.4	4.5	4.5	4.9	5.0
Federal Government	-2.6	0.0	0.5	0.3	3.0	3.8	5.0	0.9	0.2	-0.1	0.6	0.8	0.5
State & Local Government	0.2	3.0	2.8	0.6	0.4	1.3	0.9	0.5	3.2	2.2	1.1	0.9	1.0
Billions of Dollars	16000 1	17000 0	47600.0	10070 1	10000	10000 7	100017	10001 5	00007.5	00004.0	01067.0	010010	
Real GDP Nominal GDP	16932.1 17550.7	17390.3 18206.0	17680.3 18695.1	18079.1 19479.6	18606.8 20527.2	19032.7 21372.6	18384.7 20893.7	19391.5 22903.5	20227.5 24705.7	20804.2 25977.6	21367.2 27340.5	21921.2 28741.5	22482.2 30182.2
Prices & Wages, Percent Change	17330.7	10200.0	10093.1	19479.0	20327.2	21372.0	20093.7	22903.3	24703.7	23977.0	2/340.3	20/41.3	30102.2
GDP Deflator	1.9	1.0	1.0	1.9	2.4	1.8	1.3	3.9	3.3	2.2	2.5	2.5	2.4
Consumer Prices	1.6	0.1	1.3	2.1	2.4	1.8	1.2	4.5	3.3	2.1	2.2	2.2	2.3
Producer Prices, Finished Goods	1.9	-3.3	-1.0	3.2	3.1	0.8	-1.3	8.7	5.0	1.4	1.8	1.8	1.9
Employment Cost Index - Total Comp.	2.1	2.1	2.1	2.5	2.9	2.7	2.6	3.7	5.3	4.6	4.0	3.9	3.9
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	99.83	52.68	44.24	54.83	70.96	64.34	41.77	71.87	77.08	70.65	68.59	66.82	67.39
Productivity (%ch.)	0.7	1.2	0.4	1.2	1.5	2.0	2.4	1.5	0.8	1.5	2.4	2.4	2.4
Total Industrial Production (%ch.)	3.0	-1.4	-2.2	1.3	3.2	-0.8	-7.2	5.5	4.4	3.2	2.2	1.9	1.8
Factory Operating Rate	75.7	76.0	75.2	76.2	77.7	75.8	71.1	75.8	78.8	79.2	78.7	77.8	77.0
Nonfarm Inven. Chg. (Bil. 2012 \$)	90.1	136.5	41.2	38.6	72.7	89.0	-35.3	-73.3	97.3	141.3	130.6	116.8	108.3
Consumer Sentiment Index Light Vehicle Sales (Mil. units)	84.1 16.45	92.9 17.41	91.8 17.48	96.8 17.15	98.4 17.22	96.0 16.06	81.5 14.47	79.5 14.94	89.8 15.31	95.5 17.08	94.1 17.70	94.7 17.50	95.6 17.01
Housing Starts (Mil. units)	1.000	1.107	1.177	1.205	1.247	16.96 1.292	1.397	1.571	1.435	1.333	1.327	1.329	1.296
Exist. House Sales (Total, Mil. units)	4.923	5.228	5.437	5.527	5.334	5.327	5.658	6.078	5.942	5.603	5.442	5.398	5.411
Unemployment Rate (%)	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.4	3.8	3.5	3.6	3.8	3.9
Payroll Employment (%ch.)	1.9	2.1	1.8	1.6	1.6	1.3	-5.7	2.7	3.9	1.9	0.9	0.6	0.6
Federal Surplus (Unified, FY, bil. \$)	-487.4	-475.4	-581.6	-680.9	-873.0	-1022.0	-3348.2	-2611.0	-1210.3	-842.3	-738.6	-810.2	-845.8
Current Account Balance (Bil. \$)	-370.0	-408.9	-397.6	-361.7	-438.2	-472.1	-616.1	-771.4	-718.4	-640.3	-576.1	-560.5	-575.9
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.13	0.40	1.00	1.83	2.16	0.38	0.08	0.09	0.37	0.97	1.66	2.26
3-Month Treasury Bill Rate (%)	0.03	0.05	0.32	0.93	1.94	2.06	0.37	0.05	0.06	0.32	0.86	1.49	2.04
10-Year Treasury Note Yield (%)	2.54	2.14	1.84	2.33	2.91	2.14	0.89	1.47	1.85	2.25	2.55	2.80	2.95
30-Year Fixed Mortgage Rate (%)	4.17	3.85	3.65	3.99	4.54	3.94	3.12	2.97	3.43	3.90	4.23	4.50	4.68
S&P 500 Stock Index	1931 17.5	2061	2092	2448	2745	2912	3219 10.5	4270 32.7	4681	4593 -1 0	4618 0.5	4619	4689 1.5
(Percent change) Exchange Rate, Broad Index of Partners	17.5 1.044	6.8 1.180	1.5 1.235	17.0 1.232	12.1 1.223	6.1 1.263	10.5 1.287	32.7 1.235	9.6 1.238	-1.9 1.222	0.5 1.214	0.0 1.215	1.5 1.216
(% change, annual rate)	3.1	13.1	4.6	-0.3	-0.7	3.3	1.207	-4.0	0.2	-1.3	-0.6	0.1	0.1
Incomes	0.1		1.0	0.0	0.7	0.0	1.7	1.0	0.2	1.0	3.0	0.1	
Personal Income (% ch.)	5.5	4.7	2.6	4.7	5.1	4.1	6.5	6.5	1.0	5.0	5.3	5.3	5.3
Real Disposable Income (%ch.)	3.8	4.0	1.8	2.8	3.4	2.3	6.2	1.7	-3.0	2.9	3.1	3.1	3.1
Saving Rate (%)	7.0	7.5	7.0	7.3	7.6	7.7	16.4	11.6	6.0	6.5	6.6	6.6	6.4
After-Tax Profits (Billions of \$)	1857	1732	1758	1882	1977	1952	1908	2505	2435	2518	2702	2876	3055
(Percent change)	3.8	-6.8	1.5	7.1	5.0	-1.3	-2.3	31.3	-2.8	3.4	7.3	6.4	6.2
Source: IHS Markit												© 20	021 IHS Markit

Summary of the US Economy													
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Composition of Real GDP, Percent Change (Q4/Q4)													
Gross Domestic Product	2.6	1.9	2.0	2.7	2.3	2.6	-2.3	4.8	4.1	2.5	2.7	2.6	2.5
Final Sales of Domestic Product	2.8	1.8	2.2	2.8	2.1	2.9	-2.6	5.1	3.1	2.6	2.8	2.7	2.5
Gross Domestic Income	4.0	1.2	1.2	2.9	2.9	1.8	-0.2	3.7	4.1	2.5	2.6	2.5	2.5
Avg. of GDP and GDI	3.3	1.5	1.6	2.8	2.6	2.2	-1.2	4.3	4.1	2.5	2.7	2.6	2.5
Total Consumption	3.5	2.6	2.3	2.8	2.6	2.3	-2.4	7.3	2.4	2.5	3.1	3.3	3.3
Durables	9.2	6.0	6.3	7.9	3.9	5.8	13.5	5.8	-1.1	1.1	4.0	5.1	5.4
Nondurables	3.2	2.8	2.0	3.7	2.0	2.7	4.7	8.8	-1.0	2.0	2.8	2.9	2.9
Services	2.7	2.1	1.8	1.8	2.5	1.6	-6.9	7.1	4.2	2.9	3.0	3.1	3.2
Nonresidential Fixed Investment	6.9	-0.1	2.5	4.7	6.1	3.1	-3.8	7.4	7.2	4.4	4.4	3.8	3.4
Equipment	5.6	1.5	-2.2	6.4	6.0	-0.9	-0.3	6.7	9.4	5.8	5.7	5.1	4.9
Information Processing Equipment	6.4	6.5	3.3	9.2	4.8	2.9	15.4	3.9	6.7	3.3	3.0	4.8	4.1
Industrial Equipment	4.3	1.0	-1.7	6.6	5.7	-2.1	1.3	10.3	10.8	9.4	4.3	3.9	3.2
Transportation equipment	9.4	6.6	-6.4	4.3	6.6	-6.2	-26.2	14.1	16.9	6.3	8.5	5.2	6.2
Aircraft	-0.9	-14.1	17.2	21.1	4.2	-22.1	-26.8	34.7	32.4	5.0	-0.7	1.6	5.8
Other Equipment	1.7	-10.1	-5.3	4.8	7.7	1.1	5.3	2.5	6.3	5.6	8.6	7.2	6.9
Intellectual Property Products	6.9	3.3	8.4	5.8	9.2	6.3	2.5	13.1	8.0	4.1	3.4	2.5	2.0
Structures	9.3	-7.3	3.6	0.0	1.8	5.8	-20.0	-2.3	1.0	1.9	3.6	3.3	3.0
Commercial & Health Care	13.8	8.3	19.9	-2.6	-1.6	8.4	-9.9	-5.1	-12.5	0.3	8.5	6.6	5.0
Manufacturing	29.4	9.8	-6.3	-12.4	1.4	3.0	-16.6	-2.0	12.0	-0.6	-3.3	-4.5	-3.7
Power & Communication	-16.1	20.0	12.3	-18.1	-5.9	27.8	-21.1	-10.5	-0.2	-1.2	2.1	6.6	4.3
Mining & Petroleum	16.3	-44.2	-27.0	47.5	19.0	-10.8	-38.8	37.0	19.4	4.6	-2.1	-3.6	-0.5
Other	12.5	4.7	8.9	1.7	-0.7	0.7	-20.7	-12.1	4.0	6.3	8.4	5.9	4.6
Residential Fixed Investment	7.7	9.2	4.0	4.5	-3.9	2.2	15.7	-4.0	-3.1	-1.6	0.8	-0.2	-1.2
Exports	2.4	-1.5	1.3	5.9	0.2	0.3	-10.7	1.1	8.5	7.2	5.4	4.5	4.0
Imports	6.5	3.3	2.2	5.1	3.4	-2.0	0.3	5.9	5.0	4.0	4.9	4.9	5.0
Federal Government	-1.0	1.2	0.1	1.3	3.0	4.3	3.1	-0.1	1.1	0.2	0.8	0.8	0.3
State & Local Government	1.2	2.8	2.5	0.4	-0.3	2.5	0.0	1.2	3.7	1.5	0.9	1.1	0.9
Billions of Dollars													
Real GDP	16932.1	17390.3	17680.3	18079.1	18606.8	19032.7	18384.7	19391.5	20227.5	20804.2	21367.2	21921.2	22482.2
Nominal GDP	17550.7	18206.0	18695.1	19479.6	20527.2	21372.6	20893.7	22903.5	24705.7	25977.6	27340.5	28741.5	30182.2
Prices & Wages, Percent Change (Q4/Q4)													
GDP Deflator	1.5	0.8	1.5	2.1	2.3	1.6	1.5	4.9	2.4	2.3	2.5	2.4	2.4
Consumer Prices	1.2	0.4	1.8	2.1	2.2	2.0	1.2	5.8	1.9	2.1	2.2	2.2	2.3
Producer Prices, Finished Goods	0.6	-3.4	1.0	3.5	2.3	0.9	-1.2	12.3	1.4	1.5	1.9	1.8	2.0
Employment Cost Index - Total Comp.	2.3	1.8	2.2	2.6	3.0	2.7	2.6	4.6	5.2	4.2	4.0	3.9	3.9
Other Key Measures	2.0	1.0	2.2	2.0	0.0	2.7	2.0	1.0	0.2	1.2	1.0	0.7	0.7
Brent Crude, Spot Price (\$/bbl)	99.83	52.68	44.24	54.83	70.96	64.34	41.77	71.87	77.08	70.65	68.59	66.82	67.39
	0.3	0.7	1.3	1.2	1.0	2.3	2.5	0.7	1.5	2.0	2.4	2.5	2.3
Productivity (%ch.)			-2.2				-7.2			3.2	2.4		
Total Industrial Production (%ch.)	3.0	-1.4		1.3	3.2	-0.8		5.5	4.4			1.9	1.8 77.0
Factory Operating Rate	75.7	76.0	75.2	76.2	77.7	75.8	71.1	75.8	78.8	79.2	78.7	77.8	
Nonfarm Inven. Chg. (Bil. 2012 \$)	90.1	136.5	41.2	38.6	72.7	89.0	-35.3	-73.3	97.3	141.3	130.6	116.8	108.3
Consumer Sentiment Index	84.1	92.9	91.8	96.8	98.4	96.0	81.5	79.5	89.8	95.5	94.1	94.7	95.6
Light Vehicle Sales (Mil. units)	16.45	17.41	17.48	17.15	17.22	16.96	14.47	14.94	15.31	17.08	17.70	17.50	17.01
Housing Starts (Mil. units)	1.000	1.107	1.177	1.205	1.247	1.292	1.397	1.571	1.435	1.333	1.327	1.329	1.296
Exist. House Sales (Total, Mil. units)	4.923	5.228	5.437	5.527	5.334	5.327	5.658	6.078	5.942	5.603	5.442	5.398	5.411
Unemployment Rate (%)	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.4	3.8	3.5	3.6	3.8	3.9
Payroll Employment (%ch.)	2.1	2.0	1.7	1.5	1.6	1.3	-6.0	4.3	3.2	1.2	0.8	0.5	0.6
Federal Surplus (Unified, FY, bil. \$)	-487.4	-475.4	-581.6	-680.9	-873.0	-1022.0	-3348.2	-2611.0	-1210.3	-842.3	-738.6	-810.2	-845.8
Current Account Balance (Bil. \$)	-370.0	-408.9	-397.6	-361.7	-438.2	-472.1	-616.1	-771.4	-718.4	-640.3	-576.1	-560.5	-575.9
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.09	0.13	0.40	1.00	1.83	2.16	0.38	0.08	0.09	0.37	0.97	1.66	2.26
3-Month Treasury Bill Rate (%)			0.32	0.93	1.94	2.06	0.37	0.05	0.06	0.32	0.86	1.49	2.04
10-Year Treasury Note Yield (%)	0.03	0.05		_		2 1 /	0.00	1.47	1.85	2.25	2.55	2.80	2.95
	2.54	2.14	1.84	2.33	2.91	2.14	0.89						4.68
30-Year Fixed Mortgage Rate (%)	2.54 4.17	2.14 3.85	1.84 3.65	3.99	4.54	3.94	3.12	2.97	3.43	3.90	4.23	4.50	
S&P 500 Stock Index	2.54 4.17 1931	2.14 3.85 2061	1.84 3.65 2092	3.99 2448	4.54 2745	3.94 2912	3.12 3219	2.97 4270	3.43 4681	3.90 4593	4.23 4618	4619	4689
S&P 500 Stock Index (Percent change, Q4/Q4)	2.54 4.17 1931 13.6	2.14 3.85 2061 2.0	1.84 3.65 2092 6.4	3.99 2448 19.2	4.54 2745 3.3	3.94 2912 14.7	3.12 3219 15.2	2.97 4270 29.8	3.43 4681 0.1	3.90 4593 0.1	4.23 4618 -0.3	4619 0.5	4689 2.1
S&P 500 Stock Index (Percent change, Q4/Q4) Exchange Rate, Broad Index of Partners	2.54 4.17 1931	2.14 3.85 2061 2.0 1.180	1.84 3.65 2092 6.4 1.235	3.99 2448 19.2 1.232	4.54 2745	3.94 2912 14.7 1.263	3.12 3219 15.2 1.287	2.97 4270 29.8 1.235	3.43 4681 0.1 1.238	3.90 4593 0.1 1.222	4.23 4618	4619 0.5 1.215	4689
S&P 500 Stock Index (Percent change, Q4/Q4)	2.54 4.17 1931 13.6	2.14 3.85 2061 2.0	1.84 3.65 2092 6.4	3.99 2448 19.2	4.54 2745 3.3	3.94 2912 14.7	3.12 3219 15.2	2.97 4270 29.8	3.43 4681 0.1	3.90 4593 0.1	4.23 4618 -0.3	4619 0.5	4689 2.1
S&P 500 Stock Index (Percent change, Q4/Q4) Exchange Rate, Broad Index of Partners	2.54 4.17 1931 13.6 1.044	2.14 3.85 2061 2.0 1.180	1.84 3.65 2092 6.4 1.235	3.99 2448 19.2 1.232	4.54 2745 3.3 1.223	3.94 2912 14.7 1.263	3.12 3219 15.2 1.287	2.97 4270 29.8 1.235	3.43 4681 0.1 1.238	3.90 4593 0.1 1.222	4.23 4618 -0.3 1.214	4619 0.5 1.215	4689 2.1 1.216
S&P 500 Stock Index (Percent change, Q4/Q4) Exchange Rate, Broad Index of Partners (% change, Q4/Q4)	2.54 4.17 1931 13.6 1.044	2.14 3.85 2061 2.0 1.180	1.84 3.65 2092 6.4 1.235	3.99 2448 19.2 1.232	4.54 2745 3.3 1.223	3.94 2912 14.7 1.263	3.12 3219 15.2 1.287	2.97 4270 29.8 1.235	3.43 4681 0.1 1.238	3.90 4593 0.1 1.222	4.23 4618 -0.3 1.214	4619 0.5 1.215	4689 2.1 1.216
S&P 500 Stock Index (Percent change, Q4/Q4) Exchange Rate, Broad Index of Partners (% change, Q4/Q4) Incomes	2.54 4.17 1931 13.6 1.044 6.7	2.14 3.85 2061 2.0 1.180 12.2	1.84 3.65 2092 6.4 1.235 3.9	3.99 2448 19.2 1.232 -4.2	4.54 2745 3.3 1.223 4.3	3.94 2912 14.7 1.263 0.6	3.12 3219 15.2 1.287 -1.9	2.97 4270 29.8 1.235 0.2	3.43 4681 0.1 1.238 -1.8	3.90 4593 0.1 1.222 -0.6	4.23 4618 -0.3 1.214 -0.5	4619 0.5 1.215 0.2	4689 2.1 1.216 -0.1
S&P 500 Stock Index (Percent change, Q4/Q4) Exchange Rate, Broad Index of Partners (% change, Q4/Q4) Incomes Personal Income (%ch., Q4/Q4)	2.54 4.17 1931 13.6 1.044 6.7	2.14 3.85 2061 2.0 1.180 12.2	1.84 3.65 2092 6.4 1.235 3.9	3.99 2448 19.2 1.232 -4.2	4.54 2745 3.3 1.223 4.3	3.94 2912 14.7 1.263 0.6	3.12 3219 15.2 1.287 -1.9	2.97 4270 29.8 1.235 0.2	3.43 4681 0.1 1.238 -1.8	3.90 4593 0.1 1.222 -0.6	4.23 4618 -0.3 1.214 -0.5	4619 0.5 1.215 0.2	4689 2.1 1.216 -0.1
S&P 500 Stock Index (Percent change, Q4/Q4) Exchange Rate, Broad Index of Partners (% change, Q4/Q4)  Incomes  Personal Income (%ch., Q4/Q4) Real Disposable Income (%ch., Q4/Q4)	2.54 4.17 1931 13.6 1.044 6.7	2.14 3.85 2061 2.0 1.180 12.2 3.5 2.8	1.84 3.65 2092 6.4 1.235 3.9	3.99 2448 19.2 1.232 -4.2 5.3 3.1	4.54 2745 3.3 1.223 4.3 4.8 3.7	3.94 2912 14.7 1.263 0.6 3.6 1.7	3.12 3219 15.2 1.287 -1.9 4.8 4.0	2.97 4270 29.8 1.235 0.2 5.2	3.43 4681 0.1 1.238 -1.8 4.6 2.3	3.90 4593 0.1 1.222 -0.6 4.9 2.9	4.23 4618 -0.3 1.214 -0.5 5.4 3.1	4619 0.5 1.215 0.2 5.3 3.2	4689 2.1 1.216 -0.1 5.2 3.0
S&P 500 Stock Index (Percent change, Q4/Q4) Exchange Rate, Broad Index of Partners (% change, Q4/Q4)  Incomes  Personal Income (%ch., Q4/Q4) Real Disposable Income (%ch., Q4/Q4) Saving Rate (%)	2.54 4.17 1931 13.6 1.044 6.7 6.6 5.2 7.0	2.14 3.85 2061 2.0 1.180 12.2 3.5 2.8 7.5	1.84 3.65 2092 6.4 1.235 3.9 3.0 1.6 7.0	3.99 2448 19.2 1.232 -4.2 5.3 3.1 7.3	4.54 2745 3.3 1.223 4.3 4.8 3.7 7.6	3.94 2912 14.7 1.263 0.6 3.6 1.7 7.7	3.12 3219 15.2 1.287 -1.9 4.8 4.0 16.4	2.97 4270 29.8 1.235 0.2 5.2 -1.1 11.6	3.43 4681 0.1 1.238 -1.8 4.6 2.3 6.0	3.90 4593 0.1 1.222 -0.6 4.9 2.9 6.5	4.23 4618 -0.3 1.214 -0.5 5.4 3.1 6.6	4619 0.5 1.215 0.2 5.3 3.2 6.6	4689 2.1 1.216 -0.1 5.2 3.0 6.4

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Alternative Scenarios of the U	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2020	2021	2022	2023	2024	2025	20
essimistic: Recovery stumbles as supply issues						2022.0	2020	2021	2022	2020	2024	2020	
composition of Real GDP, Percent Change, Annua	•			3.	• • • • • • • • • • • • • • • • • • • •								
iross Domestic Product	6.7	2.0	1.3	3.2	4.1	3.7	-3.4	5.3	3.1	3.0	3.0	2.8	
otal Consumption	12.0	1.6	0.7	1.0	2.8	3.1	-3.8	7.7	2.4	2.9	3.0	3.2	
Ionresidential Fixed Investment	9.2	1.8	-1.4	6.4	8.5	8.3	-5.3	7.1	5.2	5.5	4.1	3.8	
esidential Fixed Investment	-11.7	-7.7	-9.8	-14.0	-8.8	-4.6	6.8	8.4	-9.6	-3.0	0.9	0.0	
xports	7.6	-2.5	1.9	0.4	4.7	5.8	-13.6	3.7	2.6	6.9	7.5	5.9	
mports	7.1	6.0	-2.7	-2.7	3.6	7.7	-8.9	12.8	2.1	6.2	4.1	4.6	
ederal Government	-5.3	-4.7	-0.6	5.7	-0.3	0.4	5.0	0.9	0.2	-0.1	0.6	0.8	
tate & Local Government	0.2	4.4	0.6	4.5	4.5	3.3	0.9	0.5	3.2	2.2	1.1	0.9	
rices & Wages, Percent Change, Annual Rate													
onsumer Prices	8.4	6.6	4.2	0.9	1.7	1.3	1.2	4.4	2.9	1.0	1.2	1.5	
roducer Prices, Finished Goods	11.6	11.9	10.7	0.4	0.3	1.1	-1.3	8.6	4.4	0.4	0.8	1.1	
mployment Cost Index - Total Comp.	3.1	5.7	5.4	5.0	4.7	4.5	2.6	3.6	4.9	3.6	2.8	2.6	
ther Key Measures													
rent Crude, Spot Price (\$/bbl)	68.83	73.49	82.34	76.78	74.29	75.81	41.77	71.37	75.26	68.83	66.75	64.87	6
roductivity (%ch., saar)	2.4	-5.0	-0.7	1.0	2.1	1.7	2.4	1.4	0.3	1.8	2.6	2.6	
otal Industrial Production (%ch., saar)	6.4	4.3	-0.1	1.9	3.7	5.8	-7.2	5.3	3.1	3.9	2.6	1.9	
Ionfarm Inven. Chg. (Bil.2012 \$)	-147.7	-53.7	-16.6	20.5	62.2	95.3	-35.3	-73.1	76.0	144.4	152.4	141.7	1
consumer Sentiment Index	85.6	74.8	73.4	79.0	82.7	88.9	81.5	78.5	85.6	93.8	93.3	93.9	
ight Vehicle Sales (Mil. units, saar)	16.89	13.32	12.53	13.13	13.87	14.83	14.47	14.88	14.23	15.96	16.70	16.38	1
lousing Starts (Mil. units, saar)	1.588	1.566	1.504	1.384	1.345	1.296	1.397	1.564	1.322	1.240	1.241	1.237	1
Inemployment Rate (%)	5.9	5.1	4.7	4.5	4.3	4.2	8.1	5.5	4.3	4.1	4.2	4.2	
ayroll Employment (%ch., saar)	4.8	6.7	3.0	3.5	3.0	2.5	-5.7	2.7	3.6	1.6	0.8	0.5	
ederal Surplus (Unified, FY, bil. \$)	-531.7	-534.2	-421.6	-430.2	-270.2	-311.3	-3131.9	-2772.2	-1433.3	-946.0	-766.1	-794.3	-7
inancial Markets, NSA, Quarter Average													
ederal Funds Rate (%)	0.07	0.09	0.09	0.10	0.10	0.10	0.38	0.08	0.10	0.10	0.10	0.10	
0-Year Treasury Note Yield (%)	1.59	1.32	1.57	1.62	1.68	1.74	0.89	1.45	1.71	1.93	2.14	2.37	
ncomes													
ersonal Income (% ch., saar)	-21.6	0.9	-3.4	0.6	3.9	4.3	6.5	6.4	-0.5	4.0	4.5	4.7	
fter-Tax Profits (Four-qtr.% change)	70.5	19.2	7.0	-2.7	-12.6	-7.1	-2.3	30.1	-5.4	2.5	6.1	6.2	
ptimistic: Return to "normal", still more stimulu	ıs, and impro	ving supply	issues drive	faster growth	(20% prob	ability)							
omposition of Real GDP, Percent Change, Annua	al Rate												
ross Domestic Product	6.7	2.0	8.2	6.6	5.8	4.9	-3.4	5.7	5.7	3.5	2.7	2.4	
otal Consumption	12.0	1.6	7.8	5.3	3.4	3.6	-3.8	8.2	4.9	3.2	2.9	2.9	
Ionresidential Fixed Investment	9.2	1.8	19.2	8.7	8.1	8.9	-5.3	8.4	9.5	6.8	5.2	3.7	
esidential Fixed Investment	-11.7	-7.7	-6.1	-5.2	-1.3	-0.8	6.8	8.7	-4.7	-1.9	0.3	0.4	
xports	7.6	-2.5	3.1	7.2	11.1	12.3	-13.6	3.8	6.7	8.2	5.6	4.5	
mports	7.1	6.0	4.2	9.5	6.7	6.8	-8.9	13.3	6.9	5.4	4.0	4.8	
ederal Government	-5.3	-4.7	-0.7	5.7	-0.4	0.3	5.0	0.9	0.2	-0.2	0.6	0.8	
tate & Local Government	0.2	4.4	0.6	4.5	4.5	3.3	0.9	0.5	3.2	2.2	1.1	0.9	
rices & Wages, Percent Change, Annual Rate													
onsumer Prices	8.4	6.6	4.9	1.4	2.7	2.6	1.2	4.5	3.6	2.4	2.3	2.3	
roducer Prices, Finished Goods	11.6	11.9	12.0	1.4	1.4	2.5	-1.3	8.7	5.3	1.7	1.9	1.9	
mployment Cost Index - Total Comp.	3.1	5.7	5.7	5.6	5.5	5.4	2.6	3.7	5.4	4.8	4.3	4.2	
ther Key Measures													
rent Crude, Spot Price (\$/bbl)	68.83	73.49	86.34	80.89	78.20	79.07	41.77	72.37	78.84	71.66	69.45	67.67	6
roductivity (%ch., saar)	2.4	-5.0	1.9	3.3	2.2	2.9	2.4	1.5	1.5	2.5	2.6	2.4	
otal Industrial Production (%ch., saar)	6.4	4.3	4.3	7.1	7.3	6.4	-7.2	5.6	5.9	3.8	2.3	1.6	
Ionfarm Inven. Chg. (Bil. 2012 \$)	-147.7	-53.7	-15.9	52.2	132.3	162.2	-35.3	-72.9	130.5	160.6	130.5	113.2	1
onsumer Sentiment Index	85.6	74.8	81.2	86.8	90.5	96.1	81.5	80.5	92.7	96.7	95.3	95.8	
ight Vehicle Sales (Mil. units, saar)	16.89	13.32	14.26	14.45	15.86	16.83	14.47	15.31	16.07	17.89	18.70	18.24	1
lousing Starts (Mil. units, saar)	1.588	1.566	1.551	1.521	1.484	1.443	1.397	1.576	1.466	1.370	1.363	1.374	1
Inemployment Rate (%)	5.9	5.1	4.3	3.9	3.6	3.3	8.1	5.4	3.5	3.1	3.4	3.6	
ayroll Employment (%ch., saar)	4.8	6.7	4.4	4.8	4.8	2.6	-5.7	2.8	4.5	1.5	0.9	0.5	
ederal Surplus (Unified, FY, bil. \$)	-531.7	-534.2	-404.6	-403.0	-233.5	-265.4	-3131.9	-2772.2	-1306.5	-745.8	-607.3	-692.6	-7
inancial Markets, NSA, Quarter Average													
ederal Funds Rate (%)	0.07	0.09	0.10	0.12	0.29	0.31	0.38	0.09	0.26	0.62	1.19	1.88	
0-Year Treasury Note Yield (%)	1.59	1.32	1.69	1.79	1.89	2.04	0.89	1.48	1.97	2.40	2.69	2.89	
ncomes													
· · · · · · · · · · · · · · · · · · ·	-21.6	0.9	0.5	4.4	7.1	7.2	6.5	6.6	2.2	5.9	5.6	5.4	

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Alternative Scenarios of the U	JS Econ	omy											
	2021:2	2021:3	2021:4	2022:1	2022:2	2022:3	2020	2021	2022	2023	2024	2025	2026
Pessimistic: Recovery stumbles as supply issues	·	consumers s	slow spendin	ıg (30% prob	ability)								
Composition of Real GDP, Percent Change, Annua (Q4/Q4 for Annual Values)	аі кате												
Gross Domestic Product	6.7	2.0	1.3	3.2	4.1	3.7	-2.3	4.1	3.5	2.8	2.9	2.8	2.7
Total Consumption	12.0	1.6	0.7	1.0	2.8	3.1	-2.4	6.3	2.4	2.9	3.0	3.3	3.6
Nonresidential Fixed Investment	9.2	1.8	-1.4	6.4	8.5	8.3	-3.8	5.5	7.6	4.1	4.0	3.7	3.8
Residential Fixed Investment	-11.7	-7.7	-9.8	-14.0	-8.8	-4.6	15.7	-4.5	-7.9	-0.8	0.7	-0.2	-0.8
Exports	7.6	-2.5	1.9	0.4	4.7	5.8	-10.7	0.9	4.2	7.6	7.0	5.4	4.5
Imports	7.1	6.0	-2.7	-2.7	3.6	7.7	0.3	4.8	4.0	5.1	4.2	4.8	5.0
Federal Government	-5.3	-4.7	-0.6	5.7	-0.3	0.4	3.1	0.0	1.1	0.2	0.8	0.8	0.3
State & Local Government  Prices & Wages, Percent Change, Annual Rate	0.2	4.4	0.6	4.5	4.5	3.3	0.0	1.2	3.7	1.5	0.8	1.1	0.9
(Q4/Q4 for Annual Values)													
Consumer Prices	8.4	6.6	4.2	0.9	1.7	1.3	1.2	5.7	1.2	1.0	1.3	1.6	2.0
Producer Prices, Finished Goods	11.6	11.9	10.7	0.4	0.3	1.1	-1.2	12.1	0.6	0.3	1.0	1.2	1.7
Employment Cost Index - Total Comp.	3.1	5.7	5.4	5.0	4.7	4.5	2.6	4.5	4.5	3.1	2.6	2.6	2.7
Other Key Measures													
Brent Crude, Spot Price (\$/bbl)	68.83	73.49	82.34	76.78	74.29	75.81	41.77	71.37	75.26	68.83	66.75	64.87	65.35
Productivity (%ch., saar)	2.4	-5.0	-0.7	1.0	2.1	1.7	2.5	0.2	1.5	2.2	2.6	2.6	2.5
Total Industrial Production (%ch., saar)	6.4	4.3	-0.1	1.9	3.7	5.8	-4.3	3.6	4.1	3.0	2.3	1.7	1.3
Nonfarm Inven. Chg. (Bil.2012 \$)	-147.7	-53.7	-16.6	20.5	62.2	95.3	-35.3	-73.1	76.0	144.4	152.4	141.7	126.8
Consumer Sentiment Index	85.6	74.8	73.4	79.0	82.7	88.9	81.5	78.5	85.6	93.8	93.3	93.9	94.8
Light Vehicle Sales (Mil. units, saar) Housing Starts (Mil. units, saar)	16.89 1.588	13.32 1.566	12.53 1.504	13.13 1.384	13.87 1.345	14.83 1.296	14.47 1.397	14.88 1.564	14.23 1.322	15.96 1.240	16.70 1.241	16.38 1.237	15.65 1.210
Unemployment Rate (%)	5.9	5.1	4.7	4.5	4.3	4.2	8.1	5.5	4.3	4.1	4.2	4.2	4.2
Payroll Employment (%ch., saar)	4.8	6.7	3.0	3.5	3.0	2.5	-6.0	4.1	2.7	1.0	0.7	0.5	0.7
Federal Surplus (Unified, FY, bil. \$)	-531.7	-534.2	-421.6	-430.2	-270.2	-311.3	-3131.9	-2772.2	-1433.3	-946.0	-766.1	-794.3	-781.8
Financial Markets, NSA, Quarter Average													
Federal Funds Rate (%)	0.07	0.09	0.09	0.10	0.10	0.10	0.38	0.08	0.10	0.10	0.10	0.10	0.37
10-Year Treasury Note Yield (%)	1.59	1.32	1.57	1.62	1.68	1.74	0.89	1.45	1.71	1.93	2.14	2.37	2.52
Incomes													
Personal Income (% ch., saar)	-21.6	0.9	-3.4	0.6	3.9	4.3	4.8	4.6	3.0	4.2	4.6	4.8	5.1
After-Tax Profits (Four-qtr.% change)	70.5	19.2	7.0	-2.7	-12.6	-7.1	10.2	7.0	1.9	2.8	6.8	6.7	7.8
Optimistic: Return to "normal", still more stimulu		ving supply	issues drive	faster grow	th (20% prob	ability)							
Composition of Real GDP, Percent Change, Annua	аі кате												
(Q4/Q4 for Annual Values) Gross Domestic Product	6.7	2.0	8.2	6.6	5.8	4.9	-2.3	5.8	5.1	3.0	2.6	2.3	2.0
Total Consumption	12.0	1.6	7.8	5.3	3.4	3.6	-2.4	8.1	3.8	3.0	2.8	2.9	2.8
Nonresidential Fixed Investment	9.2	1.8	19.2	8.7	8.1	8.9	-3.8	10.6	8.0	6.2	4.7	3.1	2.1
Residential Fixed Investment	-11.7	-7.7	-6.1	-5.2	-1.3	-0.8	15.7	-3.5	-2.5	-1.5	0.7	0.3	-1.6
Exports	7.6	-2.5	3.1	7.2	11.1	12.3	-10.7	1.2	10.2	6.2	5.5	4.1	3.8
Imports	7.1	6.0	4.2	9.5	6.7	6.8	0.3	6.6	7.4	4.3	4.3	4.8	4.3
Federal Government	-5.3	-4.7	-0.7	5.7	-0.4	0.3	3.1	0.0	1.0	0.2	8.0	0.8	0.2
State & Local Government	0.2	4.4	0.6	4.5	4.5	3.3	0.0	1.2	3.7	1.6	0.9	1.1	0.9
Prices & Wages, Percent Change, Annual Rate													
(Q4/Q4 for Annual Values)	0.4		4.0	1.4	0.7	0.6	1.0	Г.О.	0.0	0.0	0.0	0.0	
Consumer Prices Producer Prices, Finished Goods	8.4 11.6	6.6 11.9	4.9 12.0	1.4 1.4	2.7 1.4	2.6 2.5	1.2 -1.2	5.9 12.4	2.3 1.8	2.3 1.6	2.3 2.0	2.3 1.8	2.4 2.1
Employment Cost Index - Total Comp.	3.1	5.7	5.7	5.6	5.5	5.4	2.6	4.6	5.4	4.5	4.2	4.2	4.1
Other Key Measures	0.1	0.7	0.7	0.0	0.0	0.4	2.0	4.0	0.4	7.0	7.2	7.2	7.1
Brent Crude, Spot Price (\$/bbl)	68.83	73.49	86.34	80.89	78.20	79.07	41.77	72.37	78.84	71.66	69.45	67.67	68.18
Productivity (%ch., saar)	2.4	-5.0	1.9	3.3	2.2	2.9	2.5	0.8	2.5	2.8	2.4	2.3	2.0
Total Industrial Production (%ch., saar)	6.4	4.3	4.3	7.1	7.3	6.4	-4.3	4.7	6.2	2.8	2.0	1.5	1.0
Nonfarm Inven. Chg. (Bil. 2012 \$)	-147.7	-53.7	-15.9	52.2	132.3	162.2	-35.3	-72.9	130.5	160.6	130.5	113.2	102.0
Consumer Sentiment Index	85.6	74.8	81.2	86.8	90.5	96.1	81.5	80.5	92.7	96.7	95.3	95.8	96.7
Light Vehicle Sales (Mil. units, saar)	16.89	13.32	14.26	14.45	15.86	16.83	14.47	15.31	16.07	17.89	18.70	18.24	17.34
Housing Starts (Mil. units, saar)	1.588	1.566	1.551	1.521	1.484	1.443	1.397	1.576	1.466	1.370	1.363	1.374	1.347
Unemployment Rate (%) Payroll Employment (%ch., saar)	5.9 4.8	5.1 6.7	4.3	3.9	3.6	3.3 2.6	8.1 -6.0	5.4	3.5 3.4	3.1 1.0	3.4 0.8	3.6 0.5	3.7 0.5
Federal Surplus (Unified, FY, bil. \$)	4.8 -531.7	-534.2	4.4 -404.6	4.8 -403.0	4.8 -233.5	-265.4	-6.0 -3131.9	4.5 -2772.2	3.4 -1306.5	-745.8	-607.3	-692.6	0.5 -740.9
Financial Markets, NSA, Quarter Average	551.7	004.2	704.0	700.0	200.0	200.4	0101.9	L114.L	1000.0	7 70.0	007.0	072.0	, 40.7
Federal Funds Rate (%)	0.07	0.09	0.10	0.12	0.29	0.31	0.38	0.09	0.26	0.62	1.19	1.88	2.48
10-Year Treasury Note Yield (%)	1.59	1.32	1.69	1.79	1.89	2.04	0.89	1.48	1.97	2.40	2.69	2.89	3.00
Incomes													
Personal Income (% ch., saar)	-21.6	0.9	0.5	4.4	7.1	7.2	4.8	5.7	6.0	5.6	5.6	5.3	5.0
After-Tax Profits (Four-qtr.% change)	70.5	19.2	16.0	6.4	-5.1	2.0	10.2	16.0	3.1	5.2	4.4	3.6	3.7
Source: IHS Markit												© 202	21 IHS Markit

Summary of the US Economy		٨	nnual rate	S			Δnnı	ual averag	ies				Q4/Q4		
	2021:3	2021:4			2022:3	2020	2021	2022	2023	2024	2020	2021	2022	2023	202
Composition of Real GDP, Percent Change	2021.3	2021.4	2022.1	2022.2	2022.3	2020	2021	2022	2023	2024	2020	2021	2022	2023	
Gross Domestic Product	2.0	4.4	5.0	4.7	4.0	-3.4	5.5	4.3	2.9	2.7	-2.3	4.8	4.1	2.5	2.
Final Sales of Domestic Product	-0.1	3.5	3.7	3.4	3.1	-2.9	5.4	3.2	2.6	2.8	-2.6	5.1	3.1	2.6	2.
Gross Domestic Income	1.4	4.8	4.9	4.7	4.0	-2.9	6.2	4.0	2.8	2.7	-0.2	3.7	4.1	2.5	2.
Avg. of GDP and GDI	1.5	4.9	4.9	4.7	4.0	-3.2	5.8	4.2	2.8	2.7	-1.2	4.3	4.1	2.5	2
Total Consumption	1.6	4.5	2.9	2.5	2.4	-3.8	8.0	3.4	2.3	2.9	-2.4	7.3	2.4	2.5	3
Durables	-26.2	1.5	-1.0	-1.0	-0.7	7.7	17.7	-3.4	-0.2	3.3	13.5	5.8	-1.1	1.1	4
Nondurables	2.6	3.4	-2.4	-1.3	-0.3	3.1	9.3	0.9	1.0	2.6	4.7	8.8	-1.0	2.0	2
Services	7.9	5.4	5.5	4.5	3.9	-7.5	5.8	5.6	3.2	3.0	-6.9	7.1	4.2	2.9	3
Nonresidential Fixed Investment	1.8	5.9	9.3	7.5	6.9	-5.3	7.6	6.8	5.1	4.5	-3.8	7.4	7.2	4.4	4
Equipment	-3.2	4.8	9.6	10.5	9.7	-8.3	13.1	7.3	6.9	5.8	-0.3	6.7	9.4	5.8	5
Information Processing Equipment Industrial Equipment	-5.8 11.2	6.7 -6.7	9.2 -4.3	9.2 22.2	3.8 22.7	6.8 -4.9	12.6 13.1	4.7 7.6	4.0 10.8	3.0 6.4	15.4 1.3	3.9 10.3	6.7 10.8	3.3 9.4	3
Transportation equipment	-18.6	27.2	77.8	-15.6	0.8	-35.2	19.1	18.7	7.1	7.3	-26.2	14.1	16.9	6.3	8
Aircraft	-9.1	57.2	37.7	35.6	29.3	-36.2	35.2	35.5	13.3	1.3	-26.8	34.7	32.4	5.0	-0
Other Equipment	0.5	-1.2	-16.3	29.7	15.0	-1.6	9.2	2.5	7.2	8.1	5.3	2.5	6.3	5.6	8
Intellectual Property Products	12.2	12.0	12.0	7.7	7.0	2.8	10.7	10.1	5.0	3.8	2.5	13.1	8.0	4.1	3
Structures	-7.3	-3.9	3.0	0.5	0.2	-12.5	-8.1	-1.0	1.1	3.1	-20.0	-2.3	1.0	1.9	3
Commercial & Health Care	-8.9	-8.4	-8.9	-14.4	-13.2	-1.4	-7.8	-10.3	-6.3	6.8	-9.9	-5.1	-12.5	0.3	8
Manufacturing	-13.6	-20.2	-4.6	23.1	18.0	-13.4	-2.8	0.3	6.8	-3.7	-16.6	-2.0	12.0	-0.6	-3
Power & Communication	-13.0	-10.2	1.8	-1.8	-1.0	-4.7	-14.3	-4.6	-1.4	1.5	-21.1	-10.5	-0.2	-1.2	2
Mining & Petroleum	21.7	23.3	37.8	18.2	8.8	-37.5	13.3	23.3	8.5	-0.4	-38.8	37.0	19.4	4.6	-2
Other	-13.9	3.7	5.2	2.1	6.6	-13.8	-17.7	-0.1	4.7	8.1	-20.7	-12.1	4.0	6.3	8
Residential Fixed Investment	-7.7	-8.1	-6.8	-1.3	-1.4	6.8	8.5	-5.6	-2.2	0.4	15.7	-4.0	-3.1	-1.6	0
Exports	-2.5	2.4	5.6	9.3	9.7	-13.6	3.7	5.5	8.3	5.9	-10.7	1.1	8.5	7.2	5
Imports Federal Government	6.0 -4.7	1.3 -0.7	4.3 5.7	4.7 -0.3	5.8 0.4	-8.9 5.0	13.1 0.9	4.4 0.2	4.5 -0.1	4.5 0.6	0.3 3.1	5.9 -0.1	5.0 1.1	4.0 0.2	4
State & Local Government	4.4	0.6	4.5	4.5	3.3	0.9	0.5	3.2	2.2	1.1	0.0	1.2	3.7	1.5	0
Prices & Wages, Percent Change	7.7	0.0	7.0	7.0	0.0	0.5	0.0	0.2	2.2	1.1	0.0	1.2	0.7	1.0	
GDP Deflator	5.7	3.6	3.0	2.3	2.2	1.3	3.9	3.3	2.2	2.5	1.5	4.9	2.4	2.3	2
Consumer Prices	6.6	4.6	1.4	2.1	2.2	1.2	4.5	3.3	2.1	2.2	1.2	5.8	1.9	2.1	2
Producer Prices, Finished Goods	11.9	11.6	1.2	0.7	2.0	-1.3	8.7	5.0	1.4	1.8	-1.2	12.3	1.4	1.5	1
Employment Cost Index - Total Comp.	5.7	5.8	5.6	5.3	5.2	2.6	3.7	5.3	4.6	4.0	2.6	4.6	5.2	4.2	4
Other Key Measures, Percent Change															
Total Industrial Production	4.3	2.7	4.5	5.1	5.0	-7.2	5.5	4.4	3.2	2.2	-4.3	4.3	4.6	2.4	2
Payroll Employment	6.7	3.6	3.6	3.6	3.1	-5.7	2.7	3.9	1.9	0.9	-6.0	4.3	3.2	1.2	C
Financial Markets, NSA, Quarter Average															
S&P 500 Stock Index (four-quarter % change)															
(Average of period)	24.9	18.7	8.0	1.1	-2.8	10.5	32.7	9.6	-1.9	0.5	15.2	29.8	0.1	0.1	-0
(End of period)	28.1	25.2	18.4	10.1	7.7	6.8	35.0	8.0	-1.5	0.4	16.3	25.2	-2.3	0.8	-0
Exchange Rate, Broad Index (%change, annual rate)	5.5	3.0	0.0	-2.3	-2.7	1.9	-4.0	0.2	-1.3	-0.6	-1.9	0.2	-1.8	-0.6	-0
Incomes, Percent Change															
Personal Income	0.9	-1.3	2.4	5.8	6.0	6.5	6.5	1.0	5.0	5.3	4.8	5.2	4.6	4.9	5
Real Disposable Income	-5.6	-6.0	-0.1 Levels	3.6	3.6	6.2	1.7 Anni	-3.0 ual averac	2.9 ies	3.1	4.0	-1.1	2.3 24 values	2.9	3
Billions of Dollars			201010				7	aur uverug	,00				2 i raiaco		
Real GDP	19465	19677	19918	20150	20351	18385	19392	20228	20804	21367	18768	19677	20491	21007	215
Nominal GDP	23173	23662	24127	24546	24923	20894	22904	24706	25978	27341	21478	23662	25227	26460	2786
Other Key Measures															
Brent Crude, Spot Price (\$/bbl)	73.49	84.34	78.67	76.00	77.67	41.77	71.87	77.08	70.65	68.59	44.29	84.34	76.00	69.33	67.
Factory Operating Rate	76.4	77.0	77.9	78.6	79.2	71.1	75.8	78.8	79.2	78.7	74.0	77.0	79.4	79.0	78
Nonfarm Inven. Chg. (Bil. 2012 \$)	-53.7	-17.4	28.1	82.7	128.6	-35.3	-73.3	97.3	141.3	130.6	90.2	-17.4	149.9	133.0	126
Light Vehicle Sales (Mil. units, saar)	13.32	12.75	13.69	15.06	16.05	14.47	14.94	15.31	17.08	17.70	16.19	12.75	16.42	17.39	17.
Housing Starts (Mil. units, saar)	1.566	1.533	1.493	1.454	1.415	1.397	1.571	1.435	1.333	1.327	1.575	1.533	1.378	1.332	
Exist. House Sales (Total, Mil. saar)	6.057	6.118	6.072	6.002	5.894	5.658	6.078	5.942	5.603	5.442	6.657	6.118	5.801	5.558	5.3
Unemployment Rate (%)	5.1	4.5	4.2	3.9	3.6	8.1	5.4	3.8	3.5	3.6	6.7	4.5	3.5	3.5	0.50
Federal Surplus (Unified, nsa, bil. \$)	-534.2 -782.7	-411.7 -783.9	-416.4	-251.1	-288.3 712.7	-3348.2		-1210.3	-842.3	-738.6 576.1	-572.9 -700.3	-411.7	-254.5	-235.6 -604.6	-250
Current Account Balance (Bil. \$)  Financial Markets, NSA, Quarter Average	-/02./	-/03.9	-743.2	-715.8	-713.7	-616.1	-771.4	-718.4	-640.3	-576.1	-/00.3	-783.9	-700.8	-004.0	-568
Federal Funds Rate (%)	0.09	0.09	0.09	0.09	0.09	0.38	0.08	0.09	0.37	0.97	0.09	0.09	0.09	0.61	1.
3-Month Treasury Bill Rate (%)	0.09	0.09	0.09	0.09	0.09	0.38	0.08	0.09	0.37	0.97	0.09	0.09	0.09	0.54	1.
10-Year Treasury Note Yield (%)	1.32		1.70	1.76	1.91	0.89	1.47	1.85	2.25	2.55	0.09	1.63	2.03	2.35	2.
30-Year Fixed Mortgage Rate (%)	2.86	3.13	3.24	3.34	3.50	3.12	2.97	3.43	3.90	4.23	2.76	3.13	3.63	4.02	4.
S&P 500 Stock Index (average of period)	4421	4615	4705	4718	4685	3219	4270	4681	4593	4618	3554	4615	4618	4622	
S&P 500 Stock Index (end of period)	4308	4704	4705	4730	4639	3201	4321	4668	4597	4615	3756	4704	4596	4632	
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Incomes															

#### **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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