

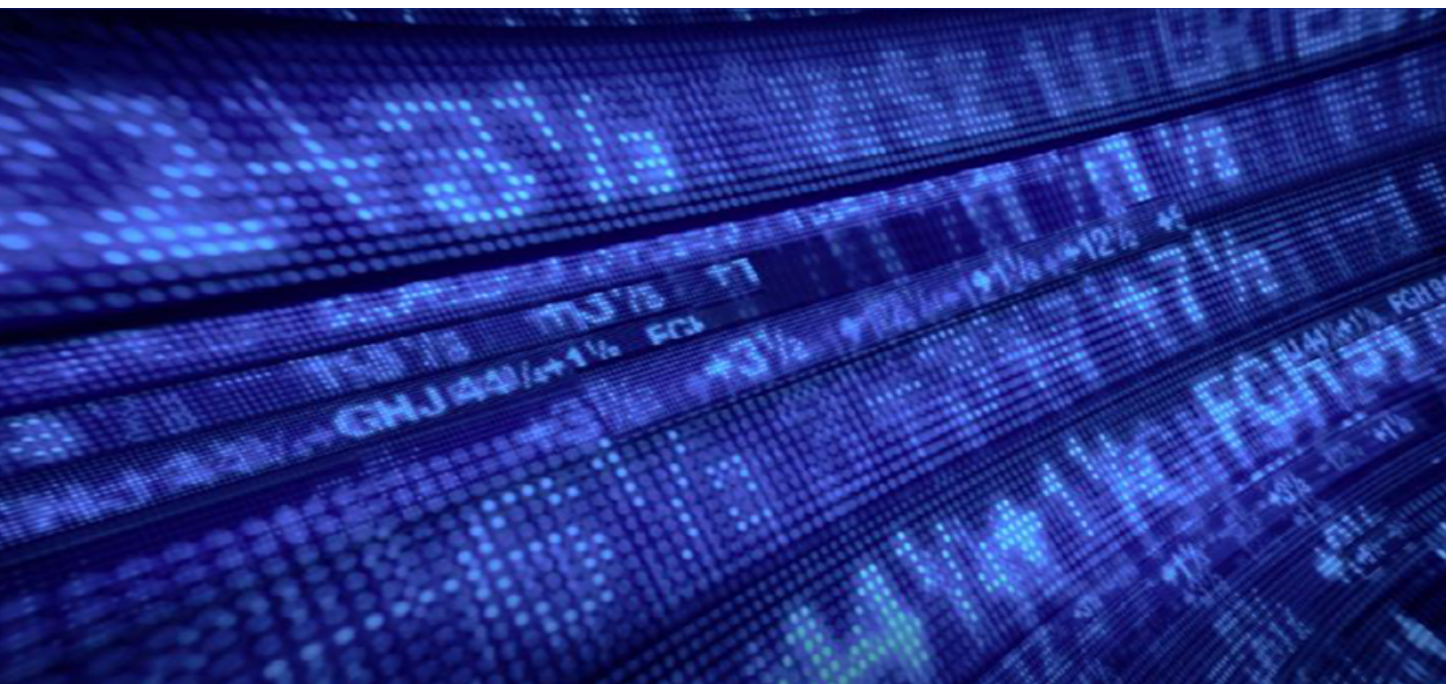


UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

World Manufacturing Production

Statistics for Quarter II 2021

**Getting back on track:
the loosening of restrictions fires up
post-pandemic recovery**



World manufacturing growth in Quarter II 2021

The COVID-19 pandemic has challenged the global health care systems and national economies for over a year and a half, albeit with seasonal and regional differences. The global economy had already been weakened by various factors prior to the outbreak of the pandemic, including the resurgence of protectionism and rising trade tensions between the United States, China, the European Union (EU) and other large trading economies. COVID-19 containment measures further reinforced already rising uncertainties relating to employment and income prospects.

The gradual phasing-out of restrictions as well as widespread vaccination campaigns since early 2021 have improved the economic situation in many countries. However, new coronavirus waves are sweeping through many industrialized countries due to highly contagious variants and insufficient vaccination rates. To avoid further economic restrictions and to ensure society's general well-being, a fair distribution of vaccines within and between countries as well as a sufficient vaccination rate are essential.

The pandemic wreaked havoc on the world economy, including the global manufacturing sector. Following significant slumps in early to mid-2020, most world economies have bounced back and are reporting high growth rates. As shown in Figure 1, the manufacturing sector of China and

other developing and emerging industrial economies¹ had already reached their pre-crisis production levels (i.e. those of the fourth quarter of 2019) by the end of 2020, whereas industrialized economies only slightly exceeded their pre-pandemic levels at the beginning of 2021.

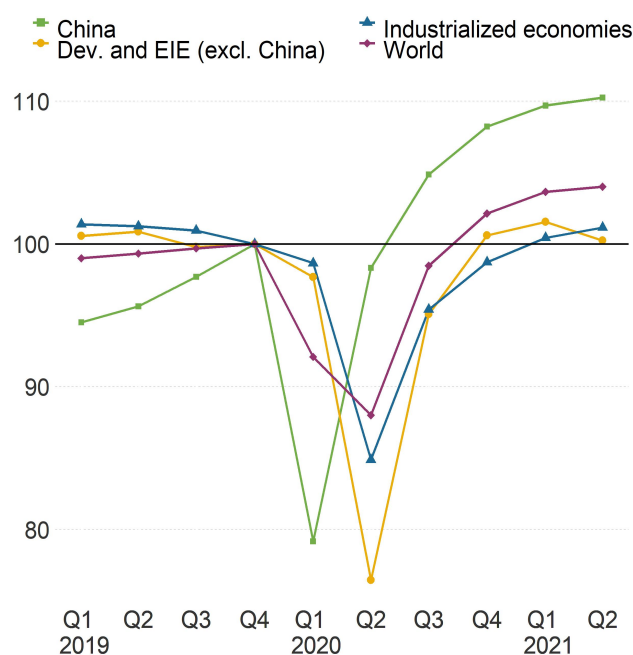


Figure 1: Index of manufacturing production (Q4 2019 = 100)

By the second quarter of 2021, global manufacturing production registered an annual output growth of 18.2 per cent. By contrast, one year earlier, global manufacturing output had dropped by 11.4 per cent as a result of the measures imple-

¹Referred to in the rest of the report as "Dev. and EIE".

mented by governments around the world to fight COVID-19 (see Figure 2). In the current quarter, nearly all economies with available information have achieved two-digit annual growth rates owing to the low base of comparison a year ago as well as the gradual economic re-opening, which has accelerated since the first quarter of 2021.

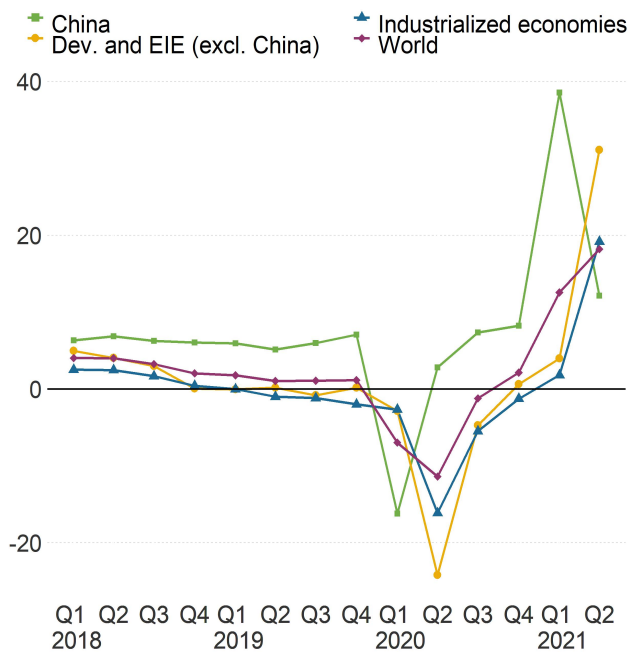


Figure 2: Growth of world manufacturing output, percentage change compared to the same quarter of the previous year

All industrialized economies (IE) included reported considerable growth in the second quarter of 2021, accounting for an aggregated growth rate of 19.2 per cent in a year-over-year comparison, while China, the world's largest manufacturer, recorded a seasonally adjusted growth of 12.1 per cent.

Manufacturing production in Dev. and EIE (excluding China) registered a notable increase of 31.1 per cent in the second quarter of 2021. A year ago, this group's manufacturing production fell by 24.2 per cent.

The crisis caused by COVID-19 led to the first global decline in manufacturing since the financial crisis of 2008/2009, although the drop was not as steep (see Figure 3). Moreover, the global manufacturing sector seems to be rebounding more dynamically compared with the previous downturn. Yet due to the uncertainty about the pandemic's future trends, the economic outlook remains precarious and a large variability among countries is likely.²

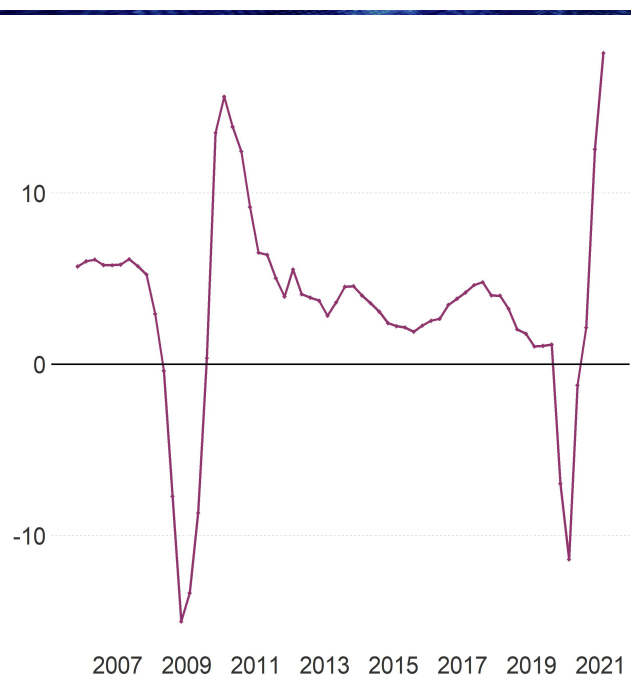


Figure 3: Growth of world manufacturing output in percentage change compared to the same quarter of the previous year

²World Bank (2021), Global economic prospects, June 2021. Available at <https://www.worldbank.org/en/publication/global-economic-prospects>

Findings by country group

Industrialized economies

Industrialized countries reported an annual output growth of 19.2 per cent in the second quarter of 2021, following a subdued increase of 1.8 per cent in the previous quarter. Detailed figures provide further insights into different industrialized regions of the world.

slight drop by 0.2 per cent in the previous quarter. This development is primarily linked to the manufacturing activity in the United States, the largest economy in this group, where output grew by 16.5 per cent in the current quarter.

The manufacturing output of industrialized economies in the Asia & Pacific region increased by 17.0 per cent in the second quarter of 2021, already exceeding pre-pandemic production levels in the previous quarter. In the second quarter of 2021, Japan registered its first output growth (19.8 per cent) since the beginning of 2019. Furthermore, Taiwan, Province of China (16.8 per cent), Singapore (17.4 per cent) and the Republic of Korea (12.2 per cent) reported an increase in manufacturing output over the last three quarters, mostly due to the positive performance of the computer and electronics as well as the pharmaceutical industries. Israel, on the other hand, had a comparably lower growth rate of 5.4 per cent in the current quarter, but experienced no production losses in 2020.

Manufacturing production in European industrialized economies rose by 22.8 per cent in the second quarter of 2021 relative to the same period in 2020, after a growth of 2.8 per cent in the previous quarter. Country-level data for this group indicate considerable growth rates in the second quarter of 2021 compared to the reduced manufacturing production a year ago (see Figure 5).

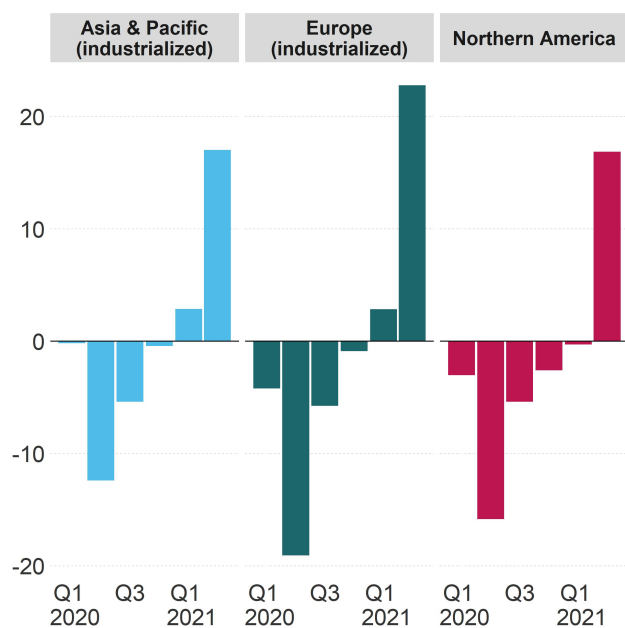


Figure 4: Growth rates of manufacturing output of industrialized regions, percentage change compared to the same period of the previous year

In a year-over-year comparison, Northern America's manufacturing output increased by 16.8 per cent in the second quarter of 2021, following a

For example, Italy's manufacturing output grew by 36.2 per cent, Spain's by 30.6 per cent, France's by 24.1 per cent and Germany's by 19.6 per cent.

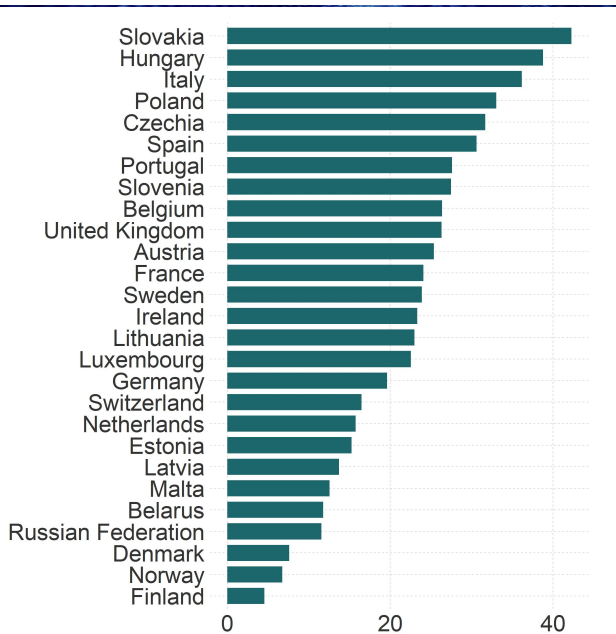


Figure 5: Growth rates of European industrialized countries, percentage change compared to previous year, Quarter II 2021

Focusing on non-EU industrialized economies, manufacturing output in the United Kingdom increased by 26.3 per cent in the current quarter, following a decline of 1.9 per cent in the previous three months. However, uncertainties relating to Brexit and the future relationship between the United Kingdom and the EU have caused intermittent delivery and supply bottlenecks and could

affect the long-term performance of the country's manufacturing sector in the post-pandemic era. Switzerland registered an increase in annual output of 16.5 per cent in the second quarter of 2021, while the Russian Federation achieved considerable growth (11.6 per cent) during the same period.

On a final note, disaggregated data on European manufacturing for the last two quarters (as presented in Figure 6) indicate a slightly higher growth rate for eurozone countries for the first time since 2017 compared to the average of all industrialized countries on the continent.

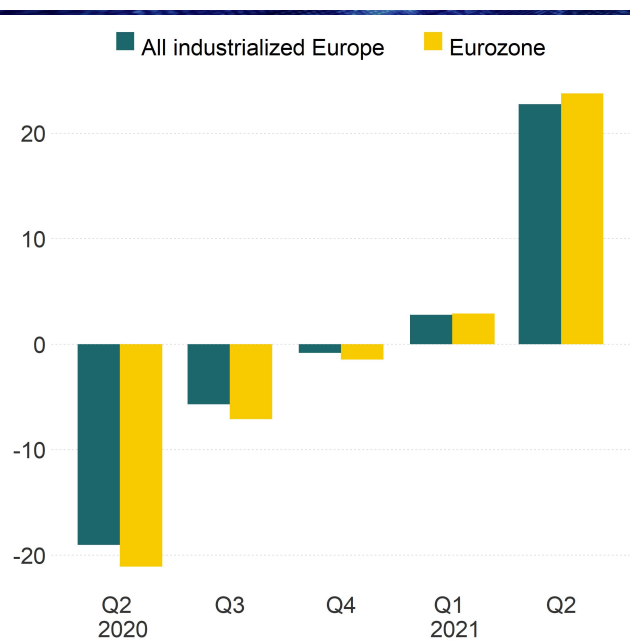


Figure 6: Growth rates of manufacturing output in European industrialized economies, percentage change compared to the same period of the previous year

Developing and emerging industrial economies

In accordance with UNIDO Statistics' country groups, China is presented separately due to its size and the specific characteristics of its economy. Sustained high growth rates over the past several years have rapidly been transforming China into an industrialized economy.

China

The latest seasonally adjusted figures for the Chinese manufacturing sector (12.1 per cent) as well as for the majority of its industries indicate markedly high growth rates in the second quarter of 2021. Furthermore, medium high- and high-technology industries, such as computers and electronics, electrical equipment and motor vehicles, recorded an overall growth of 15.8 per cent in a year-over-year comparison. It remains uncertain, however, in what direction China's export-oriented manufacturing sector will continue to develop in the context of dynamic domestic activity and subdued international demand.

Other developing and emerging industrial economies

Manufacturing output in developing and emerging industrial economies (excl. China) increased by 31.1 per cent in the second quarter of 2021, but with significant variability across the different regions.

Asia and the Pacific (Dev. and EIE) reported a year-over-year manufacturing output growth of 33.6 per cent in the second quarter of 2021 and of 3.5 per cent in the first, respectively. A closer

look at specific countries in this region reveals growth patterns with varying intensity. Manufacturing output in India, for example, increased by 56.2 per cent, and Turkey's by 43.9 per cent, while Indonesia, the second largest manufacturer in the region, reported a comparably lower year-over-year output growth of 6.9 per cent.

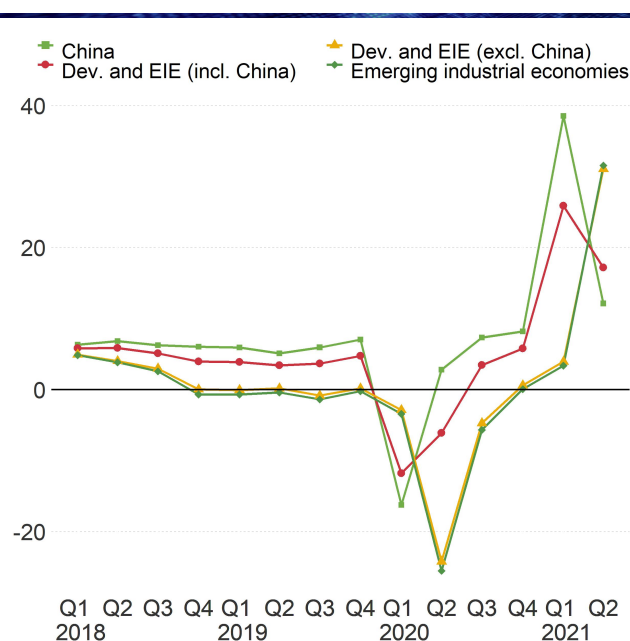


Figure 7: Growth of manufacturing output of developing and emerging industrial economies, percentage change compared to the same quarter of the previous year

In the second quarter of 2021, Latin America's manufacturing output expanded by 30.4 per cent on a year-over-year comparison, after achieving a solid growth rate of 5.6 per cent in the previous quarter. The region's two largest manufacturers, Mexico (36.4 per cent) and Brazil (25.7 per cent) reported high growth rates, as did Ar-

gentina (34.1 per cent), Colombia (27.1 per cent) and Costa Rica (25.3 per cent). Chile, the only country in this group classified as an industrialized economy, witnessed an increase in manufacturing output of 10.2 per cent in a year-over-year comparison.

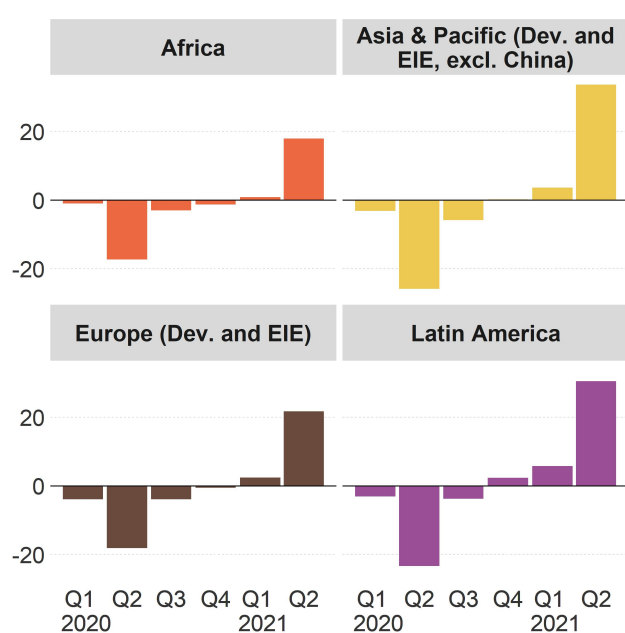


Figure 8: Growth rates of manufacturing output of Dev. and EIE regions, percentage change compared to the same period of the previous year

Compared to the second quarter of 2020, growth estimates based on limited data availability for African countries indicate a stable expansion of manufacturing output of 17.8 per cent. By contrast, a year ago, output dropped by 17.1 per cent, as COVID-19 forced many countries to impose containment measures. In the current quarter, however, an expansion of manufacturing output was recorded in many African countries, such as South Africa (39.3 per cent), Rwanda (30.2 per cent), Senegal (22.6 per cent) and Nigeria (4.6 per cent).

The manufacturing output of European developing and emerging industrial economies experienced a year-over-year growth of 21.6 per cent in the second quarter of 2021, after suffering a COVID-19-related decline of 18.0 per cent a year ago. Country-level data, however, reveal considerable country-level variability. For instance, manufacturing output in Romania, Croatia and Greece rose considerably by 36.6 per cent, 15.0 per cent and 14.4 per cent, respectively, while Ukraine's output only grew slightly by 0.4 per cent in a year-over-year comparison.

Findings by industry group

A gradual economic slowdown has been observed since 2018, caused, among other factors, by uncertainties related to rising trade restrictions. This was further exacerbated by the current COVID-19 crisis, albeit with differing impacts on industrial sectors. Even though the groupings according to technological intensity (see Figure 9) registered decreases within the same range for the first and second quarters of 2020, the path towards recovery varied in speed and intensity. Higher technology industries had a better production performance and therefore recovered faster.

In the second quarter of 2021, medium high- and high- as well as medium low-technology industries grew at a rapid pace, with year-over-year increases of around 20.0 per cent, while the output of low-technology industries registered a comparably lower growth rate of 13.0 per cent. Although the recovery of low-technology industries was more subdued than in other industries, their growth rates still represent a substantial acceleration in comparison to previous quarters.

The output of medium high- and high-technology industries increased by 21.8 per cent in the second quarter of 2021, after already registering considerable growth rates since the third quarter of 2020. Among others, the output of computers, electronics and optical products as well as electrical equipment increased by nearly 22 per

cent in the second quarter of 2021.

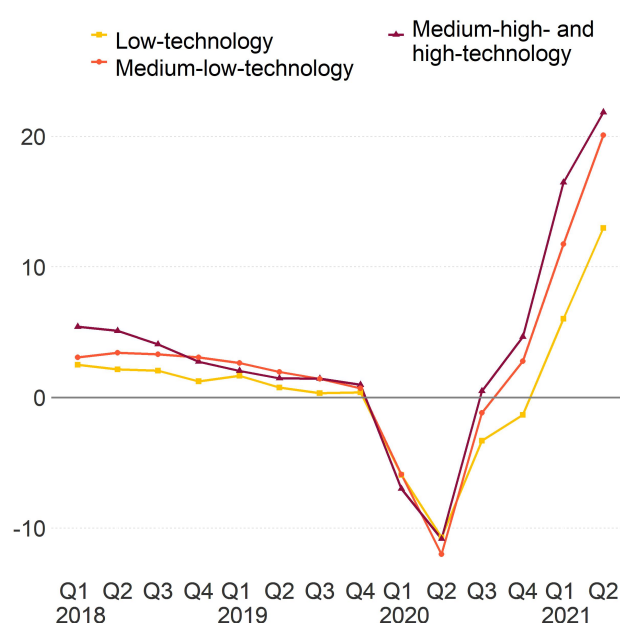


Figure 9: Growth of manufacturing industries by technological intensity, percentage change compared to the same quarter of the previous year

All industries (see Figure 10) in all country groups reported remarkable but varying growth rates in the second quarter of 2021. Motor vehicles achieved the best global performance among all industries, with an increase of almost 50 per cent in a year-over-year comparison; however, the pre-pandemic production level has not yet been reached in this industry, except in China.

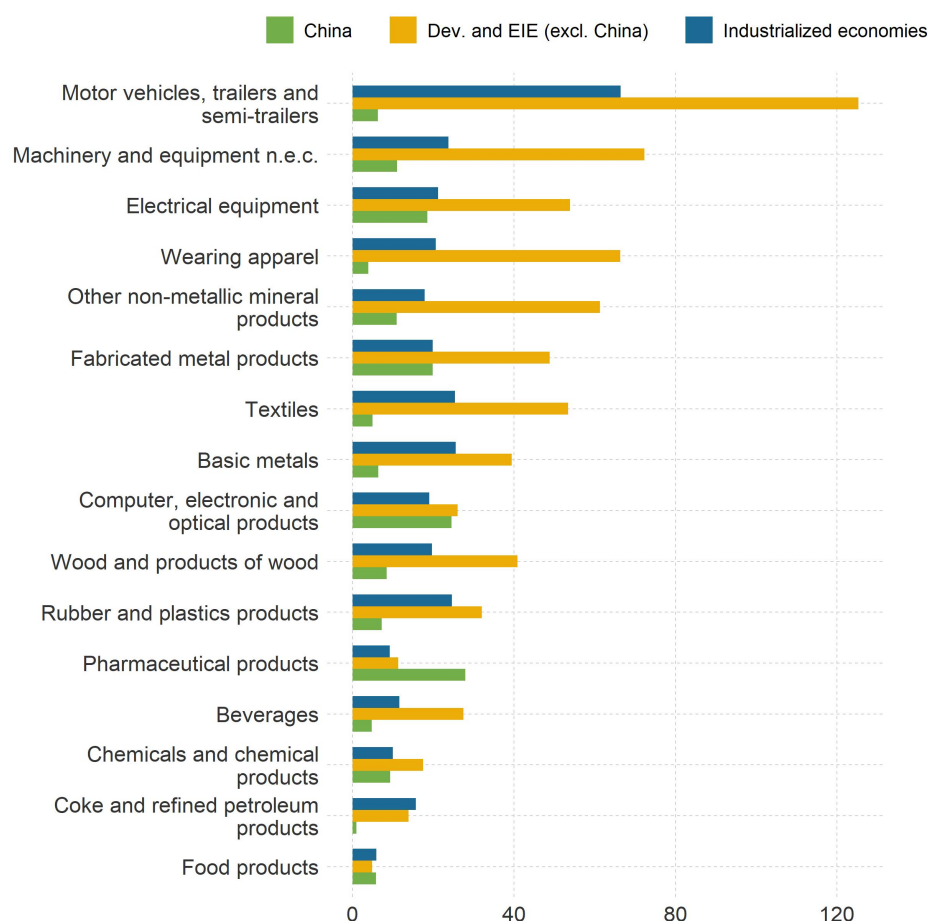


Figure 10: Estimated growth rates by industry in percentage change compared to previous year, Quarter II 2021

Figure 11 provides additional insights into how the pandemic has affected manufacturing sectors around the world by comparing the current quarter with the pre-pandemic production level of the fourth quarter of 2019. The chart indicates whether industries have already reached and exceeded their (pre-pandemic) production level of the fourth quarter of 2019. The majority of medium high- and high-technological industries have reached pre-pandemic levels, except for motor vehicles and other transport equipment. While growth in the motor vehicles industry has accelerated recently, current levels are still 6 per cent below pre-pandemic levels. Many economies with a strong automobile sector, such as Germany or France, have observed a similar growth trajectory in recent quarters due to supply chain disruptions involving resources and intermediate goods. In addition to automotive and other transport equipment, some other industries, such as textile and clothing or coke and refined petroleum products, have yet to

reach their pre-pandemic production levels. On the other hand, food products (mostly low technological intensity) are considered basic consumer goods and only suffered limited production losses, exceeding their pre-COVID-19 production level already by the end of 2020.

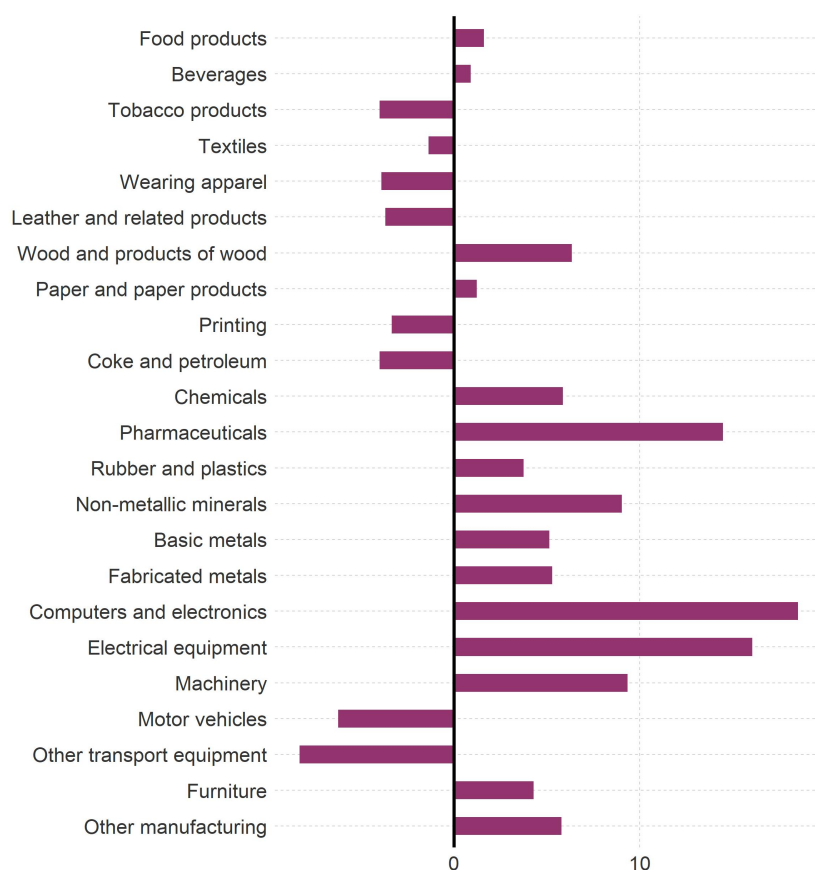


Figure 11: Estimated global growth rates by industry of the Q2 2021 compared to (pre-pandemic) Q4 2019

Revised detailed data for the first quarter of 2021 are reported in the Statistical Tables of this report.

Statistical Tables

Table 1

Estimated growth rates of world manufacturing output

Percentage change compared to the previous quarter and same period of the previous year

Quarter II 2021

	Share in world MVA (2015)	Compared to previous quarter	Compared to same period of the previous year
World	100.0	0.3	18.2
Industrialized economies	56.5	0.7	19.2
Northern America	19.4	0.8	16.8
Europe	22.1	0.6	22.8
Asia & Pacific	14.8	0.8	17.0
China	27.6	0.5	12.1
Latin America	5.3	-1.2	30.4
Dev. and EIE excl. China (by development group)	15.9	-1.3	31.1
Emerging industrial economies	14.1	-1.6	31.6
Other developing economies	1.4	-0.3	21.0
Dev. and EIE excl. China (by region)	15.9	-1.3	31.1
Africa	1.2	-1.6	17.8
Asia & Pacific	8.9	-1.4	33.6
Europe	0.7	0.6	21.6

Source: UNIDO Statistics.

Note: Not all subgroups are presented; seasonally adjusted data. Latin America includes IE and Dev. and EIE.

Table 2

Estimated growth rates of output by manufacturing industry

Percentage change compared to the same period of the previous year

Quarter II 2021

	Developing and emerging industrial economies excl. China	China	Industrialized economies	World
Food products	4.9	5.9	6.0	5.7
Beverages	27.5	4.8	11.6	13.7
Tobacco products	6.4	-0.1	-0.8	1.4
Textiles	53.4	5.0	25.4	19.0
Wearing apparel	66.3	3.9	20.6	20.4
Leather and related products	41.1	4.8	42.0	17.3
Wood products (excl. furniture)	40.8	8.5	19.7	17.6
Paper products	10.3	5.6	7.0	7.2
Printing	23.9	10.0	16.9	15.7
Coke and refined petroleum products	13.9	1.0	15.7	11.8
Chemicals and chemical products	17.5	9.4	10.0	10.8
Basic pharmaceutical products	11.3	28.0	9.3	14.1
Rubber and plastics products	32.0	7.2	24.7	20.3
Other non-metallic mineral products	61.2	10.9	17.9	21.4
Basic metals	39.5	6.4	25.6	16.9
Fabricated metal products	48.8	19.8	19.9	22.1
Computer, electronic and optical products	26.1	24.5	19.0	21.7
Electrical equipment	53.8	18.6	21.3	21.6
Machinery and equipment	72.3	11.0	23.7	20.8
Motor vehicles, trailers, semi-trailers	125.2	6.3	66.4	45.2
Other transport equipment	87.5	6.9	23.3	22.3
Furniture	46.1	19.3	27.3	26.8
Other manufacturing	47.4	21.3	27.6	27.1
Total Manufacturing	31.1	12.1	19.2	18.2

Source: UNIDO Statistics.

Note: Seasonally adjusted data.

Table 3

Estimated growth rates of output by manufacturing industry

Percentage change compared to the previous quarter

Quarter II 2021

	Developing and emerging industrial economies excl. China	China	Industrialized economies	World
Food products	0.7	0.9	0.3	0.5
Beverages	-1.4	2.0	1.9	1.1
Tobacco products	-4.9	-1.1	-0.7	-2.1
Textiles	0.2	-4.4	2.8	-1.8
Wearing apparel	1.4	3.0	1.6	2.3
Leather and related products	-0.3	2.2	-0.3	1.2
Wood products (excl. furniture)	5.4	-0.4	2.1	1.6
Paper products	-0.2	1.7	1.0	1.0
Printing	1.6	3.1	3.2	3.1
Coke and refined petroleum products	-2.4	0.0	4.7	1.5
Chemicals and chemical products	0.1	1.1	2.9	1.9
Basic pharmaceutical products	2.4	5.8	4.0	4.3
Rubber and plastics products	-1.8	-1.1	-0.1	-0.7
Other non-metallic mineral products	6.1	0.4	-0.1	1.4
Basic metals	-0.7	-0.1	2.5	0.7
Fabricated metal products	0.4	3.3	1.0	1.5
Computer, electronic and optical products	-5.3	1.6	1.6	1.3
Electrical equipment	0.9	4.7	1.9	3.4
Machinery and equipment	1.7	3.3	3.2	3.1
Motor vehicles, trailers, semi-trailers	-2.5	-6.0	-6.6	-5.8
Other transport equipment	2.4	1.1	-1.1	-0.3
Furniture	-2.0	6.2	1.3	2.3
Other manufacturing	5.7	2.7	1.6	2.3
Total Manufacturing	-1.3	0.5	0.7	0.3

Source: UNIDO Statistics.

Note: Seasonally adjusted data.

Table 4

Estimated growth rates of world manufacturing output

Percentage change compared to the previous quarter and same period of the previous year

Quarter I 2021 (revised)

	Share in world MVA (2015)	Compared to previous quarter	Compared to same period of the previous year
World	100.0	1.5	12.6
Industrialized economies	56.5	1.7	1.8
Northern America	19.4	0.7	-0.2
Europe	22.1	1.3	2.8
Asia & Pacific	14.8	3.6	2.8
China	27.6	1.4	38.6
Latin America	5.3	0.9	5.6
Dev. and EIE excl. China (by development group)	15.9	0.9	4.0
Emerging industrial economies	14.1	0.7	3.4
Other developing economies	1.4	1.2	5.7
Dev. and EIE excl. China (by region)	15.9	0.9	4.0
Africa	1.2	0.3	0.8
Asia & Pacific	8.9	1.0	3.5
Europe	0.7	1.7	2.3

Source: UNIDO Statistics.

Note: Not all subgroups are presented; seasonally adjusted data. Latin America includes IE and Dev. and EIE.

Table 5

Estimated growth rates of output by manufacturing industry

Percentage change compared to the same period of the previous year

Quarter I 2021 (revised)

	Developing and emerging industrial economies excl. China	China	Industrialized economies	World
Food products	2.1	18.9	-0.8	4.1
Beverages	1.1	25.8	0.0	4.6
Tobacco products	-5.2	0.8	3.6	0.1
Textiles	4.5	23.3	-0.5	12.6
Wearing apparel	-0.1	21.2	-4.4	9.7
Leather and related products	7.8	18.4	-2.7	11.5
Wood products (excl. furniture)	11.8	33.8	5.0	13.1
Paper products	1.5	26.7	-2.4	3.4
Printing	-3.4	32.5	-7.8	0.4
Coke and refined petroleum products	-1.6	13.6	-7.6	-1.9
Chemicals and chemical products	7.2	23.8	-0.1	8.2
Basic pharmaceutical products	5.4	31.6	3.5	10.0
Rubber and plastics products	9.1	37.4	3.3	11.9
Other non-metallic mineral products	21.3	38.1	1.3	19.4
Basic metals	7.1	17.2	-0.5	9.0
Fabricated metal products	13.4	46.5	0.7	10.7
Computer, electronic and optical products	10.8	47.0	10.3	24.4
Electrical equipment	12.5	52.0	5.5	27.5
Machinery and equipment	12.3	46.1	4.3	18.1
Motor vehicles, trailers, semi-trailers	2.2	54.1	0.7	13.9
Other transport equipment	-4.3	32.0	-2.5	3.5
Furniture	10.1	35.8	1.4	10.5
Other manufacturing	4.6	31.5	5.6	12.0
Total Manufacturing	4.0	38.6	1.8	12.6

Source: UNIDO Statistics.

Note: Seasonally adjusted data.

Methodological note

This report presents observed growth rates and estimates of world manufacturing production for the second quarter of 2021, as well as revised estimates for the first quarter of 2021. The figures are based on index numbers of industrial production (IIP) collected by UNIDO Statistics from national data sources.

IIP measures the growth of the volume of industrial production in real terms, free from price fluctuations. Users should take note that while annual industrial growth rates from national accounts generally refer to changes in MVA (i.e. output net of intermediate consumption), quarterly IIPs reflect the growth of gross output.³ Given the temporal nature of estimates, output growth provides the best approximation of value added growth, assuming that the input-output relationship remains stable during the observation period.

UNIDO has published quarterly reports on world manufacturing since 2011. The data compilation and presentation methods are regularly updated. Earlier reports included index figures for some countries which were not seasonally adjusted or for which no information on seasonal adjustments was available. Since 2013, growth figures have been published based on [season-](#)

[ally adjusted index numbers](#). Since 2017, seasonal adjustments have been made using the TRAMO/SEATS⁴ method in the JDemetra+ software. The purpose of seasonal adjustment is to filter out any periodic fluctuations or calendar effects within time series. The individual parameters of the seasonal adjustment procedure for each time series are subject to regular revisions, normally at the beginning of each new reference year. Major economic uncertainties or other unusual events, such as the global pandemic of 2020, require frequent reviews of the underlying models based on the most recent available information.

This report refers to country groups in terms of economic territories rather than political boundaries. Economies are classified according to their stage of industrialization. This grouping is particularly useful for presenting growth estimates by country aggregates at different levels of industrialization. A comparative picture of growth trends in different parts of the world is provided to users based on these country groups. The full list of economies in the country groupings is available in the [International Yearbook of Industrial Statistics](#).

The present report implements revision 4 of the International Standard for Industrial Classifica-

³For a description of the variable Manufacturing Value Added (MVA), see <https://stat.unido.org/content/learning-center/what-is-manufacturing-value-added%253f>

⁴TRAMO stands for Time series Regression with ARIMA noise, Missing values and Outliers, and SEATS for Signal Extraction in ARIMA Time Series. ARIMA is the abbreviation of Autoregressive Integrated Moving Average, a widely applied statistical method for time series analysis.

tion of All Economic Activities ([ISIC Rev.4](#)). For countries that publish monthly/quarterly indices based on ISIC Rev.4, national data are used in their original form. For countries that still produce index numbers based on ISIC Rev.3, growth figures are estimated at the two-digit level of Rev.4 using correspondence tables. In both cases, data on index numbers are derived from national statistical sources. In case of missing data, UNIDO conducts imputations or projections, where appropriate. These estimates are replaced as soon as the officially reported values become available in national statistical publications.

Growth rates are calculated from the national index numbers aggregated to the given country group or geographical region using weights based on the countries' contribution to world manufactu-

ring value added. Since the first quarter of 2020, the base year has been adjusted to 2015 in accordance with other UNIDO publications. This report presents growth figures for country groups by stage of industrial development and by geographic region.

Users can find further information on the methodology of index numbers, estimation procedures and a compilation of country groups' indices in a [methodological document](#) that is available on the statistical pages of UNIDO's website. The indices themselves are published in UNIDO's [Quarterly IIP database](#), available on the UNIDO Statistics Data Portal. Since 2020, UNIDO also publishes [monthly data](#) on world manufacturing production with regular updates.