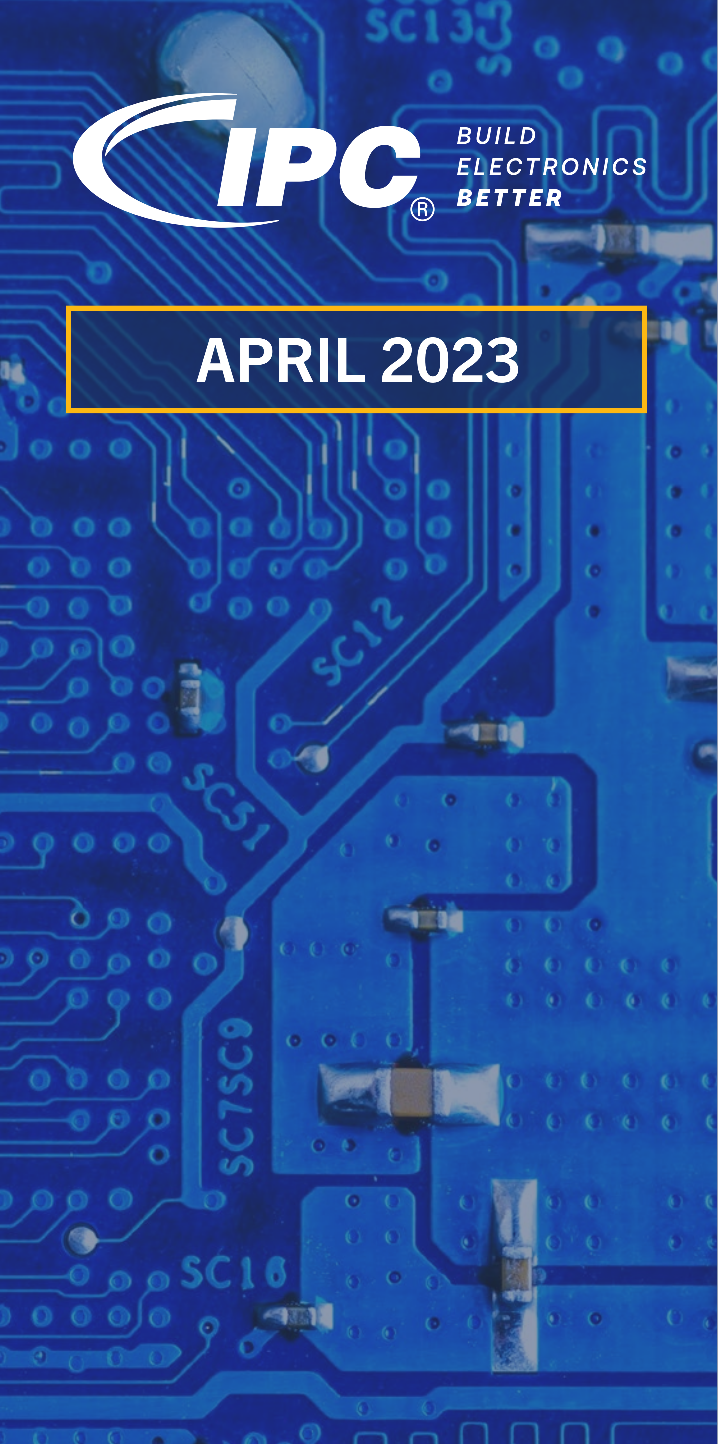

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ECONOMIC OUTLOOK

All eyes will be on the Federal Reserve and the European Central Bank (ECB) in the coming weeks. Both are scheduled to raise interest rates at their respective meetings in May. The Federal Reserve is largely expected to raise rates by 25 basis points. Many believe this will be their last rate increase and mark the end of the tightening cycle. Right now, the futures market suggests little chance of a rate increase at any of the five remaining meetings in 2023. In fact, the financial markets suggest a 99% chance of a rate cut by the end of the year, with the highest probability being a cumulative 75 basis point cut, starting in the third quarter and the end of the year.

I am less sanguine than others. I believe there should be some expectation of at least one additional rate hike in 2023 and a lower probability of rate hikes later in the year. The labor market remains tight and the other forces keeping the Fed on guard are showing little sign of abating in a meaningful way. Yes, the banking crisis continues with the collapse of First Republic Bank which will add further pressure to the banking system. Bank lending standards were already tightening in the aftermath of the collapse of Silicon Valley Bank and are set to tighten further but we haven't yet seen the kind of weakness in the labor market that would cause the Fed to cut rates.

In Europe, the ECB is largely expected to raise rates by 25 basis points to 3.25% at its next meeting in May. But a 50 basis point increase is also on the table. A smaller increase would suggest a moderation in the ECB's rapid rate increases over the last year and a larger move would be an indication of underlying inflation concern. The ECB will likely raise rates at least once more during the year. Market pricing suggests a terminal rate of 3.6% this year, though some European central bankers suggest the terminal rate could land above 4%.

Inflation rates remain stubbornly high in both Europe and the U.S. The euro area annual inflation rate was 6.9% in March 2023, down from 8.5% in February. In the EU, annual inflation was 8.3% in March 2023, down from 9.9% in February. In Europe, consumer prices jumped 7% in April compared to a year-ago in the 20 countries that use the euro. This is up from the 6.9% rise in March. One of the forces keeping pressure on inflation is tight labor markets. Recently, Germany's public sector workers arranged a generous wage deal which could be a benchmark for other wage deals taking place in 2023.

In the U.S., the core Personal Consumption Expenditures Price Index, which excludes food and energy costs, rose at a 4.9% annualized rate in the first quarter — a quicker pace than the previous two quarters, though slower than a year ago. The Employment Cost Index also rose faster than expected. Private sector wages and salaries are up 5.1%.

While inflation remains stubbornly high, economic growth is slowing. The base case scenario for the U.S. right now suggests a recession in the middle two quarters of the year, though growth expectations for the year have improved somewhat since the start of the year. Businesses appear to be increasingly bracing for a recession. Business investment was relatively subdued last quarter and companies are managing inventory levels closely.

Supply constraints are easing everywhere which on the surface looks like a good thing. But it likely also means that backlogs will wane in the second half of the year. In the absence of new demand, output will likely be weak as a result. The U.S. economy should grow about 1.2% this year, but growth in the back half of the year will be weak. Germany recently raised its economic growth forecast for the year to 0.4%, up from the previous 0.2%, but the environment in both the U.S. and Europe remains persistently difficult. It remains uncertain how sharply higher interest rates will fully impact the economy.

0.3%

Personal income rose 0.3% in March and is up 6% in the past year.

2.8%

The IMF is projecting global economic growth of 2.8% in 2023 and just 3% over the next five years.

1.4B

The United Nations estimates India has surpassed China as the world's most populous country.

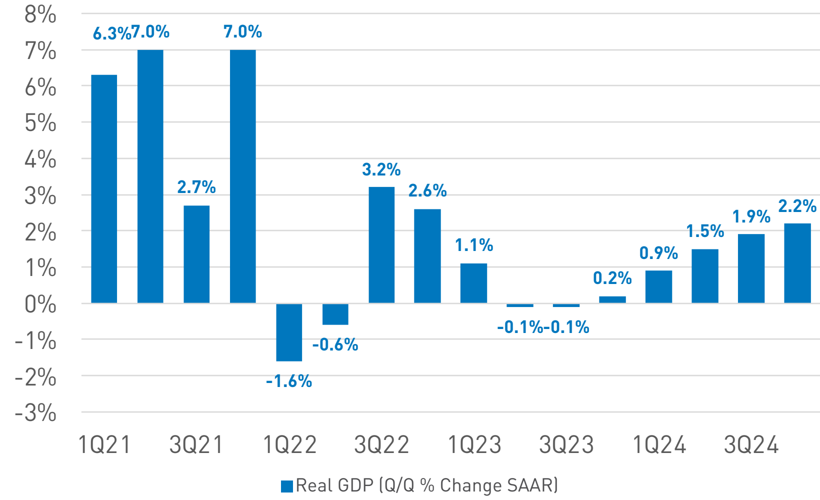
4.5%

China's economy grew 4.5% in Q1 on a pick-up in consumption and industrial production.

U.S. OUTLOOK

ECONOMIC GROWTH

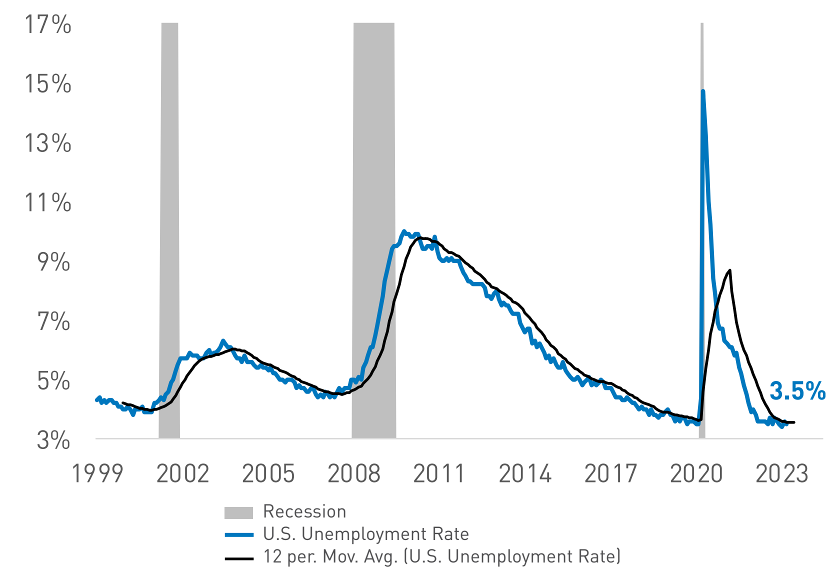
The U.S. economy grew 1.1% in the first quarter, coming in below an expected rise of 1.9%. However, the headline number masks underlying strength in the economy. Consumer spending for the quarter was a strong 3.7%. Spending on goods rose 6.5%, led by a whopping 16.9% rise in spending on consumer durables. Federal government spending rose 7.8%, driven by a 10.3% growth in nondefense spending and a 5.9% rise in defense-related expenditures. Business fixed investment grew only 0.7%, suggesting businesses are limiting investment as they brace for an economic slowdown. Inventory investment removed 2.3 percentage points of growth from first quarter GDP suggesting firms are also tightly controlling inventory in the face of recession uncertainty.



	2023 ECONOMIC GROWTH (GDP % Change)	2024 ECONOMIC GROWTH (GDP % Change)	2023 EXCHANGE RATE (v. USD)	2024 EXCHANGE RATE (v. USD)
UNITED STATES	1.2%	0.9%	N/A	N/A
CANADA	0.7%	1.5%	1.32	1.28
MEXICO	1.2%	1.6%	19.44	20.25
EURO AREA	0.5%	1.2%	1.11	1.15
CHINA	5.3%	5.1%	6.77	7.01

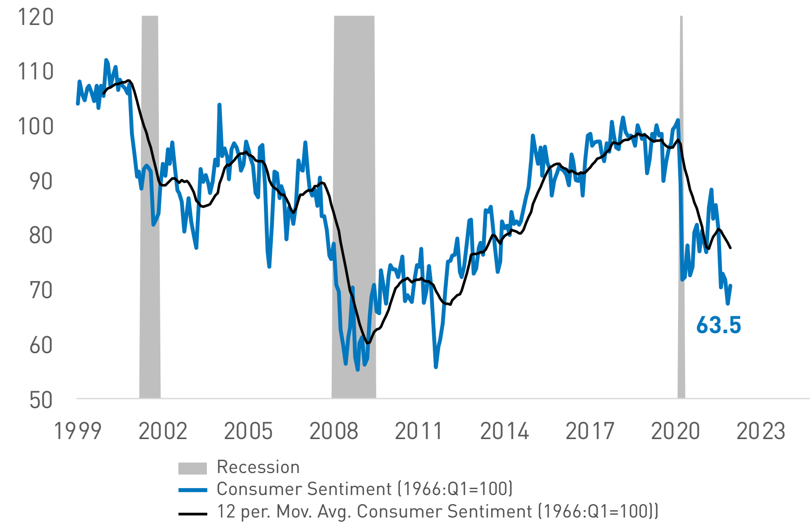
EMPLOYMENT

March delivered another strong month of job gains. The U.S. economy added 236,000 new jobs in March. This is down from a monthly average of 333,000 new jobs over the previous six months but continues to exceed the monthly average gains of 163,000 jobs in 2019. Leisure and hospitality added 72,000 jobs, followed by education and health services (+65,000), and professional and business services (+39,000). The construction sector cut 9,000 jobs and manufacturing shed 1,000 jobs. The unemployment rate ticked down one-tenth to 3.5%. The labor force increased 480,000 jobs, raising the participation rate to 62.6%, the highest since March 2020. In negative news, the total number of hours worked slipped 0.1%, suggesting businesses are giving their workers less work to do.



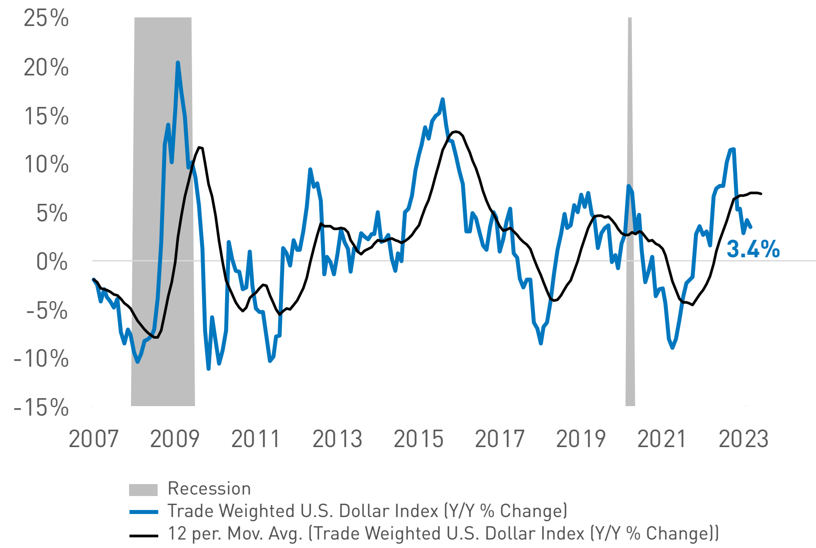
SENTIMENT

The Index of Consumer Sentiment rose slightly last month. Sentiment rose 2.4% in April, but remains down 2.6% from a year ago. Consumer expectations toward short and long-run economic outlook improved in the last month. At the same time, consumers were less optimistic about their personal finances, due in part to higher expenses. Consumers did report better buying conditions for durables, primarily on the basis of improving perceptions around affordability.



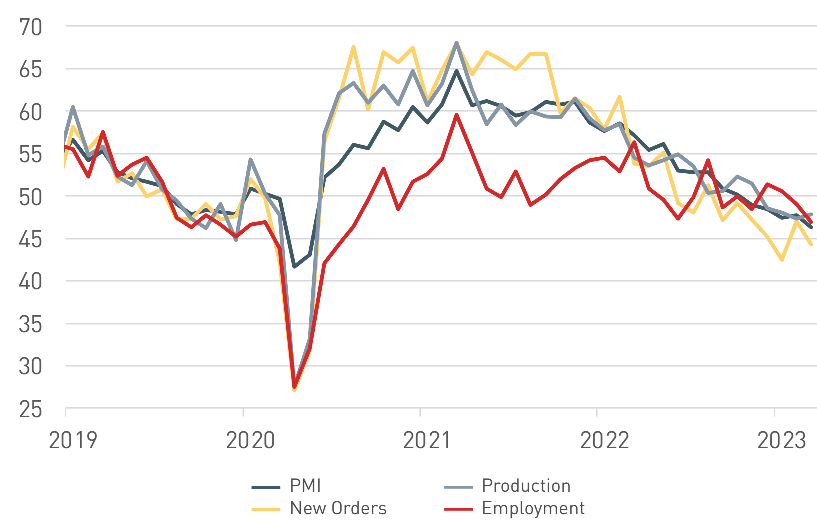
TRADE-WEIGHTED U.S. DOLLAR INDEX

The dollar's value has changed little over the past month. In the last month, both hawkish and dovish data have exerted pressure on the dollar. Investors seem to be waiting for the Federal Reserve's next meeting in May. Inflation data has come in higher than expected which lends support to the dollar because it reaffirms the market's view that the Fed will raise rates another 25 basis points in May. Right now the futures market suggests there is a 93% probability that the Fed will raise rates in May. JPMorgan Chase's acquisition of First Republic Bank reaffirms market fears which in turn will likely benefit the dollar in the short-run.



MANUFACTURERS' SENTIMENT (PMI)

U.S. manufacturing sentiment contracted for the fifth consecutive month in April. The manufacturing PMI rose 0.8 percentage points in the last month, but not enough to move back into expansionary territory. Likewise, the New Orders Index and the Production Index both rose in the last month, but both remain in contractionary territory. Companies are likely limiting production to better meet lower levels of demand. At the same time, manufacturers also reported a weaker Backlog of Orders Index, suggesting they are successfully working through residual backlog orders. The Employment Index edged back into expansionary territory, suggesting some firms are using a broader slowdown to hire workers in advance of a potential recovery.



U.S. END MARKETS FOR ELECTRONICS

U.S. industrial production rose 0.5% in March, though the details were relatively weak. The manufacturing sector declined 0.5% during the month and the only major category to report gains during the month was the utility sector, but results for this sector can be volatile and are largely a result of weather. Upward revisions to data for January and February suggest economic activity was stronger than previously believed despite the relatively subdued March results.

AUTOMOTIVE PRODUCTS

Auto production fell 1.5% during the month and non-auto manufacturing was down 0.5%. Auto production is up 1.9% in the past year.

TRANSIT EQUIPMENT

Transit equipment production fell 1.3% during the month. The sector is up 6.7% over the last year.

INFORMATION PROCESSING & RELATED EQUIPMENT

Production in the information processing and related equipment sector fell 1.3% during the month. The sector is down 0.8% over the last year.

INDUSTRIAL & OTHER EQUIPMENT

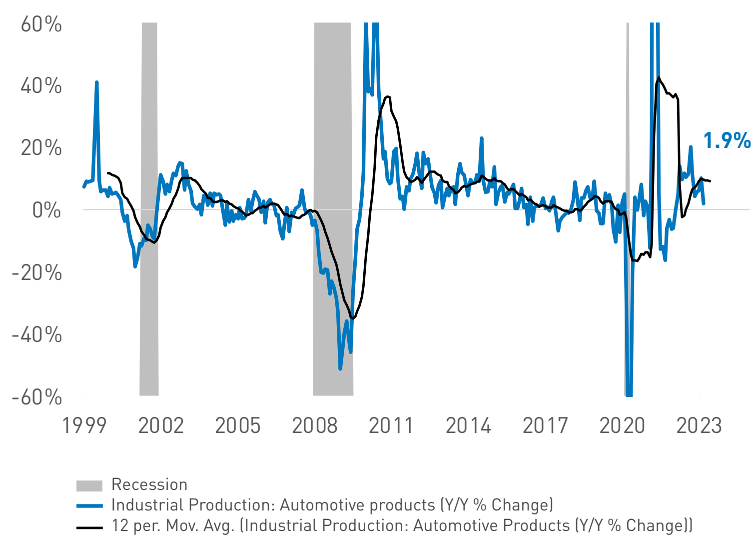
The industrial sector fell 0.8% during the last month. The sector is still up 0.2% over the last year.

DEFENSE & SPACE EQUIPMENT

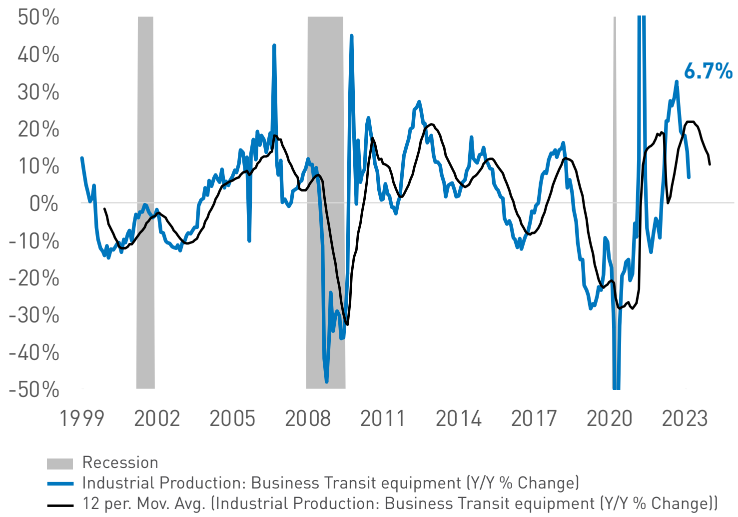
The defense and space equipment segment rose 0.8% to another new all-time high. The sector is up 2.0% over the last year.

Manufacturing

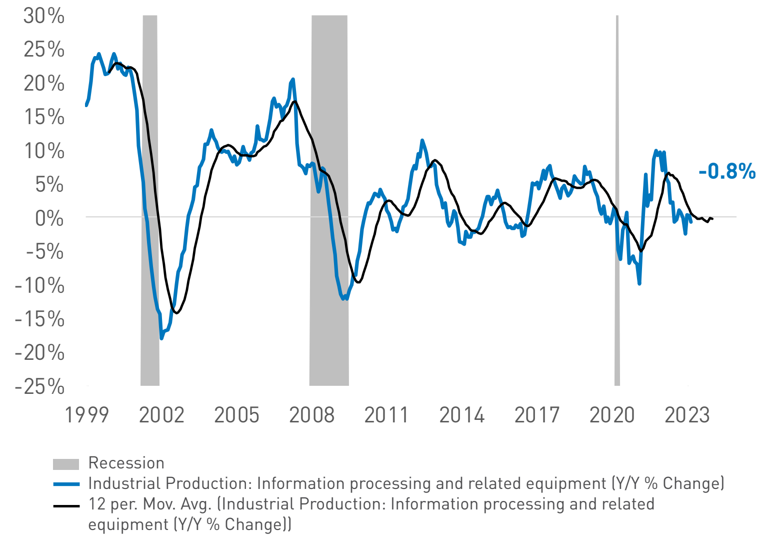
Automotive Products



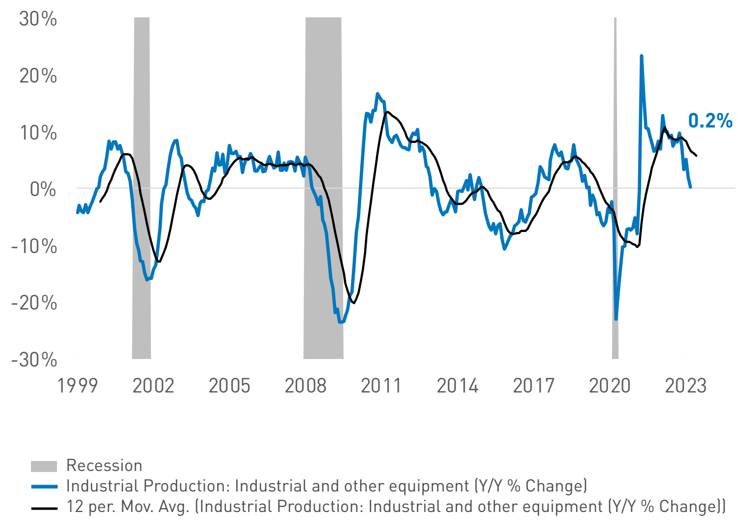
Business Transit Equipment (Y/Y % Change)



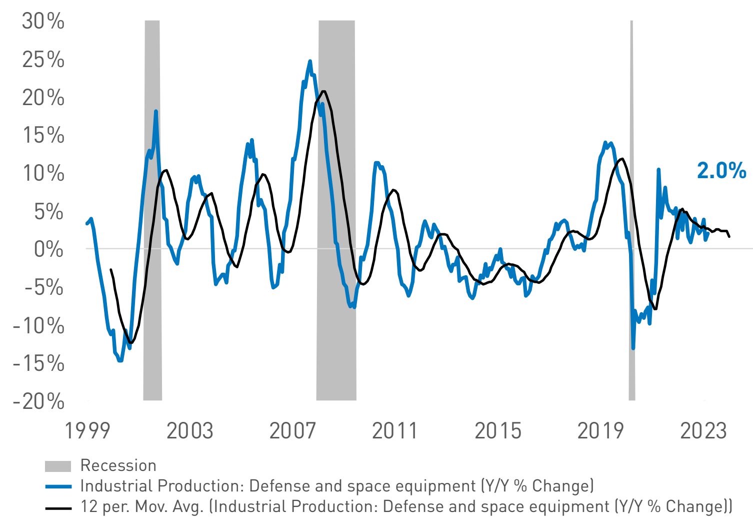
Information Processing & Related Equipment (Y/Y % Change)



Industrial & Other Equipment (Y/Y % Change)



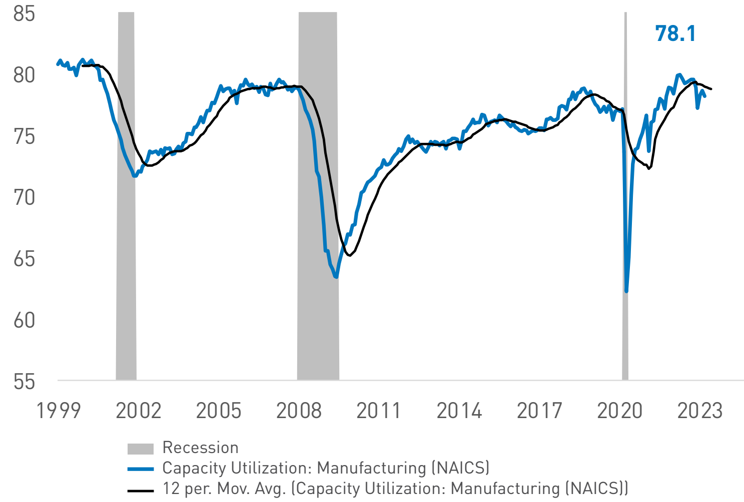
Defense & Space Equipment (Y/Y % Change)



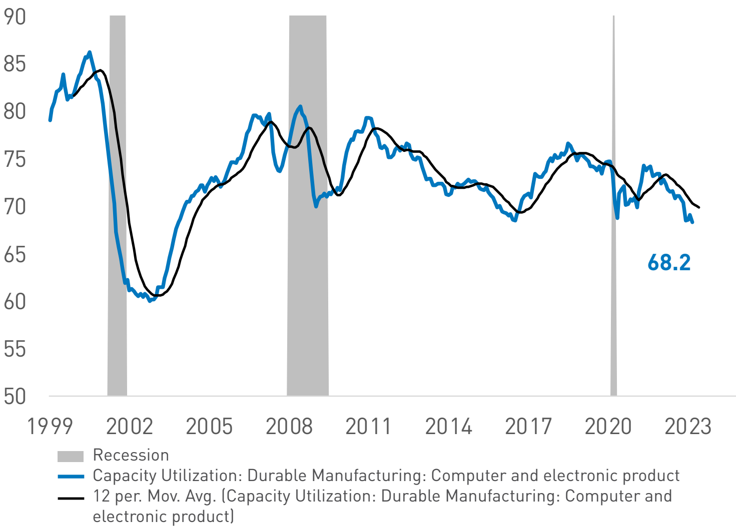
MANUFACTURING CAPACITY UTILIZATION

Overall capacity utilization rose to 79.8% in March from 79.6% in February. Manufacturing capacity fell to 78.1% in March from 78.6%. Computer and electronic production capacity utilization fell to 68.2%. Electrical equipment, appliances and components utilization fell 1.8% to 76.5%. Utilization in the auto sector fell 1.7% to 71.6%. Capacity utilization in the aerospace and miscellaneous transportation equipment sector declined to 67.6%.

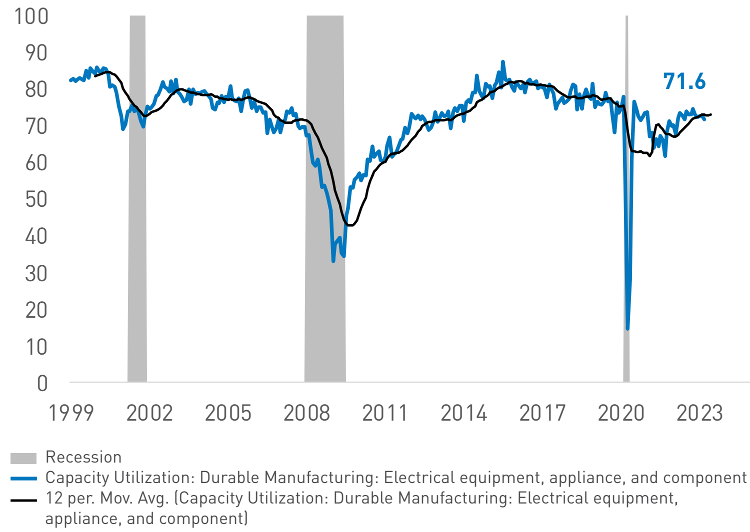
Manufacturing (NAICS)



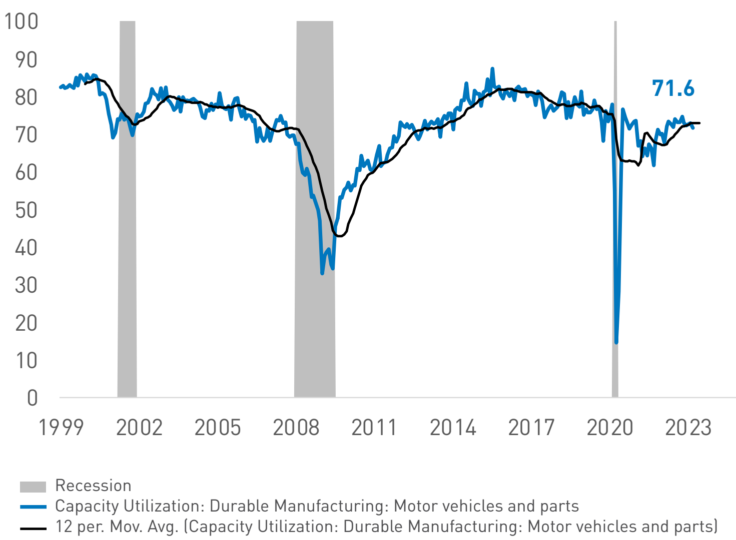
Computer & Electronic Product



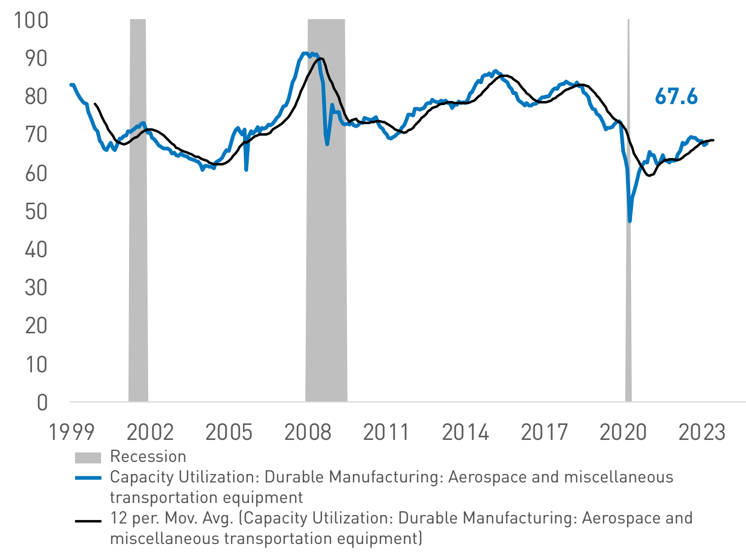
Electrical Equipment, Appliance, & Component



Motor Vehicles & Parts



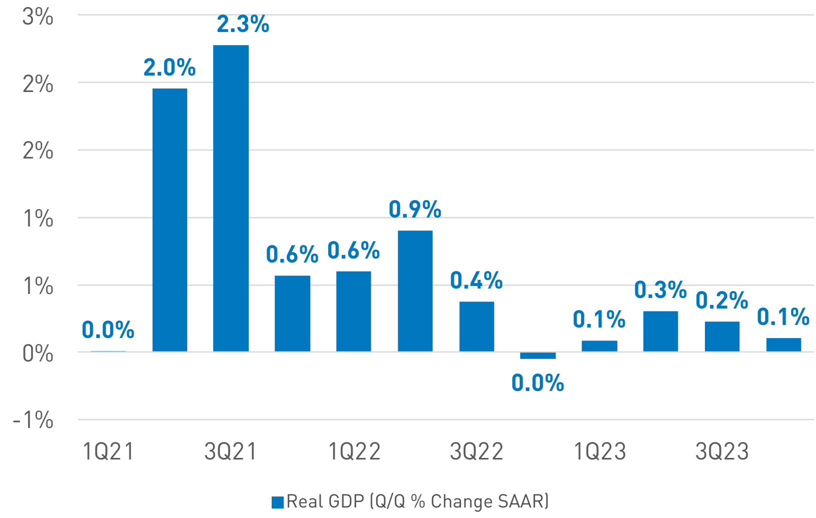
Aerospace & Miscellaneous Transportation Equipment



EUROPEAN OUTLOOK

ECONOMIC GROWTH

The European economy grew during the first quarter of the year, edging up 0.1% in the euro area and up 0.3% in the EU. The economy is up 1.3% in both areas compared to the first quarter of last year. Portugal recorded the highest increase compared to last quarter, growing 1.6%. Spain, Italy, and Latvia each grew 0.5%. Austria declined 0.3% and Ireland fell 2.7%. Germany avoided dipping into recession with flat growth following a decline of 0.5% last quarter. Germany's economy is roughly inline with its pre-pandemic levels while other economies like Italy and France, are both well above that mark. Germany was the only country to report year-over-year contraction for the first quarter.

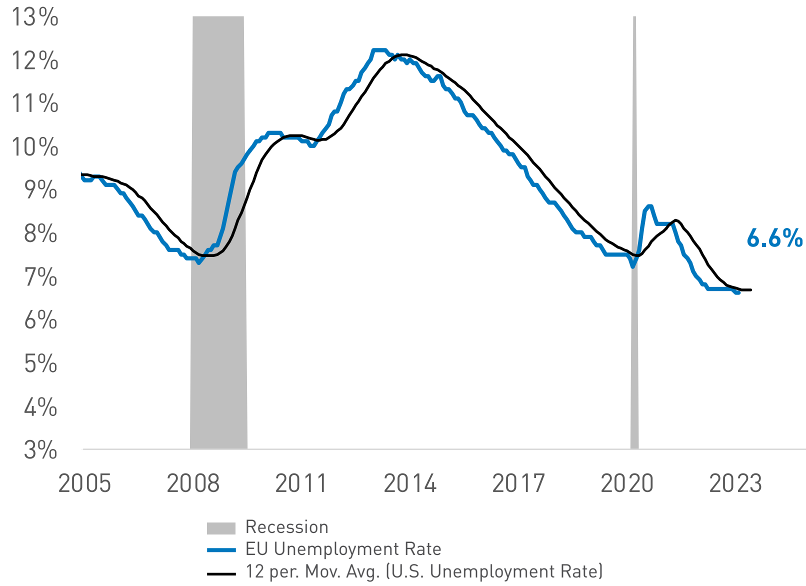


	Q/Q PERCENTAGE CHANGE				Y/Y PERCENTAGE CHANGE			
	2022Q2	2022Q2	2022Q4	2023Q1	2022Q2	2022Q3	2022Q4	2023Q1
EURO AREA	0.9%	0.4%	0.0%	0.1%	4.4%	2.5%	1.8%	1.3%
EU (27)	0.7%	0.4%	-0.1%	0.3%	4.4%	2.6%	1.7%	1.3%
GERMANY	-0.1%	0.5%	-0.5%	0.0%	1.7%	1.4%	0.8%	-0.1%
FRANCE	0.5%	0.1%	0.0%	0.2%	4.2%	1.0%	0.4%	0.8%
ITALY	1.1%	0.4%	-0.1%	0.5%	5.1%	2.5%	1.4%	1.8%
SPAIN	2.5%	0.4%	0.4%	0.5%	7.7%	4.8%	2.9%	3.8%

	2023 ECONOMIC GROWTH (GDP % CHANGE)	2024 ECONOMIC GROWTH (GDP % CHANGE)
EURO AREA	0.5%	1.2%
GERMANY	0.1%	1.2%
FRANCE	0.5%	1.1%
NETHERLANDS	0.8%	1.3%

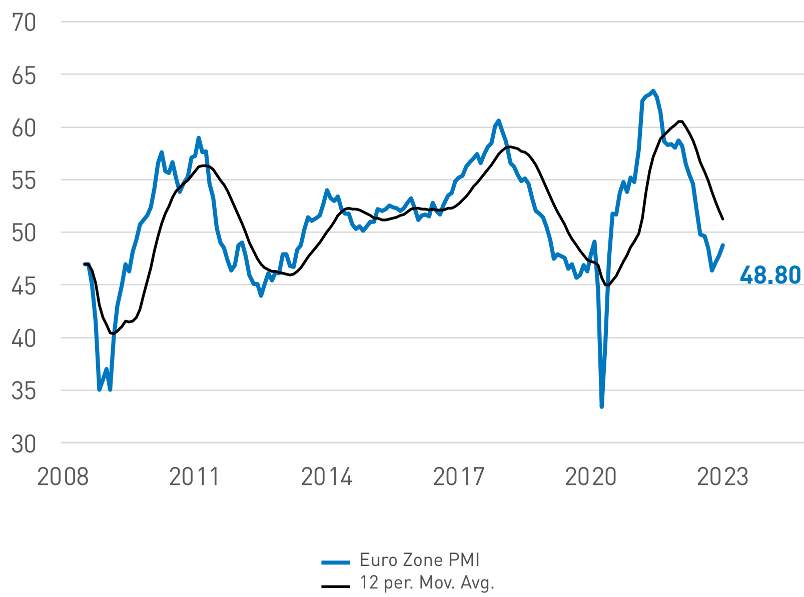
EMPLOYMENT

The unemployment rate for the euro area fell one-tenth of a percentage point to 6.6% in February and the EU unemployment rate fell to 6%. Unemployment in Europe is at the lowest levels in 30 years. Czechia saw its unemployment rate drop to 2.4%, the lowest in Europe. Poland and Germany follow at 2.8% and 2.9% respectively. Germany's unemployment rate has edged higher in April, as the sluggish economy might finally be exerting influence over the labor market. The slowdown in economic growth is pushing jobless claims higher.



MANUFACTURERS' SENTIMENT (PMI)

Manufacturing production rose across the euro area in March. While relatively muted, this was the strongest reading of the Eurozone Manufacturing Output Index since May 2021. Manufacturers also report that supply chain constraints are improving. Eurozone manufacturers recorded a decline in average input prices during the month for the first time since the early months of 2020. The S&P Global Eurozone Manufacturing PMI fell to 47.3 in March, a four-month low. Despite the decline, the major sub-components of the index like output, new orders, and employment were little changed during the month.



E.U. END MARKETS FOR ELECTRONICS

Manufacturing output rose in February, increasing 1.3% from the prior month and 2.9% 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 2.3% (month-on-month) in February. The sector is up 12.9% over the last year.

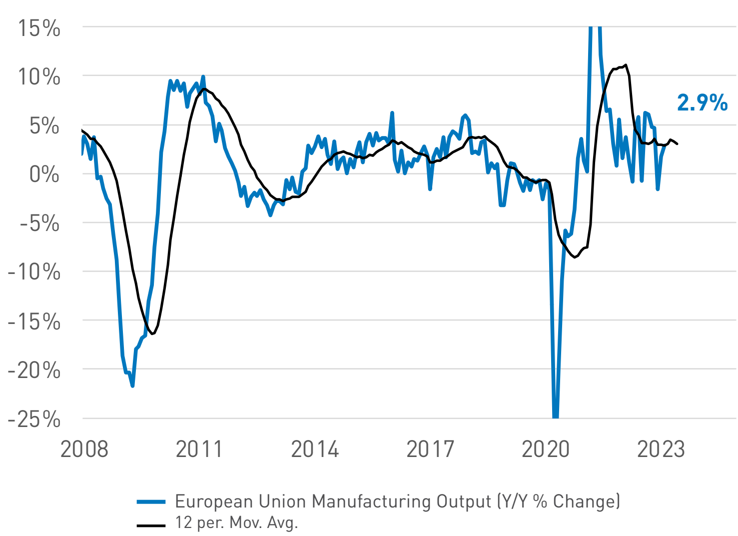
MOTOR VEHICLES

Motor vehicle manufacturing output rose 7.3% (month-on-month) during February. The sector is up 25.7% over the last year.

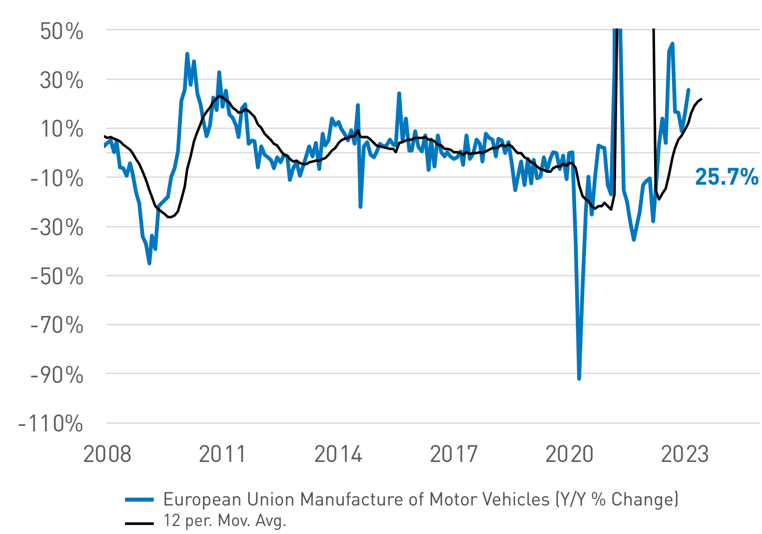
AIR & SPACECRAFT & RELATED MACHINERY

The air and spacecraft manufacturing sector rose 5.7% in February. The sector is up 14.1% over the last year.

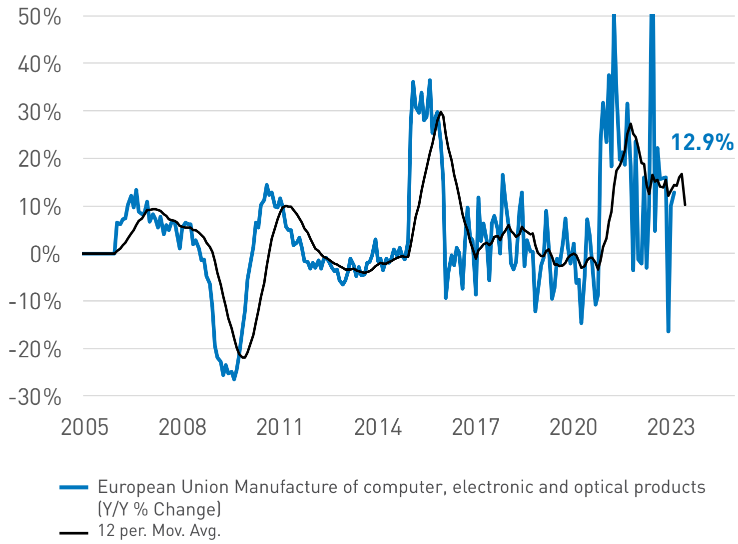
E.U. Manufacturing Output



E.U. Manufacture of Motor Vehicles



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



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