First Quarter 2023 Outlook and Review

The Bureau of Economic Analysis announced a revised annualized GDP growth rate of 1.3% for the first quarter of 2023 following a revised 2.6% annualized rate in the fourth quarter of 2022. Strong consumer spending led the way in the first quarter, adding 2.5% to the growth rate. A reduction in inventory investment accounted for a 2.1% reduction in GDP growth. Much of the support for consumer spending came from a boost to real disposable income by cost-of-living adjustments and a reduction in the savings rate from 4.5% to 4.1%. An exceptionally strong job market has yet to show significant signs of weakening. Payrolls grew by 339,000 in May and the three-month moving average for payroll gains reached 283,000. Job openings also increased to ten million in May. Overall, labor demand continues to exceed labor supply. The Bureau of Labor Statistics reported that wages and salaries increased 5% on a year-ago basis, which roughly matched the inflation rate. Even though job creation expanded at a very strong rate the unemployment rate edged up to 3.7%. The labor market and consumer spending have yet to show the kind of movement that the Fed is looking for. However, the labor market tends lag behind Fed contraction policies by as much as 12 months. In order to make sure that past policies do not push the economy too far toward recession, a pause in June is most likely with a reassessment in July.

The Fed policy of increasing interest rates from approximately zero to a range of 5%-5.25% has lowered inflation pressure overall, but a lot of work remains to reach the 2% target. In the first quarter the headline personal consumption expenditure index (PCE) increased 4.2% and the core PCE (excluding food and energy) increased 5%. Both rates are higher than in the prior quarter of 2022. Inflation data in April were higher than expected with a 0.4% increase in the PCE Index. On a year-ago basis in April, the headline and core PCE deflators were up 4.4% and 4.7%, respectively. Economists in the Survey of Professional Forecasters expect the PCE to be 2.5% and the core PCE to be 2.9% in the fourth quarter of 2023. Both forecasts are based on a weaker economy in the second half of 2023. Going forward, both food and energy prices are expected to be higher. Most analysts expect the Fed to pause in the June meeting to evaluate the impact that the ten prior rate hikes made on the labor market and inflation. History suggests that inflation may be more stubborn than analysts and the markets are predicting.

Consumer sentiment and confidence indicators do not offer a unanimous view, but there are clear signs that the economy is weakening. The University of Michigan Consumer Sentiment Index is consistent with a low growth scenario while the Conference Board's Consumer Confidence Index is in recession territory. This difference is largely due to the sensitivity of Michigan's index to the labor market, which continues to be strong. The Index of Leading Economic Indicators has declined to a point consistent with a recession. These indicators are not fool proof, but the economy is likely to barely skirt a recession in the second half of 2023.

Any shock from oil prices or geopolitical risks would tip the odds toward a more severe economic outcome. The economy is likely to slow with a growth rate of about 1% for the remainder of the year. Job growth should eventually slow to less than 200,000 jobs per month and the unemployment rate is likely to continue moving closer to 4%. However, if any of these expectations are not met the Fed will enter into added rate hikes this year. Market expectations of lower rates in the longer-run continue to keep the yield curve very flat.

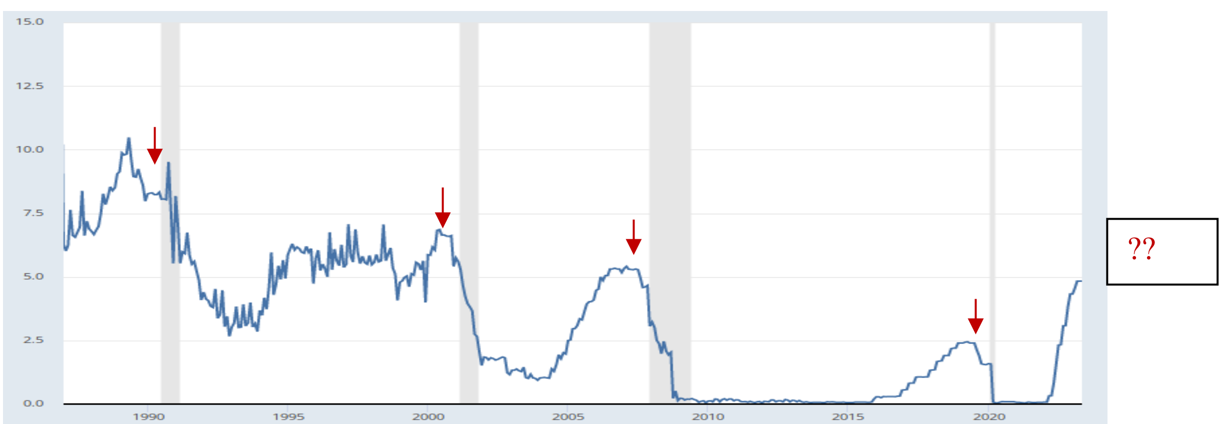
Monetary Policy– Last Stage of Fighting Inflation?

The Fed's federal fund target is at a 16-year high after 10 straight rate hikes. The target range is 5% to 5.25%, which is approximately equal to the "neutral" rate where the Fed is neither expansionary nor contractionary. Even with the recent strong jobs report, the Fed is likely to pause at the June 13-14 meeting to evaluate the impact of prior rate increases. Since higher rates have a lagged effect on the economy, the Fed may wait to see the June and possibly the July data before additional rate increases. Chairman Powell appears to be ready for more "pain" to accomplish the inflation target. His testimony before the Senate on June 22 will be revealing.

Some analysts believe the Fed is positioned to cut rates later in the year. This expectation rests on the assumption that the economy tanks in the second half of 2023. The view that the Fed may be finished with rate hikes rests on historical Fed policies of fighting inflation. In recent Fed cycles of raising rates, rate hikes continued as long as inflation exceeded the federal fund rate. The annual inflation rate has declined from 9.1% at its peak to 5% in March, which is now about equal to the federal fund rate. Normally, the Fed continues until it overtightens, resulting in a quick turnaround in Fed policy. Figure 1 illustrates the timeline of the federal funds rate and the reversal (arrows) that occurs in the early stages of a recession (shaded areas). Risk will shift to reinvestment rate risk when rate increases end, encouraging a move to longer term investments.

Figure 1. Effective Federal Funds Rate (%)

Percent



Source: Board of Governors of the Federal Reserve / FRED
Note: The effective federal funds rate is as a volume-weighted median of overnight federal funds transactions.

Survey of Professional Forecasters (May 12, 2023)

GDP, Unemployment, and Payroll Forecasts

The consensus (median) forecasts for the U.S. economy in the Survey of Professional Forecasters showed slight changes from the February 2023 to the May 2023 release by the Federal Reserve Bank of Philadelphia. The projection of average annual growth for all of 2023 remains at only 1.3%. For the second quarter of 2023, forecasters predict a 1% GDP growth rate. Forecasters maintained their annual growth forecasts, but they revised growth in the third quarter upward and fourth quarter growth downward. Analysts see a "soft landing" for the economy. Growth is expected to be painfully slow in the coming quarters, but analysts do not predict a recession. In general, forecasters tend to be optimistic, but the economy has been resilient to tightening so far. The Fed wants to see another 2% to 2.5% reduction in inflation.

Forecasters see a stronger labor market for the second quarter. The forecasted average annual unemployment rate for the second quarter is 3.6% in the May forecast compared to a 3.7% prediction three months ago. A lower unemployment rate forecast is consistent with the upward revision to 156,000 payroll growth per month from the May forecasts. A weaker job market is expected later in 2023. Table 1 summarizes the forecasts for GDP growth, unemployment, and payroll gains for the next five quarters. Downward revisions are shown in red.

Table 1. Median Quarterly Forecasts for GDP, Unemployment, and Payrolls

	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Prior	**New**	**Prior**	**New**	**Prior**	**New**
Q2 2023	1.0	1.0	3.7	3.6	0.5	156.1
Q3 2023	-0.1	0.6	3.9	3.8	47.5	43.8
Q4 2023	1.2	-0.0	4.1	4.0	62.7	25.6
Q1 2024	1.3	1.0	4.2	4.1	60.8	37.2
Q2 2024	N.A.	2.5	N.A.	4.2	N.A.	22.7

*Source: **https://www.economicgreenfield.com/2023/05/12/philadelphia-fed-2nd-quarter-2023-survey-of-professional-forecasters/***

Forecasters now expect an average monthly gain of 257,500 jobs in 2023 compared to 217,800 job gains in the prior survey. The annual forecast for payroll expansion appears out of line with forecasted monthly job growth for the remainder of 2023, dropping the average below the expected 257,500. A weaker job market is expected for the second half of 2023, which will carry forward into 2024. Projected GDP growth for 2024 is only 1% and the unemployment rate forecast is 4.3%. Payroll gains in 2024 are expected to drop off dramatically to only 56,000 jobs month. Forecasters believe that the lagged effects of the Fed's policies on the job market will take place in 2024. Since 2024 is a national election year, it would be no surprise if fiscal stimulus is proposed. Table 2 summarizes the survey forecasts for GDP growth, unemployment, and payroll gains for the next five quarters. Downward revisions appear in red.

Table 2. Average Annual Forecasts for GDP, Unemployment Rate, and Payrolls

	Real GDP (%)		Unemployment Rate (%)		Payrolls (000s/month)	
	Prior	**New**	**Prior**	**New**	**Prior**	**New**
2023	1.3	1.3	3.8	3.7	217.8	257.5
2024	1.4	1.0	4.2	4.3	43.3	56.1
2025	2.2	2.4	4.2	4.4	N.A.	N.A.
2026	1.5	2.3	4.1	4.3	N.A.	N.A.

*Source: **https://www.economicgreenfield.com/2023/05/12/philadelphia-fed-2nd-quarter-2023-survey-of-professional-forecasters/***

Inflation Forecasts

Forecasters in the survey revised their near-term inflation projections upward for headline and core versions of the CPI and PCE inflation. These upward revisions coincide with a slow growth scenario and a slow reduction in the inflation rates. CPI inflation rate projections tend to be higher than PCE projections, but this is normal. Overall, the survey inflation projections are higher than the Fed's target through the first half of 2024. The projections reflect a slow reduction in inflation, which may not happen unless interest rates and Fed policy remain restrictive. For example, the core PCE increased 4.7% in April on a year-ago basis and monthly inflation numbers going forward will need to be low to achieve the forecasted 3.8% annual rate for the core PCE. Table 3 summarizes the survey's inflation forecasts for the next five quarters. None of the inflation forecasts were lowered in the most recent survey. In particular, core inflation rates are significantly higher in the latest forecasts, reflecting expected price pressures from food and energy.

Table 3. Median Quarterly Forecasts for GDP, Unemployment, and Payrolls

	Headline CPI		**Core CPI**		**Headline PCE**		**Core PCE**	
	Prior	**New**	**Prior**	**New**	**Prior**	**New**	**Prior**	**New**
Q2 2023	3.4	3.5	3.6	4.5	3.0	3.2	3.1	3.8
Q3 2023	3.1	3.2	3.1	3.6	2.6	3.2	2.7	3.3
Q4 2023	2.8	2.9	2.9	3.1	2.6	2.9	2.5	2.9
Q1 2024	2.6	2.7	2.8	3.0	2.3	2.5	2.5	2.5
Q2 2024	N.A.	2.4	N.A.	2.7	N.A.	2.4	N.A.	2.4

Source: ***https://www.economicgreenfield.com/2023/05/12/philadelphia-fed-2nd-quarter-2023-survey-of-professional-forecasters/***

Negative GDP Growth Probabilities

Forecasters lowered their expectations for negative GDP growth in the second and third quarters of 2023 but the likelihood for negative growth in the fourth quarter of 2023 and early 2024 increased. Overall, forecasters see the restrictive effects of monetary policy on growth to be slow. The estimate for negative growth in the second quarter of 2023 is 38.8%, down from the previous estimate of 42.4%. The table below summarizes the survey's prior and revised probabilities for negative quarters in the survey. Downward revisions are shown in red. Given the forecasted probabilities for a single negative quarter, the chances of a recession (two consecutive negative quarters) is very small.

Table 4. Forecasted Likelihood of a Negative GDP for the next Five Quarters

	2023 Q2	**2023 Q3**	**2023 Q4**	**2024 Q1**	**2024 Q2**
Prior	42.4	44.9	40.6	31.8	N.A.
New	38.8	45.2	41.9	39.3	31.8

Source: https://www.economicgreenfield.com/2023/05/12/philadelphia-fed-2nd-quarter-2023-survey-of-professional-forecasters/

Summary of Recent Economic Data

***GDP** – The U. S. economy grew 1.3% in the first quarter of 2023 following a 2.6% rate in the prior quarter, based on revised estimates by the Bureau of Economic Analysis. The economy remains resilient to higher interest rates with consumer spending leading the way with smaller support from exports, government spending, and nonresidential business investment. A reduction in inventory investment and increased imports were the drags. Growth will almost certainly be below trend into 2024. GDP growth should be close to 1% for the remainder of 2023.*

- Real GDP growth for the first quarter was revised upward by 0.2% to 1.3% (rounded off) and fourth quarter 2022 growth was revised upward to 2.6 % (rounded off).

- Consumer spending added 2.5% to GDP growth in the first quarter, which is the largest contribution in two years. Cost-of-living adjustments boosted after-tax income in the first quarter. Consumers remain resilient to higher interest rates and a strong labor market continues to support spending.

- Fixed investment fell in the first quarter, resulting in a small 0.03% reduction in growth.

- Inventory reduction resulted in a 2.1% contraction in growth. Final sales of domestic product, which exclude the impact on GDP from inventories, rose 3.4%, the fastest growth since the second quarter of 2021.

- The table below summarizes GDP growth and changes in components of GDP growth over the last eight quarters. Negative growth rates are shown in red.

Table 5. Real Growth in GDP and GDP Components over the past Eight Quarters

	2023 Q1	2022 Q4	2022 Q3	2022 Q2	2022 Q1	2021 Q4	2021 Q3	2021 Q2
Real GDP	1.27	2.57	3.24	- 0.58	- 1.63	6.96	2.65	7.00
Consumption	2.52	0.70	1.54	1.38	0.91	2.14	1.98	7.84
Fixed investment	- 0.03	- 0.68	- 0.62	- 0.92	0.83	0.12	- 0.18	1.05
Inventories	- 2.10	1.47	- 1.19	- 1.91	0.15	5.01	1.96	- 0.75
Net exports	0.00	0.42	2.86	1.16	- 3.13	- 0.16	- 1.08	- 0.60
Government	0.89	0.65	0.65	- 0.29	- 0.40	- 0.16	- 0.02	- 0.54

Source: Bureau of Economic Analysis

- Gross domestic income (GDI), an alternative measure of the size of the economy, paints an alternative picture of economic performance. GDI fell 2.3% in the first quarter after falling 3.3% in the fourth quarter of 2022. In theory, GDI should equal GDP. Different sources of data for each calculation lead to somewhat different results. The average of GDI and GDP fell 0.5% in the first quarter after declining 0.4% in the fourth quarter.

- After-tax corporate profits declined by 2.12% in the first quarter of 2023 following declines of 5.86% in the fourth quarter and 5% in the third quarter of 2022. Table 5 below shows the quarterly data for after-tax corporate profits.

Table 5. Percentage Change in After-tax Corporate Profits

	2023 Q1	2022 Q4	2022 Q3	2022 Q2	2022 Q1	2021 Q4	2021 Q3	2021 Q2
Percentage Change in After-tax Corporate Profits	- 2.12	- 5.86	- 5.00	7.40	2.63	- 2.35	0.10	9.16

Source: Bureau of Economic Analysis

***Income and Saving** – A strong labor market continues to support rising personal income. Real disposable income is also climbing due to the combination of rising wages and more moderate inflation in the first quarter. Rising disposable income and a reduction in the savings rate boosted consumer spending even as interest rates climbed. The strong personal income data in the first quarter suggests that inflation pressures are still strong. While there may be a pause in interest rate hikes by the Fed in June, the data suggest that inflation pressures remain.*

- Personal income rose 0.4% in April following 0.3% gains in both March and February.

- Real disposable income increased by 7.8% in the first quarter, which is the highest in two years. Much of the gain came from cost-of-living adjustments. More recently, real disposable income was flat from March to April.

- The personal saving rate fell from a revised 4.5% to 4.1% in April. Revisions to prior months indicate that a drawdown in household savings has been substantial.

Table 6. Personal Income, Real Disposable Income, and the Saving Rate

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022	Sep 2022
Percent Change								
Personal Income	0.4	0.3	0.3	0.6	0.2	0.2	0.6	0.5
Real Disposable Income	0.0	0.2	0.2	1.6	0.1	0.1	0.3	0.1
% Change from yr. ago								
Real Disposable Income	3.4	3.3	2.6	2.4	- 1.5	- 2.0	- 2.3	- 2.6
Saving Rate	4.1	4.5	4.3	4.0	3.7	3.5	3.0	3.0

Source: Bureau of Economic Analysis

- Households are highly levered. Total consumer debt hit a fresh new high in the first quarter of 2023, pushing past $17 trillion even with a sharp pullback in home borrowing. A key concern is "inflation illusion" where consumers continue to spend based on established patterns and see wage increases only to eventually adjust to the impact of higher prices. Consumer habits tend to be "inelastic" with respect to prices but adjustments occur over time. Leverage tends to bridge the gap between income and spending until consumers adjust spending habits to higher prices.

Labor and Employment *– The labor market surveys provide mixed signals. The payroll survey showed a whopping increase of 339,000 jobs in May, which is well above expectations. In addition, revisions to March and April payroll data added another 93,000 jobs. Yet, the household survey indicated that the unemployment rate increased to 3.7% in April and the number of unemployed persons increased by 440,000 in May. While the Fed is likely to sit tight in June to assess the full impact of past rate hikes, April labor market data should dampen any expectation that the Fed will reverse its policy anytime soon.*

- Nonfarm payrolls rose by 339,000 in May. Job gains were strongest for government, professional/business services, and healthcare. Revisions in May also added 93,000 more jobs to the March and April data.

- The unemployment rate increased from 3.4% to 3.7% in May with an increase of 440,000 unemployed.

- The three-month moving average for nonfarm payroll jobs reached 283,000 in May from the 253,000 average in April.

- Average hourly earnings have bounced around the 0.3% to 0.4% rates of increase each month. Table 7 provides monthly changes in payroll data, average hourly earnings, and the unemployment rate.

Table 7. Payrolls and Unemployment Rate from the Household Employment Survey

	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2022	Dec 2022	Nov 2022	Oct 2022
Change in Nonfarm Payrolls (000s)	339	294	217	248	472	239	290	324
3-mo. Moving Average	283	253	312	320	334	284	321	342
Average Hourly Earnings (% change)	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4
Unemployment Rate (%)	3.7	3.4	3.5	3.6	3.4	3.5	3.6	3.7

Source: Bureau of Labor Statistics

- Average hourly earnings were up 4.3% in May from a year earlier compared to 4.5% in April. The average workweek ticked slightly lower to 34.3 hours.

- The Bureau of Labor Statistics reported that wages and salaries increased 5.0% and benefit costs increased by 4.5% for the 12-month period ending in March 2023. Nonfarm business sector labor productivity fell 2.1% in the first quarter of 2023 with an increase in output of 0.5% and a gain in hours worked of 2.6%.

- The layoff rate fell to 1% April. At the same time, fewer workers quit their jobs as the quit rate fell to 2.5%.

- Data in the latest Job Openings and Labor Turnover Survey (JOLTS) report revealed an increase of 10.1 million openings in April. Labor demand, which is defined as the sum of employment and job openings, exceeds the size of the labor force by 3.8 million. This excess demand should put added pressure on wages and prices, and is a key factor behind those supporting added rate hikes now.

Inflation- *Inflation remains stubborn. Since the end of 2022, the year-over-year percentage change in the core PCE (the Fed's preferred measure of inflation) has been 4.6%. While members of the Fed's Open Market Committee are divided on making another rate hike in June, a pause is most likely. A pause in the Fed's restrictive policy is partly motivated by a reluctance to be blamed if growth slows dramatically in the next quarter. Nevertheless, additional increases in interest rates appear to be inevitable to bring inflation back to a target rate.*

- While inflation is slowing, all measures are well above the Fed's target. The Personal consumption expenditures (PCE) price index increased 4.2% in the first quarter of 2023 following a 3.7% gain in the fourth quarter. The core PCE, the Fed's preferred measure, increased 5.0% in the first quarter on the heels of a 4.4% increase in the fourth quarter of 2022.

- The PCE increased 0.4% in April after a 0.3% gain in March and 0.1% in February. The higher than expected increase in the PCE for April makes a pause less certain. It is likely that added increases in interest rates will follow in later meetings.

- On a year-ago basis, the headline and core PCE deflators were up 4.4% and 4.7% in April, respectively. On a year-ago basis the core PCE increased 4.7%, higher than the 4.4% rate for the headline PCE. Both rates in April exceed the year-ago increases in March. Table 8 PCE inflation data show the monthly and year-ago inflation rates over the past 7 months.

Table 8. Personal Consumption Expenditure (PCE) Deflator Percentage Change

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022
% Change							
PCE	0.4	0.1	0.3	0.6	0.2	0.2	0.4
Core PCE	0.4	0.3	0.4	0.6	0.4	0.2	0.3
% change Yr. Ago							
PCE	4.4	4.2	5.1	5.4	5.3	5.7	6.1
Core PCE	4.7	4.6	4.7	4.7	4.6	4.8	5.1

Source: Bureau of Economic Analysis

- The U.S. consumer price index (CPI) matched the PCE gain of 0.4% in April. More sanguine gains of 0.1% occurred in February and March. On a year-ago basis, the CPI was up 4.9%. Excluding food and energy, the CPI was also up 0.4%.

- The CPI for energy remains volatile. After gaining 3.5% in March, energy prices were up 0.6% in April. Excluding food and energy, the CPI was up 0.4%. Table 9 shows the monthly CPI data.

Table 9. U. S. Consumer Price Index Percentage Change

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022	Sep 2022
Monthly % Change								
CPI	0.4	0.1	0.4	0.5	0.1	0.2	0.5	0.4
Core CPI	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.6
% Change Yr. Ago								
CPI	4.9	5.0	6.0	6.4	6.5	7.1	7.7	8.2
Core CPI	5.5	5.6	5.5	5.6	5.7	6.0	6.3	6.6

Source: U.S. Bureau of Labor Statistics

- The prices of goods and services purchased by U.S. residents (Gross Domestic Purchases) increased 3.8% in the first quarter following a 3.6% gain in the fourth quarter. Core prices, excluding food and energy, increased 4.3% after increasing 4.1% in the fourth quarter of 2022.

- The U.S. Producer Price Index (PPI) for final demand increased 0.2% in April following a decline of 0.4% in March and no change in February. The PPI for final demand goods increased 0.2% in April with a decline of 1% in March and 0.4% in February. The PPI for services gained 0.3% in April with a decline of 0.1% in March.

- On a year-ago basis, inflation pressures represented by the PPI have eased. For example, the PPI for final demand was 6.4% in December compared to 2.4% in April. Table 10 below illustrates the monthly and year-ago trends in the PPI.

Table 10. Monthly Producer Price Index

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022	Sep 2022
% Change								
Final Demand	**0.2**	**-0.4**	**0.0**	**0.4**	**-0.3**	**0.4**	**0.3**	**0.3**
Goods	**0.2**	**-1.0**	**-0.4**	**1.2**	**-1.4**	**0.3**	**0.4**	**0.5**
Services	**0.3**	**-0.1**	**0.2**	**0.0**	**0.2**	**0.4**	**0.2**	**0.2**
% Change Yr. Ago								
Final Demand	**2.4**	**2.8**	**4.8**	**5.7**	**6.4**	**7.4**	**8.2**	**8.5**
Goods	**0.8**	**2.0**	**5.3**	**7.7**	**7.9**	**9.6**	**10.5**	**11.3**
Services	**3.0**	**2.8**	**4.2**	**4.5**	**5.3**	**6.0**	**6.7**	**6.7**

Source: U.S. Bureau of Labor Statistics

Sales and Production - *Spending continues to shift from goods to services, with a corresponding weakening of production and manufacturing. Sales have been volatile but remain strong on a year-ago basis. Sales are supported by excess saving, government transfer payments and cost-of-living adjustments. Going forward, high interest rates with slower job growth and weakening equity values should dampen sales growth. Unlike typical inventory-driven business cycles, inventory management is now much improved. The inventory to sales ratio is currently within a normal range.*

- Total sales fell 1.1% from February to March. Yet, total sales for the February 2023 through April 2023 period were up 3.1% from the same period last year.

- The U.S. Census Bureau reported a 0.4% increase in retail and food services sales for April following declines in March and February. Retail and food services were up 1.6% from April 2022. Table 11 shows the monthly change in sales.

Table 11. Retail and Food Services

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022
Retail & food services (% change)	0.4	-0.7	-0.7	2.8	-0.7	-1.3	1.0
Retail & food services (% change Yr. Ago)	1.6	2.4	5.3	7.4	6.0	6.1	8.8

Source: U.S. Census Bureau

- Industrial production in February and March was flat. Production was strong in April with a 0.5% gain. Manufacturing output gained 1% in April after a 0.8% decline in March. Table 12 shows the monthly growth in industrial production and manufacturing.

Table 12. Monthly Industrial Production and Manufacturing Growth Rates

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022
Industrial Production (% change)	0.5	0.0	0.0	1.0	-1.5	-0.3
Manufacturing (% change)	1.0	- 0.8	0.3	1.6	- 2.1	- 0.7

Source: Board of Governors of the Federal Reserve System

- Industrial capacity utilization increased slightly from 79.4% in March to 79.7% in April. Manufacturing utilization rates tend to be lower than production utilization rates. Overall, manufacturing utilization rates are 1.1% higher than a year ago. The table below shows the monthly utilization rates for production and manufacturing.

Table 13. Capacity Utilization

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022
Industrial Capacity Utilization (%)	79.7	79.4	79.5	79.6	78.9	80.3
Manufacturing Capacity Utilization (%)	78.3	77.6	78.4	78.2	77.1	78.9

Source: Board of Governors of the Federal Reserve System

- While business inventories fell 0.1% in March, they remain 6.5% higher than in March of 2022. Inventories should decline in the coming months as consumption spending and the economy slow.

- The business-to-inventory sales ratio was 1.39 in March compared to a 1.3 ratio in March of 2022. By comparison, the low for the ratio was 1.25 and the recession high was 1.74. Table 14 provides the monthly change in inventories and the inventory to sales ratio.

Table 14. Percentage Change in Inventory and the Inventory to Sales Ratio

	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022
Inventories (% change)	- 0.06	0.03	- 0.14	0.48	0.25	0.21	0.15	0.83
I/S ratio	1.39	1.38	1.37	1.39	1.37	1.36	1.36	1.36

Source: U.S. Census Bureau

***Sentiment and Confidence** – The two major consumer sentiment indexes provide slightly different views of the economy. The Conference Board consumer confidence index data are consistent with low growth while the University Michigan confidence index data are in line with a recession. A strong labor market tends to support higher readings for the Conference Board's index, partly explaining the difference. The lag in labor market conditions relative to economic growth normally means that the Conference Board index is slower to signal a recession than the University of Michigan index. The leading indicator index continues to decline. The prolonged decline in the index is a necessary, but not sufficient condition for a recession.*

- The Conference Board consumer confidence index fell from 103.7 to 102.3, which is the lowest reading since July 2022. The decline reflected lower confidence in current business and labor market conditions. Recent bank failures, slower economic growth, and stubborn inflation all weighed on the outlook.

- The consumers' expectations component of the Conference Board's index fell to 71.5 from 71.7 in April. A recession within the next year is consistent with a reading below 80. With the exception of a temporary reading above 80 in December 2022, the expectations index has hovered below the recession threshold since February of 2022.

- Table 15 provides monthly data on the Conference Board *Consumer Confidence Index®*

Table 15. Conference Board Consumer Confidence Index (1985 = 100)

	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022
Overall	102.3	103.7	104.0	103.4	106.0	109.0	101.4	102.2
Present Conditions	148.6	151.8	148.9	153.0	151.1	147.4	138.3	138.7
Expectations	71.5	71.7	74.0	70.4	76.0	83.4	76.7	77.9

Source: Conference Board, NBER

- Consumer sentiment measured by the University of Michigan consumer sentiment index signals a recession. The index reached a record low last June and has bounced around since then. The May index was 59.2 following a 63.5 index in April. The expectations component of the index posted the largest decline. Median inflation expectations fell from 4.6% to 4.2%. The May five-year inflation expectation increased to 3.1% from 3% in April.

- Table 16 shows the monthly confidence index numbers with reductions from the prior month shown in red. The index hovers close to its record low and is below the COVID pandemic trough in 2020. The index is consistent with levels reached prior to past recessions.

Table 16. University of Michigan Consumer Sentiment Index (1966 Q1 Index = 100)

	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022
Index (overall)	59.2	63.5	62.0	67.0	64.9	59.7	56.8
Change in the Index	-4.3	1.5	-5.0	2.1	5.2	2.9	-3.1
Present Conditions Component	64.9	68.2	66.3	70.7	68.4	59.4	58.8
Expectations Component	55.4	60.5	59.2	64.7	62.7	59.9	55.6
1-yr Inflation Expectations (%)	4.2	4.6	3.6	4.1	3.9	4.4	4.9
5-yr Inflation Expectations (%)	3.1	3.0	2.9	2.9	2.9	2.9	3.0

Source: University of Michigan, https://data.sca.isr.umich.edu/n,

- Figure 2 illustrates the relationship between the University of Michigan Consumer Confidence Index and recessions. Low levels for the index (red line) tend to coincide with the early stages of a recession.

Figure 2. University of Michigan Consumer Confidence Index (1966 Q1 = 100)

Source: University of Michigan/ Federal Reserve Bank of St. Louis (FRED)

- The Conference Board Leading Economic Index continues to decline on a monthly basis. April's decline was lower than March but the index has been declining for 13 straight months. The decline in March was the largest since April 2020. The leading economic index has never declined this long and this much without being followed shortly by a recession.

Table 17. Conference Board Leading Indicators (2010=100)

	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022
Leading Index (% Change)	-0.6	-1.2	-0.6	-0.5	-0.7	-0.9	-0.9
Leading Index (3-mo moving Average)	-0.8	-0.8	-0.6	-0.7	-0.8	-0.8	-0.6
Index Number	107.5	108.2	109.5	110.2	110.7	111.5	112.5

Source: The Conference Board, https://www.conference-board.org/topics/us-leading-indicators

- Seven of the 10 components in the Leading Economic Index (LEI) declined in April. The only increases occurred for the S&P 500 index, manufacturers' new orders for nondefense capital goods excluding aircraft, and manufacturers' new orders for consumer goods and materials.

- The LEI moved deeper into negative territory in April falling 0.6% and nearly 9% lower on a six-month annualized basis. This marks the LEI's 13th consecutive decline. The LEI has never declined for this long and by this much without being followed shortly by a recession. A recession can still be avoided, but risks remain high.

***Housing** – The housing industry faces multiple factors with some supporting and some detracting from home purchases. Strong labor markets and both limited inventory support housing prices while rising mortgage rates discourage would-be buyers. Affordability issues are changing the market dynamic. Fewer home sales are by first time buyers and relatively fewer sales are in the $500,000 and above category. Even so, supply remains tight with only 2.9 months of inventory available for sale compare to a norm of six months.*

- According to the National Association of Realtors (NAR), the monthly mortgage payment on an existing single-family home with a 20% down payment was up 33% from a year ago. First-time homebuyers are spending 37% of their income on mortgage payments.

- The NAR reported that sales of previously owned homes fell 3.4% from March to April. April sales were 23.2% lower than April of 2022. While home sales are volatile from month to month, they remain above cyclical lows.

- Homes for sale at the end of April reached 1.04 million units, which is 1% higher than one year ago. At the current pace of home sales, the existing supply represents only 2.9 months of supply. A six-month supply generally represents a more normal balance between buyers and sellers.

- Existing home sales fell for the 11th month in April. Existing homeowners are reluctant to sell since they have locked in low mortgage rates.

- The median price of an existing home sold in April fell 1.7% from one year ago. The median price of $338,800 likely reflects more sales on the lower price end of the scale. Home prices above $500,000 fell more sharply. Affordability issues most likely affected these prices most. Table 18 below provides monthly data on existing home sales.

Table 18. Existing Home Sales

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022	Sep 2022
U.S. (millions of units)	4.28	4.43	4.55	4.00	4.03	4.12	4.44	4.68
U.S. (% change)	-3.4	-2.6	13.8	-0.7	-2.2	-7.2	-5.1	-1.9
Number of Months of Supply on market	2.9	2.6	2.6	2.9	2.9	3.3	3.3	3.2
Existing median home price (thousands of $)	388.8	375.4	363.6	361.2	366.5	372.7	378.8	383.5
% Change in Median Price	-1.7	-1.0	0.0	1.9	2.1	4.0	6.5	8.0

Source: National Association of Realtors, https://www.nar.realtor/research-and-statistics/housing-statistics/existing-home-sales

- Homes sold after 22 days on the market in April on average following an average of 29 days in March. One year ago, the average number of days after listing for a sale was 17.

- The March S&P CoreLogic Case-Shiller index gained 1.3%, marking the second monthly increase. Low affordability and higher mortgage rates were offset by a tight supply of homes. On a year-ago basis the index gained 0.7%. The table below shows the monthly movement of the national composite index.

Table 19. S&P CoreLogic Case-Shiller Home Price Index (% change)

	Mar 2023	Feb 2023	Jan 2023	Dec 2022	% Change yr. Ago
National Composite Index	1.3	0.3	-0.6	-0.9	0.7

Source: S&P Dow Jones Indices LLC, FRED

***International Trade** – The trade account continues to be a drag on growth. Low savings rates and large government deficit spending puts the U.S. in a chronic deficit position. A fundamental definition in economics is that production of consumer (C), investment (I), government (G) and export (X) goods and services equals spending on consumption (C), savings (S), Taxes (T) and imports (M). In terms of relationships, this means the Trade account (X-M) = (S-I) + (T-G). Low saving (S) and deficit spending (T<G) correspond with a deficit (X<M).*

- The trade deficit grew to $96.8 billion in April, which is an increase of 17% from March. Table 20 shows the monthly changes in the balance of trade.

Table 20. International Trade in Goods (Billions of Dollars)

	Apr 2023	Mar 2023	Feb 2023	Jan 2023	Dec 2022	Nov 2022	Oct 2022
U. S. Trade Balance	-96.8	-82.7	-91.2	-91.3	-89.9	-82.1	-98.6
Exports	163.3	172.8	169.2	174.5	166.3	169.7	174.3
Imports	260.0	255.5	260.4	265.7	256.2	251.8	273.0

Sources: U.S. Census Bureau; U.S. Bureau of Economic Analysis

- The U.S. dollar had a strong run from mid-2021 to mid-2022. Since then the dollar has not had a trend. Figure 3 illustrates the path of the dollar index.

Figure 3. Nominal U.S. Dollar Index (January 2006 Index = 100)

Source: Board of Governors of the Federal Reserve System, https://fred.stlouisfed.org/series/DTWEXBGS

- Table 21 summarizes the scenarios that would either push the U.S. dollar higher (Panel A) or lower (Panel B). A stronger dollar is more likely at this point. A stronger dollar would help capital inflows in the balance of payments and hurt the trade account.

Table 21. Conditions and Scenarios Consistent with Directional Trends for the U.S. Dollar

Panel A. Conditions / Scenarios Favoring a Stronger U.S. Dollar

- Fed continues to raise interest rates with Powell signaling a longer path to defeat inflation
- Fed announces it is willing to accept negative growth to bring inflation under control.
- Re-acceleration of inflation and inability of Fed policies to work
- Stagflation and a flight to safety
- U.S. interest rates permanently higher than in other countries

Panel B. Conditions / Scenarios Favoring a Weaker U.S. Dollar

- Fed pauses and reverses course to cut rates to help a slowing economy
- Fed cuts rates faster than other countries
- China coordinates a challenge to the dollar as a reserve currency
- U.S. loses petrodollar privilege

Miscellaneous Global Data

- **G-7 Summit -**The recent G-7 summit in Hiroshima, Japan brought together leaders from the United States, Canada, France, Germany, Italy, Japan, and the United Kingdom to discuss international trade and security issues. Leaders from Australia, Brazil, India, Indonesia, South Korea and Vietnam were also in attendance. Policy actions to end the war in Ukraine took center stage. Key initiatives included new sanctions on exports of all items that are critical to Russia's war efforts. It is difficult to see how there are any effective sanctions that have not already been imposed. Success from added initiatives and sanctions is likely to be small at best.

- **ECB and Inflation** - The European Central Bank (ECB) may pause from interest rate increases, given lower inflation pressures. Overall, inflation in Europe has slowed to its lowest rate since the Russian invasion of Ukraine. Consumer prices for the 20 countries using the euro increased at a 6.1% annual rate in May compared to a 7% gain in April. Core inflation slowed to 5.3%, which is a four month low. The ECB still has a lot of work to do to reach its 2% inflation target. The deposit rate is 3.25% and the unemployment rate is 6.5%. The ECB increased interest rates from a minus 0.5% in July 2022 to 3.25% today. There will be additional rate increases unless the labor market weakens significantly going forward.

- **China** – China's economic recovery from its COVID shutdown has been very slow. First quarter 2023 growth was 4.5% from one year ago, a low rate for China. Deflation is a concern with flat consumer prices over the past few months. Domestic demand is weak in part due to a continuation of declining property values and a second wave of COVID. The second wave of COVID is expected to peak sometime toward the end of June. China's Purchasing Managers' Index (PMI) fell to 48.8 in May from 49.2 in April. A reading below 50 suggests a contraction. Finally, the Chinese yuan is trading at a lower rate relative to the U.S. dollar.