Third Quarter 2020 Economic Summary and Outlook

The COVID recession in first half of 2020 was the shortest but most severe downturn in history with a 31.4% decline in GDP in the second quarter. The third quarter began with a resurgence of the virus as the economy reopened on a limited basis. Still, revised third quarter growth was an impressive 33.1%, largely due to a bounce back from a low GDP level. The rebound was fueled by unprecedented stimulus spending, low interest rates, high levels of household savings, rising stock values, and pent up demand for goods. Approximately 22 million jobs were lost in the recession and about half of that total has been recovered. The unemployment rate now stands at 6.7% but added gains in employment will be slow in the coming quarters as worker skills erode and many businesses do not reopen. Pandemic related changes in the economy will affect the labor market going forward, to include fewer face-to-face business interactions and restructuring the labor component of business.

Retail sales actually ended higher in the third quarter than the level achieved at the end of 2019. Consumers demanded fewer services but demand for goods increased due to availability of home delivery. The saving rate fell from an astronomic 26% to 16% in the third quarter, but savings remain at a high level to supplement spending. Historic stimulus and unemployment payments waned in the third quarter just as the virus began a second wave. The fourth quarter is starting out slow and an additional stimulus package somewhere between $900 billion and one trillion dollars is likely by the end of January.

Fourth quarter growth should be modest due to a lack of added stimulus and a strong resurgence of the virus. Interest rates will remain at historic lows and inflation below 2% will continue. The trade deficit will continue to be a drag on growth. While the announcements of COVID vaccines are promising, actual distribution and inoculation will take time and full openings of the economy are not likely until well in to 2021. Overall, GDP growth for 2020 is expected to be about -4.6%. With very low inflation the Fed has free reign to expand the money supply, but it is not clear that monetary actions will have much effect beyond the massive expansion provided already. High levels of additional government spending are likely, both to stimulate the economy and advance the new agenda of the Democratic leadership, especially if Democrats take the Senate in the Georgia special election. Long run consequences of an exploding public debt load approaching 25 trillion dollars are not on the radar screen of political leaders.

The November 20 revisions by the 37 forecasters surveyed by the Federal Reserve Bank of Philadelphia call for a fourth quarter GDP growth of 4%. For the next three years forecasters predict U. S. GDP growth between 2.1% to 4.0% while inflation remains close to the 2% target. Forecasters also predict that the unemployment rate will decline to 5.8% in the fourth quarter of 2021 and 4.6% by 2023. It is not likely that the economy will return to pre-pandemic levels in the foreseeable future. The chances of a double dip recession cannot be ruled out completely but the odds are less than 30%, depending on the course of the virus and vaccine effectiveness.

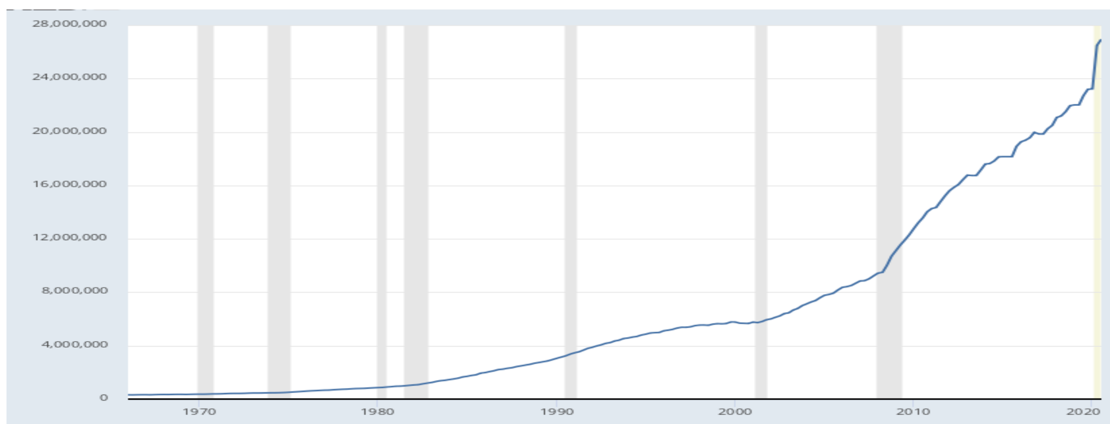
Monetary Accommodation and Fiscal Spending

The Federal Reserve Bank has a dual mandate of stable inflation and full employment. The COVID recession came on the heels of a very expansionary monetary policy with short term interest rates already bordering on zero. The expansion continued into 2020 as unprecedented fiscal stimulus spending was monetized by Fed security purchases. With inflation well below the policy target, the Fed focused on monetary expansion to support employment. The central bank has now accumulated over $7 trillion in purchased assets on the balance sheet and there is no clear intention of reversing the accommodative pattern. This continued Fed activity will allow Congress and the President to spend money without the discipline of the credit markets. With a global pandemic and soft goods markets, inflation will not materialize in the short run to deter the Fed from easy money policies. The massive spending required to fulfill the Biden-Harris platform will likely be financed with added debt along with monetizing the debt by the Fed. The consequences of these short run policies will not be felt until global economic conditions improve and inflation from the expanded money supply develops. It will be difficult to deal with a high inflation, high nominal interest rate, high debt repayment, and potentially high tax rate environment that looms on the long term horizon with the existing trends.

Past Deficit Accumulations

The pandemic is an artificial event caused by a virus unrelated to normal economic activities. Fiscal easing during this period is warranted. The problem is that past fiscal deficits have accumulated even during recoveries and expansions. The accumulated national debt that has now grown to over $25 trillion represents a cloud over future economic growth. The $25 trillion national debt consists of public debt held by the public plus intragovernmental holdings. Figure 1 illustrates the growth in the national public debt.

Figure 1. Growth in the National Public Debt



Source: U. S. Department of Treasury, FRED

What is <u>not</u> often mentioned by economists is the additional unfunded liabilities from government promises made for Social Security and Medicare. For a private entity, an unfunded liability such as a pension fund would be part of the accounting and valuation. This federal government

unfunded liability is equivalent to debt in many ways. It is money owed that must be paid by higher taxes in the future. The drag on growth by unfunded liabilities should be considered in addition to the national debt held by the public. Conservative estimates of this unfunded liability exceed $100 trillion. Of course, as interest rates go up the amount of the unfunded liability declines, but the cost of servicing the public debt will go up.

The long run problem of debt accumulation is likely to get worse if initiatives such as The Green New Deal and potential federal bailouts of unfunded liabilities in states such as California, Illinois, and Connecticut become a reality. If the Fed does not accommodate fiscal deficits by buying government securities, market forces provides some discipline by revealing the cost of government spending. The Fed has not played that role for a long time and it remains unclear how the future Fed will respond to massive spending going forward.

Asset Bubbles?

A final concern over accommodating monetary policy is the potential for asset bubbles. When interest rates are kept too low for too long due to Fed purchases of government debt, asset values rise above any form of fundamental value formulation. For example, many economists believe the 2007-2008 housing bubble represents an example of Fed policies keeping interest rates too low for too long. Currently, equity and housing values are ahead of fundamentals based on traditional measures of value. Low interest rates drive expected values higher in any form of a discount model, which will collapse with higher interest rates. Alternatively, when faced with a decision between fixed income and equity holdings, interest rates around zero make equities more attractive than growth of expected cash flows would indicate. There is a debate on whether the stock market and/or the housing market are heading into asset bubbles. Even when a bubble is generally recognized, it continues because of the belief that an early exit will allow a capture of returns.

Janet Yellen and Rules-based Treasury Policies

Janet Yellen, a former U. S. Federal Reserve Chair, will be the new head of the Department of Treasury for the Biden-Harris administration. Yellen is the first practicing economist to be the Treasury Secretary in over twenty years and is the first former Fed Reserve chair in forty years. Yellen has a history of being a “rules-based” advocate for monetary policy. Rather than “looking at everything” or pure “discretionary” policies, a rules-based approach provides a predictable and clear guide to key monetary decisions. At the Fed, Yellen managed the balance between unemployment and inflation by employing several rules linking inflation and employment, such as the Taylor Rule. Such rules provide helpful descriptions of how monetary policy should be conducted.

The Taylor rule incorporates relationships between inflation rates, interest rates, and the gap between potential and actual GDP growth. Yellen has also suggested adding a response rate that brings the economy back toward full employment. While Yellen has yet to formalize the combination of the Taylor rule with an employment variable, she clearly favors a response function to economic conditions. The benefits of this approach are in its clarity and consistency. The

problem is that there are no longer run considerations of accumulated monetary actions, such as mounting debt or conditions where employment no longer responds to monetary policy around zero bound interest rates. Both of these problems are clearly key issues in monetary policy going forward.

The Fed officially has independence from Congress and the President but pressures from a new administration, Congress, and short term economic movements clearly play a role. While a systematic rules-based approach to monetary policy has appeal, there must be more than short tun inflation and employment tradeoffs in the models. Models should also tilt toward unwinding accumulated debt purchases by the Fed and reversing expansionary policies when the economy is performing well to prevent accumulating debt. While Yellen is clearly qualified to serve as the head of Treasury, there is no indication yet that she will help move monetary policy away from the short run focus of existing rules or pressures to monetize the government debt. New models are needed that use constraints on debt accumulation as part of the inflation and employment balancing act. There is some hope that Yellen will bring a new perspective that will include both traditional rules with longer run concerns for accumulated debt.

The IMF and Global Recovery

There is global support for a $500 billion issue of Special Drawing Rights by the International Monetary Fund. The special drawing right is a supranational currency that the IMF oversees. The SDRs would be used to help bail out struggling economies, especially with debt owed to more developed countries. Many countries are unable to meet debt obligations and there are pressures on lenders to restructure the debt. It is likely that the Biden-Harris administration will support the IMF initiative with funding and will push for debt restructuring.

The move to support the IMF initiative and push for debt restructuring along with the announced intention to join the Paris Accord signals a return to globalism. This direction could be controversial since the U. S. will undoubtedly pay a disproportionate share of the costs in these initiatives. There will likely be a push to convince the public that improving the conditions of the global economy are in the best interest of the U. S. This will be a leading indicator on the extent to which relationships with China, NATO, WHO, and other global entities will proceed.

Key Global Issue – The Asia-Pacific Regional Economic Partnership

The Asia-Pacific Regional Economic Partnership (RCEP) was signed by 15 countries in the region to promote free trade and reduce protectionism. The success of this agreement will a key to a consolidated front in the Asian-Pacific region and added independence from the U. S. However, economic integration will be very difficult due to very different levels of economic development and diverse cultures, different institutional arrangements, and ongoing disputes over geographic territory. The chaos created by the COVID virus is a major impetus for this agreement, which has been a long time in coming.

The RCEP includes major economies that account for 30% of global GDP. It will be the world's largest free-trade area. The provisions are extensive to include tariffs on imports, trading uniformity, rules of origin standards, intellectual property procurement, e-commerce and financial services integration. While the RCEP is designed to promote regional economic integration, it does not address differences in worker protections or competitive pollution. Tariff reductions are modest and not fully competitive. The economic benefits from the RCEP may not be large. India did not join, which limits the potential somewhat. Key benefits may flow to smaller countries in the agreement due to the size of the Chinese and Japanese markets.

Another trading bloc like RCEP in addition to the Eurozone and NAFTA actually moves global economies further away from mutually beneficial multilateral trade. Countries excluded from these agreements will not have free trade, which tends to be the ultimate goal for global wealth expansion.

Summary of Key Economic Data

GDP *- Based on revised estimates by the Bureau of Economic Analysis, third quarter real GDP grew 33.1% following a 31.4% second quarter decline. Even so, the economy has not yet recovered to the point reached prior to the COVID recession in the first two quarters. While the third quarter growth looks impressive the economy is likely to achieve much lower growth in the coming quarters. A stimulus package may be in the works by the end of the year, but most of that spending will occur in the first quarter of 2021.*

- The U. S. economy expanded by 33.1% in the third quarter. Revisions to GDP growth by the Bureau of Economic Analysis were smaller than usual. Growth was generally widespread across all GDP components. Only government spending and exports were drags on growth.

- Gross domestic income, an alternative measure of the size of the economy, surged 25.5% in the quarter after falling 32.6% previously. The average of gross domestic product and gross domestic income surged 29.2% in the third quarter.

- Table 1 below provides growth rates for GDP and GDP components since the beginning of 2019. Pent up demand for consumers and businesses in the prior two quarters helped boost consumer and investment spending in the third quarter. The spike in virus cases in the third quarter will likely slow growth in the fourth quarter, especially if lockdowns occur prior to the holidays.

Table 1. Quarterly Growth Rates for GDP and GDP Components

	2020 Q3	2020 Q2	2020 Q1	2019 Q4	2019 Q3	2019 Q2	2019 Q1
Real	33.07	- 31.38	- 4.96	2.37	2.57	1.49	2.93
Nominal	38.01	- 32.82	- 3.38	3.90	4.01	4.13	3.99
Consumption	25.22	- 24.01	- 4.75	1.07	1.83	2.47	1.25
Fixed investment	5.23	- 5.27	- 0.23	0.17	0.42	- 0.07	0.50
Residential	2.17	- 1.60	0.68	0.22	0.17	- 0.08	- 0.06
Nonresidential	3.06	- 3.67	- 0.91	- 0.04	0.25	0.01	0.56
Inventories	6.55	- 3.50	- 1.34	- 0.82	- 0.09	- 0.97	0.21
Net exports	- 3.18	0.62	1.13	1.52	0.04	- 0.79	0.55
Government	- 0.76	0.77	0.22	0.42	0.37	0.86	0.43

Source: Bureau of Economic Analysis

- Real disposable income fell 16% in the third quarter after gaining 48.6% in the second quarter. The slower gain was largely due to the waning stimulus.

- The saving rate fell from 26% to 16.1% in the third quarter. Profits increased 27.1% after falling 10.3% in the second quarter.

- Third quarter growth was healthy but it will take sustained growth to get back to the pre-recession GDP levels. It takes more than a 33% gain on a low GDP level to offset the dollar losses from a 31% downturn on the higher GDP level. Figure 2 illustrates the annualized quarterly GDP levels since 2016.

Figure 2. Constant Dollar GDP Since 2016 (Seasonally Adjusted Annual Amount)

2012 Dollars (billions)

Source: Bureau of Economic Analysis, FRED Data

Production, Manufacturing and Sales - *For the third quarter, stimulus payments helped fuel a slow recovery from the COVID recession. The PMI index signaled a continued expansion but the employment component remained depressed. Consumers shifted spending from services to goods, which helped manufacturing. Total retail sales and services in November exceeded levels achieved during the first part of the year.*

- U.S. factory orders increased 1% in October following a 1.3% gain in September, consistent with a modest recovery. Factory inventories increased by 0.2% in October after falling 0.1% in September. In the coming quarters inventories will need to be replenished and that will help boost GDP.

- The Institute for Supply Management (ISM) generates the monthly PMI index to measures the prevailing direction of manufacturing and service sectors of the economy. An index greater than 50 suggests an expansion. The PMI fell to 57.5 in November from a two year high of 59.3 reached in October. The index tends to rebound following a recession and does not measure the strength of the expansion. Not all components of the PMI signaled

an expansion. The employment index is below the neutral threshold. Figure 3 shows the PMI series for the U. S. since 2016.

Figure 3. Purchase Managers Index 2016 to Present

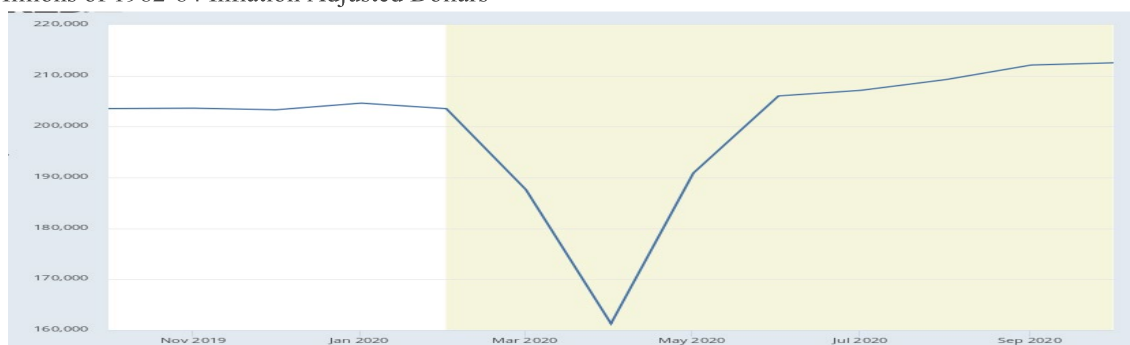
Source: Trading Economics

- U.S. construction spending increased 1.3% in October, led by residential construction spending, Nonresidential construction spending remained unchanged. For the year, U.S. construction spending increased 3.7% year over year.

- Retail sales increased 0.3% in October following a downwardly revised 1.6% in September. Overall, total sales are above where they started the year, and year-ago growth actually exceeds early-2020 rates. Consumer spending shifted away from services and toward goods with income supplemented by fiscal stimulus. Figure 4 illustrates the U. S. retail sales and services spending over the past calendar year.

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

Millions of 1982-84 Inflation Adjusted Dollars



Source: Federal Reserve Bank of St. Louis, FRED

- U. S. industrial production increased 1.1% in October following a revised 0.4% decline in September. Manufacturing production increased 1% in October following a 0.1% gain in September. Manufactured durable goods output gained 0.9%, partly hampered by a decline in motor vehicle and parts output. Nondurable goods industrial production increased 1.2%.

- Total capacity utilization increased from 72% in September to 72.8% in October. Manufacturing capacity utilization increased from 71% to 71.7%. Capacity utilization is picking up but there remains ample slack for increased production. Table 2 shows the production data over the past seven months.

Table 2. Monthly Industrial Production

	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020
Total (% change)	1.1	**-0.4**	0.7	4.2	6.0	0.9	**-12.7**
Manufacturing (% change)	1.0	0.1	1.4	4.2	7.4	3.8	**- 15.8**
Durable goods (% change)	0.9	0.1	1.0	7.1	12.5	6.8	**-21.9**
Motor vehicle and parts (% change)	**- 0.1**	**-3.0**	**-3.7**	31.7	122.6	110.4	**-76.7**
High-tech (% change)	1.7	0.9	0.6	2.4	2.3	**-0.8**	**-2.3**
Nondurable goods (% change)	1.2	**-0.1**	1.8	1.5	3.1	1.2	**-9.7**
Manufacturing (minus vehicle & parts (% change)	1.1	0.3	1.9	2.3	3.7	2.1	**- 12.2**
Business equipment (% change)	0.6	**-0.6**	2.3	6.9	12.2	6.9	**-23.2**
Mining (% change)	**- 0.6**	1.2	**-1.2**	3.8	2.4	**-11.3**	**-6.8**
Utilities (% change)	3.9	**-5.2**	**-1.7**	5.1	1.3	**-0.7**	1.8
Capacity utilization (% capacity)	72.8	72.0	72.2	71.7	68.7	64.8	64.2
Manufacturing (% capacity)	71.7	71.0	70.9	69.9	67.0	62.4	60.1

Source: Federal Reserve Bank of St. Louis, FRED

Labor Market and Employment - *The employment picture will not return to pre-recession conditions anytime soon. Job gains immediately following the initial opening of the economy were not sustainable and gains will continue to slow in the fourth quarter. As virus fears subside, both jobs gains and the size of the labor market should increase. Even so, employment conditions prior to the pandemic will not likely return due to an erosion in skills and job restructuring by employers. A full recovery in employment may not be achieved until the end of 2023, if there are no further disruptions*

- The Bureau of Labor Statistics reported that the economy generated 245,000 new jobs in November, which is the lowest gain since the beginning of the recovery. The gain in jobs immediately following the recession represented a "bounce" from restarting the economy, but gains will continue to be slower going forward. Absorbing displaced workers is becoming more difficult now as employers permanently restructure jobs. The escalation in COVID-19 cases will make fourth quarter job gains more difficult.

- The unemployment rate fell from 6.9% to 6.7% at the end of November but much of the improvement occurred due to the decline in the labor force.

- As expected, average hourly earnings, workweek hours, and the labor force participation rate showed little change in the months following the recession while the labor force is more volatile. Table 3 below summarizes key labor market data over the last eight months.

Table 3. Employment Data (Seasonally Adjusted)

	Nov	Oct	Sep	Aug	Jul	Jun	May	Apr
Change in **Nonfarm payrolls (000s)**	245	610	711	1,493	1,761	4,781	2,725	-20,787
3-month Moving Ave. Payroll (000s)	522	938	1,322	2,678	3,089	**-4,427**	**-6,478**	**-7,303**
Average hourly earnings, (% change)	0.3	0.1	0.1	0.3	0.1	**-1.3**	**-1.1**	4.7
Average workweek, (hours)	34.8	34.8	34.8	34.7	34.6	34.6	34.7	34.2
Unemployment rate, (%)	6.7	6.9	7.9	8.4	10.2	11.1	13.3	14.7
Change in the **Labor force, (000s)**	**-400**	724	**-695**	968	**-62**	1,705	1,746	**-6,432**
Labor force participation rate, (%)	61.5	61.7	61.4	61.7	61.4	61.5	60.8	60.2

Source: Bureau of Labor Statistics

- The number of workers unemployed more than half a year (long-term unemployed) increased from 3.56 million to 3.94 million.

- Combining the officially unemployed workers and those who have left the labor force since February brings the number of workers idled by the pandemic to 14.8 million.

- Figure 5 shows the jobs data and the slowing pattern of job gains following the immediate post-recession months. The COVID recession eliminated approximately 22 million jobs with approximately half of that total yet to be recovered by the end of November.

Figure 5. Total Nonfarm Employment

Thousands of Employed Workers

Source: Bureau of Labor Statistics, FRED

- The labor force is the actual number of people available for work, which is the sum of employed and unemployed eligible for work. The U. S. labor force reached a high of 164.6 million in February of 2020. Since the pandemic, the labor force fell to 143 million in November (see figure 6). The slump in the labor force is partly due to disaffected workers dropping out of the workforce.

Figure 6. U. S. Labor Force

Thousands of Workers

Source: Bureau of Labor Statistics, FRED

- For the week ending on November 28, claims for unemployment insurance fell from 787,000 to 712,000. Nevertheless, the four-week moving average improved from 750,750 to 739,500. The initial claim data are not very reliable due to multiple filings, fraud, and a backlog. However, the data are consistent with weak employment conditions.

- Productivity gains and lower per unit labor costs are often found in early recoveries. For the third quarter, nonfarm business productivity increased 4.9% at an annualized rate

following a 10.6% gain in the second quarter. Table 4 provides quarterly data on productivity and unit labor costs.

Table 4. Productivity, Compensation and Unit Labor Costs

	2020 Q3	2020 Q2	2020 Q1	2019 Q4	2019 Q3	2019 Q2	2019 Q1
Nonfarm businesses							
Output per hour	4.9	10.6	**-0.3**	1.6	0.3	2.0	3.7
Compensation per hour	**-4.4**	20.0	9.2	3.3	**-0.2**	1.4	8.7
Unit labor costs	**-8.9**	8.5	9.6	1.7	**-0.4**	**-0.6**	4.8
Manufacturing							
Output per hour	19.0	**-14.3**	1.6	**-0.7**	**-0.5**	**-2.3**	1.3
Compensation per hour	**-2.6**	10.1	6.0	5.2	**-1.9**	1.4	6.9
Unit labor costs	**-18.2**	28.4	4.2	6.0	**-1.4**	3.8	5.5

Source: Bureau of Labor Statistics

Sentiment and Confidence – *Overall, consumer confidence is above cyclical lows hit in the spring but it remains at or near a recessionary level. Drags on consumer confidence include millions of unemployed and disaffected workers, a second wave of COVID, and uncertainty over the effects of a new political agenda.*

- The Conference Board's consumer confidence index fell from a revised 101.4 in October to 96.1 in November. The decline in consumer expectations provided much of the weakness in the overall index. The present conditions component also fell from 106.2 to 105.9. This index reached 170 before the COVID crisis.

- The Confidence Index remains above levels seen at the depths of past recessions. In the 2008-2009 financial crisis the index remained in the 40s and 50s for several quarters. The current index is likely supported by expectations for a speedy recovery as the economy is reopened. The extent of the second virus wave and potential new lockdowns may hurt confidence in the fourth quarter. Even so, consumers are much better off financially than during the last recession and expectations for a new stimulus package may help boost confidence.

- Table 5 summarizes the overall, present conditions, and expectations components of the Consumer Confidence Index.

Table 5. Conference Board Consumer Confidence Index by Month

	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020
Overall	96.1	101.4	101.3	86.3	91.7	98.3	85.9	85.7
Present conditions	105.9	106.2	98.9	85.8	95.9	86.7	68.4	73.0
Expectations	89.5	98.2	102.9	86.6	88.9	106.1	97.6	94.3

Source: Conference Board, Index = 100 in 1985

- The Conference Board's Leading economic indicators improved in October to 108.2 from 107.5 in September. The index increased at a slow but steady pace since May. Yet, the index is 3.3 points below the average of 111.5 for 2019. Table 6 shows the monthly movement of the Conference Board's Leading Index.

Table 6. Conference Board Leading Indicator Index (2010 = 100)

	Oct. 2020	Sep. 2020	Aug. 2020	July 2020	June 2020	May 2020	April 2020
Leading Index (level)	108.2	107.5	106.7	105.0	102.9	99.8	96.9
% Change in the Index	0.7	0.7	1.6	2.0	3.1	3.0	-6.4

Source: Conference Board

- The NFIB Small Business Optimism Index was unchanged at 104 in October. The index has not moved much from the levels seen prior to the COVID recession. Expectations for a declining economy were offset by improved expectations for sales and stimulus relief. Table 7 shows the Small Business Optimism index data for the last seven months.

Table 7. NFIB Small Business Economics Optimism Index (1986 = 100)

	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020
Optimism index, 1986=100	104.0	104.0	100.2	98.8	100.6	94.4	90.9

Source: NFIB

- The University of Michigan consumer sentiment index fell to 76.9 in November following the 81.8 index in October. Overall, confidence remains down about 24 points from February. The expectations component provided the key driver of the lower index. Table 8 provides the University of Michigan index data over the last seven months.

Table 8. University of Michigan Consumer Sentiment Index

	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020
Overall Index (Q1 1966 = 100)	76.9	81.8	80.4	74.1	72.5	78.1	72.3
Change	-4.9	1.4	6.3	1.6	-5.6	5.8	0.5

Source: University of Michigan

***Inflation** – The economy is currently avoiding both inflation and deflation. Inflation remains well below the Fed's 2% target and significant slack in both the U. S. and global economy will prevent inflation pressure going forward into 2021. On a year-ago basis the PCE inflation index increased only 1.2%. The core PCE continues to run ahead of the headline index, due to softer food and energy prices. Other measures of inflation follow this same trend. The Fed clearly has free reign to follow easy money policies to stimulate employment without concern for inflation.*

- The headline PCE deflator was unchanged in October following a 0.2% gain in September and 0.3% gain in August. The core PCE, excluding food and energy, followed the same pattern.

- On a year-ago basis, inflation remains well below the 2% target for monetary policy. The Fed will not raise the Fed Fund rate any time soon. Table 9 shows the monthly movement in the PCE.

Table 9. Personal Consumption Expenditure (PCE)

	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020
PCE (% change per month)	0.0	0.2	0.3	0.3	0.5	0.2	**- 0.5**
Core PCE (% change per month)	0.0	0.2	0.3	0.3	0.3	0.2	**- 0.4**
PCE (% change a Year ago)	1.2	1.4	1.3	1.0	0.9	0.5	0.5
Core PCE (% change a year ago)	1.4	1.6	1.5	1.3	1.1	1.0	0.9

Source: Bureau of Economic Analysis

- The consumer price index (CPI) and the core CPI (excluding food and energy) remained unchanged in October. On a year-ago basis the inflation rate remains below 2% for both the headline and core CPI inflation measures. Like the PCE index, the core CPI is running ahead of the headline rate due to relatively lower food and energy prices. The core CPI also tends to run ahead of the core PCE (see table 10). While inflation remains low by all measures, inflation rates tend to be higher than the short term interest rates, resulting in negative *ex post* real rates.

Table 10. Consumer Price Index

	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020
CPI (% change by month)	0.0	0.2	0.4	0.6	0.6	**-0.1**	**-0.8**	**-0.4**
Core CPI (% change by month)	0.0	0.2	0.4	0.6	0.2	**-0.1**	**-0.4**	**-0.1**
CPI (% change a year ago)	1.2	1.4	1.3	1.0	0.7	0.2	0.4	1.5
Core CPI (% change a year ago)	1.6	1.7	1.7	1.6	1.2	1.2	1.4	2.1

Source: Bureau of Labor Statistics

- The producer price index gained 0.3% in October following a 0.4% gain in September. On a year ago basis, the PPI gains are less than 1%. Final demand producer prices have picked up from declines in the spring. Deflationary pressures for final goods exist on a year ago basis, but positive price gains in the months following April are reversing this trend. Producer price data do not suggest mounting inflation or deflation pressures going into the third quarter (see table 11).

Table 11. Producer Price Index (March 2020 through October 2020)

	Oct	Sep	Aug	Jul	Jun	May	Apr	Mar
Final demand (% change)	0.3	0.4	0.3	0.4	0.3	0.5	**-1.3**	**-0.4**
Goods (% change)	0.5	0.4	0.1	0.9	0.4	1.5	**-3.0**	**-1.5**
Services (% change)	0.2	0.4	0.5	0.2	0.2	0.1	**-0.4**	0.1
Final demand (% change a year ago)	0.5	0.5	**-0.2**	**-0.4**	**-0.6**	**-1.0**	**-1.4**	0.3
Goods (% change a year ago)	**-1.0**	**-1.0**	**-1.6**	**-1.9**	**-2.5**	**-3.4**	**-5.0**	**-1.7**
Services (% change a year ago)	1.2	1.2	0.5	0.3	0.3	0.2	0.3	1.3

Source: Bureau of Labor Statistics

Housing *- Housing demand remains strong due to historically low interest rates and changing housing preferences due to work-at-home conditions introduced by the pandemic. The shift away from high rent and high tax urban locations to lower cost suburban areas may well be permanent and interest rates are not likely to go up anytime soon. Housing construction, demand, and prices are likely to remain strong into 2021.*

- Housing starts increased 4.9% to 1.53 million annualized units in October. The increase was entirely driven by single-family starts. Single-family starts were higher than single family permits, signaling slowing in new construction for the next few months.

- The Mortgage Application Index fell by 0.6% at the end of November but the purchase index increased by 9%. The rate on the 30-year mortgage is currently 2.92%, prompting a

continued demand for refinancing. The 30-year rate is 9 basis points lower than it was four weeks ago and 105 basis points below the year-ago rate.

- The NAR pending home sales index fell 1.1% in October to 128.9 but it is close to a record high. Pending home sales is a leading indicator of existing-home sales.

- Housing inventory is low, supporting higher prices. Existing-home listings tumbled to a record low 1.37 million units in October. The supply of existing homes at the current pace of sales is registering at 2.3 months, a record low going back to at least 1999.

- The CoreLogic Home Price Index increased 1.1% in October from the previous month and rose 7.3% year over year. Robust demand and tightening supply have fueled house price appreciation despite the COVID-19 crisis and the depressed U.S. labor market. Table 12 outlines the monthly movement in the CoreLogic index.

Table 12. CoreLogic Home Price Index

	Oct 2020	Sep 2020	Aug 2020	July 2020	% change yr ago
Single-family (% change)	1.1	1.0	0.8	0.9	7.3
Single-family, ex-distress sales (% change)	1.0	0.9	0.8	0.9	7.0

Source: CoreLogic, HPI

***U. S. International Trade -** Net exports should continue to be a drag on GDP growth. A strong U. S. dollar over the past few months created a headwind for trade. Higher U.S. growth relative to trading partners also works against the U. S. trade account.*

- The U. S. trade deficit is a drag on growth. The deficit widened from $62.1 billion in September to $63.1 billion in October. The October deficit is wider than its third-quarter average. Table 13 shows the monthly trade balance for the last eight months.

Table 13. U. S. Trade Balance (March through October)

	Oct	Sep	Aug	Jul	Jun	May	Apr	Mar
Trade balance (billions of $s)	**-63.1**	**-62.1**	**-64.9**	**-61.4**	**-51.2**	**-55.6**	**-51.9**	**-46.1**
Exports (billions of $s)	182.0	178.0	173.9	170.1	157.6	144.0	149.1	186.6
Imports (billions of $s)	245.1	240.1	238.8	231.5	208.8	199.6	201.0	232.7

Source: U. S. Census

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