Second Quarter 2022 Economic Summary and Outlook

Estimates of Real GDP by the Bureau of Economic Analysis show a contraction in the first two quarters of 2022. Real GDP fell 1.6% in the first quarter and 0.6% in the second quarter. While two successive quarters of negative GDP growth is a definition of a recession, the National Bureau of Economic Research (NBER) considers a wider set of measures before making an official designation. While the economy shrank, employment remained strong with a surprising increase of 528,000 nonfarm payrolls in July following an average of 388,000 job gains per month over the prior four months. The economy had a 3.5% unemployment rate in August. The strong labor market data may prevent classification of the first half of 2022 as a recession. The NBER takes from four to 10 months to make an official recession designation.

Whether or not the economy was in a recession in the first half of 2022, the average American is feeling the pain of an economy in trouble. Inflation measured by the Consumer Price Index is 8.5% on a year over year basis, even after a flat inflation month in July. The 10-year Treasury note, which serves as a floor for many other lending rates, has a 52 week range of 1.26% to 3.5%. Rates will continue to rise until the Fed sees inflation closer to the target rate of 2% for the core PCE, which is not likely anytime soon. An additional 50 basis point increase in the fed fund rate is expected in September, bringing the fed fund rate to 3%. The housing and durable goods markets have already been hit hard by higher interest costs. While costs are rising, households saw real hourly compensation fall by 4.4% in the second quarter. The misery index, a combination of the inflation rate and unemployment rate (currently about 12), now rests well above the acceptable threshold of 5 to 7.

Households are seeing wealth contract as asset values are dropping due to high inflation, rising interest rates, and low sentiment. Business earnings in the second half are likely to be weaker due to rising labor costs, declining productivity, and weaker consumer spending. The housing market is technically in a recession with six straight months of declining sales. Both residential and business investment should be drags on growth going forward. The stock market tends to be a leading indicator of the overall economy. The market has priced lower expected earnings using higher discount rates. The S&P 500® fell 4.24% in August bringing the yield to date to -17.02%. The Dow Jones Industrial Average® lost 4.06% in August and has a yield to date of -13.29%. A true recession in the next four quarters is likely to be a 50-50 proposition.

Economic turmoil is not confined to the U.S. Both the World Bank and the International Monetary Fund lowered their global growth estimates. Russia recently cut its natural gas pipeline (Nord Stream) to Europe driving up energy prices, increasing inflation pressure, and lowering the values of European currencies to multidecade lows. The Russian retaliation to Western Sanctions is likely to be long lasting. Stock prices in most European countries are falling and recession probabilities are rising. To combat inflation, higher interest rates are on the horizon in Europe. At the same time, China's zero-COVID shutdown policy in response to a wave of new cases has slowed growth and caused domestic unrest. In the past, China boosted growth with debt-finance infrastructure and real estate investments, which now make up about 30% of China's GDP. A property crash is underway with declining loans, unoccupied property, and protests over mortgage payments. The Chinese government is trying to balance a battle with an economic recession and COVID, for which it has no heard immunity due to the lockdown policy. The value of the renminbi (yuan) relative to the dollar is falling fast.

The Fed – Economic Pain is Required to Correct Past Economic Excesses

Prior to the August economic symposium in Jackson Hole, many economists thought the Fed might pause its interest rate hikes at the September meeting. The Fed raised rates four times in 2022 by a total of a 250 basis points. A flat month of inflation in July may have signaled success of prior rate hikes. However, comments by Fed Chairman Powell at the symposium put any notion of a pause to rest. It is now clear that the Fed will continue to aggressively raise interest rates. A sustained period of weaker inflation data will be required before the Fed will change this course. The risk the Fed now faces is that the U.S. economic structure has fundamentally changed with higher levels of inflation at all levels of unemployment. A soft landing for inflation is now less likely and a shallow recession may be the best scenario.

Chairman Powell gave notice that higher interest rates, slower economic growth, and softer labor markets are all necessary to bring inflation under control. Economic excesses have accumulated from a combination of massive government spending, expansionary monetary policy, and economic shutdowns that slowed herd immunity. While Fed policies involve pain for households and businesses, such pain is necessary to correct imbalances in the economy. Powell is echoing a lesson from the 1970s that policymakers seem not to have learned. Financial markets have been slow to build long term inflation into their expectations, which kept earnings expectations too high and cost of capital/discount rates too low. Stock prices plunged following Powell's comments as the prospects of a slower economy with rising interest rates became clear.

Inflation is not isolated to the U.S. Global inflation is higher than it has been in almost 50 years. Most of the world's largest economies now have double-digit inflation and are facing the prospects of higher interest rates and slower growth. The pain of fighting inflation will be felt globally. Isabel Schnabel, a European Central Bank board member, recently weighed in on the inflation battle. She maintained that bringing inflation back to targets quickly is necessary to preserve trust in central banking and confidence in the ability to preserve purchasing power. Schnabel noted that even if economies enter into a recession there is no choice but to continue the policy of breaking inflation. The Fed's ability to control inflation is made more difficult by fiscal policies and government spending initiatives that continue to fan inflationary fires.

The figure below illustrates the long run history of the fed fund rate and the lack of stability in the key policy rate. In recent history the Fed opted to keep the fed fund rate too low for too long following a recession.

Figure 1. Fed Fund History

Source: Federal Funds Rate - 62 Year Historical Chart

Survey of Professional Forecasters

The most recent survey of Professional Forecasters, published on August 12 by the Federal Reserve Bank of Philadelphia, paints a weaker picture of the economy than the prior survey three months ago. Forecasters revised third quarter GDP growth downward to 1.4% from the prior 2.5% estimate. The 35 forecasters predict overall growth in 2022 to be 1.6%, which seems high given the negative GDP growth in the first two quarters. Growth for 2023 was also revised lower to 1.3%. Consistent with the lower growth estimates, forecasters predict higher unemployment going forward with a 3.9% rate in 2023. Job growth is expected to be higher than originally predicted in the third quarter but growth for the following quarters is expected to be lower than originally predicted. Table 1 below summarizes the most recent and previous forecasts from the Survey of Professional Forecasters for real GDP growth, the unemployment rate, and monthly payroll gains. Red data represents more pessimistic forecasts and green represents more optimistic forecasts.

Table 1. Revisions of Professional Forecasts for Selected Variables

	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Previous	New	Previous	New	Previous	New
Panel A. Quarterly Forecasts						
2022:Q3	2.5	**1.4**	3.5	3.5	293.7	**342.5**
2022:Q4	2.3	**1.2**	3.5	**3.7**	193.2	**167.9**
2023:Q1	2.1	**1.1**	3.5	**3.8**	158.8	**89.0**
2023:Q2	2.3	**1.5**	3.5	**3.9**	61.3	**96.6**
2023:Q3	N.A.	1.5	N.A.	4.0	N.A.	80.7
Panel B. Annual Forecasts						
2022	2.5	**1.6**	3.6	**3.7**	479.7	**487.5**
2023	2.3	**1.3**	3.6	**3.9**	172.7	**167.6**
2024	2.0	**2.3**	3.8	**3.9**	N.A.	N.A.
2025	2.3	**2.1**	3.8	**3.9**	N.A.	N.A.

The median forecasts shown in Table 1 above do not suggest a recession later in 2022 but there is a high degree of variability across forecasters. Forecasters predict a 33% chance of a contraction in real GDP during any one of the next five quarters. Forecasters see a 33.9% chance of negative GDP growth in the third quarter of this year, which would mark the third consecutive quarter of negative growth. Table 2 provides the revised forecasts for the probability of negative GDP growth for each of the next four quarters.

Table 2. Forecaster Estimates of the Risk for a Quarter of Negative GDP Growth

	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023
Prior Forecast (%)	19.7	22.2	28.2	25.5	N.A.
New Forecast (%)	**33.9**	**36.0**	**38.0**	**36.5**	34.1

Forecasters have generally been very slow to revise inflation projections and have erred on the low side. In the most recent survey forecasters increased inflation forecasts. For 2022 overall, forecasters increased their estimate of headline CPI to 6.7% from the prior estimate of 4.5%. Given the current year-over-year inflation rate for the headline CPI of 8.5%, much lower inflation in the third and fourth quarters of 2022 is necessary to come close to the forecasted rate of 6.7%. It is likely that the forecast consensus estimate will be too low.

Third quarter PCE inflation projections were revised upward to 5.3% from the prior 4.1% forecast. While forecasters made significant revisions in expected inflation in the near term, revisions to long term inflation are modest. Even so, forecasters see inflation rates remaining above the Federal Reserve's target of 2% for the Core PCE over the longer term horizon, suggesting that the Fed will be contractionary for some time to come. Table 3 below summarizes the previous and current inflation forecasts from the Survey of Professional Forecasters with red data representing increases in estimates since the last survey.

Table 3. Short and Long-Run Inflation Projections (Annualized % Rates)

	Headline CPI		Core CPI		Headline PCE		Core PCE	
	Previous	Current	Previous	Current	Previous	Current	Previous	Current
Panel A. Quarterly Forecasts								
2022:Q3	4.5	**6.7**	4.1	**5.8**	4.1	**5.3**	3.8	**4.6**
2022:Q4	3.7	**4.3**	3.5	**4.6**	3.0	**3.7**	3.2	**3.5**
2023:Q1	3.1	**3.6**	3.1	**3.7**	2.7	**2.9**	2.8	**3.1**
2023:Q2	3.0	**3.4**	2.9	**3.2**	2.6	**2.8**	2.7	**2.8**
2023:Q3	N.A.	3.0	N.A.	2.8	N.A.	2.5	N.A.	2.6
Panel B. Q4/Q4 Annual Average Forecasts								
2022	6.1	**7.5**	4.8	**5.9**	5.0	**5.8**	4.1	**4.5**
2023	2.9	**3.2**	2.9	**3.1**	2.5	**2.8**	2.5	**2.8**
2024	2.3	**2.5**	2.5	2.5	2.2	**2.3**	2.2	2.2
Panel C. Long Term Annual Average Forecasts								
2022-2026	3.40	**3.50**	N.A.	N.A.	2.90	**3.00**	N.A.	N.A.
2022-2031	2.80	2.80	N.A.	N.A.	2.40	2.45	N.A.	N.A.

Forecasters also provided a forecast of the "natural rate of unemployment" for the U. S. economy. The natural rate of unemployment occurs in an economic equilibrium with both stable growth and inflation rates. Policies aimed at achieving rates of unemployment lower than the natural rate generate high inflation. Based on the survey of Professional Forecasters, the natural rate of unemployment is 4.1%, well above the current rate. The labor market should soften if fiscal stimulus slows and higher interest rates take hold. Fed policies tend to work with a lag, making the next few months of data important indicators of the direction of the economy.

Financial markets have now priced expectations for higher interest rates and more stubborn inflation. While additional shocks may be on the horizon, the markets are now better prepared for bad domestic economic news. Currently, the S&P 500 12-month forward price-to-earnings ratio is 17.5, which is higher than the long run average of 16 but well below the 22.1 ratio at the end of 2021. With heightened recession fears the stock market is not likely to rebound any time soon.

Summary of Economic Data Releases

Gross Domestic Product – *The U. S. economy shrank in the first two quarters of 2022, a technical definition of a recession. Even so, job growth was robust in the first half of the year. The NBER Business Cycle Dating Committee makes the official designation of recessions after a backward looking process that can take from four to 21 months. There is now little doubt that the Fed will continue to raise interest rates to combat stubborn inflation. Slumping housing demand and lower consumer expenditures for interest sensitive goods may well tip the economy into a downturn later in 2022.*

- The 0.6% decline in real GDP in the second quarter came largely from decreases in private inventory investment, residential fixed investment, federal government spending, state and local government spending and higher imports. Positive contributions came from increased exports and consumer spending on services. Consumer spending of goods actually declined in the first half of 2022.

- Table 4 provides a quarterly breakdown of the components of GDP on a percentage change basis. The red items represent reductions from the prior period.

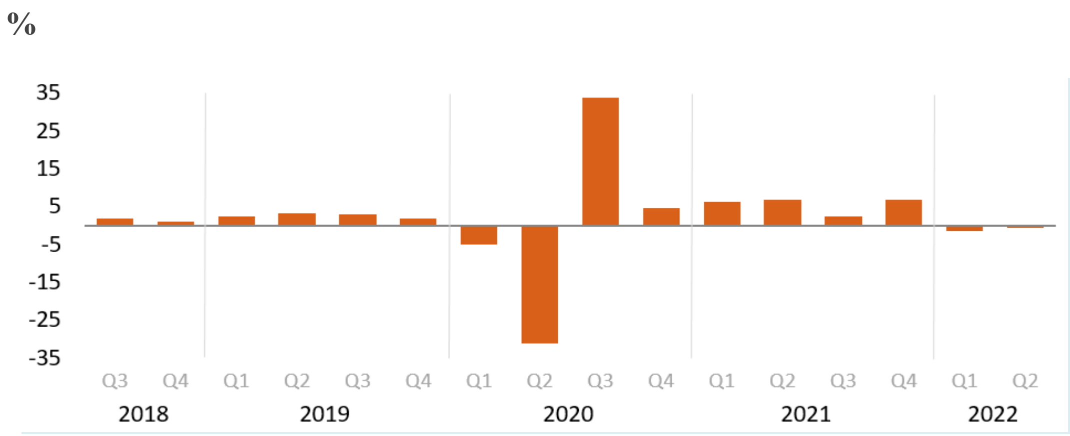
Table 4. U. S. Gross Domestic Product and Components

	2020				2021				2022	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Gross Domestic Product	**-5.1**	**-31.2**	33.8	4.5	6.3	6.7	2.3	6.9	**-1.6**	**-0.6**
Personal Consumption Exp.	**-4.79**	**-24.1**	25.5	2.26	7.44	7.92	1.35	1.76	1.24	0.99
Goods	0.04	**-1.89**	9.92	**-0.07**	5.69	2.99	**-2.21**	0.28	**-0.07**	**-0.57**
Services	**-4.83**	**-22.2**	15.5	2.34	1.75	4.93	3.57	1.48	1.31	1.56
Gross Private Domestic Inv.	**-0.92**	**-9.64**	11.7	4.01	**-0.37**	**-0.65**	2.05	5.82	0.93	**-2.67**
Fixed investment	**-0.41**	**-5.63**	4.88	2.92	2.25	0.61	**-0.16**	0.50	1.28	**-0.84**
Nonresidential	**-1.14**	**-4.28**	2.72	1.57	1.65	1.21	0.22	0.40	1.26	0.00
Residential	0.73	**-1.36**	2.16	1.34	0.60	**-0.60**	**-0.38**	0.10	0.02	**-0.83**
Change in Private Inventories	**-0.51**	**-4.01**	6.84	1.10	**-2.62**	**-1.26**	2.20	5.32	**-0.35**	**-1.83**
Net exports	**-0.05**	1.53	**-3.25**	**-1.65**	**-1.56**	**-0.18**	**-1.26**	**-0.23**	**-3.23**	1.42
Exports	**-1.95**	**-8.34**	4.64	2.07	**-0.30**	0.80	**-0.59**	2.24	**-0.55**	1.88
Imports	1.90	9.87	**-7.89**	**-3.73**	**-1.26**	**-0.99**	**-0.68**	**-2.46**	**-2.69**	**-0.45**
Government Expenditures	0.63	0.97	**-0.19**	**-0.09**	0.77	**-0.36**	0.17	**-0.46**	**-0.51**	**-0.32**
Federal	0.16	1.42	**-0.32**	**-0.22**	0.78	**-0.38**	**-0.35**	**-0.29**	**-0.46**	**-0.25**
State and Local	0.47	**-0.45**	0.13	0.14	**-0.01**	0.02	0.52	**-0.17**	**-0.05**	**-0.06**

Source: Bureau of Economic Analysis

- Figure 2 below illustrates quarterly GDP growth over the past 10 quarters. The COVID shutdown in the first part of 2020 and subsequent rebound account for the spikes. The data are in percentage change, making the rebound growth rates look good given the low levels from which the economy rebounded. In terms of GDP levels, the economy regained COVID related losses at the end of 2021.

Figure 2. U.S. Real GDP Percent change from Prior Quarter

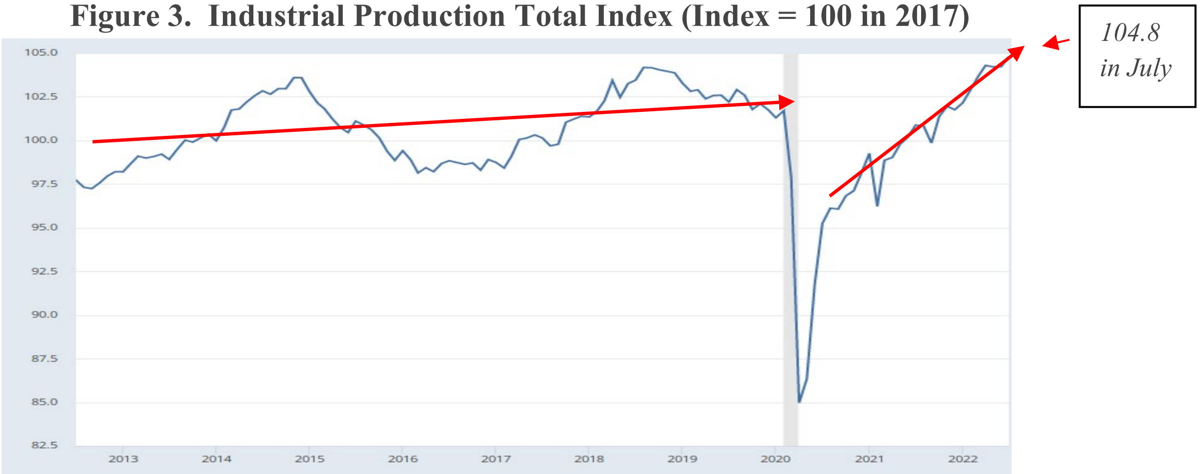


Source: U. S. Bureau of Economic Analysis

- Corporate profits from current production (profits adjusted for inventory valuation and capital consumption) increased \$175.2 billion in the second quarter following a decrease of \$63.8 billion in the first quarter. Analysts are less optimistic about future earnings as higher unit labor costs squeeze profit margins and costs of capital rise.

- Industrial production increased 0.6% in July. Manufacturing output gained 0.7% after falling 0.4% in each of the two previous months. The Industrial Production Index reached 104.8% of its 2017 average in July. The figure below illustrates the changes in total industrial production over the last decade. The data have yet to signal a weakness. On the contrary, production since the pandemic has been rising.

Figure 3. Industrial Production Total Index (Index = 100 in 2017)



Source: Board of Governors the Federal Reserve System, FRED

- Capacity utilization increased 0.4% in July to 80.3%, which is 0.7% above its long-run (1972–2021) average, suggesting that the economy is near fully employment.

- The inventory-to-sales ratio was 1.3 in both May and June, which is slightly higher than the ratio of 1.26 one year ago.

Employment and Labor Market – *Productivity in the U.S is declining due to the combination of increased hours worked and slower GDP growth. Lower productivity and rising nominal compensation are pushing labor costs higher. From a business perspective, labor market conditions are squeezing profit margins, leading to lower earnings and lower stock prices. From the perspective of households, wages are not keeping up with the high rates of inflation even as nominal compensation rises, resulting in strained household budgets.*

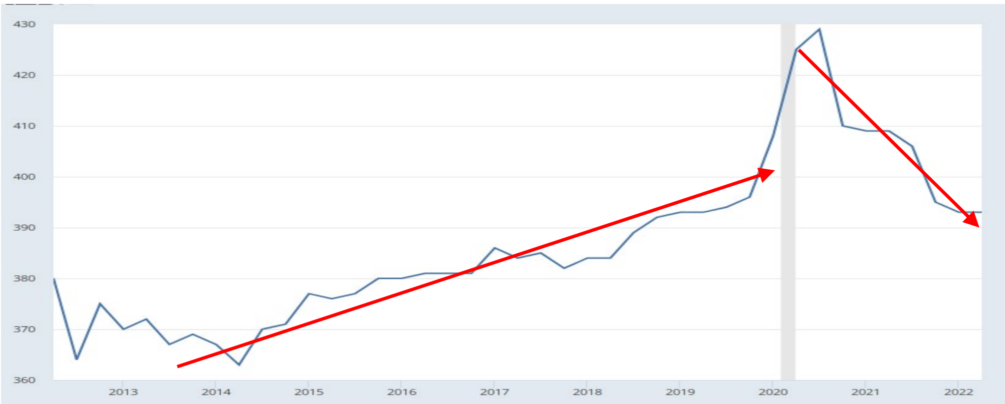
- The headline unemployment rate dipped to 3.5% in July and the number of unemployed persons fell to 5.7 million. Both measures now stand at their January 2020 levels.

- A surprising 528,000 payroll gain occurred in July along with a dip in the unemployment rate to 3.5%. The labor force participation rate (62.1%) and the employment-population ratio (60%) were unchanged. Both measures are below their pre-pandemic levels.

- The Bureau of Labor Statistics reported that real average hourly earnings for all employees increased 0.5% in July, but declined 3% from July 2021 to July 2022. Weekly earnings for the past year fell 3.6%.

- Figure 4 below illustrates the trends in median weekly real earnings for wage and salary workers over the age of 16.

Figure 4. Median Weekly Real Earnings (Wage and Salary workers over 16)



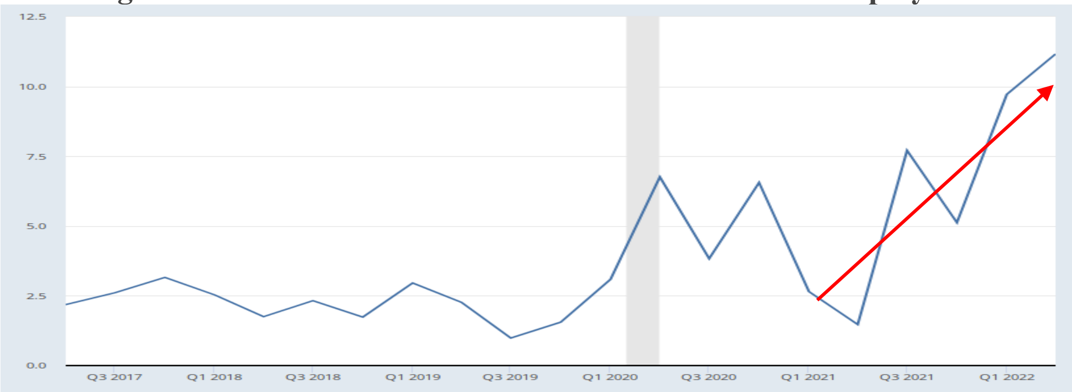
Source: Bureau of Labor Statistics, FRED

- While disposable personal income increased 6.5% in the second quarter, real disposable personal income (adjusted for inflation) gained only 0.6%. Personal saving as a percentage of disposable personal income was 5.1% in the second quarter.

- The Bureau of Labor Statistics reported that nonfarm business labor productivity fell 4.6% in the second quarter of 2022. On a year-ago basis, labor productivity declined 2.5%, which is the largest decline since the series began in 1948. Declining labor productivity typically signals a full employment condition.

- Second quarter unit labor costs in nonfarm business increased by 10.8% in the second quarter of 2022 due to a combined increase in nominal compensation and a decline in productivity. Over the last four quarters, unit labor costs increased 9.5%, which is the largest increase since the first quarter of 1982. Figure 5 shows the pattern of rising costs.

Figure 5. Nonfarm Business Unit Labor Costs for all Employees



Source: U.S. Bureau of Labor Statistics, FRED

***Inflation** – Inflation indexes were flat in July but one month of data will not change inflation concerns. Much of the moderation in inflation came from lower oil prices, although the price levels remain high. Food prices now provide the greatest inflation pressure with three straight months of increases over 1%. On a one-year-ago basis, the consumer price index gained 8.5% while the personal consumption expenditure index gained 7.1%.*

- The consumer price index (CPI) for all items increased 8.5% from July 2021 to July 2022. The core CPI gained 5.9% from on a year-ago basis in July. In July the CPI was flat while the core CPI gained 0.3% following a 0.7% increase in June. Figure 6 below illustrates the movement of the CPI over the last decade.

Figure 6. Consumer Price Index for all Urban Consumers

All Items Consumer Price Index *Source: Bureau of Labor Statistics, FRED*
Core Consumer Price Index (Excluding Food and Energy)

- The personal consumption expenditure index (PCE) increased 7.1% in the first quarter while the core PCE (excluding food and energy) gained 4.4%.

- The price index for gross domestic purchases increased 8.4% in the second quarter.

- Food prices continue to rise at a rapid pace with a 1.1% jump in July, which is the third consecutive monthly gain of at least 1%. Consumer food prices increased 10.9% from July 2021 to July 2022, the largest 12-month increase since the period ending May 1979. Weather conditions, shortages in fertilizer, and higher fuel costs will all contribute to higher food prices going forward.

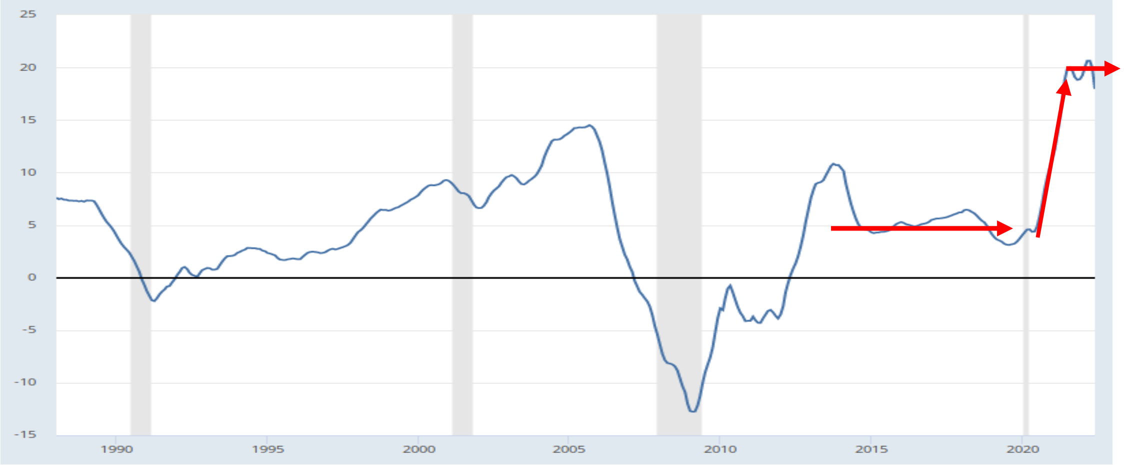
- The Producer Price Index (PPI) for final demand goods dropped 1.8% in July following a 2.3% gain in June. Excluding food and energy, the PPI for final demand goods rose 0.2%.

Housing *- The housing market is in a recession, defined as a decline in housing sales for six months in a row. July was the six straight month of declining sales due to the combination of high price levels and rising mortgage rates. Housing affordability is at its lowest level in three decades. Mortgage rates doubled over the first half of the year rising from 3% to 6% on the 30-year fixed rate loan. Going forward, additional home price declines and slower housing starts are almost certain. The slump in real estate investment will be a drag on third quarter GDP.*

- Home sales fell 5.9% in July marking the largest single-monthly decline since January 2011. It is also the second-worst July performance dating back to 1991. For the year, home sales fell 20.2%.

- Home prices were 14.3% higher in July of 2022 compared with July 2021, but most of that increase took place over the first five months of the year. The figure below illustrates the movement of U.S. housing prices following the pandemic as well as the flattening taking place currently.

Figure 7. S&P/Case Shiller U. S. National Home Price Index (% change Year-ago)



Note: July 2017 base index = 100 *Source: S&P Dow Jones Indices LLC, FRED*

- The inventory of new homes for sale grew in July to 11 months, which is the highest level since the Great Recession. The decline in home sales is illustrated in Figure 8.

Figure 8. Existing Home Sales (Number of Units)

Source: National Association of Realtors, FRED

- Housing starts fell from a revised 1.599 million annualized units in June (previously 1.559 million) to 1.446 million in July.

- Goldman Sachs recently predicted that there will be sharp declines this year in home sales (22% decline), existing home sales (17% decline) and housing GDP (8.9% decline). Forecasts for 2023 are also pessimistic with another 8% drop in new home sales, 14% drop in existing home sales, and a 9.2% drop in housing GDP.

- According to Black Knight, a mortgage and real estate analyst firm, housing affordability it at its lowest level in 30 years. It requires 32.7% of the median household income to purchase the average home, which is about 13% higher than at the start of the pandemic. The 25 year average is 23.5% of the median household income to buy the average home.

***Sentiment and Confidence** – Sentiment improved in August following encouraging news of July inflation data. Nevertheless, overall confidence and sentiment data are at or near long term lows and are lower than one year ago. Households have higher savings than normal but are strapped with the rising proportion of their budgets going toward food and energy. The stock market is often used as a leading indicator of the economy since stock prices reflect expectations of future earnings and interest rates. The rapid decline of the market in recent weeks also suggests weakening in sentiment.*

- The University of Michigan Consumer Sentiment Index for August improved by 13% above the July survey index. On a year-ago basis the index is 17% lower than one year ago. The improvement in August was mainly due to improved expectations for the economic outlook and inflation. The median expected year-ahead inflation rate was 4.8%, down from 5.2% last month and its lowest reading in 8 months. The improvement followed two months of the lowest level of the index since the Great Recession. Improvements in sentiment are likely linked to the lower inflation pressure in July.

- Consumer sentiment based on the University of Michigan Survey improved in August but the overall index remains very low by past standards. Table 5 summarizes the Michigan Sentiment Index data for overall sentiment, economic conditions, and expectations. The red data represent declines in expectations.

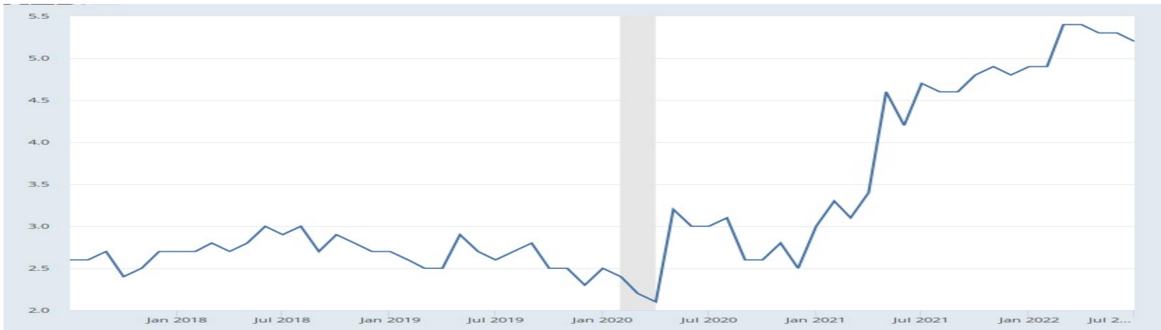
Table 5. University of Michigan Consumer Sentiment Index

	August '22 Index	% change from July	Year over Year % Change
Index of Consumer Sentiment	58.2	+13.0%	**-17.2%**
Current Economic Conditions	58.6	+0.9%	**-25.4%**
Index of Consumer Expectations	58.0	+22.6%	**-10.9%**

Source: University of Michigan, FRED

- Inflation expectations by consumers in the University of Michigan survey moderated in July, likely due to lower prices of gasoline. The figure below illustrates how consumer expectations for inflation have changed over time. In general, inflation expectations have fallen short of actual inflation.

Figure 9. University of Michigan Consumer Sentiment Survey – Inflation Expectations



Source: University of Michigan, FRED

- Following three consecutive months of decline, the Conference Board's *Consumer Confidence Index®* improved in August to a reading of 103.2 compared to an index of 100 in 1985. The index fell to 95.3 in July. The expectations component of the index improved in August from a 9-year low reached in July, but the index remains below 80. The low expectations index is consistent with recession expectations. Overall, the August confidence data may suggest some strength in spending going forward but risks of inflation, interest rate hikes, and continued political controversy remain high.

U. S. Trade – *The U.S. trade balance continues to show a large deficit. While a net deficit is a drag on GDP overall, an improvement in the deficit (exports growing faster than imports) provides a boost to GDP (less of a drag). The dollar is gaining strength against major trading partners making improvements in the trade deficit more difficult going forward.*

- The U. S. trade balance continues to be in a chronic deficit, resulting in a net drag on GDP. For the first half of 2022 the accumulated deficit is $647,708,800. The good news is that exports are increasing. Nevertheless, the rapid appreciation of the U.S. dollar in recent months will make it more difficult to reduce the trade gap in the coming quarter. Table 6 summarizes the trade balance up to this point in 2022.

Table 6. 2022 : U.S. Export and Import Balance

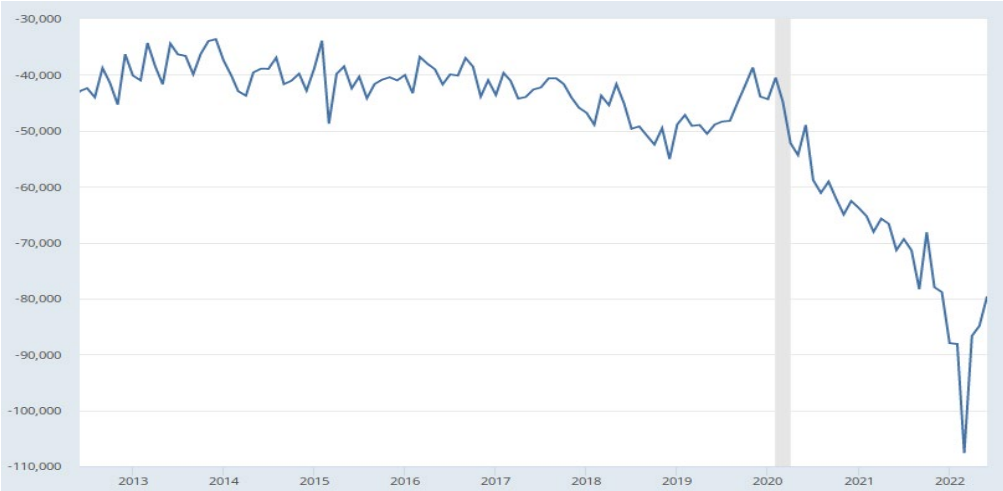
Month	Exports	Imports	Balance
January 2022	156,060.3	263,344.0	**-107,283.8**
February 2022	159,495.2	265,345.9	**-105,850.7**
March 2022	168,586.3	294,250.5	**-125,664.3**
April 2022	174,488.4	281,293.8	**-106,805.4**
May 2022	177,602.3	281,115.5	**-103,513.2**
June 2022	181,348.3	279,939.7	**-98,591.4**
TOTAL 2022	**1,017,580.7**	**1,665,289.4**	**-647,708.8**

NOTE: All figures are in millions of U.S. dollars on a nominal basis, not seasonally adjusted.

- Figure 10 illustrates the movement in the longer term trade balance deficit. The deficit has doubled in the post-COVID period but there are signs of some improvement in recent months.

Figure 10. U.S. Goods and Services Trade Balance

Millions of $s



Source: U.S. Bureau of Economic Analysis, FRED

- The dollar is serving as a safe haven for many currency traders. The euro just hit a 20-year low against the dollar and the pound sterling has reversed two years of gains against the dollar. The euro is now below parity with the dollar and the yen is trading at a 24-year low against the dollar. The strength of the U.S. dollar will likely create a lower demand for U.S. goods and services while stimulating purchases of foreign goods. The drag on GDP from the strong dollar will be felt in the third and fourth quarters this year. Table 7 below summarizes the change in the value of a dollar from the first trading day of 2022 to September 7 of 2022.

Table 7. Exchange Rates for Selected Currencies (Foreign currency per U.S. $)

	Canadian Dollar	Chinese Yuan (Renminbi	Euro	Japanese Yen	U.K. Pound
January 2022	1.2645	6.3751	0.8806	115.611	0.7363
September 2022	1.3137	6.9661	1.0006	143.989	0.8726

Source: X Rates (https://www.x-rates.com/historical/?from=USD&amount=1&date=2022-01-07)

China - *The Chinese economy grew only 0.4% on a year-over-year basis in the second quarter of 2022. The economy grew 8.1% in 2021 following 2.2% growth in 2020. The challenge for the Chinese government is to manage a zero-COVID policy while promoting economic growth. Since China does not have a built-up immunity due to the shutdown policy, the economy continues to be at risk. Internal problems are building due to recent crackdowns on real estate debt and economic dependence on property and infrastructure investments. Declining asset values prompted the People's Bank of China to cut interest rates, while most other central banks are raising rates.*

Global Growth Forecasts *- The World Bank released a mid-year set of forecasts for global GDP growth summarized in Table 8. Forecasts for 2022 were revised lower than in the January report (noted in red). Many of the forecasts for 2023 were also reduced. Even so, some forecasts appear to be too optimistic. For example, after negative growth in the first half of 2022 it is unrealistic to forecast a 2.5% annual growth rate for the U.S. While the closure of the Nord Stream gas pipeline to Europe is recent, the forecast for the Euro Area also appears to be too high. The World Bank doesn't seem to factor in a potential recession later in 2022.*

Table 8. World Bank Forecasts of GDP Growth (July, 2022)

	2022	2023	2024	Change in 2022 Forecast*	Change in 2023 Forecast*
World Economies	2.9	3.0	3.0	**-1.2**	**-0.2**
Advanced Economies	2.6	2.2	1.9	**-1.2**	**-0.1**
United States	2.5	2.9	2.0	**-1.2**	**-0.2**
Euro Area	2.5	1.9	1.9	**-1.7**	**-0.2**
Japan	1.7	1.3	0.6	**-1.2**	0.1
Developing	3.4	4.2	4.4	**-1.2**	0.0
East Asia	4.4	5.2	5.1	**-0.7**	**-0.1**
China	3.4	5.2	5.1	**-0.8**	0.2
Indonesia	5.1	5.3	5.3	**-0.1**	0.0
Thailand	2.9	4.3	3.9	**-1.0**	**-1.4**
Europe & Central Asia	**-2.9**	1.5	3.3	**-5.9**	**-3.8**
Russia	**-8.9**	**-2.0**	2.2	**-11.3**	0.2
Turkey	2.3	3.2	4.0	0.3	0.2
Poland	3.9	3.6	3.7	**-0.8**	0.2
Latin America & Caribbean	2.5	1.9	2.4	**-0.1**	**-0.8**
Middle East & N. Africa	5.3	3.6	3.2	0.9	0.2
South Asia	6.8	5.8	6.5	**-1.2**	0.3
Sub-sahara Africa	3.7	3.8	4.0	0.1	0.0
Oil Prices	42.0	**-8.0**	**-13.0**	35.0	3.8

Source: World Bank , https://openknowledge.worldbank.org/bitstream/handle/10986/37224/Global-Economic-Prospects-June-2022-Global-Outlook.pdfs

**Note: The change in the forecasts comes from the difference in the January 2022 forecast and the July 2022 forecast.*