

Statistics in focus

INDUSTRY, TRADE AND SERVICES

THEME 4 – 16/1999

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SME statistics

SME and employment: comparison between the EU, the USA and Japan by Maria Pia Vigliarolo

| Shares of enterprises, employment ⁽¹⁾ and turnover ⁽²⁾ breakdowned by size class for EU-15 and the United States | | | | |
|--|-------------------|-------------------|--------------------|--------------------|
| Country | Size classes | Enterprises | Employment | Turnover |
| EU-15 (All sectors) 1996 | Class 0 | 50,9 | 9,7 | 3,5 |
| | Class 1 to 9 | 42,1 | 23,8 | 14,9 |
| | Class 10 to 49 | 6,0 | 19,1 | 18,2 |
| | Class 50 to 249 | 0,9 | 13,8 | 18,8 |
| | Class 250 or more | 0,2 | 33,7 | 44,6 |
| | Total | 18 329 910 | 111 725 996 | 17 568 448 |
| United States (All sectors) 1995 | Class 0 to 9 | 78,8 | 11,8 | 10,8 |
| | Class 10 to 99 | 19,5 | 26,1 | 23,1 |
| | Class 100 to 499 | 1,4 | 14,6 | 13,1 |
| | Class 500 or more | 0,3 | 47,5 | 53,0 |
| | | Total | 5 369 068 | 100 314 946 |

⁽¹⁾ For the United States, employment corresponds to employees.
⁽²⁾ Total turnover is expressed in ECU million. For the United States, the figures are for production.

Sources: Eurostat and OECD.

| Shares of establishments, employment and production ⁽¹⁾ breakdowned by size class for manufacturing industry in Japan | | | | |
|--|-------------------|-------------------|----------------|-------------------|
| Country | Size classes | Establishments | Employment | Production |
| Japan 1995 | Class 4 to 9 | 55,0 | 12,3 | 4,5 |
| | Class 10 to 99 | 41,0 | 41,2 | 27,4 |
| | Class 100 to 499 | 3,5 | 25,2 | 29,9 |
| | Class 500 or more | 0,5 | 21,2 | 38,2 |
| | | Total (4+) | 387 726 | 10 321 000 |

⁽¹⁾ Total production is expressed in ECU million.

Source: OECD.

This is the third Statistics in Focus on SMEs. It focuses on a comparison between the EU and its two other major partners: the USA and Japan, and looks briefly at the overall picture and then in more detail at employment in the manufacturing sector.

It shows how the concentration of "small and medium-sized enterprises" with fewer than 250 employees — SMEs — whether by number of enterprises, employment or the value of turnover — in the EU has an overall pattern more like that in the USA than that in the Japanese manufacturing sector. However, the sectors with the highest levels of concentration are not the same as in the other two countries.



The overall picture: the EU in comparison with the USA and Japan

Enterprises: the numbers of smaller enterprises dominate

In the EU there are 18 million enterprises with 112 million persons employed in the non-agricultural market sectors and in the USA there are 5 million enterprises with 100 million employees. In Japan's manufacturing sector there are 390 thousand establishments with 10 million persons employed.

The first Statistics in Focus on SMEs showed that SMEs play a dominant role in the EU, with two thirds of total employment (excluding agriculture and fishing).

In the USA enterprises with less than 500 employees account for just over half the total employment.

In manufacturing in Japan, nearly four-fifths of employment are in enterprises with less than 500 employees. This picture is somewhat paradoxical because the USA has the most dynamic economy for creating employment and yet it is the least "SME oriented". In the EU most jobs are created in the SMEs.

Employment in SMEs: the picture by size range

In the EU, jobs are spread almost equally over three size ranges:

- the very small units with fewer than 10 employees, including owner-only firms and the self-employed,
- small and medium-sized units with 10-249 employees, and
- the largest units with 250 or more.

The largest-sized group accounts for 45% of the total EU turnover of ECU 17 568 billion.

In the USA over 98% of enterprises have less than 100 employees, but the way the jobs are spread over the size categories is different. The under 10 employees category has only 12% of the total, whereas the 10-499 and the 500 and over categories are nearly equal with 41% and 47% respectively. The largest-sized group accounts for 53% of the total USA production of ECU 12 042 billion. These figures include agriculture and fishing, though with under 1% of total employment this does not materially affect the comparison.

In Japan the picture for manufacturing shows that 55% of establishments have less than 10 employees, and over 44% have 10-499. Less than 1% have 500 or more. Here, the largest-sized group accounts for only 38% of the total manufacturing production of ECU 2 493 billion.

The turnover of SMEs

As noted some 55% of turnover in the EU is accounted for by firms with up to 249 employees. In the USA the figure is 47% for firms with up to 499 employees. This demonstrates the relatively greater weight of the largest firms. It is even more marked in manufacturing where firms of 500 or more employees in the USA account for 72% of production. There is a greater disparity between the USA and the picture for manufacturing in Japan, where the output of establishments of 500 or more employees accounts for only 38% of Japanese manufacturing production. The turnover of the largest firms in the EU overall stands between the manufacturing and overall positions in the USA, at one extreme, and the manufacturing production position in Japan, at the other.

Sectors where employment in SMEs accounts for a significant proportion

The thresholds for the comparisons that follow were selected to identify a relatively small grouping of sectors so as to draw out any notable differences between the EU, the USA and Japan. As already seen, the EU standard size categories are different from those used by both the USA and Japan, and so the descriptions are given separately.

In the EU the highest levels of concentration in any of three size ranges are found for micro-units (i.e. 0-9 employees) in the service sectors. In the two larger size ranges the most concentration is in the extraction and manufacturing sectors but at lower levels. Small-scale production is the norm in the EU, the USA and Japan. However, it appears that there is no common group of sectors with high unit concentrations in the manufacturing picture, in any of the size ranges, (as shown in current data).

In the USA the largest firms have squeezed the smallest to the greatest degree. In manufacturing the top handful of firms leave the remaining majority with well under a third of total production.

Very small enterprises

EU: sectors where units of 0-9 employees account for over 50% of employment

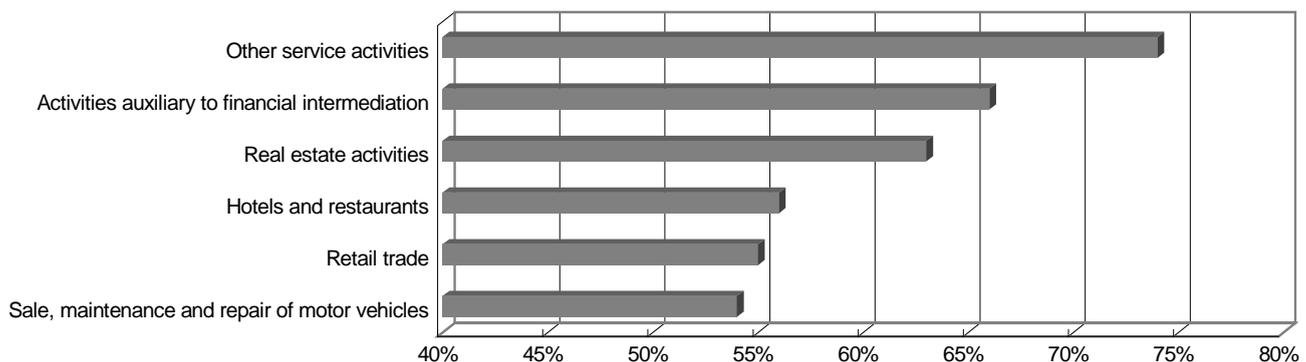
The sectors featuring concentration in this size range are all supplying services. The highest level is found in "other services activities" (a compendium of cleaning, hair-dressing and other personal services), in financial auxiliary activities and real estate, each with over 60% of employment in the 0-9 employee size range. The sectors between the 50%-60% levels include hotels and restaurants, and

the two categories of retail outlets and repair workshops: those for motor vehicles, and those for all other merchandise products. If the threshold had been lowered to 40%, three more service sectors would have featured, but none in manufacturing.

There is no manufacturing sector in the USA or Japan that is dominated to this extent by very small enterprises, even at a much lower threshold.

Here again it should be kept in mind that the data for each service sector are not available for the USA and Japan. It is probable that the difference in the relative importance of the very small enterprises between the three economic areas is more sectoral in nature rather than general.

Figure 1: Economic sectors dominated by very small enterprises (size class 0 to 9) in terms of employment — EU-15, 1995



Source: Eurostat.

Small enterprises

EU: sectors where units of 10-49 employees account for over 30% of employment

Here the concentration is lower, and no sector has over 50% in the 10-49 size range. At the 30% threshold, six very different manufacturing sectors feature: recycling, manufacture of leather and leather products, other mining and quarrying (excluding oil, coal and metals), manufacture of

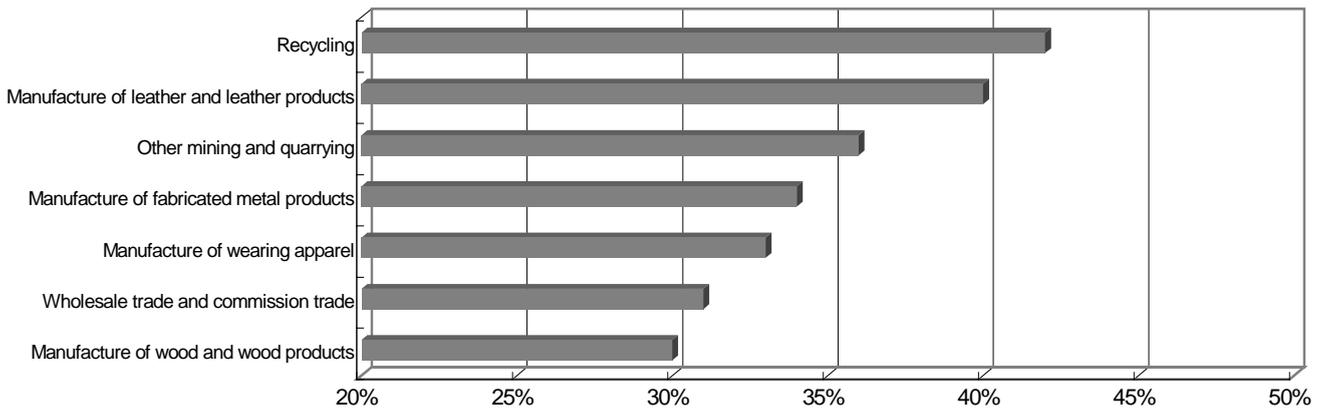
fabricated metal products, clothing (manufacture of wearing apparel), manufacture of wood and wood products (except furniture), and in the wholesale trade.

USA: manufacturing sectors where units of 10-99 employees account for over 30% of employment

In the USA, construction has the highest concentration at 48%, with

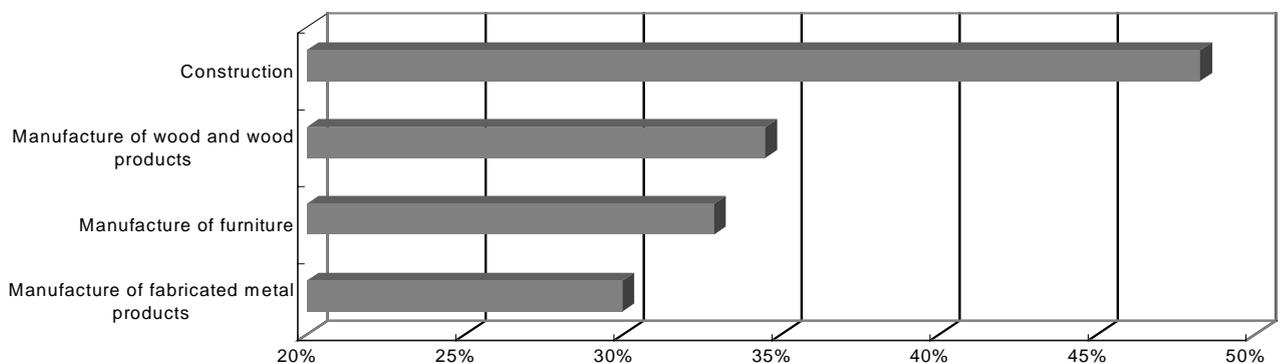
non-furniture woodworking the next with 35%. Furniture has nearly the same with 33% and the manufacture of fabricated metal products is on 30%. The latter two feature again in the next larger range as well. If the threshold had been set as low as 25% four more sectors would have featured.

Figure 2: Economic sectors dominated by small enterprises (size class 10 to 49) in terms of employment — EU-15, 1995



Source: Eurostat.

Figure 3: Manufacturing sectors dominated by small enterprises (size class 10 to 99) in terms of employment — USA, 1995



Source: OECD.

Japan: manufacturing sectors where units of 10-99 employees account for over 50% of employment

A higher threshold has been chosen for Japan owing to the far larger concentration in the mid-range size group of manufacturing establishments. Even so nine sectors have more than 50% of their total employment in firms of the 10-99 employees category.

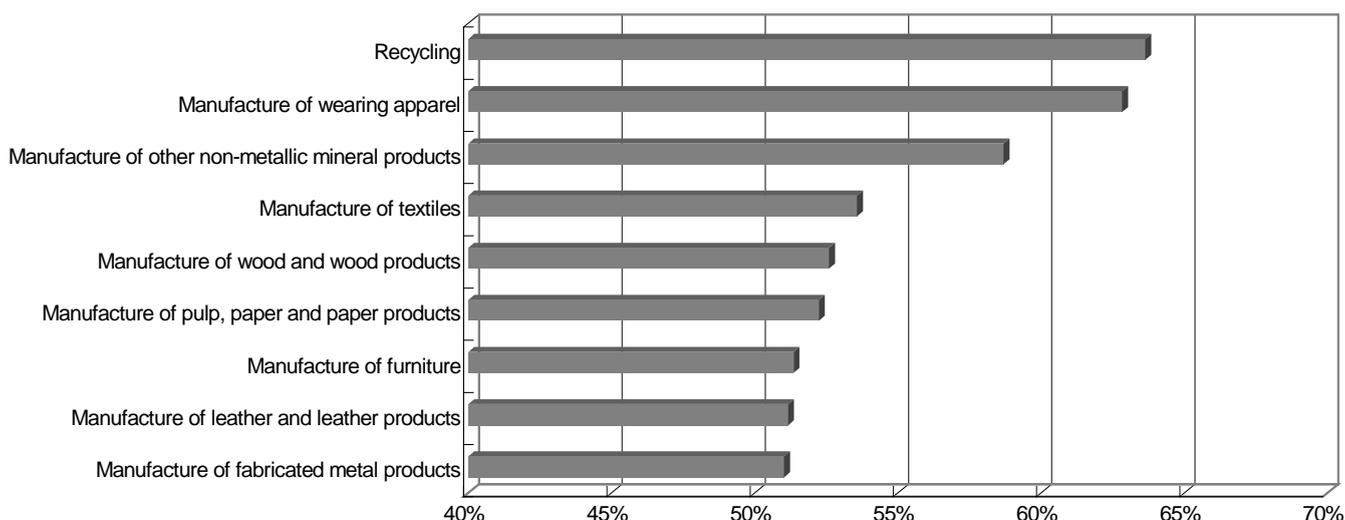
They include two with over 60%: recycling and wearing apparel production. Non-metallic mineral products at 59% and textiles at 54% are not much less concentrated. If the threshold had been set as low as 30%, seven more sectors would have featured.

The relatively greater importance of small establishments in the Japanese economy should be noted

when compared with the situation in the EU and the USA.

At the sectoral level, only metalworking appears to be dominated by small units in all three economies. In two, leather working, recycling, furniture, and wood-working are dominated by small units: otherwise the three vary in this respect.

Figure 4: Manufacturing sectors dominated by small establishments (size class 10 to 99) in terms of employment — Japan, 1995



Source: OECD.

Medium-sized enterprises

EU: sectors where units of 50-249 employees account for over 25% of employment

Here the concentration is set even lower than in the two previous EU size ranges. Two more manufacturing sectors feature: textiles, and rubber and plastics. Manufacture of leather and leather products appear again too. Had the threshold been set at 20% ten more sectors would have featured, six in manufacturing, two in services and two in mining and quarrying.

USA: sectors where units of 100-499 employees account for over 20% of employment

Three more sectors feature in

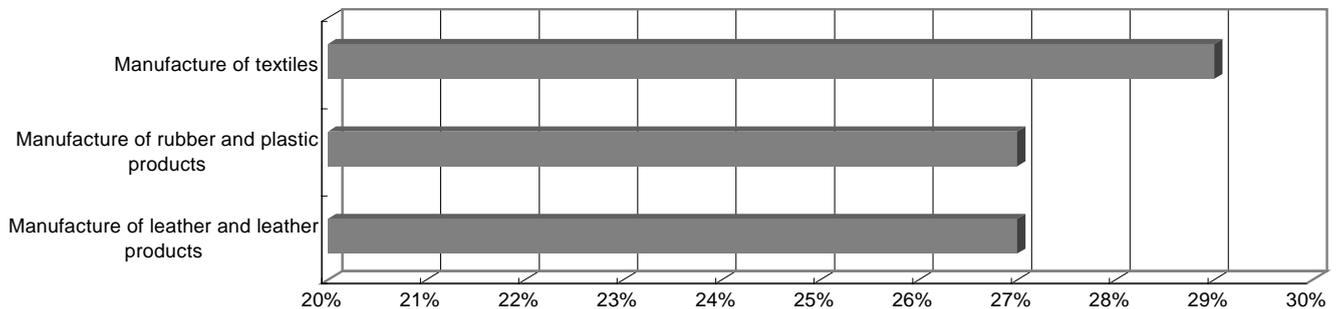
addition to furniture and the manufacture of fabricated metal products: the manufacture of wearing apparel, leather goods (including shoes and luggage), and rubber and plastic products.

Japan: manufacturing sectors where units of 100-499 employees account for over 33% of employment

Tobacco production has the highest concentration in any one size range in the whole of Japanese manufacturing with 75%. The other three are much lower, in the 33-40% range: chemicals, coke and refined oil products, and food and drink. Had the threshold been set as low as 25% no less than eight further manufacturing sectors would have featured.

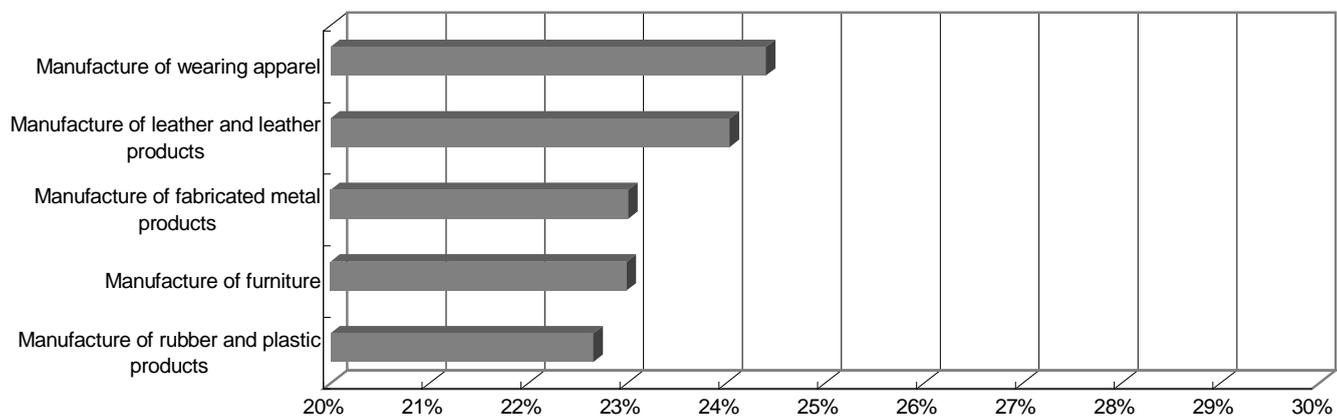
There is a big difference between the three economies in the sectors which are dominated by medium-sized units. For this reason different thresholds were chosen. In this light, no one sector is dominated by medium-sized units in all three economies, and most of the sectors found above those thresholds are specific to one or other economy. The variations in the overall picture that emerge are probably the result of basic differences in the industrial structure and the stage of rationalisation achieved.

Figure 5: Economic sectors dominated by medium-sized enterprises (size class 50 to 249) in terms of employment — EU-15, 1995



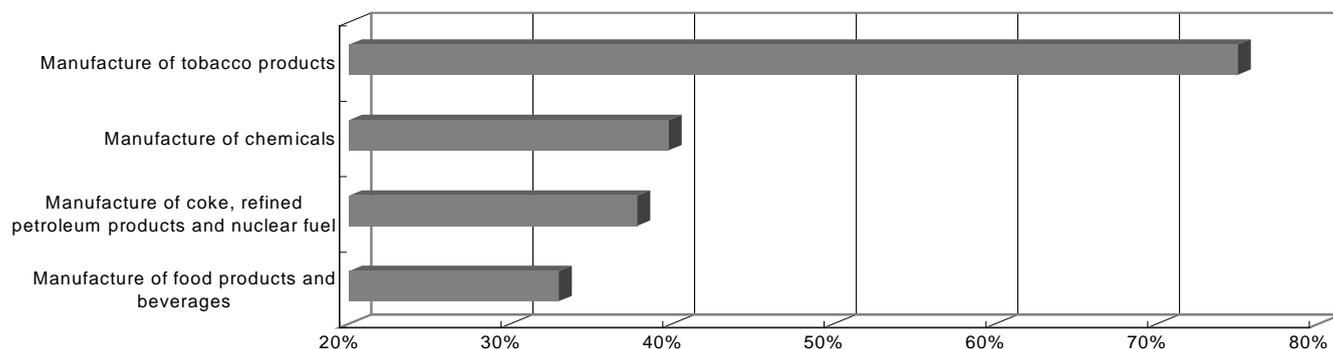
Source: Eurostat.

Figure 6: Manufacturing sectors dominated by medium-sized enterprises (size class 100 to 499) in terms of employment — USA, 1995



Source: OECD.

Figure 7: Manufacturing sectors dominated by medium-sized establishments (size class 100 to 499) in terms of employment — Japan, 1995



Source: OECD.

➤ ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

Variables

Statistical unit

The Japanese data relate to establishments whilst the EU and the US data are for enterprises.

Employment

The number of employees is defined as those persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind.

The number of persons employed is defined as the total number of persons who work in the observation unit (including working proprietors, unpaid family workers...).

Both include absent persons (for a set period) or on strike, and part-time workers.

The USA data on employment are for employees whilst the EU and Japanese data are for persons employed.

Turnover

The data for the USA and Japan, which are taken from the OECD database, relate to production, and so a strict comparison with the EU turnover figures cannot be made.

Turnover comprises the totals invoiced by the observation unit during the reference period, and it corresponds to market sales of goods or services supplied to third parties.

Production is defined as turnover, plus or minus the changes in stocks of finished products, and other changes in work in progress, goods and services for resale and capitalised production.

Sectoral coverage

Only the EU data are available for all the sectors of non-agricultural economic sectors. The sectors identified in the USA data mainly correspond to those for manufacturing in the EU, while the total is equivalent to the NACE all sectors. However, data for NACE codes 12, 23, 29, 32, 35 and 37 are not available separately. Both the sectors covered and the total

correspond to those for manufacturing in the case of Japan.

Size classes

The size classes used by the USA and Japan are different from those for the EU, and are: 0-9 (4-9 in the case of Japan), 10-99, 100-499, 500+ and Total. Thus the very small enterprises group in the EU has been compared with the 0-9 class (or 4-9 in the case of Japan), the small enterprises with the 10-99 class (i.e. not 10-49), and medium-sized enterprises with the 100-499 class (i.e. not 50-249).

Estimations

The EU-15 figures for the 1996 NACE totals and for 1995 at the two-digit level are estimated for each cell on the basis of the trends from the previous years, with the totals comprising the sum of the size-classes.

Estimations are mainly based on data included in Eurostat SME database.

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➤ Databases

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