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World Manufacturing Production

Statistics for Quarter I, 2013

Statistics Unit

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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Report on world manufacturing production, Quarter I, 2013

UNIDO Statistics presents this report on world manufacturing production in the first quarter of 2013 to international data users. The report provides estimates based on the observed growth of manufacturing output obtained from quarterly production indices. Reports for earlier quarters are available on the statistics pages of UNIDO's website. Users can also access methodological documents on the compilation of quarterly indices and the estimation procedure of growth rates. This report presents the latest figures and revised estimates of previous quarters supplemented by a brief data analysis. Users should note that the current report includes two major changes pertaining to seasonal adjustment and country grouping.

UNIDO's quarterly reports on world manufacturing have been published regularly since the first quarter of 2011. However, earlier reports included index figures for certain countries that were not seasonally adjusted or information was not available if seasonal adjustments were made at the national level. Statistical indicators related to growth measures are often characterized by significant seasonal variations and the difference in the number of working days over time periods under comparison. The purpose of seasonal adjustment is to filter out any fluctuations or calendar effects within the movements of the time series. To obtain a meaningful comparison of growth rate figures for different periods within a given year and to enhance the understanding and interpretation of underlying trends, UNIDO now publishes growth figures based on seasonally adjusted index numbers. The seasonal adjustment of index numbers is carried out using the TRAMO/ SEATS method¹ in Demetra+ software.

The country groups are an essential part of the compilation and presentation of quarterly growth figures. Effective as of 2013, new country groups are used in all UNIDO statistical publications. The details on the country groups are available in the 2013 edition of the International Yearbook of Industrial Statistics. The new country groups are based on economic territories rather than the political boundaries of countries. They cover country groups by stage of industrial development, geographic region and income category. The present report presents

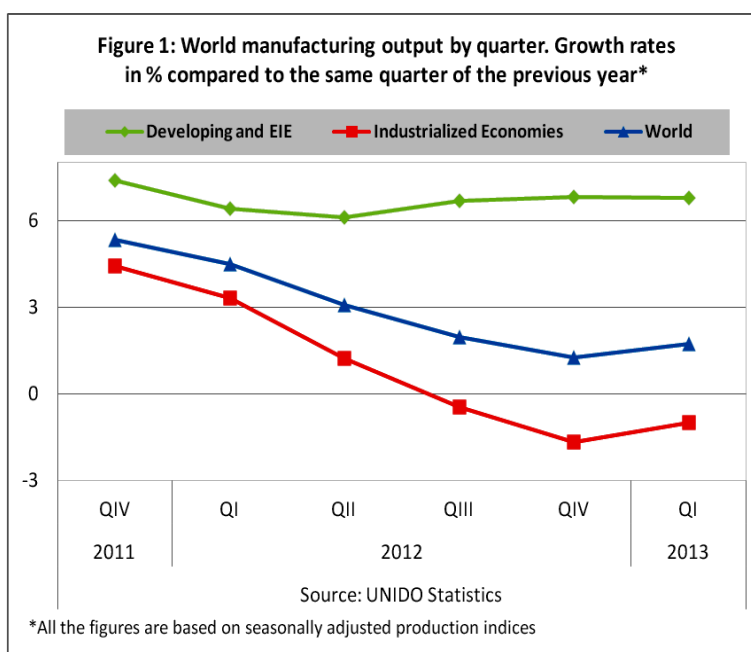
¹ TRAMO stands for Time series Regression with ARIMA noise, Missing values and Outliers' and SEATS for 'Signal Extraction in ARIMA Time Series'. ARIMA is the abbreviation of Autoregressive Integrated Moving Average, a widely applied statistical method for time series analysis.

growth figures for country groups by stage of industrial development and by geographical region.

Major findings

World industrial production growth slightly increased in the first quarter of 2013 after a continuous decline since the second quarter of 2010. Despite this break from a nearly three-year downward trend, the prospect of recovery remains fragile for the majority of industrialized and emerging industrial economies. The base of the current growth is limited to the United States and China only, the world's leading manufacturers. While the sustained growth of industrialized economies has been jeopardized by stagnation in Europe due to the austerity measures, developing and emerging industrial economies faced decline in external demand due to prolonged recession in industrialized economies.

According to the latest UNIDO estimates, year-to-year growth was registered at 1.7 percent in the first quarter of 2013, up from 1.3 percent in the last quarter of 2012. On a quarter-to-quarter basis, world manufacturing output rose by 4.0 percent compared to the previous quarter, indicating slight economic recovery. The declining trend of



manufacturing output seems to have reversed both in industrialized as well as in developing and emerging industrial economies, though industrialized countries could not avoid negative growth in early 2013. The manufacturing output of industrialized economies dropped by about 1.0 percent in the first quarter of 2013 compared to the same period in the previous year.

Developing and emerging industrial economies maintained a relatively high growth of manufacturing output in the first quarter. But the growth figure should

be interpreted with some caution. First, the high growth of these economies is mainly attributable to China, which accounts for more than half of the manufacturing output of developing and emerging industrial economies. Second, the pace of China's growth has begun to decrease after a short period of growth increase in the last quarter of 2012. To what extent China can sustain higher growth will be seen in II and III quarter of 2013. In recent years, it has also been observed that the impact of Europe's economic recession is different for China than it is for other developing and emerging industrial economies. As was mentioned in earlier reports, China has developed a strong domestic market, while other economies are still fairly dependent on exports to industrialized countries.

Declining trends of manufacturing output slightly eased in Europe in the first quarter of 2013. However, no immediate recovery can be foreseen due to the further contraction of the economies of the euro zone in recent months. The austerity measures implemented to tackle financial instability had a negative impact on production and employment in Europe's manufacturing sector. The necessity of structural reform of the European economy has been emphasized in earlier UNIDO reports.

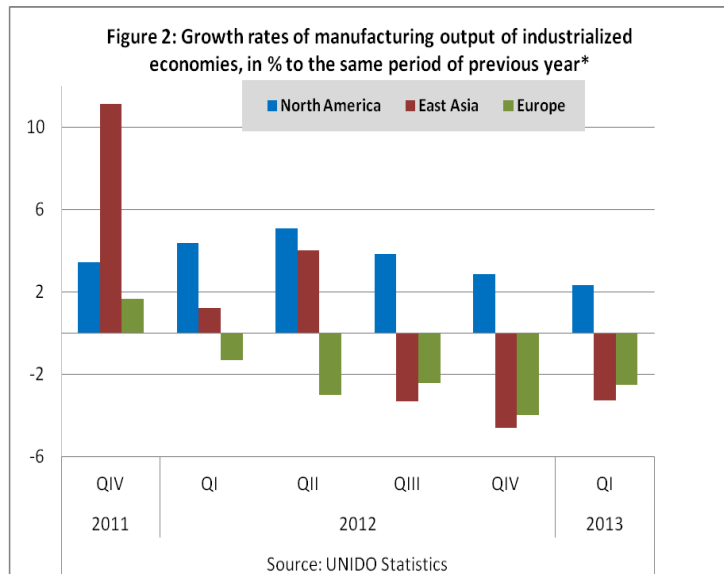
In general, global manufacturing growth exhibited varying trends with dynamism in North America and improved growth prospects in East Asia, but fragile and weak recovery in Europe. The growth prospects of developing and emerging industrial economies were very much dependent on demand and capital inflow from industrialized countries.

By country group

Industrialized countries

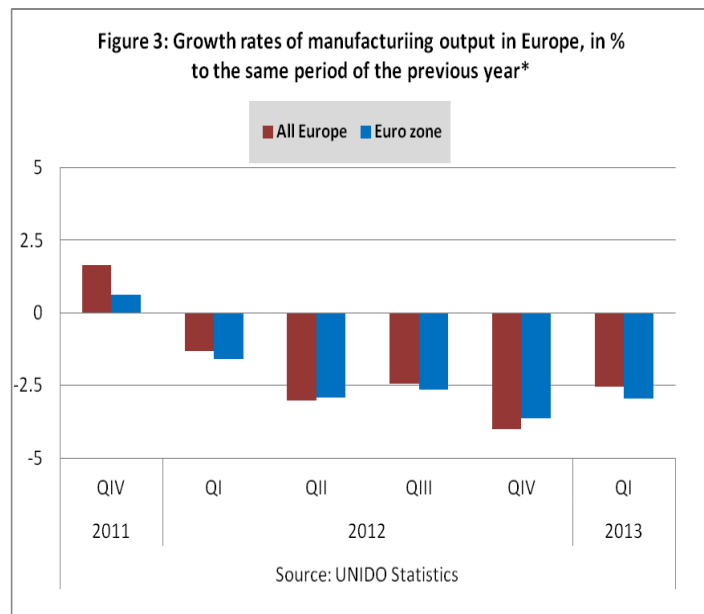
The growth figures for the first quarter of 2013 reveal diverging trends in manufacturing in industrialized countries according to region (see Fig.2). The North America region has continued to grow for the third consecutive year due to the sustained growth of manufacturing output in the United States. Falling energy prices, low transport costs and policy measures directed at reverse outsourcing have helped to build consumer confidence and contributed to widespread growth, often referred to as a *manufacturing renaissance* in the United States. Although the growth rate remained moderate, manufacturing output systematically increased in 2012 and in the first quarter of 2013. Currently, the United States accounts for most of the industrial growth among industrialized countries.

Despite the notable recovery compared to the previous quarters of 2012, manufacturing output fell in East Asia in the first quarter of 2013 compared to the same period of the previous year. While the Republic of Korea showed strong growth at 5.1 percent, Malaysia and Singapore had negligible or negative growth. Japan's manufacturing output



dropped in the first quarter but showed signs of recovery with a 2.0 percent growth on a quarter-to-quarter basis. The falling exchange rate of the Japanese Yen against other currencies is expected to reduce the price of Japanese goods abroad which in turn may increase exports.

In Europe, manufacturing output dropped 2.5 percent in the first quarter of 2013. The rate of decline was slightly higher in eurozone countries at 2.9 percent. Although the decrease in manufacturing output seems to have eased slightly, the recession still has a strong hold over all major European economies. Manufacturing output fell by 4.2 percent in France, by 1.7 percent in Germany and by 4.5 percent in Italy. This confirms that the



austerity measures implemented in Europe have adversely affected industrial growth.

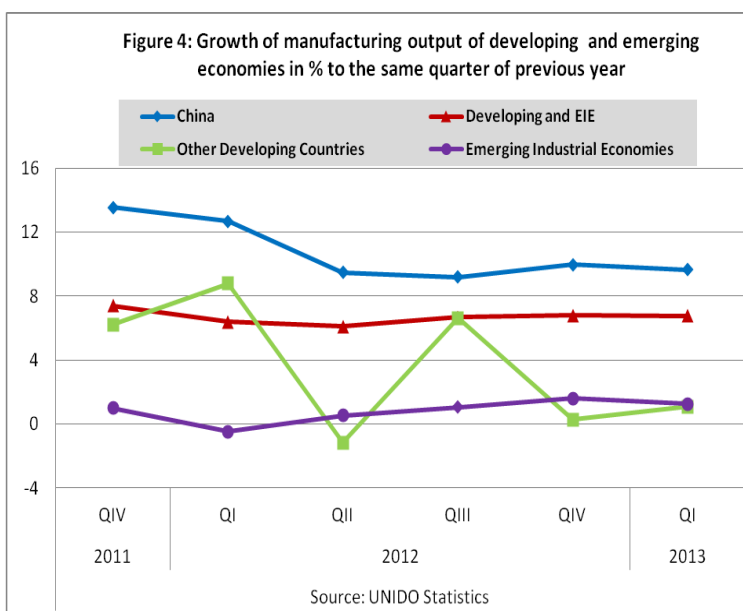
The policy of fiscal consolidation has proven to be unbalanced as it focuses on the tightening of credits and spending cuts, and neglects necessary measures to build consumer confidence. The rise in unemployment and the sharp decline in demand have further prolonged the recession. The current slow pace of industrial

growth is evidenced by the fact that the large number of unemployed persons cannot be absorbed by the economy in the foreseeable future. The manufacturing output of the crisis stricken economy of Greece has further dropped by 5.6 percent, Portugal's manufacturing output by 3.1 percent and Spain's by 4.0 percent. The effect of the recession in the eurozone countries was evident in the rest of Europe. Manufacturing output fell by 2.6 percent in the Czech Republic, by 3.1 percent in the Russian Federation and 2.1 percent in the United Kingdom. Positive growth was maintained by a few smaller European economies including Austria, Estonia and Denmark.

Developing and emerging industrial economies

The manufacturing output of developing and emerging industrial economies² rose by 6.8 percent compared to the same period of the previous year. The relatively high growth of these economies is mainly attributable to China. As depicted in Figure 4, manufacturing growth remained moderate in the other developing and emerging industrial economies.

The manufacturing output of China, the second largest manufacturer of the world, grew by 9.7 percent in the first quarter of 2013, slightly down from 10.0 percent in the last quarter of 2012. The slowing pace of manufacturing growth is mainly attributable to external factors. There are concerns of falling demand in domestic markets as well. Lower growth of production of equipment and motor vehicles indicate a reduced consumer demand for durable items.



The manufacturing output of emerging industrial economies (excluding China) grew by 1.3 percent and that of other developing economies by 1.1 percent.

² In 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 furthest extent possible.

The lower growth in developing economies is mainly explained by the drop in exports to industrialized countries, where demand for consumer goods sharply declined due to years of prolonged recession.

The growth of manufacturing output remained moderate in major emerging industrial economies. Brazil's growth rate was 1.6 percent, India's 2.5 percent, Indonesia's 4.5 percent, Mexico's 1.1 percent and Turkey's 4.0 percent. The lower growth rate of manufacturing can be explained by external and internal factors. The external factor was common to all countries, namely low export growth due to reduced demand from industrialized countries. The internal factors differed from country to country. For example, manufacturing in Brazil faced high inflation and stiff competition from cheaper imported goods resulting in high trade deficits, while Indian factory producers encountered frequent interruptions of power which disrupted smooth production.

According to UNIDO estimates, Egypt's manufacturing output in the first quarter of 2013 fell by 3.2 percent and Morocco's by 0.4 percent. South Africa maintained a positive growth rate throughout 2012, but in the first quarter of 2013, the country's growth rate shrank by 1.1 percent. Manufacturing output dropped in Argentina, but rose slightly in Chile and Peru, while Columbia's growth rate fell significantly. Estimates based on limited data show that the manufacturing output of least developed countries (LDCs) grew by 4.0 percent in the first quarter of 2013. Bangladesh, the largest economy among the LDCs, reported a 2.6 percent growth in the first quarter of 2013.

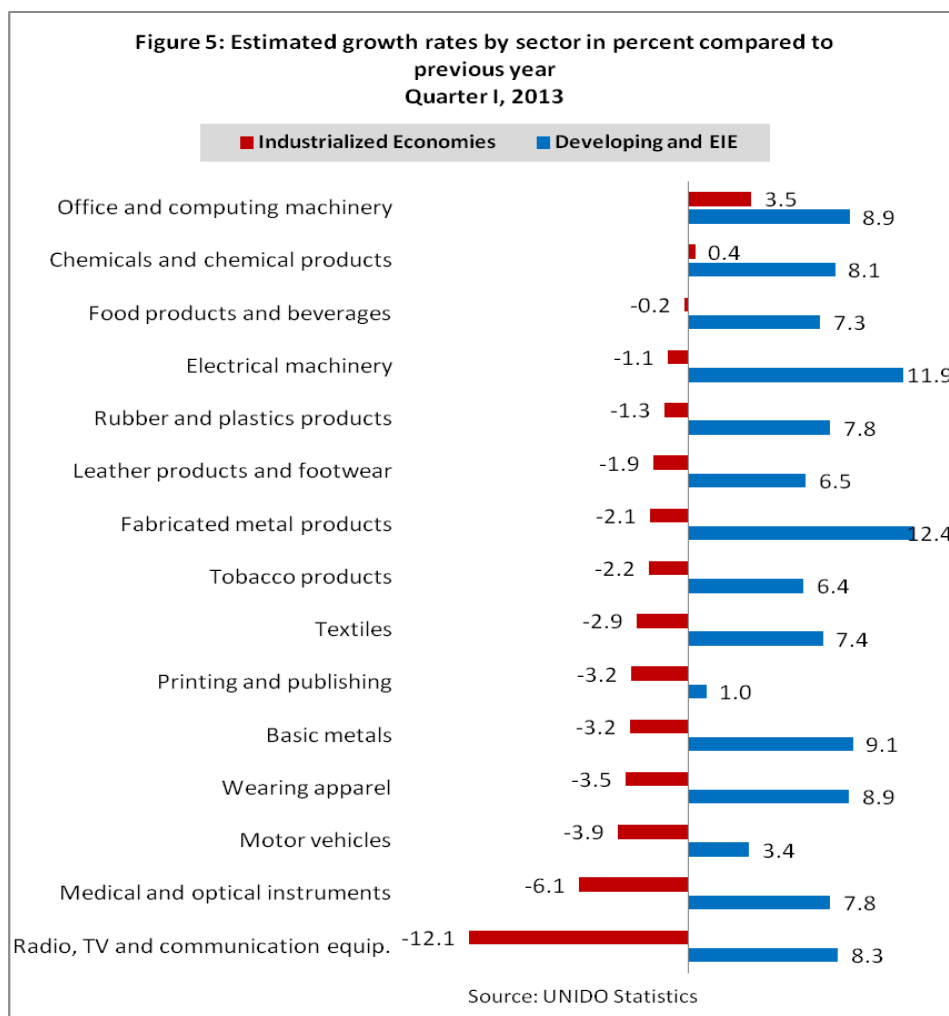
In terms of regional aggregates, manufacturing output fell in Africa due to negative growth observed in Egypt and South Africa, the largest manufacturer of the continent. Asia maintained the highest growth rate at 8.4 percent, while Latin America indicated a modest positive growth of 0.1 percent.

By industry group

The growth estimates are presented by manufacturing industry for both industrialized and developing and emerging industrial countries.

Due to the economic recession, which has caused significant job losses and a drop in income, demand for capital goods and durable items for household consumption fell worldwide in the first quarter of 2013. As a consequence, the production of machinery and equipment dropped by 2.2 percent, of radio, television and communication equipment by 0.3 percent and of motor vehicles by 2.5 percent (see Table 3 in Annex). The highest growth in manufacturing output

was attributable to the production of essential consumer goods. Production of food and beverages grew by 2.9 percent, wearing apparel by 5.1 percent and chemical products, which includes pharmaceuticals as well as cleaning substances for household use, by 3.0 percent.



Industrialized economies suffered significant setback across nearly all manufacturing industries. Traditionally, industrialized economies have maintained higher growth in high-technology industries as a result of the comparative advantage from their focus on innovation and technology. However, manufacturing output from the production of general purpose machinery and equipment has dropped in the majority of industrialized countries. Production of general purpose machinery fell by 4.7 percent in Germany, 6.4 percent in Italy and 10.3 percent in Japan in the first quarter of 2013. Production of machinery and equipment grew in the United States to meet increasing domestic demand on account of the policy of retaining manufacturing activities at home. The United States showed strong growth in the production of motor vehicles of 8.1 percent.

However, the leading car manufacturers in Asia and Europe experienced a sharp decline during the same period. Production of motor vehicles fell by 17.8 percent in France, 16.8 percent in Italy, 9.1 percent in Japan and 11.5 percent in Sweden. Production of motor vehicles also dropped in Germany, albeit by a much lower rate of 2.5 percent. Among other high-technology sectors, industrialized countries indicated a moderate growth of 3.5 percent in computing machinery. However, production of electronic goods, especially communication equipment, fell by 12.1 percent. Estimated growth rates of selected manufacturing sectors are provided separately in Figure 5 for the first quarter for industrialized and developing and emerging industrial countries.

The growth performance of developing and emerging industrial economies was far better in nearly all manufacturing industries, including in medium-high and high-technology industries such as chemicals, machinery and equipment, electrical and electronic goods and the production of medical and optical instruments. Production of basic consumer goods rose at a higher rate due to an increase in domestic demand in developing and emerging industrial economies. The production of food and beverages rose by 7.3 percent, textiles by 7.4 percent and wearing apparel by 8.9 percent compared to the same quarter in the previous year. Production of wearing apparel dropped in Brazil and Egypt, but increased in India, South Africa and Turkey.

Among high-tech products, the manufacture of general machinery rose by 4.4 percent and computing machinery by 8.9 percent in emerging industrial economies. The growth of computing machinery was particularly impressive in China. Production of motor vehicles grew by 3.4 percent in China, by 5.8 percent in Turkey and 2.3 percent in South Africa. India's chemicals and pharmaceuticals industries boasted an impressive growth rate of 6.6 percent.

Further statistics on the growth rates in the first quarter of 2013 are presented in the Statistical Annex.

Statistical tables

Table 1:
Estimated growth rates of world manufacturing output
 Quarter I, 2013
Seasonally adjusted

	Share in world MVA (2010)	Growth rates compared to:	
		previous quarter	same period of previous year
World	100.0	4.0	1.7
Industrialized Economies	67.7	0.6	-1.0
North America	22.4	1.3	2.3
Europe	24.7	0.0	-2.5
East Asia	17.2	1.4	-3.3
Developing and Emerging Industrial Economies (by development group)	32.3	10.1	6.8
China	15.3	16.1	9.7
Emerging Industrial Economies	13.8	0.5	1.1
Least Developed Countries	0.5	0.1	4.0
Other Developing Economies	2.7	0.5	1.1
Developing and Emerging Industrial Economies (by region)	32.3	10.1	6.8
Africa	1.5	-0.7	-1.8
Asia & Pacific	21.7	13.1	8.4
Latin America	5.8	-0.8	0.1
Others	3.3	0.0	1.6

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

	Developing and EIEs	Industrialized Economies	World
Food and beverages	7.3	-0.2	2.9
Tobacco products	6.4	-2.2	5.2
Textiles	7.4	-2.9	4.5
Wearing apparel, fur	8.9	-3.5	5.1
Leather, leather products and footwear	6.5	-1.9	3.7
Wood products (excl. furniture)	8.1	1.5	3.5
Paper and paper products	4.9	-2.1	0.2
Printing and publishing	1.0	-3.2	-2.5
Coke, refined petroleum products, nuclear fuel	3.7	-2.1	1.0
Chemicals and chemical products	8.1	0.4	3.0
Rubber and plastics products	7.8	-1.3	1.9
Non-metallic mineral products	7.9	-4.5	1.7
Basic metals	9.1	-3.2	4.4
Fabricated metal products	12.4	-2.1	1.5
Machinery and equipment n.e.c.	4.4	-5.6	-2.2
Office, accounting and computing machinery	8.9	3.5	3.9
Electrical machinery and apparatus	11.9	-1.1	5.6
Radio, television and communication equipment	8.3	-12.1	-0.3
Medical, precision and optical instruments	7.8	-6.1	-4.0
Motor vehicles, trailers, semi-trailers	3.4	-3.9	-2.5
Other transport equipment	3.3	1.0	2.3
Furniture; manufacturing n.e.c.	5.8	-1.1	2.4
Total Manufacturing	6.8	-1.0	1.7

Table 3:
Estimated growth rates of output by manufacturing sector
 Quarter I, 2013 (in percent compared to Quarter IV of 2012)
Seasonally adjusted

	Developing and EIEs	Industrialized Economies	World
Food and beverages	8.9	0.0	3.7
Tobacco products	0.0	-0.4	-0.1
Textiles	15.6	-0.9	10.7
Wearing apparel, fur	16.1	-1.4	10.6
Leather, leather products and footwear	11.9	0.6	8.1
Wood products (excl. furniture)	20.6	2.4	7.7
Paper and paper products	11.9	0.2	3.9
Printing and publishing	5.0	1.1	1.7
Coke, refined petroleum products, nuclear fuel	0.8	-0.8	0.1
Chemicals and chemical products	9.2	1.5	4.1
Rubber and plastics products	10.0	3.4	5.8
Non-metallic mineral products	14.5	-1.5	6.4
Basic metals	15.0	2.1	10.1
Fabricated metal products	22.9	0.0	5.3
Machinery and equipment n.e.c.	15.1	-0.1	4.9
Office, accounting and computing machinery	17.8	0.8	2.1
Electrical machinery and apparatus	17.0	0.8	9.1
Radio, television and communication equipment	5.0	-2.8	2.0
Medical, precision and optical instruments	16.7	-2.1	0.5
Motor vehicles, trailers, semi-trailers	0.7	2.5	2.1
Other transport equipment	7.2	-4.7	1.8
Furniture; manufacturing n.e.c.	8.5	3.3	5.9
Total Manufacturing	10.1	0.6	4.0

Table 4:
Estimated growth rates of world manufacturing output
 Quarter IV, 2012 (Revised)
Seasonally adjusted

	Share in world MVA (2010)	Growth rates compared to:	
		previous quarter	same period of previous year
World	100.0	-1.1	1.3
Industrialized Economies	67.7	-0.6	-1.7
North America	22.4	0.4	2.9
Europe	24.7	-2.0	-4.0
East Asia	17.2	0.3	-4.6
Developing and Emerging Industrial Economies (by development group)	32.3	-2.3	6.8
China	15.3	-3.4	10.0
Emerging Industrial Economies	13.8	0.6	1.6
Least Developed Countries	0.5	5.2	12.4
Other Developing Economies	2.7	-3.5	0.3
Developing and Emerging Industrial Economies (by region)	32.3	-2.3	6.8
Africa	1.5	-0.3	-0.8
Asia & Pacific	21.7	-3.3	8.7
Latin America	5.8	-0.1	0.9
Others	3.3	-0.1	0.4

Table 5:
Estimated growth rates of output by manufacturing sector
 Quarter IV, 2012 (revised) (in % compared to the same period of the previous year)
Seasonally adjusted

	Developing and EIEs	Industrialized Economies	World
Food and beverages	6.4	-0.4	2.3
Tobacco products	9.7	-2.2	8.0
Textiles	6.9	-2.6	3.8
Wearing apparel, fur	3.0	-4.5	0.5
Leather, leather products and footwear	5.7	-5.3	1.6
Wood products (excl. furniture)	6.3	-0.1	1.6
Paper and paper products	2.6	-2.5	-1.0
Printing and publishing	0.2	-5.6	-4.7
Coke, refined petroleum products, nuclear fuel	7.6	-1.1	3.5
Chemicals and chemical products	8.2	-0.7	2.2
Rubber and plastics products	6.8	-2.6	0.6
Non-metallic mineral products	6.2	-5.3	0.1
Basic metals	8.8	-3.9	3.5
Fabricated metal products	6.0	-1.7	0.0
Machinery and equipment n.e.c.	4.4	-4.2	-1.5
Office, accounting and computing machinery	8.0	5.0	5.3
Electrical machinery and apparatus	9.9	-1.9	3.8
Radio, television and communication equipment	11.5	-5.2	4.4
Medical, precision and optical instruments	8.5	-6.5	-4.7
Motor vehicles, trailers, semi-trailers	1.4	-5.3	-4.0
Other transport equipment	4.5	1.6	3.2
Furniture; manufacturing n.e.c.	8.5	-1.4	3.3
Total Manufacturing	6.8	-1.7	1.3