

World Manufacturing Production

Statistics for Quarter IV, 2014

Statistics Unit

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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Report on world manufacturing production Quarter IV, 2014

UNIDO Statistics presents this report on growth estimates based on the indices of industrial production for the fourth quarter of 2014. Reports on earlier quarters are available on UNIDO's website. Users are advised to take note that MVA refers to output net of intermediate consumption, whereas quarterly indices are based on gross output. Interested users can access methodological documents on the estimation procedure of annual growth rates and a compilation of quarterly indices on the statistical web pages of UNIDO's website.

UNIDO's quarterly reports on world manufacturing have been regularly published since the first quarter of 2011. Earlier reports included index figures for some countries that were not seasonally adjusted or for which no information was available where seasonal adjustments were made at the national level. Since 2013, growth figures have been published based on seasonally adjusted index numbers. The seasonal adjustment of index numbers is achieved using the TRAMO/SEATS method¹ in Demetra+ software. The purpose of seasonal adjustment is to filter out any fluctuations or calendar effects within the shifts of time series.

Data on index numbers are obtained from national statistical sources. In case of missing data, UNIDO performs imputations or projections where appropriate. UNIDO estimates are generally replaced as soon as the officially reported values become available in national statistical publications. This report presents estimates for the fourth quarter as well as revised estimates for the third quarter of 2014. Growth rates are calculated from the national index numbers which are aggregated to the country groups or world regions using weights based on the country's contribution to world manufacturing value added. Details on the country groups are provided in the 2013 edition of the *International Yearbook of Industrial Statistics*. The country grouping is based on economic territories rather than on political boundaries. This report presents the growth figures for country groups by stage of industrial development and by geographic region.

¹ 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.

Major findings

1. World manufacturing growth in the fourth quarter of 2014

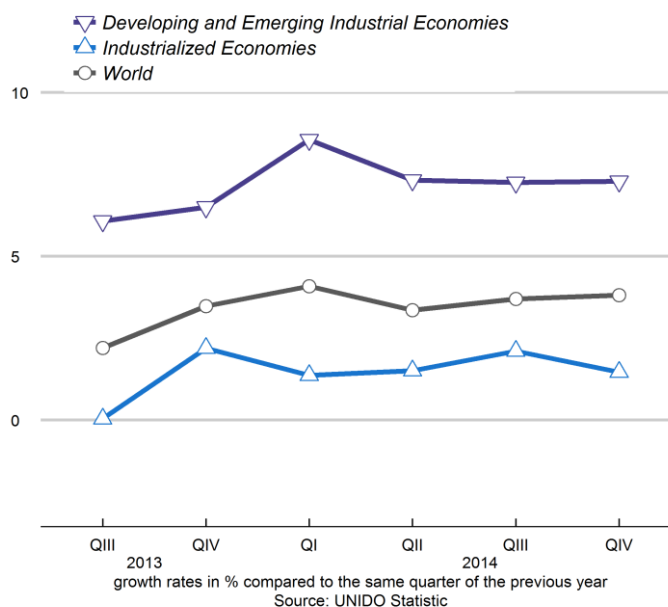
World manufacturing output grew at lower rate during the fourth quarter of 2014, reflecting overall slackness in the world economy. The high growth rate observed in the first quarter of 2014 was a short-term transitory change that did not last. A drop in East Asia's manufacturing output, as well as weak growth in Europe, has offset significant growth in North America. As a result, industrialized markets have witnessed sluggish growth. When new monetary policies were initiated in Japan nearly 2 years ago, the intention was to save the economy from recession. However, the figures indicate that the opposite is occurring. While early projections for Europe were optimistic, the predicted post-recession recovery for the region has not yet materialized. A slowdown has been observed in the manufacturing output of developing and emerging industrial markets, largely due to the decline in Latin America and the deceleration of China's growth.

Overall manufacturing output increased by an average rate of 3.8 per cent in the last quarter of 2014. However, this figure does not significantly differ from the 3.7 per cent growth recorded in the third quarter of 2014. The growth trend of industrialized countries fell from 2.1 per cent in the third quarter to 1.5 per cent in the fourth quarter. In this country group, growth was stronger in the United States and the United Kingdom than in the eurozone and in East Asia. Manufacturing production in developing and emerging

industrial economies reached 7.3 per cent, remaining nearly unchanged in comparison with the previous quarter. The drop in the growth rate of developing and emerging industrial markets could be explained by the decline of China's growth trend, currency depreciation against the US dollar, and a downturn in manufacturing production in Latin America.

China, the world's second largest economy, plays a major role in the overall shifts in manufacturing production trends. The pace of manufacturing in China continues to slow

Figure 1: World manufacturing output by quarter



down and, when taking the quarters together, China’s production index declined by 3.6 per cent. In addition, the country’s manufacturing output increased by only 8.1 per cent in the fourth quarter of 2014 compared to that of the previous year. This has been the lowest rate of growth since 2009. A decline in demand and increasing costs are the key factors in curbing manufacturing growth.

Waning growth in the manufacturing sector has been a matter of concern in earlier UNIDO quarterly reports. Global manufacturing could benefit from the recent sharp drop in oil prices in the next quarter - driven by supply factors - which may boost demand as well as allow manufacturers in oil-consuming countries to both reduce prices and increase margins. However, persistent geopolitical tensions will pose a threat to the overall economy.

An extended period of slowdown will lead to long-term consequences, instable investment, an increase in unemployment, high inflation, and, collectively, a downshift in the global trend. Policymakers should asses these macro-economic signals and advance policies to increase both supply and demand in order to promote growth. Aggressive monetary policies without structural reform might shift the economy to a lower gear instead of achieving the intended effect.

By country group

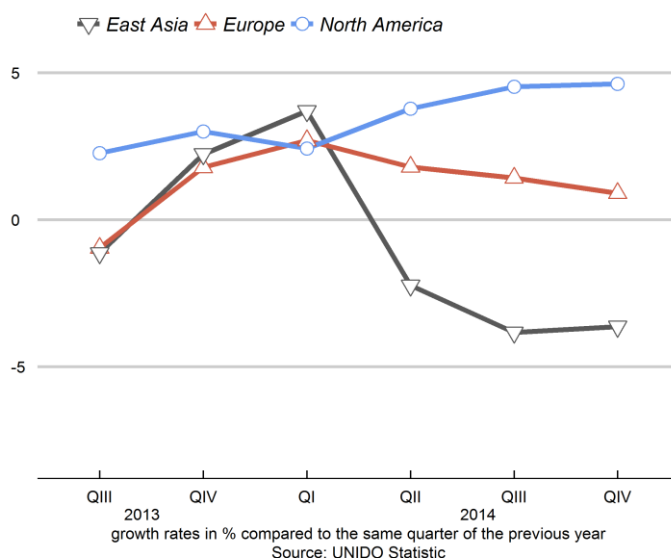
Industrialized economies

The growth trend in manufacturing of the industrialized market has been a mix of continued growth in North America, decline in Europe and a continuing fall in East Asia.

The manufacturing output of the United States continued to grow by 4.8 per cent in the fourth quarter of 2014, compared to the same period of the previous year. The key industries that drove growth in the fourth quarter were rubber and plastics, motor vehicles production, non-metallic mineral products, and, in

particular, manufacture of machinery and equipment. The overall growth in the US is much

Figure 2: Manufacturing output of industrialized economies by quarter



higher compared with other major markets such as Japan, Europe and China, which are experiencing a decline or deceleration of their manufacturing industries. In the long term, the growth in the United States will only be sustained if the economic conditions in the above mentioned markets improve.

Europe is facing a prolonged recession. The region has posted low growth figures for the third consecutive quarter. In industrialized Europe, manufacturing output increased by merely 0.9 per cent compared to the previous year. Manufacturing in Germany, the main engine of growth in Europe, increased by a low rate of 0.5 per cent. In the United Kingdom, manufacturers reported a higher growth rate of 2.4 per cent compared to the previous year. However, the decline in the eurozone, the UK's main trading partner, prevents the country's growth from expanding further. The manufacturing industries of Italy, France, Netherlands and Sweden fell by 0.9 per cent, 0.5 per cent, 1.1 per cent and 1.8 per cent, respectively. Relatively higher manufacturing output was recorded by European countries outside the eurozone, namely 5.6 per cent in the Czech Republic, 5.2 per cent in Hungary and 4.5 per cent in Norway.

There are several reasons for Europe's downward growth trend. Europe's overall weak growth in world manufacturing production along with weak investment could be considered the key factors that are restricting short-term growth and reducing the long-term production potential. The geopolitical tensions over Ukraine have affected the economy of some European countries and created investment uncertainty. While the region may overcome these challenges, the figures reveal that the region's economy is highly vulnerable to external influences.

The Russian economy appears likely to fall into recession as it faces serious challenges, including the fall in oil price, the ruble's dramatic depreciation, high inflation and high interest rates. Russia's manufacturing output increased by merely 1.5 per cent in the fourth quarter of 2014, with only 4 out of 22 manufacturing industries contributing to this growth.

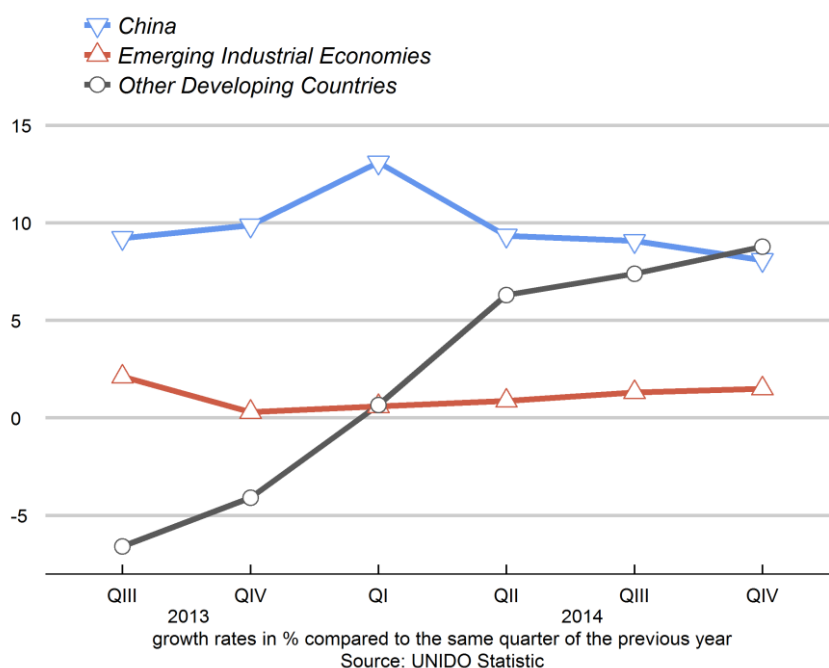
East Asia's manufacturing production index declined sharply by 3.6 per cent due to the drop in manufacturing output of the region's two major economies, namely Japan and Singapore. Following the April 2014 introduction of extensive tax increases to attempt to revive the economy in Japan, it appears that the country is facing yet a further recession. The Japanese government has now decided to postpone a second round of tax increases, and

instead has announced quantitative and qualitative monetary easing. In Singapore, manufacturing output fell by 1.2 per cent, largely due to a significant decline in the manufacturing of wearing apparel compared to the fourth quarter in 2014.

Developing and emerging industrial economies

As previously stated, the overall growth trend of developing and emerging industrial countries has indicated a slowdown in manufacturing production over the last three quarters. Manufacturing increased by 7.3 per cent in the fourth quarter of 2014 compared to the previous year with a growth of 8.1 per cent. China continues to be the main contributor to growth in the region. However, China's pace of manufacturing growth is slowing down. Indeed, China's growth in this quarter is the lowest since 2009. As depicted in Figure 3, China's and other developing countries' growth trends are now converging. Manufacturing in countries such as Egypt, Morocco and Viet Nam is growing at a greater pace. Manufacturing output increased by 3.8 per cent in Egypt, by 2.5 per cent in Morocco and by 10.0 in Viet Nam.

Figure 3: Manufacturing output of developing and emerging industrial economies by quarter



In emerging markets, manufacturing output grew by a low rate of 1.5 per cent, mainly due to the recession in the Latin American market. Latin America continued to experience a decline in manufacturing output, which began in the second quarter of 2014. Several factors are inhibiting the regions' manufacturing, including consistently low commodity prices and weak currencies, which are largely due to the recession in Brazil and Argentina. Brazil's weak economic performance emphasizes the difficulties the country has been facing, with its manufacturing index dropping by 5.4 per cent in the fourth quarter of 2014. A decline has been observed in almost all manufacturing industries in Brazil, both on a quarterly basis and compared to the previous year, with a major drop in the manufacturing of motor vehicles by 16.7 per cent compared to the last quarter of the previous year. Manufacturing output fell by 1.4 per cent in Argentina as demand weakened and economic

activity declined. Europe and China are Latin America's biggest trading partners, and the persistent manufacturing slowdown in those markets may have also had a negative effect on the region's manufacturing production.

Manufacturing output in developing and emerging Asian economies was a mix of decline and growth of the main economies. India registered a slight fall in manufacturing production by 0.3 per cent, while Indonesia's manufacturing output increased by 6.2 per cent. Viet Nam's manufacturing output recorded an impressive growth rate. As wages in China have been increasing, investors are targeting new markets with more affordable costs, which makes Indonesia and Viet Nam attractive in this regard.

Findings by industry group

Global manufacturing output grew across all industries on a year-by-year-basis, except paper and paper products and publishing, printing and the reproduction of recorded media. In both industries, weak performance was recorded primarily in European industrialized economies and Japan. Recent estimates indicate a solid growth in several industries such as radio, television and communication equipment and production of other transport equipment (see annex, Table 2).

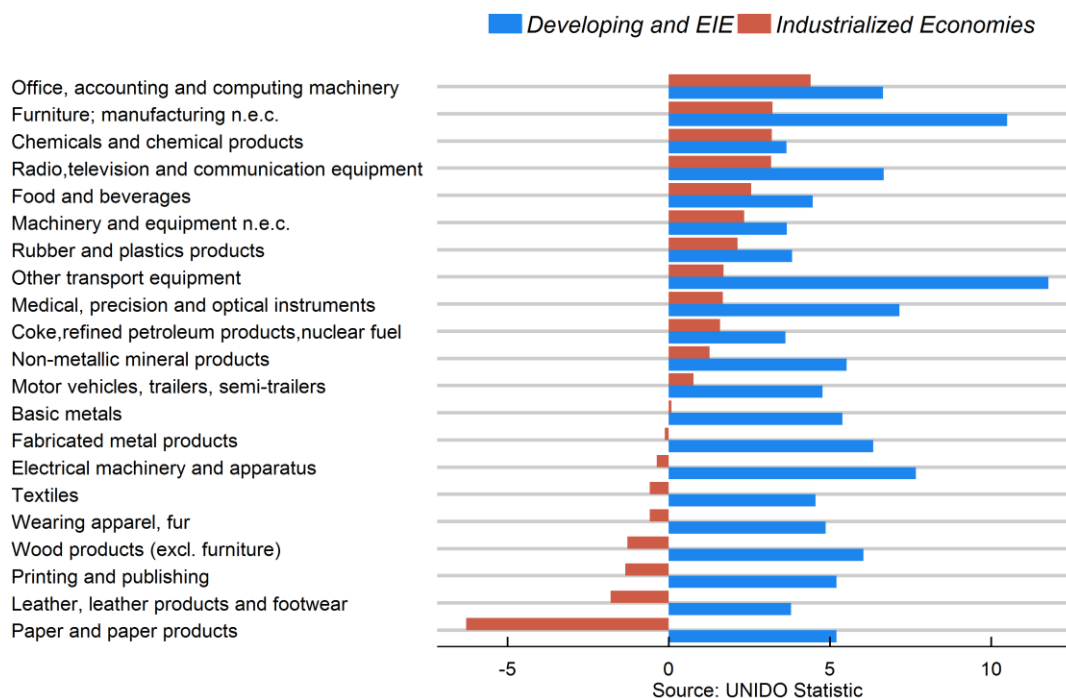
Growth figures were also estimated for manufacturing industries in industrialized and developing and emerging industrial economies separately. Detailed information for all industry groups are presented in Figure 4.

As expected, industrialized countries performed well in high-technology industries and capital goods, but were outpaced by developing and emerging industrial economies in all manufacturing sectors.

However, industrialized countries maintained a moderate growth rate in the production of office, accounting and computing machinery, production of chemicals and chemical products and production of radio, television and communication equipment compared with the same period in 2013.

In the United States, which remains the greatest driver in industrialized economies, the manufacturing of machinery and equipment, of motor vehicles, other transport equipment and the production of chemicals remained strong in the fourth quarter of 2014. The combination of low energy prices and innovative information technologies contributed to the economic growth of the United States.

Figure 4: World estimated growth rates by sector in percent compared to previous year. Quarter IV, 2013



In Japan, the production of radio, television and communication equipment rose by 8.9 percent and the manufacturing of medical, precision and optical instruments increased by 5.4 percent compared to the previous quarter. On a year-to-year basis, an impressive growth of 11 per cent was observed in the manufacturing of machinery and equipment. As some of Japan’s manufacturing industries have been moving overseas, growth estimates indicated a weak performance in the production of motor vehicles and of other transport equipment.

The production of motor vehicles rose in Germany, Italy, the United States and the United Kingdom, but fell in France and Japan. The same trend was observed for the production of other transport equipment, which includes the production of aircraft manufacturing and shipbuilding, as well as for the production of motor vehicles in terms of countries compared to the fourth quarter of 2013. In this industry, Russia’s output decreased sharply by 13.1 per cent due to weak export orders because of Western sanctions.

The production of machinery and equipment increased slightly in Canada, France, Germany, Italy, Japan and the United States, but decreased in the United Kingdom, Russia and Spain due to a drop in external market demand. Regarding other segments of the machinery industry, the production of electrical equipment increased slightly in Germany and the United States. The production of medical and optical instruments rose in Germany, Italy and Japan.

As regards developing and emerging industrial economies, positive growth rates were recorded in all industries, with a shift towards high-tech industries. The production of

other transport equipment sharply increased, mainly due to the contribution of China and Turkey.

Developing and emerging economies performed well in the production of basic consumer goods. Food production grew by 6.5 percent in China and 11.6 percent in Indonesia. However, output from food manufacturing decreased by 4.6 percent in Brazil. The production of wearing apparel grew in China, India, Indonesia, South Africa and Turkey. When looking at developing and emerging industrial economies in general, the production of food and beverages increased by 4.5 percent, textiles by 4.6 percent and wearing apparel by 4.9 percent compared to the same quarter in 2013. Nonetheless, the production of textiles and wearing apparel has lost momentum since the previous year.

The production of basic metals, which includes the production of basic iron, basic steel, basic precious and non-ferrous metals rose by 5.4 percent compared to the same period of the previous year, but dropped by 3.8 percent in comparison to the previous quarter. Manufacturing output grew in China, Indonesia, India and Mexico but fell in Brazil and Turkey on a year-to-year basis.

Due to slow economic growth, booming property prices and rising local government debts, China's manufacturing output in most industries declined compared to the previous quarter and fell by 3.6 in total. China only recorded positive growth rates in some industries, namely in the manufacturing of motor vehicles (4.1 percent), manufacturing of other transport equipment (4.1 percent), production of food and beverages (2.6 percent), publishing, printing and reproduction of recorded media (2.5 percent) and in the manufacturing of coke, refined petroleum products and nuclear fuel (2.8 percent).

As nearly all industries in Brazil experienced a decline, the country's industrial output decreased by 5.4 percent compared to the same quarter in the previous year. The manufacturing of other transport equipment, which also includes the manufacturing of aircraft, fell by 3.5 percent compared to the same period in 2013 and dropped by 1.4 percent compared to the previous quarter. Production in food and beverages dropped by 4.6 percent on a year – to-year basis as competitors in the United States became very strong.

Further statistics on the growth rates in the fourth quarter of 2014 are presented in the Statistical Annex.

Table 1:
Estimated growth rates of world manufacturing output in %
 Quarter IV, 2014

	Share in world MVA (2010)	Compared to the previous quarter	Compared to the same period of the previous year
World	100	0.4	3.8
Industrialized Economies	67.7	0.8	1.5
North America	22.4	1.3	4.6
Europe	24.7	0.5	0.9
East Asia	17.2	-0.3	-3.6
Developing and EIE (by development group)	32.3	-0.9	7.3
China	15.3	-3.6	8.1
Emerging Industrial Economies	13.8	0.4	1.5
Other Developing Countries	2.7	11.8	8.8
Developing and EIE (by region)	32.3	-0.9	7.3
Africa	1.5	3.1	1.5
Asia & Pacific	21.7	-1.6	8.9
Latin-America	5.8	0.4	-0.4
Others	3.3	0.8	2.8

Source: UNIDO Statistics.

Notes: Not all subgroups in this group are presented; seasonally adjusted data.

Table 2:**Estimated growth rates of output by manufacturing sector**

In % compared to the same period of the previous year

Quarter IV, 2014.

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food and beverages	4.5	2.6	3.5
Tobacco products	7.6	-6.4	6.0
Textiles	4.6	-0.6	3.2
Wearing apparel, fur	4.9	-0.6	3.3
Leather, leather products and footwear	3.8	-1.8	2.2
Wood products (excl. furniture)	6.0	-1.3	2.9
Paper and paper products	5.2	-6.3	-2.4
Printing and publishing	5.2	-1.3	-0.2
Coke ,refined petroleum products, nuclear fuel	3.6	1.6	2.8
Chemicals and chemical products	3.7	3.2	3.3
Rubber and plastics products	3.8	2.1	2.8
Non-metallic mineral products	5.5	1.3	3.5
Basic metals	5.4	0.1	3.4
Fabricated metal products	6.3	-0.1	1.5
Machinery and equipment n.e.c.	3.7	2.3	2.8
Office, accounting and computing machinery	6.6	4.4	4.6
Electrical machinery and apparatus	7.7	-0.4	3.9
Radio, television and communication equipment	6.7	3.2	7.2
Medical, precision and optical instruments	7.2	1.7	2.5
Motor vehicles, trailers, semi-trailers	4.8	0.8	1.6
Other transport equipment	11.8	1.7	7.0
Furniture; manufacturing n.e.c.	10.5	3.2	7.1
Total Manufacturing	7.3	1.5	3.8

Source: UNIDO Statistics.

Note: Seasonally adjusted data.

Table 3:**Estimated growth rates of output by manufacturing sector**

In % compared to the previous quarter

Quarter IV, 2014

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food and beverages	1.4	5.8	4.9
Tobacco products	-4.2	-0.4	-3.8
Textiles	-3.2	-1.2	-2.7
Wearing apparel, fur	-2.5	0.1	-1.9
Leather, leather products and footwear	-2.1	-2.1	-2.1
Wood products (excl. furniture)	-3.6	0.8	1.1
Paper and paper products	-0.9	-1.0	-1.0
Printing and publishing	1.9	-0.1	0.3
Coke, refined petroleum products, nuclear fuel	2.3	1.0	1.8
Chemicals and chemical products	-4.6	1.9	-0.4
Rubber and plastics products	-1.7	0.7	-0.2
Non-metallic mineral products	-2.4	0.0	-1.4
Basic metals	-3.8	-1.3	-3.0
Fabricated metal products	-6.2	-0.2	-1.9
Machinery and equipment n.e.c.	-4.4	0.0	-1.6
Office, accounting and computing machinery	-6.6	1.0	0.4
Electrical machinery and apparatus	-6.4	0.9	-3.2
Radio, television and communication equipment	-5.9	7.3	-1.9
Medical, precision and optical instruments	-6.3	0.4	-0.6
Motor vehicles, trailers, semi-trailers	2.4	0.0	0.5
Other transport equipment	3.3	0.5	2.0
Furniture; manufacturing n.e.c.	0.4	0.2	0.3
Total Manufacturing	-0.9	0.8	0.4

Source: UNIDO Statistics.

Note: Seasonally adjusted data.

Table 4:**Estimated growth rates of world manufacturing output in %**

Quarter III, 2014 (revised)

	Share in world MVA (2010)	Compared to the previous quarter	Compared to the same period of the previous year
World	100	-1.1	3.7
Industrialized Economies	67.7	-0.2	2.1
North America	22.4	1.2	4.5
Europe	24.7	-0.7	1.4
East Asia	17.2	-2.1	-0.4
Developing and EIE (by development group)	32.3	-1.8	7.3
China	15.3	-3.8	9.1
Emerging Industrial Economies	13.8	0.2	1.3
Other Developing Countries	2.7	-0.4	1.9
Developing and EIE (by region)	32.3	-1.8	7.3
Africa	1.5	0.8	0.9
Asia & Pacific	21.7	-1.7	9.8
Latin-America	5.8	-0.2	-1.3
Others	3.3	0.6	3.1

Source: UNIDO Statistics.

Note: Not all subgroups in this group 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, 2014 (revised)

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food and beverages	5.0	-2.4	0.8
Tobacco products	8.5	-6.2	6.9
Textiles	4.9	1.1	3.9
Wearing apparel, fur	3.8	-6.6	0.9
Leather, leather products and footwear	4.8	1.0	3.8
Wood products (excl. furniture)	6.4	-1.3	1.3
Paper and paper products	4.2	-5.8	-2.5
Printing and publishing	3.8	-0.9	0.0
Coke, refined petroleum products, nuclear fuel	3.9	-0.1	2.1
Chemicals and chemical products	5.8	2.1	3.4
Rubber and plastics products	3.2	2.4	2.7
Non-metallic mineral products	6.5	1.8	4.4
Basic metals	9.1	2.4	6.7
Fabricated metal products	5.2	0.7	1.9
Machinery and equipment n.e.c.	7.2	2.8	4.4
Office, accounting and computing machinery	3.6	4.2	4.2
Electrical machinery and apparatus	8.0	-0.1	4.3
Radio, television and communication equipment	6.9	-2.7	5.6
Medical, precision and optical instruments	5.9	3.6	4.0
Motor vehicles, trailers, semi-trailers	3.1	2.9	2.9
Other transport equipment	13.2	2.1	7.8
Furniture; manufacturing n.e.c.	9.2	2.8	6.2
Total Manufacturing	7.3	2.1	3.7

Source: UNIDO Statistics.

Note: Seasonally adjusted data.