United Nations Economic Commission for Europe

Embargo:
20 October 2004,
11:00 hours (Geneva time)

Press Release ECE/STAT/04/P04
Geneva, 20 October 2004

Over 50,000 industrial robots in Italy, up 7% over 2002
Italy is Europe's second and the world's fourth largest user of industrial robots

After record investment in 2001 a temporary slowdown in 2002 and 2003…

An unprecedented growth in robot investment took place in Italy between 1994 and 2001. The market showed continuous growth from 2,400 to a record 6,400 new robots being installed (see figure 1). This came to a temporary halt in 2002 when the market fell by 14%. In 2003, the market fell by another 5% to 5,200 units.

… but the stock of robots continued to grow

The stock of industrial robots increased by 7% over 2002 to about 50,000 units.

For the period 2004-2007, the market in Italy is projected to grow by a yearly average of just over 5%, which would result in a robot stock of over 63,000 units.

Italy has the world's second highest robot density

For every 10,000 persons employed in the Italian manufacturing industry at the end of 2003, there were 116 industrial robots, which puts Italy ahead of all countries except Germany, disregarding Japan which includes all types of robots and not just general purpose robots in the statistics (see figure 2). In the motor vehicle industry there are as many as 1,400 robots per 10,000 production workers, more than in any other motor vehicle industry, with the possible exception of Japan whose statistics are not comparable (see figure 3).

…/

Robot prices are down, labour costs are up…

Between 1990 and 2003, prices of industrial robots fell from index 100 to 66, without taking into account that robots installed in 2003 had a much higher performance than those installed in 1990 (see figure 3). If quality changes had been taken into account, it was estimated that the index would have fallen to 29. In other words, an average robot sold in 2003 would have cost less than a third of what a robot with the same performance would have cost in 1990 if it had been possible to produce such a robot in that year. In the last few years, however, the price decline has levelled out.

At the same time, the index of labour compensation in the Italian business sector increased from 100 to 160. This implies that the relative prices of robots fell from 100 in 1990 to 41 in 2003 without quality adjustment, and to 18 when taking quality improvements into account.

Machining and welding are the largest application areas…

With 28% of total 2003 sales, machining was the largest market segment, followed by welding with 17% of the market and plastic moulding with 12%.

The chemical industry and motor vehicle industry dominate the use of robots…

In 2003, the largest market was the motor vehicle industry with 36%, followed by the chemical industry with 27% of total sales. It is estimated that almost 18,000 robots are in operation in the motor vehicle industry. The fabricated metal products industry was the third largest market with a share of 13%.

For the global development of industrial robots and service robots, see a parallel press release (ECE/STAT/04/P01) issued on the same day as the present one.

* * *

Figure 1a. Estimated operational stock of robots at year-end and shipments

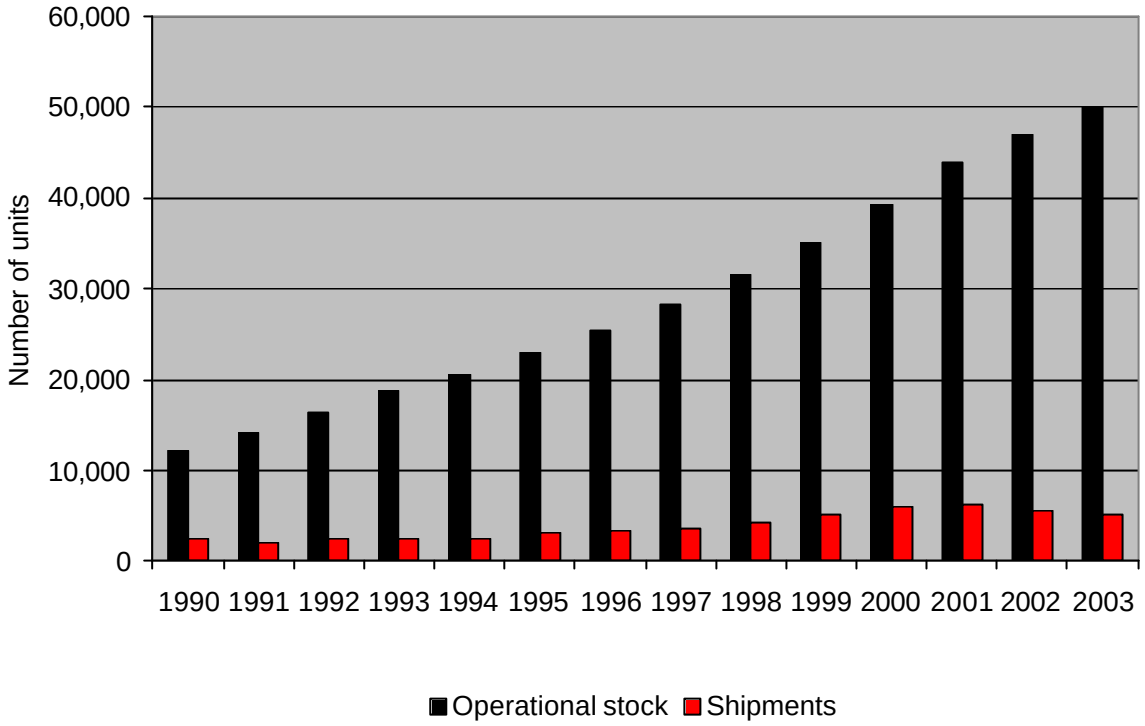
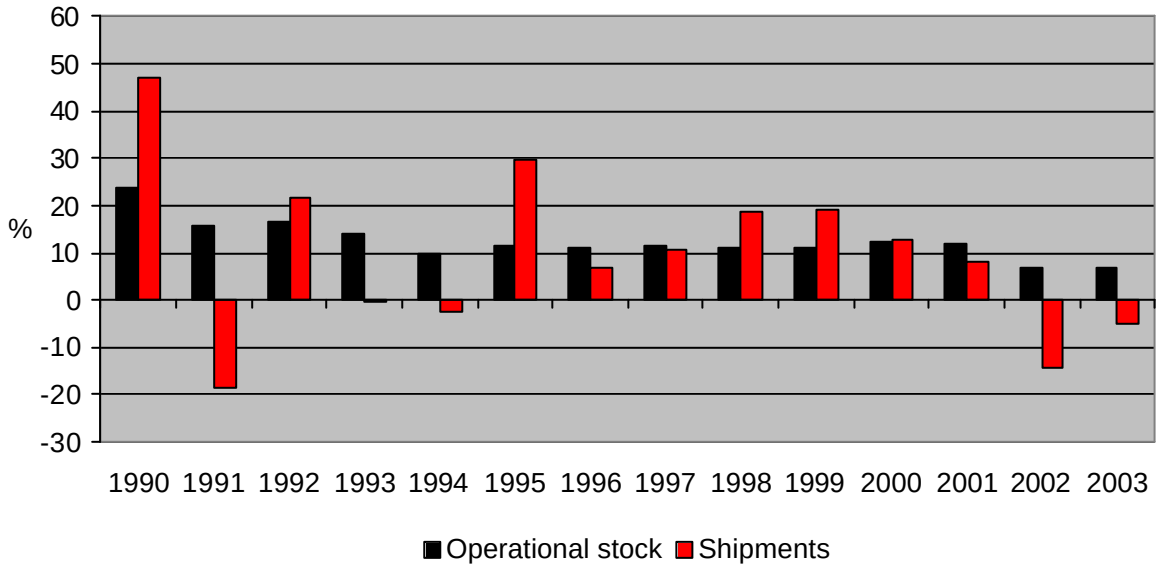


Figure 1b. Yearly percentage change in estimated operational stock and in shipments



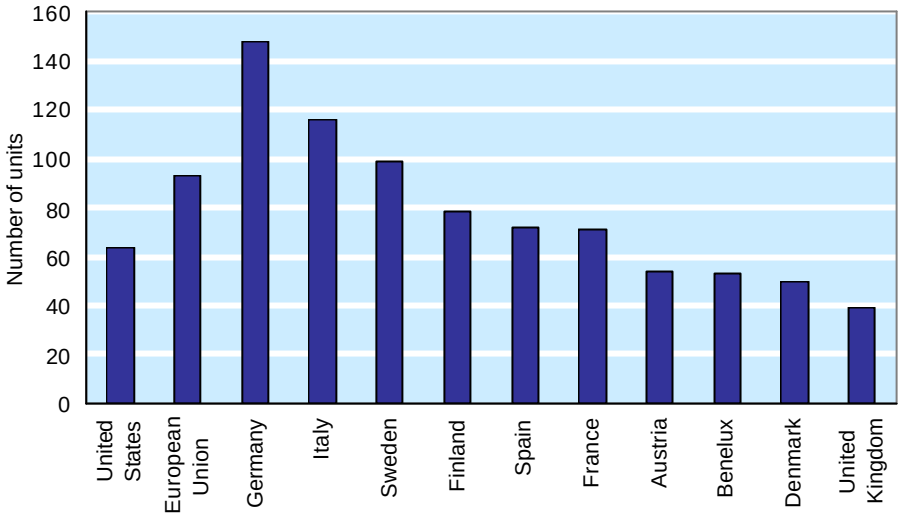
	2003
Japan a/	322
Rep. of Korea b/	138
United States	**63**
European Union	**93**
Germany	148
Italy	116
Sweden	99
Finland	78
Spain	72
France	71
Austria	54
Benelux	53
Denmark	50
United Kingdom	39
Australia	36
Norway	24
Portugal	15
Czech Rep. a/	12

Sources. UNECE and IFR.

a/ Up to and including 2000, data for Japan include all types of robots. As from 2001, data exclude dedicated robots, except for dedicated machining robots. As from 2001, Japanese statistics are therefore much more comparable with those of other countries.

b/ All types of industrial robots.

Figure 2. Number of robots per 10,000 persons employed in the manufacturing industry in 2003



	2001	2003
France	**720**	**910**
Germany	**760**	**1,000**
Italy	**1,040**	**1,400**
Japan	**1,300**	**1,400**
Spain	**650**	**800**
Sweden	**560**	**560**
United Kingdom	**580**	**660**
United States	**640**	**740**

Sources: UNECE and IFR.

Figure 3 Number of robots per 10,000 production workers in the motor vehicle industry, 2001 and 2003

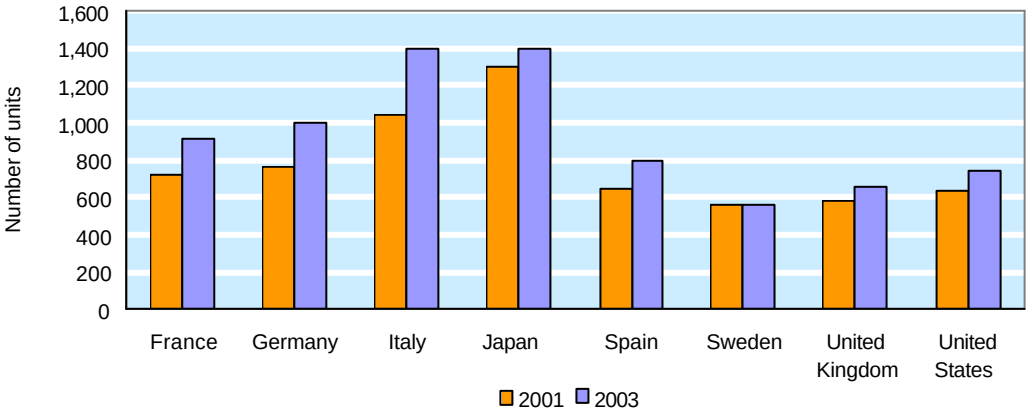
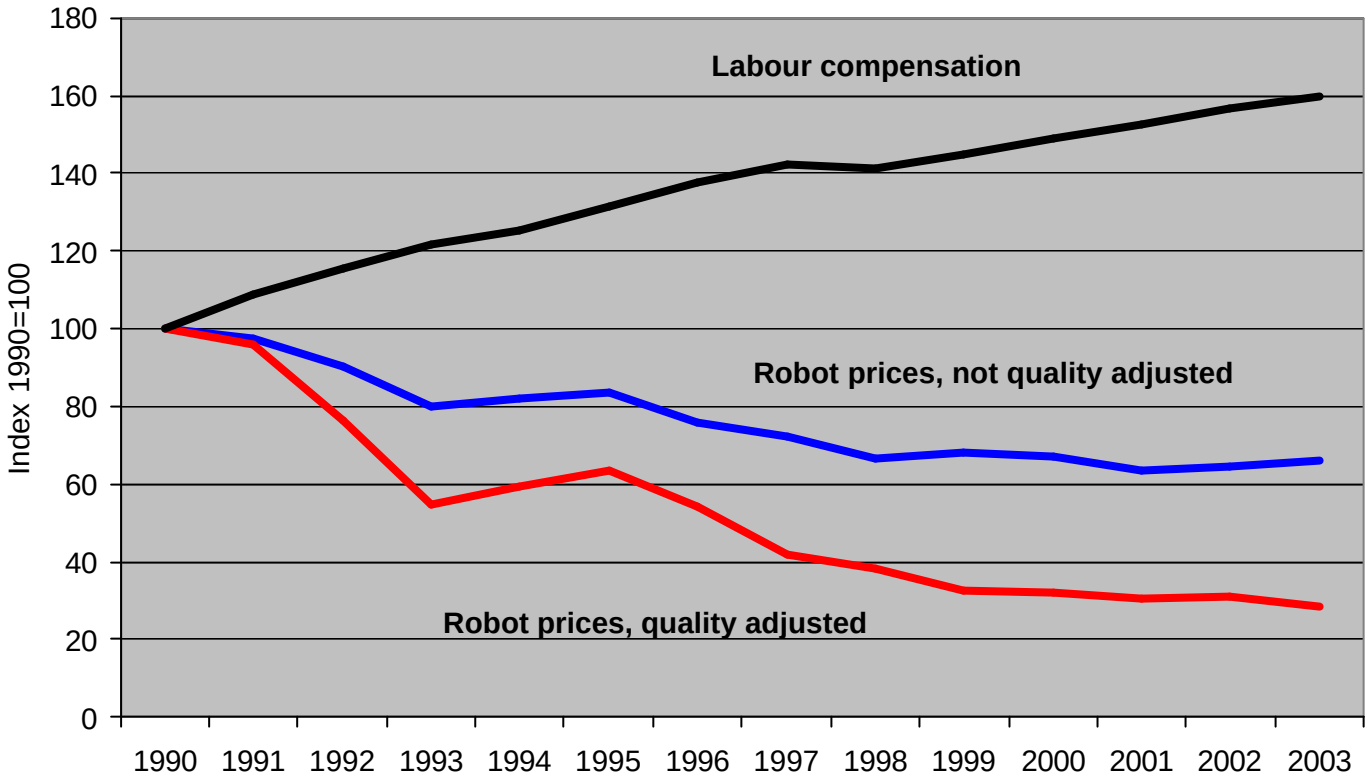
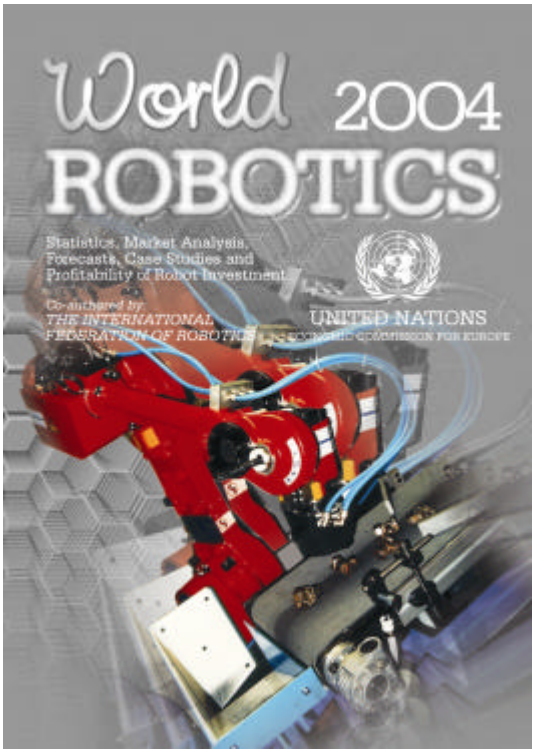


Figure 4.
Price index of industrial robots in Italy, with and without quality adjustment. Index of labour compensation in the Italian business sector



The publication ***World Robotics 2004*** – *Statistics, Market Analysis, Forecasts, Case Studies and Profitability of Robot Investment* is available, quoting Sales No. GV.E.04.0.20 or ISBN No. 92-1-101084-5, through the usual United Nations sales agents in various countries or from the United Nations Office at Geneva (see address below), priced at US$ 150:



Sales and Marketing Section
United Nations
Palais des Nations
CH - 1211 Geneva 10, Switzerland

Phone: +41(0)22 917 26 00 / 26 14
Fax: +41(0)22 917 00 27
E-mail: unpubli@unog.ch

For more information about the publication, please contact:

Mr. Jan Karlsson
Statistical Division
United Nations Economic Commission
for Europe (UNECE)
Palais des Nations
CH - 1211 Geneva 10, Switzerland

Phone: +41(0)22 917 32 85
Fax: +41(0)22 917 00 40
E-mail: jan.karlsson@unece.org

or:

International Federation of Robotics (IFR)
Statistical Department
c/o VDMA Robotics+Automation
Lyoner Str. 18
D – 60528 Frankfurt am Main
Germany

Phone: +49 (69) 6603 1502
Fax: +49 (69) 6603 2502
E-mail: gudrun.litzenberger@vdma.org