



## Second Quarter 2021 Economic Summary and Outlook

*The U.S. economy grew 6.6% in the second quarter following a 6.3% growth rate in the first quarter of 2021, based on the revised estimates by the Bureau of Economic Analysis. The economy lost momentum but GDP is now slightly above the pre-pandemic level. The unemployment rate fell to 5.2% in August from 6.3% in January of 2021. Job growth has been uneven but about six million of the estimated 10 million jobs lost in the pandemic have been gained back. At the current average of monthly job gains, the pre-pandemic level of employment should be reached by the third quarter of 2022.*

*Inflation picked up in the first six months of 2021 at an annualized rate of about 6%, well above the 2% target for price stability goals. The second quarter GDP price deflator was 6.22% and both the headline Personal Consumption Expenditure (PCE) and Consumer Price Index (CPI) in the second quarter are in line with the deflator. Wages and interest rates have not kept up with inflation. Real hourly compensation fell 4.6% in the second quarter and declined 2.7% on a year ago basis. The Treasury 10-year bond yield is hovering around 1.3%, which is below the generally accepted real rate of return on capital without inflation. Ex post real rates, the difference between the nominal rate and realized inflation, have been negative for some time. In the second quarter, the 10-year bond's realized yield was approximately a negative 5%. This set of circumstances is not sustainable, but policy makers are betting on the "transitory" nature of inflation rather than an inflation trend. The Fed is willing to overlook temporary deviations from the 2% inflation target for short periods of time, especially if the economic recovery is weak. The Fed intends to slow its bond purchasing program in November. Nevertheless, there is a good chance that a slow third quarter and lingering slowdowns from the Delta variant of COVID will lead to very small tapering.*

*Eventually, there will be a showdown between the current administration's goals for increased debt creation from government spending and any tapering of the Fed's debt purchasing program. Without the Fed's artificial manipulation of credit markets, interest rates should pick up significantly due to the dual role of higher inflation expectations and excess supply of government debt at current rates. The Fed is working on a definition of "maximum employment" consistent with stable prices. This unemployment rate is likely to be in the range of 3.8% to 4.2% if inflation is on the 2% target. If the economy is to move to this lower level of unemployment there must be a structural change in the labor market. The problem is not the lack of employment opportunities. Job openings and quit rates are at all-time highs. Employment gains now require more job seekers rather than employment opportunities. This is not an issue that stimulation from either monetary or fiscal policy is likely to affect. A key drawback for increasing job seekers is the unknown future for COVID and its variants. The science cannot tell us if the future and aftermath of this pandemic will be temporary.*

*Sentiment and confidence indicators tanked in August, partly due to concerns for the Delta virus variant and inadequate vaccinations. Other factors weighing on confidence include the aftermath of the poorly planned exit from Afghanistan, inability to adequately screen and control immigration, loss of energy independence, stalled negotiations for fair trade, dependence on China in the supply chain, pending bankruptcy of the Social Security Trust Fund, mounting debt burden, and potential for renewed terrorism from the Middle East.*



## Survey of Professional Forecasters

The August 1, 2021 *Survey of Professional Forecasters* provided a lower third quarter growth forecast but projections of growth in subsequent quarters increased. The panel of 36 professional forecasters predicted a 6.8% growth rate in the third quarter, compared to a 7.5% in the May survey. Growth for 2021 was predicted to be 6.1% and growth for 2022 was 4.4%. On an annual-average basis, forecasters expect the unemployment rate to be 5.6% in 2021 overall. Job growth in the third quarter was projected to be lower than in prior quarters, averaging 450,300 jobs per month in 2022. At this rate, it will take about eight months to replace the four million remaining jobs lost since the pandemic hit.

### Forecasts of GDP, Unemployment, and Payroll Expansion

The consensus (median) forecasts for real GDP, unemployment, and payroll expansion for the next five quarters appear in Table 1. Forecasters revised third quarter growth down by 0.7%, which is the quarter that is most likely to be close to the forecast. While an expansion is expected, the rate of growth is relatively low for a post-recession recovery. Payroll expansion averaging about 450,000 per month suggests that the economy would approach pre-pandemic employment sometime around June of 2022. A GDP growth rate of 2.7% with full employment is expected by the end of 2022, according to the forecasters.

**Table 1. Professional Forecasters Quarterly GDP, Unemployment, and Payroll Estimates**

	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Prior	Revised	Prior	Revised	Prior	Revised
Q3 2021	7.5	6.8	5.3	5.3	753.0	695.1
Q4 2021	5.0	5.2	4.9	4.9	482.4	508.8
Q1 2022	4.0	4.5	4.7	4.6	372.3	468.9
Q2 2022	2.6	3.4	4.5	4.4	287.0	404.8
Q3 2022	N.A.	2.7	N.A.	4.2	N.A.	265.0

Source: Philadelphia Federal Reserve Bank, *Survey of Professional Forecasters* (8/1/2021)

Note: Less optimistic revisions are in red

Longer term annual forecasts of GDP, unemployment, and payrolls appear in Table 2. Forecasters estimated lower growth for 2023 and 2024. Unemployment rates less than 4% are expected in 2023 and beyond. Forecasters expect the economy to return to low growth and full employment when the pandemic issues are resolved. An implicit assumption of the forecasters seems to be that pandemic constraints on the economy will be resolved in 2022.

**Table 2. Professional Forecasters Annual GDP, Unemployment, and Payroll Estimates**

	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Prior	Revised	Prior	Revised	Prior	Revised
2021	6.3	6.1	5.5	5.6	331.6	309.4
2022	4.3	4.4	4.4	4.3	405.1	456.3
2023	2.6	2.5	3.9	3.8	N.A.	N.A.
2024	2.3	2.0	3.8	3.6	N.A.	N.A.

Source: Philadelphia Federal Reserve Bank, *Survey of Professional Forecasters* (8/1/2021)

Note: Less optimistic revisions are in red.



## Forecasts of Inflation

Professional forecasters revised inflation estimates for the next two quarters upward in the most recent survey. The expected headline Consumer Price Index (CPI) inflation measure is expected to average 5.2% in the third quarter compared to a 2.6% estimate in the prior survey. Estimates for the personal consumption expenditure (PCE) measure of inflation are lower overall. The third quarter headline PCE is estimated to be 4% compared to the prior estimate of 1.6%. Professional forecasters also increased longer term inflation forecasts. Overall, forecasters clearly increased the inflation estimates from only three months ago. Nevertheless, inflation appears to be back in more acceptable territory starting in the fourth quarter and into 2022. Forecasters appear to buy into the interpretation that inflation pressures are transitory and short term issues of supply chain constraints and bottlenecks will be resolved early in 2022. Table 3. summarizes the quarterly inflation forecasts from the survey of professional forecasters.

**Table 3. Quarterly Inflation Forecasts by Professional Forecasters (Annualized %)**

	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Prior	Revised	Prior	Revised	Prior	Revised	Prior	Revised
Q3 2021	2.6	5.2	2.5	5.1	2.4	4.0	2.2	3.7
Q4 2021	2.4	2.6	2.3	2.5	2.2	2.6	2.0	2.2
Q1 2022	2.3	2.2	2.1	2.3	2.1	2.3	2.0	2.1
Q2 2022	2.2	2.3	2.2	2.3	2.1	2.2	2.0	2.1
Q3 2022	N.A.	2.4	N.A.	2.4	N.A.	2.2	N.A.	2.2

Source: Philadelphia Federal Reserve Bank, Survey of Professional Forecasters (8/1/2021)

Note: Less optimistic revisions are in red.

Table 4. summarizes the annual inflation forecasts from the forecaster survey. When compared to the GDP and unemployment forecasts in Table 3, forecasters appear to believe that in the longer run the economy will gravitate to full employment with inflation within a small deviation from the Fed's 2% target. The forecasters do not expect long term economic problems from the pandemic or the variants of COVID.

**Table 4. Annual Inflation Forecasts by Professional Forecasters (Annualized % Q4 to Q4)**

	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Prior	Revised	Prior	Revised	Prior	Revised	Prior	Revised
2021	3.0	4.9	2.1	4.2	2.8	4.1	2.3	3.7
2022	2.3	2.4	2.2	2.4	2.2	2.2	2.0	2.2
2023	2.3	2.3	2.3	2.4	2.2	2.3	2.1	2.1

Source: Philadelphia Federal Reserve Bank, Survey of Professional Forecasters (8/1/2021)

Note: Less optimistic revisions are in red.

## Why Do Inflation Expectations Remain Subdued

Inflation expectations for forecasters are relatively low in periods beyond 2021, but they conform to market indicators of future inflation embedded in forward rates, yield curve term spreads, and nominal interest rates. It is possible that these various sources of expected inflation are not independent. Forecasters may well have relied on market data to form forecasts. Another potential reason for such low inflation forecasts is that there is a high level of confidence in the Fed's ability to thwart high rates of inflation when necessary. This "belief" also rests on the assumption that price pressures in the first quarters of 2021 are transitory and linked to COVID bottlenecks and lack of vaccinations. It is not clear that these beliefs will hold true. Herd immunity is a long way



off and there is no scientific evidence that COVID and its variants are temporary. There is also a possibility that the Fed must make a choice between inflation and unemployment goals, especially if the economy is slower to recover and added rounds of massive government spending stimulus develops.

Expectations for moderate rates of inflation are necessary for an orderly and sustained growth of an economy. Once expectations rise a self-perpetuated spiral may develop, requiring dramatic tightening over a longer period of time than normal to gain price stability. This was the lesson of the 1979 Volcker response to high inflation and low growth conditions. The risk is that forecasters are too optimistic and such optimism is also reflected in market rates.

### **Fed Policy and Moving Targets**

The Fed plans to begin a “tapering” of purchases of government debt in November. But the key question is whether or not the tapering will be substantial. Even with lower government bond purchases, the Fed will continue an easy money policy until the recovery is well established. The Fed has a dual mandate to promote full employment while maintaining price stability. The mandate is clear but the targets that are consistent with this mandate are not clear. The target for inflation has been set at 2%. The Fed now sees this target as a long run goal, allowing what is considered to be transitory “blips” above the stated target. Whether inflation rates experienced in the first half of 2021 are blips or early stages of an inflation trend are difficult to determine and there are good arguments for both interpretations of the data. Tapering bond purchases by the Fed will likely cool off equity markets somewhat, but improved corporate cash flow expectations in a recovery may offset the Fed’s tapering.

### **Maximum Employment as a Target**

A strong labor market with full employment would also nudge the Fed toward a tighter monetary policy. Traditional economists would likely mark full employment at the pre-pandemic level in the low 4% range, compared to the current 5.2% rate. However, in the pandemic recovery, the target of full employment is more problematic. Currently, Fed officials are struggling to define “maximum employment” as an indicator of when to back off easy money policies. The economy already has favorable hiring conditions with record levels of both job openings and job quitting, normally a sign of full employment. In the pandemic recovery the obstacle to maximum employment may well be an increase in job seekers rather than job opportunities. In this unusual environment it is not likely that easy money and massive fiscal policy deficits will lead to the increases in job seekers.

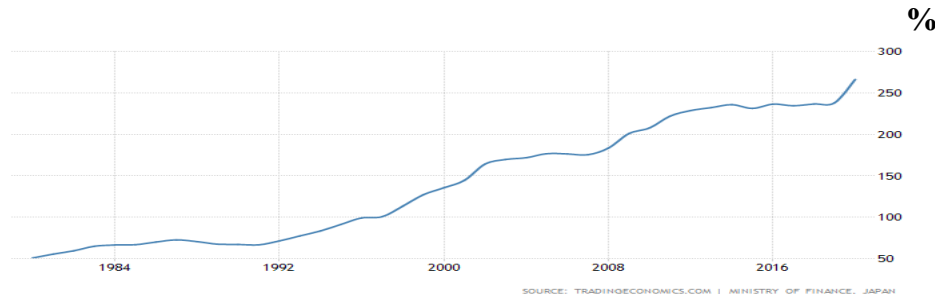
In a recent speech, Fed Chairman Powell acknowledged that the Fed may have kept rates too high in the pre-pandemic expansion, confirming how difficult it is to get the right balance in the inflation and unemployment tradeoff. It also suggests that this time the Fed might error on the side of keeping rates lower until a recovery is firmly established. Also, the Fed is not likely to ignore the size of fiscal deficits that are pumping large amounts of debt into the market. Without significant Fed purchases to offset fiscal spending, the pressure on rates and financial market stability would be unacceptable. As long as deficits are rising dramatically, the Fed will error on the side of easing. Tapering of bond purchases, when it begins, will likely be very modest.



## The Poster Child for Debt Expansion: The Japan Model

The Bank of Japan pioneered the use of massive government bond purchases to accommodate chronic fiscal deficit spending. Japan’s economic policies broke from conventional thought on monetary and fiscal policy. Traditional Keynesian policies of deficit spending were designed to counteract temporary economic disequilibria due to slow adjustments back to equilibria because of sticky wages and prices. Traditional monetary policy aims to maintain price stability and full employment with well-timed purchases and sales of government debt. A byproduct of this approach is a natural rate of interest based on a real rate of return to invested capital plus an expected inflation premium. Chronic deficits and debt accumulation are not part of a sound macroeconomic policy prescription. Yet, Japan defied traditional wisdom for decades and many of the largest economies appear to be following suit. Japan’s debt surpassed the size of the economy about 20 years ago and currently exceeds 250% of GDP, as Figure 1 illustrates.

**Figure 1. Government Debt as a Percent of GDP for Japan (1980 to 2020)**



Source: OECD

### Duplicating the Japan Model in the U.S.?

While Japan is the most extreme case of prolonged debt accumulation, the ratio of government debt to GDP has climbed in most countries. Table 5 provides the 2020 ratio of government debt to GDP for the G-20 countries. Countries in red have ratios over 100%, a general demarcation where debt drag threatens growth. The U.S. ratio will climb rapidly as the deficits in 2021 and 2022 are added to government debt.

**Table 5. Percentage of Government Debt to GDP for G-20 Countries**

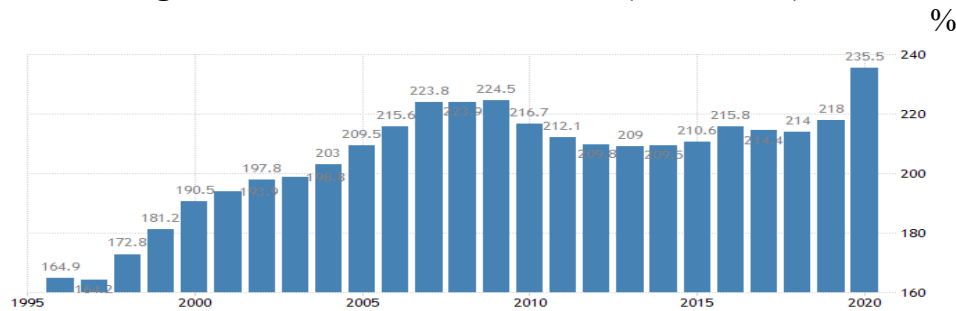
Country	Government Debt to GDP (%)	Country	Government Debt to GDP (%)	Country	Government Debt to GDP (%)
Japan	266	United Kingdom	97.4	South Korea	42.6
Italy	156	Brazil	88.3	Turkey	39.5
Spain	120	South Africa	83	Indonesia	38.5
Canada	118	Germany	69.8	Saudi Arabia	32.5
France	116	India	69.3	Australia	24.8
<b>United States</b>	<b>108</b>	China	66.9	Russia	17.8
Argentina	102	Mexico	52.1		

Notes: Spain is a permanent guest invitee of the G-20. Countries in Red have ratios of government debt to GDP in excess of 100%, which is generally considered to be a critical point where debt drag on GDP becomes a problem..

Abnormally low interest rates, maintained by central bank purchases of government debt, promoted both public and private debt in developed countries. For example, Figure 2 illustrates the expansion of overall debt relative to GDP in the U.S. before and after the recession in 2009.



**Figure 2. U. S. Private Debt to GDP (1996 – 2020)**



Source: Trading Economics, OECD

Increased government spending, central bank accommodation, low interest rates, and overall debt accumulation are likely to continue as long as the pandemic retards economic growth. There is no guarantee that the pandemic is a short run aberration that will allow countries to return to traditional economic policies anytime soon. The “Japan Model” may now be typical for many advanced economies, including the U. S.

### How Has Japan Done It?

Is Japan’s ability to sustain two decades of deficits, central bank easing, and rising debt possible for other countries? Proponents of large deficit spending and mounting government debt often point to Japan’s ability to moderate default risk. But, cultural and economic conditions in Japan are unique. In Japan, many investors are risk averse and do not trust the stock market, explaining a willingness to hold government bonds with low yields. This is especially true for Japan’s older and less educated population. Also, Japan is a high saving country with limited investment opportunities beyond domestic holding of government debt. About 90% of government debt outside the central bank is held by Japanese investors. Bonds are denominated in yen, which continues to be a safe haven in troubled economic times and the proportion of debt held by foreign institutions is very low, making Japan less vulnerable to external pressure. Finally, Japan’s long term trade surpluses make it one of the world’s largest creditors with well over \$3 trillion in net assets held in foreign currency reserves and direct investment abroad. Even with all the factors that make Japan unique in handling government debt, the second largest budget line for Japan’s is debt repayment. The greatest threats are rising interest rates and inflation, both of which are not likely until a stronger economy develops in Japan.

An interesting argument is developing to justify mounting debt in support of a larger government presence in the economy. If servicing debt accumulation becomes crippling, a country could simply “write off” the debt held by the central bank. Such an “accounting move” should have no real impact on the economy beyond the increased money supply created when the central bank originally purchased the debt. It is likely that this argument will become more common as government spending linked to the pandemic and burgeoning social agendas are defended, even as U. S. government debt surpasses the \$30 trillion mark.



## Summary of Key Economic Data

**GDP** – Government stimulus spending along with easing of restrictions and increased vaccinations all supported growth in the first half of 2021. Real GDP increased 6.6% on an annual basis in the second quarter after rising 6.3% in the first quarter, according to the Bureau of Economic Analysis. GDP now stands 0.8% higher than the fourth-quarter 2019 level. Nevertheless, momentum is slowing and new variants of COVID are likely to dampen growth going forward. Third quarter growth is likely to dip below the 6% rate. Consumers are transitioning to purchases of service goods and away from durable goods.

- The economy grew 6.6% in the second quarter of 2021 according to the revised estimate by the Bureau of Economic Analysis. Second quarter growth was slightly higher than the 6.3% growth in the first quarter. GDP is now higher than the pre-pandemic level.
- Two rounds of stimulus spending helped boost consumer spending by 11.8% to lead growth. Fixed nonresidential investment and exports also supported growth. Inventories and imports were the largest drags in the second quarter.
- The saving rate fell to 10.3% in the second quarter, but the rate remains high.
- Durable goods led consumption in the first quarter but services led growth in the second quarter, largely due to opening up from COVID restrictions.
- Inventories continue to be a drag on growth. Inventories detracted 1.3% from growth in the first quarter following a 2.6% reduction in the first quarter. Final sales, which excludes the impact of inventories on GDP, grew 7.9% in the second quarter and 9.1% in the first quarter.
- Table 6 provides detailed information on GDP growth and its components.

**Table 6. Quarterly Growth Rates for GDP and GDP Components**

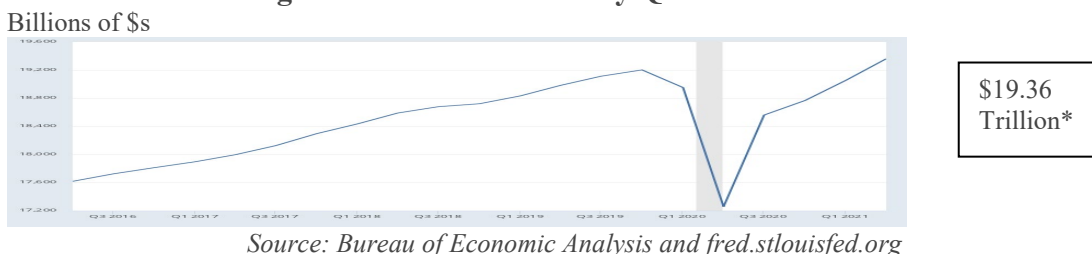
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3
	2021	2021	2020	2020	2020	2020	2019	2019
Real GDP	6.5	6.39	4.34	33.44	-31.38	-4.96	2.37	2.57
Nominal GDP	13.19	10.72	6.27	38.5	-32.82	-3.38	3.90	4.01
Consumption	7.8	7.02	1.58	25.44	-24.01	-4.75	1.07	1.83
Fixed investment	0.63	1.77	3.04	5.39	-5.27	-0.23	0.17	0.42
Residential	-0.58	0.49	1.39	2.19	-1.60	0.68	0.22	0.17
Nonresidential	1.21	1.29	1.65	3.20	-3.67	-0.91	-0.04	0.25
Inventories	-1.3	-2.64	1.37	6.57	-3.50	-1.34	-0.82	-0.09
Net exports	-0.24	-0.87	-1.53	-3.22	0.62	1.13	1.52	0.04
Government	-0.33	1.12	-0.14	-0.75	0.77	0.22	0.42	0.37

Source: Bureau of Economic Analysis

- Figure 3. illustrates the U. S. GDP level over time in real terms (2012 dollars). In current dollars the U.S. GDP reached \$22.7 trillion in the second quarter of 2021.



**Figure 3. U.S. Real GDP by Quarter in 2012 Dollars**



**Personal Income, Savings, and Sales** – Real disposable income gained 0.7% following a 0.5% decline in June. Overall, real disposable income fell 3.5% on a year-over-year basis. In the last few months ending in July, the personal saving rate approached the more normal long run rate of 8.99%. Retail and food services declined 1.1% in July, suggesting a slower third quarter. Consumers are now spending on services as pandemic restrictions are lifted, but a resurgence of COVID variants may change spending patterns in the remainder of 2021.

- Real disposable income grew 0.7% in July following a 0.5% decline in June. On a year ago basis in July, real disposable income fell 3.5%. Compensation of employees, the largest component of nominal personal income, grew 0.9% in July following gains of 0.8% in June and 0.7% in May. Wages and salaries grew 1% in July and 0.8% in June. Supplements to wages and salaries picked up from 0.4% in June to 0.5% in July. Overall, consumers are gaining income and accumulating savings to boost consumer spending.
- Table 7 summarizes monthly gains in personal income and income components.

**Table 7. Monthly Personal Income and Income Components**

	Jul 21	Jun 21	May 21	Apr 21	Mar 21	Feb 21	Jan 21	Dec 20
<b>Monthly % change</b>								
Total Personal Income	1.1	0.2	-2.1	-13.6	21.0	-7.2	9.9	0.7
Compensation of employees	0.9	0.8	0.7	0.7	0.7	-0.3	0.1	0.8
Wages and salary	1.0	0.8	0.7	0.8	0.7	-0.4	0.1	0.8
Supplements to wages	0.5	0.4	0.4	0.3	0.4	-0.1	0.5	0.8
Proprietors income	-0.2	0.8	1.3	0.8	6.5	3.0	1.7	-4.5
Rental income	0.4	-0.4	-0.6	-0.6	1.1	1.0	0.8	-1.0
Income receipts on assets	0.3	0.6	0.5	0.5	0.3	0.5	-2.7	2.2
Transfer payments	2.9	-1.8	-11.6	-41.8	96.8	-27.8	53.6	1.7
Real Disposable Income	0.7	-0.5	-3.2	-16.0	23.0	-8.5	10.4	0.2
<b>% change yr ago</b>								
Total Personal Income	2.7	2.5	1.4	-0.6	29.5	5.0	13.9	4.8
Real Disposable Income	-3.5	-3.6	-4.8	-6.4	28.8	3.2	13.4	3.7

Source: Bureau of Economic Analysis

- The personal saving rate remains above the long run average even as easing of COVID related restrictions and increased vaccinations allowed consumers to spend more. The saving rate is the percentage of disposable income that is saved and available for investment. Personal Savings in the United States averaged 8.99% from 1959 until 2021,





reaching an high of 33.8% percent in April of 2020 and a record low of 2.2% in July of 2005. Table 8 summarizes the monthly saving rate through July 2021.

**Table 8. U. S. Personal Saving Rate by Month**

	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021	Dec 2020
<b>Savings rate</b>	9.6	8.8	9.8	12.3	26.6	13.5	19.9	14.0

Source: Bureau of Economic Analysis

- Consumer spending is becoming more normal as the pandemic eases. Pent-up demand is leading to a tilt back to consumer services at the expense of goods spending. Retail sales includes only restaurants in the service component, understating total spending.
- Retail sales fell 1.1% in July following a gain of .7% in June and decline of 1.4% in May. Auto sales fell 3.9% in July, the third consecutive monthly decline. Excluding autos, retail sales fell 0.4% after rising 1.6% in June. See Table 9.

**Table 9. Monthly Retail Sales**

	July 2021	June 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021	Dec 2020
<b>Retail &amp; food services (% change)</b>	-1.1	0.7	-1.4	0.0	10.7	-2.9	7.6	-1.2
Excluding autos (% change)	-0.4	1.6	-0.4	-0.8	9.0	-2.7	8.3	-2.1
Excluding autos & gas (% change)	-0.7	1.3	-0.7	-0.8	8.9	-3.2	8.6	-2.9
<b>Retail &amp; food services (% change year ago)</b>	15.8	18.7	28.0	51.2	29.0	6.5	9.4	2.3
Excluding autos (% change year ago)	15.8	18.6	26.6	40.6	20.4	5.7	8.2	0.6
Excluding autos & gas (% change year ago)	13.8	16.6	24.0	37.6	19.1	6.2	9.8	2.0

Source: U.S. Census Bureau

*Production and Manufacturing – Semiconductor demand is growing faster than supply, causing bottlenecks in production and manufacturing. Orders for electronics are growing rapidly spurred by demand by at-home workers and vehicle production. The ISM manufacturing index has remained above 50 for fifteen straight months, suggesting continued expansion. Production and manufacturing growth have been volatile. Capacity utilization is improving slowly but significant slack remains.*

- The ISM manufacturing index improved slightly in August, reaching 59.9 following a reading of 59.5 in July. The ISM survey continues to suggest an expansion since the index remains above 50. The index has remained above 50 for 15 consecutive months. Improvements in the new orders, production, and inventories index components suggest easing of supply chain bottlenecks.
- Table 10 summarizes the monthly movement in the ISM manufacturing index.

**Table 10. Purchase Manager's Index by Month for 2021**

	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
<u>Purchasing Managers' Index</u>	59.9	59.5	60.6	61.2	60.7	64.7	60.8	58.7
<u>Production</u>	60.0	58.4	60.8	58.5	62.5	68.1	63.2	60.7
<u>New orders</u>	66.7	64.9	66.0	67.0	64.3	68.0	64.8	61.1
<u>Inventories</u>	54.2	48.9	51.1	50.8	46.5	50.8	49.7	50.8

Source: [ismworld.org](http://ismworld.org)

- Industrial production increased 0.9% in July, the largest increase since March. Industrial production grew for the third consecutive month and is now only 0.2% below the pre-pandemic level. Manufacturing production gained 1.4% in July after falling 0.3% in June. Monthly reversals have been common.
- Durable good production gained 2.4% in July but monthly growth has been volatile.
- Mining production rose 1.2% in July but volatility comes from weather and global energy price fluctuations. Utilities output has also been volatile due to weather fluctuations.
- As the recovery takes shape, capacity utilization is increasing. Industrial capacity utilization increased from 75.4% to 76.1% in July while manufacturing capacity utilization increased 1.1% to 76.6%. Table 11 provides a summary of monthly data on total production and manufacturing.

**Table 11. Industrial Production and Capacity Utilization**

	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
Industrial Production (% change)	0.9	0.2	0.8	0.0	2.8	-3.0	1.1
Manufacturing	1.4	-0.3	1.1	-0.3	3.4	-3.7	1.5
Durable goods	2.4	-0.5	1.2	-1.6	2.7	-3.1	2.2
Nondurable goods	0.3	-0.1	1.1	1.3	4.1	-4.7	0.7
Mining	1.2	0.5	1.5	-0.3	11.9	-8.9	2.9
Utilities	-2.1	3.1	-1.5	2.8	-8.6	7.4	-2.6
Capacity utilization (%)	76.1	75.4	75.3	74.7	74.7	72.7	75.0
Manufacturing (%)	76.6	75.5	75.8	75.0	75.2	72.8	75.6

Source: [federalreserve.gov](http://federalreserve.gov)

- Inventories fell \$165.9 billion at an annualized rate in the second quarter, which is twice the decline in the first quarter. The drop in inventories reduced second-quarter GDP growth by a full 1%. Normally, such a decline in inventories results in a replenishing of inventory in subsequent months, helping boost GDP. Such a response is not as likely in the third quarter since supply-chain problems continue and the Delta variant of the COVID-19 virus is lingering.
- U.S. factory orders increased 1.5% in June following a gain of 2.3% in May and a small decline of 0.1% in April. A barometer of U.S. manufacturing activity still suggests that economic growth in this cycle may have peaked, but that doesn't mean the economy won't do very well through the rest of this year and next.



- The ISM manufacturing index improved slightly in August, reaching 59.9 following a reading of 59.5 in July. The ISM survey continues to suggest an expansion since the index remains above 50. The index has remained above 50 for 15 consecutive months. Improvements in the new orders, production, and inventories index components suggest easing of supply chain bottlenecks.
- Table 12 summarizes the monthly movement in the ISM manufacturing index for 2021.

**Table 12. Purchase Manager's Index by Month for 2021**

	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
<u>Purchasing Managers' Index</u>	59.9	59.5	60.6	61.2	60.7	64.7	60.8	58.7
<u>Production</u>	60.0	58.4	60.8	58.5	62.5	68.1	63.2	60.7
<u>New orders</u>	66.7	64.9	66.0	67.0	64.3	68.0	64.8	61.1
<u>Inventories</u>	54.2	48.9	51.1	50.8	46.5	50.8	49.7	50.8

Source: [ismworld.org](http://ismworld.org)

***Labor Market and Employment** - Payroll expansion of 235,000 jobs in August was below expectations. There are a number of reasons for the August slowdown in payrolls. The Delta variant of the COVID virus slowed travel and leisure employment and slowed business openings. Federal stimulus payments are over and many states ended new virus related benefits. Many low-end laborers likely delayed work to take care of school age children until school starts in September. The unemployment rate fell to 5.2% in August but further gains may be slow until COVID cases turn down significantly. Approximately four million jobs must be gained to get back to pre-pandemic levels of employment.*

- Payroll employment lost momentum in August, falling sharply to 235,000 job gains. A much higher gain in jobs was expected in this stage of the recovery. August was the lowest gain in payrolls since January 2021. Leisure/hospitality, which had been a leader in jobs gains, posted no gains in August. Even so, employment gains were enough to lower the unemployment rate to 5.2% from 5.4% in July. The labor force participation rate was unchanged in the second quarter at 61.7%. Table 13 summarizes the monthly employment data.

**Table 13. Payrolls, Unemployment, and Labor Force Participation Rates**

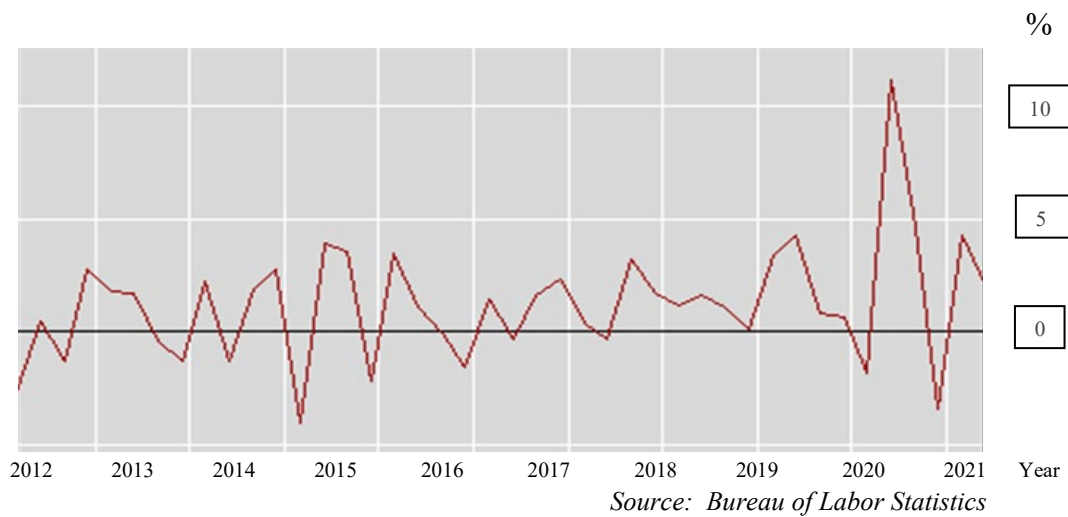
	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
Nonfarm payrolls, change (thousands)	235	1,053	962	614	269	785	536	233
3-mo MA (thousands)	750	876	615	556	530	518	154	64
Unemployment rate, %	5.2	5.4	5.9	5.8	6.1	6.0	6.2	6.3
Labor force participation rate, %	61.7	61.7	61.6	61.6	61.7	61.5	61.4	61.4

Source: Bureau of Labor Statistics



- Labor productivity is measured by the ratio of goods and services produced (output) to the number of hours worked to produce those goods and services. The nonfarm business productivity gained only 2.1% in the second quarter and 1.8% in a year-over-year basis. GDP growth ultimately depends on a combination of productivity growth and labor force growth. The figure below illustrates the volatile path of labor productivity over the past ten years. The long run average is just under 2%.

**Figure 4. Nonfarm Business Productivity % Change from Prior Quarter at Annual Rate**



- Unit labor costs increased 1.3% in the second quarter and only 0.2% on a year ago basis. Hourly compensation increased 3.4% in the second quarter and 2% on a year-ago basis. On an inflation adjusted basis, real hourly compensation fell 4.6% in the second quarter and 2.7% on a year-ago basis. Compensation will need to exceed inflation if consumers are going to be able to continue levels of spending required for a strong recovery. Table 14 summarizes second quarter productivity and compensation data.

**Table 14. Nonfarm Labor Productivity and Compensation in the Second Quarter**

	Labor Productivity	Output	Hours Worked	Hourly Compensation	Real hourly Compensation	Unit Labor Costs
From Prior Quarter % Change	2.1	8.1	6.0	3.4	-4.6	1.3
Year Ago % Change	1.8	15.8	13.7	2.0	-2.7	0,2

*Source: Bureau of Labor Statistics*



**Sentiment and Confidence** – Confidence took a dive in August after improving in the prior months. Confidence in August is the lowest since 2011. Both the University of Michigan and the Conference Board Confidence surveys fell in August to include drops in the present conditions and expectations components. Inflation expectations increased in both surveys. A number of factors weighed on confidence at the start of the third quarter. The spike in virus cases, largely from the new Delta variant, increased fears of unexpected lockdowns and prolonged supply bottlenecks. High unemployment even with record job openings and a declining labor force participation rate suggests an unstable labor market. The Afghanistan debacle with lightning takeover by the Taliban along with continued confusion about the lack of an exit strategy is shaking confidence in leadership. Lower confidence may lead to downside risk of lower consumer spending for the remainder of the year.

- The University of Michigan Sentiment Index fell from 81.2 in July to 70.3 in August. The present conditions component of the index fell 6 points and the expectations component fell 13.9 points. Overall, the August index was the lowest since 2011.
- Inflation expectations revealed in the University of Michigan survey were mixed. The median one-year one year inflation expectation fell to 4.6% from 4.7% in June while the five-year expectations increased to 2.9% from 2.8%. Table 15 provides the monthly University of Michigan Sentiment Survey data.

**Table 15. University of Michigan Consumer Sentiment Survey (Index = 100 in Q1 1966)**

	<b>Aug 2021</b>	<b>Jul 2021</b>	<b>Jun 2021</b>	<b>May 2021</b>	<b>Apr 2021</b>	<b>Mar 2021</b>	<b>Feb 2021</b>
Overall Index	70.3	81.2	85.5	82.9	88.3	84.9	76.8
Present conditions	78.5	84.5	88.6	89.4	97.2	93.0	86.2
Expectations	65.1	79.0	83.5	78.8	82.7	79.7	70.7
Inflation expectations, %							
1-yr	4.6	4.7	4.2	4.6	3.4	3.1	3.3
5-yr	2.9	2.8	2.8	3.0	2.7	2.8	2.7

Source: University of Michigan

- The Conference Board Consumer Confidence Index fell from a revised 125.1 in July to 113.8 in August. Both the present conditions and expectations components declined in August. Overall, the Conference Board Confidence Index is consistent with the University of Michigan Survey in August with the exception of expected inflation. The Conference Board survey shows much higher expectations for inflation. The monthly Conference Board Consumer Confidence summary appears below.

**Table 16. Conference Board Consumer Confidence Index (Index = 100 in 1965)**

	Aug 21	Jul 21	Jun 21	May 21	Apr 21	Mar 21	Feb 21	Jan 21
Overall	113.8	125.1	128.9	120.0	117.5	114.9	95.2	87.1
Present conditions	147.3	157.2	159.6	148.7	131.9	119.4	95.0	85.5
Expectations	91.4	103.8	108.5	100.9	107.9	111.9	95.4	88.1
Inflation expectations	6.8	6.6	6.7	6.5	6.2	6.4	6.5	6.1

Source: Conference Board

**Inflation** – Second quarter inflation, measured by the PCE index, was 6.5% on an annualized basis following a 3.8% rate in the first quarter. Inflation pressures are likely to continue for the remainder of 2021, but concern for inflation will not affect policy actions until the recovery is on firmer ground. Policy makers tend to believe that higher inflation in 2021 is transitory. The current Fed policy is based on the view that eventually modest nominal wage growth, low velocity of money, and an aging population all tend to moderate inflation pressures. Even so, supply constraints from tighter restrictions in Asian-Pacific countries and port closures could promote near term inflationary pressures in the U. S.

- Table 17 below summarizes the quarterly GDP deflator used to adjust nominal GDP to get real GDP. The deflator picked up significantly in the first half of 2012.

**Table 17. Annualized % Change in the Implicit Price Deflator**

	Q2 2021	Q1 2021	Q4 2020	Q3 2020	Q2 2020	Q1 2020	Q4 2019	Q3 2019
Implicit price deflator	6.22	4.31	1.95	3.70	-1.71	1.31	1.65	1.31

Source: Bureau of Economic Analysis

- The personal consumption expenditures price index (PCE) showed an annualized increase of 6.5% in the second quarter, following a 3.8% rate in the first quarter. This was the fastest quarterly inflation since the early 1980s. Excluding food and energy, prices rose 6.1% in the second quarter following a gain of 2.7% in the prior quarter.
- Inflation moderated somewhat in July with the headline PCE increasing 0.4% following a 0.5% gain in June. Core inflation, excluding food and energy, increased 0.3% in July following a 0.5% increase in June. Annualized inflation for July was 4.2% for the headline PCE and 3.6% for the core PCE. Table 18. provides the monthly and year-ago inflation rates for the PCE index.

**Table 18. Personal Consumption Expenditure (Monthly for 2021)**

	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
PCE (% change)	0.4	0.5	0.5	0.6	0.6	0.3	0.3
Core PCE (% change)	0.3	0.5	0.6	0.6	0.4	0.1	0.2
PCE (% change yr ago)	4.2	4.0	4.0	3.6	2.5	1.6	1.4
Core PCE (% change yr ago)	3.6	3.6	3.5	3.1	2.0	1.5	1.5

Source: Bureau of Economic Analysis



- Figure 5 illustrates the year-over-year PCE inflation rate over the past ten years. The spike in the inflation rate in the early post-pandemic years may either be part of the transitory adjustment or the beginning of longer term pressures from prolonged monetary easing and historic fiscal stimulus. The Fed appears to be willing to wait until employment and growth data firmly confirm a return to full employment before significant tapering of bond purchases.

**Figure 5. Core Personal Consumption Expenditure Inflation Index (yr-over-yr change)**



Source: U. S. Bureau of Economic Analysis and fred.stlouisfed.org

- The Consumer Price Index (CPI) increased 0.5% in July following a whopping 0.9% in June. Excluding food and energy, the core inflation CPI increased 0.3% in July compared to 0.9% in June. On a year-ago basis, the Headline CPI increased 5.3% for July and the core CPI gained 4.2%. Inflation picked up significantly in the second quarter as the economy began to open and supply chain disruptions occurred. Table 19 below provides the monthly CPI inflation rates through July 2021.

**Table 19. Consumer Price Index Monthly Inflation Rates**

	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021	Dec 2020
CPI (%)	0.5	0.9	0.6	0.8	0.6	0.4	0.3	0.2
Core CPI (%)	0.3	0.9	0.7	0.9	0.3	0.1	0.0	0.0
CPI (Yr. ago % Change)	5.3	5.3	4.9	4.2	2.6	1.7	1.4	1.3
Core CPI (Yr. ago % change)	4.2	4.5	3.8	3.0	1.6	1.3	1.4	1.6

Source: Bureau of Labor Statistics

- July’s gain leaves the CPI up 8.4% on an annualized basis over the prior three months, compared with the 9.7% increase in June. The CPI was up 7.8% annualized over the prior six months, compared with 7.3% in June. It remains to be seen if these are transitory gains in inflation rather than more permanent cost-push or demand-pull versions due to longer term policies and spending.
- Producer prices continue to increase at a relatively high rate, suggesting a continuation of inflation above the 2% target rate for the third quarter. The U.S. Producer Price Index for final demand goods increased 1% in May and 7.7% on a year ago basis. Table 20 below summarizes the monthly producer price index data.

**Table 20. Monthly Producer Price Index**

	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021	Dec 2020
Final demand (% change)	1.0	1.0	0.8	0.7	0.8	0.7	1.2	0.3
Final demand (% change yr. ago)	7.7	7.1	6.5	6.1	4.2	2.9	1.7	0.8

Source: Bureau of Labor Statistics

**Housing** - Home prices continue to rise due to low interest rates, a lack of housing supply, and elevated homebuilding costs. On a year-ago basis the S&P CoreLogic Case-Shiller Home Price index increased 18.6%. Existing home inventory is slowly increasing but the supply of existing homes to sales was only 2.5 months in July. Existing home Inventory generally approaches six months of sales in a more normal market. New home inventory to sales reached 6.2 months in July but new home inventory is not large enough to offset the low level of existing homes.

- The S&P CoreLogic Case-Shiller 20-City Composite Index increased 18% on a year-over-year basis in July, representing the fastest rate of growth ever recorded. Monthly house price growth was 1.8% in July, slightly lower than the 2.2% gain in June. Table 21 below summarizes the monthly growth in the housing price index.

**Table 21. S&P CoreLogic Case-Shiller Home price Index**

	July 2021	Jun 2021	May 2021	Apr 2021	% change yr ago
National composite index	1.8%	2.2%	2.1%	2.3%	18%

Source: S&P Dow Jones Indices LLC, [fred.stlouisfed.org](http://fred.stlouisfed.org)

- Housing construction is picking up. The new-home inventory-to-sales ratio is 6.2 months in July, its highest level since April 2020. An increased supply of new homes will not offset the lack of existing home inventory anytime soon.
- The National Association of Real Estate pending home sales fell by 1.8% in July following a similar drop in June. The national pending home sales index was down 8.5% from its year-ago level. High housing prices are beginning to offset low mortgage rates, resulting in slower home sales going forward. The national pending home sales index was down 8.5% from its year-ago level. Housing prices should cool off in the third and fourth quarters.
- Mortgage interest rates continue to ease with the 30-year fixed rate currently just below 3%. Federal Reserve bond purchases are likely to continue into the fall until November when some tapering is expected. Mortgage rates should remain relatively low, especially on an inflation adjusted basis as inflation is likely to exceed the long term fixed mortgage rate.





**U. S. International Trade** – Trade continues to be a drag on U. S. growth. The trade deficit is chronic and is likely to get worse over time as policies discouraging domestic production lead to higher imports of oil. The pandemic has placed trade agreements on the back burner, but relationships with China must eventually be addressed in trade is to improve. The trade weighted value of the U. S. dollar has been trending down in the post-recession period.

- The nominal U. S. trade deficit narrowed from a revised \$73.2 billion in June to \$70.1 billion in July. Nominal exports were up 1.3% in July while exports slipped 0.2%. The trade deficit continues to be large and poses a significant drag on GDP growth, but the deficit could narrow in the last part of 2021 if the pandemic eases and consumers shift from spending on goods to spending on services. The table below summarizes monthly changes in the balance of trade in billions of dollars.

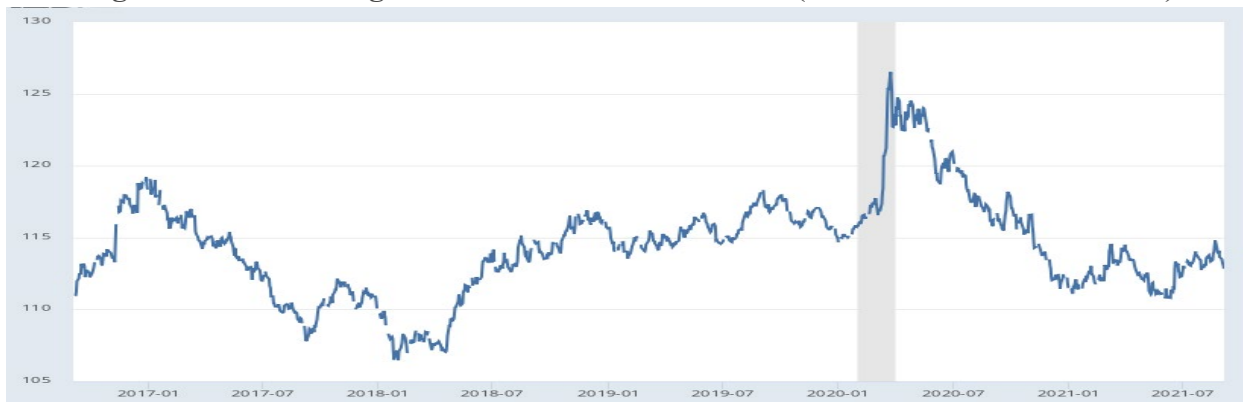
**Table 22 U. S. international Trade by Month (Billions of \$s)**

	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021	Dec 2020
Trade balance	-70.1	-73.2	-68.5	-66.7	-72.2	-68.2	-65.7	-65.8
Exports	212.8	210.1	208.7	206.8	205.0	190.4	194.4	190.9
Imports	282.9	283.3	277.3	273.5	277.2	258.6	260.1	256.7

Source: Board of Governors and fred.stlouisfed.org

- The trade balance in petroleum switched from a surplus to a deficit in July, ending a long period of energy independence. Going forward, policies ending the Keystone pipeline and drilling in government lands are likely to tilt petroleum imports up and exports down.
- The trade weighted value of the U. S. dollar has weakened over the past year, reflecting a weaker demand for U. S. goods and low U. S. interest rates. Figure 6. illustrates the movement of the trade weighted value of the U. S. dollar.

**Figure 6. Trade Weighted Value of the U. S. Dollar (Broad Goods and Services)**



Source: Board of Governors and stlouisfed.org



*Selected Global Issues – The Organization of Economic Cooperation and Development (OECD) May, 2021 global outlook (<https://www.oecd.org/economic-outlook>) projected global economic growth to be 5.8% in 2021 and 4.4% in 2022. Recoveries are uneven with highly vaccinated countries leading the way. China, Korea, and the U. S. are recovering faster than the rest of the world.*

- The global economy is recovering from the pandemic but progress is very uneven. The May OECD report (<https://www.oecd.org/economic-outlook/>) notes that the recovery is likely to remain uneven and dependent on vaccination program successes. Korea and the United States took only about 18 months to reach pre-pandemic levels. By contrast, most of Europe is expected to take close to three years to recover while Mexico and South Africa may take from three to five years.
- China set a very conservative growth target of 6%, well below what most analyst predict. The government is likely using a conservative target to focus more on structural reform and improved innovation with quality growth. China is making a transition to consumption led growth and improved environment protection.
- The Bank of Korea (BoK) broke step with other central banks by increasing the policy rate by 25bps to 0.75%. The BoK is one of the few central banks addressing financial risks from artificially low interest rates and mounting debt. Korea continues expansionary fiscal policy but the BoK is not as accommodative in buying government debt. The concerns leading to the BOK's actions include rising property values, mounting mortgage and household debt, and levered equity positions.
- The euro is trading near its lowest level against the dollar in nine months. The weak euro is linked to lower interest rates and a slower economic recovery in the eurozone than in the U. S. The European Central Bank is expected to keep easy money to cushion the eurozone's recovery.
- Eurozone GDP fell by 2.2% (not annualized) in the second quarter following a 0.3% decline in the first quarter. The GDP is currently still 2.5% lower than in the final quarter of 2019.
- The Reserve Bank of Australia reduced its weekly asset purchases by 20%, while the cash rate remained steady at 0.1%. The Delta outbreak has been serious in a number of states and significant tapering will be considered only as the economy improves. Even so, an actual reversal to a tight money policy is not on the horizon.

Japan's economy continues to flounder with an estimated GDP growth rate of only 0.3% (not annualized) in the second quarter, which matched first quarter growth.

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