Quarterly Report

World Manufacturing Production

Statistics for Quarter III, 2013

Statistics Unit

www.unido.org/statistics

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Report on world manufacturing production, Quarter III, 2013

UNIDO Statistics presents this report on world manufacturing production growth for the third quarter of 2013 based on the indices of industrial production. The report also contains revised growth estimates for the second 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. Since early 2013, the quarterly reports have been published with two major changes to the methodology, namely seasonal adjustment and country groups.

UNIDO's quarterly reports on world manufacturing have been regularly published since the first quarter of 2011. However, earlier reports included index figures for some countries that were not seasonally adjusted or for which no information was available where seasonal adjustment was made at the national level. Statistical indicators related to growth measures are often characterized by significant seasonal variations and differences 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 time series shifts. To gain a meaningful comparison of growth rate figures for different periods in a given year and to enhance our understanding and interpretation of the underlying trend, UNIDO publishes growth figures based on seasonally adjusted index numbers. 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 those are available from national sources.

The country groups are an essential part of the compilation and presentation of the quarterly growth figures. As of 2013, new country groups have been used in all UNIDO statistical publications. Details on the country groups are provided in the 2013 edition of the *International Yearbook of Industrial Statistics*. The new country grouping is based on economic territories rather than on political boundaries. It comprises country groups by stage of industrialization, geographic region and income categories. This report presents the growth figures for country groups by stage of industrial development and by geographic region.

---

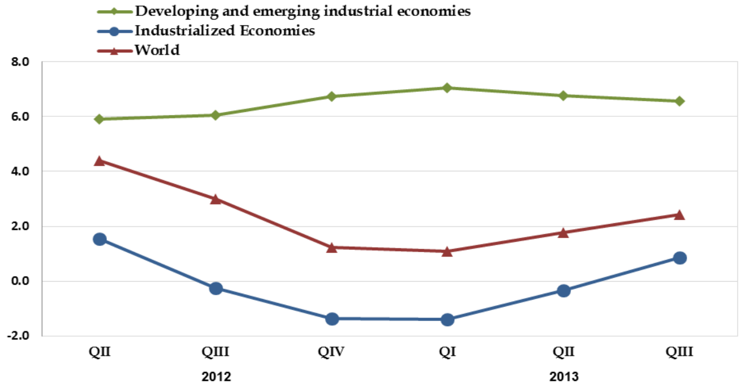
[1] TRAMO stands for Time series Regression with ARIMA noise, Missing values and Outliers, and SEATS for Signal Extraction in ARIMA Time Series. ARIMA is the abbreviation of Autoregressive Integrated Moving Average, a widely applied statistical method for time series analysis.

Major findings

1. World manufacturing growth in the third quarter of 2013

World manufacturing output growth slightly improved in the third quarter of 2013, indicating that the recovery from recession is continuing to move forth. Some positive changes in industrial growth were observed across the industrialized economies. World manufacturing output grew by 2.4 percent in the third quarter compared to 1.8 percent of the revised estimate for the second quarter. Industrialized countries have maintained the upward growth trend in manufacturing, which was initially observed in the previous quarter. Despite these positive indications, the pace of global manufacturing output growth still remains low. Industrialized countries that have recently gained some speed have not yet achieved higher growth, while the growth of developing and emerging industrial economies, which account for most of global manufacturing growth, has slowed (see Figure 1).

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



Source: UNIDO Statistics

The manufacturing output of industrialized countries increased by 0.9 percent in the third quarter of 2013 compared to the same period of the previous year. Developing and emerging industrial economies showed relatively higher growth of 6.6 percent during the same period. However, the prolonged recession in industrialized economies has caused an overall deceleration and surfaced structural problems related to production and trade of developing and emerging industrial economies.

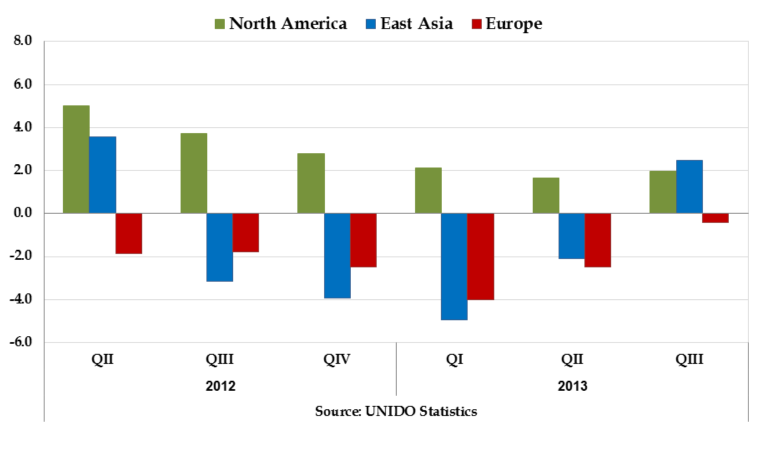
The manufacturing sector in many developing economies grew rapidly in 2000-2005 on account of massive outsourcing of production from firms of industrialized countries. The intention was to maximize the profits from cheaper labour in developing countries and from high commodity prices associated with increasing demands in Europe and North America. However, this phenomenon did not last long. As a result of the financial crisis of 2008-2009 and the prolonged economic recession in Europe, investment from industrialized countries gradually decreased and foreign capital could no longer feed the substantial growth of the manufacturing industry in developing economies. As UNIDO reported earlier, manufacturing production growth has gradually slowed in developing and emerging industrial economies since 2012. The effect of the financial crisis in industrialized countries was transmitted with a time lag through reduced capital flows and commodity exchange. During the same period, wages grew in developing countries while demand and commodity prices fell in industrialized countries, making investment less profitable than before. These changes have not only slowed the pace of manufacturing growth in recent years, but are also likely to set the growth potentials of developing and emerging industrial economies at a low level for years to come.

By country group

Industrialized countries

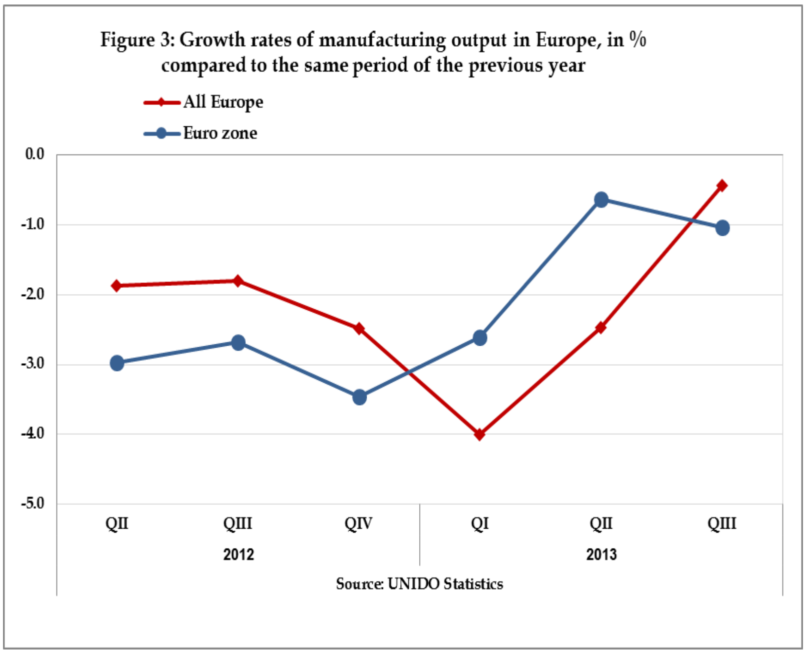
The latest figures indicate an improvement in manufacturing output growth in industrialized countries. The growth figures in the third quarter were higher than in the previous quarter in all major industrialized regions – North America, East Asia and Europe (see Figure 2). These figures show that recovery is gradually gaining in speed.

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



The manufacturing output of the United States grew by 2.3 percent in the third quarter, indicating sustained economic recovery. Most of the growth was attributable to the production of electronic goods, motor vehicles and furniture. Recent improvements in job rates in manufacturing have significantly contributed to income rises of households willing to spend on consumer goods and automobiles. The present growth figures refer to the period before the shutdown of the US government in October 2013. Sustained growth of US manufacturing had a positive impact on the economy of other industrialized countries.

The sign of economic recovery was witnessed across East Asia, where the growth of Japan's manufacturing output made a significant impact. The fall of the Yen prompted the rise in exports of several manufactured goods. Japan's manufacturing output rose by 2.0 percent in the third quarter. Similarly, the manufacturing output of the Republic of Korea grew by 3.9 percent, Malaysia's by 4.3 percent and Singapore's by 2.6 percent.



In Europe, manufacturing output continued to show an upward trend with a nominal growth at 0.15 percent compared to the previous quarter. On a year-to-year basis, the growth figures were still on the negative side. The declining rate of manufacturing dropped to 0.4 percent from 2.5 percent in the previous quarter. The recovery was more fragile in Eurozone countries, where the growth prospects observed in earlier quarters could not be sustained, especially due to the decline in the manufacturing output of France and Italy. The manufacturing output fell by 2.0 percent in France and 3.8 percent in Italy. Another major economy of the Eurozone, Germany, also showed a marginal growth in manufacturing output at 0.2 percent. Among other Eurozone economies, positive growth was sustained in Austria, Belgium, Denmark and Slovakia, whereas declining rates were witnessed in Portugal and Spain.

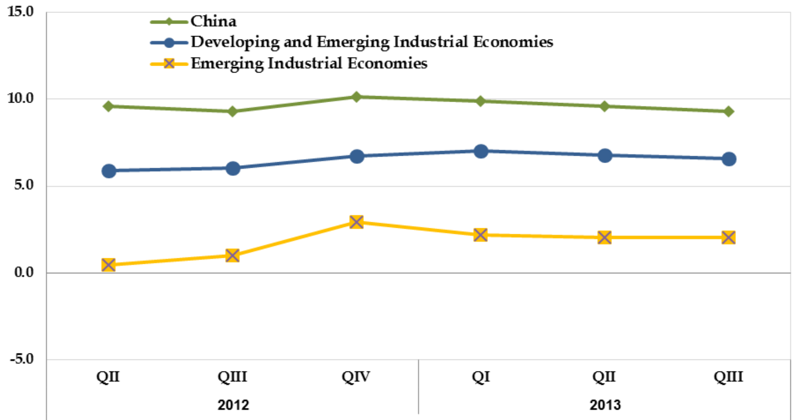
A better growth situation was observed in a number of countries outside the Eurozone. Manufacturing output rose by 2.4 percent in the Czech Republic, by 3.9 percent in Norway and 9.4 percent in Switzerland. However, manufacturing output dropped by 7.0 percent in the Russian Federation and by 4.4 percent in Sweden. Russian manufacturing experienced a severe deterioration under the inflation of imported input prices caused by a weaker Rouble. The low rise in new orders indicated reduced domestic demand, which limited the chances for output prices to grow in order to compensate the rising operational cost in manufacturing.

In general, industrialized countries have gained sufficient ground for recovery, however, the pace of this recovery is slow and fragile, especially in Europe.

Developing and emerging industrial economies

Developing and emerging industrialized economies[2] have mostly maintained a positive growth in recent years when industrialized countries have been in recession. However, the recent trend has differed somewhat. While the manufacturing output of industrialized countries is experiencing an upward trend, the manufacturing growth of developing and emerging industrial economies has either remained the same or slightly slowed (see Figure 4).

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



Source: UNIDO Statistics

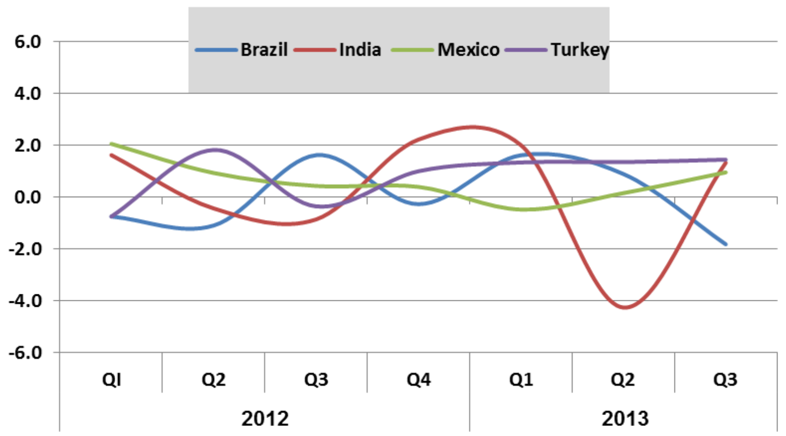
There is growing concern that these economies might have been caught in a slow growth trap as a consequence of the prolonged recession in industrialized countries. China accounts for most of the growth of developing and emerging industrial economies. Its manufacturing output grew by an impressive rate of 9.3 percent in the third quarter of 2013. At the same time, it is noteworthy that China's manufacturing output growth has also remained either at the same level or declined since 2012.

However, as mentioned in earlier reports, the effect of world economic recession was different on China than for other countries. Thanks to China's growing middle class and their increasing income level, China has built a strong and sizeable domestic market which has made the country's economy much less vulnerable to external market volatility shocks. However, many other developing countries were found to be more dependent on capital inflow and commodity exports to support production.

[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.

The quarter to quarter growth figures for major emerging industrial economies have continued to fluctuate at low levels in the last two years (see Figure 5). India's manufacturing output grew by 1.3 percent in the third quarter after falling at a rate of 4.3 percent in the previous quarter. High inflation, the weakened Rupee and increased interest rates adversely affected India's smooth growth prospects – one of the top 10 largest manufacturers of the world. Brazil has faced high inflation of input prices which caused higher volatility of industrial production. The manufacturing output of Turkey grew at a modest rate of 1.5 percent. Mexico's manufacturing sector has begun to gain momentum in light of the recovery of the US economy.

Figure 5: Growth of manufacturing output of major emerging industrial econmies in % compared to the previous quarter



In general, the growth figures were moderate across the developing regions, except Asia, where manufacturing output increased by 8.8 percent, but was mainly contributed by China. Indonesia and Pakistan also saw high growth where manufacturing output rose by 6.8 percent and 9.8 percent, respectively. Among other regions, manufacturing output grew by merely 0.1 percent in Africa and 0.6 percent in Latin America. Manufacturing output dropped in both major economies of Africa, Egypt and South Africa. Amid the political instability, manufacturing output fell by 1.4 percent in Egypt. In South Africa, labour instability, falling commodity prices due to low demand and rising production costs were considered the main obstacles. Country data for Latin America showed that manufacturing output grew by 1.4 percent in Argentina, 0.7 percent in Ecuador and 1.2 percent in Peru. However, manufacturing output dropped in Chile by 0.2 percent and in Columbia by 3.5 percent.

Estimates based on the limited data available showed that the growth of manufacturing output in least developed countries (LDC) was 2.0 percent. The growth figures for Bangladesh, the largest manufacturer among LDCs, were above the LDC average at 2.2 percent in the third quarter of 2013.

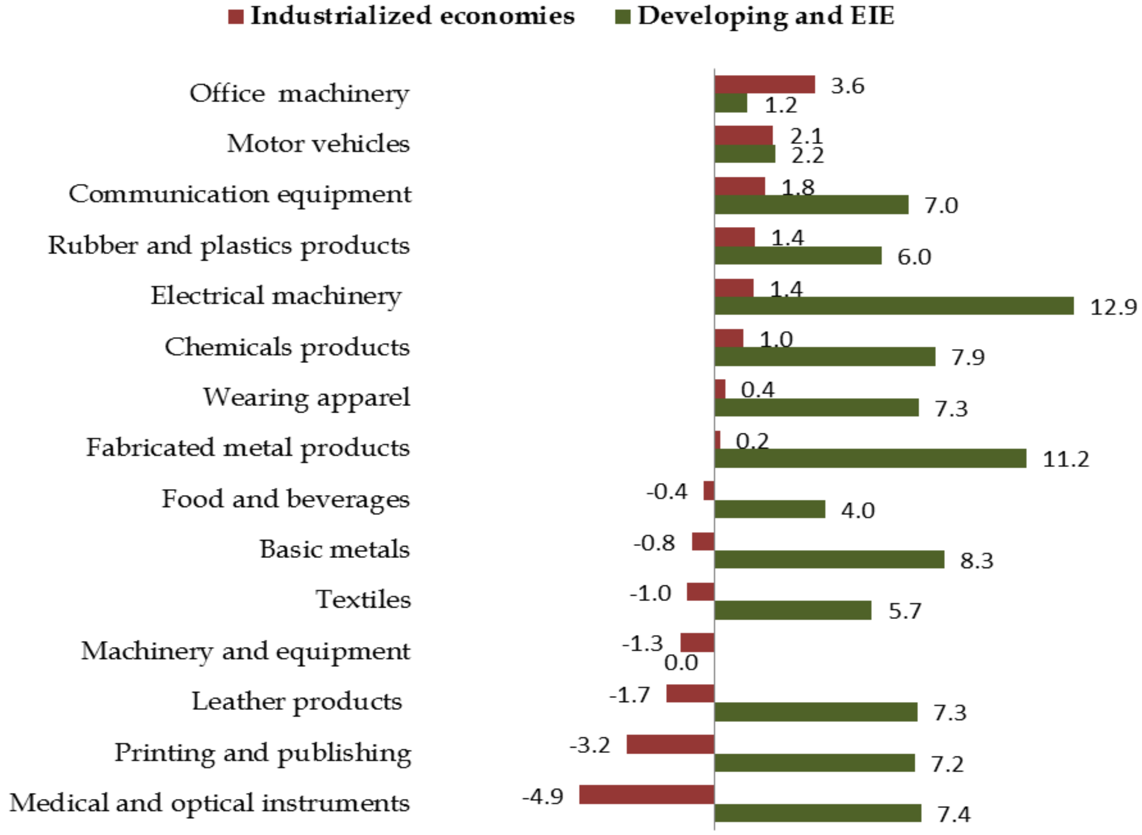
In general, developing and emerging industrial economies with few exceptions such as China, are trapped in a low growth situation and their recovery might not come sooner than that of industrialized countries.

By industry groups

The low growth of overall manufacturing has affected its different sectors. Industrialized countries maintained their dominance in high-technology sectors, machinery and equipment, while developing and emerging industrial economies had higher growth rates in consumer goods production such as food and beverages, wearing apparel and electrical goods.

The estimated growth by sector is depicted in Figure 6 for industrialized and developing and emerging industrial economies separately.

Figure 6: Estimated growth rates by sector in percent compared to the same period of the previous year
Quarter III, 2013



Source: UNIDO **Statistics**

An improvement in household income at the time of economic recovery has boosted spending on durable items in industrialized countries. The production of office machines and computers rose by 3.6 percent in industrialized countries. Similarly, an increase in car sales has supported further growth of motor vehicles. The US production of motor vehicles rose at a significant rate of 5.8 in the third quarter. Among other producers, the manufacture of motor vehicles grew by 2.2 percent in Germany, 1.7 percent in Japan and by nearly 10.0 percent in Malaysia. However, motor vehicle production dropped in France and Italy. A sharp decline was also observed in the Russian Federation, where the production of motor vehicles plunged by 27.0 percent compared to the same period of the previous year.

For the first time over the last several years, growth in the manufacture of wearing apparel was observed in industrialized countries as well. In the United States, the production of wearing apparel rose by 3.9 percent in the third quarter compared to the same period of the previous year. This might be an indication that manufacturing is gradually moving back to industrialized countries. Garment production also rose in Australia by 1.8 percent, in Denmark by 9.4 percent, in Germany by 3.2 percent and in Ireland by 11.5 percent. Due to growing demand in industrialized countries, the production of wearing apparel rose by 7.3 percent in developing and emerging industrial economies.

Higher growth was observed in chemical products, electrical machinery and electronic goods, both in industrialized and in developing economies. Growth in the production of durable items indicates rising demand from households for such goods at the time of economic recovery, especially in industrialized countries. The expansion of consumer goods production sectors signifies an increase in economic activity, contributing to an improvement in the economic situation in industrialized countries. However, a notable decline was evident in the production of machinery and equipment in industrialized countries. Due to low capital inflow, demand for new production facilities for machinery and equipment has decreased.

In general, the growth figures by sector confirm the overall trend of manufacturing production established in the period of recovery. Industrialized countries are gradually gaining ground in several products for which domestic demand is emerging. So far, the prospect of an increased growth in exports by developing countries is limited. On the other hand, due to low investment in developing countries, the production of machinery and equipment by industrialized countries remains in decline.

Detailed data per sector and per country group is featured in the annexed table.

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

Seasonally adjusted

	Share in world MVA (2010)	Growth rates compared to:	
		previous quarter	same period of the previous year
World	100.0	-0.5	2.4
Industrialized Economies	67.7	0.4	0.9
North America	22.4	0.3	2.0
Europe	24.7	0.2	-0.4
East Asia	17.2	0.8	2.5
Developing and Emerging Industrial Economies (by development group)	32.3	-2.2	6.6
China	15.3	-3.6	9.3
Emerging Industrial Economies	13.8	0.3	2.0
Least Developed Countries	0.5	0.3	1.9
Other Developing Economies	2.7	0.4	2.7
Developing and Emerging Industrial Economies (by region)	32.3	-2.2	6.6
Africa	1.5	-0.9	0.1
Asia & Pacific	21.7	-2.9	8.8
Latin America	5.8	-0.4	0.6
Others	3.3	1.3	3.9

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

Seasonally adjusted

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food and beverages	4.0	-0.4	1.4
Tobacco products	6.4	-3.9	5.0
Textiles	5.7	-1.0	3.6
Wearing apparel, fur	7.3	0.4	5.1
Leather, leather products and footwear	7.3	-1.7	4.1
Wood products (excl. furniture)	8.1	3.0	4.4
Paper and paper products	6.8	0.7	2.6
Printing and publishing	7.2	-3.2	-2.0
Coke, refined petroleum products	4.6	-0.9	2.0
Chemicals and chemical products	7.9	1.0	3.3
Rubber and plastics products	6.0	1.4	3.0
Non-metallic mineral products	8.8	-1.0	3.7
Basic metals	8.3	-0.8	4.7
Fabricated metal products	11.2	0.2	2.7
Machinery and equipment n.e.c.	0.0	-1.3	-1.1
Office, accounting and computing machinery	1.2	3.6	3.6
Electrical machinery and apparatus	12.9	1.4	7.2
Radio, TV and communication equipment	7.0	1.8	5.0
Medical, precision and optical instruments	7.4	-4.9	-4.6
Motor vehicles, trailers, semi-trailers	2.2	2.1	2.1
Other transport equipment	1.8	2.2	1.8
Furniture; manufacturing n.e.c.	10.9	1.4	6.1
Total Manufacturing	**6.5**	**0.9**	**2.4**

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

Seasonally adjusted

	Developing and Emerging Industrial Economies	Industrialized Economies	World
Food and beverages	-6.7	0.3	-2.9
Tobacco products	4.3	0.1	3.8
Textiles	-4.3	0.6	-3.0
Wearing apparel, fur	-4.5	2.9	-2.4
Leather, leather products and footwear	-3.3	-0.1	-2.3
Wood products (excl. furniture)	-2.4	-0.1	-0.9
Paper and paper products	-4.2	0.2	-1.3
Printing and publishing	1.0	-0.3	-0.1
Coke, refined petroleum products	0.1	-0.6	-0.2
Chemicals and chemical products	-0.2	-1.1	-0.8
Rubber and plastics products	-2.7	-0.1	-1.1
Non-metallic mineral products	-3.9	1.2	-1.5
Basic metals	-2.6	0.1	-1.6
Fabricated metal products	2.7	0.8	1.3
Machinery and equipment n.e.c.	-0.5	1.2	1.0
Office, accounting and computing machinery	-1.6	0.6	0.6
Electrical machinery and apparatus	-4.2	1.5	-1.7
Radio, TV and communication equipment	-2.3	3.5	-0.2
Medical, precision and optical instruments	4.5	-0.8	-0.6
Motor vehicles, trailers, semi-trailers	0.8	1.2	1.1
Other transport equipment	-1.8	1.4	-0.4
Furniture; manufacturing n.e.c.	0.6	0.1	0.4
Total Manufacturing	**-2.2**	**0.4**	**-0.5**

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

Seasonally adjusted

	Share in world MVA (2010)	Growth rates compared to:	
		previous quarter	same period of the previous year
World	100.0	1.0	1.8
Industrialized Economies	67.7	1.1	-0.3
North America	22.4	0.0	1.6
Europe	24.7	1.3	-2.5
East Asia	17.2	2.8	-2.1
Developing and Emerging Industrial Economies (by development group)	32.3	0.9	6.8
China	15.3	1.4	9.6
Emerging Industrial Economies	13.8	0.3	2.1
Least Developed Countries	0.5	-7.3	4.0
Other Developing Economies	2.7	-3.2	2.3
Developing and Emerging Industrial Economies (by region)	32.3	0.9	6.8
Africa	1.5	1.0	0.6
Asia & Pacific	21.7	0.5	9.0
Latin America	5.8	1.2	2.3
Others	3.3	2.9	2.8

Table 5:
Estimated growth rates of output by manufacturing sector
Quarter II, 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	7.7	-0.4	3.0
Tobacco products	6.1	-4.2	4.7
Textiles	6.7	-1.2	4.4
Wearing apparel, fur	9.6	-7.2	4.3
Leather, leather products and footwear	7.0	-0.3	4.5
Wood products (excl. furniture)	9.0	2.1	4.1
Paper and paper products	6.1	-0.1	1.9
Printing and publishing	6.5	-3.6	-2.4
Coke, refined petroleum products	5.1	0.6	3.0
Chemicals and chemical products	8.5	1.8	4.0
Rubber and plastics products	7.9	0.5	3.2
Non-metallic mineral products	7.8	-2.9	2.3
Basic metals	8.3	-2.4	4.2
Fabricated metal products	7.3	-0.5	1.2
Machinery and equipment n.e.c.	-2.1	-3.4	-3.3
Office, accounting and computing machinery	-3.6	2.6	2.5
Electrical machinery and apparatus	9.7	-0.5	4.8
Radio, TV and communication equipment	8.1	-4.7	3.2
Medical, precision and optical instruments	-0.9	-4.6	-4.5
Motor vehicles, trailers, semi-trailers	5.2	-0.3	0.8
Other transport equipment	0.9	3.5	1.9
Furniture; manufacturing n.e.c.	8.2	0.7	4.4
Total Manufacturing	**6.8**	**-0.3**	**1.8**