Fourth Quarter 2020 Economic Summary and Outlook

Based on the Bureau of Economic Analysis revised estimate, the U. S. economy grew 4.1% in the fourth quarter of 2020 following the post-COVID recession bounce of 33.4% in the third quarter. For all of 2020 the economy shrank 2.4%. Fourth quarter growth of 4.1% is above the long run growth trend and would be a good number in a normal period, but post-recession bounces are normally higher. In the self-imposed COVID recession, a strong recovery requires a full opening of the economy that will only occur with herd immunity from full vaccinations. Estimates vary as to when such a full recovery will take place, depending on whether new variants of the virus or other mutations are controlled. Meanwhile, the goods sectors are doing well while the service sectors are struggling due to in-person limits and lockdowns. This balance will shift as the recovery gains steam.

Even without additional government stimulus plans in 2021, consumers have the wherewithal to spend when openings occur. While almost nine million jobs have been lost in the COVID recession, unemployment remains consistent with a normal recession. Many workers who lost their jobs had all or most of their income replaced through expanded unemployment insurance compensation and federal stimulus payments in 2020. The saving rate reached historic levels during 2020 and in the aggregate the economy has approximately $1.5 trillion in excess savings going into 2021. Asset price gains have also added to consumer wealth. Consumer pent up demand, easy money, low interest rates and short term optimism should drive very healthy consumer spending when the economy fully opens. The expected stimulus package of $1.9 trillion (approximately 10% of the annual U.S. GDP) will provide a stimulus jolt in the second and third quarters of 2012.

Fixed investment, which has not been a large contributor to growth in the past, added 3.1% to fourth quarter GDP growth. The gain was widespread across all components. Inventory investment added 1.1% to growth as firms anticipated a continuation of strong sales figures. Changes in the workplace and new technology are likely to promote added investment in 2021.

International trade continues to be a drag on GDP and prospects for the future are not improving. U.S. demand for foreign products is relatively price inelastic and very income elastic, suggesting that imports will continue to far exceed exports as the economy recovers. Higher oil prices will also make the trade balance worse. This is likely to be a longer term problem as the new administration seeks higher fossil fuel prices in order to promote alternative energy sources.

The level of short-term interest rates remains low with a Fed commitment to keep the Fed Fud rate at its current near-zero levels for another year or so. Nevertheless, long term rates are beginning to move higher and the yield curve is now steeper. The 10-year Treasury yield was 0.69% at the end of May, 20203 and 1.10% in January of 2021. The recent 30 basis point increase in the 10-year Treasury yield in February of 2021 flustered the market, with the increase attributed to higher market inflation expectations. Even so, while the yield curve is steeper, the 10-year Treasury yield of 1.5% remains low by historical standards.

Inflation remains low and well below the Fed's target of 2%, but conditions for expected inflation are building. Excess demand price pressures are likely when the economy opens up and pent up demand for goods and services hits the markets. Expected increases in fiscal deficit spending on one hand along with reduced production due to increased regulation adds to the higher inflation scenario. Respondents to the Institute of Supply Management survey are already reporting price pressures as suppliers try to catch up to growing demand. Cost-push inflation elements are likely from the New Green Deal initiative due to disruptions in the automotive and the oil and energy sectors. Finally, massive increases in the money supply have been offset by reductions in the velocity of money, but when consumers spend more the velocity will pick up. Since employment lags GDP growth, the Fed may not be quick to take appropriate steps to prevent inflation if it targets full employment.

Survey of Professional Forecasters

A panel of 39 forecasters in the Philadelphia Federal Reserve Bank's Survey of Professional Forecasters predict GDP growth of 3.2% in the first quarter of 2021. Forecasters expect real GDP to grow at an annual rate of 4.5% overall in 2021 and 3.7% in 2022. Unemployment always lags GDP growth, making it difficult to achieve full employment even when the economy picks up. Forecasters expect the unemployment rate to decline from 6.3% currently to 5.1% in the first quarter of 2022 and eventually reach 4% in 2024. In general, the labor market will not recover to the pre-pandemic level in the next three years, according to estimates of the forecasters, even with unprecedented government spending and monetary expansion. Job gains for 2021 are predicted to be 223,400 per month, which is a healthy rate in normal conditions but not enough to quickly replace the nine million jobs lost and keep up with growth at the same time.

Table 1 provides the Survey of Professional Forecasters median quarterly estimates for real GDP growth, the unemployment rate, and monthly payroll expansion. Green numbers represent improved estimates and red numbers are less optimistic estimates.

Table 1. Quarterly Forecasts for GDP Growth, Unemployment, and Payroll Gains

	Real GDP (%)		**Unemployment Rate (%)**		**Payrolls (000s per month)**	
	Prior	**Revised**	**Prior**	**Revised**	**Prior**	**Revised**
2021:Q1	3.2	3.2	6.7	**6.3**	471.6	143.1
2021:Q2	3.5	**5.0**	6.5	**6.1**	423.8	396.1
2021:Q3	3.5	**5.3**	6.1	**5.7**	444.5	445.8
2021:Q4	3.3	**4.0**	5.8	**5.4**	399.5	565.8
2022:Q1	N.A.	**3.7**	N.A.	**5.1**	N.A.	441.4

Source: Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia

Annual forecasts for real GDP growth, the unemployment rate, and payroll expansion by the 39 forecasters appear in Table 2. The estimates are median forecasts. Again, green numbers represent improved estimates and red represents less optimistic forecasts. Revisions suggest a stronger economy than previously predicted going forward.

Table 2. Annual Forecasts for GDP Growth, Unemployment, and Payroll Gains

	Real GDP (%)		**Unemployment Rate (%)**		**Payroll (000s per month)**	
	Prior	**Revised**	**Prior**	**Revised**	**Prior**	**Revised**
2021	4.0	**4.5**	6.3	**5.9**	321.6	**223.4**
2022	3.0	**3.7**	5.2	**4.8**	N.A.	329.8
2023	2.1	**3.1**	4.6	**4.2**	N.A.	N.A.
2024	N. A.	**2.5**	N.A.	**4.0**	N.A.	N.A.

Source: Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia

Professional forecasters increased the consensus forecast of inflation for the first quarter of 2021, consistent with other indicators from the producer price index, steeper yield curve, and responses to the ISM survey. Expected inflation measured by the CPI for the first quarter of 2021 increased by 50 basis points to 2.5% while the headline PCE measure increased 60 basis points. Table 3 below summarizes the forecasters views of inflation.

Table 3. Quarterly Forecasts for Headline and Core Inflation

	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Prior	Revised	Prior	Revised	Prior	Revised	Prior	Revised
2021:Q1	2.0	**2.5**	1.8	1.8	1.8	**2.4**	1.7	**1.9**
2021:Q2	2.0	**2.1**	2.0	**2.1**	1.8	1.8	1.7	**1.8**
2021:Q3	2.1	2.1	1.9	**2.1**	2.0	**1.9**	1.8	**1.9**
2021:Q4	2.2	2.2	1.9	**2.1**	1.9	**2.0**	1.7	**1.9**

Source: Survey of Professional Forecasters, Federal Reserve Bank of Philadelphia

Yield Curves, Break-even Inflation, and Monetary Policy

Inflation and interest rates were historically low prior to the pandemic. Even with full employment and an expansionary monetary policy there were no signs of inflation pressures. Treasury yield curves were slightly inverted, a condition generally reflecting market expectations for lower inflation going forward. The COVID virus and self-imposed economic shutdown resulted in a deep recession in the first half of 2020. The slow reopening of the economy and spike in virus cases in the final quarters of 2020 prevented a more normal recovery. In the first quarter of 2021, unemployment remains at a recession level of 6.3%. Yet, there is increased concern for inflation pressures that could drive long term rates higher.

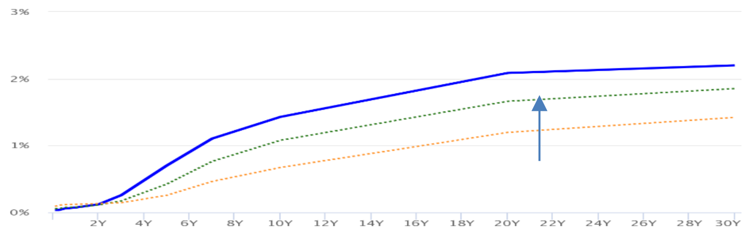
Yield Curve gets Steeper

The emergence of inflation on the radar screen of investors began with an upward creep in the long term Treasury yield. Market determined pricing of the long run Treasury bond suggests that inflation may be around the corner, even before a full recovery. The nominal Treasury yield (TRY) represents an expected real rate of return (Err) determined by supply and demand for capital and an expected inflation premium (Einf) to compensate for the erosion of the purchasing power of a dollar over the bond's maturity. Equation (1) illustrates these relationships.

$$\text{TRY} = \text{Err} + \text{Einf} \tag{1}$$

Given heavy Treasury borrowing that increases the supply of longer term bonds, there is little reason to believe that higher yields on long term Treasuries is due to a higher real rate. The most likely explanation is that higher expected inflation is at work in the bond market. Figure 1 below illustrates what has been happening to the Treasury Yield Curve in the first quarter of 2021 to support the inflation concern. The Fed is committed to keeping the short term rate at or near zero, making the short term end of the yield curve stable around zero. A logical conclusion is that the upward movement of longer term yields reflects higher expected inflation. The steeper yield curve is making investor nervous about inflation, even in a weak economy.

Figure 1. U. S. Government Bond Market Yield Curve



U. S. Treasury / FRED

1 March 2021   1 month ago   6 months ago

Break-Even Inflation Rates Rising

The break-even inflation rate provides a market-determined indicator of expected inflation. The breakeven inflation rate is the difference between the yield on a nominal bond and an inflation-indexed bond of the same maturity (such as the Treasury Inflation Protected Security). An investor can buy a traditional Treasury bond with inflation risk or an inflation-indexed bond with no inflation risk. At any point in time, the difference in the yields of these two types of bonds reflects the inflation rate that would make an investor indifferent. For example, if a 10-year Treasury yield is 2% and the inflation-index bond yield is 0.5%, an investor must have an expected inflation rate of 1.5% if the two investments offer the same real rate of 0.5%. If this were not the case there would be arbitrage until the two yields are in line. Figure 2 below shows how the breakeven inflation rate has increased during the pandemic (shaded area).

Figure 2. Breakeven Inflation Rate

Source: U. S. Treasury / FRED

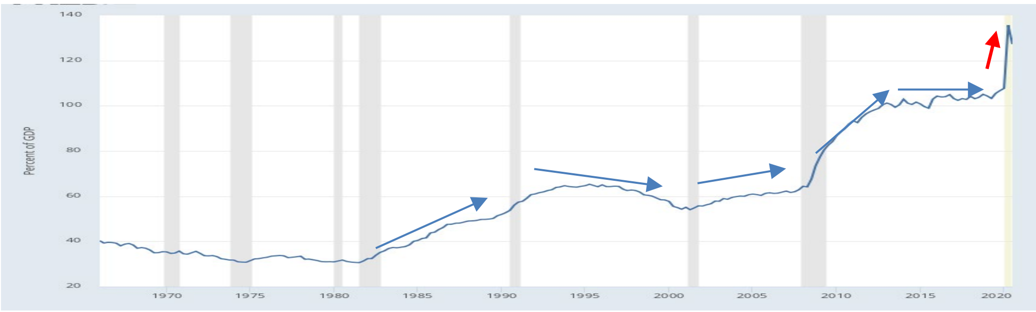
While expected inflation appears to be on the rise, the level is not yet alarming. For example, the current 10-year breakeven rate is about 2.17%, only slightly ahead of the Fed target. The concern is that forces are building that may make inflation pressures higher. A strong recovery in the second half of 2021 would increase aggregate demand significantly as consumers are able to spend out of accumulated savings and new employment. If the most recent stimulus package passes, it would be the third stimulus (in addition to an expected government deficit of about one trillion dollars) with a total accumulated impact in excess of four trillion dollars (around 20% of total annual U.S. GDP). In addition, consumers have about 1.5 trillion dollars in excess savings accumulated during the lockdown. Added agenda items of student loan relief, which could reach 400 billion dollars, along with New Green Deal initiatives could lead to even higher deficit spending going forward.

Supply managers in the ISM survey already noted the difficulty suppliers have in keeping up with growing demand. Cost-push inflation pressures may well join demand push conditions as rising oil prices and a forced transition out of the fossil fuel industry as alternative energy sources are promoted. These factors loom on the horizon, explaining why the market may overreact to any sign that inflation is building.

When will the Consequences of Debt Drag Hit the U. S.?

In prior *Outlooks* we summarized research on the consequences of debt drag for countries reaching high ratios of national debt to GDP. This was a concern for the U.S. prior to COVID but the ratio of debt to GDP is now accelerating well above the 100% mark used to signal a danger zone. Figure 3 below illustrates the U.S. debt to GDP ratio and the growing pattern. To make matter worse, there is no likely path to a lower ratio going forward. To reduce the ratio the economy must grow at a much higher rate than debt, which is not likely for a large economy like the U. S., with modest gains in population and productivity. On the other hand, there appears to be no limit to the growth in debt as new spending is on the agenda with little concern for budget consequences. Federal debt limits have not been binding in the past and are not likely to be binding in the future.

Figure 3. National Debt to GDP Ratio



Source: U. S. Department of Treasury, FRED

Summary of Key Economic Data

GDP - The economy grew 4.1% in the fourth quarter of 2020, according to the revised estimate by the Bureau of Economic Analysis. Growth was healthy by historical standards but much lower than the third quarter 33.4% gain. COVID infections spiked in the fourth quarter, leading to restrictions on economic activity. Overall, real GDP is 2.4% below fourth quarter 2019 GDP.

- The recovery from the COVID-imposed recession slowed to a 4.1% annual rate in the fourth quarter following the immediate bounce in the third quarter.

- Fourth quarter consumer spending grew at an annual 2.4% rate, adding 1.6% to GDP in the fourth quarter. Inventories added 1.1% to GDP growth. Fixed investment contributed 3.1% to fourth quarter growth. The gain was widespread across all components of fixed investment. Trade was a 1.55% drag on growth in the fourth quarter. Overall, government spending slowed in the fourth quarter, resulting in a 0.2% reduction in growth. Most of the reduced spending was at the state and local government levels. Table 4 summarizes the quarterly growth in GDP and its components.

Table 4. Quarterly Growth Rates for GDP and GDP Components

	Q4 2020	Q3 2020	Q2 2020	Q1 2020	Q4 2019	Q3 2019	Q2 2019
Real GDP	4.09	33.44	**- 31.38**	**- 4.96**	2.37	2.57	1.49
Nominal GDP	6.14	38.35	**- 32.82**	**- 3.38**	3.90	4.01	4.13
Consumption	1.61	25.44	**- 24.01**	**- 4.75**	1.07	1.83	2.47
Fixed investment	3.12	5.39	**- 5.27**	**- 0.23**	0.17	0.42	**- 0.07**
Residential	1.37	2.18	**- 1.60**	0.68	0.22	0.17	**- 0.08**
Nonresidential	1.76	3.20	**- 3.67**	**- 0.91**	**- 0.04**	0.25	0.01
Inventories	1.11	6.57	**- 3.50**	**- 1.34**	**- 0.82**	**- 0.09**	**- 0.97**
Net exports	**-1.55**	**- 3.22**	0.62	1.13	1.52	0.04	**- 0.79**
Government	**-0.19**	**- 0.75**	0.77	0.22	0.42	0.37	0.86

Source: Bureau of Economic Analysis

- When adjusted for inventory investment, economic growth in the fourth quarter does not look as strong. Final sales, which exclude the impact on GDP from inventories, gained only 3%. Higher inventories will be a drag on growth in the first part of 2021 if consumer demand does not pick up significantly.

Personal Income, Savings, and Sales – *The stimulus package passed at the end of 2020 boosted personal income in January of 2021. Nominal personal income grew 10% following a 0.6% increase in December. Nominal disposable income increased 11.4% and the personal saving rate jumped to 20.5% in January. Pent up demand and high savings should promote spending in the coming quarters as the virus becomes less threatening. A third stimulus plan is likely to be enacted during the first quarter, providing an unprecedented jolt to consumer income.*

- Federal government stimulus boosted transfer payments by 52% in January supporting a 10% boost in personal income. Employee compensation increased 0.7% in January, in line with prior months. Normally, compensation of employees provides the key driver of personal income and will need to improve for a normal recovery.

- Real disposable income gained 11% in January following a modest 0.2% gain in December and declines in both November and October. Table 5 below provides the monthly changes in personal income, disposable income, and income components.

Table 5. Personal Income and Income Components

Monthly % Change	Jan 2021	Dec 2020	Nov 2020	Oct2020	Sep 2020	Aug 2020
Personal Income	10.0	0.6	-1.2	-0.7	0.7	-2.7
Compensation of employees	0.7	0.5	0.5	0.7	0.7	1.1
Wages & salaries	0.7	0.5	0.5	0.8	0.8	1.2
Supplements to wages/salaries	0.8	0.6	0.5	0.5	0.5	0.8
Proprietors income	-0.5	-4.6	-10.4	0.9	5.1	6.3
Rental income	1.1	-0.3	-0.3	-0.5	1.0	0.7
Income receipts on assets	-3.0	2.2	1.3	0.7	-0.3	-0.8
Transfer payments	**52.0**	2.1	- 3.3	- 5.9	- 0.7	- 15.4
Real Disposable Income	11.0	0.2	- 1.4	- 0.9	0.5	- 3.5
% Change Year- Ago						
Personal Income	13.1	3.7	3.2	5.0	6.0	5.4
Real Disposable Income	13.3	2.8	2.4	4.3	5.2	4.9

Source: Bureau of Economic Analysis

- Retail sales grew 5.3% in January following declines of 1% in December and 1.3% in November. Gains in retail sales were widespread.

- Year-over-year sales grew 7.4% in January, which represents a strong performance for a recession year. Retail sales are well above what would be expected in relation the job losses during the pandemic.

- Figure 4 illustrates the growth in U. S. retail sales and the rapid recovery from the COVID recession. Stimulus fueled sales will continue to grow in the coming quarters.

Figure 4. U. S. Total Retail Sales and Services

Millions of 1982-84 Inflation Adjusted Dollars

Source: U. S. Census Bureau, FRED

- Year-over-year growth in retail sales jumped to 7.4% in January, representing the strongest growth since 2011. Consumers continue to order products in lockdown.

Production, Manufacturing and Sales – *The PMI index remained above 50, suggesting continued expansion in manufacturing. Even so, the index is down 15.32% for the year. Industrial production posted modest gains over the past four months and has held up well given the COVID shutdowns. Overall, industrial production fell 1.8% on a year-ago basis. Capacity utilization is improving slowly. The COVID shutdowns affected services more than production.*

- Industrial production increased 0.9% in January and has now increased for four consecutive months. Even so, the index remains below pre-pandemic levels. On a year-ago basis, industrial production fell 1.8% in January of 2021.

- Manufacturing gained 1% in January following similar gains in the prior two months. Manufacturing capacity utilization increased to 75.6% in January from 74.9% in December. Utilization rates have been rising but remain well below full employment. Motor vehicles and parts were the weakest components of manufacturing falling 0.7% in January. Table 6 provides monthly data on production and manufacturing.

Table 6. Industrial Production

	Jan 21	Dec 20	Nov 20	Oct 20	Sep 20	Aug 20	Jul 20
Total (% Change)	0.9	1.3	0.9	1.1	-0.1	1.0	4.2
Manufacturing	1.0	0.9	1.0	1.5	0.0	1.7	4.2
Durable goods	0.9	0.8	1.4	1.3	0.1	1.4	7.2
Motor vehicle & parts	- 0.7	-0.2	4.1	-0.5	-2.5	-3.9	31.0
High-tech	1.5	-0.4	0.3	2.2	1.6	0.5	2.1
Nondurable goods	1.2	1.1	0.8	1.7	-0.2	1.9	1.4
Business equipment	0.4	0.7	2.0	1.1	-0.5	2.6	7.0
Capacity Utilization (%)							
Production	75.6	74.9	73.9	73.3	72.4	72.5	71.8
Manufacturing	74.6	73.9	73.2	72.4	71.3	71.3	70.1

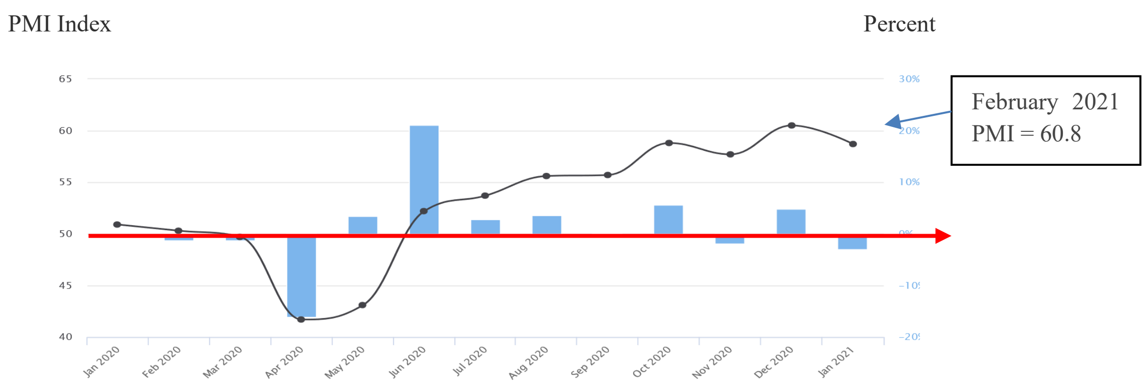
Source: Federal Reserve Bank of St. Louis, FRED

- The Institute of Supply Management's PMI index fell to 58.7 in January but recovered to 60.8 in February. The index has fallen in the early part of 2021 but overall the index suggests a strong manufacturing sector.

- Strong demand and increasing supply shortages appear to be putting upward pressure on prices, with the PMI prices paid balance jumping from 82.1 to 86.0. The prices paid component reached the highest level since the summer of 2008. At that time U.S. oil prices were averaging $130. Higher commodity prices and the depreciation of the dollar are also putting upward pressure on U.S. prices. Firms in every sector reporting shortages and problems with suppliers keeping up with demand.

- In the ISM survey, manufacturing supply executives gauge the business activity in new orders, inventories, and production. An index above 50 suggests an expansion and an index below 50 suggests contraction. The figure below shows the PMI for the past year.

Figure 5. Production Manager Index over 2020



Source: Institute of Supply Management

- The Chicago Fed National Activity Index increased to 0.66 in January following an index of 0.41. Since the index is volatile, a better measure is the three-month moving average of 0.47 in January. The moving average increased significantly in July and August but has been falling since then. Table 7 provides the monthly Chicago Fed index data.

Table 7. Chicago Federal Reserve Bank National Activity Index

	Jan 21	Dec 20	Nov 20	Oct 20	Sep 20	Aug 20	Jul 20	Jun 20
Index	0.66	0.41	0.34	1.04	0.43	1.21	2.65	6.00
3-mo MA	0.47	0.60	0.60	0.89	1.43	3.29	4.33	- 2.46
6-mo MA	0.68	1.01	1.95	2.61	- 0.51	- 1.33	- 1.53	- 1.98

Source: Chicago Federal Reserve Bank

Labor Market and Employment - *The unemployment rate fell to 6.3% in January. Overall, 8.3 million jobs have been lost due to the pandemic with the bulk of the losses in services. For the year, workers who were fortunate enough to have jobs worked longer hours at higher wages. Labor market shifts toward greater efficiencies, automation, and potential productivity gains may be a healthy outcome of the pandemic, but there will be displacement of low skill workers making employment gains more difficult.*

- Payroll employment increased only 49,000 in January. Public payrolls gained 43,000 jobs, representing the only other sector with a significant gain.

- Slightly stronger employment and labor force exits contributed to a decline in the unemployment rate from 6.3% from 6.7%. The labor force declined 406,000 in January, due to early retirements and drop outs from jobs that will not be hiring until the virus is under control. The month-to-month change in the labor force has been volatile as people stop and start seeking employment.

- Average hourly earnings continue to increase at a low rate. Table 8 summarizes the monthly changes in key employment data.

Table 8. Employment Data (Seasonally Adjusted)

	Jan 21	Dec 20	Nov 20	Oct 20	Sep 20	Aug 20	Jul 20	Jun 20
Nonfarm payrolls, change, (000s)	49	-227	264	680	716	1,583	1,726	4,846
Average hourly earnings, % change	0.2	1.0	0.3	0.1	0.1	0.3	0.1	-1.3
Average workweek, hours	35.0	34.7	34.8	34.8	34.8	34.7	34.6	34.6
Unemployment rate, %	6.3	6.7	6.7	6.9	7.8	8.4	10.2	11.1
Labor force, change, (000s)	-406	31	-182	640	-740	733	288	1,597
Labor force participation rate, %	61.4	61.5	61.5	61.6	61.4	61.7	61.5	61.4

Source: Bureau of Labor Statistics

- Leisure, hospitality, and retail jobs suffered the brunt of the COVID slowdown. Approximately 98,000 jobs have been lost in these industries.

- Industries that maintained healthy employment during the shutdowns in 2020 included professional services, financial services, information services, and government payrolls at the state and local levels.

- Initial unemployment insurance claims have been volatile and suggestive of a weakness in the labor market. New filings fell 730,000 in the week ended February 20 but total initial claims are well above the 1 million level at the beginning of the pandemic.

- U.S. productivity fell 4.8% at an annualized rate in the fourth quarter of last year. Nonfarm output was up 5.3% in the fourth quarter while hours worked jumped 10.7%. Table 9 provides the quarterly movement in productivity and compensation.

Table 9. Productivity, Compensation and Unit Labor Costs (Annualized % Change)

	2020 Q4	2020 Q3	2020 Q2	2020 Q1	2019 Q4	2019 Q3	2019 Q2
Nonfarm businesses							
Output per hour	-4.8	5.1	10.6	-0.3	1.6	0.3	2.0
Compensation per hour	1.7	-2.2	24.3	9.2	3.3	-0.2	1.4
Unit labor costs	6.5	-7.0	12.3	9.6	1.7	-0.4	-0.6
Manufacturing							
Output per hour	3.0	20.2	-13.7	1.6	-0.7	-0.5	-2.3
Compensation per hour	0.5	5.3	24.5	6.0	5.2	-1.9	1.4
Unit labor costs	-2.4	-12.4	44.3	4.3	6.0	-1.4	3.8

Source: Bureau of Labor Statistics

- Unit labor costs in nonfarm business increased 6.8% in the fourth quarter. On a year-ago basis, unit labor costs were up 5.2% while real hourly compensation increased 6.5%. On a year-ago basis, productivity was up 2.5%.

Sentiment and Confidence *– Consumer concerns about new virus strains mixed with continued high infection rates and looming consequences of severe weather are weighing against prospects of added stimulus and relaxed restrictions. Measures of sentiment softened in the fourth quarter and are mixed in the first months of 2021. Expectations of inflation are picking up as a potential full opening of the economy, continued monetary easing, increased regulation, and big spending programs all appear to be on the horizon. Going forward, there will be a tug of war between the short term and longer term consequence of COVID and policy responses to the pandemic.*

- The Conference Board's consumer confidence index reached 91.3 in February after reaching 88.9 in January. While the present conditions component improved, the expectations component fell. Consumer confidence should improve as vaccinations increase, shutdowns are lifted, and fiscal stimulus continues.

- The second spike in the COVID virus at the end of 2020 led to a deterioration in confidence that is just now beginning to improve. Table 10 below outlines the monthly movement in the confidence index.

Table 10. Conference Board Consumer Confidence Index by Month (Index 1985 = 100)

	Feb 21	Jan 21	Dec 20	Nov 20	Oct 20	Sep 20	Aug 20	Jul 20
Overall	91.3	88.9	87.1	92.9	101.4	101.3	86.3	91.7
Present conditions	92.0	85.5	87.2	105.9	106.2	98.9	85.8	95.9
Expectations	90.8	91.2	87.0	84.3	98.2	102.9	86.6	88.9

Source: Conference Board, Index = 100 in 1985

- The University of Michigan consumer sentiment index in February reached 76.8 following an index of 79 in January and 77.3 in December. Overall, the index is almost 25 points lower than in February of last year. The expectations component was the key factor behind the decline. Table 11 outlines key data from the survey.

- An increase in inflation expectations marked a key finding in the sentiment data. The median 12-month inflation expectation increased to 3.3% from 3% in January. Higher expected inflation will begin to bump interest rates higher.

Table 11. University of Michigan Consumer Sentiment Index

	Feb 2021	Jan 2021	Dec 2020	Nov 2020	Oct 2020	Sep 2020
Overall Index	76.8	79.0	80.7	76.9	81.8	80.4
% Change	-2.2	-1.7	3.8	-4.9	1.4	6.3
Present conditions Index	86.2	86.7	90.0	87.0	85.9	87.8
Expectations Index	70.7	74.0	74.6	70.5	79.2	75.6
1-yr. Inflation Expectations	3.3	3.0	2.5	2.8	2.6	2.6

Index = 100 in the first quarter of 1966 *Source: University of Michigan*

- The Conference Board's Leading Economic Index continued a slow increase with a gain of 0.5% in January. Overall, the index in January is 1.7 points below the year-ago level and is only slightly below the 2019 average of 111.5. The leading indicators do not show a clear trend signaling expansion or contraction. Table 12 presents the leading indicator series since July.

Table 12. Conference Board Leading Indicator Index (2010 = 100)

	Jan 2021	Dec2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020
Leading Index	110.3	109.7	109.3	108.3	107.5	106.5	104.9
% Change	0.5	0.4	0.9	0.7	0.9	1.5	2.0
% Change, 3-month MA	0.6	0.7	0.9	1.1	1.5	2.2	2.7

Source: Conference Board

Inflation – *The combination of massive fiscal and monetary stimulation to address the COVID recession is now sparking concern for potential inflation. Energy supply disruptions with growing energy demands in a recovery may fuel an inflation, even as the economy struggles to recover. Longer run policies aimed at reducing fossil fuel consumption with taxes and regulation are likely to add inflation pressures. All price index movements continue to follow a low inflation scenario but energy price components are rising.*

- The headline PCE deflator rose 0.3% in January following a 0.4% gain in December. The PCE inflation measure increased 1.5% on a year-ago basis. The core deflator, excluding food and energy, also increased by 0.3% in January with a year-ago increase of 1.5%. Table 13 shows the PCE data since July.

Table 13. Personal Consumption Expenditure (PCE) Inflation

	Jan 2021	Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020
PCE (% change)	0.3	0.4	0.0	0.1	0.2	0.3	0.3
Core PCE (% change)	0.3	0.3	0.0	0.0	0.2	0.3	0.3
PCE (% year ago change)	1.5	1.3	1.2	1.2	1.4	1.2	1.0
Core PCE (% year ago change)	1.5	1.4	1.4	1.4	1.5	1.4	1.3

Source: Bureau of Economic Analysis

- Figure 6 illustrates the core PCE pattern since 2011. Inflation has generally been below 2% and will converge back to the 2% rate as the economy opens.

Figure 6. Core PCE

Source: Bureau of Economic Analysis / FRED

- The consumer price index (CPI) increased 0.3% in January after two consecutive monthly gains of 0.2%. On a year-ago basis, the CPI rose 1.4% in January while the core CPI gained 1.3%.

- The consumer price index (CPI) increased 0.3% in January after two consecutive monthly gains of 0.2%. On a year-ago basis, the CPI rose 1.4% in January while the core CPI gained 1.3%.

- The energy price component of the CPI accelerated in December and January. The CPI for energy gained 3.5% from December. Within energy, the CPI for gasoline increased 7.4% after gaining 5.2% in December. CPI data appear in Table 14.

Table 14. Consumer Price Index

	Jan 2021	Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020
CPI (% change)	0.3	0.2	0.2	0.1	0.2	0.4	0.5
Core CPI (% change)	0.0	0.0	0.2	0.1	0.2	0.3	0.5
CPI (change year ago)	1.4	1.3	1.1	1.2	1.4	1.3	1.0
Core CPI (change year ago)	1.4	1.6	1.7	1.6	1.7	1.7	1.6

Source; U. S. Bureau of Labor Statistics

- The PPI gained 1.3% in January, largely driven by higher energy prices. The PPI for energy was up 5.1% in January, following 4.9% in December. On a year-ago basis, the headline and core PPIs were up 1.8% and 2.3%, respectively. Costs of production are also rising due to supply-chain disruptions. The producer price index data appear in Table 15.

Table 15. Producer Price Index

	Jan 2021	Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020
Final demand (% change)	1.3	0.3	0.1	0.5	0.3	0.2	0.5
Final demand (% change yr. ago)	1.8	0.8	0.8	0.5	0.3	-0.2	-0.3

Source: Bureau of Labor Statistics

Housing *- The housing market remains strong with tight inventory and rising prices. Mortgage rates remain around 3% and consumer wealth remains high. For those who kept their jobs during the pandemic, the demand for housing and larger work spaces support housing demand. Overall, housing data are similar to the mid-2000s in the early stages of the housing bubble.*

- The National Association of Realtors (NAR) pending home sales index fell 2.8% in January reversing the increase in December. The January index fell back to the July 2020 level. Overall, home sales are in line with the last housing boom in the 2006–2008 period. On a year ago basis, the pending home sales index is up 13%.

- Table 16 shows the monthly NAR index and monthly changes. Momentum eased in January but sales remain healthy.

Table 16. Pending Home Sales

	Jan 2021	Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020
NAR Index	122.8	126.4	125.8	127.0	126.9	130.3
3-mo MA	125.0	126.4	126.6	128.1	126.1	122.1
% change yr. ago.	13.0	20.8	16.8	20.3	19.8	24.1

2001 Index = 100 *Source: National Association of Realtors*

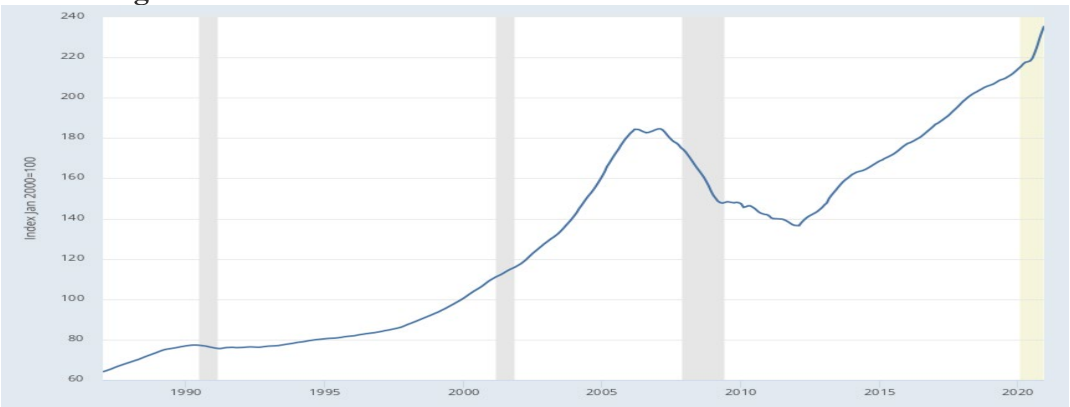
- New-home sales rose 4.3% to 923,000 annualized units in January. The supply of new homes fell from 4.1 to 4 months in December.

- Existing-home sales increased 0.6% in January to 6.69 million units annualized, falling in just below their decade high reached in October. The median single-family home price in January was $308,300, which is up 14.8% from 2020.

- The inventory-to-sales ratio for homes in January was 1.9 months, which is down by 1.2 months from January 2020.

- The CoreLogic Home Price Index increased 1% in December and rose 9.2% on a year over year basis. The annual price appreciation in 2020 is the fastest since 2013. Figure 17 illustrates the gains in the index over time.

Figure 17. S&P / Case-Shiller U. S. National Home Price Index



Source: S&P Dow Jones Indices / Federal Reserve Bank of St. Louis

U. S. International Trade - *Improvements in the U. S. trade balance in the pre-pandemic economy took a U-turn in 2020. Even as the dollar weakened, the trade balance continues to be a drag on GDP growth. Higher oil import prices are building just as domestic U. S. oil producers face headwinds with stricture energy regulations and potential taxes to reduce use of fossil fuels. While inflation remains below the 2% target, higher import prices linked to an inelastic demand for imports will contribute to inflation going forward.*

- U. S. trade continues to be a drag on GDP growth. The shift away from services to goods purchases during the pandemic contributes to a worsening of the trade balance. Nominal trade improved from a deficit of $69 billion in November to a deficit of $66.6 billion in December. The real goods deficit also improved in December from $97.2 billion to $94.8 billion. The deficit will not improve, especially if the U. S. recovery is stronger than in major trade partner countries. Table 18. Shows the monthly trade deficit data.

Table 18. U. S. Trade Balance (Billions of dollars)

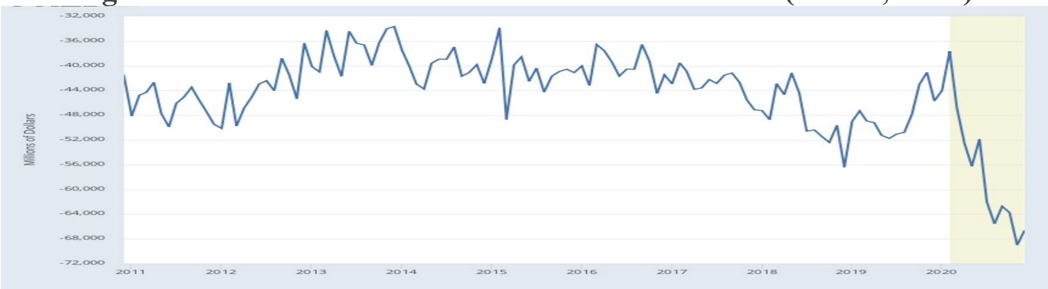
	Dec 20	Nov 20	Oct 20	Sep 20	Aug 20	Jul 20	Jun 20	May 20
Trade balance	-66.6	-69.0	-63.8	-62.7	-65.6	-62.1	-51.9	-56.2
Exports	190.0	183.8	181.8	177.8	173.7	169.9	157.4	143.8
Imports	256.6	252.8	245.6	240.6	239.2	231.9	209.3	200.0
Real trade balance	-94.8	-97.2	-90.4	-88.3	-93.1	-91.9	-81.6	-86.5
Exports	148.4	144.3	143.7	139.8	136.4	132.9	119.9	107.1
Imports	243.2	241.6	234.1	228.1	229.5	224.8	201.5	193.6

Source: U. S. Census

- U.S. import prices increased 1.4% in January following a 1% gain in December. Oil prices were 8.2% higher in January following an increase of 11.8% in December. By comparison, nonfuel import prices gained 0.8% in January and 0.4% in December.

- Figure 19 illustrates the longer term trend in the U. S. trade balance. The balance was improving prior to the COVID-recession and took a large decline in 2020.

Figure 19. U. S. Goods and Services Trade Balance (FRED, BEA)



Source: Bureau of Economic Analysis / FRED

- The trade weighted U. S. dollar weakened in 2020, as Figure 20 illustrates. A lower dollar value should improve the U. S. trade account, but the adjustment is very slow.

Figure 20. Trade Weighted U.S. Dollar Index Broad Goods and Services

Source: Board of Governors / FRED

Selected Global Issues

- The World Bank estimates that global growth contracted 3.5% in 2020. Overall, recovery will be slow and a return to pre-pandemic levels will take several years. Downside risks include new variants of COVID and policy missteps linked to a global debt crisis. The pandemic has elevated risks associated with a decade-long wave of global debt accumulation as economies run larger deficits to stimulate growth. Potential growth is likely to suffer from debt drag.

- Table 21 below provides the International Monetary Fund estimates and projections for growth in a Advanced and Emerging/Developing economies. For 2020, China is the only country with positive GDP growth and India is expected to have the largest increase.

Table 21. International Monetary Fund Estimates and Projections

	2020 Estimate	2021 Projection	2022 Projection
Advanced Economies	-4.0	4.3	3.1
United States	-3.4	5.1	2.5
Euro Area	-7.2	4.2	3.6
Germany	-5.4	3.5	3.1
France	-9.0	5.5	4.1
Italy	-9.2	3.0	3.6
Spain	-11.1	5.9	4.7
Japan	-5.1	3.1	2.4
United Kingdom	-10.0	4.5	5.0
Canada	-5.5	3.6	4.1
Emerging / Developing	-2.4	6.3	5.0
China	+2.3	8.1	5.6
India	-8.0	11.5	6.8
ASEAN-5	-3.7	5.2	6.0

Source: International Monetary Fund World Economic Outlook Update, January 2021

Recent public release of the manufacturing Purchasing Manager Index (PMI) for emerging economies provided mix results but collective the data suggest solid industrial production growth in the near term. Supply disruptions and price pressures generally linked to shortages in semiconductors.