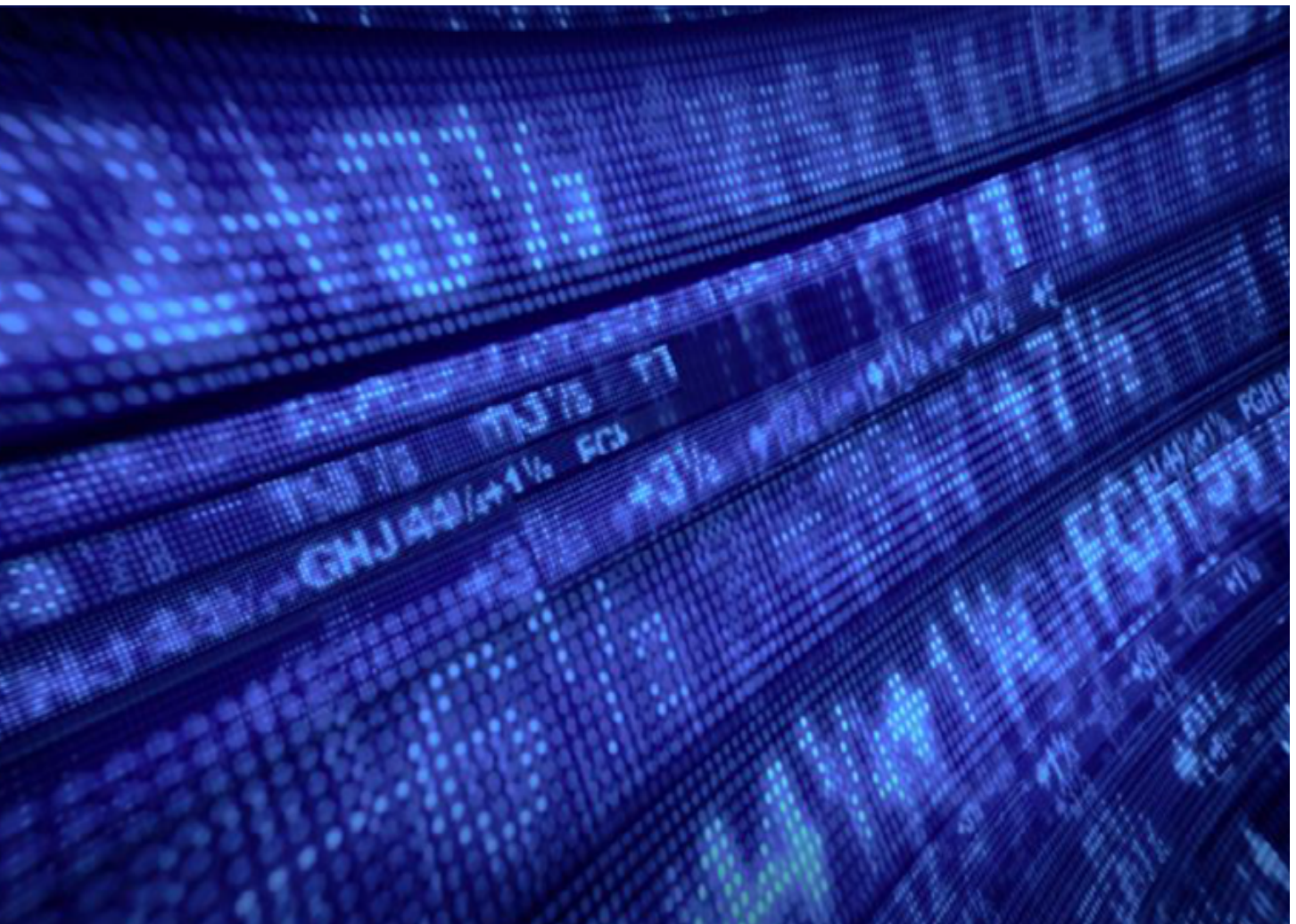




UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

World Manufacturing Production

Statistics for Quarter III, 2017



Report on world manufacturing production

This report presents the observed growth rates and growth estimates of world manufacturing production for the third 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. Since 2013, growth figures have been published based on seasonally adjusted index numbers. 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 third quarter of 2017 as well as revised estimates for the second 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 III 2017

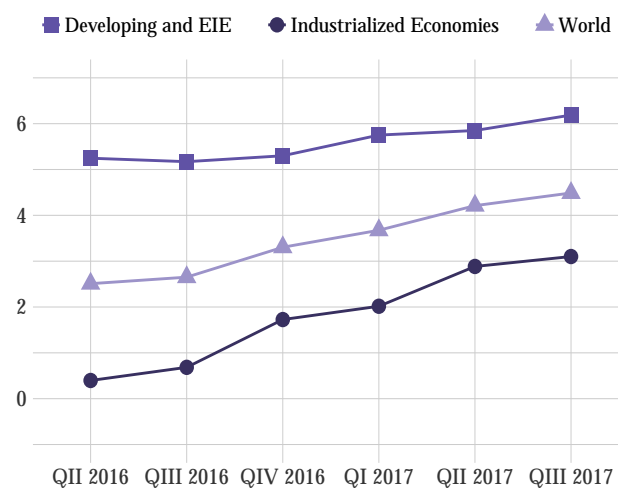
World manufacturing growth accelerated in the third quarter of 2017, as economic recovery strengthened worldwide. Positive results reported in the first half of this year carried over into the third quarter. Steady progress over several consecutive quarters characterizes both industrialized and developing and emerging industrial economies, and prospects for sustained global industrial growth in forthcoming periods are good (Figure 1). For the first time in several years, industrial growth moved back to the positive zone in all of the major economies.

The driving forces behind the positive developments in global manufacturing were improving business conditions, rising consumer spending, promising investment plans directed towards developing economies and healthy external demand support activities. On the other hand, risks for global growth such as concerns where Brexit negotiations will lead to, changes in global trade arrangements or high geopolitical uncertainty have not yet dissipated.

Global manufacturing output rose by 4.5 per cent in the third quarter of 2017 compared to the same period of the previous year. This impressive gain was based on an already strong growth throughout the first half of 2017. The disaggregated data points to the thriving performance of major industrialized economies with

a significant share in global manufacturing output, namely the United States, Japan, Germany, the Republic of Korea, Italy as well as Brazil. The manufacturing output of China, the world's largest manufacturer, continued to register a high growth rate in the third quarter.

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



Industrialized economies as a whole exhibited record-breaking growth at 3.1 per cent in the third quarter of 2017 - the highest manufacturing output growth in a year-by-year comparison in the post-crisis period. Such growth was attributable to Europe's dynamic recovery, where a 4.0 per cent growth was achieved. East Asian industrialized economies experienced a healthy 4.5 per cent year-by-year upward trend and the nearly two-year consecutive slump has all but been forgotten. Relative lower growth was observed in the North America region, where manufacturing output expanded by a mere 1.4 per cent.

A reversal of negative trends in Argentina and Brazil has had a considerable impact on recovery in the Latin America region. Manufacturing output of the region rose by 2.5 per cent in the third quarter of 2017, which also re-

sulted in an accelerated growth rate of developing and emerging industrial economies as a whole at 6.2 per cent. A relatively higher increase was achieved by Asia's developing economies with a 6.5 per cent expansion recorded in the third quarter on a year-to-year basis. The manufacturing production of African regions remained in the positive zone of high growth despite the weak foundation of these countries' manufacturing industries. According to UNIDO's latest estimates, African manufacturing experienced a 6.4 per cent year-to-year gain in the third quarter of 2017.

Entering the second half of the year 2017, recovery in global manufacturing has evolved from being relatively modest to becoming more dynamic. Improvements were recorded in both industrialized economies and developing and emerging industrial economies.

Findings by country group

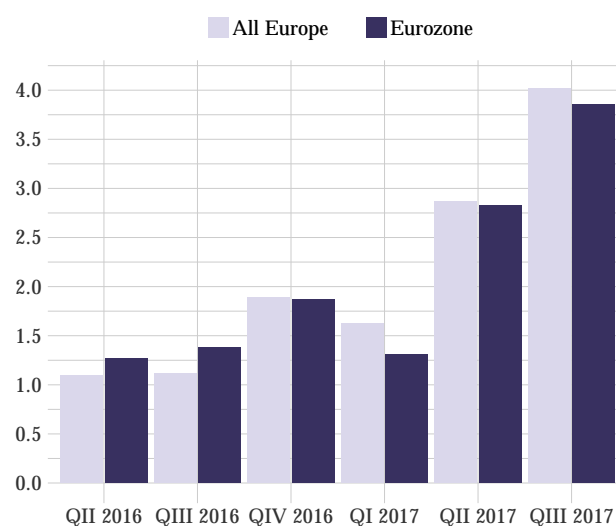
Industrialized economies

The manufacturing output of industrialized economies has followed a progressively improving upward trend over the last quarters. All industrialized regions, namely Europe, North America and East Asia, were characterized by robust dynamics in the third quarter and took a step towards a steady future.

The latest data revealed an acceleration of growth in the manufacturing sector of European economies during the third quarter of 2017 in a year-by-year comparison, beating expectations. Improved business and consumer confidence complemented by strong domestic and external demand resulted in new business and export orders. All of these factors provide tremendous opportunities to investors and signal that Europe's manufacturing sector is gradually stabilizing.

Taking a closer look at specific numbers, Europe's manufacturing sector as a whole stepped up production by 4.0 per cent in the third quarter of 2017, while the growth rate in the eurozone countries increased by 3.9 per cent compared to the same period of the previous year. In both cases, the result meant a 1.0 per cent jump from the previous quarter's results (Figure 2).

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



The major economies of the eurozone recorded strong growth in the third quarter of 2017. Manufacturing output rose by 4.6 per cent in Germany, 3.8 per cent in Italy and 2.8 per cent in France comparing year-to-year developments. Spain, another leading eurozone economy, achieved a 3.3 per cent growth rate. The manufacturing output of other economies of the single currency block seemingly remained healthy in the third quarter and continued on the trajectory of continuous improvement. The

highest growth of over 8.0 per cent was observed in Slovenia and Lithuania. Among other economies, manufacturing output grew by 5.8 per cent in Austria, 4.7 per cent in Belgium, 5.2 per cent in Portugal and 3.8 per cent in Slovakia.

Among individual economies beyond the eurozone, the Swiss manufacturing sector experienced the strongest increase in the last 10 years and expanded sharply by 8.7 per cent compared to the same period of the previous year. The rapid surge from an upwardly revised 3.3 per cent gain in the previous quarter was primarily boosted by the manufacturing of pharmaceuticals and of computer, electronic and optical products. The manufacturing output in the United Kingdom rose by 2.7 per cent compared to the same period of the previous year. Another exceptionally positive result was observed in Sweden with a 5.8 per cent growth rate. Higher growth rates above 5.0 per cent were also observed in Czechia and Hungary.

North America's overall manufacturing growth was lower than in other industrialized regions at 1.4 per cent. The United States' manufacturers have recently picked up as the dollar dropped in value, making U.S. goods cheaper in foreign markets and boosting exports. However, a 1.2 per cent growth in the U.S.' total manufacturing production in the third quarter of 2017

represents a slight slowdown, given the performance of the U.S.' manufacturing sector in the second quarter. A solid performance was witnessed in Canadian manufacturing, where production expanded by 3.2 per cent.

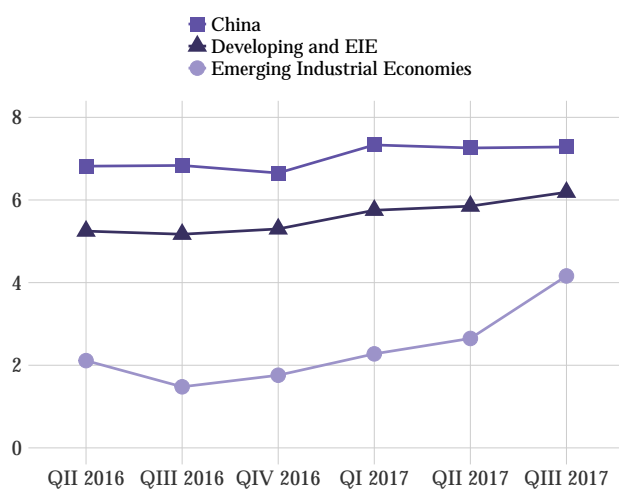
Strong global growth continued to drive manufacturing activity in industrialized East Asian economies during the third quarter, leading the manufacturing production to expand by 4.5 per cent. Japan's manufacturing output rose by 4.7 per cent compared to the same period of the previous year. Despite the slightly lower figure in the third quarter, Japan has maintained an uninterrupted period of high growth for several consecutive quarters. Growth momentum strengthened in Malaysia, where manufacturing output recorded a 7.0 per cent increase in the third quarter of 2017. A particularly strong two-digit growth rate was observed in Singapore, while the Republic of Korea and Taiwan, Province of China's manufacturing production expanded only moderately by 1.4 per cent and 3.3 per cent, respectively.

The manufacturing recovery in Russia remained largely on track in the third quarter of 2017, with a nearly 1.0 per cent expansion recorded on a year-to-year basis. A similar growth rate was also observed in Norway which further reduced its contraction rate.

Developing and emerging industrial economies

The combination of good results in all developing and emerging industrial regions helped the developing and emerging industrial economies as a whole achieve a 6.2 per cent growth in the third quarter of 2017 (Figure 3). The recovery of Latin America continues unabated, the growth momentum is also largely holding up across the Asian economies and production in Africa is further profiting from boosted investor confidence.

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



Manufacturing activity in China has stabilized at the same pace of growth since the beginning of 2017 - a 7.3 per cent increase on a year-by-year basis. The development of advanced manufacturing industries and the new investment plan in the environment has led to an overall upgrade of China's manufacturing industry.

Latin America has made positive developments in the manufacturing sector, following the resumption of growth in the second quarter. Brazilian manufacturers are finally emerging from the deep recession with an upward trend of 2.8 per cent recorded in the third quarter of 2017. The largest expansion was observed in the manufacturing of motor vehicles, trailers and semi-trailers. Meanwhile, Argentina has overcome a severe decline in economic growth with the country's manufacturing activity recording a growth of 4.4 per cent - its best performance over the last six years. Looking at other countries in the region, Mexico's manufacturing production retained a positive increase of nearly 3.5 per cent, Chile recorded a moderate upturn of 1.5 per cent, while manufacturing output in Peru and Ecuador decreased in comparison to the same period of 2016.

An impressive growth rate was observed in Asia and the Pacific region. Viet Nam, one of Asia's fast growing economies, continued to attract sizeable foreign direct investment inflows. Its manufacturing sector was supported by strong demand for electronics and retained a solid pace in the third quarter, expanding by 12.8 per cent. However, the long-term trajectory of double-digit year-to-year growth in manufacturing was interrupted at the beginning of 2017 due to weakened exports. A positive development in growth was also observed in Indonesia, where manufacturing production accelerated and registered a 5.5 per cent gain in the

third quarter of 2017. Similarly, the slowed performance of India's manufacturing sector in the last quarter improved slightly, with a moderate 2.2 per cent increase. In Thailand, manufacturing output rose by 4.2 per cent, which was mainly supported by a higher output of the automotive industry. As regards the manufacturing output of other economies from the region, Pakistan and Mongolia performed well, but the Philippines and Jordan's manufacturing sector contracted in a year-by-year comparison.

Among Africa's economies, South Africa, the region's most industrialized country, has been performing below its potential since the final quarter of 2016 and has entered a recession. Following three quarters of depressed manufacturing production in a row, South Africa's manufacturing sector showed marginal positive growth in the third quarter of 2017. However, its current growth is still too weak to project

whether the recession will be overcome by the end of the year. Similarly, Tunisia's manufacturing output rose by 2.4 per cent following a period of contraction. A positive growth rate was also registered in Egypt and Morocco, while Senegal and Nigeria's manufacturing output fell compared to the same period of the previous year. However, it should be noted that estimates for Africa are based on limited data, revealing high instability and volatility.

Among other developing economies, the manufacturing output of Eastern European countries registered relatively higher growth rates in the third quarter of 2017. Manufacturing output rose by 8.2 per cent in Poland, 4.7 per cent in Belarus, 5.8 per cent in Bulgaria, 8.5 per cent in Serbia and over 9.0 per cent in Romania, Latvia and Bosnia and Herzegovina. Turkey's manufacturing sector also performed well and exceeded 10.0 per cent growth rate.

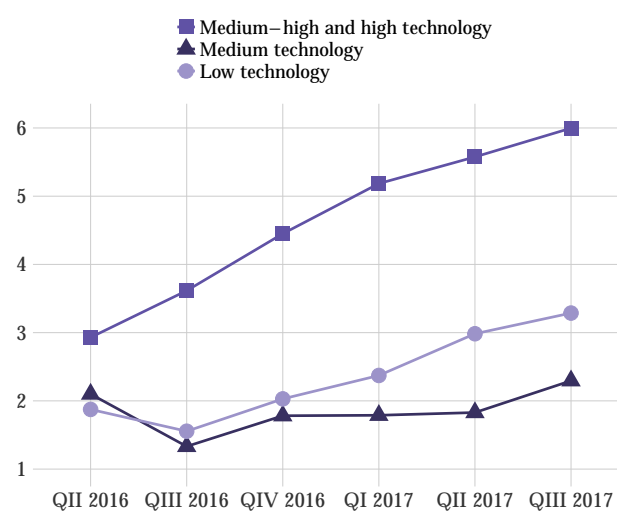
Findings by industry group

Global manufacturing production maintained a positive growth rate in all industries in the third quarter of 2017. Advanced manufacturing such as automation, robotics and digital products have been experiencing a steady expansion at the global level. Shifting from low technology to high technology manufacturing industries plays a key role in promoting innovation in the long term and, moreover, determines the positioning of economies within the global market. Therefore, the competition between advanced and emerging economies in high-tech leadership will be compelling and crucial for both groups. In the wake of the fourth industrial revolution, embracing emerging technologies brings global manufacturing production to a new level. The high growth rate in medium high and high technology industries observed in the third quarter of 2017 led to an increase in high value goods, indicating a high level of consumer confidence (Figure 4). UNIDO data largely support this pro-technology approach.

Medium high and high technology manufacturing industries have repeatedly held top positions when looking at year-by-year comparisons - these industries witnessed a 6.0 per cent growth rate, a record-breaking result in the last five years. When reviewing the individual top industries, the manufacturing of computers, electronics and optical products grew by 8.3 per

cent, the production of machinery and equipment rose by 8.0 per cent, the manufacturing of pharmaceutical products by 6.7 per cent (which recorded a visibly accelerated growth rate compared to the results of the previous quarter), the production of electrical equipment by 6.1 per cent and the manufacturing of motor vehicles by 5.9 per cent. The production in all of the above-mentioned industries was dominated by developing and emerging industrial economies compared with industrialized economies (Figure 5).

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



As regards medium technology manufacturing industries, 2.3 per cent growth was registered worldwide in the third quarter of 2017.

The global manufacturing of rubber and plastic products increased by 3.4 per cent in a year-by-year comparison, while the manufacturing of non-metallic mineral products recorded a growth rate of 3.0 per cent. The global manufacturing of basic metals rose at a moderate pace of 1.6 per cent.

In low technology manufacturing industries, overall global production rose by 3.3 per cent in the third quarter of 2017 compared to the same period of the previous year. The global manufacturing of fabricated metal products grew by 4.6 per cent, followed by the manufacturing of furniture with a 4.3 per cent in-

crease. Relatively high growth rates were maintained worldwide in the production of basic consumer goods - the global manufacturing of food products rose by 3.8 per cent, beverages by 3.4 per cent and the global manufacturing of both textile and wearing apparel increased by slightly over 2.5 per cent. The growth rate of the manufacturing of paper products expanded by 2.4 per cent, while coke and refined petroleum products and printing remained below 2.0 per cent.

The growth rates for selected industries are presented below. Additional statistics on the growth rates in the third quarter of 2017 are available in the Statistical Tables.

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

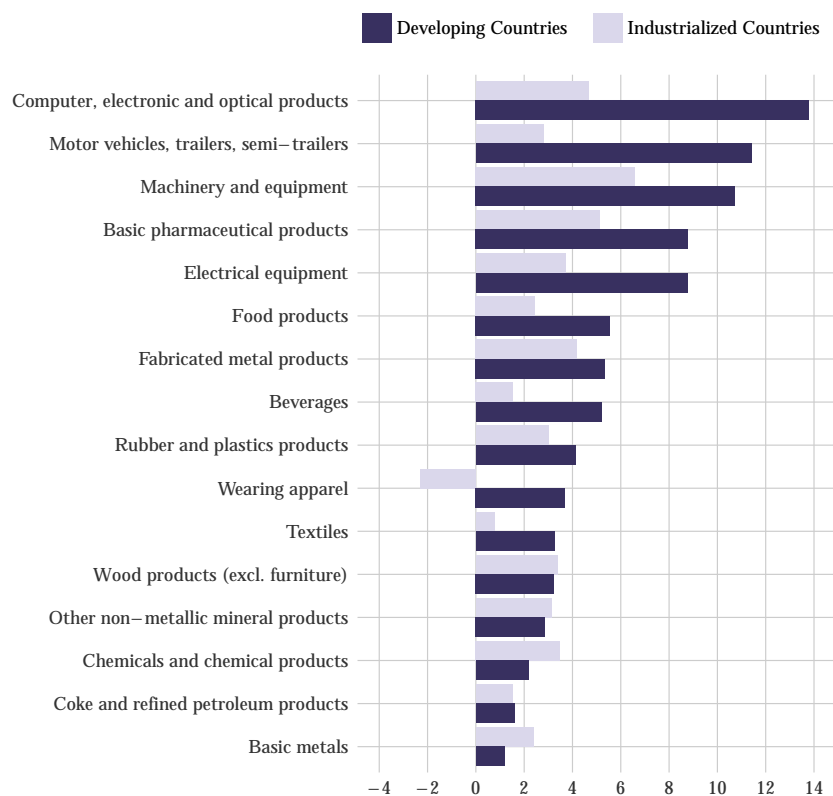


Table 1

Estimated growth rates of world manufacturing output

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

Quarter III, 2017

	Share in world MVA (2010)	Compared to the previous quarter	Compared to the same period of the previous year
World	100.0	1.0	4.5
Industrialized Economies	62.8	0.6	3.1
North America	20.0	-0.5	1.4
Europe	23.5	1.2	4.0
East Asia	16.0	1.2	4.5
Developing and EIE (by development group)	37.2	1.5	6.2
China	19.3	1.7	7.3
Emerging Industrial Economies	15.6	1.2	4.2
Other Developing Economies	2.1	0.3	5.2
Developing and EIE (by region)	37.2	1.5	6.2
Africa	1.3	0.8	6.4
Asia & Pacific	26.8	1.6	6.5
Latin America	6.2	0.8	2.5
Others	2.9	1.1	8.5

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 III, 2017

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food products	5.5	2.5	3.8
Beverages	5.2	1.5	3.4
Tobacco products	5.8	-3.5	3.8
Textiles	3.3	0.8	2.6
Wearing apparel	3.7	-2.3	2.5
Leather and related products	4.3	-0.4	3.2
Wood products (excl. furniture)	3.2	3.4	3.3
Paper products	3.7	1.4	2.4
Printing	6.9	-1.0	1.1
Coke and refined petroleum products	1.6	1.5	1.6
Chemicals and chemical products	2.2	3.5	2.9
Basic pharmaceutical products	8.8	5.1	6.7
Rubber and plastics products	4.1	3.0	3.4
Other non-metallic mineral products	2.9	3.1	3.0
Basic metals	1.2	2.4	1.6
Fabricated metal products	5.3	4.2	4.6
Computer, electronic and optical products	13.8	4.7	8.3
Electrical equipment	8.8	3.7	6.1
Machinery and equipment	10.7	6.6	8.0
Motor vehicles, trailers, semi-trailers	11.4	2.8	5.9
Other transport equipment	5.1	-0.3	1.1
Furniture	10.1	1.1	4.3
Other manufacturing	4.1	-0.3	1.0
Total Manufacturing	6.2	3.1	4.5

Source: UNIDO Statistics

Notes: Seasonally adjusted data

Table 3

Estimated growth rates of output by manufacturing industry

In % compared to the previous quarter

Quarter III, 2017

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food products	1.4	0.7	1.1
Beverages	2.1	-0.8	0.6
Tobacco products	1.9	-0.1	1.5
Textiles	0.7	0.3	0.6
Wearing apparel	0.4	-0.6	0.2
Leather and related products	0.9	-2.0	0.2
Wood products (excl. furniture)	-0.2	0.7	0.4
Paper products	0.8	0.3	0.5
Printing	1.2	-0.1	0.3
Coke and refined petroleum products	0.8	-1.2	-0.2
Chemicals and chemical products	0.8	0.5	0.6
Basic pharmaceutical products	1.7	3.0	2.4
Rubber and plastics products	0.6	1.1	0.9
Other non-metallic mineral products	0.5	0.4	0.4
Basic metals	0.1	0.4	0.2
Fabricated metal products	1.0	1.3	1.2
Computer, electronic and optical products	3.7	2.0	2.7
Electrical equipment	2.7	1.5	2.1
Machinery and equipment	2.0	-0.1	0.6
Motor vehicles, trailers, semi-trailers	3.3	0.0	1.3
Other transport equipment	0.5	-0.4	-0.2
Furniture	2.6	-0.3	0.8
Other manufacturing	-0.1	0.9	0.6
Total Manufacturing	1.5	0.6	1.0

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 II, 2017 (revised)

	Share in world MVA (2010)	Compared to the previous quarter	Compared to the same period of the previous year
World	100.0	1.2	4.2
Industrialized Economies	62.8	0.9	2.9
North America	20.0	0.7	2.0
Europe	23.5	1.1	2.9
East Asia	16.0	0.7	4.4
Developing and EIE (by development group)	37.2	1.5	5.9
China	19.3	1.7	7.3
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Others	2.9	1.7	5.9

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 II, 2017 (revised)

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food products	5.3	2.3	3.6
Beverages	4.7	2.9	3.8
Tobacco products	4.7	-7.0	2.1
Textiles	3.0	0.7	2.4
Wearing apparel	3.4	-2.4	2.3
Leather and related products	4.6	2.4	4.1
Wood products (excl. furniture)	4.8	2.7	3.5
Paper products	3.8	1.1	2.2
Printing	5.5	-1.8	0.1
Coke and refined petroleum products	0.5	3.6	2.0
Chemicals and chemical products	1.8	3.3	2.6
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Computer, electronic and optical products	13.1	5.2	8.3
Electrical equipment	7.0	2.5	4.6
Machinery and equipment	10.0	8.0	8.7
Motor vehicles, trailers, semi-trailers	9.7	3.7	5.8
Other transport equipment	5.3	-1.1	0.6
Furniture	8.3	1.5	4.0
Other manufacturing	5.2	-0.9	0.9
Total Manufacturing	5.9	2.9	4.2

Source: UNIDO Statistics

Notes: Seasonally adjusted data