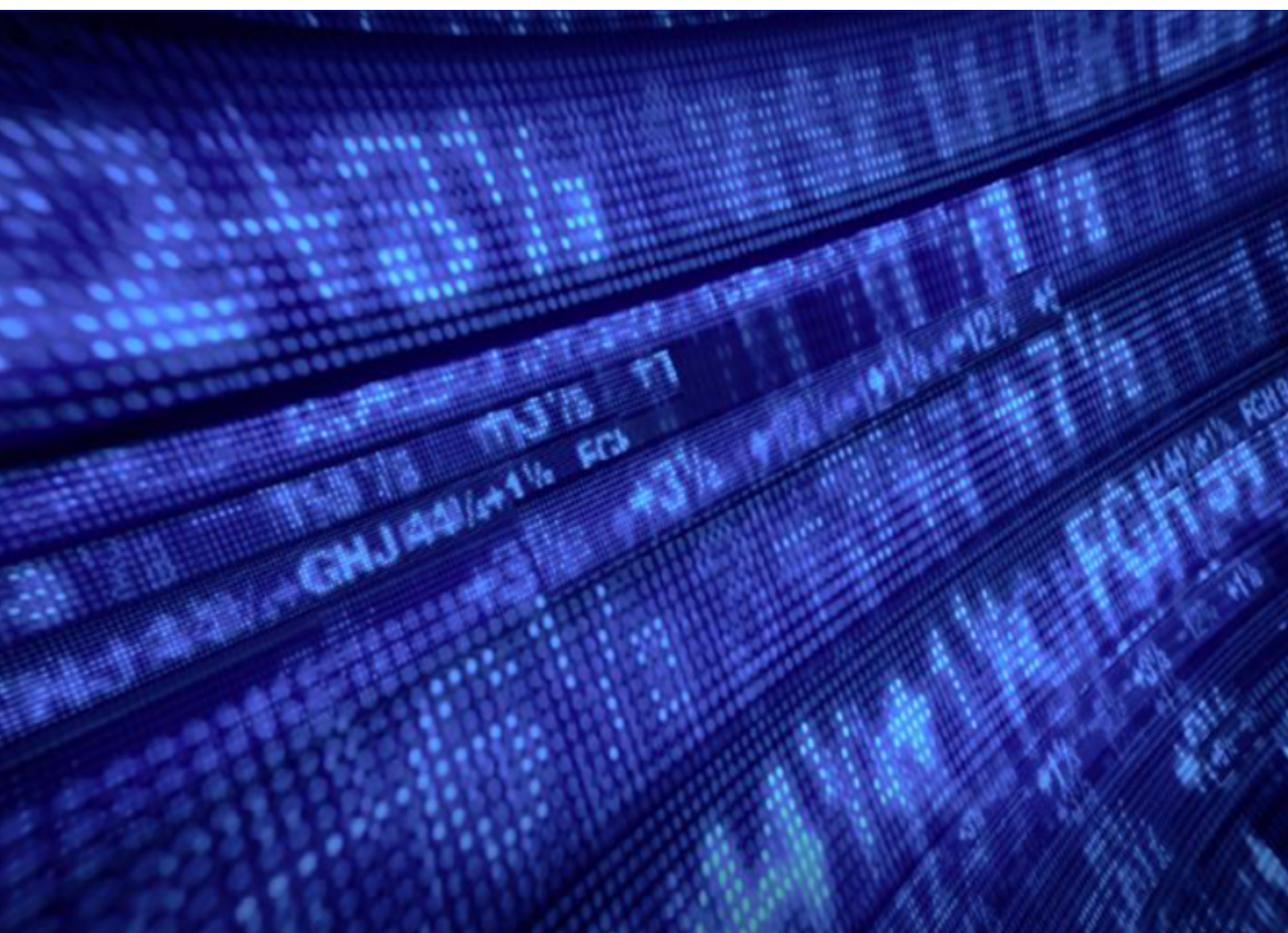




UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

World Manufacturing Production

Statistics for Quarter IV, 2017



Report on world manufacturing production

This report presents the observed growth rates and growth estimates of world manufacturing production for the fourth quarter of 2017. The figures are based on the 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 are advised to take note that while annual industrial growth rates generally refer to changes in manufacturing value added (MVA), i.e. output net of intermediate consumption, the quarterly indices 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 is relatively stable during the observation period.

UNIDO has been publishing 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. Growth figures have been published based on seasonally adjusted index numbers since 2013. Since 2017, seasonal adjustments are made using the TRAMO/SEATS method¹ in the JDemetra+ software. The purpose of seasonal adjustments is to filter out any fluctuations or calendar effects within time series shifts.

In 2013, UNIDO Statistics introduced new country groups, with economic territories being classified based on their stage of industrialization. This grouping is implemented in all of UNIDO's statistical publications. The grouping is particularly useful for presenting aggregated growth estimates by country group at different levels of industrialization. In the aftermath of the economic crisis, the pattern of growth, particularly in industrialized and developing countries, differed considerably. A comparative picture of growth trends in different parts of the world has been provided to users. The full list of economies used in the country groups is available in the International Yearbook of Industrial Statistics².

¹TRAMO 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 analyses.

²<https://www.unido.org/resources/publications/flagship-publications/international-yearbook-industrial-statistics>

The present report implements Revision 4 of the International Standard for Industrial Classification of All Economic Activities (ISIC Rev 4)³ in the quarterly data. For countries that publish monthly/quarterly index numbers 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 2-digit level of Rev 4 using the corresponding 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 generally replaced as soon as the officially reported values become available in national statistical publications.

Growth rates are calculated from the national index numbers that are aggregated to

the given country group or world region using weights based on the country's contribution to world manufacturing value added in 2010. The country groups are based on economic territories rather than political boundaries. This report presents the 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 procedure or compilation of the country groups' indices in a methodological document⁴ which is available on the statistical pages of UNIDO's website, together with the actual indices published in UNIDO's Quarterly IIP database, available at UNIDO Statistics Data Portal⁵.

This report presents estimates for the fourth quarter of 2017 as well as revised estimates for the third quarter of 2017.

³http://unstats.un.org/unsd/publication/seriesM/seriesm_4rev4e.pdf

⁴http://www.unido.org/fileadmin/user_media/Publications/Research_and_statistics/Branch_publications/Research_and_Policy/Files/Reports/World_Manufacturing_Production_Reports/Methodology_of_the_Quarterly_Report.pdf

⁵<http://stat.unido.org/>

World manufacturing growth in quarter IV 2017

World manufacturing production continued to grow in the fourth quarter of 2017, maintaining the upward trend that has been observed since the beginning of the year. Industrialized economies gained further strength in manufacturing production and confirmed their dynamic growth. Developing and emerging industrial economies achieved a much higher growth of manufacturing output than industrialized economies.

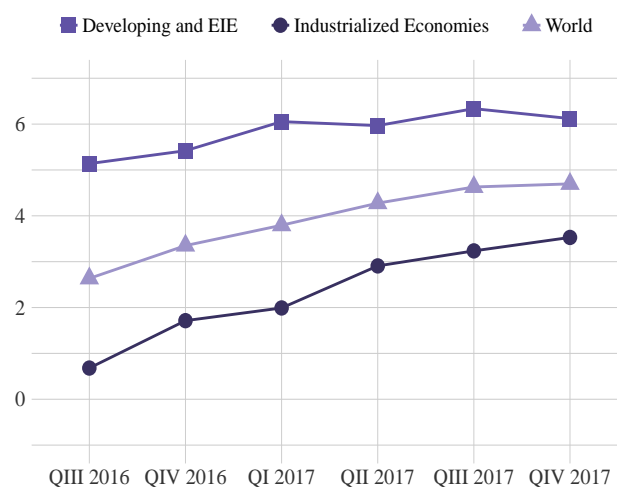
Industrialized economies account for most of the global industrial output. The increased growth pace in these countries has a positive impact on the global economy as a whole. Signs of recovery in the manufacturing sectors of industrialized economies are likely to boost the growth prospects in developing economies. The growth trend observed in the first half of 2017 was largely maintained in the second half of the year. Steady progress over several consecutive quarters contributed to sustained global industrial growth in subsequent periods (Figure 1).

Improvements in business conditions, rising consumer spending and promising investment plans are some of the driving forces behind the positive developments in global manufacturing. On the other hand, risks to global growth arising from the uncertainty of the Brexit negotiations, changes in global trade arrangements or

high geopolitical uncertainty have not yet dissipated.

Global manufacturing output rose by 4.7 per cent in the fourth quarter of 2017 compared to the same quarter of the previous year. This impressive gain was attributable to strong growth since the beginning of the year. The disaggregated data highlight the thriving performance of major industrialized economies with a significant share in global manufacturing output, particularly the United States, Japan, Germany, Italy as well as France.

Figure 1: Growth of world manufacturing output in % compared to the same quarter of the previous year



Industrialized economies as a whole registered a relatively high growth rate of 3.5 per cent in the fourth quarter of 2017 compared to the same period of 2016. This was the highest growth performance of manufacturing output in a year-by-year comparison in the post-crisis period. Such growth was attributable to Europe's dynamic recovery, which recorded a 4.9 per cent growth rate. At the same time, the manufacturing output in the North America region rose by 2.6 per cent compared to the fourth quarter of 2016. An impressive growth rate was also observed in East Asia's industrialized economies, which had a very positive impact on the overall manufacturing growth of industrialized countries. The manufacturing output of these economies increased by 3.2 per cent in the last quarter of 2017.

The manufacturing output of developing and emerging industrial economies increased by 6.1 per cent in the fourth quarter of 2017 in comparison to the same period of the previous year.

The growth rate was slightly down from 6.3 per cent of the previous quarter. Asia's developing economies recorded a high growth rate of 6.5 per cent in the fourth quarter. China, the world's largest manufacturer, contributed most to Asian economies' growth. Latin America continued its recovery from the third quarter of 2017 in a year-by-year comparison. Brazil's economy has had a considerable impact on Latin America's recovery in the fourth quarter. The region experienced positive growth of 0.7 per cent compared to the previous quarter.

Growth estimates based on limited data showed positive growth for Africa's manufacturing output. The growth of manufacturing production was observed across all industrialized and developing regions in the last quarter of 2017 compared to the same period of the previous year, which confirms the sustained recovery of manufacturing production both in advanced and in emerging economies.

Findings by country group

Industrialized economies

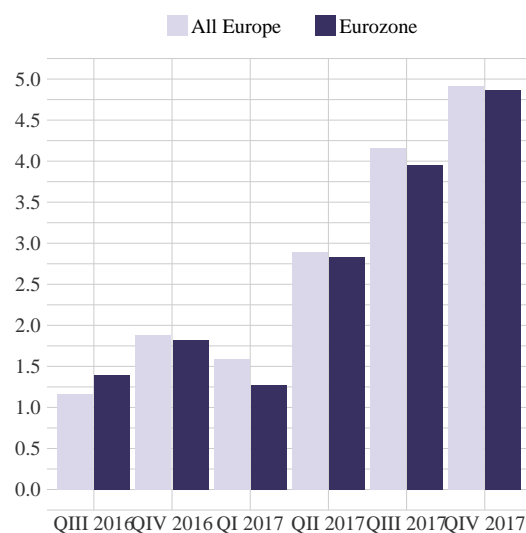
The manufacturing output of industrialized economies has maintained strong growth rates over the last quarters. All industrialized regions, namely East Asia, Europe and North America, recorded positive growth rates and helped strengthen the overall upward trend in industrialized economies in the fourth quarter.

Among the industrialized country group, Europe's manufacturing showed a strong growth rate of 4.9 per cent in the fourth quarter of 2017 compared to the same period of the previous year. It experienced the strongest growth in the last six years. An investment-led domestic upturn and rising consumer confidence further supported the expansion of demand and accelerated production in European economies. The growth rate in the eurozone countries followed the same trend as overall Europe.

The disaggregated data indicated strong growth in the last quarter of 2017, when year-by-year growth figures are compared among the leading eurozone economies. Manufacturing output increased by 5.5 per cent in Germany, 5.0 per cent in France and Spain, and 4.3 per cent in Italy. The manufacturing production in other economies of the single currency block continued to witness positive growth fig-

ures. Strong growth of over 11.5 per cent was recorded by Slovenia followed by Lithuania with 10.1 per cent, while a fairly robust rate was observed by Estonia (6.3 per cent), Austria (4.9 per cent), the Netherlands (4.9 per cent), Portugal (4.7 per cent) and Finland (4.3 per cent).

Figure 2: Growth rates of manufacturing output in Europe, in % to the same period of the previous year



The manufacturing output of the United Kingdom rose by 3.4 per cent with notable support from the manufacturing of other transport equipment. High growth was also observed in Czechia at 7.1 per cent and Sweden at 6.8 per cent. With the exception of Malta and Denmark, all European economies experienced an upward trend of their manufacturing output on a year-by-year basis.

A closer look at individual countries beyond the eurozone showed that the Swiss manufacturing sector witnessed an ongoing upward trend and expanded sharply by 9.2 per cent compared to the same period of the previous year. The growth of manufacturing output in Switzerland was driven primarily by the positive quarter-by-quarter results of the manufacturing of computer, electronic and optical products. The Russian manufacturing sector dropped by 1.0 per cent in the fourth quarter, partly due to the high base of the same period in 2016, largely affected by continued weak domestic demand.

Overall manufacturing production in North America grew by 2.6 per cent compared to the same period of the previous year. The

weaker dollar boosted exports from the United States which had a positive impact on manufacturing output growth. Manufacturing output in the U.S. rose by 2.5 per cent in the fourth quarter in 2017. Improved performance was also observed in Canada where manufacturing production expanded by 4.1 per cent compared to the same period of the previous year.

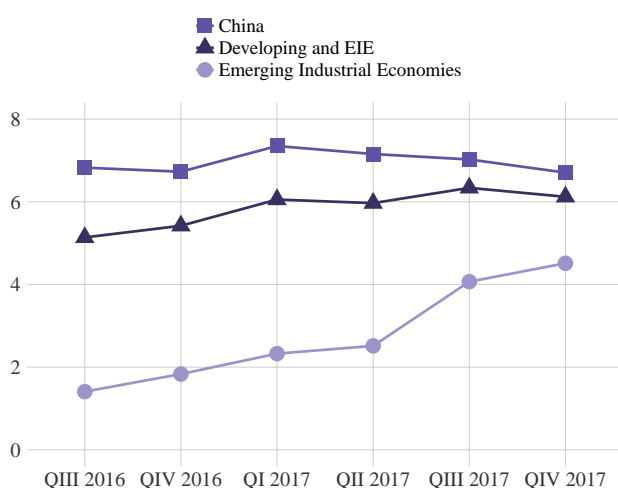
Manufacturing output in East Asia expanded by 3.2 per cent. Japan's manufacturing output grew for a fourth straight quarter in 2017, driven by strong trade demand and a pickup in capital expenditure which underscored a steady export-led recovery. The gain was boosted by rapid growth rates of the manufacturing of machinery and equipment and other transport equipment.

Manufacturing production in the Republic of Korea, which had achieved positive growth rates in previous quarters, shrank by 1.6 per cent in the fourth quarter due to a downturn in investments and exports. Among other East Asian countries, a strong growth of manufacturing output of 5.6 per cent was recorded in Singapore, followed by Malaysia with 4.7 per cent.

Developing and emerging industrial economies

In the fourth quarter of 2017, overall manufacturing growth in developing and emerging industrial regions remained strong at 6.1 per cent (Figure 3). Latin America continued to recover from its downturn in 2016. Brazil's manufacturing sector, which suffered considerable losses a year ago, largely recovered during 2017. In the last quarter of 2017, Brazil's manufacturing output rose by 6.5 per cent. Impressive growth was also observed in Argentina and Mexico, however, negative growth prevailed in Ecuador, Peru, Uruguay and Colombia. Manufacturing growth was largely stable and high in Asian economies.

Figure 3: Growth of manufacturing output of developing economies in % to the same quarter of the previous year



Due to continued investment in advanced manufacturing sectors, manufacturing growth in

China remained high at 6.7 per cent. The overall growth of manufacturing output in Asia and the Pacific region was recorded at a rate of 6.5 per cent. Manufacturing output rose by 13.4 per cent in Mongolia and 4.3 per cent in Indonesia. Similarly, Sri Lanka and Pakistan achieved 4.1 per cent and 2.4 per cent growth in manufacturing output, respectively.

India's manufacturing output rose by 4.7 per cent, indicating a clear recovery of the sector after the sluggish growth in several previous quarters.

Growth estimates based on limited data for African countries indicated a rise in manufacturing output in several countries. The manufacturing output of South Africa, the largest economy of Africa, rose by 2.0 per cent. A similarly positive growth rate was observed in Côte d'Ivoire, Egypt, Morocco and Senegal. The manufacturing production of Nigeria dropped to 2.1 per cent.

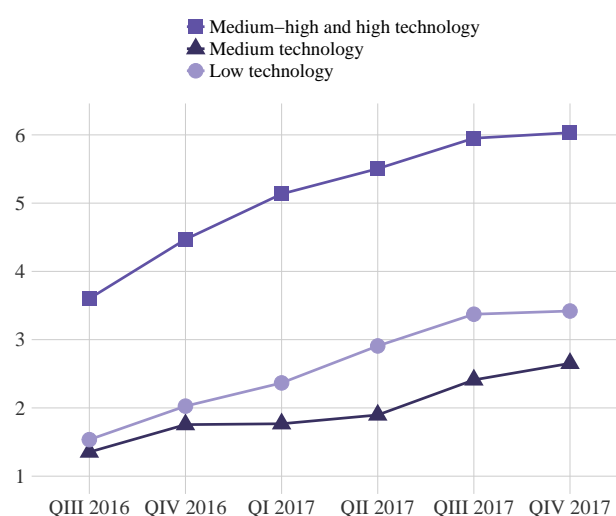
Eastern European developing countries maintained the stable growth of manufacturing output. A strong growth rate of 13.1 per cent was recorded in Cyprus, 12.9 per cent in Romania and 12.2 per cent in Moldova, attributable in particular to high growth rates in the production of electrical equipment in those countries. Looking at the other countries in the region, the manufacturing sector also expanded by over 7 per cent in Turkey, Bosnia and Herzegovina, Belarus and Latvia.

Findings by industry group

Global manufacturing production maintained a positive growth rate in nearly all industries in the fourth quarter of 2017. Advanced manufacturing such as automation, robotics and digitalization have been steadily expanding at the global level. Structural change represented by shifting from low technology to high technology manufacturing industries plays a key role in promoting innovation in the long term. Investment in new technology is a key component in the generation of innovation shaping the future of manufacturing in both advanced and emerging economies. The medium-high and high-technology industries witnessed solid high growth rates leading to an increase in high value goods and a high level of consumer confidence (Figure 4). UNIDO data largely support this pro-technology approach.

Globally, medium-high and high-technology manufacturing continued to outperform other industry groups, increasing the year-by-year growth rate to 6.0 per cent in the fourth quarter of 2017. This was largely driven by strong growth rates of over 9 per cent in China and Eastern European developing countries. At the same time, the average growth of medium-high and high-technology manufacturing was considerably lower in African as well as East Asian economies at around 0.7 per cent and 2.0 per cent, respectively.

Figure 4: Growth of manufacturing industries by technological intensity, in % to the same quarter of the previous year



Overall, the highest growth rate of 9.1 per cent was registered in the production of machinery and equipment, continuing the upward trajectory of the industry over the past couple of years. Growth in the production of capital goods indicated rising consumer confidence in the purchase of durable goods. The manufacturing of computer, electronic and optical products also maintained a steady growth rate of 7.8 per cent. The production of basic pharmaceutical products and pharmaceutical preparations expanded at 5.8 per cent compared to the fourth quarter of 2016. Figure 5 shows that the highest growth rates in these industries were attained by developing and emerging industrial economies.

Medium-technology manufacturing industries recorded a growth rate of 2.7 per cent worldwide in the fourth quarter in a year-by-year comparison. The global manufacturing of rubber and plastic products grew by 4.2 per cent compared to the same quarter in the previous year, followed by the manufacturing of non-metallic mineral products, reaching a growth rate of 2.7 per cent. The manufacturing of basic metals retained a moderate pace of a 1.7 per cent at the global level. The year-by-year growth of low-technology manufacturing industries remained stable at 3.4 per cent in the last quarter of 2017. The strongest growth in this sector occurred in developing countries in East-

ern Europe, reaching 6.5 per cent, as well as in the Asia and Pacific region, where a 5.4 per cent growth rate was observed. Global growth in the low-technology manufacturing sector was largely driven by greater output in the production of fabricated metal products of 5.1 per cent, in particular in Eastern Europe. This was followed by the expansion of the manufacturing of basic consumer goods: The industries for food products and beverages grew by 4.5 per cent and 3.7 per cent, respectively. The manufacturing of leather as well as wood products also performed well, both industries growing by 4.0 per cent compared to the fourth quarter of 2016.

Figure 5: Estimated growth rates by Industry
in % compared to previous year
Quarter IV, 2017

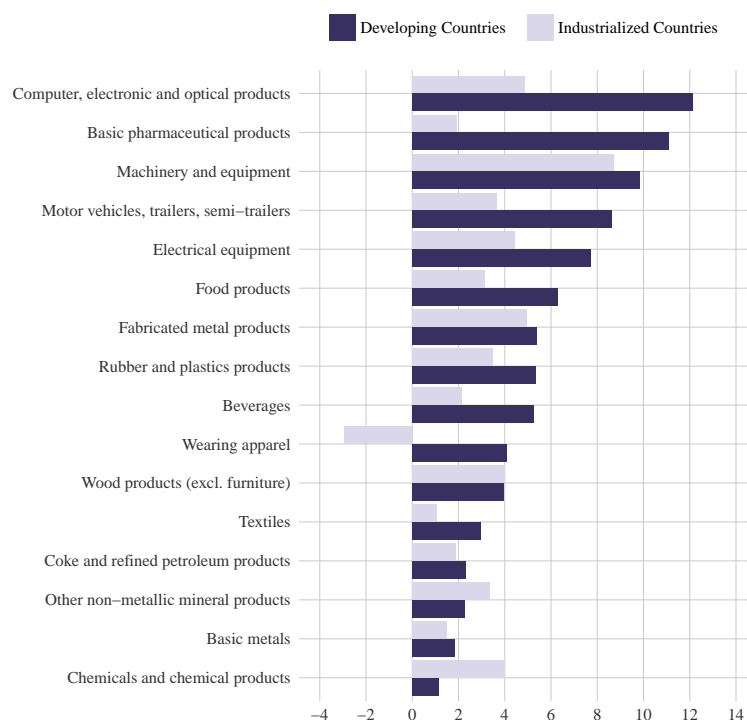


Table 1

Estimated growth rates of world manufacturing output

In % compared to the previous quarter and to the same period of the previous year

Quarter IV, 2017

	Share in world MVA (2010)	Compared to the previous quarter	Compared to the same period of the previous year
World	100.0	1.3	4.7
Industrialized Economies	62.7	1.3	3.5
North America	20.0	1.5	2.6
Europe	23.5	1.7	4.9
East Asia	16.0	0.8	3.2
Developing and EIE (by development group)	37.3	1.4	6.1
China	19.3	1.4	6.7
Emerging Industrial Economies	15.7	1.2	4.5
Other Developing Economies	2.1	1.4	8.0
Developing and EIE (by region)	37.3	1.4	6.1
Africa	1.3	-0.5	2.9
Asia & Pacific	26.7	1.4	6.5
Latin America	6.3	0.7	2.9
Others	2.9	2.7	8.4

Source: UNIDO Statistics

Notes: Not all subgroups are presented; seasonally adjusted data

Table 2

Estimated growth rates of output by manufacturing industry

In % compared to the same period of the previous year

Quarter IV, 2017

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food products	6.3	3.1	4.5
Beverages	5.2	2.1	3.7
Tobacco products	0.8	-7.2	-0.8
Textiles	3.0	1.1	2.5
Wearing apparel	4.1	-2.9	2.7
Leather and related products	3.7	5.0	4.0
Wood products (excl. furniture)	4.0	4.0	4.0
Paper products	1.7	1.2	1.4
Printing	5.0	-1.3	0.4
Coke and refined petroleum products	2.3	1.9	2.1
Chemicals and chemical products	1.1	4.0	2.7
Basic pharmaceutical products	11.1	1.9	5.8
Rubber and plastics products	5.4	3.5	4.2
Other non-metallic mineral products	2.3	3.4	2.7
Basic metals	1.8	1.5	1.7
Fabricated metal products	5.4	5.0	5.1
Computer, electronic and optical products	12.1	4.9	7.8
Electrical equipment	7.7	4.4	6.0
Machinery and equipment	9.8	8.7	9.1
Motor vehicles, trailers, semi-trailers	8.6	3.7	5.5
Other transport equipment	8.8	1.5	3.4
Furniture	7.4	1.2	3.5
Other manufacturing	4.2	0.9	1.9
Total Manufacturing	6.1	3.5	4.7

Source: UNIDO Statistics

Notes: Seasonally adjusted data

Table 3

Estimated growth rates of output by manufacturing industry

In % compared to the previous quarter

Quarter IV, 2017

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food products	1.4	0.2	0.7
Beverages	1.4	0.5	1.0
Tobacco products	2.0	-2.0	1.2
Textiles	0.7	0.4	0.7
Wearing apparel	1.3	-1.8	0.7
Leather and related products	0.8	3.2	1.4
Wood products (excl. furniture)	2.0	1.7	1.8
Paper products	-0.2	0.6	0.2
Printing	0.8	-0.7	-0.3
Coke and refined petroleum products	2.0	1.2	1.6
Chemicals and chemical products	0.1	1.8	1.0
Basic pharmaceutical products	3.6	-0.4	1.3
Rubber and plastics products	2.4	1.1	1.6
Other non-metallic mineral products	0.7	1.6	1.1
Basic metals	0.6	0.8	0.6
Fabricated metal products	1.7	1.4	1.5
Computer, electronic and optical products	2.5	1.7	2.0
Electrical equipment	1.2	1.0	1.1
Machinery and equipment	1.9	3.1	2.7
Motor vehicles, trailers, semi-trailers	1.3	2.2	1.9
Other transport equipment	2.5	1.1	1.5
Furniture	-0.2	0.4	0.2
Other manufacturing	2.1	0.5	1.0
Total Manufacturing	1.4	1.3	1.3

Source: UNIDO Statistics

Notes: Seasonally adjusted data

Table 4

Estimated growth rates of world manufacturing output

In % compared to the previous quarter and to the same period of the previous year

Quarter III, 2017 (revised)

	Share in world MVA (2010)	Compared to the previous quarter	Compared to the same period of the previous year
World	100.0	1.1	4.6
Industrialized Economies	62.7	0.7	3.2
North America	20.0	-0.4	1.5
Europe	23.5	1.3	4.2
East Asia	16.0	1.2	4.5
Developing and EIE (by development group)	37.3	1.5	6.3
China	19.3	1.6	7.0
Emerging Industrial Economies	15.7	1.2	4.1
Other Developing Economies	2.1	2.5	11.2
Developing and EIE (by region)	37.3	1.5	6.3
Africa	1.3	0.8	6.4
Asia & Pacific	26.7	1.6	6.7
Latin America	6.3	1.1	2.5
Others	2.9	1.2	8.6

Source: UNIDO Statistics

Notes: Not all subgroups are presented; seasonally adjusted data

Table 5

Estimated growth rates of output by manufacturing industry

In % compared to the same period of the previous year

Quarter III, 2017 (revised)

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food products	5.9	2.8	4.2
Beverages	5.2	2.1	3.6
Tobacco products	5.8	-4.1	3.6
Textiles	3.4	0.8	2.7
Wearing apparel	4.0	-2.0	2.8
Leather and related products	4.2	0.6	3.3
Wood products (excl. furniture)	3.2	4.0	3.7
Paper products	3.3	1.5	2.3
Printing	6.8	-1.0	1.0
Coke and refined petroleum products	0.4	1.3	0.8
Chemicals and chemical products	2.1	3.5	2.8
Basic pharmaceutical products	8.8	5.1	6.7
Rubber and plastics products	4.3	3.1	3.5
Other non-metallic mineral products	2.5	3.2	2.8
Basic metals	1.4	2.6	1.8
Fabricated metal products	5.3	4.3	4.7
Computer, electronic and optical products	12.9	4.7	8.0
Electrical equipment	8.6	3.9	6.1
Machinery and equipment	10.6	7.0	8.3
Motor vehicles, trailers, semi-trailers	10.9	2.7	5.7
Other transport equipment	5.4	0.2	1.6
Furniture	9.8	1.3	4.4
Other manufacturing	4.3	0.1	1.3
Total Manufacturing	6.3	3.2	4.6

Source: UNIDO Statistics

Notes: Seasonally adjusted data