Quarterly Report, Q1 2024

World Manufacturing Production

Headwinds enforcing a global slowdown
World Manufacturing Production
Highlights Q1 2024

Global and regional manufacturing

- Quarter-over-quarter growth rate of global production, another quarter with sluggish performance.

- Manufacturing in industrial economies remained flat in quarterly comparison, while output in industrializing economies grew moderately by 1.4%.

Sectoral trends

- Higher-tech industries faced a downturn compared to the previous quarter:
  - Medium-high and high tech: -0.1%
  - Other manufacturing industries: 0.8%

- Many lower-tech industries, such as printing and beverages, achieved a modest growth, while higher-tech industries are currently struggling, most particularly motor vehicles.
Global and regional manufacturing growth

Global production remained stationary during the first quarter of 2024, further extending the lackluster performance registered since the second half of 2022 (Figure 1.1). In the first three months of the year, global manufacturing output stayed almost flat in quarter-over-quarter comparison, while in the previous quarter it recorded a moderate growth of 0.9 per cent.

In the recent past, the global economy had to endure various challenges, such as a high, although now declining, rate of global inflation, volatile energy prices, persistent supply chain disruptions and the ramifications of regional conflicts. The combination of these disturbances are leading to a weakening consumer confidence and a lower demand, among other parts. Furthermore, the impact on production of the undersupply of a highly qualified workforce in certain industries, as well as the rising occurrences of natural disasters, will gradually increase severity unless a coordinated and sustainable response at the global level is agreed.

Figure 1.1 | Index of global manufacturing production

0.1% quarter-over-quarter growth rate of global manufacturing production
During the first quarter of 2024, the manufacturing sector in most regions continued to face production losses compared to the previous quarter (Figure 1.2). China achieved the best performance again, with a quarterly manufacturing expansion of 1.3 per cent, representing an inter-annual increase of almost 5 per cent (see Annex Table A.1).

Figure 1.3 presents longer-term trends observed in the different world regions. Manufacturing in Asia and Oceania (excl. China) had recorded stable quarterly growth rates between 0.6 and 0.8 per cent in recent periods, with the exception of a loss of 0.7 per cent in the current period. When China is included, the region’s output rises by 0.5 per cent, due to the country’s high weight in the region’s manufacturing sector. The performance of other countries with a significant contribution to this region’s manufacturing output diverged. Production in India, Indonesia and Taiwan Province of China, for example, expanded by more than 1.0 per cent in quarterly comparison, while Japan (-5.2 per cent), the Republic of Korea (-0.6 per cent) and Thailand (-1.1 per cent) suffered significant production cuts.

In the first quarter of 2024, European manufacturing production decreased by 1.0 per cent compared to the fourth quarter of 2023. Based on the most recent data, it seems that the solid growth of 1.1 per cent recorded in the previous quarter was only an exception. The countries of this region followed different growth trajectories. For example, France (-0.6 per cent), Italy (-0.9 per cent), the Kingdom of the Netherlands (-2.1 per cent) and Switzerland (-1.0 per cent) faced output reductions, while production in Germany (0.8 per cent), the Russian Federation (2.2 per cent), Spain (0.6 per cent) and the United Kingdom (1.4 per cent) experienced growth of varying magnitudes.
Manufacturing output in Latin America and the Caribbean dropped again in the first quarter of 2024, with a growth rate of -0.4 per cent in quarter-over-quarter comparison. This negative trend already started by the end of 2022. The two biggest Latin American economies, Mexico and Brazil, recorded diverging quarterly developments: while Brazil’s output grew by 1 per cent, Mexico’s production remained flat. Furthermore, Argentina, Colombia, Peru and Uruguay reported negative growth at different rates. Similarly, Northern America has also experienced negative quarterly results since the end of 2022. For the current quarter, this region’s level of manufacturing production stalled, matching the performance of the United States of America, while Canada’s output suffered a loss of 0.6 per cent.

Limited data on Africa revealed a third consecutive quarter with slightly increasing manufacturing output, currently halting at a growth of 0.2 per cent. The growth patterns of the different countries diverge to a significant degree: Egypt (0.3 per cent), Nigeria (0.7 per cent) and Rwanda (2.6 per cent), for example, remained in positive territory, while Senegal (-0.6 per cent) and South Africa (-0.9 per cent) recorded output reductions compared to the previous quarter.
2.1 Industrial economies

In the first quarter of 2024, the manufacturing sector of industrial economies stagnated in quarterly comparison, further continuing a phase of subdued growth, with only a short interruption in the previous quarter, when output grew by 0.9 per cent.

Analysing the data in greater detail, the economies of this group continued to show diverse growth patterns. Australia, Belarus, Malaysia, Sweden and Taiwan Province of China, for instance, registered growth of differing magnitudes. On the other hand, manufacturing output in Argentina, Ireland, Japan and Singapore declined by at least 5 per cent compared to the fourth quarter of 2023.

Figure 2.1 | Quarter-over-quarter growth rate of manufacturing production of industrial economies
Disaggregated data show a declining manufacturing activity in high-income industrial economies, including a quarter-over-quarter decrease of 1.3 per cent during the most recent quarter, as shown in Figure 2.1. On the other hand, the group of middle-income industrial economies (including China) reached a quarterly output increase of 1.2 per cent (Figure 2.2). The manufacturing production of this group follows closely the trajectory of China, due to the large share of the country in the group’s overall output.

Other middle-income industrial economies reported a solid manufacturing growth of 0.9 per cent in quarterly comparison, although with a significant inter-country variability. Some countries grew at a dynamic pace, including Belarus, Malaysia, Sri Lanka and Türkiye, while others contracted at a significant rate (Bulgaria -1.7 per cent, Peru -1.2 per cent and Thailand -1.1 per cent).

*Figure 2.2 | Quarter-over-quarter growth rate of manufacturing production of middle-income industrial economies*
2.2 Industrializing economies

This group accounts for a lower share of global manufacturing production. Although heterogeneous, the countries in this group could benefit considerably from a stronger industrial sector and a shift to industries with higher productivity and technological intensity. The group’s production level is gradually increasing over the past years and it reached a quarter-over-quarter output growth of 1.4 per cent, leaving behind industrial economies, which reported stagnating production. These trends suggest that a convergence process might be taking place.

A closer look at specific subgroups (Figure 2.3) reveals more detailed insights. Output in high-income industrializing economies expanded by a remarkable 2.2 per cent in quarterly comparison, overcoming a deceleration registered since the beginning of 2023. This result was mostly achieved by the positive performance of Saudi Arabia and Chile. Production in middle-income industrializing economies grew by 1.2 per cent, while output in low-income economies decreased by 0.5 per cent, continuing the volatile path observed since 2020.

Figure 2.3 | Quarter-over-quarter growth rate of manufacturing production of industrializing economies
2.3 Emerging industrial economies

Emerging industrial economies are a special group of low- and middle-income economies whose manufacturing sector has demonstrated significant dynamism in recent years. In addition to several industrial economies, the group also includes industrializing economies that, although still at earlier stages of industrial development, have recently shown strong manufacturing growth.

The manufacturing output of this group has indeed shown a comparatively positive performance, being significantly ahead of the world average as well as the averages of both industrial and industrializing economies (Figure 2.4). In the past three quarters, it expanded by more than 1 per cent in quarterly comparison, including a growth of 1.3 per cent in the current quarter.

On a country analysis, manufacturing in all observed countries increased on a quarterly base by at least 1 per cent. Malaysia (2.7 per cent) and Rwanda (2.6 per cent) were the leading countries in terms of growth rate, followed by China and India, both with a growth of 1.3 per cent. Moreover, manufacturing output of Viet Nam and Indonesia registered 1.2 cent and 1.1 per cent, respectively.

Figure 2.4 | Quarter-over-quarter growth rate of manufacturing output in emerging industrial economies and other selected country groups
The latest global trends in industrial sectors grouped by technological intensity are shown in Figure 3.1. The data reveal that higher-technology industries have continued showing a strong dynamism and remained robust, and even thrived, amidst many challenges.

On average, industries classified as medium-high and high technology (MHT) outperformed other manufacturing sectors. Nevertheless, this group recorded a slight output reduction of 0.1 per cent in the first quarter of 2024, while its output had increased by at least 1 per cent in previous quarters. Other manufacturing industries, on the other hand, registered a quarterly growth of 0.8 per cent for the first quarter of 2024, but remained flat or even decreased in previous quarters.

The quarterly performance of higher-technology industries suffered from the weak production in the automotive (-2.9 per cent), machinery (-1.0 per cent) and electrical equipment (-0.5 per cent) sectors (Figure 3.2). The best results were achieved by the manufacturing of computers and electronics (1.6 per cent) and chemicals (1.0 per cent).
The automotive sector faced a production performance decreasing by almost 3 per cent in quarterly comparison, which could be an important sign of a slowdown in this sector. Analyzing country-level production data, major car producers registered large output decreases, including China, Japan and Germany. The transition toward electric engines and other emerging technologies, together with the ambition to reducing emission levels, are global challenges that will determine the sector’s future already in the short term.

The performance of industries differed across country groups (Figure 3.3). Industrial economies recorded subdued quarterly increases for many lower-technology industries and significant losses of higher-tech industries. Industrial economies outperformed industrializing economies in the manufacturing of pharmaceuticals, where the latter suffered a drop by 2.8 per cent. In contrast, industrializing economies have further boosted the manufacture of computers and electronics.

**Figure 3.2 | Performance of manufacturing industries by technological intensity, quarter-over-quarter growth rate, Q1 2024**

**Top 10 producers of motor vehicles and their quarter-over-quarter growth in Q1 2024**

1. China (-3.2%)
2. United States (3.5%)
3. Japan (-12.7%)
4. Germany (-3.6%)
5. Republic of Korea (-3.0%)
6. Mexico (-2.5%)
7. United Kingdom (7.7%)
8. India (-0.2%)
9. France (-8.1%)
10. Indonesia (2.3%)
Figure 3.3 | Performance of manufacturing industries by technological intensity and country groups, quarter-over-quarter growth rates, Q1 2024

Note: Industries are ordered according to world growth rate (see Figure 3.2)
A Main indicators

The table below presents a summary of the main indicators for the current quarter. Additional data tables with further details on recent trends by regions, country groups and industrial sectors can be downloaded here. The complete dataset of quarterly indices of industrial production can be accessed in UNIDO’s Quarterly IIP database.

<table>
<thead>
<tr>
<th>Table A.1</th>
<th>Main indicators of manufacturing output by regions and industrial groups, Q1 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Share in world MVA (2015, percentage)</td>
</tr>
<tr>
<td><strong>Development groups</strong></td>
<td></td>
</tr>
<tr>
<td>World</td>
<td>100.0</td>
</tr>
<tr>
<td>Industrial economies</td>
<td>93.1</td>
</tr>
<tr>
<td>Industrializing economies</td>
<td>6.9</td>
</tr>
<tr>
<td><strong>Regions</strong></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>1.9</td>
</tr>
<tr>
<td>Asia &amp; Oceania</td>
<td>50.8</td>
</tr>
<tr>
<td>Europe</td>
<td>22.7</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>5.4</td>
</tr>
<tr>
<td>Northern America</td>
<td>19.2</td>
</tr>
<tr>
<td><strong>Industrial economies</strong></td>
<td></td>
</tr>
<tr>
<td>High-income industrial</td>
<td>53.4</td>
</tr>
<tr>
<td>Middle-income industrial (excl. China)</td>
<td>12.7</td>
</tr>
<tr>
<td>China</td>
<td>27.0</td>
</tr>
<tr>
<td><strong>Industrializing economies</strong></td>
<td></td>
</tr>
<tr>
<td>High-income industrializing</td>
<td>1.8</td>
</tr>
<tr>
<td>Middle-income industrializing</td>
<td>5.0</td>
</tr>
<tr>
<td>Low-income</td>
<td>0.1</td>
</tr>
</tbody>
</table>
This report presents observed growth rates and estimates of world manufacturing production for the first quarter of 2024, as well as revised estimates for the fourth quarter of 2023. The figures are based on indices of industrial production (IIP) collected by UNIDO Statistics from national data sources. Currently, quarterly IIPs are available for 117 countries, corresponding to 97.2 per cent of global manufacturing value added (MVA). As shown in Figure B.1, major data gaps are still present, mostly in Africa and some subregions of Asia and Oceania.

IIP measures the growth of the volume of industrial production in real terms, independently 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. 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. Since 2013, growth figures have been published based on seasonally adjusted index numbers. Since 2017, seasonal adjustments have been made using the TRAMO/SEATS 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.

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.

UNIDO's IIP time series are seasonally adjusted for seasonal- and calendar-related effects

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.

These estimates are replaced as soon as the officially reported values become available in national statistical publications.

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 country groups. The full list of economies in the country groupings is available in the UNIDO Country Classification document (Edition 2024).

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 Portal. Since 2020, UNIDO also publishes monthly data on world manufacturing production with regular updates.