

JUNE 2021

SHAWN DUBRAVAC, PHD
CHIEF ECONOMIST
shawndubravac@ipc.org

ECONOMIC OUTLOOK

The global economic recovery is accelerating as vaccination rates increase and countries fully open their economies. We've raised our forecasts for growth for a number of countries including the United States, Europe, Mexico, Australia and Taiwan just to name a few. Some areas of the world continue to struggle, and we've lowered growth estimates for Japan, India, Indonesia and Turkey. Overall, we expect the global economy to expand 6.1 percent in 2021 and a further 4 percent in 2022.

The underlying theme of our forecast remains intact. Stimulus has fueled consumption and added significantly to household savings, which will continue to fuel demand over the next year. As economies reopen, employers are competing for workers, which is helping to drive wages higher. This too will help drive consumption. But significant demand, developing quickly, is driving prices higher. While price increases look temporary, they could change. In the short-run, excess savings and increasing wages will help blunt the pain of higher prices.

Our growth outlook is driven in part by the path of vaccination rates and the trajectory of COVID. In Europe, the economy shrank less than previously expected in the first quarter, and the outlook for growth is improving. Europe had a delayed vaccination rollout but will soon have administered at least one dose to 50 percent of the population. The European Union is aiming to have 70 percent of the adult population vaccinated by mid-July and, if achieved, will likely surpass the United States. In the United States, roughly 54 percent of the population has received one dose, though vaccination rates are slowing. In the United Kingdom, more than 64 percent of individuals have received at least one dose. In China, some 20 million people are being vaccinated daily, accounting for a staggering 60 percent of all vaccines being administered globally. India recently announced they have administered over 320 million vaccinations, though that is only 4 to 5 percent of the population.

As economies reopen and demand accelerates, supply chains have struggled to keep up. Shortages have impacted manufacturing and construction. Transportation bottlenecks and delays have further hindered production and consumption. Lead times have lengthened significantly and backlogs have grown. Looking at IPC's own book-to-

bill metrics shows we too haven't been able to keep shipments inline with orders.

Businesses have been unable to fully staff, and even with lucrative hiring incentives, jobs remain open. The quit rate — a good proxy for worker optimism — has never been this high. This will also make it difficult, and expensive, to hang on to existing workers.

Businesses are responding to shortages in part by investing in equipment and machinery, which could help drive worker productivity in the future and perhaps usher in the long touted factory of the future. Capital goods orders and shipments have accelerated in recent months, suggesting fixed investment will be strong in the coming year. Businesses are also reexamining their inventory management and supply chain tactics. This could mean more investment in warehouses and other distribution technologies. The Architecture Billings Index, which leads nonresidential construction spending by about a year, recently rose to the highest level in a decade.

It isn't just manufacturing that is being impacted by shortages and higher prices. Low mortgage rates have accelerated demand for home sales, but existing home sales have actually been drifting down as the result of very low inventory levels. New home sales have also declined in recent months, likely the result of high building costs that have kept home building in check.

Supply challenges and strong demand have helped fuel an increase in prices. Transportation costs were already elevated. Businesses are now seeing labor costs go up. Commodity prices are up across the board. The producer price index was up 8.9 percent

in the first quarter. It will likely rise 5.7 percent in the second quarter and 3.1 percent in the third quarter and recede to more normal levels of 2.2 percent by the end of the year.

Businesses have been able to pass on some costs but not all of the costs they are incurring. Operating margins set a record in the first quarter. It will be difficult for companies to match that when costs are high and disruptions abound. Moreover, higher prices will likely curtail some purchases as buyers take a wait-and-see approach.

In response to economies accelerating, a number of central banks around the world are already moving to normalize monetary policy. The Bank of England and the Bank of Canada have slowed asset purchases. Norway's Norges Bank plans to raise rates in the back half of 2021, likely the first G20 Central Bank to do so. But others won't be far behind. The Fed reiterated its commitment to remaining patient and left asset purchase programs unchanged, but FOMC members did indicate they see rate hikes in 2023 while previously they didn't expect to move near-zero rates higher before 2024.

There remain outsized risks. The highly contagious delta variant is spreading. While two earlier Public Health England studies suggest current vaccines are very effective against the variant, the risk that this variant, or a still unknown variant, throttles the recovery is key to watch right now. Moreover, variants are likely to spread in emerging economies before they can get the vaccine, suggesting growth rates could diverge between emerging markets and developed economies.

3.3%

The rate of inflation continues to accelerate and is now expected to increase 3.3 percent in the United States this year.

6.1%

The Global economy is now expected to grow 6.1 percent in 2021 and a further 4 percent in 2022.

2.4%

Japan is set to grow 2.4 percent this year, the softest growth among the major developed economies.

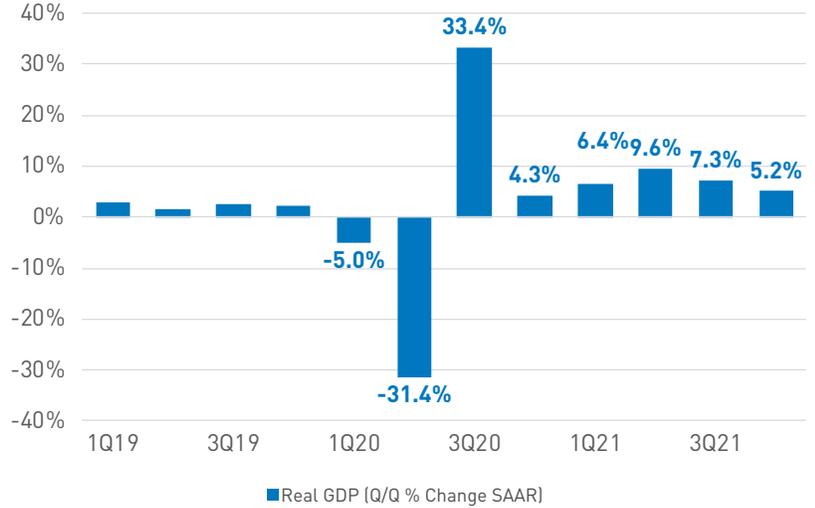
4.2%

Europe's economy performed better than expected in the first quarter, and we expect the region to grow 4.2 percent in 2021.

U.S. OUTLOOK

ECONOMIC GROWTH

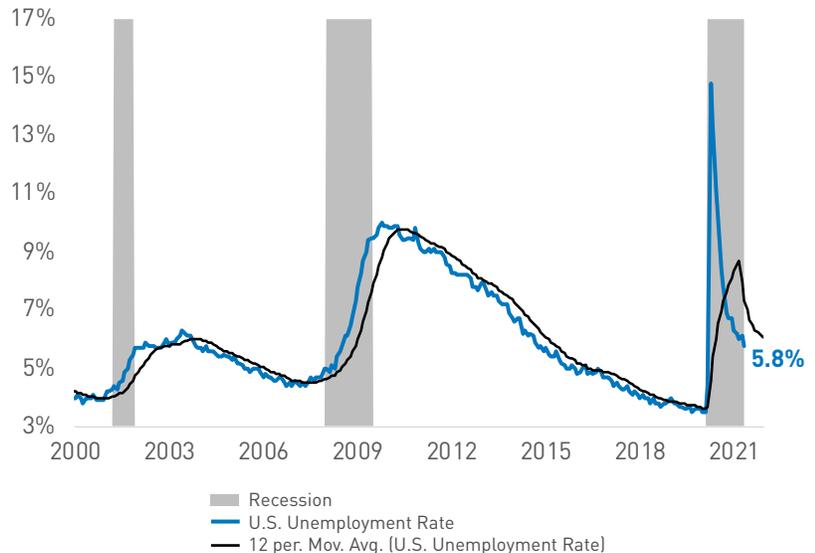
The U.S. economy recovery continues, despite a number of issues impacting the current environment. We now expect GDP to expand 9.6 percent in the second quarter — the strongest quarter of growth, outside of the immediate bounce after the pandemic, since 1978. The third quarter will follow with 7.2 percent (annualized quarter-on-quarter) growth. In fact, 2021 could end up being the strongest year of growth since the 1950s. What is even more amazing is that growth could arguably be stronger were it not for supply shortages that are hurting production and curtailing consumption.



	2021 ECONOMIC GROWTH (GDP % Change)	2022 ECONOMIC GROWTH (GDP % Change)	2021 EXCHANGE RATE (v. USD)	2022 EXCHANGE RATE (v. USD)
UNITED STATES	6.7%	4.4%	N/A	N/A
CANADA	5.8%	3.7%	1.24	1.24
MEXICO	5.0%	2.9%	20.44	20.78
EURO AREA	4.2%	4.1%	1.2	1.23
CHINA	8.6%	5.6%	6.47	6.48

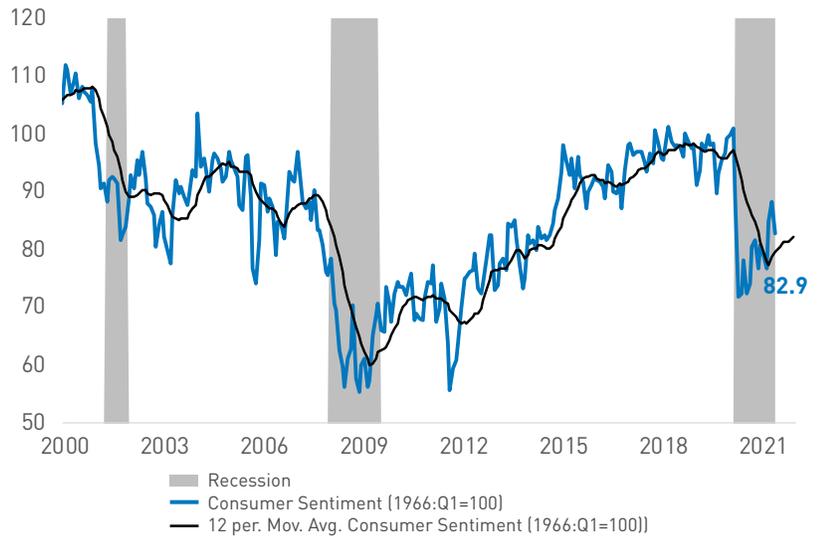
EMPLOYMENT

The economy added 559,000 jobs in May. In normal times this would be considered an extremely high number, but COVID has changed perspective on everything. The number fell short of expectations. The unemployment rate fell from 6.1 percent to 5.8 percent, but some of this decline was a result of the labor force shrinking by 53,000 workers. Average hourly earnings rose during the month, as did the total number of hours worked. Compared to pre-COVID February 2020, average hourly earnings are up 6.4 percent, while total hours worked are down 3.6 percent. Manufacturing added 23,000 jobs during the month.



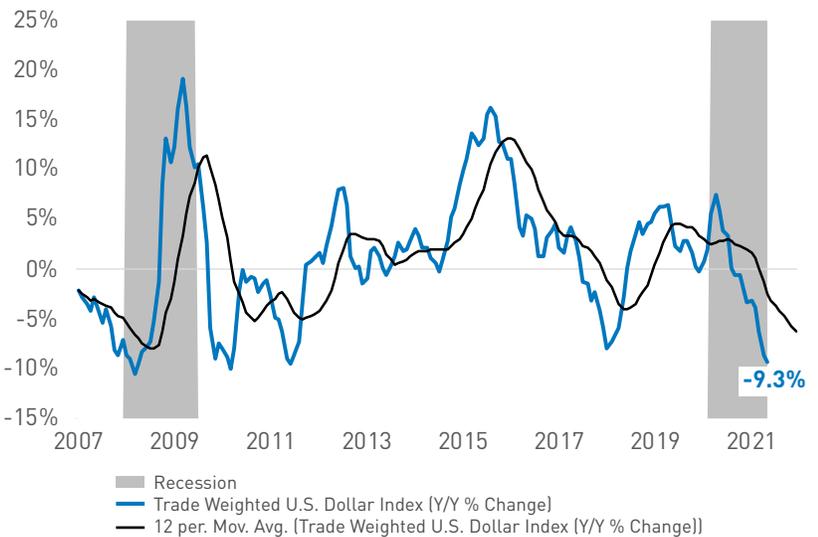
SENTIMENT

Consumer sentiment retreated in May. A historic proportion of consumers are reporting higher prices as stimulus-fueled demand outstrips supply, aided by the continued reopening of the economy. At the same time, a historic proportion of consumers also expect the unemployment rate to decline over the next year, suggesting the prospects for jobs remain high. Consumers have over \$2 trillion dollars in excess savings, which will continue to drive consumption and mute the sting of higher prices, at least temporarily. The expected year-ahead inflation rate rose to 4.6 percent in May, up from 3.4 percent in April.



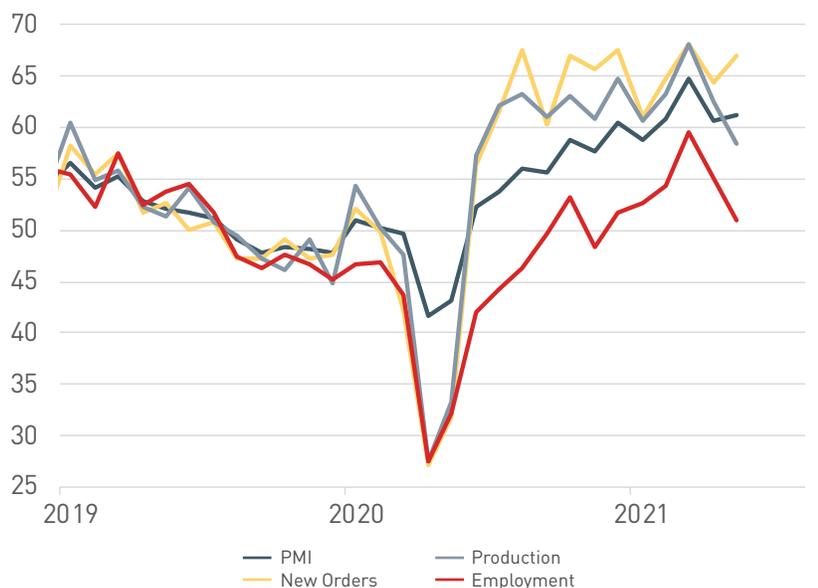
TRADE-WEIGHTED U.S. DOLLAR INDEX

The dollar strengthened marginally over the last month, but the move is likely transitory. The dollar gained 0.2 percent in June, after shedding 1.3 percent in May. The trade-weighted dollar index is off 6.8 percent over the last year and 3.2 percent over the last two years. The month's FOMC meeting indicated future Fed policy will tighten sooner than previously expected. While the March meeting suggested no rate increase until 2023, the June meeting moved those expectations forward, and Fed members now expect 50 basis points of tightening in 2023.



MANUFACTURERS' SENTIMENT (PMI)

The manufacturing sector continues to expand, and manufacturers remain optimistic despite severe supply chain issues. The May PMI rose 0.5 percentage points to 61.2. Demand remains strong while inventories remain tight. The New Order Index remains elevated, the Backlog of Orders Index remains at a historically high level, and the Customers' Inventories Index hit another all-time low. The Production Index declined 4 percentage points as supply chain disruptions continue to hinder production. Manufacturers are reporting higher prices across almost every commodity, and in some instances price increases are significant.



U.S. END MARKETS FOR ELECTRONICS

Industrial production moved higher again in May, the third consecutive month of growth. Production rose 0.8 percent during the month. Manufacturing rose 0.9 percent in May and is just 0.3 percent below pre-pandemic levels. Production remains down 0.7 percent from two years ago.



AUTOMOTIVE PRODUCTS

Auto production increased 5.7 percent in May, as some production that had been stymied by shortages resumed. Output remains 4.5 percent below pre-pandemic levels, though it had been above pre-pandemic levels at the end of 2020.



TRANSIT EQUIPMENT

Transit equipment production increased 1.7 percent during the month. The sector is down 24.8 percent from two years ago and down 3 percent compared to February 2020.



INFORMATION PROCESSING & RELATED EQUIPMENT

Production in the information processing and related equipment sector increased 1.8 percent during the month. The sector is up 11.2 percent over the last year, 11.8 percent from two years ago and 3.9 percent from February 2020.



INDUSTRIAL & OTHER EQUIPMENT

The industrial segment rose 0.4 percent last month. The sector is up 18.9 percent over the last year but is down 1.6 percent from two years ago and remains below pre-pandemic levels.



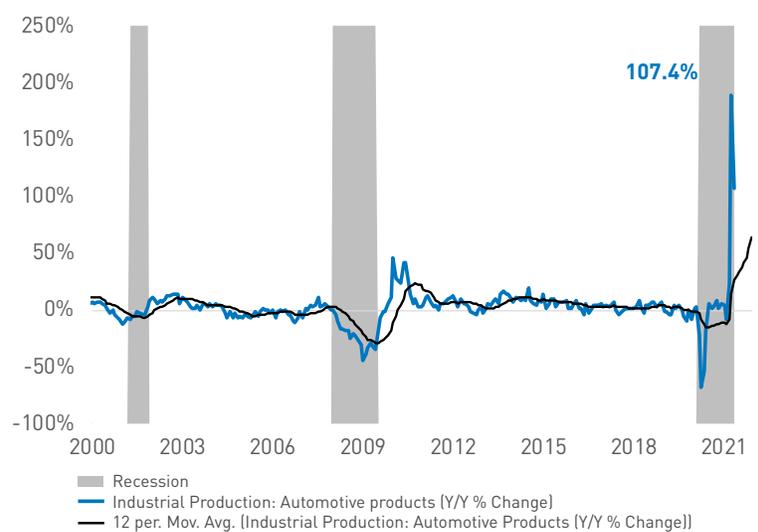
DEFENSE & SPACE EQUIPMENT

The defense and space equipment segment slipped 0.4 during the month. The sector is up 15.1 percent over the last year and 14.2 percent over the last two years.

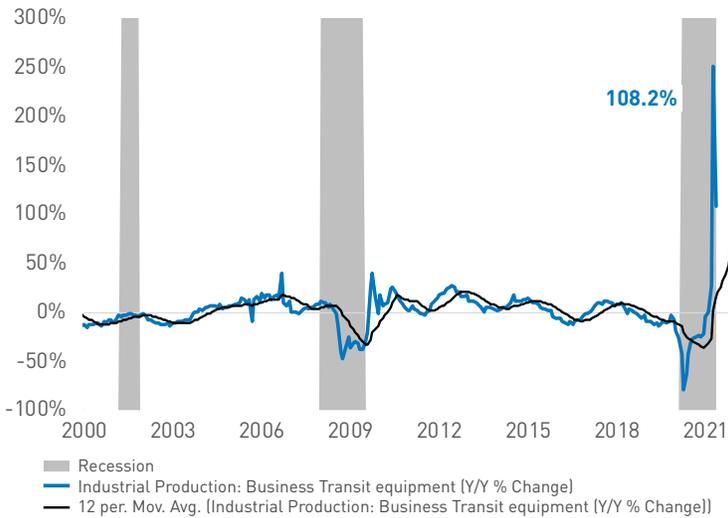
Manufacturing



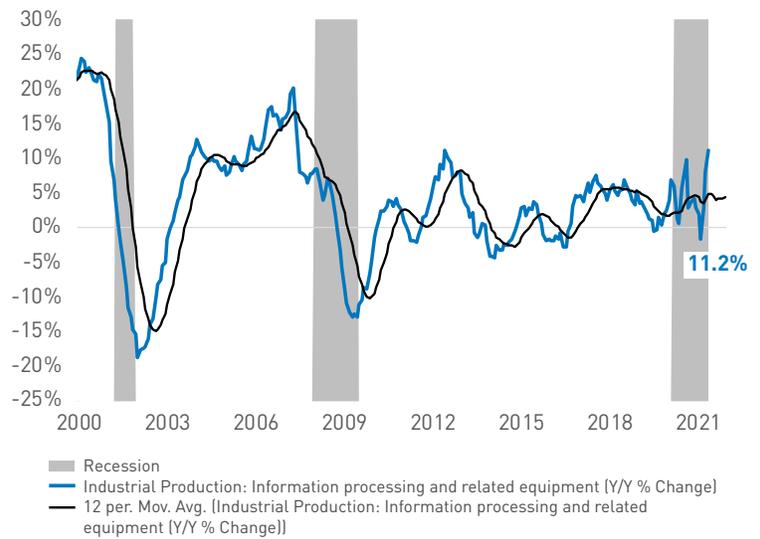
Automotive Products



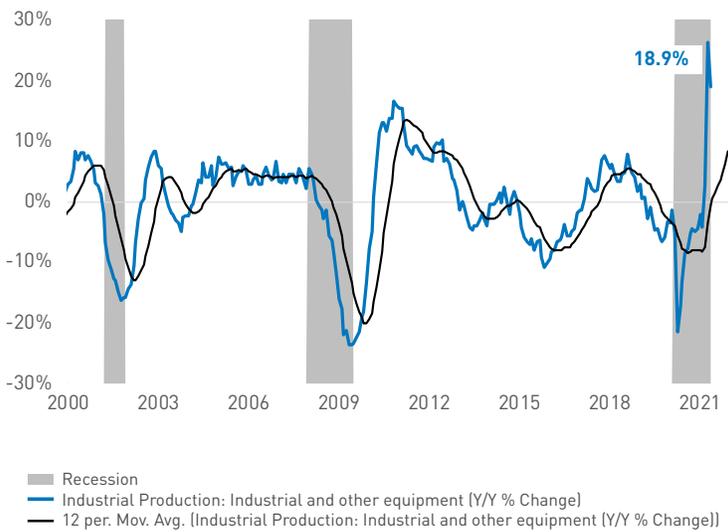
Business Transit Equipment (Y/Y % Change)



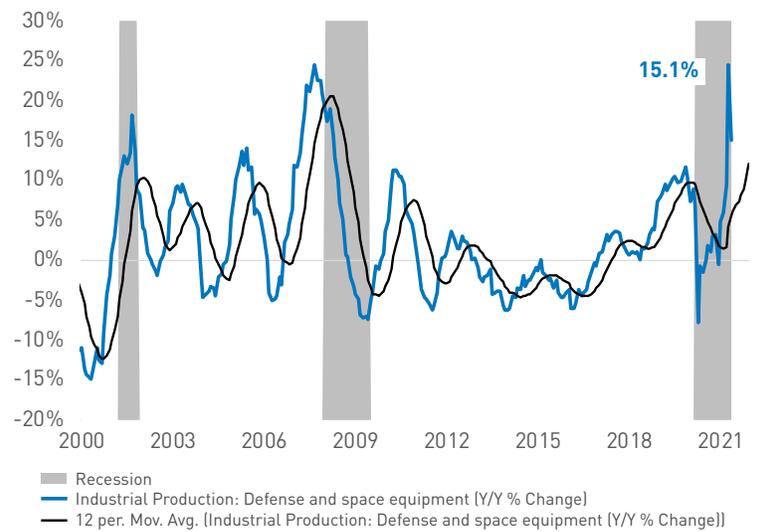
Information Processing & Related Equipment (Y/Y % Change)



Industrial & Other Equipment (Y/Y % Change)



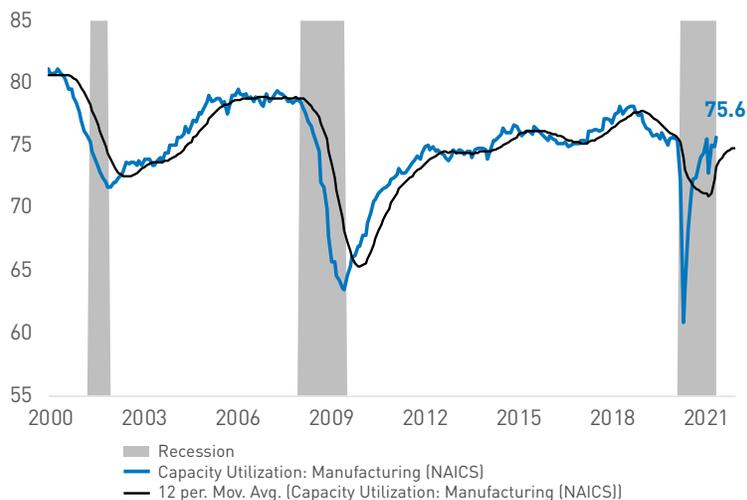
Defense & Space Equipment (Y/Y % Change)



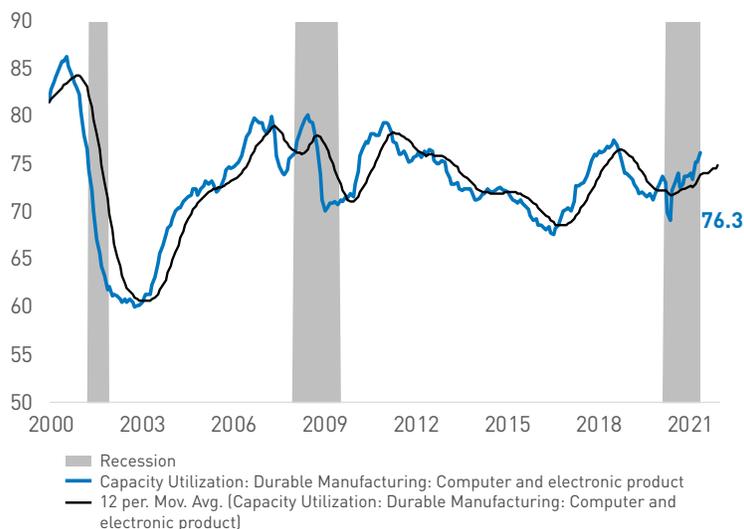
MANUFACTURING CAPACITY UTILIZATION

The industrial and manufacturing sectors continue to recover. Capacity utilization moved higher in May for most sectors, despite continued supply chain challenges. Overall, manufacturing capacity utilization increased to 75.2 percent during the month. Computer and electronic production capacity utilization moved to 76.3, and utilization for the motor vehicles and parts sector bounded back to 69.4 percent. Capacity utilization in electrical equipment, appliances and components slipped to 78.8, and utilization in the aerospace and miscellaneous transportation equipment sector dipped to 68.1.

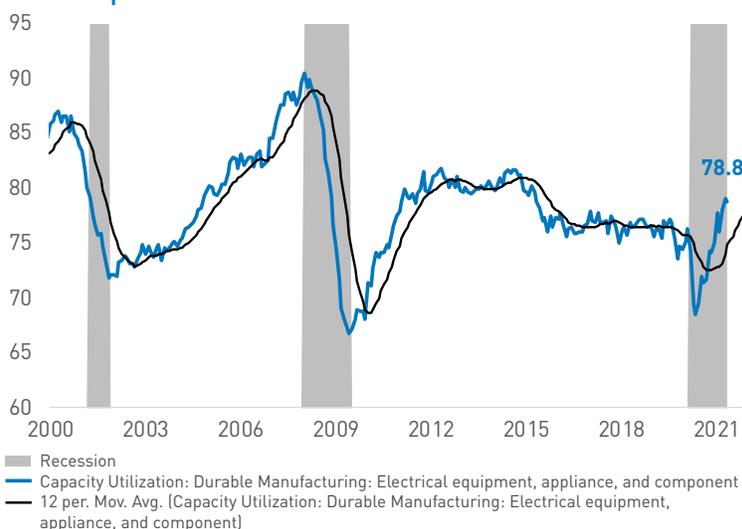
Manufacturing (NAICS)



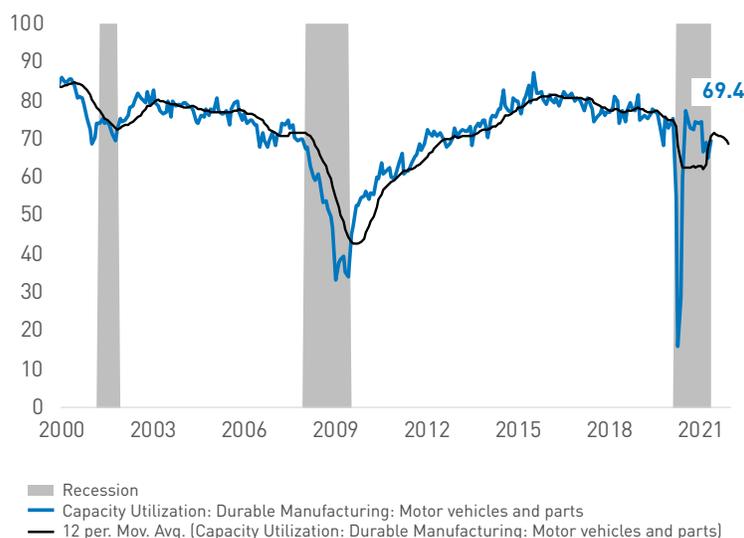
Computer & Electronic Product



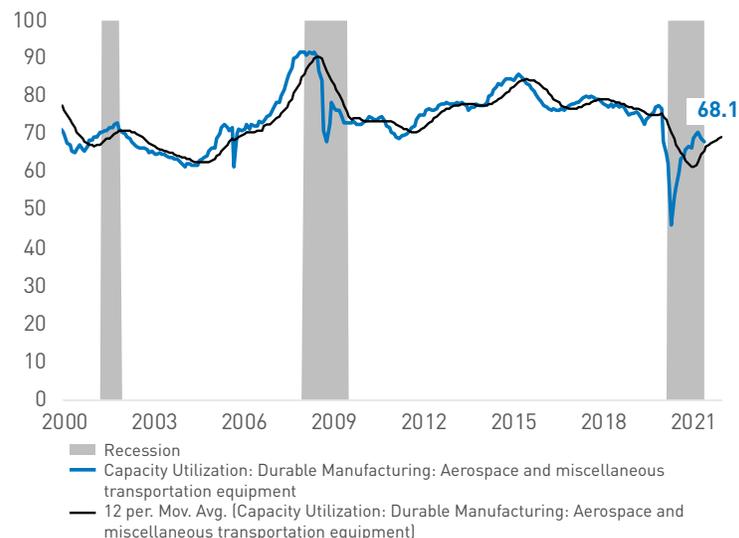
Electrical Equipment, Appliance, & Component



Motor Vehicles & Parts



Aerospace & Miscellaneous Transportation Equipment



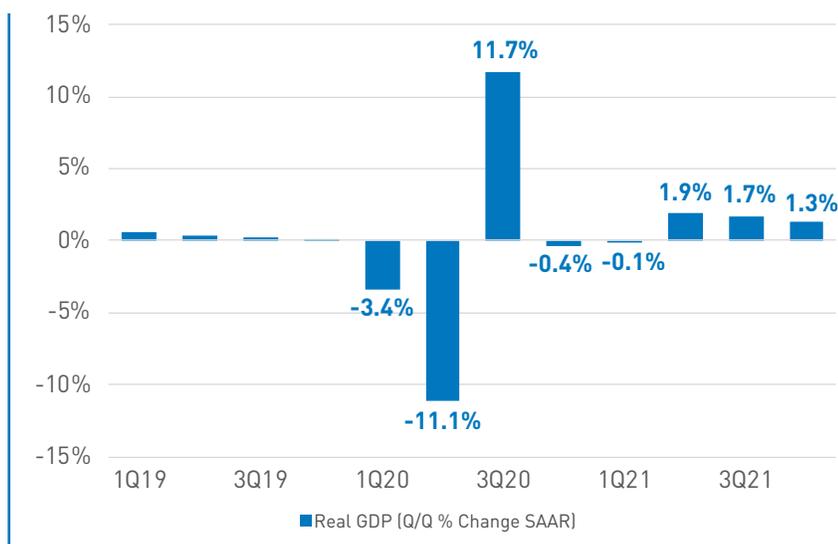
EUROPEAN OUTLOOK

ECONOMIC GROWTH

The euro area declined less than previously expected in the first quarter of the year. GDP fell 0.3 percent in the first quarter, after falling 0.6 percent in the fourth quarter of 2020. GDP in the European Union fell 0.1 percent in the first quarter after falling 0.4 percent in the fourth quarter. The slow start to COVID vaccinations kept some areas in lockdown through April, which curtailed growth at the start of the year. This kept domestic activity sluggish in the first quarter. Consumer spending fell 2.3 percent (Q/Q), after declining 2.9 percent in the fourth quarter. Fixed investment rose just 0.2 percent in the first quarter.

The recovery has since picked up speed in the second quarter, as the pace of reopenings accelerated.

Consumer confidence is increasing, suggesting that a recovery in domestic demand may follow. This pickup in demand is also driving inflationary pressure in Europe, as it is in the United States and elsewhere in the world.



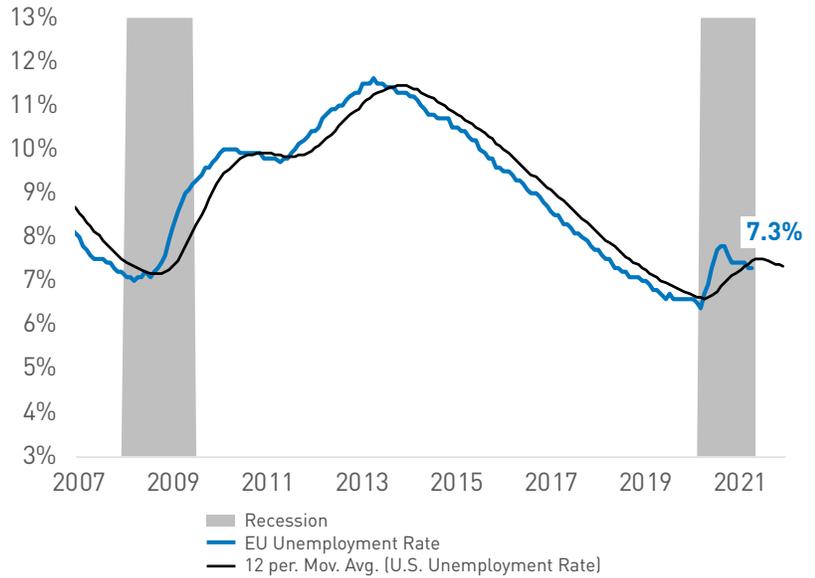
	Q/Q PERCENTAGE CHANGE				Y/Y PERCENTAGE CHANGE			
	2020Q2	2020Q3	2020Q4	2021Q1	2020Q2	2020Q3	2020Q4	2021Q1
EURO AREA	-11.5%	12.6%	-0.6%	-0.3%	-14.6%	-4.1%	-4.7%	-1.3%
EU (27)	-11.1%	11.7%	-0.4%	-0.1%	-13.8%	-4.0%	-4.4%	-1.2%
GERMANY	-9.7%	8.7%	0.5%	-1.8%	-11.2%	-3.8%	-3.3%	-3.1%
FRANCE	-13.2%	18.5%	-1.5%	-0.1%	-18.4%	-3.5%	-4.6%	-1.2%
ITALY	-12.9%	15.9%	-1.8%	0.1%	-18.1%	-5.2%	-6.5%	-0.8%
SPAIN	-17.8%	17.1%	0.0%	-0.5%	-21.6%	-8.6%	-8.9%	-4.3%

	2021 ECONOMIC GROWTH (GDP % CHANGE)	2022 ECONOMIC GROWTH (GDP % CHANGE)
EURO AREA	4.2%	4.1%
GERMANY	3.2%	4.1%
FRANCE	5.4%	4.1%
NETHERLANDS	2.8%	3.2%

EMPLOYMENT

The employment picture continues to improve in Europe. As of April, the unemployment rate was down to 8 percent in the euro area, falling 0.1 percentage points in the prior month. The unemployment rate fell to 7.3 percent in the European Union. The number of people unemployed is down 165,000 in the European Union and 134,000 in the euro area. But we still have a ways to go to reach pre-pandemic levels. The pre-pandemic low for the euro area was 7.1 percent unemployment in March 2020 and 6.4 percent unemployment in the European Union. We expect that the unemployment rate will fall in a similar fashion in the coming months, but it will likely take into 2022 to recover to pre-pandemic levels.

Countries highly reliant on services remain the most impacted, while countries with strong manufacturing bases are showing more robust labor markets. For example, the unemployment rate in Spain was 13.7 percent in April and the female unemployment rate is 16.5 percent. In Italy, the unemployment rate is 9.8 percent. Conversely, Czechia's unemployment rate is currently 2.8 percent and the female unemployment rate there is just 2.5 percent. Germany (4.4 percent unemployment), Hungary (4.4 percent), Poland (3 percent) and the Netherlands (3.2 percent) are other markets showing robust jobs markets.



MANUFACTURERS' SENTIMENT (PMI)

The Eurozone manufacturing sector hit another new all-time high in May. The headline PMI for the month was 63.1, up from 62.9 in April. This is the 11th consecutive month of expansion for Europe's manufacturing sector. The Netherlands and Austria recorded the highest manufacturing PMIs during the month — both records. And Ireland and Italy also recorded historic highs. Strong demand has driven orders, with demand coming from both domestic and international buyers. Manufacturers reported that new export business rose at a historically strong pace. Manufacturers also reported difficulty in sourcing inputs and that deliveries from suppliers worsened significantly. As a result, manufacturers utilized inventory, which led to the sharpest decline in finished stock ever recorded (back to 2009). Manufacturers also reported higher prices and in turn raised their prices at the fastest rate in more than 18 years. European manufacturers are also reporting a growing backlog of work as they try to keep up with strong demand while also dealing with supply constraints and other disruptions.



E.U. END MARKETS FOR ELECTRONICS

Manufacturing output increased in April, rising 0.3 percent during the month. Output remains down 0.7 percent from two years ago but is up 41.7 percent from a year ago. Output is up 0.1 percent from pre-pandemic January 2020 levels.



COMPUTER, ELECTRONIC & OPTICAL PRODUCTS

The electronics industry, which includes categories such as components, loaded boards, computers, communications equipment and consumer electronics, increased in April, rising 4.6 percent. The sector is now up 34.2 percent from last year and 20.9 percent over the last two years.



MOTOR VEHICLES

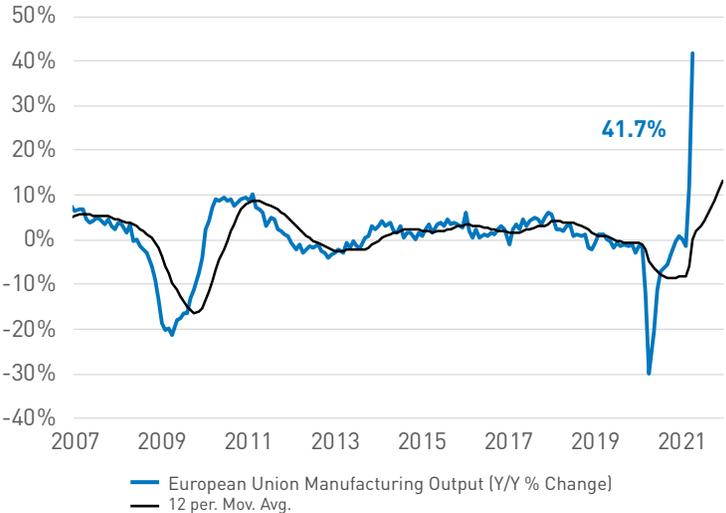
The motor vehicle manufacturing production index decreased 2.5 percent in April. Auto production in the European Union remains off 24.5 percent from two years ago.



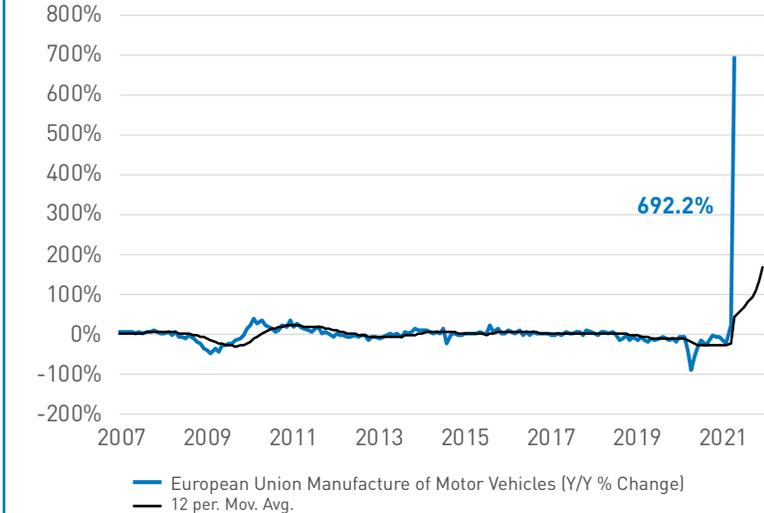
AIR & SPACECRAFT & RELATED MACHINERY

The air and spacecraft manufacturing sector expanded in April, rising 4.2 percent, and March results were also revised higher. The segment is up 19 percent over the last year but down 20.6 percent over the last two years and a similar amount since the start of the pandemic.

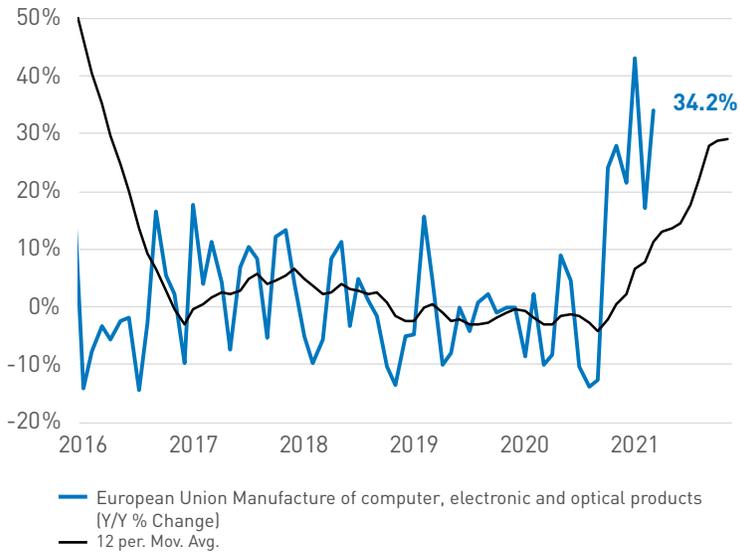
E.U. Manufacturing Output



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)

