## Manufacturing industries

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

## National Accounts

The significance of manufacturing industries for the Danish economy can be described by means of central statistics from National Accounts. Figure 1 shows manufacturing as a percentage of total activity for the period 1966-2000.

Figure 1 Manufacturing statistics in per cent of total activity


## Employment in manufacturing

Manufacturing industries has experienced a significant reduction in its proportionate share of total employment from 1966 up to 1983, from approximately 26 per cent to approximately 19 per cent. The significance of manufacturing industries to employment increased again until 1986; since then, there has been a general decline up to 2000, where manufacturing industries represented approximately 16 per cent of total employment.

## Value added

Figure 1 shows the significance of manufacturing industries to the Danish economy in terms of gross value added. When considering these statistics, rather than employment statistics, a somewhat different image of the significance of manufacturing industries emerges. Up until 1980, manufacturing industries represented a more or less constant share of the total value added, approximately 19 per cent. Since then, this figure has gradually fallen to a level of approximately 18 per cent

## 2. Manufacturing industries trends 1990-2000

## Production in manufacturing industries

Figure 2 provides an elucidation of manufacturers' production in manufactoring industries by means of quantity indices for manufacturing sales, excluding goods resold without further reprocessing for the period 1990-2000. The monthly indices have been adjusted for seasonal fluctuations.

The period shown comprises a number of different business cycles, which are described in more detail below.

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Figure 2
Production in manufacturing industries, seasonally adjusted values
Quantity indexes for manufacturing sales, excluding goods resold without further processing (1995=100). Mining and quarrying, manufacturing


Limited economic growth 1990-1991
The period 1990-1991 was characterised by limited 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 upheaval in foreign exchanges; this recession was also partly caused by the uncertainty which followed in the wake of the referendum on the Maastricht treaty.

## Economic recovery 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 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 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

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## 3. Manufacturing industries total turnover by main sectors

## Manufacturing industries total turnover

Since 1993, manufacturering industries total turnover (at current prices) for enterprises with 10 employees or more has increased from approximately DKK 344 billion to approximately DKK 450 billion in 1999. In 1999, Manufacturing of food, beverages and tobacco had the highest turnover.

Figure 3
Manufacturers' total turnover by groups of industries


## Manufacturing industries sector profile in 2000

As was mentioned in the above, in 2000 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 10 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 less than 0.5 per cent of manufacturing industries total turnover.

## Changes to manufacturing sector profile since 1993

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 accounting for approximately 7 per cent to 11 per cent of the total manufacturing turnover; and to a lesser degree this also applies to the

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manufacture of chemicals, man-made fibres, etc. (including pharmaceuticals), which has seen an increase in its relative share of total manufacturing turnover from approximately 8 per cent to 10 per cent. Both of these groups of industries feature characteristics such as heavy reliance on technology and research.

| DB93 | Commodity groups | Total sales |  | Sales, excl. goods resold without further processing |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1999 | 2000 | 1999 | 2000 |
|  |  | DKK mio. |  |  |  |
| 1009+2 | Mining, quarrying, and manufacturing | 448840 | 485529 | 414679 | 451522 |
| 1009 | Mining and quarrying | 1742 | 2417 | 1603 | 2201 |
| 2 | Manufacturing | 447098 | 483112 | 413076 | 449321 |
| 15009 | Mfr. of food, beverages and tobacco | 109571 | 114706 | 98731 | 105393 |
| 151000 | Production, etc. of meat and meat products | 34991 | 40052 | 34374 | 38295 |
| 155000 | Mfr. of dairy products | 23964 | 21841 | 18150 | 19499 |
| 158909 | Mfr. of other food products | 37644 | 39308 | 34500 | 35688 |
| 159000 | Mfr. of beverages | 9419 | 9858 | 8496 | 8635 |
| 160000 | Mfr. of tobacco products | 3553 | 3647 | 3211 | 3276 |
| 17009 | Mfr. of textiles, clothing and leather | 13873 | 14496 | 13093 | 13802 |
| 170000 | Mfr. of textile | 7134 | 7551 | 6769 | 7163 |
| 180000 | Mfr. of clothing | 4758 | 4884 | 4397 | 4608 |
| 190000 | Mfr. of leather and footwear | 1981 | 2061 | 1927 | 2031 |
| 20000 | Mfr. of wood and wood products | 11717 | 12115 | 12212 | 11596 |
| 21009 | Mfr. of paper products; printing and publising | 36130 | 37840 | 34475 | 36151 |
| 210000 | Mfr. of pulp, paper and paper products | 9799 | 10405 | 9393 | 10021 |
| 221200 | Publishing of newspapers | 7229 | 7329 | 7159 | 7204 |
| 221309 | Publishing activities, excl. newspapers | 8910 | 9362 | 8059 | 8565 |
| 222009 | Printing activities, etc. | 10192 | 10744 | 9863 | 10361 |
| 23000 | Mfr. of refined petroleum products, etc. | 9984 | 18592 | 9853 | 18564 |
| 24000 | Mfr. of chemicals, man-made fibres, etc. | 45510 | 50206 | 41752 | 46546 |
| 241009 | Mfr. of chemical raw materials | 9223 | 9920 | 8423 | 9155 |
| 243009 | Mfr. of paints, soaps, cosmetics, etc. | 12949 | 14246 | 10592 | 11786 |
| 244000 | Mfr. of pharmaceuticals, etc. | 23338 | 26040 | 22737 | 25605 |
| 25000 | Mfr. of rubber and plastic products | 17719 | 19231 | 16722 | 18055 |
| 26000 | Mfr. of other non-metallic minerals, etc. | 17744 | 18337 | 16614 | 17140 |
| 261009 | Mfr. of glass and ceramic goods, etc. | 4351 | 4046 | 4243 | 3978 |
| 263009 | Mfr. of bricks, cement and concrete, etc. | 13393 | 14290 | 12371 | 13162 |
| 27009 | Mfr. and processing of basic metals | 35866 | 39217 | 33937 | 37064 |
| 270000 | Mfr. of basic metals | 9919 | 10746 | 9533 | 10274 |
| 281009 | Mfr. of construction materials of metal, etc. | 14224 | 15811 | 13780 | 15221 |
| 286009 | Mfr. hand tools, metal packaging, etc. | 11723 | 12660 | 10624 | 11569 |
| 29000 | Mfr. of machinery and equipment, n.e.s. | 55849 | 60693 | 50959 | 54592 |
| 291000 | Mfr. of marine engines, compressors, etc. | 17167 | 19017 | 15157 | 16569 |
| 292000 | Mfr. of general purpose machinery | 17657 | 18151 | 16198 | 16773 |
| 293000 | Mfr. of agricultural and forestry machinery | 5119 | 4580 | 4738 | 3990 |
| 294009 | Mfr. of machinery for industries, etc. | 11427 | 14101 | 10646 | 13169 |
| 297000 | Mfr. of domestic appliances, n.e.s. | 4478 | 4845 | 4220 | 4090 |
| 30009 | Mfr. of electrical and optical equipment | 50896 | 55953 | 46982 | 52336 |
| 300009 | Mfr. of computers, electric motors, etc. | 23821 | 25651 | 21869 | 24471 |
| 320000 | Mfr. of radio and communication equipment, etc. | 14069 | 14045 | 12966 | 12824 |
| 330000 | Mfr. of medical and optical appliances n.e.s. | 13006 | 16257 | 12147 | 15041 |
| 35009 | Mfr. of transport equipment | 16935 | 15424 | 16129 | 14597 |
| 351000 | Building and repairing of ships and boats | 7817 | 5932 | 7688 | 5735 |
| 352009 | Mfr. of transport equipment, excl. ships | 9118 | 9493 | 8441 | 8862 |
| 36000 | Mfr. of furniture; manufacturing n.e.s. | 25305 | 26204 | 22619 | 23484 |
| 361000 | Mfr. of furniture | 18594 | 20308 | 17876 | 19493 |
| 365009 | Mfr. of toys, gold and silver articles, etc. | 6711 | 5896 | 4743 | 3991 |

[^0]| 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 | 485529 | 10,9 | 14,7 | 19,3 |
| 1009 | Mining and quarrying | 2417 | 40,9 | 56,2 | 79,3 |
| 2 | Manufacturing | 483112 | 10,9 | 14,7 | 19,3 |
| 15009 | Mfr. of food, beverages and tobacco | 114705 | 38,1 | 43,5 | 52,3 |
| 151000 | Production, etc. of meat and meat products | 40052 | 72,1 | 77,9 | 87,5 |
| 155000 | Mfr. of dairy products | 21841 | 88,4 | 90,6 | 95,0 |
| 158909 | Mfr. of other food products | 39308 | 12,6 | 18,6 | 30,5 |
| 159000 | Mfr. of beverages | 9858 | 71,3 | 82,0 | 93,8 |
| 160000 | Mfr. of tobacco products | 3647 | 93,6 | 99,3 | 100,0 |
| 17009 | Mfr. of textiles, clothing and leather | 14496 | 17,4 | 23,0 | 31,9 |
| 170000 | Mfr. of textile | 7551 | 17,2 | 22,6 | 33,3 |
| 180000 | Mfr. of clothing | 4884 | 23,3 | 32,8 | 49,6 |
| 190000 | Mfr. of leather, footwear and leather products | 2061 | 85,5 | 90,5 | 98,3 |
| 20000 | Mfr. of wood and wood products | 12215 | 19,4 | 28,2 | 42,1 |
| 21009 | Mfr. of paper products; printing and publishing | 37840 | 10,6 | 15,4 | 23,7 |
| 210000 | Mfr. of pulp, paper and paper products | 10405 | 18,4 | 29,4 | 50,2 |
| 221200 | Publishing of newspapers | 7329 | 54,6 | 66,2 | 85,4 |
| 221309 | Publishing activities, excl. newspapers | 9362 | 26,5 | 35,4 | 51,9 |
| 222009 | Printing activities, etc. | 10744 | 11,0 | 16,4 | 26,2 |
| 23000 | Mfr. of refined petroleum products, etc. | 18592 | 99,7 | 100,0 | 100,0 |
| 24000 | Mfr. of chemicals, man-made fibres, etc. | 50206 | 42,7 | 51,8 | 63,6 |
| 241009 | Mfr. of chemical raw materials | 9920 | 60,5 | 71,7 | 85,3 |
| 243009 | Mfr. of paints, soap, cosmetics, etc. | 14246 | 29,0 | 41,1 | 66,3 |
| 244000 | Mfr. of pharmaceuticals, etc. | 26040 | 80,2 | 86,5 | 95,9 |
| 25000 | Mfr. of rubber and plastic products | 19231 | 13,1 | 18,4 | 29,2 |
| 26000 | Mfr. of other non-metallic mineral, etc. | 18337 | 20,2 | 27,0 | 39,4 |
| 261009 | Mfr. of glass and ceramic goods, etc. | 4046 | 49,5 | 64,1 | 83,6 |
| 263009 | Mfr. of bricks, cement and concrete | 14290 | 23,0 | 30,5 | 43,2 |
| 27009 | Mfr. and processing of basic metals | 39217 | 8,1 | 11,4 | 18,2 |
| 270000 | Mfr. of basic metals | 10746 | 27,2 | 37,5 | 57,5 |
| 281009 | Mfr. of construction materials of metals | 15811 | 10,8 | 14,7 | 22,1 |
| 286009 | Mfr. of hand tools, packaging of metal, etc. | 12660 | 12,6 | 17,8 | 28,2 |
| 29000 | Mfr. of machinery and equipment, n.e.s. | 60693 | 17,7 | 22,7 | 29,2 |
| 291000 | Mfr. of marine engines, compressors, etc. | 19017 | 56,5 | 69,3 | 78,1 |
| 292000 | Mfr. of other general purpose machinery | 18151 | 12,9 | 20,1 | 30,5 |
| 293000 | Mfr. of agricultural and forestry machinery | 4580 | 35,7 | 46,9 | 62,9 |
| 294009 | Mfr. of machines for industries, etc. | 14101 | 11,5 | 16,9 | 26,8 |
| 297000 | Mfr. of domestic appliances, n.e.s. | 4849 | 57,3 | 73,8 | 88.5 |
| 30009 | Mfr. of electrical and optical equipment | 55953 | 20,2 | 29,2 | 40,5 |
| 300009 | Mfr. of computers, electric motors, etc. | 25651 | 40,9 | 49,2 | 60,5 |
| 320000 | Mfr. of radio and communication equipment, etc. | 14045 | 42,3 | 48,8 | 61,7 |
| 330000 | Mfr. of medical and optical instruments | 16257 | 28,2 | 37,5 | 53,6 |
| 35009 | Mfr. of transport equipment | 15424 | 39,3 | 44,9 | 56,1 |
| 351000 | Building and repairing of ships and boats | 5932 | 68,8 | 79,2 | 89,3 |
| 352009 | Mfr. of transport equipment, excl. ships | 9493 | 34,1 | 41,6 | 53,8 |
| 36000 | Mfr. of furniture; manufacturing n.e.s. | 26204 | 21,5 | 27,8 | 37,7 |
| 361000 | Mfr. of furniture | 20308 | 14,6 | 21,7 | 32,8 |
| 365009 | Mfr. of toys, gold and silver articles, etc. | 5896 | 69,9 | 73,7 | 80,1 |

Quantity index for manufacturer' sales of goods and services, excluding goods resold without further processing

|  |  | 1999 | 2000 |
| :---: | :---: | :---: | :---: |
|  |  | 1995 |  |
| 1009+2 | Mining, quarrying, and manufacturing, total | 111 | 118 |
| 1009 | Mining and quarrying, total | 94 | 95 |
| 2 | Manufacturing, total | 112 | 119 |
| 15009 | Mfr. of food, beverages and tobacco | 102 | 105 |
| 151000 | Production, etc. of meat and meat products | 102 | 110 |
| 155200 | Mfr. of dairy products | 126 | 120 |
| 158909 | Mfr. of other food products | 101 | 104 |
| 159000 | Mfr. of beverages | 82 | 82 |
| 160000 | Mfr. of tobacco products | 92 | 91 |
| 17009 | Mfr. of textiles, clothing and leather | 101 | 105 |
| 170000 | Mfr. of textile | 106 | 116 |
| 180000 | Mfr. of clothing | 93 | 88 |
| 190000 | Mfr. of leather, footwear and leather products | 101 | 108 |
| 20000 | Mfr. of wood and wood products | 114 | 122 |
| 21009 | Mfr. of paper products; printing and publishing | 112 | 116 |
| 210000 | Mfr. of pulp, paper and paper products | 95 | 96 |
| 221200 | Publishing of newspapers | 102 | 98 |
| 221309 | Publishing activities, excl. newspapers | 141 | 149 |
| 222009 | Printing activities, etc. | 109 | 117 |
| 23000 | Mfr. of refined petroleum products, etc. | 85 | 95 |
| 24000 | Mfr. of chemicals, man-made fibres, etc. | 142 | 162 |
| 241009 | Mfr. of chemical raw materials | 98 | 104 |
| 243009 | Mfr. of paints, soap, cosmetics, etc. | 115 | 122 |
| 244000 | Mfr. of pharmaceuticals, etc. | 179 | 216 |
| 25000 | Mfr. of rubber and plastic products | 115 | 117 |
| 26000 | Mfr. of other non-metallic mineral, etc. | 116 | 115 |
| 261009 | Mfr. of glass and ceramic goods, etc. | 120 | 119 |
| 263009 | Mfr. of bricks, cement and concrete | 115 | 113 |
| 27009 | Mfr. and processing of basic metals | 105 | 119 |
| 29000 | Mfr. of machines and equipment, n.e.s. | 100 | 105 |
| 30009 | Mfr. of electrical and optical equipment | 143 | 160 |
| 35009 | Mfr. of transport equipment | 87 | 85 |
| 351000 | Building and repairing of ships and boats | 64 | 55 |
| 352009 | Mfr. of transport equipment, excl. ships | 115 | 123 |
| 36000 | Mfr. of furniture; manufacturing n.e.s. | 110 | 111 |
| 361000 | Mfr. of furniture | 118 | 122 |
| 365009 | Mfr. of toys, gold and silver articles, etc. | 89 | 83 |


[^0]:    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.

