## Manufacturing industries

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

## Relatively constant share of the overall Danish economy since the 1960's

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 19 pct. Since then, this share has gradually fallen to a level of 18 pct. in 2002.

## 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 26 pct. to 19 pct. The significance of manufacturing industries to employment increased again until 1986; since then, there has been a general decline up to 2002, where manufacturing industries represented 16 pct. of total employment.

Figure 1
Manufacturing shares in per cent of total activity 1966-2002


## 2. Manufacturing industries trends

## Production in manufacturing industries

Figure 2 provides an illustration of production in manufacturing industries by means of quantity indices for manufacturing sales excluding goods resold without further processing for the period 1990-2002. The period shown comprises a number of different business cycles, which are described in more detail below.

## Moderate economic growth 1990-1991

The period 1990-1991 was characterised by moderate economic growth, which was significantly influenced by the Gulf War in the autumn of 1990 and the beginning of 1991. In the autumn of 1992, a period of economic recession followed the international instability in foreign exchange markets; this recession was also partly caused by the uncertainty, which followed in the wake of the referendum on the Maastricht treaty.

Figure 2
Production in manufacturing industries, seasonally adjusted values


Note: Quantity indexes for manufacturing sales, excluding gods resold whitout further processing, Mining and quarrying, manufacturing.

## Economic recovery in 1993-1995

The following period of economic recovery, which was partly caused by recordbreaking private consumption induced by the 1993 tax reform, began in the middle of 1993, peaked in the spring of 1995 and was followed by a six-month period (approx.) of zero growth.

Renewed growth in 1996-1997
The zero-growth period was followed by a period of renewed growth in 1996 and 1997, primarily caused by an increase in domestic demand.

## Declining trends in 1998

In 1998, the Danish economy lost its impetus after a five-year period of more or less uninterrupted growth. The large-scale labour market conflict during the end of April and the beginning of May caused a great lapse of production for manufacturing industries, and during the autumn, the Danish economy was affected by the global financial unrest and a decrease in competitiveness, which affected manufacturing exports.

## Growth in 1999 and 2000

Manufacturing production rates saw a moderate increase again during 1999, a fact which was primarily brought about by positive developments within the export markets, while domestic demand was moderated as a result of the 1998 "Whitsun Package", which entered into force on 1 January. There was a considerably heavier increase in the manufacturing production rates in 2000, which was still due the positive international economic trends. Furthermore, exports of manufactured goods are influenced by the falling effective krone exchange rate, which is the result of the Danish fixed exchange rate policy vis-á-vis the euro, which was substantially weakened vis-á-vis the US dollar.

## Economic decline in 2001 and 2002

The decline in the world economy in 2001 has affected the Danish manufacturing production, which only experienced a very moderate increase. Despite the global economic decline manufacturing exports have remained at the same level as that from the middle of 2000 , and the lower growth is also the result of a continuous weak domestic demand. Also in 2002, the increase in Danish manufacturing production was very moderate. The development was influenced by the weak foreign business cycles, but there was progress in the domestic demand.

## 3. Manufacturing industries total turnover by main sectors

## Manufacturing industries total turnover

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 517 billion in 2002. Manufacturing of food, beverages and tobacco had the highest turnover.

Figure 3
Manufacturers' total turnover by groups of industries, per cent


## Manufacturing industries sector profile in 2002

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 0.5 per cent of manufacturing industries total turnover.

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 mentioned above. This means that other main groups of industries have increased in terms of relative significance. This is particularly true of the manufacture of electrical and optical equipment, which has risen from acounting

## Manufacturing industries statistics

for approximately 7 to 12 per cent of the total manufacturing turnover, and to a lesser degree this also applies to the manufacture of chemicals, man-made fibres, etc. (including pharmaceuticals), which has seen an increase in its relative share from 8 to 12 per cent. Both of these groups of industries feature characteristics such as heavy reliance on technology and research and development.

| DB93 | Commodity groups | Total sales |  | Sales, excl. goods resold without further processing |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2001 | 2002 | 2001 | 2002 |
|  |  | DKK mio. |  |  |  |
| 1009+2 | Mining, quarrying, and manufacturing | 511085 | 517552 | 474008 | 475528 |
| 1009 | Mining and quarrying | 2289 | 2437 | 2085 | 2235 |
| 2 | Manufacturing | 508796 | 515116 | 471923 | 473293 |
| 15009 | Mfr. of food, beverages and tobacco | 123638 | 131628 | 114117 | 116604 |
| 151000 | Production, etc. of meat and meat products | 43610 | 40453 | 41500 | 38190 |
| 155000 | Mfr. of dairy products | 21592 | 20980 | 20491 | 20141 |
| 158909 | Mfr. of other food products | 44890 | 56447 | 40224 | 45828 |
| 159000 | Mfr. of beverages | 9673 | 9540 | 8469 | 8672 |
| 160000 | Mfr. of tobacco products | 3874 | 4207 | 3433 | 3774 |
| 17009 | Mfr. of textiles, clothing and leather | 14003 | 12687 | 13084 | 11659 |
| 170000 | Mfr. of textile | 7336 | 6777 | 6862 | 6235 |
| 180000 | Mfr. of clothing | 4550 | 4239 | 4140 | 3856 |
| 190000 | Mfr. of leather and footwear | 2117 | 1671 | 2082 | 1569 |
| 20000 | Mfr. of wood and wood products | 12241 | 11949 | 11586 | 11247 |
| 21009 | Mfr. of paper products; printing, publising | 38132 | 36849 | 36674 | 35435 |
| 210000 | Mfr. of pulp, paper and paper products | 10542 | 10584 | 10039 | 10101 |
| 221200 | Publishing of newspapers | 7521 | 6849 | 7477 | 6812 |
| 221309 | Publishing activities, excl. newspapers | 9438 | 9071 | 8836 | 8463 |
| 222009 | Printing activities, etc. | 10631 | 10345 | 10323 | 10059 |
| 23000 | Mfr. of refined petroleum products, etc. | 15949 | 14550 | 15902 | 14483 |
| 24000 | Mfr. of chemicals, man-made fibres, etc. | 56034 | 60543 | 52073 | 54920 |
| 241009 | Mfr. of chemical raw materials | 9679 | 10075 | 8833 | 9220 |
| 243009 | Mfr. of paints, soaps, cosmetics, etc. | 14667 | 14710 | 12115 | 12019 |
| 244000 | Mfr. of pharmaceuticals, etc. | 31688 | 35758 | 31125 | 33681 |
| 25000 | Mfr. of rubber and plastic products | 20021 | 20626 | 18647 | 19338 |
| 26000 | Mfr. of other non-metallic minerals, etc. | 16594 | 16529 | 15378 | 15223 |
| 261009 | Mfr. of glass and ceramic goods, etc. | 2781 | 2691 | 2704 | 2605 |
| 263009 | Mfr. of bricks, cement and concrete, etc. | 13813 | 13838 | 12673 | 12618 |
| 27009 | Mfr. and processing of basic metals | 41112 | 40450 | 38697 | 37809 |
| 270000 | Mfr. of basic metals | 10238 | 8934 | 9813 | 8550 |
| 281009 | Mfr. of construction materials of metal, etc. | 17456 | 18098 | 16726 | 17288 |
| 286009 | Mfr. hand tools, metal packaging, etc. | 13419 | 13418 | 12158 | 11971 |
| 29000 | Mfr. of machinery and equipment, n.e.s. | 62501 | 62500 | 56043 | 56243 |
| 291000 | Mfr. of marine engines, compressors, etc. | 19729 | 20172 | 16982 | 17566 |
| 292000 | Mfr. of general purpose machinery | 20092 | 20866 | 18446 | 19200 |
| 293000 | Mfr. of agricultural and forestry machinery | 3283 | 3434 | 2941 | 3166 |
| 294009 | Mfr. of machinery for industries, etc. | 14552 | 13361 | 13552 | 12506 |
| 297000 | Mfr. of domestic appliances, n.e.s. | 4845 | 4667 | 4122 | 3805 |
| 30009 | Mfr. of electrical and optical equipment | 62269 | 61914 | 58613 | 58226 |
| 300009 | Mfr. of computers, electric motors, etc. | 31357 | 31124 | 30059 | 29647 |
| 320000 | Mfr. of radio and communication equipment, etc. | 14294 | 15029 | 13135 | 13858 |
| 330000 | Mfr. of medical and optical appliances n.e.s. | 16618 | 15762 | 15419 | 14721 |
| 35009 | Mfr. of transport equipment | 16666 | 17235 | 15878 | 15628 |
| 351000 | Building and repairing of ships and boats | 6714 | 7024 | 6554 | 6888 |
| 352009 | Mfr. of transport equipment, excl. ships | 9952 | 10211 | 9323 | 8740 |
| 36000 | Mfr. of furniture; manufacturing n.e.s. | 30339 | 27655 | 25904 | 26478 |
| 361000 | Mfr. of furniture | 20434 | 19642 | 19627 | 18758 |
| 365009 | Mfr. of toys, gold and silver articles, etc. | 9905 | 8013 | 6277 | 7720 |

Note. Manufacturing enterprises with at least 10 employees. Turnover of own goods and services includes sales of own products, salaried work, as well as repair and installation work carried out for others.

| DB93 | Group of industry | Total turnover | Percentage of total turnover |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | The three largest groups | The five largest groups | The ten largest groups |
|  |  | DKK mio. |  | per cent |  |
| 1009+2 | Mining, quarrying and manufacturing | 517552 | 11.5 | 14.4 | 20.5 |
| 1009 | Mining and quarrying | 2436 | 40.4 | 56.6 | 81.2 |
| 2 | Manufacturing | 515116 | 11.5 | 14.4 | 20.5 |
| 15009 | Mfr. of food, beverages and tobacco | 132628 | 35.6 | 40.5 | 49.8 |
| 151000 | Production, etc. of meat and meat products | 40453 | 65.8 | 73.9 | 86.7 |
| 155000 | Mfr. of dairy products | 20980 | 89.0 | 91.1 | 95.5 |
| 158909 | Mfr. of other food products | 56447 | 22.8 | 27.7 | 38.3 |
| 159000 | Mfr. of beverages | 9540 | 69.4 | 82.0 | 94.2 |
| 160000 | Mfr. of tobacco products | 4207 | 93.5 | 100.0 | 100.0 |
| 17009 | Mfr. of textiles, clothing and leather | 12687 | 17.6 | 23.7 | 32.3 |
| 170000 | Mfr. of textile | 6777 | 20.8 | 26.9 | 39.8 |
| 180000 | Mfr. of clothing | 4239 | 23.8 | 33.9 | 52.8 |
| 190000 | Mfr. of leather, footwear and leather products | 1671 | 81.4 | 87.8 | 97.6 |
| 20000 | Mfr. of wood and wood products | 11949 | 20.4 | 28.8 | 41.8 |
| 21009 | Mfr. of paper products; printing and publishing | 36849 | 8.8 | 13.6 | 22.1 |
| 210000 | Mfr. of pulp, paper and paper products | 10584 | 17.7 | 29.0 | 51.1 |
| 221200 | Publishing of newspapers | 6849 | 45.1 | 60.0 | 83.3 |
| 221309 | Publishing activities, excl. newspapers | 9071 | 28.3 | 38.7 | 52.4 |
| 222009 | Printing activities, etc. | 10345 | 12.4 | 19.6 | 30.2 |
| 23000 | Mfr. of refined petroleum products, etc. | 14549 | 99.6 | 100.0 | 100.0 |
| 24000 | Mfr. of chemicals, man-made fibres, etc. | 60543 | 50.2 | 58.6 | 69.1 |
| 241009 | Mfr. of chemical raw materials | 10075 | 62.5 | 73.4 | 88.0 |
| 243009 | Mfr. of paints, soap, cosmetics, etc. | 14710 | 31.2 | 42.1 | 62.2 |
| 244000 | Mfr. of pharmaceuticals, etc. | 35758 | 83.2 | 88.9 | 96.6 |
| 25000 | Mfr. of rubber and plastic products | 20626 | 18.3 | 23.3 | 32.7 |
| 26000 | Mfr. of other non-metallic mineral, etc. | 16529 | 18.5 | 25.9 | 38.5 |
| 261009 | Mfr. of glass and ceramic goods, etc. | 2691 | 41.2 | 57.4 | 77.2 |
| 263009 | Mfr. of bricks, cement and concrete | 13838 | 22.2 | 30.9 | 45.4 |
| 27009 | Mfr. and processing of basic metals | 40450 | 6.8 | 10.5 | 17.3 |
| 270000 | Mfr. of basic metals | 8934 | 25.5 | 38.3 | 59.6 |
| 281009 | Mfr. of construction materials of metals | 18098 | 12.3 | 16.7 | 23.9 |
| 286009 | Mfr. of hand tools, packaging of metal, etc. | 13418 | 13.1 | 18.2 | 27.4 |
| 29000 | Mfr. of machinery and equipment, n.e.s. | 62500 | 17.8 | 22.7 | 30.1 |
| 291000 | Mfr. of marine engines, compressors, etc. | 20172 | 55.1 | 67.4 | 76.5 |
| 292000 | Mfr. of other general purpose machinery | 20866 | 15.3 | 21.7 | 32.4 |
| 293000 | Mfr. of agricultural and forestry machinery | 3434 | 29.3 | 39.3 | 54.7 |
| 294009 | Mfr. of machines for industries, etc. | 13361 | 9.7 | 14.8 | 24.9 |
| 297000 | Mfr. of domestic appliances, n.e.s. | 4667 | 53.8 | 69.2 | 85.6 |
| 30009 | Mfr. of electrical and optical equipment | 61914 | 26.6 | 34.6 | 45.6 |
| 300009 | Mfr. of computers, electric motors, etc. | 31124 | 43.5 | 53.7 | 64.8 |
| 320000 | Mfr. of radio and communication equipment, etc. | 15029 | 56.1 | 62.1 | 72.5 |
| 330000 | Mfr. of medical and optical instruments | 15762 | 23.4 | 33.3 | 47.5 |
| 35009 | Mfr. of transport equipment | 17235 | 38.9 | 46.6 | 57.0 |
| 351000 | Building and repairing of ships and boats | 7024 | 69.5 | 79.3 | 89.9 |
| 352009 | Mfr. of transport equipment, excl. ships | 1211 | 34.4 | 41.7 | 55.3 |
| 36000 | Mfr. of furniture; manufacturing n.e.s. | 28601 | 31.0 | 56.7 | 45.8 |
| 361000 | Mfr. of furniture | 19642 | 21.2 | 27.8 | 37.0 |
| 365009 | Mfr. of toys, gold and silver articles, etc. | 8959 | 75.6 | 79.7 | 85.7 | excluding goods resold without further processing


|  |  | 2001 | 2002 |
| :---: | :---: | :---: | :---: |
|  |  | 1995 |  |
| 1009+2 | Mining, quarrying, and manufacturing, total | 120 | 120 |
| 1009 | Mining and quarrying, total | 97 | 122 |
| 2 | Manufacturing, total | 120 | 120 |
| 15009 | Mfr. of food, beverages and tobacco | 104 | 106 |
| 151000 | Production, etc. of meat and meat products | 109 | 102 |
| 155200 | Mfr. of dairy products | 110 | 107 |
| 158909 | Mfr. of other food products | 106 | 117 |
| 159000 | Mfr. of beverages | 78 | 85 |
| 160000 | Mfr. of tobacco products | 87 | 88 |
| 17009 | Mfr. of textiles, clothing and leather | 95 | 91 |
| 170000 | Mfr. of textile | 105 | 103 |
| 180000 | Mfr. of clothing | 83 | 77 |
| 190000 | Mfr. of leather, footwear and leather products | 88 | 73 |
| 20000 | Mfr. of wood and wood products | 109 | 114 |
| 21009 | Mfr. of paper products; printing and publishing | 115 | 111 |
| 210000 | Mfr. of pulp, paper and paper products | 94 | 93 |
| 221200 | Publishing of newspapers | 95 | 88 |
| 221309 | Publishing activities, excl. newspapers | 145 | 140 |
| 222009 | Printing activities, etc. | 120 | 116 |
| 23000 | Mfr. of refined petroleum products, etc. | 96 | 92 |
| 24000 | Mfr. of chemicals, man-made fibres, etc. | 176 | 186 |
| 241009 | Mfr. of chemical raw materials | 104 | 103 |
| 243009 | Mfr. of paints, soap, cosmetics, etc. | 122 | 130 |
| 244000 | Mfr. of pharmaceuticals, etc. | 243 | 259 |
| 25000 | Mfr. of rubber and plastic products | 119 | 116 |
| 26000 | Mfr. of other non-metallic mineral, etc. | 111 | 94 |
| 261009 | Mfr. of glass and ceramic goods, etc. | 114 | 66 |
| 263009 | Mfr. of bricks, cement and concrete | 111 | 104 |
| 27009 | Mfr. and processing of basic metals | 117 | 118 |
| 29000 | Mfr. of machines and equipment, n.e.s. | 109 | 110 |
| 30009 | Mfr. of electrical and optical equipment | 168 | 165 |
| 35009 | Mfr. of transport equipment | 89 | 86 |
| 351000 | Building and repairing of ships and boats | 59 | 57 |
| 352009 | Mfr. of transport equipment, excl. ships | 127 | 122 |
| 36000 | Mfr. of furniture; manufacturing n.e.s. | 115 | 118 |
| 361000 | Mfr. of furniture | 114 | 111 |
| 365009 | Mfr. of toys, gold and silver articles, etc. | 116 | 137 |

