The U.S. economy has remained resilient through the first half of the year, despite significant headwinds from stubbornly high inflation, aggressive interest rates hikes and a number of high-profile bank failures. This resiliency probably will not last.

Consumer spending was strong in Q1, up 3.8% at an annual rate, after growing just 1% in Q4. A number of contributing factors supported spending at the start of the year, but these forces might wane in the back half of the year. For example, credit expanded by an annual rate of 9.6% in Q1. Households also continue to draw down pandemic-related excess savings. Since January 2022, monthly savings flows have been $73B lower than normal. This has enabled consumers to spend a higher share of disposable income. Excess savings reached $2.3T by August 2021 but are now down to $900B. Presuming consumers continue to spend excess savings at a comparable rate, the remaining excess savings will be depleted in about a year.

As it relates to spending, consumers continue to shift to services and away from goods. Retail sales rose a strong 0.3% in May. “Core” retail sales, which excludes volatile categories like autos, building materials, and gas stations, is up 4.4% over the last year. Spending at restaurants and bars is up 8% over the last year. Inflation-adjusted retail sales are down slightly from where they were two years ago, suggesting some of the growth in spending is a result of higher prices and not consumers buying more things.

The U.S. labor market also remains strong but might be showing some cracks. While the economy added a whopping 339,000 new jobs last month, the number of hours worked declined, suggesting there is less work to do. The unemployment rate moved higher because the household survey showed a decline in the civilian employment of 310,000 which could suggest small businesses are starting to shed workers. While workers are receiving higher wages, up 4.3% over the last year, consumer prices are up 4.9% over the same time. Wages gains are being lost to inflation.

The U.S. economy rose 1.3% (annualized) in Q1 and Q2 will likely record growth around 0.9%. But we
continue to believe that the second half will prove more difficult and we expect the economy to slip into recession. The New York Fed’s recession probability model is currently showing a 70% chance that the economy experiences a recession within the next 12 months. The current consensus calls for a minor, short-lived recession in the second half of 2023. While a U.S. recession appears imminent, it is hard to know with certainty that it will be short-lived.

Downward revisions in Europe pushed the economy down 0.1% in Q1. This follows a decline in Q4 of last year suggesting Europe did in fact slip into recession in the first half of the year. However, the results in Europe are mixed. Germany declined 0.3% in Q1 after declining 0.5% in Q4. Germany’s economy shrank 0.5% in the last year. Other economies have also experienced a contraction over the last year. Estonia’s economy is down 3.7% over the last year, Lithuania is down 2.7% and Hungary is off 1.1%. These countries have been hit by the Ukrainian conflict but are also being hit by higher interest rates that have quieted real estate markets. Many countries in Europe are still experiencing record levels of inflation. Hungary’s inflation rate is running at 21.9% while Estonia has seen prices rise 11.2% over the last year and prices in Lithuania are up 10.7% over the same time period. While these are down from earlier peaks, they remain high.

Some of the larger economies in Europe have remained strong despite headwinds. France grew 0.2% in Q1 and is up 0.9% in the last year. Spain rose 0.5% and is up 3.8% over the last year while Italy is up 1.9% over the same horizon.

Central Banks around the globe are likely to remain aggressive which will add downside risk to the outlook. In the U.S., the Federal Reserve “skipped” a rate hike in June but indicated further rate hikes were on the horizon. Twelve of eighteen participants at the meeting expect two or more additional rate hikes this year; one participant sees rates above 6%; four anticipate only one additional rate hike; only two do not anticipate any additional rate hikes this year. As Chairman Powell noted, “nearly all committee participants expect that it will be appropriate to raise interest rates somewhat further by the end of the year. But at this meeting, considering how far and how fast we’ve moved, we judged it prudent to hold the target range steady. … The committee will take into account the cumulative tightening of monetary policy, the lags with which monetary policy effects economic activity and inflation, and economic and financial developments,”

The Bank of England raised rates in June by 50 basis points, surprising many with an aggressive increase. Britain is being hit not only by a higher cost of living but also a shortage of workers and fast-rising wages. Currently, markets expect rates to rise to 6.25% by the end of the year. In Europe, the European Central Bank raised rates by a quarter point to 3.5% and signaled additional rate hikes are likely in the future.
U.S. OUTLOOK

ECONOMIC GROWTH
Real GDP growth for Q1 was revised higher by two-tenths of a percentage point to 1.3% annualized. Consumer spending remained the key driver of growth, increasing 3.8% during the quarter. Business investment was stronger than previously reported, rising 1.4% versus 0.7%. Net exports were revised down as was residential construction. “Core” GDP, which includes consumer spending, business investment, and home building, rose 3% (annualized) during the quarter. GDP inflation was also revised higher to 4.2% annual rate in Q1. Inflation remains stubbornly high.

<table>
<thead>
<tr>
<th></th>
<th>2023 ECONOMIC GROWTH (GDP % Change)</th>
<th>2024 ECONOMIC GROWTH (GDP % Change)</th>
<th>2023 EXCHANGE RATE (v. USD)</th>
<th>2024 EXCHANGE RATE (v. USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNITED STATES</td>
<td>1.2%</td>
<td>0.7%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CANADA</td>
<td>1.1%</td>
<td>1.2%</td>
<td>1.33</td>
<td>1.29</td>
</tr>
<tr>
<td>MEXICO</td>
<td>2.0%</td>
<td>1.5%</td>
<td>18.66</td>
<td>19.51</td>
</tr>
<tr>
<td>EURO AREA</td>
<td>0.7%</td>
<td>1.2%</td>
<td>1.11</td>
<td>1.13</td>
</tr>
<tr>
<td>CHINA</td>
<td>5.6%</td>
<td>4.9%</td>
<td>6.78</td>
<td>6.53</td>
</tr>
</tbody>
</table>

EMPLOYMENT
U.S. nonfarm payrolls added a sharp 339,000 new jobs in May. Payroll gains for March and April were also revised higher by 93,000 for a total net gain of 432,000 new jobs. The largest increases were professional and business services (+64,000) and healthcare (+75,000). Government added 56,000 jobs and manufacturing shed 2,000 jobs in May. The unemployment rate rose from 3.4% to 3.7%, suggesting tight labor markets are starting to soften. Civilian employment fell 310,000 during the month, though this series can be volatile month-to-month. It could be a sign that small businesses are trimming their workforce. Aggregate hours also fell 0.1% during the month.
SENTIMENT
Consumer sentiment rose 8% in the first half of June, hitting its highest point in four months. The short-run economic outlook surged 28% and the long-run outlook rose 14%. The rise was driven in part by greater optimism on inflation and a resolve on the debt ceiling. Sentiment is 28% above the historic low level from a year-ago, but remains subdued compared to historic levels. Year-ahead inflation expectations declined for the second consecutive month, falling to 3.3% in June from 4.2% in May. The current reading is the lowest since March 2021.

TRADE-WEIGHTED U.S. DOLLAR INDEX
The dollar drifted lower through the first part of June but regained some ground in the second half of the month as the demand for safe-haven assets rose. The Fed decided to skip a rate hike in June while other central banks like the UK and ECB raised rates this month. China’s renminbi fell to a seventh-month low against the dollar over concerns of slowing domestic growth in China as well as shrinking exports. The Fed will likely raise rates at least twice more this year which should continue to bolster the dollar.

MANUFACTURERS’ SENTIMENT (PMI)
U.S. manufacturing sentiment was mixed last month. Overall, the manufacturing PMI fell marginally, contracting for the seventh consecutive month in May. In positive news, the Production Index rose for a second consecutive month, moving into expansionary territory for the first time this year. The Employment Index also rose for a second consecutive month. However, the New Orders Index declined to 42.6, the ninth consecutive month in contraction. Continued weak new order flow will likely negatively impact production schedules in the coming months. The Prices Index fell sharply. There was a notable improvement in manufacturing lead times during the same period.
U.S. END MARKETS FOR ELECTRONICS

U.S. industrial production fell 0.2% in April, though revisions to prior months offset the decline. The manufacturing sector rose 0.1% during the month.

AUTOMOTIVE PRODUCTS
Auto production rose 0.2% during the month. Non-auto manufacturing rose 0.1%. Auto production is up 10% in the past year and non-auto manufacturing is down 1.1%.

TRANSIT EQUIPMENT
Transit equipment production rose 2.1% during the month. The sector is up 7% over the last year.

INFORMATION PROCESSING & RELATED EQUIPMENT
Production in the information processing and related equipment sector fell 0.8% during the month. The sector is down 3.2% over the last year.

INDUSTRIAL & OTHER EQUIPMENT
The industrial sector was down 0.7% last month. The sector is down 0.6% over the last year.

DEFENSE & SPACE EQUIPMENT
The defense and space equipment segment rose 2%. The sector is up 1.2% over the last year.
**Business Transit Equipment (Y/Y % Change)**

![Graph showing Business Transit Equipment (Y/Y % Change) from 1999 to 2023 with specific years marked and percentage changes indicated.]

**Information Processing & Related Equipment (Y/Y % Change)**

![Graph showing Information Processing & Related Equipment (Y/Y % Change) from 1999 to 2023 with specific years marked and percentage changes indicated.]

**Industrial & Other Equipment (Y/Y % Change)**

![Graph showing Industrial & Other Equipment (Y/Y % Change) from 1999 to 2023 with specific years marked and percentage changes indicated.]

**Defense & Space Equipment (Y/Y % Change)**

![Graph showing Defense & Space Equipment (Y/Y % Change) from 1999 to 2023 with specific years marked and percentage changes indicated.]

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Recession

Industrial Production: Business Transit equipment (Y/Y % Change)

12 per. Mov. Avg. (Industrial Production: Business Transit equipment (Y/Y % Change))

Industrial Production: Industrial and other equipment (Y/Y % Change)

12 per. Mov. Avg. (Industrial Production: Industrial and other equipment (Y/Y % Change))

Industrial Production: Information processing and related equipment (Y/Y % Change)

12 per. Mov. Avg. (Industrial Production: Information processing and related equipment (Y/Y % Change))

Industrial Production: Defense and space equipment (Y/Y % Change)

12 per. Mov. Avg. (Industrial Production: Defense and space equipment (Y/Y % Change))
Overall capacity utilization fell to 79.6% in May. Manufacturing capacity was unchanged at 78.4% in May. Computer and electronic production capacity utilization fell 1.2% to 67.3%. Electrical equipment, appliances and components utilization rose 1.2% to 79.5%. Utilization in the auto sector rose 0.1% to 78%. Capacity utilization in the aerospace and miscellaneous transportation equipment sector rose to 68.2%.
ECONOMIC GROWTH
The European economy fell during the first quarter of the year, edging down 0.1% in the euro area, but rising 0.1% in the EU. The economy is up 1.0% in both the Euro area and the EU compared to the first quarter of last year. Poland recorded the highest increase compared to last quarter, growing 3.8%. Luxembourg rose 2%, Portugal rose 1.6%, and Croatia was up 1.4%. The Netherlands fell 0.7%, Austria declined 0.3%, and Ireland fell 2.7%. Hungary, Lithuania, Estonia, Ireland, and Germany all recorded two consecutive quarters of negative GDP growth, an often used barometer that indicates recession.

EUROPEAN OUTLOOK

<table>
<thead>
<tr>
<th>Q/Q PERCENTAGE CHANGE</th>
<th>Y/Y PERCENTAGE CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022Q2</td>
<td>2022Q4</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>EURO AREA (20)</td>
<td>0.8%</td>
</tr>
<tr>
<td>EUROPEAN UNION (EU)</td>
<td>0.7%</td>
</tr>
<tr>
<td>GERMANY</td>
<td>-0.1%</td>
</tr>
<tr>
<td>FRANCE</td>
<td>0.5%</td>
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<tr>
<td>ITALY</td>
<td>1.0%</td>
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<td>SPAIN</td>
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<td>GERMANY</td>
<td>-0.1%</td>
</tr>
<tr>
<td>FRANCE</td>
<td>0.57%</td>
</tr>
<tr>
<td>NETHERLANDS</td>
<td>1.0%</td>
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</table>
EMPLOYMENT
The unemployment rate for the euro area fell one-tenth of a percentage point to 6.5% in April and the EU unemployment rate held steady at 6%. Unemployment in Europe is at the lowest levels in 30 years. Czechia saw its unemployment rate increase to 2.7%, but remains the lowest in Europe. Poland also recorded 2.7% unemployment. Germany recorded 2.9% unemployment. Germany’s unemployment rate remains extremely low despite two consecutive quarters of negative growth. Tight labor markets might lead to pay increases which could set-up a difficult challenge for the ECB as it works to contain inflation. In the first quarter of 2023, the job vacancy rate was 3.0% in the euro area.

MANUFACTURERS’ SENTIMENT (PMI)
The eurozone manufacturing PMI fell to 44.8 in May, a 36-month low and the 11th consecutive month the index has fallen below 50, separating contraction and expansion. New orders fell to the greatest extent in six months. Backlogs fell strongly in May, suggesting manufacturers are working through their backlogs in the face of weak new orders. Suppliers’ delivery times shortened further this month as space capacity rises. Eurozone manufacturing input costs also fell at the fastest rate since February 2016 amid falling energy costs and declining pricing power.
**E.U. END MARKETS FOR ELECTRONICS**

Manufacturing output appears to have risen in April, up 3.7% from the prior month and 1.3% from the year-ago period.

**COMPUTER, ELECTRONIC, & OPTICAL PRODUCTS**

The electronics industry, which includes categories such as components, loaded boards, computers, communications equipment, and consumer electronics, rose 54.1% (month-on-month) in the last month. The sector is up 15% over the last year.

**MOTOR VEHICLES**

Motor vehicle manufacturing output declined 3.2% (month-on-month) during March. The sector is up 49.4% over the last year.

**AIR & SPACECRAFT & RELATED MACHINERY**

The air and spacecraft manufacturing sector rose 1.3% in April. The sector is up 12.8% over the last year.

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**E.U. Manufacturing Output**

**E.U. Manufacture of Motor Vehicles**
E.U. Manufacture of Computer, Electronic & Optical Products (Y/Y % Change)

European Union Manufacture of computer, electronic and optical products
[Y/Y % Change]
12 per. Mov. Avg.

E.U. Manufacture of Air & Spacecraft & Related Machinery (Y/Y % Change)

European Union Manufacture of air and spacecraft and related machinery
[Y/Y % Change]
12 per. Mov. Avg.