UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

World Manufacturing Production

Statistics for Quarter I 2021

One year of COVID-19

World manufacturing growth in Quarter I 2021

The world has been facing a global crisis since early 2020, caused by the COVID-19 pandemic, with countries around the world forced to restrict business activity and close international borders, resulting in serious impacts on manufacturing and most other sectors of the economy. Manufacturing in China and other countries in East and South-East Asia suffered the effects of the crisis sooner, namely in the first quarter of 2020, while the rest of the world registered production losses in the second and third quarters of the year. A gradual recovery in the manufacturing sector was observed in the majority of countries soon thereafter.

The containment measures imposed by governments had severe impacts on both demand and supply due to uncertainties triggered by negative employment and income prospects, a worldwide halt of production for several months, as well as other trends that were already gathering force before the pandemic, such as rising trade tensions and a resurgence of protectionism. Aside from the gradual phasing out of lockdown measures, widespread vaccination campaigns (mostly in industrialized countries) have improved the situation further, although a fair and sustainable distribution of vaccines around the world is essential for defeating the pandemic globally.

After one year of COVID-19, global manufacturing production is on a path of recovery, with an annual output growth of 12.0 per cent in the first quarter of 2021. One year ago, global manufacturing output dropped by 6.8 per cent due to the early impacts of COVID-19, whereas in the last quarter of 2020, it showed a noticeable recovery with an output increase of 2.0 per cent.

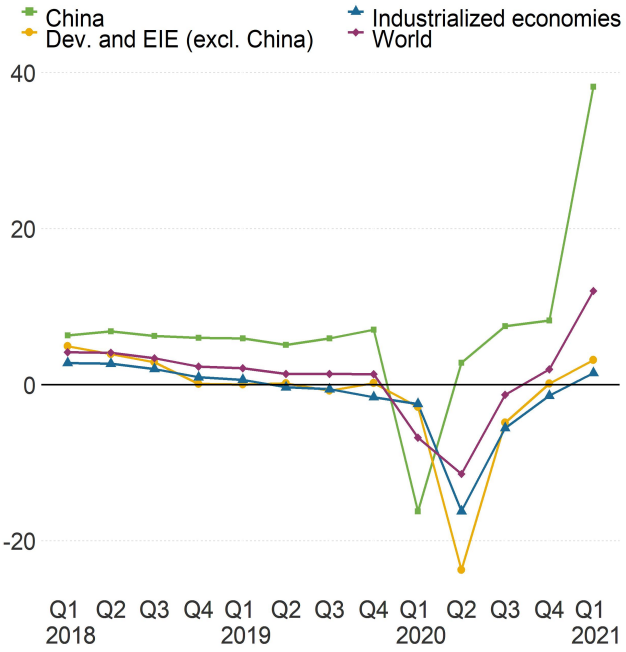

Figure 1: Growth of world manufacturing output, percentage change compared to the same quarter of the previous year

Many industrialized economies (IE) continued to struggle due to renewed lockdowns from October 2020 onwards. In the first quarter of 2021, an output growth of 1.5 per cent compared to the same period of 2020 was reported, following annual output declines over the last seven quarters. The biggest drop in this country group was registered in the second quarter of 2020, with an

output decrease of 16.2 per cent. In addition to the pandemic's effects, these countries had been experiencing a gradual decline since 2019, mostly attributable to prevailing trade and tariff uncertainties in commodity trade between the United States, China and the European Union (EU).

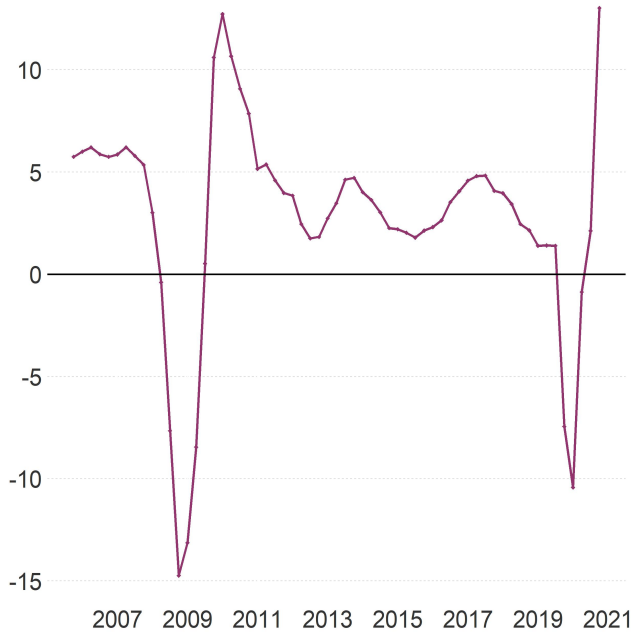

Figure 2: Growth of world manufacturing output in percentage change compared to the same quarter of the previous year

China, the world's largest manufacturer, recovered quickly from the pandemic and the country's output growth had already returned to pre-pandemic levels from the third quarter of 2020 onwards. According to seasonally adjusted index numbers, China's manufacturing output increased by 38.2 per cent in the first quarter of 2021 in a year-over-year comparison, in part due to last year's low base of comparison.

Manufacturing production in developing and emerging industrial economies[1] (excluding China) registered an increase of 3.2 per cent in the first quarter of 2021. This represents a substantial recovery compared with the second and third quarters of 2020, when output declines of 23.7 per cent and 4.8 per cent, respectively, were observed. As with IE, this group's growth performance had been on a gradually declining trajectory since 2018.

The economic downturn experienced in 2020 is the first of such magnitude since the financial crisis of 2008/2009 (see figure 2). During that crisis, considerable reductions in production were recorded for four consecutive quarters, but an exceptionally high rebound was reported in subsequent quarters. It remains to be seen whether production will evolve in a similar pattern in the context of the current crisis. Industrialized countries have granted many subsidies and employment support programmes to stabilize their economies. While such programmes have provided essential assistance for many firms and individuals, they might also lead to uncertainty once they are phased out. Government support measures will continue to play an important role for local businesses, at least in the short term.[2]

[1] Referred to in the rest of the report as "Dev. and EIE".
[2] OECD (2021), Economic Outlook (March 2021). Available at http://www.oecd.org/economic-outlook/

Findings by country group

Industrialized economies

While industrialized countries reported an output growth of 1.5 per cent in the first quarter of 2021, detailed figures provide further insights into different industrialized regions of the world.

In a year-over-year comparison, Northern America's manufacturing output continued to decline by 0.6 per cent in the first quarter of 2021, following a drop of 2.8 per cent in the previous quarter. This development is primarily linked to the manufacturing activity in the United States, where output fell by 0.6 per cent and 2.6 per cent in the last two quarters, respectively.

The manufacturing output of industrialized economies in the Asia & Pacific region exceeded pre-pandemic production levels and increased by 2.7 per cent in the first quarter of 2021. This group had already been experiencing output reductions since the beginning of 2019, mainly attributable to Japan, the largest manufacturer in this group. Japan registered yet another reduction in output of 1.3 per cent in the first quarter of 2021, following notable declines triggered by the pandemic in the previous quarters. This, however, was offset by positive figures in Taiwan, Province of China (13.6 per cent), Singapore (9.7 per cent) and the Republic of Korea (5.6 per cent), which recorded considerable increases in output due to the positive performance of the computer and electronics as well as the pharmaceuticals industries.

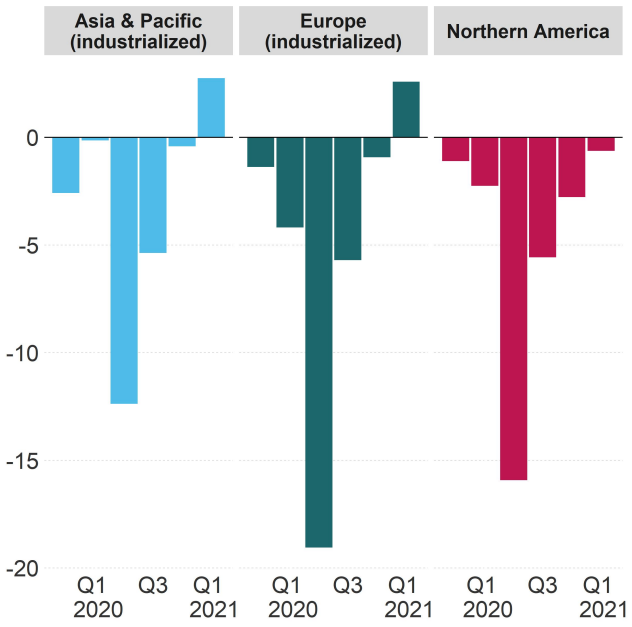

Figure 3: Growth rates of manufacturing output of industrialized regions, percentage change compared to the same period of the previous year

The manufacturing production of European industrialized economies in the first quarter of 2021 increased by 2.6 per cent. The downward trend witnessed prior to the COVID-19 crisis had already affected export-oriented countries in particular, and was mainly attributable to ongoing trade frictions with the United States as well as the uncertainties related to Brexit negotiations.

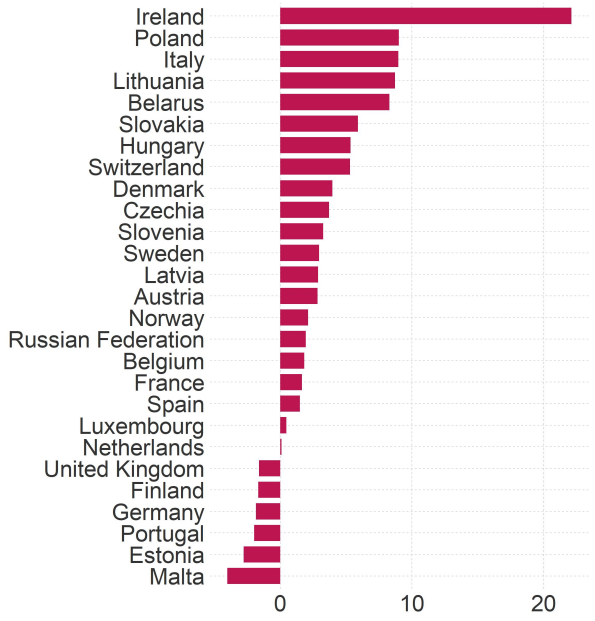

Figure 4: Growth rates of European industrialized countries, percentage change compared to previous year, Quarter I 2021

Country-level data for the first quarter of 2021 indicate varying growth rates of manufacturing production in industrialized European economies (see figure 4). Italy's manufacturing output grew by 9.0 per cent, France's by 1.7 per cent and Spain's by 1.5 per cent, while Germany reported an output shrinkage of 1.8 per cent. Notably, Ireland recorded two-digit growth rates for the last two quarters and also reported the lowest level of losses among European countries during the second quarter of 2020, when other countries of this group experienced the most severe impact of COVID-19.

Focusing on non-EU industrialized economies, output in the United Kingdom fell by 1.6 per cent in the first quarter of 2021, following a decline of 2.7 per cent in the previous quarter. Uncertainties regarding Brexit and the future relationship between the United Kingdom and the EU persist, and could affect the performance of the country's manufacturing sector in the post-pandemic era. Switzerland registered an output increase of 5.3 per cent in the first quarter of 2021 in a year-over-year comparison, while the Russian Federation achieved a modest growth of 1.9 per cent during the same period.

On a final note, disaggregated data show comparatively weaker manufacturing figures in eurozone countries in comparison to the average of all industrialized countries on the continent (see figure 5).

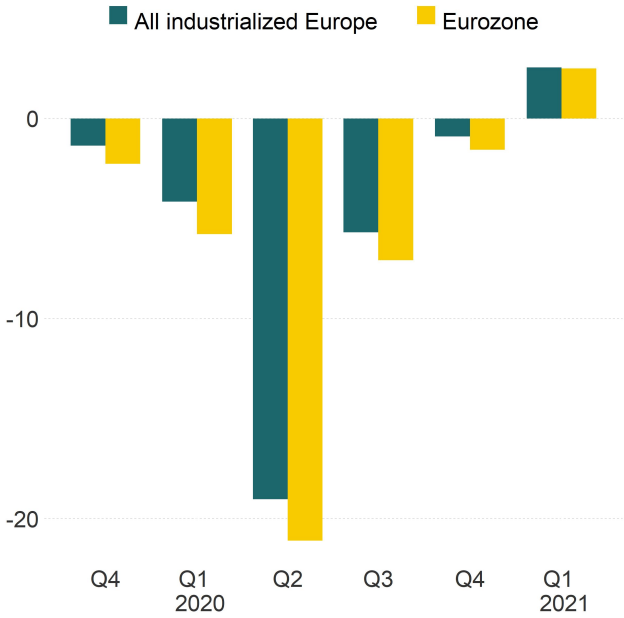

Figure 5: Growth rates of manufacturing output in European industrialized economies, percentage change compared to the same period of the previous year

Developing and emerging industrial economies

In accordance with UNIDO Statistics' country groups, China is presented separately from other country groups 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.

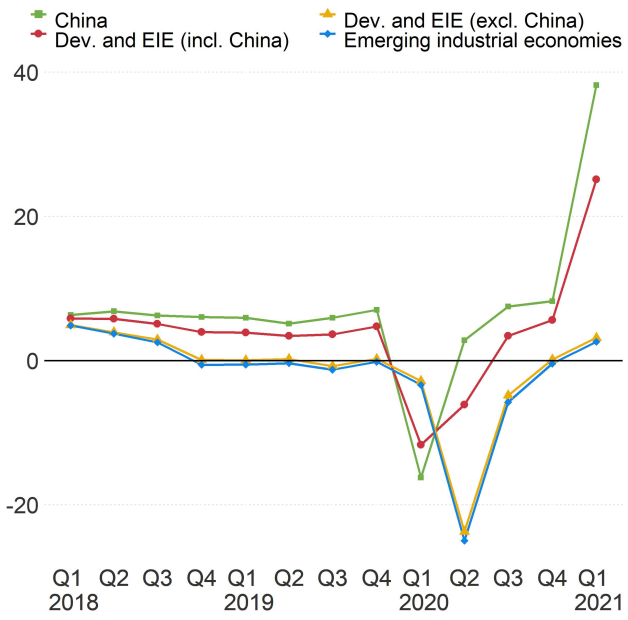

Figure 6: Growth of manufacturing output of developing and emerging industrial economies, percentage change compared to the same quarter of the previous year

China

The latest seasonally adjusted figures for the Chinese manufacturing sector as well as for most of its industries reported high two-digit growth rates in the first quarter of 2021. Only tobacco products showed a modest growth of 1.2 per cent in the first quarter of 2021. Furthermore, medium high- and high-technology industries, such as computer electronics, electrical equipment and automobiles recorded a year-over-year output growth of more than 50 per cent. 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

The manufacturing output of developing and emerging industrial economies (excl. China) increased by 3.2 per cent in the first 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 2.5 per cent in the first quarter of 2021, following a reduction of 25.5 per cent in the second quarter of 2020. This accelerated the downward trend of growth rates which has been observed since the end of 2018. A closer look at specific countries in this region reveals varying trends in sectoral production. Manufacturing output in India, for example, increased by 5.5 per cent, by 12.7 per cent in Turkey and by 7.6 per cent in Viet Nam, while it decreased by 1.5 per cent in Indonesia.

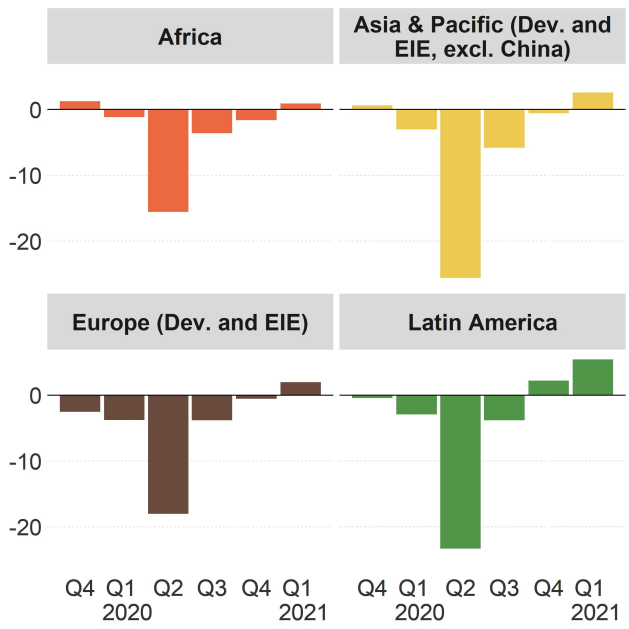

Figure 7: Growth rates of manufacturing output of Dev. and EIE regions, percentage change compared to the same period of the previous year

In the first quarter of 2021, Latin America's manufacturing output expanded by 5.4 per cent on a year-over-year comparison. It remains unclear whether this is a sign of sustainable stabilization, considering the sluggish growth trends that have been observed in this country group since 2018. The dynamism of manufacturing output in the region's two largest manufacturers, Mexico (0.4 per cent) and Brazil (6.6 per cent) differed, as was the case in most of the countries in this region. Manufacturing output in Argentina, Colombia and Costa Rica increased by 11.7 per cent, 6.6 per cent and 4.7 per cent, respectively. Chile, the only industrialized country in this group, witnessed an output increase of 0.5 per cent in a year-over-year comparison.

Compared to the first quarter of 2020, growth estimates based on limited data availability for African countries indicate a slight increase of manufacturing output by 0.8 per cent. By contrast, in the second quarter of 2020, output dropped by 15.5 per cent as COVID-19 forced many countries to impose containment measures. Manufacturing output increased in many African countries, such as Senegal (12.9 per cent), Rwanda (9.9 per cent), Nigeria (2.7 per cent) or Tunisia (2.0 per cent).

The manufacturing output of European developing and emerging industrial economies experienced a year-over-year growth of 1.9 per cent in the first quarter of 2021, after suffering a COVID-19-related drop of 18.0 per cent in the second quarter of 2020. Countries in this group showed different production growth trends. For instance, manufacturing output in Greece, Romania and Croatia increased by 2.5 per cent, 2.8 per cent and 5.0 per cent, respectively, while decreases of 3.0 per cent were observed in the Republic of Moldova and 5.4 per cent in Ukraine.

Findings by industry group

In addition to the COVID-19 crisis in 2020, pre-pandemic uncertainties related to rising trade restrictions had a major influence on producers, leading to a gradual slowdown since 2018, albeit with varying impacts in different industrial sectors. Groupings according to technological intensity (see figure 8) observed decreases in output of at least 5 per cent in the first, and exceeding 10 per cent in the second quarters of 2020.

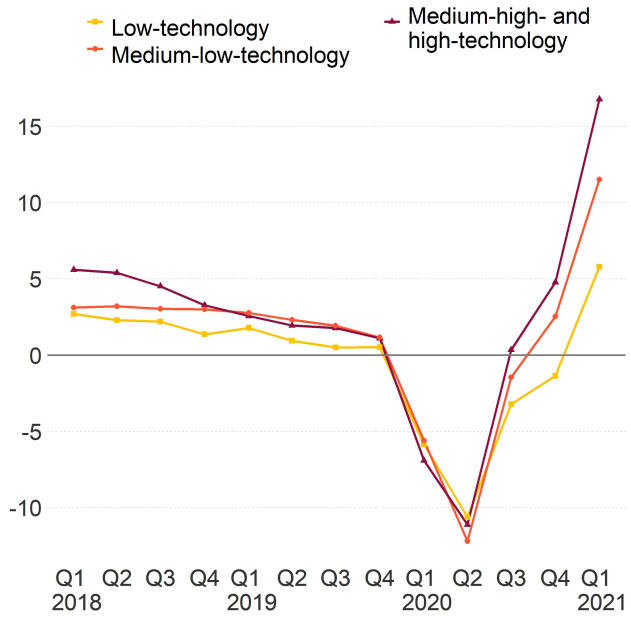

Figure 8: Growth of manufacturing industries by technological intensity, percentage change compared to the same quarter of the previous year

In the first quarter of 2021, medium high- and high- as well as medium low-technology industries recovered faster, with increases of at least 10 per cent, while the output of low-technology industries registered a lower year-over-year growth rate of 5.8 per cent.

The output of medium high- and high-technology industries increased by 16.8 per cent in the first quarter of 2021, after already registering considerable growth rates in the two preceding quarters. Among others, the output of computers, electronics and optical products as well as pharmaceuticals had already been growing over the last three quarters, leading to increases of 26.2 per cent and 9.0 per cent, respectively, in the first quarter of 2021.

The majority of industries (see figure 9), such as computer and electronics, electrical equipment, rubber and plastic as well as chemical products reported remarkable growth in all country groups in the first quarter of 2021. On the other hand, textiles, wearing apparel or coke and refined petroleum products experienced considerable reductions in some country groups in a year-over-year comparison for the same period.

Revised detailed data for the fourth quarter of 2020 are reported in the Statistical Tables of this report.

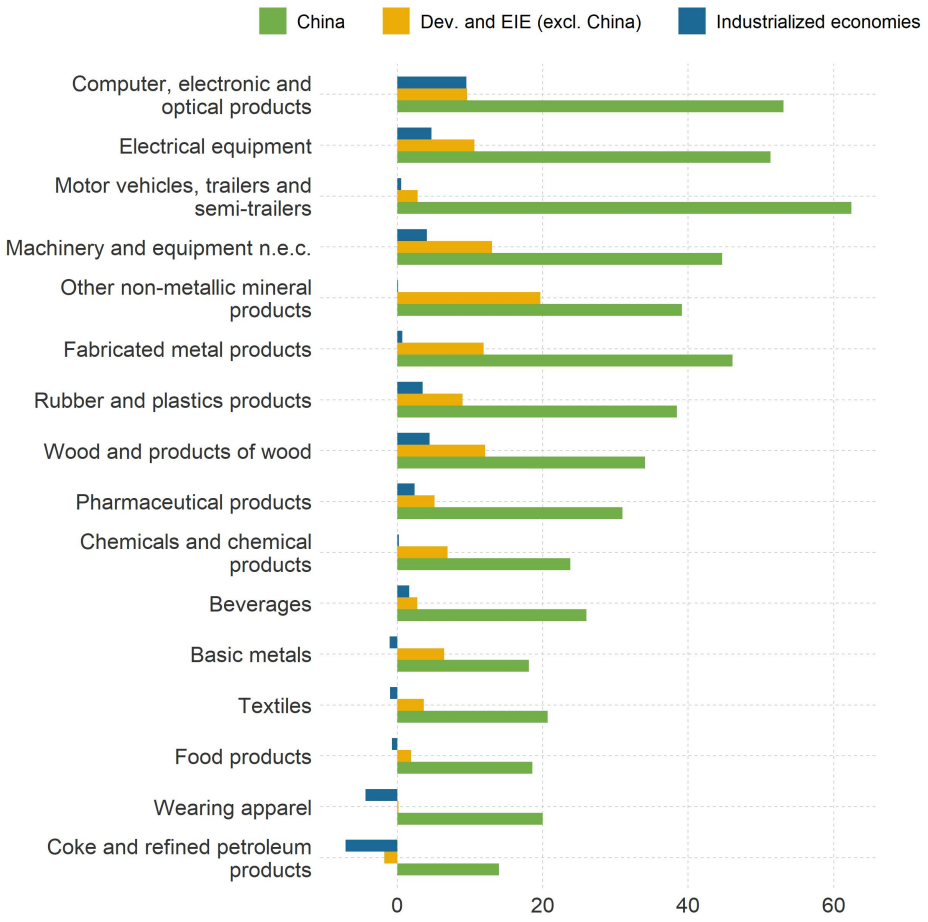

Figure 9: Estimated growth rates by industry in percentage change compared to previous year, Quarter I 2021

Manufacturing value added growth prospects in 2021

In addition to the observed figures for the first quarter of 2021, this report includes UNIDO's revised estimates for manufacturing growth in 2020 and projections for 2021. These are based on manufacturing value added figures from national accounts.

The global COVID-19 outbreak caused a notable decrease in manufacturing production in 2020, primarily due to national containment strategies in the form of economic and social lockdowns and other policies. These measures have had a significant impact on both demand and supply. Consumer demand declined in general due to uncertainties triggered by travel restrictions, remote working, job losses and other factors, while the production of certain goods came to a worldwide halt for several months. In addition, 2019 already pointed towards a slowdown in manufacturing growth, mainly because of the ongoing trade and tariff tensions between the two largest manufacturers in the world, China and the United States. However, with a revised estimated drop of 6.8 per cent in world manufacturing in 2020, global manufacturing losses were not quite as substantial as projected at the end of last year (-8.7 per cent).[3]

The forecasts for global manufacturing point to signs of recovery in 2021, albeit at varying speeds across different regions.

Manufacturing value added (MVA) in industrialized economies is expected to grow by 7.2 per cent in 2021 (compared to an estimated drop of 10.4 per cent in 2020). The United States is expected to lead this group, with an estimated growth of 10.4 per cent in 2021, which is all the more significant after the decline of 10 per cent in 2020. Following closely is Slovakia, with 9.1 per cent (climbing from a 7.7 per cent drop in 2020) and France with a growth rate of 8.1 per cent, which is an impressive rebound from the staggering drop of 14.2 per cent in 2020. In general, manufacturing value added in European industrialized countries is expected to make a remarkable recovery, with an expected growth rate of 5.7 per cent in 2021, compared to a decline of 11.6 per cent in 2020.

Similarly, manufacturing in Eastern Asian industrialized countries is expected to recover in 2021, with a projected growth rate of 6.2 per cent, following a significant decline of 8.5 per cent in 2020.

[3]The latest MVA forecasts can be found World Manufacturing Production, Quarter 3 - 2020

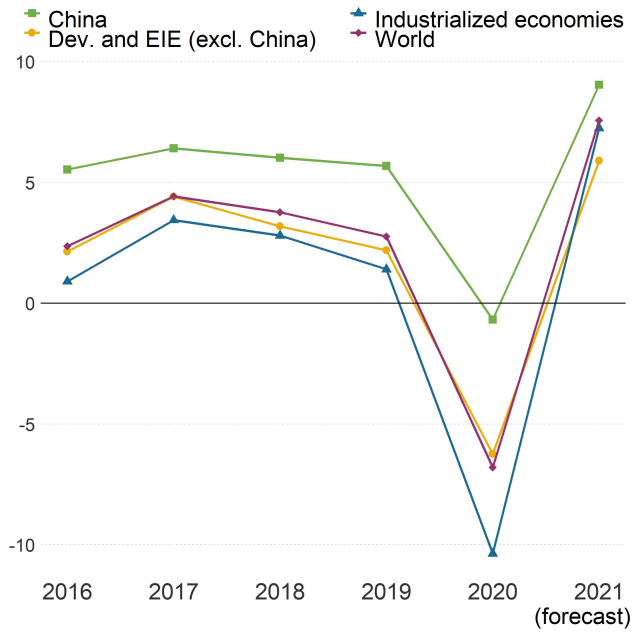

Figure 10: Annual growth rates in manufacturing value added in constant 2015 US$

Manufacturing in China is expected to grow by 9 per cent, indicating that the country's pace of recovery is picking up speed, especially considering the plunge to -0.7 per cent in 2020. The pace of recovery of developing and emerging industrial economies (excl. China) is expected to be even more impressive, increasing from -6.2 per cent in 2020 to 5.9 per cent growth in 2021. India leads this group, with its MVA expected to grow by as much as 14.6 per cent, recovering from a 10.9 per cent drop in 2020. As the only group reporting no negative growth in manufacturing in 2020, MVA in least developed countries (LDCs) is expected to continue to slow down from 8.7 per cent in 2019, to 1.9 per cent last year, and decreasing further to 0.6 per cent in 2021.

Table 6 of the Statistical Tables in this report provides additional details on the forecasts for manufacturing value added across different country groups in 2021.

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 I 2021

	Share in world MVA (2015)	Compared to previous quarter	Compared to same period of the previous year
World	100.0	1.3	12.0
Industrialized economies	56.3	1.6	1.5
Northern America	19.3	0.6	-0.6
Europe	22.0	1.1	2.6
Asia & Pacific	14.7	3.6	2.7
China	27.5	1.1	38.2
Latin America	5.2	0.9	5.4
Dev. and EIE excl. China (by development group)	16.3	0.7	3.2
Emerging industrial economies	14.5	0.6	2.6
Other developing economies	1.4	1.3	6.1
Dev. and EIE excl. China (by region)	16.3	0.7	3.2
Africa	1.7	0.4	0.8
Asia & Pacific	8.9	0.7	2.5
Europe	0.7	1.5	1.9

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 I 2021

	Developing and emerging industrial economies excl. China	China	Industrialized economies	World
Food products	1.9	18.5	-0.8	3.9
Beverages	2.7	26.0	1.6	6.0
Tobacco products	-4.8	1.2	1.6	-0.6
Textiles	3.7	20.7	-1.0	10.9
Wearing apparel	0.2	20.0	-4.4	9.2
Leather and related products	4.3	18.5	-3.4	10.5
Wood products (excl. furniture)	12.1	34.1	4.4	12.6
Paper products	1.4	25.3	-1.5	3.7
Printing	-4.0	31.9	-8.7	-0.4
Coke and refined petroleum products	-1.8	14.0	-7.1	-1.7
Chemicals and chemical products	6.9	23.8	0.2	8.1
Basic pharmaceutical products	5.1	31.0	2.4	9.0
Rubber and plastics products	9.0	38.5	3.5	12.2
Other non-metallic mineral products	19.7	39.1	0.1	18.8
Basic metals	6.5	18.1	-1.1	9.1
Fabricated metal products	11.9	46.1	0.7	10.4
Computer, electronic and optical products	9.6	53.1	9.5	26.2
Electrical equipment	10.6	51.3	4.7	26.5
Machinery and equipment	13.0	44.7	4.0	17.5
Motor vehicles, trailers, semi-trailers	2.8	62.4	0.5	15.9
Other transport equipment	-1.2	32.5	-4.3	2.4
Furniture	10.5	35.4	0.4	9.7
Other manufacturing	1.4	32.6	4.2	11.0
Total Manufacturing	3.2	38.2	1.5	12.0

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 I 2021

	Developing and emerging industrial economies excl. China	China	Industrialized economies	World
Food products	0.5	0.2	1.1	0.7
Beverages	0.8	1.1	1.7	1.4
Tobacco products	1.1	1.4	0.8	1.1
Textiles	1.2	-2.3	0.6	-0.8
Wearing apparel	4.2	-0.1	1.2	1.4
Leather and related products	1.2	2.3	-0.6	1.5
Wood products (excl. furniture)	4.4	1.7	1.5	1.8
Paper products	2.0	0.5	0.5	0.7
Printing	1.4	1.0	-1.8	-0.8
Coke and refined petroleum products	2.1	-0.4	2.5	1.8
Chemicals and chemical products	1.3	0.5	-0.3	0.2
Basic pharmaceutical products	-3.8	6.2	6.4	4.8
Rubber and plastics products	1.7	0.5	1.1	1.0
Other non-metallic mineral products	6.4	1.3	0.8	2.1
Basic metals	1.5	1.4	1.8	1.6
Fabricated metal products	4.0	1.5	2.9	2.6
Computer, electronic and optical products	3.5	8.4	5.6	6.8
Electrical equipment	2.6	2.0	3.3	2.5
Machinery and equipment	5.1	1.6	4.6	3.4
Motor vehicles, trailers, semi-trailers	0.1	2.2	-6.0	-2.5
Other transport equipment	3.8	3.9	1.1	1.9
Furniture	2.2	2.9	0.6	1.4
Other manufacturing	2.0	5.0	3.5	3.8
Total Manufacturing	0.7	1.1	1.6	1.3

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 IV 2020 (revised)

	Share in world MVA (2015)	Compared to previous quarter	Compared to same period of the previous year
World	100.0	3.7	2.0
Industrialized economies	56.3	3.5	-1.4
Northern America	19.3	2.9	-2.8
Europe	22.0	4.0	-0.9
Asia & Pacific	14.7	3.7	-0.4
China	27.5	3.1	8.3
Latin America	5.2	5.3	2.1
Dev. and EIE excl. China (by development group)	16.3	5.6	0.1
Emerging industrial economies	14.5	5.9	-0.4
Other developing economies	1.4	2.0	3.0
Dev. and EIE excl. China (by region)	16.3	5.6	0.1
Africa	1.7	1.8	-1.5
Asia & Pacific	8.9	6.6	-0.5
Europe	0.7	2.5	-0.5

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 IV 2020 (revised)

	Developing and emerging industrial economies excl. China	China	Industrialized economies	World
Food products	1.5	2.8	-1.2	0.3
Beverages	-0.5	0.7	-0.5	-0.2
Tobacco products	-7.1	0.7	-2.8	-3.3
Textiles	-1.5	1.5	-4.2	-0.5
Wearing apparel	-9.8	-5.0	-16.0	-8.2
Leather and related products	-2.7	-6.1	-14.9	-7.1
Wood products (excl. furniture)	5.1	3.2	2.3	2.8
Paper products	-0.5	4.1	-1.4	-0.1
Printing	-8.1	2.3	-8.7	-6.1
Coke and refined petroleum products	-7.2	1.8	-9.8	-6.7
Chemicals and chemical products	4.8	7.7	0.8	3.6
Basic pharmaceutical products	6.6	13.0	-0.2	3.9
Rubber and plastics products	5.3	7.7	1.2	3.6
Other non-metallic mineral products	10.9	7.7	-0.4	5.2
Basic metals	4.4	7.1	-3.6	2.9
Fabricated metal products	6.3	12.9	-4.0	0.8
Computer, electronic and optical products	5.4	18.6	5.3	11.0
Electrical equipment	4.8	15.5	0.4	8.6
Machinery and equipment	3.7	9.8	-4.2	1.5
Motor vehicles, trailers, semi-trailers	-1.8	13.2	0.7	4.0
Other transport equipment	-9.6	4.3	-12.8	-9.2
Furniture	6.2	3.0	-3.6	-0.6
Other manufacturing	-4.0	1.5	-2.5	-1.5
Total Manufacturing	0.1	8.3	-1.4	2.0

Source: UNIDO Statistics.
Note: Seasonally adjusted data.

Table 6

Annual MVA (in constant 2015 US$) growth forecasts, selected country groups

Percentage change compared to the previous year

	Growth rates 2020, revised	Growth rates 2021, forecasts
World	-6.8	7.6
Grouping by development		
Industrialized economies	-10.4	7.2
Eastern Asia (IE)	-8.5	6.2
Europe (IE)	-11.6	5.7
Northern America (IE)	-10.4	10.3
China	-0.7	9.0
Developing and EIEs (excl.China)	-6.2	5.9
Africa (Dev. and EIE)	-1.9	2.6
Asia and Pacific (Dev. and EIE, excl. China)	-4.6	7.3
Europe (Dev. and EIE)	-6.7	5.3
Latin America (Dev. and EIE)	-11.7	4.2
Emerging industrial economies	-7.2	6.8
Least developed economies	1.9	0.6
Other developing economies	-3.1	2.2
Grouping by region		
Africa	-1.9	2.6
Asia and Pacific	-3.6	7.9
Europe	-11.4	5.7
Latin America	-11.3	4.1
Northern America	-10.4	10.3

Source: UNIDO Statistics.

Methodological note

This report presents observed growth rates and estimates of world manufacturing production for the first quarter of 2021, as well as revised estimates for the fourth quarter of 2020. 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.[4] 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 seasonally adjusted index numbers. Since 2017, seasonal adjustments are made using the TRAMO/SEATS[5] 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-

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

[5] TRAMO 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 manufacturing 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.