Quarterly Report

World Manufacturing Production

Statistics for Quarter IV, 2013

Statistics Unit
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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Report on world manufacturing production, Quarter IV, 2013

UNIDO Statistics presents this report on world manufacturing production growth for the fourth quarter of 2013 based on indices of industrial production. The report also contains revised growth estimates for the third quarter of 2013. Reports on earlier quarters are available on UNIDO's website. 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. The quarterly reports have been published with two major changes to the methodology since early 2013, namely seasonal adjustment and country groups.

UNIDO's quarterly reports present seasonally adjusted index figures. Statistical indicators related to growth measures are often characterized by significant seasonal variations and differences in the number of working days over the time periods being compared. The purpose of seasonal adjustment is to filter out any fluctuations or calendar effects within the time series shifts. The seasonal adjustment of index numbers is achieved using the TRAMO/SEATS method[1] in Demetra+ software. The software has also been applied to impute the missing index data in some cases. Imputed data are replaced by survey data as soon as they are available from national sources.

The growth figures are presented by the country groups UNIDO Statistics uses. As of 2013, new country groups have been applied in all UNIDO statistical publications. Details on the country groupings are provided in the 2013 edition of the *International Yearbook of Industrial Statistics*. The new country groupings are based on economic territories rather than on political boundaries. They comprise country groups by stage of industrialization, geographic region and income categories.

Major findings

1. World manufacturing growth in the fourth quarter of 2013

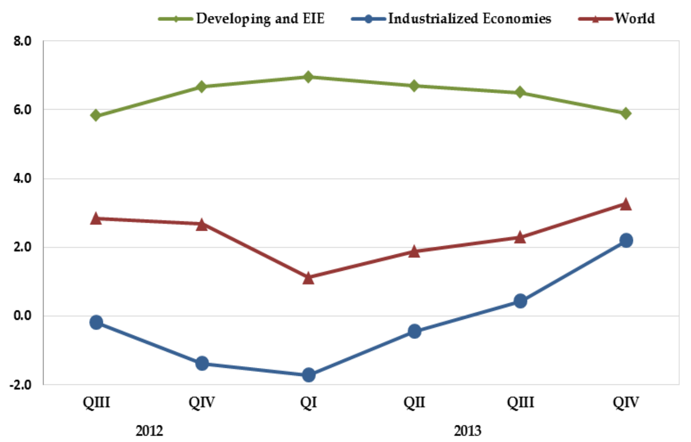
World manufacturing gained further strength in the fourth quarter of 2013 as a result of the continuing economic recovery of industrialized countries. For the first time since 2010, manufacturing output grew in all industrialized country

[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.

groups, including Europe. At the same time, manufacturing growth further slowed in developing and emerging industrial economies.

World manufacturing output rose by 3.3 percent in the fourth quarter of 2013 compared to the same period of the previous year. The recent growth estimates suggest a continuous upward trend of manufacturing output throughout 2013, with strong indication that the current trend is likely to continue through 2014. This conclusion is based on the fact that industrialized as well as developing and emerging industrial economies are contributing to the current growth in global manufacturing output.

Figure 1: World manufacturing output by quarter. Growth rates in % compared to the same quarter of the previous year



Source: UNIDO Statistics

It has also been observed that the gap in growth rates between industrialized and developing economies, which was considerable in the years of economic recession, gradually reduced in 2013. The manufacturing output of industrialized countries rose by 2.2 percent in the fourth quarter of 2013 compared to the same period of the previous year, and is up from 0.4 percent in the third quarter of 2013. Furthermore, the manufacturing output of developing and emerging industrial economies increased by 5.9 percent in the fourth quarter. However, it is down from 6.5 percent of the third quarter of 2013.

As witnessed in the earlier years of recession, the effect of industrial growth trends of industrialized countries in relation to those of developing countries only becomes visible after certain period of time. Therefore, the current positive growth trends observed in industrialized countries may not immediately be an accelerating factor for industrial growth of developing economies. Moreover, there is a risk of further capital withdrawal from industrialized countries. In the years of economic recession, capital inflow to developing countries fell and industrialized countries have recently adopted a policy of promoting manufacturing and increasing domestic investment. Manufacturers in industrialized countries have also introduced a demand-driven supply chain model to seize new opportunities in the market with a strong focus on product innovation. All these moves target domestic growth of manufacturing in industrialized countries, and are thus likely to limit both commodity imports as well as capital outflow for some time. However, as industrial production picks up and the job rates improve, import of consumer goods from developing countries will eventually rise, hence paving the way for another cycle of manufacturing growth in emerging and developing economies.

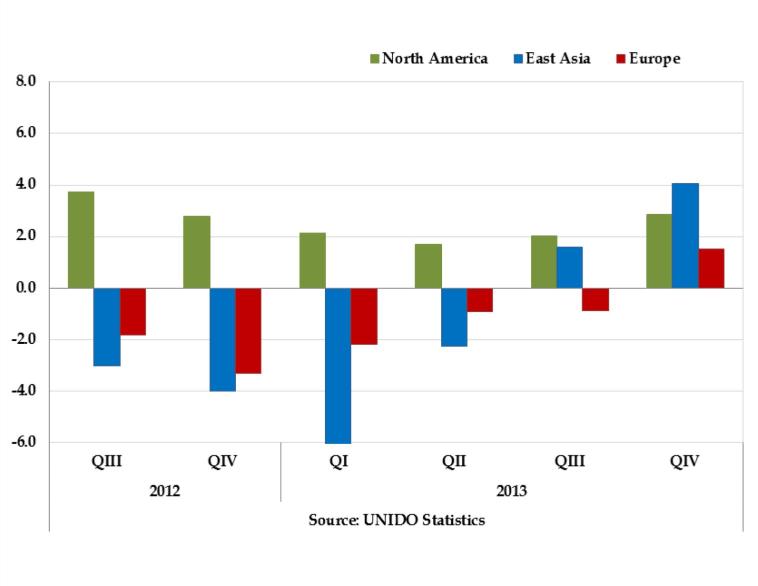
As mentioned in earlier reports, the relative drop in manufacturing growth rates in developing and emerging industrial economies is not only caused by external factors. Several domestic factors such as production costs, interest and exchange rates, and infrastructure have emerged in the face of economic recession. Specialization in selected export items at the cost of overall diversification has made the manufacturing sectors of developing economies more vulnerable to external shocks. This prompted some emerging economies to look into the margin of domestic value addition of manufacturing in more detail and adopt appropriate policy measures.

By country group

Industrialized countries

UNIDO estimates for the last quarter of 2013 have shown that manufacturing growth reached a positive level for the first time in the last two years in all major industrialized regions - North America, East Asia and Europe (see Figure 2). While recovery in earlier quarters was limited to selected countries or regions, the current recovery has a global scope. The manufacturing output of the United States, the largest manufacturer in the world, grew by 3.0 percent. Improved economic stability and fiscal agreements increased consumer confidence. This, in turn, has been reflected in strong demand for new housing, household electrical appliances and automobiles. As a result, impressive growth was observed in the manufacturing of construction materials, electrical

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

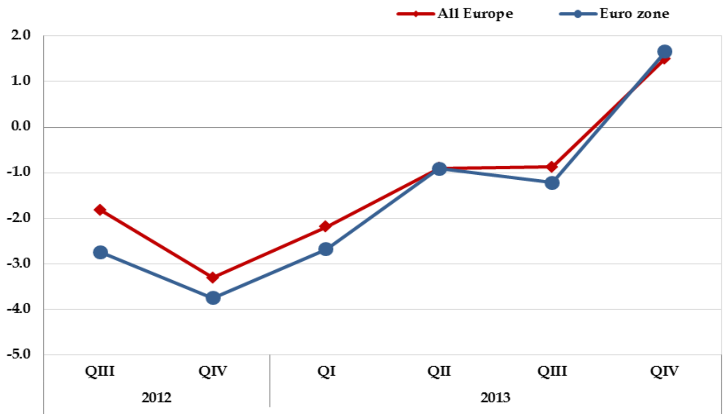


goods and motor vehicles. Revived growth of manufacturing output is likely to have a further positive impact on other industrialized economies.

The highest growth among industrialized countries in the fourth quarter of 2013 was observed in East Asia, which was mainly contributed by an impressive growth of Japan's manufacturing. An increase in household consumer spending and the drop in the value of the yen against the US dollar contributed to this trend as domestic and external factors of growth. Japan's manufacturing output rose at an impressive rate of 4.9 percent in the fourth quarter compared to the same period of the previous year. Notable growth was observed in the production of electrical appliances, electronic goods and motor vehicles. Among other countries within the group, the manufacturing output of Malaysia rose by 4.7 percent, Republic of Korea's by 1.2 percent and Singapore's by 8.0 percent.

In Europe, manufacturing output increased by 1.5 percent in the fourth quarter compared to the same period of the previous year. This was the first positive growth in Europe since 2011. The declining trend of manufacturing output was reversed in early 2013, but the growth of industrial output only set in in the last quarter of the year to end a prolonged period of recession. Another important trend the estimates for the last quarter of 2013 revealed is the closing of the gap of industrial growth rates between the eurozone countries and Europe as a whole.

Figure 3: Growth rates of manufacturing output in Europe, in % to the same period of the previous year



Source: UNIDO Statistics

Manufacturing output rose in all major European economies. The manufacturing output of Germany increased by 3.0 percent due to the growth of major export oriented industries. The production of chemical goods, machinery and equipment and motor vehicles contributed significantly to the overall growth of German manufacturing. Manufacturing output also rose in France, Italy and the United Kingdom. The recovery of manufacturing was also observed in Portugal, Netherlands and Spain.

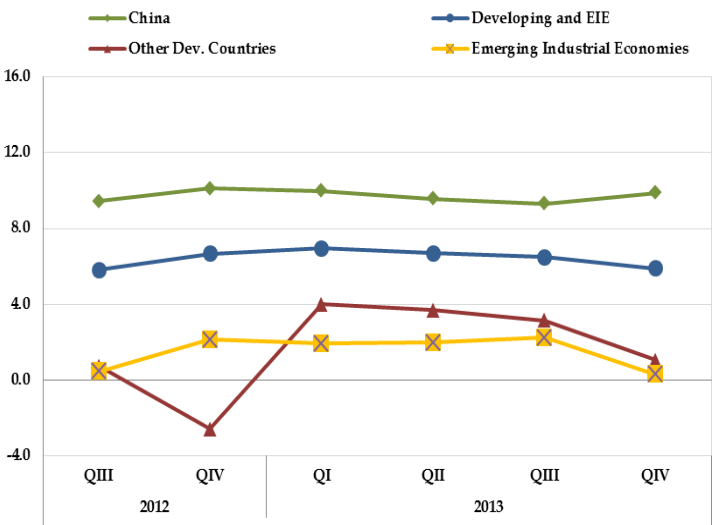
Steady growth of manufacturing output in major economies made a positive impact on a number of emerging European markets. Manufacturing output grew by 3.1 percent in Bulgaria, by 8.0 percent in Czech Republic and by 10.0 percent in Romania. These observations point towards fairly extensive industrial growth throughout Europe.

In general, the year 2013 built a strong base for the economic recovery of industrialized countries with steady growth prospects in 2014. Given that industrialized countries account for nearly two-thirds of the world total of manufacturing output, the current growth is likely to have a significant impact on global economic recovery.

Developing and emerging industrial economies

Despite the relatively higher growth rates of manufacturing output observed in developing and emerging industrial economies[2], the pace has continuously slowed throughout 2013. While the* manufacturing output of industrialized countries is in the upward trend, the manufacturing growth of developing and emerging industrial economies has slightly slowed (see Fig. 4).

Figure 4: Growth of manufacturing output of developing and emerging economies in % to the same quarter of previous year



Source: UNIDO Statistics

As indicated in earlier UNIDO reports, these countries have been caught in a slow growth trap as a consequence of the prolonged recession in industrialized countries. As recovery in some industrialized countries has just begun to improve their growth performance, the impact on developing economies is not yet perceptible. The growth rate of manufacturing output of developing economies remained around 6.0 percent throughout the year 2013, with a marginal variation from quarter to quarter.

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[2] In the UNIDO country groups, China belongs to the group of emerging industrial economies. However, due to its size, data for China are reported separately to the extent possible.

China contributed most to the growth of developing and emerging industrial economies. Chinese manufacturing output grew by nearly 10.0 percent in the last quarter of 2013, which reversed the slowing pace of the earlier quarters of 2013. As mentioned in earlier reports, the effect of world economic recession was different for China than for other countries. As a result of its growing middle class, China has built quite a strong and sizeable domestic market that has made the Chinese economy much less vulnerable to the shock of volatility of the external market. The recent improvement in growth rates has primarily been achieved by meeting the growing domestic demand.

The growth performance of emerging industrial economies (other than China) and other developing countries in the last quarter of 2013 remained much lower than in China. The manufacturing output of India dropped by 2.0 percent as the value of the Indian rupee plunged, causing a rise in the cost of production. Similarly, manufacturing output fell by 3.4 percent in Argentina, by 0.8 percent in Indonesia and by 1.7 percent in Saudi Arabia. Brazil and Mexico maintained moderate growth, while the manufacturing output of Turkey rose by 4.9 percent. The developing economies of North Africa were quick to benefit from the recovery in Europe. Manufacturing output rose by 4.3 percent in Morocco and by 6.9 percent in Tunisia. However, it dropped by 2.6 percent in Egypt amidst the continuing political instability.

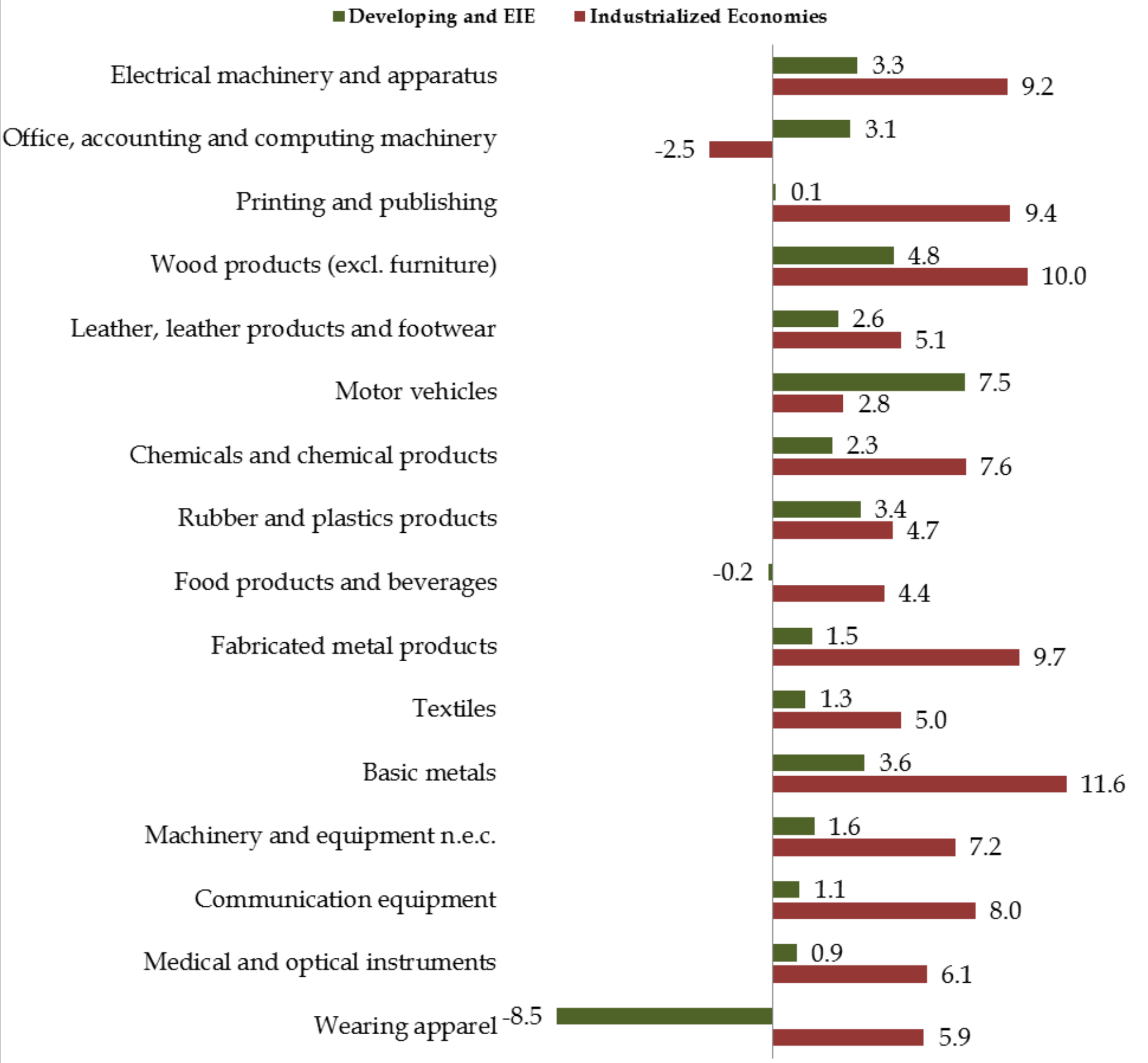
In general, the growth figures across the developing regions were moderate. Many developing countries have a limited domestic market constrained by a low income of the majority of their populations. The export orientation of industry, which earns valuable foreign currency, has shown vulnerability to external conditions. As these external conditions continue to remain unfavourable, many developing and emerging industrial economies are trapped in a low growth situation.

By industry groups

In a comparison by industry, developing and emerging industrial economies maintained a high growth rate in most manufacturing activities. Industrialized countries achieved particularly high growth in the manufacture of motor vehicles and office machines and computers.

Estimated growth by industry is depicted in Figure 5, by industrialized and developing and emerging industrial economies.

Figure 5: Estimated growth rates by sector in percent compared to previous year Quarter IV, 2013



Source: UNIDO **Statistics**

As a result of the recent movement of manufacturing towards industrialized economies, for the first time since the second quarter of 2011, growth was observed in the manufacture of textiles in industrialized countries. In Malaysia, the production of textiles rose by 15.1 percent in the fourth quarter of 2013 compared to the same period of the previous year. Among other producers, Czech Republic, France, Norway Portugal and the Russian Federation also experienced significant growth in textile manufacturing.

The developing and emerging industrial economies continue to dominate the costumer goods market, such as garments, food and beverages and electrical machinery, by a significant margin over the industrialized countries. The production of wearing apparel rose by 14.1 percent in India, by 10.7 percent in

South Africa, by 10.3 percent in Romania and by 5 percent in China compared to the same period of the previous year.

The current manufacturing growth in industrialized countries is related to increased consumer spending in durable products. The manufacture of motor vehicles rose significantly (by 6.6 percent) in the last quarter of 2013, raising expectations that automotive vehicle production will fully recover to pre-recession levels in coming years. In Sweden, the production of motor vehicles grew at an impressive rate of 24.6 percent in the fourth quarter of 2013. In other major markets, motor vehicle manufacturing rose by 13.2 percent in the United Kingdom, by 8.1 percent in Germany, by 7.4 percent in the United States and by 6.6 percent in Japan. Following a long recession, significant growth was observed in France and Italy where the production of motor vehicles increased by 8.2 percent and 6.2 percent, respectively.

High growth was also observed in basic metals, wood products, fabricated metals and electrical machinery in developing and emerging industrial markets. The growth in production of the above mentioned products indicates growth targeting infrastructure, especially in developing and emerging industrial economies.

On the whole, industrial growth figures confirm the slight slowdown in developing and emerging industrial countries, which might be the result of the recent recovery in industrialized economies. However, the improvement in industrialized countries is at an early stage, there is not enough evidence to arrive at a definite conclusion, as it might be an accretion or temporary movement only.

Detailed data per industry and per country group is featured in the annexed tables.

Table 1:
Estimated growth rates of world manufacturing output
Quarter IV, 2013

Seasonally adjusted

	Share in world MVA (2010)	Growth rates compared to:	
		previous quarter	same period of the previous year
World	100.0	0.2	3.3
Industrialized Economies	67.7	1.2	2.2
North America	22.4	1.2	2.9
Europe	24.7	0.6	1.5
East Asia	17.2	2.7	4.0
Developing and Emerging Industrial Economies (by development group)	32.3	-1.7	5.9
China	15.3	-2.6	9.9
Emerging Industrial Economies	13.8	-0.4	0.3
Least Developed Countries	0.5	-0.3	-0.5
Other Developing Economies	2.7	0.5	1.0
Developing and Emerging Industrial Economies (by region)	32.3	-1.7	5.9
Africa	1.5	2.1	0.7
Asia & Pacific	21.7	-2.3	7.6
Latin America	5.8	-0.8	0.2
Others	3.3	0.6	4.5

Table 2
Estimated growth rates of output by manufacturing sector
Quarter IV, 2013 (in % compared to the same period of the previous year)

Seasonally adjusted

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food and beverages	4.4	-0.2	1.7
Tobacco products	6.2	-2.3	5.1
Textiles	5.0	1.3	3.9
Wearing apparel, fur	5.9	-8.5	1.3
Leather, leather products and footwear	5.1	2.6	4.2
Wood products (excl. furniture)	10.0	4.8	6.2
Paper and paper products	5.6	0.5	2.2
Printing and publishing	9.4	0.1	1.2
Coke, refined petroleum products	4.7	-1.7	1.7
Chemicals and chemical products	7.6	2.3	4.0
Rubber and plastics products	4.7	3.4	3.9
Non-metallic mineral products	8.1	2.1	5.0
Basic metals	11.6	3.6	8.5
Fabricated metal products	9.7	1.5	3.3
Machinery and equipment n.e.c.	7.2	1.6	2.2
Office, accounting and computing machinery	-2.5	3.1	3.0
Electrical machinery and apparatus	9.2	3.3	6.2
Radio, TV and communication equipment	8.0	1.1	5.3
Medical, precision and optical instruments	6.1	0.9	1.1
Motor vehicles, trailers, semi-trailers	2.8	7.5	6.6
Other transport equipment	7.4	1.3	4.5
Furniture; manufacturing n.e.c.	9.8	3.0	6.3
Total Manufacturing	5.9	2.2	3.3

Table 3:
Estimated growth rates of output by manufacturing sector
Quarter IV, 2013 (in % compared to Quarter III of 2013)

Seasonally adjusted

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food and beverages	1.4	0.4	0.8
Tobacco products	-4.5	-0.2	-4.0
Textiles	-2.9	0.8	-1.9
Wearing apparel, fur	-3.1	-5.9	-3.9
Leather, leather products and footwear	-2.1	0.8	-1.2
Wood products (excl. furniture)	-3.2	2.1	0.4
Paper and paper products	-2.0	-0.4	-0.9
Printing and publishing	1.0	0.7	0.7
Coke, refined petroleum products	2.8	-0.7	1.2
Chemicals and chemical products	-2.3	1.2	0.0
Rubber and plastics products	-2.6	0.3	-0.8
Non-metallic mineral products	-1.7	0.1	-0.8
Basic metals	-0.6	2.1	0.4
Fabricated metal products	-7.4	0.2	-1.7
Machinery and equipment n.e.c.	4.3	0.2	0.7
Office, accounting and computing machinery	-5.6	1.2	1.2
Electrical machinery and apparatus	-6.0	1.0	-2.8
Radio, TV and communication equipment	-5.5	-1.8	-4.2
Medical, precision and optical instruments	0.5	3.0	2.9
Motor vehicles, trailers, semi-trailers	0.1	1.9	1.6
Other transport equipment	4.7	1.7	3.4
Furniture; manufacturing n.e.c.	-0.9	-0.1	-0.5
Total Manufacturing	-1.7	1.2	0.2

Table 4:
Estimated growth rates of world manufacturing output
Quarter III, 2013 (revised)

Seasonally adjusted

	Share in world MVA (2010)	Growth rates compared to: previous quarter	Growth rates compared to: same period of the previous year
World	100.0	-0.7	2.3
Industrialized Economies	67.7	0.2	0.4
North America	22.4	0.3	2.0
Europe	24.7	-0.1	-0.9
East Asia	17.2	0.2	1.6
Developing and Emerging Industrial Economies (by development group)	32.3	-1.9	6.5
China	15.3	-3.2	9.3
Emerging Industrial Economies	13.8	0.4	2.2
Least Developed Countries	0.5	-3.7	3.4
Other Developing Economies	2.7	-0.5	3.2
Developing and Emerging Industrial Economies (by region)	32.3	-1.9	6.5
Africa	1.5	-1.7	-1.7
Asia & Pacific	21.7	-2.5	8.4
Latin America	5.8	-0.1	1.0
Others	3.3	1.0	3.8

Table 5:
Estimated growth rates of output by manufacturing sector
Quarter III, 2013 (revised) (in % compared to the same period of the previous year)

Seasonally adjusted

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food and beverages	3.6	-0.9	0.9
Tobacco products	6.4	-4.1	5.1
Textiles	5.6	-1.6	3.4
Wearing apparel, fur	6.5	-0.6	4.3
Leather, leather products and footwear	7.2	-1.7	4.1
Wood products (excl. furniture)	7.8	3.4	4.6
Paper and paper products	6.7	0.3	2.4
Printing and publishing	8.9	-3.1	-1.6
Coke, refined petroleum products	4.7	-1.4	1.9
Chemicals and chemical products	8.1	1.0	3.4
Rubber and plastics products	6.0	1.3	2.9
Non-metallic mineral products	8.6	-0.5	3.9
Basic metals	8.5	-0.9	4.9
Fabricated metal products	11.1	0.3	2.8
Machinery and equipment n.e.c.	-0.3	-1.6	-1.5
Office, accounting and computing machinery	0.0	3.8	3.7
Electrical machinery and apparatus	13.0	1.5	7.3
Radio, TV and communication equipment	6.0	2.0	4.6
Medical, precision and optical instruments	6.2	-5.1	-4.8
Motor vehicles, trailers, semi-trailers	2.6	2.0	2.1
Other transport equipment	1.8	1.8	1.7
Furniture; manufacturing n.e.c.	10.9	1.4	6.0
Total Manufacturing	6.5	0.4	2.3