## Manufacturing industries

## 1. Manufacturing industries significance for the overall Danish economy

## Industry creates one fifth of the growht in Danish economy

The significance of manufacturing industries for the Danish economy can be described by means of central statistics from the national accounts. Up until 1980, manufacturing industries represented a more or less constant share of the total value added of 17 per cent. Since then, this share has gradually fallen to a level of 18 per cent in 2004.

## Manufacturing industries share of total employment is declining

Manufacturing industries has experienced a significant reduction in its share of total employment over the period 1966 to 1983, from 27 per cent to 19 per cent The significance of manufacturing industries to employment increased again until 1986; since then, there has been a general decline up to 2004, where manufacturing industries represented 15 per cent of total employment.

Figure 1 Manufacturing shares in per cent of total activity 1966-2004

2. Manufacturing industries trends

## Production in the manufacturing industries

Production in the manufacturing industries can be illustrated by means of an index of production calculated at constant prices. The period 1990-2003 comprises a number of different business cycles, which are reflected in the index of production.

1990-2000
The period 1990-1991 was characterised by moderate economic growth, which was significantly influenced by the Gulf War. In the autumn of 1992, a period of economic recession followed the international instability in foreign currency markets. The following period of economic recovery at the middle of 1993, peaked
in the spring of 1995 and was followed by a six-month period (approximately) of zero growth. The zero-growth period was followed by a period of renewed growth in 1996 and 1997, but in 1998 the Danish economic lost its impetus after a five-year period of more or less uninterrupted growth. Manufacturing production increased again in 1999 and 2000, which was due to the positive international economic trends.

## 2001-2004

The decline in the world economy from 2001 has affected the Danish manufacturing production, which only experienced a very modest increase in 2002 and 2003. The tendency has continued throughout 2004 - affected by the weakened US-dollar.

Figure 2
Production in the manufacturing industries, seasonally adjusted values


## 3. Exports of the manufacturing industries

## Export shares of the manufacturing industries

Export markets are of great importance to the Danish manufacturing industries. In 2004, total export turnover accounted for 57 per cent of total turnover of the manufacturing industries. There are among the groups of industries wide differences in the export shares of the manufacturing industries. The industries manufacture of paper production; printing and publishing and manufacture of other non-metallic minerals, etc. accounted for an export share of 17 per cent in 2004, while manufacture of machinery and equipment and manufcture of chemicals, manmade fibres accounted for very high export shares of 77 and as high as 85 per cent.

Figure 3
Export shares of the manufacturing industries by groups of industries 2004


Note: Data for the industry mining and quarrying are not published for reasons of confidentiality.

## 3. Manufacturing industries total turnover by main sectors

## Manufacturing industries sector profile in 2004

Since 1993, manufacturing industries total turnover (at current prices) for enterprises with 10 employees or more has increased from approximately DKK 344 billion to approximately DKK 522 billion in 2004.
Manufacturing of food, beverages and tobacco accounted for the bulk of activity, approximately one-quarter of the total turnover. This was followed by manufacturing of machinery and equipment, manufacturing of electrical and optical equipment, and manufacturing of chemicals, man-made fibres, etc.; each of these accounted for approximately 12 per cent, while manufacturing of paper products, printing and publishing as well as manufacturing and processing of basic metals both accounted for approximately 8 per cent of manufacturing industries total turnover. Mining and quarrying, which does not include oil and gas extraction in these statistics, accounted for 2 per cent of manufacturing industries total turnover.

Figure 4 Manufacturers' total turnover by groups of industries, per cent


Growth in the manufacture of electrical and optical equipment and pharmaceuticals
The relative composition of Danish manufacturing industries has not seen radical changes since 1993, where manufacturing of food, beverages and tobacco also held the dominant position among manufacturers. This dominant position has, however, diminished in terms of relative importance, as the proportionate share of the manufacturers' total turnover has been reduced from almost one third to the 25 per cent. This means that other main groups of industries have increased in terms of relative significance. This is particularly true of the manufacturing of electrical and optical equipment, which has risen from accounting for approximately 8 to 11 per cent of the total manufacturing turnover, and this also applies to the manufacturing of chemicals, man-made fibres, etc. (including pharmaceuticals).

Both of these groups of industries feature characteristics such as heavy reliance on technology and research and development.

## 5. Concentration ratio of enterprises and commodity groups

## Concentration of industrial enterprises

The three largest enterprises in the manufacturing industries account on average for 11.8 per cent of total turnover of the manufacturing industries, while the ten largest enterprises account for 20.3 per cent The concentration ratio, i.e. the share of total turnover accounted for by a limited number of enterprises differs widely among the groups of industries. For example, within manufacture of refined petroleum products, manufacture of tobacco products and manufacture of dairy products turnover is concentrated on few large enterprises. Manufacturing and processing of basic metals and manufacture of paper products; printing and publishing are examples of industries characterized by a very low concentration of large enterprises.

Figure 4
Top 10 industrial commodity groups mainly produced


## Production in the manufacturing industries by commodity

The production of industrial products can be divided into about 100 main commodity groups, where the ten commodity groups accounting for the highest output in Denmark appears from figure 5. Boilers, machinery and mechanical apparatus make up 10.9 per cent of total turnover of the manufacturing industries, while electrical machinery, radio and television sets, etc. make up 7.9 per cent.

Figure 5
The ten commodity groups accounting for the highest output as a share of total turnover in the manufacturing industries 2004


The production of industrial products can be divided into even more detailed commodity groups, of which there are about 10,000 groups. In the present statistics, the production of pharmaceuticals has a prominent part in line with windmills and pork and gas oils.

| DB03 | Group of industry | Total turnover | Percentage of total turnover |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | The three largest groups | The ten t groups |
|  |  | DKK mio. | per |  |
| 1009+2 | Mining, quarrying and manufacturing | 522214 | 11.6 | 20.0 |
| 1009 | Mining and quarrying | 8749 | 75.7 | 92.5 |
| 2 | Manufacturing | 513465 | 11.8 | 20.3 |
| 15009 | Mfr. of food, beverages and tobacco | 134233 | 36.1 | 50.0 |
| 151000 | Production, etc. of meat and meat products | 39406 | 73.4 | 89.4 |
| 155000 | Mfr. of dairy products | 24664 | 90.8 | 96.4 |
| 158909 | Mfr. of other food products | 55142 | 13.2 | 29.7 |
| 159000 | Mfr. of beverages | 10897 | 74.1 | 95.7 |
| 160000 | Mfr. of tobacco products | 4125 | 90.0 | 100.0 |
| 17009 | Mfr. of textiles, clothing and leather | 10280 | 16.3 | 32.0 |
| 170000 | Mfr. of textile | 6555 | 23.3 | 42.5 |
| 180000 | Mfr. of clothing | 3361 | 27.6 | 51.3 |
| 190000 | Mfr. of leather, footwear and leather products | 364 | 84.5 | 100.0 |
| 20000 | Mfr. of wood and wood products | 12593 | 21.0 | 45.6 |
| 21009 | Mfr. of paper products; printing and publishing | 36866 | 8.7 | 21.8 |
| 210000 | Mfr. of pulp, paper and paper products | 10029 | 19.1 | 50.9 |
| 221200 | Publishing of newspapers | 7578 | 39.7 | 76.1 |
| 221309 | Publishing activities, excl. newspapers | 9260 | 27.3 | 56.0 |
| 222009 | Printing activities, etc. | 10172 | 13.6 | 31.4 |
| 23000 | Mfr. of refined petroleum products, etc. | 18585 | 99.6 | 100.0 |
| 24000 | Mfr. of chemicals, man-made fibres, etc. | 56504 | 47.8 | 68.9 |
| 241009 | Mfr. of chemical raw materials | 9900 | 66.8 | 90.6 |
| 243009 | Mfr. of paints, soap, cosmetics, etc. | 14404 | 32.1 | 63.7 |
| 244000 | Mfr. of pharmaceuticals, etc. | 32199 | 81.3 | 96.7 |
| 25000 | Mfr. of rubber and plastic products | 20488 | 20.6 | 35.1 |
| 26000 | Mfr. of other non-metallic mineral, etc. | 17671 | 18.6 | 38.9 |
| 261009 | Mfr. of glass and ceramic goods, etc. | 2823 | 38.6 | 77.0 |
| 263009 | Mfr. of bricks, cement and concrete | 14848 | 22.2 | 45.8 |
| 27009 | Mfr. and processing of basic metals | 43475 | 8.6 | 19.3 |
| 270000 | Mfr. of basic metals | 8976 | 35.3 | 67.6 |
| 281009 | Mfr. of construction materials of metals | 18681 | 13.5 | 24.4 |
| 286009 | Mfr. of hand tools, packaging of metal, etc. | 15818 | 13.7 | 28.7 |
| 29000 | Mfr. of machinery and equipment, n.e.s. | 63254 | 20.1 | 31.4 |
| 291000 | Mfr. of marine engines, compressors, etc. | 22227 | 57.2 | 80.0 |
| 292000 | Mfr. of other general purpose machinery | 19816 | 11.0 | 27.5 |
| 293000 | Mfr. of agricultural and forestry machinery | 4228 | 35.5 | 61.9 |
| 294009 | Mfr. of machines for industries, etc. | 13748 | 10.3 | 25.1 |
| 297000 | Mfr. of domestic appliances, n.e.s. | 3235 | 52.8 | 81.6 |
| 30009 | Mfr. of electrical and optical equipment | 55005 | 19.4 | 37.1 |
| 300009 | Mfr. of computers, electric motors, etc. | 27767 | 35.9 | 60.7 |
| 320000 | Mfr. of radio and communication equipment, etc. | 9384 | 46.0 | 67.6 |
| 330000 | Mfr. of medical and optical instruments | 17853 | 23.4 | 50.6 |
| 35009 | Mfr. of transport equipment | 15376 | 39.7 | 59.9 |
| 351000 | Building and repairing of ships and boats | 5613 | 73.3 | 90.2 |
| 352009 | Mfr. of transport equipment, excl. ships | 9763 | 35.7 | 59.7 |
| 36000 | Mfr. of furniture; manufacturing n.e.s. | 29136 | 30.7 | 48.6 |
| 361000 | Mfr. of furniture | 20234 | 25.5 | 42.3 |
| 365009 | Mfr. of toys, gold and silver articles, etc. | 8902 | 73.7 | 86.9 |

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|  |  | 2003 | 2004 |
| :---: | :---: | :---: | :---: |
|  |  | - $2000=100$ - |  |
| $1009+2+4009$ | Mining, quarrying, manufacturing and energy supply | 103,2 | 103,2 |
| 1009+2 | Mining, quarrying, and manufacturing | 102,2 | 102,7 |
| 1009 | Mining and quarrying | 102,1 | 107,3 |
| 2 | Manufacturing | 102,3 | 102,0 |
| 15009 | Mfr. of food, beverages and tobacco | 114,1 | 110,8 |
| 151000 | Production, etc. of meat and meat products | 99,8 | 98,3 |
| 155200 | Mfr. of dairy products | 95,2 | 96,0 |
| 158909 | Mfr. of other food products | 133,2 | 126,8 |
| 159000 | Mfr. of beverages | 112,2 | 112,9 |
| 160000 | Mfr. of tobacco products | 94,8 | 83,0 |
| 17009 | Mfr. of textiles, clothing and leather | 81,4 | 67,5 |
| 170000 | Mfr. of textile | 88,4 | 82,4 |
| 180000 | Mfr. of clothing | 73,7 | 61,3 |
| 190000 | Mfr. of leather, footwear and leather products | 66,7 | 13,7 |
| 20000 | Mfr. of wood and wood products | 91,7 | 101,4 |
| 21009 | Mfr. of paper products; printing and publishing | 88,9 | 93,0 |
| 210000 | Mfr. of pulp, paper and paper products | 91,0 | 89,8 |
| 221200 | Publishing of newspapers | 85,6 | 94,3 |
| 221309 | Publishing activities, excl. newspapers | 83,3 | 90,9 |
| 222009 | Printing activities, etc. | 94,0 | 95,8 |
| 23000 | Mfr. of refined petroleum products, etc. | 78,2 | 99,0 |
| 24000 | Mfr. of chemicals, man-made fibres, etc. | 109,0 | 97,5 |
| 241009 | Mfr. of chemical raw materials | 102,8 | 93,6 |
| 243009 | Mfr. of paints, soap, cosmetics, etc. | 95,2 | 94,0 |
| 244000 | Mfr. of pharmaceuticals, etc. | 116,5 | 100,1 |
| 25000 | Mfr. of rubber and plastic products | 101,0 | 100,8 |
| 26000 | Mfr. of other non-metallic mineral, etc. | 94,0 | 94,3 |
| 261009 | Mfr. of glass and ceramic goods, etc. | 92,4 | 87,7 |
| 263009 | Mfr. of bricks, cement and concrete | 94,4 | 96,0 |
| 27009 | Mfr. and processing of basic metals | 104,4 | 101,7 |
| 29000 | Mfr. of machines and equipment, n.e.s. | 99,1 | 105,4 |
| 30009 | Mfr. of electrical and optical equipment | 106,9 | 108,9 |
| 35009 | Mfr. of transport equipment | 97,6 | 97,0 |
| 351000 | Building and repairing of ships and boats | 89,5 | 92,9 |
| 352009 | Mfr. of transport equipment, excl. ships | 102,8 | 99,6 |
| 36000 | Mfr. of furniture; manufacturing n.e.s. | 99,9 | 105,3 |
| 361000 | Mfr. of furniture | 89,4 | 92,1 |
| 365009 | Mfr. of toys, gold and silver articles, etc. | 135,0 | 149,0 |
| 4009 | Electricity, gas and water supply | 120,5 | 112,3 |

[^0]|  | 2003 | 2004 |
| :---: | :---: | :---: |
|  | DKK thousands |  |
| Production, total | 453617307 | 461260142 |
| Frozen boneless meat of domestic swine (excl. bellies and cuts thereof) | 7205897 | 9524981 |
| Medicaments containing insulin but not antibiotics, put up in forms or packings for retail sale | 9538445 | 8865693 |
| Gas oils of petroleum or bituminous minerals, with a sulphur content of less than $0,05 \%$ by weight | 5862088 | 8317769 |
| Windmills, output over 750 kVA | 8317769 | 7205897 |
| Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes, put in retail packings | 8618003 | 5862088 |
| Fresh or chilled boneless meat of domestic swine (excl. bellies and cuts thereof) | 4685544 | 4685544 |
| Newspapers, published more than 4 times weekly, from the publishing house, not printed by own printing works | 2807023 | 4351775 |
| Iron and steel structures and parts thereof, mainly sheets excl. sluices, chimneys and ceiting sheets with ridge | 4279948 | 4280834 |
| Fresh or chilled with bone in, domestic swine hams and cuts thereof | 3864268 | 4104954 |
| Motor spirit, with a lead content less than $0,013 \mathrm{~g} / \mathrm{l}$, with a research octane number RON between 95 and 98 | 3448257 | 4094538 |
| Feeding stuffs for pigs | 4095218 | 3864268 |
| Enzymes and prepared enzymes, not elsewhere stated (excl. rennet and concentrates thereof, lipoprotein lipase and aspergillus alkalin protease | 3792373 | 3779286 |
| Products of iron and steel, not specifically defined elsewhere in the nomenclature | 2695151 | 3663616 |
| Articles of plastics (incl. plastic film) not elsewhere stated | 3042552 | 3448257 |
| Books (excl. dictionaries and encyclopaeidas) also in serial instalments, from the publishing house | 2936197 | 3185185 |
| Danbo, Fontal, Fontina, Fynbo, Havarti, Maribo and Samsø, of a fat content by weight of less than $40 \%$ and water containt in the fatfree mass between 47 and 72 \% | 2756897 | 3087171 |
| Newspapers, published more than 4 times weekly, from the publishing house, printed by own printing works | 3562480 | 3020378 |
| Insulin and its salts, used primarily as hormones | 2736452 | 2939486 |
| Hearing aids (excl. parts and accessories) | 2405413 | 2756501 |
| Medicaments containing hormones or steroids used as hormones, but not antibiotics, put up in forms | 3125272 | 2699858 |
| Roll-On/Roll-Off and other containers, seagoing, new | 3663616 | 2674571 |
| Natural butter of a fat content, by weight, between $80 \%$ and $85 \%$, in immediate packings of max 1 kg | 2464493 | 2612093 |
| Articles made from plastic sheet, not elsewhere stated | 2374609 | 2593259 |
| Fitted kitchen units | 2198189 | 2592725 |
| Cigarettes, containing tobacco (excl. containing cloves) | 2612093 | 2464657 |

Note 1. Commodities may be absent because for confidentiality reasons.
Note 2. The table is based on a 10 -digit nomenclature which is based on the 8 -digit CN (Combined Nomenclature).
ㅁ For further information visit www.statbank.dk/varer


[^0]:    [ For further information visit www.statbank.dk/prod01

