



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

World Manufacturing Production

Quarter I 2022 Report

Further stabilization in manufacturing, but prospects are uncertain

- This report provides insights on the latest trends in global manufacturing, based on seasonally-adjusted data up to the first quarter of 2022.
- The report relies on UNIDO's new country classification for 2022.
- In a year-over-year comparison, global manufacturing production increased by 4.2 per cent in the first quarter of 2022.
- On a regional level, Northern America and Asia & Oceania showed the best performance.
- Production in the motor vehicle industry continues to fall.

Global and regional manufacturing growth

While the lingering effects of the COVID-19 pandemic continued into the first months of 2022, they are gradually weakening, although with seasonal, regional and sectoral differences. The distribution of raw materials and products in global supply chains, e.g. in motor vehicle production, continues to pose a major logistical threat. Moreover, the list of products from the Russian Federation facing import bans is expanding due to the ongoing military offensive in Ukraine. Given the global dependence on fuel, essential foodstuffs and other goods imported from the Russian Federation and Ukraine, this crisis has become a major source of global uncertainty.



Figure 1: Year-over-year growth rates of quarterly world manufacturing output

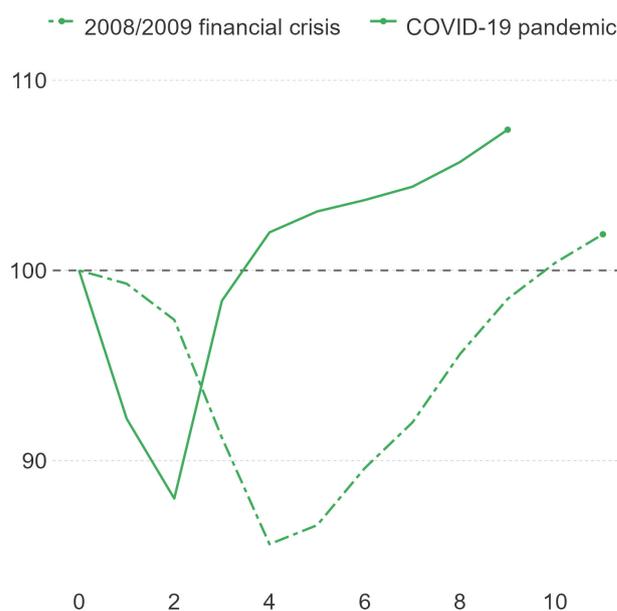


Figure 2: Comparison of the impact and duration (in quarters) of the last two global crises, last quarter before the crisis = 100

The COVID-19 pandemic caused the first drastic global decline in manufacturing since the financial crisis of 2008/2009 (Figure 1). As more data became available, it became apparent that the intensity and duration of the crisis were not as damaging to the manufacturing sector as initially feared. Figure 2 shows that one year after the outbreak of the pandemic, global production already exceeded pre-pandemic levels. Since then, growth in global and regional manufacturing has remained stable, ending the relatively volatile trends of the past years. In the first quarter of 2022, global manufacturing production registered a year-over-year output growth of 4.2 per cent.

A closer look at different regions provides further insights (see Figure 3). Northern America's manufacturing sector reported an output growth of more than five per cent, which is primarily linked to the manufacturing activity in the United States, the largest economy in this group. Manufacturing output growth in Asia & Oceania reached 4.8 per cent in the first quarter of 2022, which was primarily attributable to China's dynamism. India, Indonesia, Türkiye and the Republic of Korea also contributed to the region's positive performance. However, Japan, one of the region's large manufacturers, registered a small decrease in output of 0.6 per cent, continuing its sluggish growth trend observed in recent years. Manufacturing output

in Europe and Latin America grew by around two per cent. The growth patterns in European economies differed, but were positive in most cases. Nevertheless, it's expected that the military offensive in Ukraine will lead to major economic disruptions due to rising energy prices and shortages of products, such as steel or food, especially affecting neighboring countries. In Latin America region, Mexico's and Argentina's production growth remained solid, while Brazil continues to face shrinking production. Limited data on Africa indicate a year-over-year growth of 4.2 per cent, with Nigeria and South Africa, two of the largest manufacturers on the continent, showing stable growth rates of 4.9 per cent and 0.8 per cent, respectively.

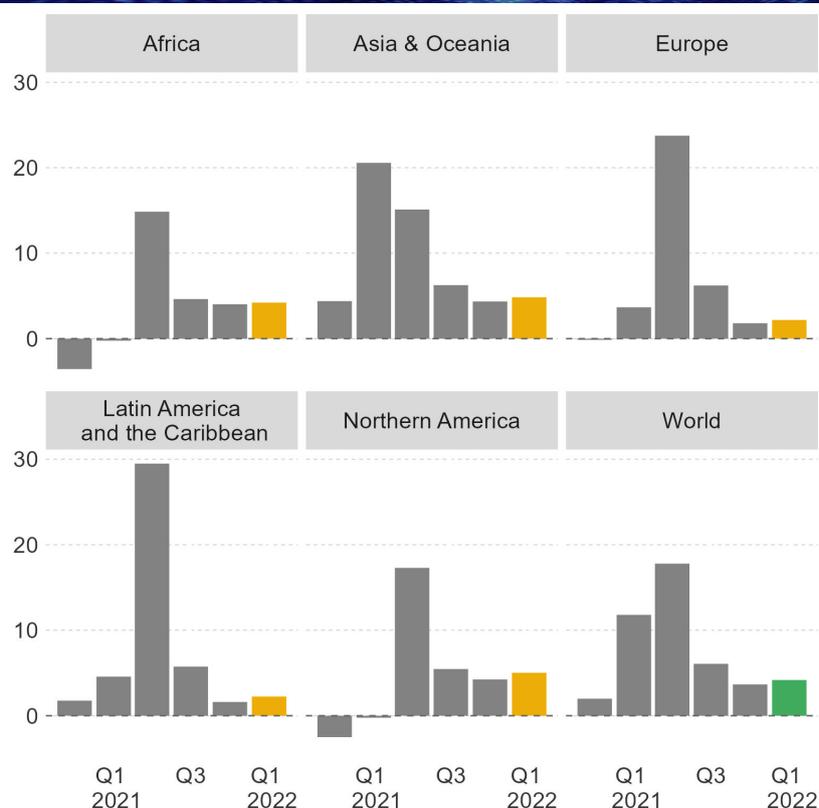


Figure 3: Year-over-year growth rates of regional manufacturing output

Findings by country groups

Industrial economies

Industrial economies were not only responsible for around 90 per cent of all manufacturing output, they also demonstrated higher dynamism, reaching and even exceeding their pre-pandemic production levels by the end of 2020 (Figure 4). In the first quarter of 2022, industrial economies reported an annual output growth of 4.1 per cent, following a stable increase of 3.6 per cent and 6.1 per cent in the last two quarters, respectively.

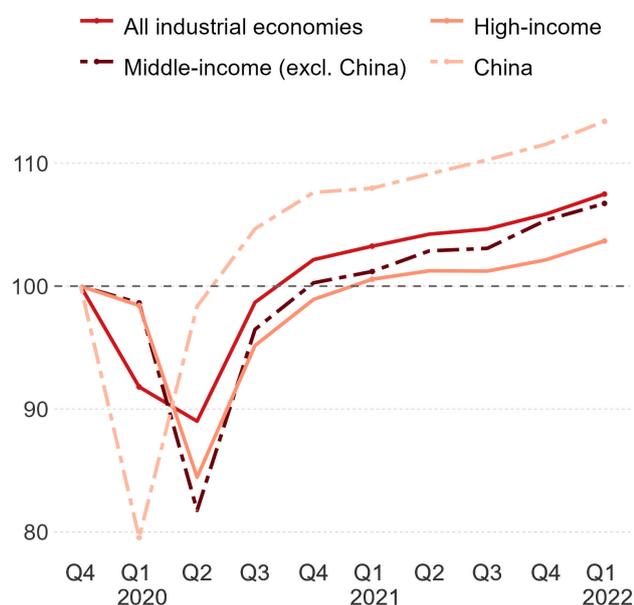


Figure 4: Index of manufacturing production of industrial economies (Q4 2019 = 100)

China's (5.0 per cent) and other middle-income economies' (5.5 per cent) production performance was better than that of high-income in-

dustrial economies (3.1 per cent). Among industrial economies, this latter group was the last to reach its pre-pandemic level, namely only in the first quarter of 2021.

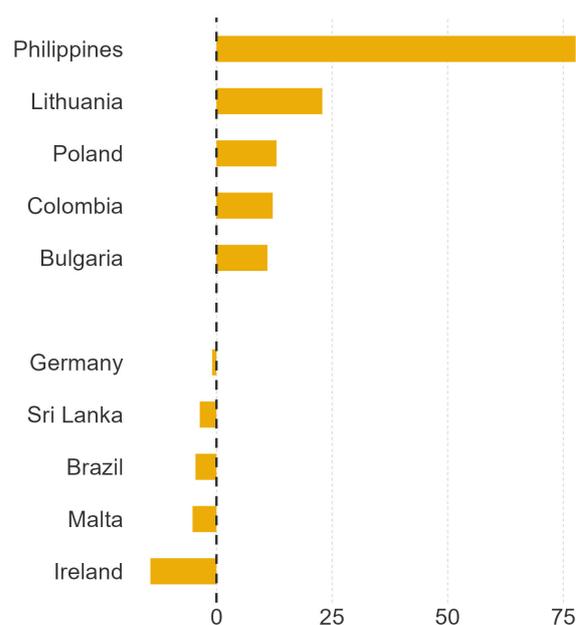


Figure 5: Year-over-year growth rates of the top 5 and bottom 5 industrial economies for Quarter I 2022

At the country level, the Philippines reported an increase of more than 70 per cent, the highest growth rate of all industrial economies (see Figure 5). The country is still recovering from the severe and extensive production losses suffered since 2019. Lithuania, Poland and Colombia also posted a positive production performance during the first

quarter of 2022. On the other hand, Ireland saw a significant decline in production of around 15 per cent for the second quarter in a row.

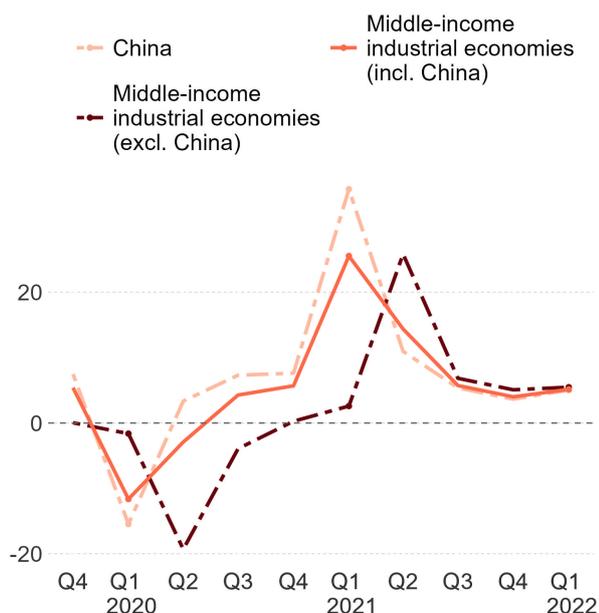


Figure 6: Year-over-year growth of manufacturing output in China and middle-income regions

The latest figures for China's manufacturing sector indicate a high year-over-year growth of five per cent for the first quarter of 2022. Figure 6 compares China, which accounts for around 30 per cent of global manufacturing value added, with the group of middle-income economies. The figure shows that China is the main driver of the recovery, even though in recent quarters, other middle-income industrial economies have been able to achieve slightly higher growth rates than China. It remains uncertain, however, how the most recent COVID-19 measures in Chinese industrial areas, such as Shanghai or Beijing, will impact production and the distribution of goods and materials in forthcoming quarters.

Other industrializing economies

The group of other industrializing economies is heterogeneous. Although they account for a lower share of global manufacturing production, the countries in this group would benefit most from structural transformation and a shift to higher productivity and technological intensity. Overall, this group registered a year-over-year output increase of 5.1 per cent in the first quarter of 2022. Despite the fact that this country group's performance lies above the world average, a clear distinction emerges between economies with different income levels (Figure 7).

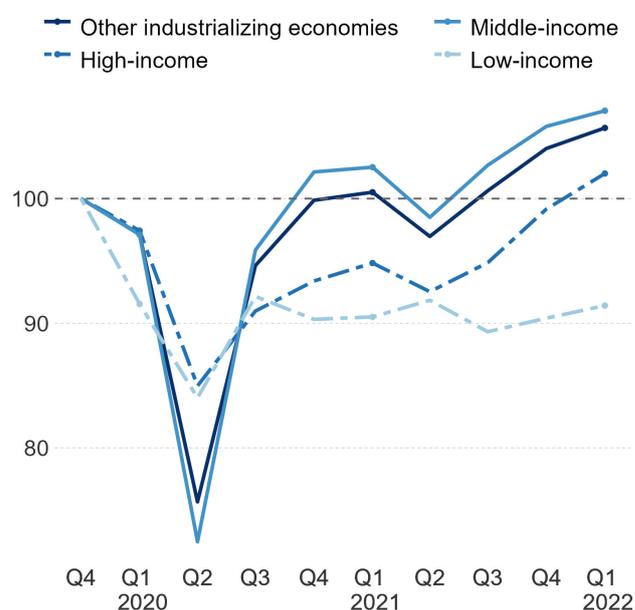


Figure 7: Index of manufacturing production of other industrializing economies (Q4 2019 = 100)

Low-income economies, for example, have not yet reached their pre-pandemic production level, while the performance of high-income industrializing economies was better in the first quarter of 2022 than before the pandemic. Middle-income industrializing economies demonstrate stable growth over time, India being the main driver in this country group. A comparison between Figure 7 and Figure 4 confirms the greater heterogeneity that exists in the performance of production between different groups of industrializing economies.

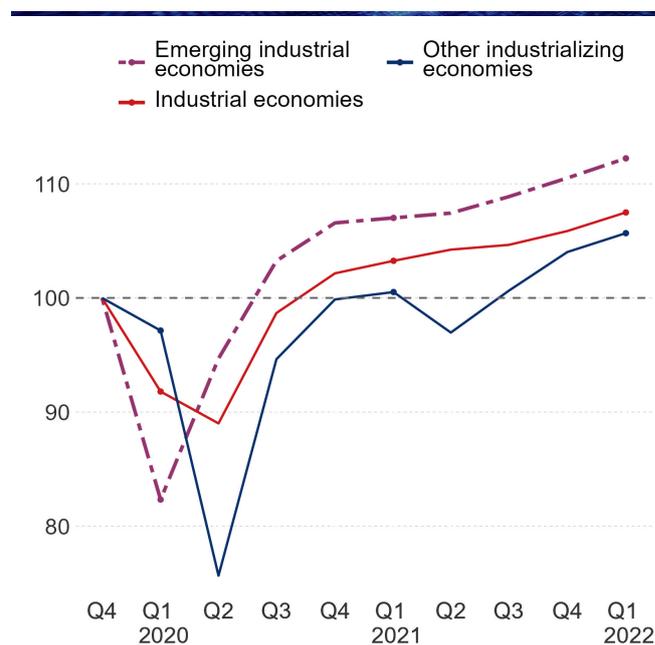


Figure 8: Index of manufacturing production of emerging industrial economies as well as other selected country groups (Q4 2019 = 100)

Emerging industrial economies

Emerging industrial economies belong to a special group of economies whose manufacturing sectors have demonstrated significant dynamism in recent years. In addition to several industrial economies, the group also includes other industrializing economies which, although still at earlier stages of industrial development, have a manufacturing sector that has shown strong growth. As illustrated in Figure 8, this group of economies has reported a stable growth rate for several quarters and already exceeded its pre-pandemic level in the third quarter of 2020.

Currently, Viet Nam is leading the group, with an annual growth of 15.4 per cent, followed by Malaysia with still an increase of more than five per cent (Figure 9). Sri Lanka, on the other hand, has witnessed production losses for the past three quarters, putting at risk any gains made.

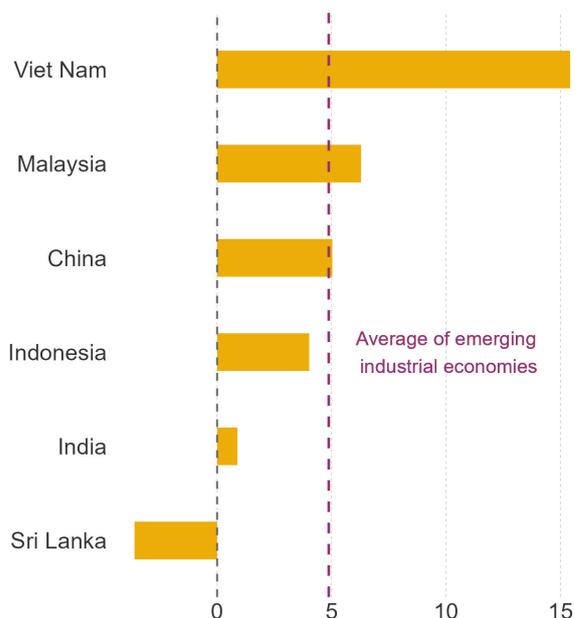


Figure 9: Year-over-year growth rates of manufacturing output of selected emerging industrial economies

Findings by industry groups

At the onset of the pandemic in the first half of 2020, all industrial sectors grouped by technological intensity suffered similar impacts, but their paths towards recovery have since varied in speed and intensity. Sectors classified as medium-high- and high-technology already exceeded their pre-pandemic level in the third quarter of 2020 (see Figure 10).

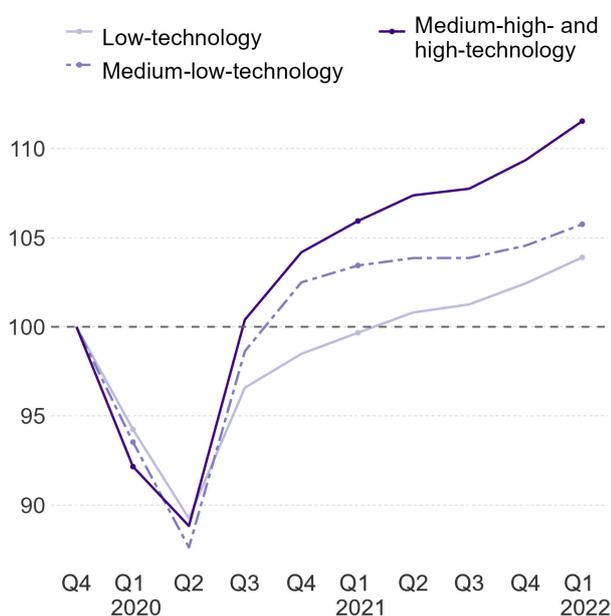


Figure 10: Index of manufacturing industries by technological intensity (Q4 2019 = 100)

In the first quarter of 2022, the performance of medium-high- and high-technology industries (5.3 per cent) as well as low-technology industries (4.2 per cent) was better than that of industries

that rely mostly on medium-low technologies (2.2 per cent), such as mineral products or basic metals.

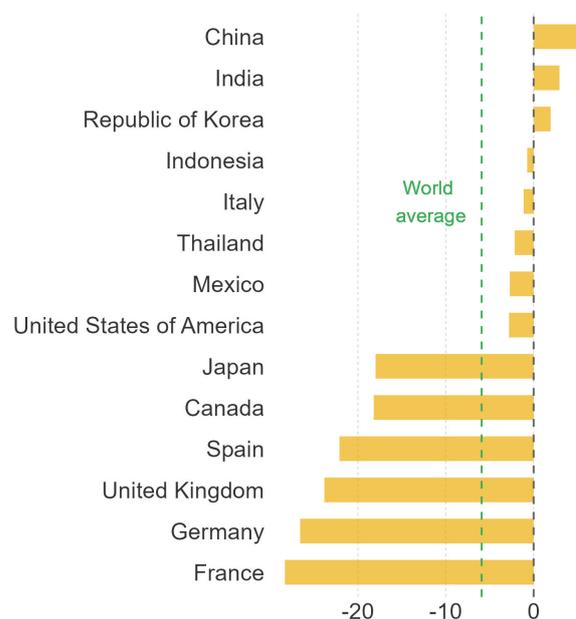


Figure 11: Growth rate of output in the motor vehicles sector in Quarter I 2022, percentage change compared to pre-pandemic level (2019 Q4), selected countries with a large weight in this sector

The growth rate of medium-high- and high-technology industries has remained above four per cent since the fourth quarter of 2020, which is primarily attributable to the strong performance of computers, electronics and optical products, electrical equipment as well as pharmaceuticals. The production of motor vehicles, a higher technology sector, has struggled in recent quarters due to persistent supply chain disruptions. The majority of

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large motor vehicle producers (see Figure 11) has been dealing with a reduced supply of materials and intermediate goods and they have not yet been able to reach their pre-pandemic production levels.

The performance of industries remained heterogeneous across country groups in the first quarter of 2022 (Figure 12). Industrial economies only

reported losses in motor vehicle production, while other industrializing economies also posted losses in other industries, including machinery, chemicals and fabricated metals. On the other hand, wearing apparel achieved the highest growth rate at the global level as well as across country groups.

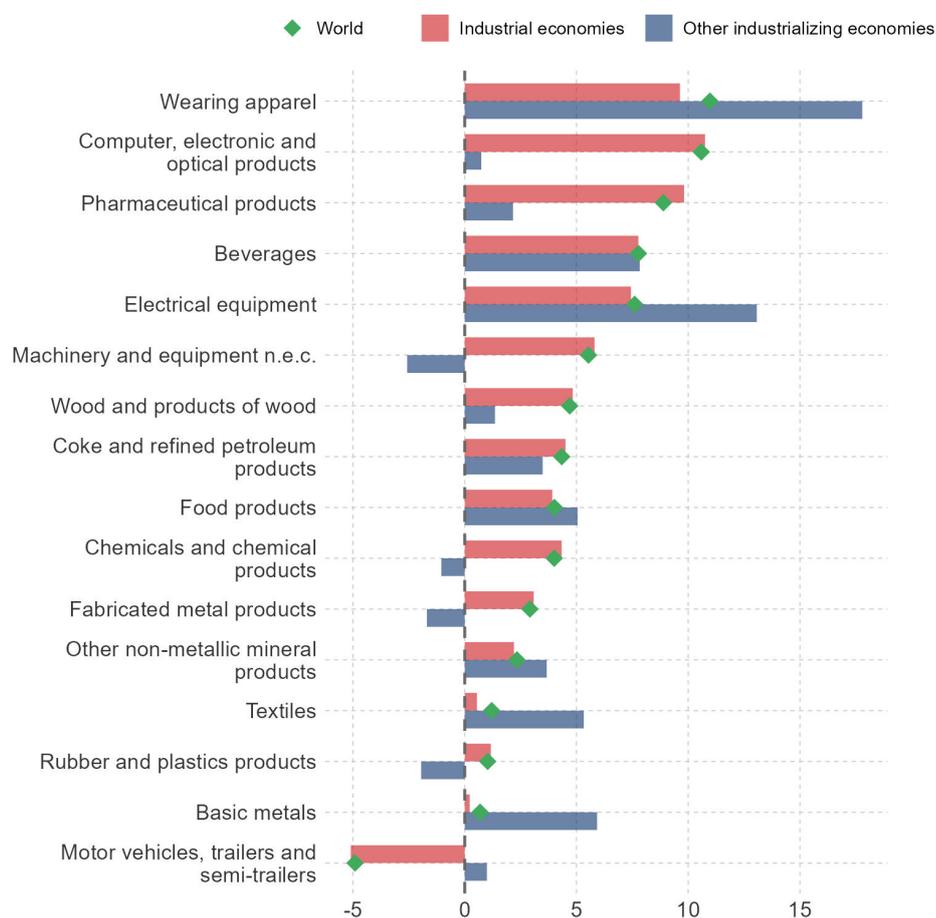


Figure 12: Growth rates by industry in percentage change compared to previous year, Quarter I 2022

Main indicators for Quarter I 2022

Estimated index and growth rates of world manufacturing output

Index values and year-over-year percentage changes

	Share in world MVA (2015)	Index (2015 = 100)	Compared to previous quarter	Compared to same period of the previous year
World	100.0	121.5	1.5	4.2
Industrial economies	92.9	121.5	1.5	4.1
High income industrial economies	53.2	106.8	1.5	3.1
Middle income industrial economies (excl. China)	12.4	114.3	1.3	5.5
China	27.4	153.2	1.7	5.0
Other industrializing economies	7.1	121.9	1.6	5.1
Other high income economies	1.9	108.3	2.9	7.6
Other middle income economies	5.1	127.0	1.2	4.4
Low income economies	0.1	117.6	1.1	1.0
Regions				
Africa	1.8	110.0	1.4	4.2
Asia & Oceania	51.0	135.6	1.6	4.8
Europe	22.7	110.9	1.6	2.2
Latin America	5.3	104.5	1.0	2.2
Northern America	19.3	102.3	1.4	5.0

Source: UNIDO Statistics.

More detailed data can be downloaded [here](#).

Manufacturing value added growth prospects for 2022

In addition to the figures observed for the first quarter of 2022, this report includes UNIDO's revised annual manufacturing growth estimates for 2021 and prospects for 2022. These are based on manufacturing value added (MVA) figures from national accounts.¹

Global manufacturing gradually recovered in 2021 following the disruptions caused by the COVID-19 pandemic and the resulting containment measures imposed around the world. The measures had a significant impact on both demand and supply. According to newly revised UNIDO estimates, world manufacturing value added increased by 7.2 per cent in 2021 after the plunge in 2020 and it is estimated to follow a stable growth of 3.9 per cent in 2022.

Disaggregated data by country groups as well as country-level data provide further insights. MVA in industrial economies is estimated to grow by 3.8 per cent in 2022, after a rise by 7.4 per cent in 2021 and a pandemic-related drop of 1.4 per cent in 2020.

MVA in the United States is expected to increase by 4.8 per cent in 2022, following 8.3 per cent in 2021, which is particularly noteworthy following a decline of three per cent in 2020. Manufacturing in China is estimated to climb 4.1 per cent in 2022, indicating that the country's pace of recovery is stabilizing after a solid growth of 8.5 per cent in 2021 and a dampened but still positive growth rate of 2.6 per cent in 2020.

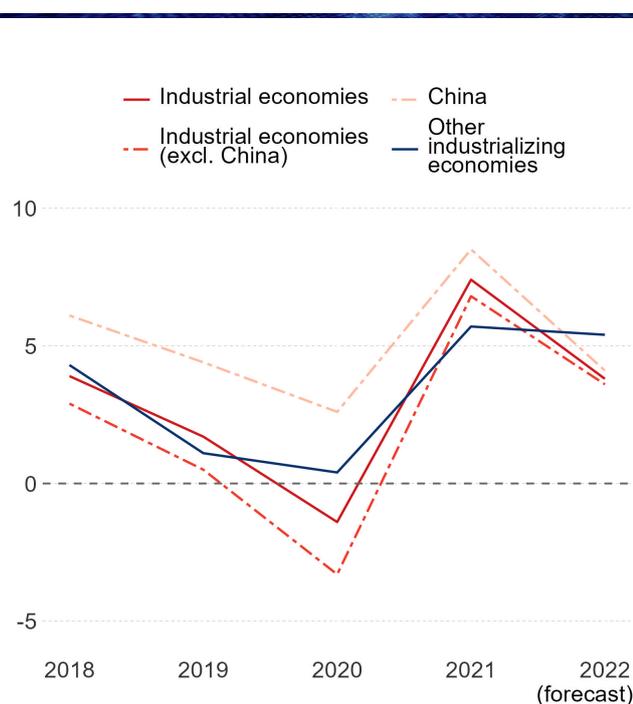


Figure 13: Annual growth rates in manufacturing value added of selected country groups based on 2015 constant US\$

¹Previous MVA estimates can be found in [World Manufacturing Production, Quarter 3 - 2021](#)

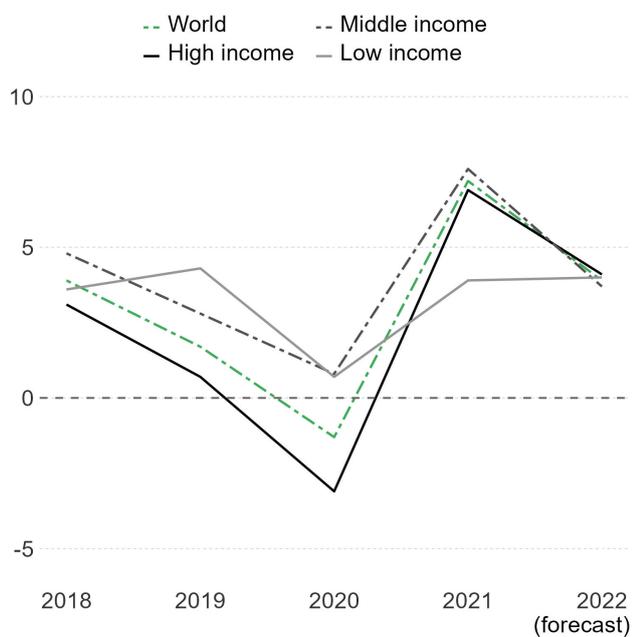


Figure 14: Annual growth rates in manufacturing value added of country groups by income based on 2015 constant US\$

The expected increase in MVA of France and Germany for 2022 is 3.5 per cent and 2.8 per cent, respectively. MVA in Europe generally seems to be on a stable path towards recovery, with an expected growth rate of 2.3 per cent in 2022, compared to the rise by 7.3 per cent in 2021 and a decline of 6.0 per cent in 2020.

The manufacturing sector of other industrializing economies also showed solid recovery, bouncing back from a slight increase of 0.4 per cent in 2020 to solid 5.7 per cent in 2021 and 5.4 per cent in 2022. The biggest manufacturer in this group, India, is expected to achieve a remarkable increase in MVA of 8.2 per cent in 2022.

MVA in least developed countries (LDCs) recorded growth rates of less than one per cent in 2020 and 2021, but it is expected to bounce by 6.1 per cent in 2022. Emerging industrial economies, on the other hand, are expected to have grown by eight per cent in 2021 and the current prospects indicate a further growth of 4.7 per cent in 2022, mostly due to the strong performance of China.

More detailed data can be downloaded [here](#).

Methodological note

This report presents observed growth rates and estimates of world manufacturing production for the first quarter of 2022, as well as revised estimates for the fourth 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 manufacturing value added (MVA) (i.e. output net of intermediate consumption), quarterly IIPs reflect the growth of gross output.² 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, sea-

sonal adjustments have been made using the TRAMO/SEATS³ method in the JDemetra+ software. The purpose of seasonal adjustments is to filter out 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 a combination of their stage of industrialization (industrial or industrializing) and income level (high income, middle income and low income). This classification is particularly useful for presenting growth estimates by country aggregates at different levels of structural transformation. In addition, the report includes information on the group of emerging industrial economies, which includes the most dynamic economies within both industrial and industrializing economies. Finally, regional groups based on the M49 classification are also presented. A comparative picture of growth trends in different parts of the world is provided based on these coun-

²For a description of the variable manufacturing value added (MVA) can be found [here](#).

³TRAMO 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.

try groups. The full list of economies in the country groupings is available in the forthcoming [International Yearbook of Industrial Statistics 2022](#).

The present report implements revision 4 of the International Standard for Industrial Classification 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. 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 MVA. Since the first quarter of 2020, the base year has been adjusted to 2015 in accordance with other UNIDO publications.

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.