

## Industrial production indices - global developments

**A great deal has been written about the internationalisation of the world economy, and in particular the shift in industrial output from high to lower labour cost regions, as well as the emergence of a group of countries with rapidly developing economies.**

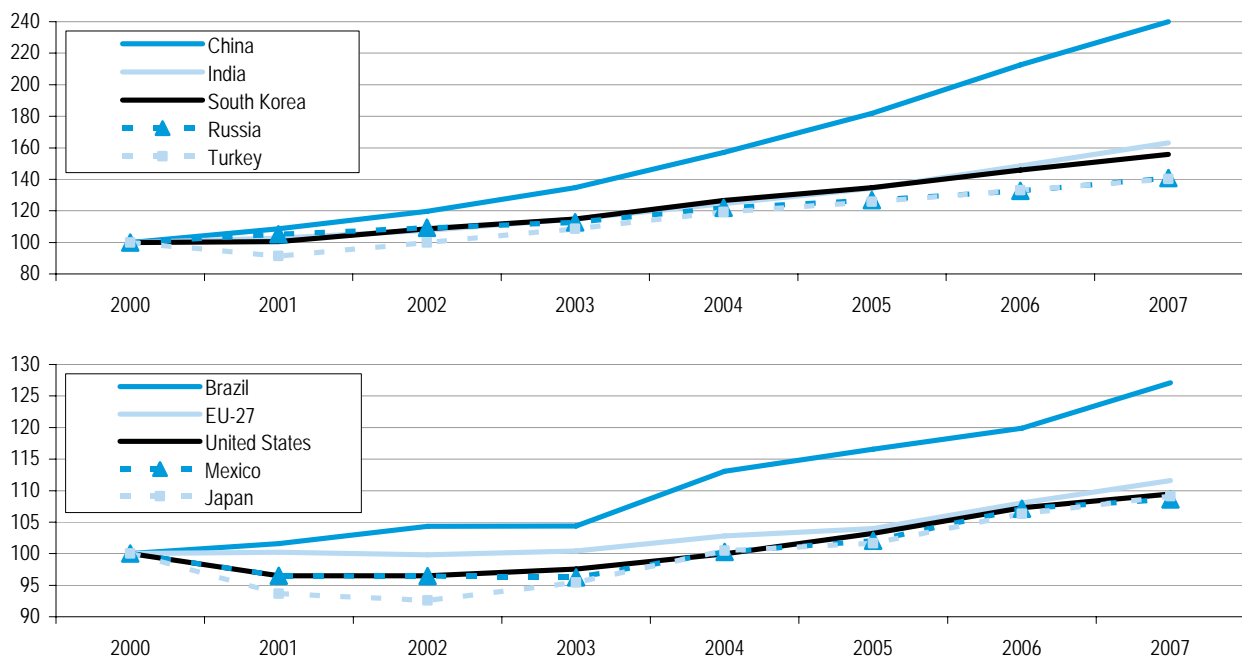
**This short publication gathers information on production indices for a range of economies principally the EU, China, India, Japan, Russia and the United States. It explores the evolution of industrial output within each of these economies and details those activities that have reported the most rapid growth / biggest declines.**

Figure 1 shows two graphs – the upper one groups together those countries with the most rapid growth of industrial output during the period 2000-2007, while the lower graph shows those countries where a modest expansion in output was recorded (note that the scales of the y-axes in these graphs are different).

The most rapid industrial growth in recent years has been recorded in China, followed by a group of countries including India, South Korea, Russia and Turkey.

Average growth in China during the period 2000-2007 was 13.3 % per annum, which was almost double the rate recorded in India (7.2 % per annum). The industrial economies of the remaining countries covered in the upper graph expanded by between 5 and 7 % per annum.

**Figure 1: Production index, total industry (excluding construction) (2000=100)**

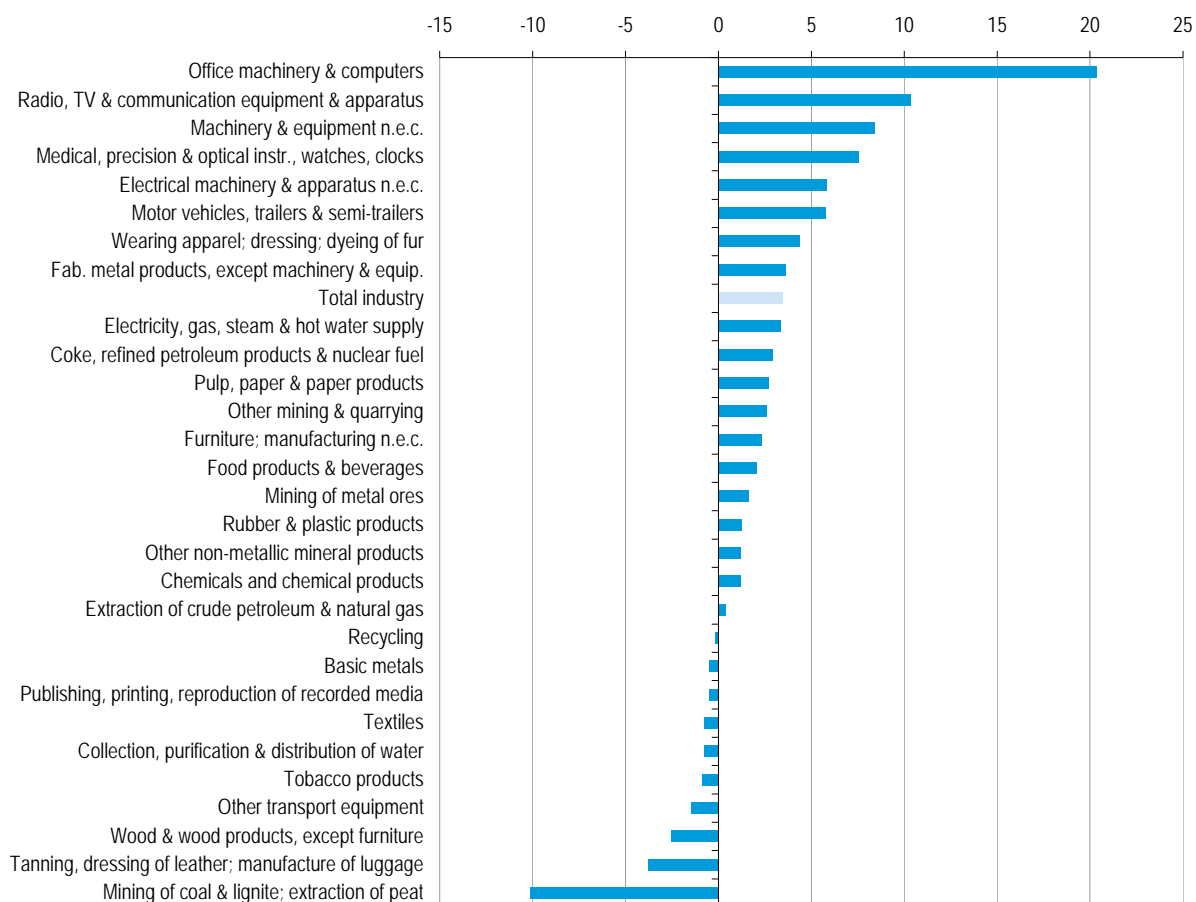


Source: Eurostat (STS), OECD, <http://www.chinability.com>

**NOTE:** the information presented in this publication has been downloaded directly from the websites of national and international statistical institutes/organisations. While the data presented in Figure 1 is harmonised, the data that follows in the remainder of this publication is presented on the basis of the original, national classifications. These are often closely based on the international standard industrial classification of all economic activities (ISIC), although each system tends to introduce some changes to the classification to account for particular national characteristics. As such, comparisons across countries for the same activity should be made with care, given that definitions could vary somewhat.

## Latest developments for industrial output in the EU-27

**Figure 2: Production index, working day adjusted, growth rates, EU-27, January 2007-January 2008 (%)**



Source: Eurostat (STS)

The average growth of the EU-27 industrial economy during the period 2000-2007 was 1.6 % per annum. There was practically no change in industrial output in the EU-27 between 2000 and 2003, after which output expanded by 2.4 % in 2004, slowed to 1.1 % growth in 2005, before recording relatively high growth rates of 3.9 % in 2006 and 3.3 % in 2007.

In this context, Figure 2 shows the change in the production index by NACE divisions between January 2007 and January 2008 within the EU-27. By far the most rapid expansion in output was recorded for office machinery and computer manufacturing, where output rose by 20.4 %. This was approximately twice the next highest growth: 10.3% for radio, TV & communication equipment and apparatus manufacturing.

While the output of those activities with the highest growth rates can be described as either machinery or electrical/electronic equipment, the goods produced cover a broad range of uses and include intermediate goods, capital goods and consumer durables.

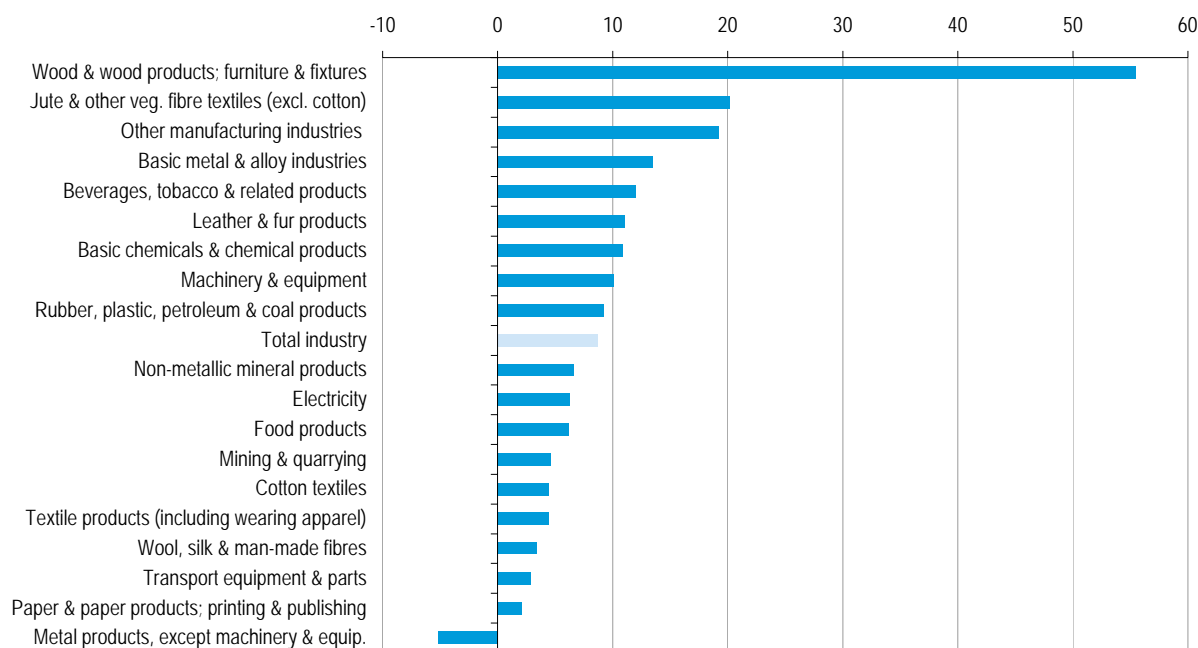
Outside of this group, the only other activities to report above average growth in the period January 2007 to January 2008 were motor vehicles, trailers and semi-trailers manufacturing, the manufacture of clothing and fur, and the fabrication of metal products.

There were ten NACE divisions that recorded a decline in their production indices over the period considered. The majority (six) of these were fairly small reductions of less than 1 %. Of the remaining four activities, the biggest reduction in output was recorded for the mining of coal and lignite, for which output fell by 10.1 %. This was almost three times as much as the next biggest decline in output, recorded for the leather processing activity (-3.8 %), while a reduction of 2.6 % was registered for wood processing, and one of 1.5 % for other transport equipment manufacturing.

The majority of the activities found at the bottom of the ranking could be described as labour-intensive activities, often producing consumer goods characterised by their low level of technology content, a notable exception being other transport equipment manufacturing.

## Latest developments for industrial output in India

**Figure 3: Production index, growth rates, India, April 2007-January 2008 (%)**



Source: Ministry of Statistics and Programme Implementation ([http://mospi.nic.in/cso\\_test1.htm](http://mospi.nic.in/cso_test1.htm))

Industrial output in India rose, on average, by 7.2 % per annum between 2000 and 2007, although the most recent figure for 2007 recorded an even faster expansion in the Indian industrial economy, as output increased by 9.9 %.

A breakdown of growth in India is available for the period from April 2007 to January 2008, and this shows

that aside from the manufacture of metal products, all activities recorded an expansion in output. By far the highest rate of change was recorded for the manufacture of wood and wood products, while many of the other activities with relatively high growth rates could also be characterised as labour-intensive activities that focus on processing basic inputs (textiles, metals, food, or leather).

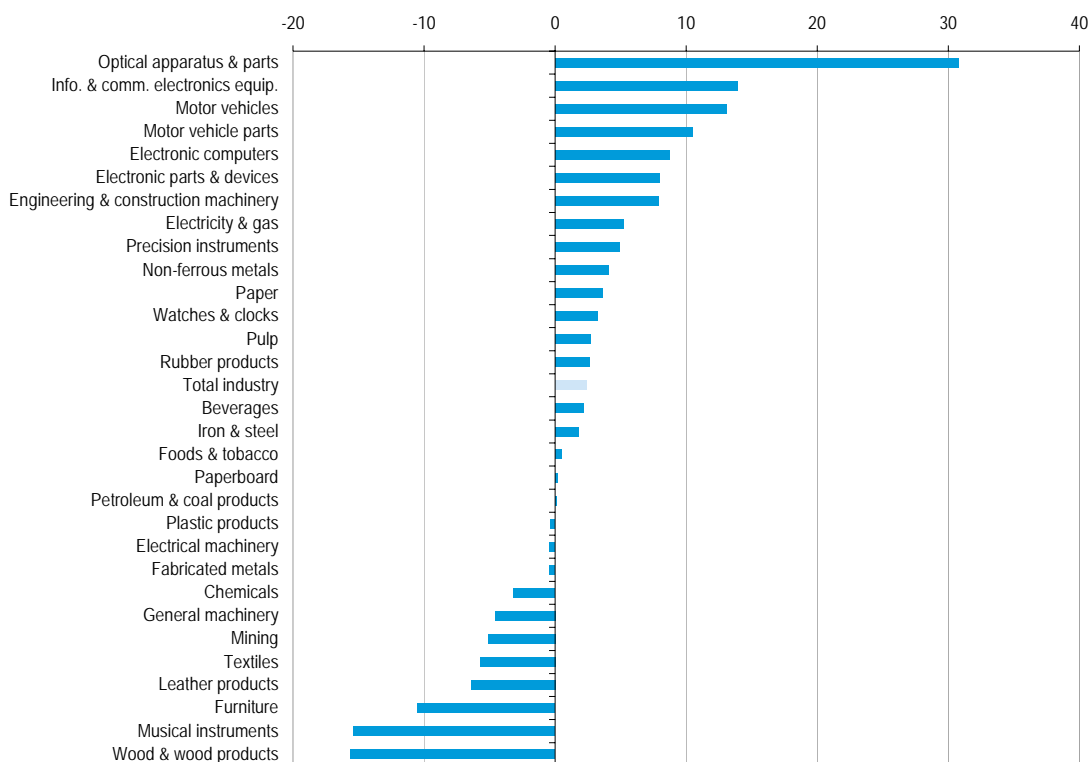
## Latest developments for industrial output in Japan

There was an average annual increase of 1.3 % for industrial output in Japan between 2000 and 2007. The evolution of output over this period fluctuated considerably, with a considerable contraction in activity in 2001 (-6.3 %), followed by a smaller loss the following year. Subsequently there were five years of growth to 2007, with particularly high rates in 2004 (5.3 %) and 2006 (4.6 %).

Japanese industrial output grew by 2.4 % between January 2007 and January 2008. In keeping with the data shown for the EU-27, some of the highest growth rates for output in Japan were recorded among manufacturing activities dealing with high-technology products, such as engineering, transport equipment and, in particular, electrical/electronic goods.

The manufacture of optical apparatus and parts rose by 30.8 % between January 2007 and January 2008, which was more than twice the next highest growth rates, registered for information and communication electronics equipment (13.9 %), and motor vehicles manufacturing (13.1 %), while the manufacture of motor vehicle parts was the only other activity to record a double-digit expansion (10.5 %). As with the EU-27, most of the activities at the bottom of the ranking can be characterised as labour-intensive activities producing consumer goods with a low degree of technological content (textiles, leather, furniture, musical instruments and wood products); the three activities at the bottom of the ranking all recorded losses of more than 10 %. There were also quite large reductions in the output of chemicals (-3.2 %), general machinery (-4.6 %) and mining (-5.1 %).

**Figure 4: Production index, gross data, growth rates, Japan, January 2007-January 2008 (%)**



Source: Ministry of Economy, Trade and Industry (<http://www.meti.go.jp/english/statistics/index.html>)

## Latest developments for industrial output in Russia

Between 2000 and 2007 the Russian industrial economy grew at an average rate of 5.0 % per annum, with particularly large increases in output in 2004 (8.1 %) and 2007 (6.2 %); during the period considered the Russian economy expanded each year.

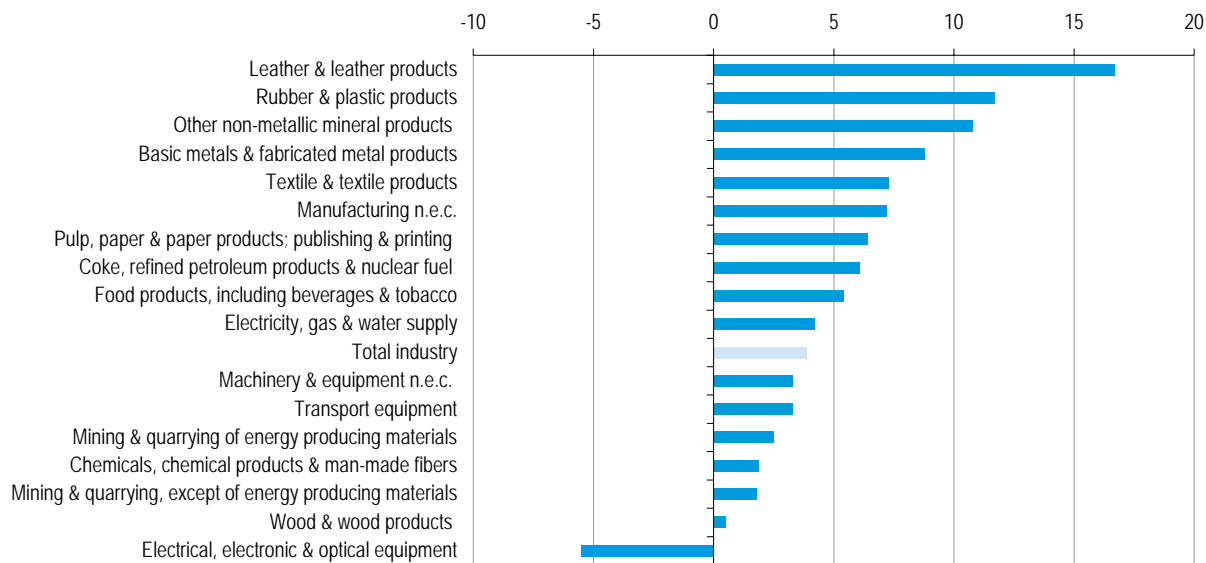
Information for Russia (at a detailed activity level) covers annual indices for 2006. As such, Figure 5 shows the growth rate of industrial output in 2006 (compared with the year before); it should be noted that this is approximately one year before the growth rates presented for the other countries.

There was only one industrial activity that reported a contraction in activity between 2005 and 2006: the manufacture of electrical, electronic and optical equipment (-5.5 %).

Otherwise, the remaining activities all reported an expansion in output, which reached a high for leather processing (16.7 % growth), rubber and plastic products (11.7 %) and other non-metallic mineral products (10.8 %), the only three manufacturing activities to record double-digit growth.

Note that the information presented here records explicitly the volume changes in output, as compared with changes in value terms. As such, changes in the price of energy (in particular, escalating oil and gas prices) are not reflected in these production indices.

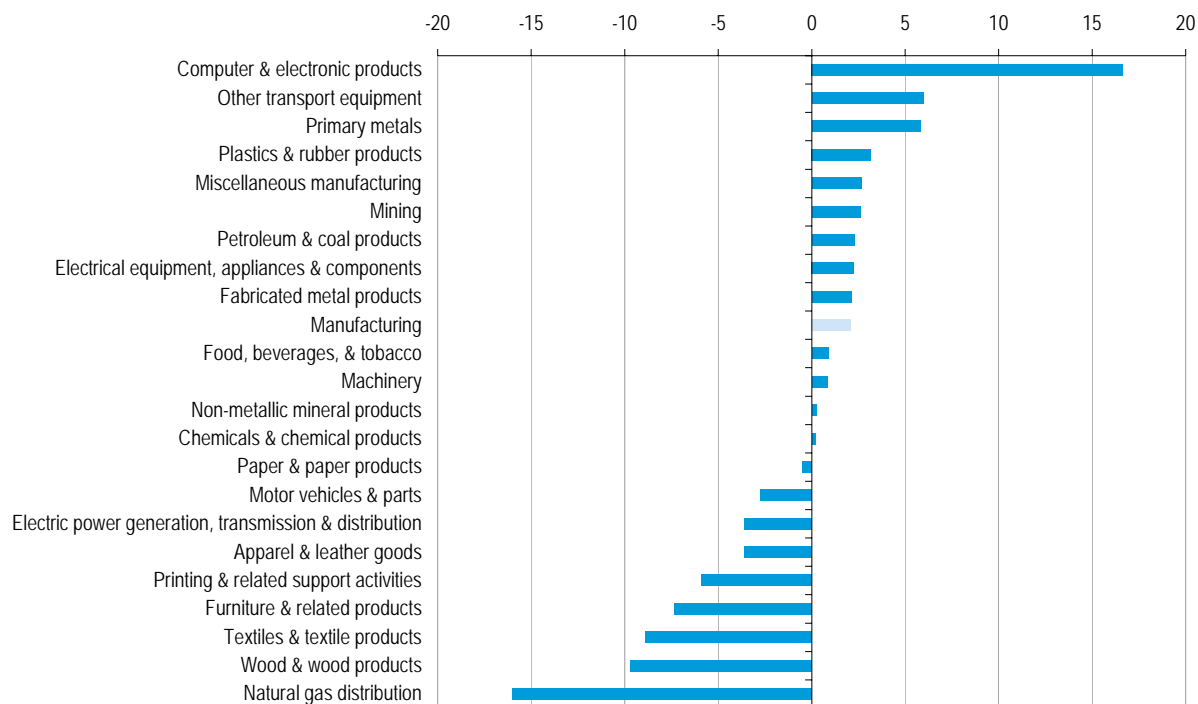
**Figure 5: Production index, growth rates, Russia, 2005-2006 (%)**



Source: Federal State Statistics Service- (<http://www.gks.ru/wps/portal/english>)

## Latest developments for industrial output in the United States

**Figure 6: Production index, gross data, growth rates, United States, February 2007-February 2008 (%)**



Source: Federal Reserve (<http://www.federalreserve.gov/Releases/>)

Having contracted by 3.5 % in 2001 and then experiencing no change the following year, industrial output within the American economy rose for five consecutive years. The highest growth was registered in 2005 and 2006, as output increased by more than 3 % each year. The change in industrial output over the period 2000 to 2007 averaged 1.3 % per annum.

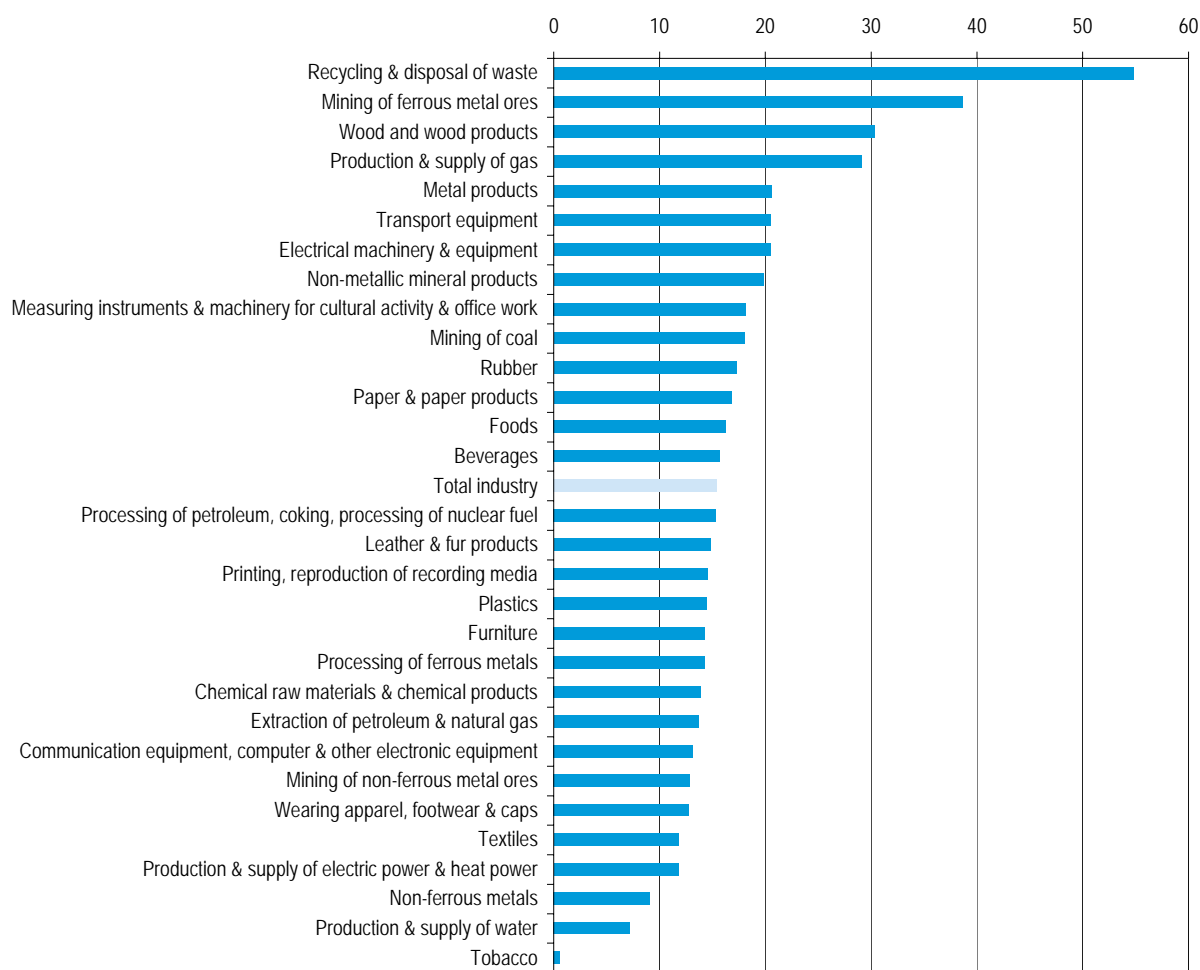
The most recent growth rates for the period February 2007 to February 2008 show manufacturing output expanding by 2.1 %. The highest growth was recorded for computer and electronic products (16.7 %), ahead of other transport equipment (6.0 %) and primary metals (5.8 %).

At the other end of the range, there was a 16.0 % reduction in the output of the natural gas distribution activity, while losses of between 5 and 10 % were registered for printing and related support activities, furniture, textile and wood manufacturing.

As with the data for the EU and Japan, it would appear that the majority of the activities to experience reductions in output were characterised by a relatively high degree of labour intensity, as well as a focus on the transformation of basic materials (wood, textiles, leather and paper).

## Latest developments for industrial output in China

**Figure 7: Production index, growth rates, China, February 2007-February 2008 (%)**



Source: National Bureau of Statistics of China (<http://www.stats.gov.cn/english/>)

As already stated, industrial output has expanded at a much more rapid pace in China during the last eight years than in any of the other countries for which data are presented. Industrial output grew by an average of 13.3 % per annum between 2000 and 2007, with double-digit growth each year from 2002 onwards.

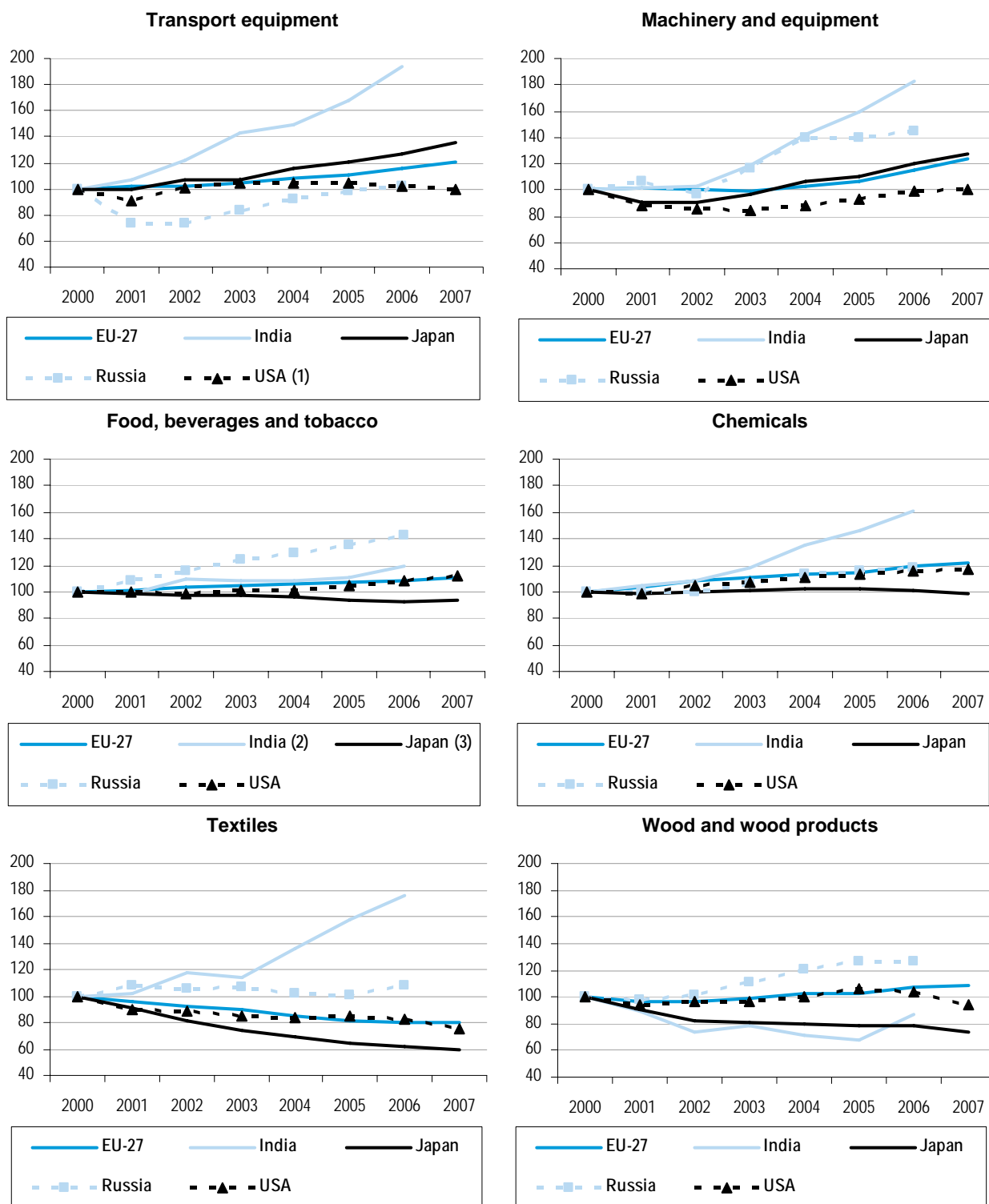
Detailed information on a breakdown of activities is available for the period from February 2007 to February 2008 and this shows that there was growth for each of the activities presented in Figure 7. The vast majority of these registered growth rates in excess of 10 %, with

only non-ferrous metals manufacturing (9.1 %), the production and supply of water (7.2 %), and the processing of tobacco (0.6 %) recording lower growth rates.

At the other end of the scale, the fastest expansion in output was recorded for the recycling and disposal of waste (54.8 %), while a diverse range of activities recorded growth rates of 20 % or more, from the mining of ferrous metal ores, through basic industries (such as wood and metal processing) to more specialised activities (such as transport equipment or electrical machinery and equipment manufacturing).

## Evolution of output across a selection of manufacturing activities

Figure 8: Production indices\*



Source: Eurostat (STS), Ministry of Statistics and Programme Implementation ([http://mospi.nic.in/cso\\_test1.htm](http://mospi.nic.in/cso_test1.htm)), Ministry of Economy, Trade and Industry (<http://www.meti.go.jp/english/statistics/index.html>), Federal State Statistics Service (<http://www.gks.ru/wps/portal/english>), Federal Reserve (<http://www.federalreserve.gov/Releases/>)

(1) Motor vehicles and parts only. (2) Excluding beverages and tobacco. (3) Excluding beverages.

\* The information presented above should be interpreted with care, given that activity definitions vary somewhat between countries – even though these are generally based on the international standard industrial classification of all economic activities (ISIC); the main discrepancies have been highlighted in the footnotes to the Figure.

## Further information







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Data: [Eurostat Website: http://ec.europa.eu/eurostat](http://ec.europa.eu/eurostat)

Select your theme on the left side of the homepage and then 'Data' from the menu.

Data: [Eurostat Website/Industry trade and services](#)

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