

Chapter 2: Long term trends

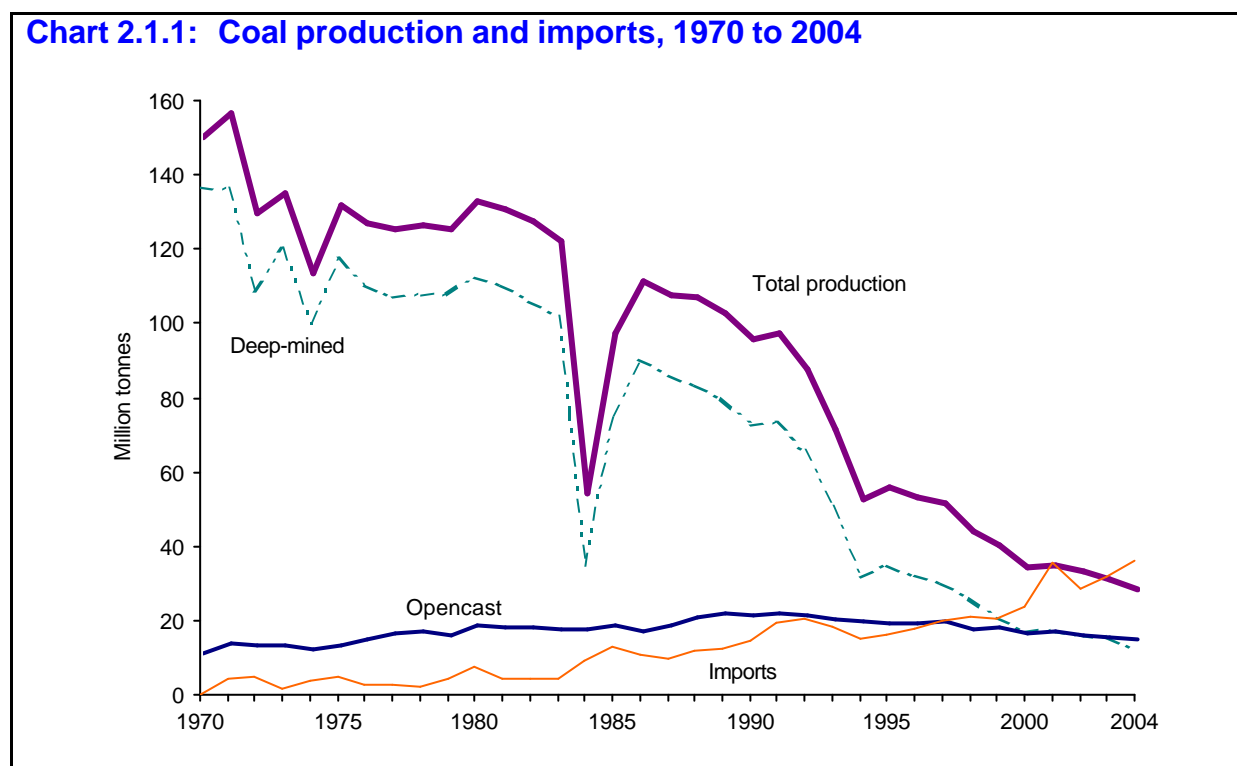
Solid fuels and derived gases

Coal production and stocks ([Table 2.1.1](#))

2.1.1 Figures for coal production, imports, overseas shipments and stocks are given in Table 2.1.1, which is based on Table 2.7 in [Chapter 2](#) of the main Digest. The table series extends back to 1970.

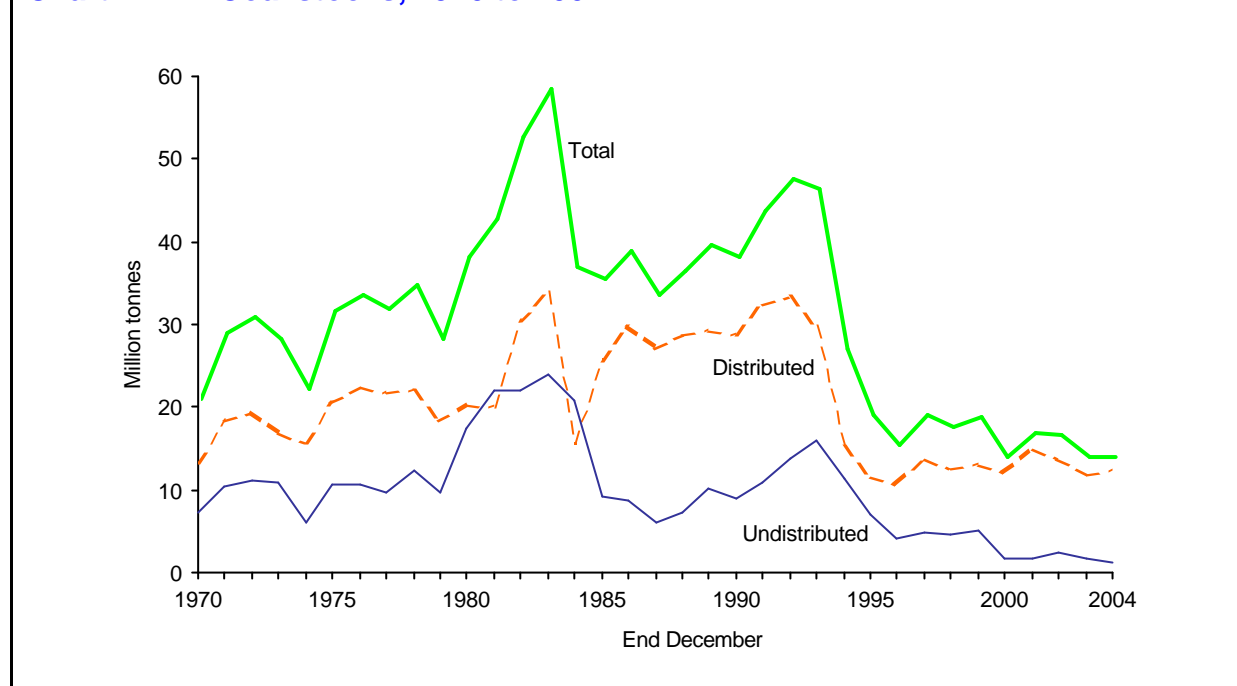
2.1.2 Table 2.1.1 shows a decline in deep-mined production of 91 per cent since the highest level shown in this table in 1970. Opencast production in 2004 was at its lowest since 1976. Table 2.1.1 also shows that imports, initially of coal types in short supply in this country, started in 1970. Imports grew steadily to reach the 20 million tonnes a year mark by the late 1990s. The very rapid expansion of imports in 2001 meant that imports exceeded the level of UK production for the first time. In 2002 imports fell sharply and were slightly lower than UK production but picked up in 2003 and exceeded production again. In 2004 imports were at a new record and accounted for nearly 60 per cent of coal supplied. These trends are illustrated in Chart 2.1.1.

Chart 2.1.1: Coal production and imports, 1970 to 2004



2.1.3 Stock levels in the early 1990s were relatively high, reaching a peak of 53 per cent of annual inland coal consumption in 1993. After this, electricity generators began to run down their stocks sharply, so that at the end of 1996 stocks were only 21 per cent of annual consumption. But between 1997 and 1999 they rose again, in proportionate terms, to 33 per cent of annual consumption. In 2000 stocks fell to 23 per cent of annual consumption, but rose to 26 per cent in 2001 and to 28 per cent in 2002 before falling back to 1996 levels in 2003. In 2004 stocks as a proportion of annual consumption were marginally higher at 22 per cent. Trends in coal stocks are shown in Chart 2.1.2, below.

Chart 2.1.2: Coal stocks, 1970 to 2004



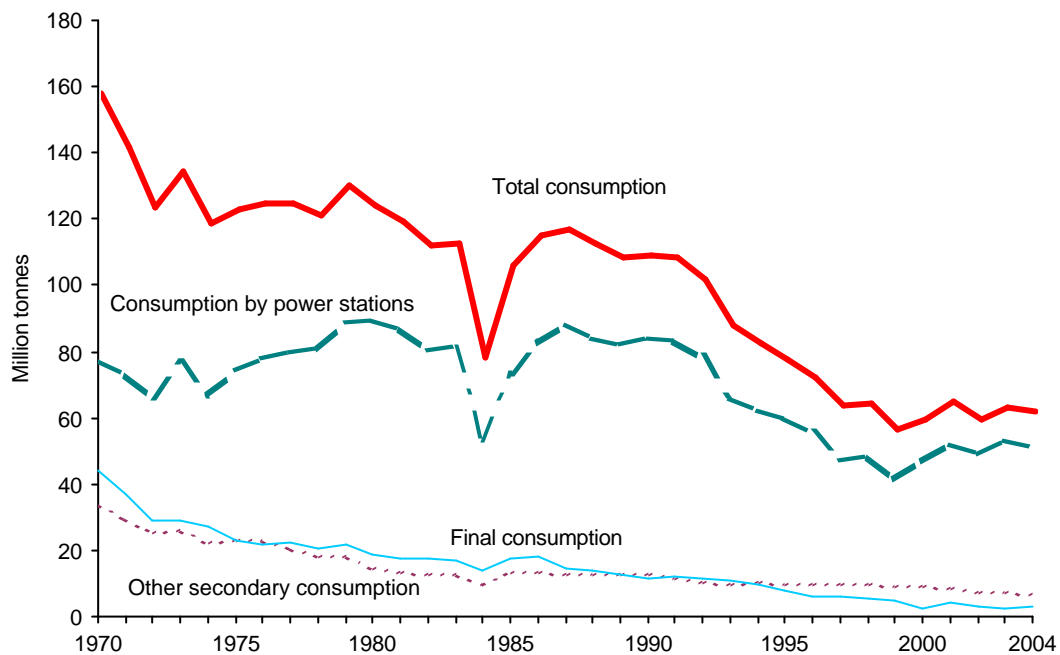
Inland consumption of solid fuels (Table 2.1.2)

2.1.4 Figures for inland consumption of coal by fuel producers and final users are given in Table 2.1.2, which based on Table 2.7 of [Chapter 2](#) of the main Digest. The table also shows final consumption figures for coke and breeze and other solid fuels based on Table 2.8 of Chapter 2. These products are mainly supplied from the conversion of coal, supplemented by a small amount of foreign trade. Where possible the series have been extended back to 1970.

2.1.5 Trends in inland consumption of coal, in total and by power stations, coke ovens and final consumers, are illustrated in Chart 2.1.3 below.

2.1.6 Total inland consumption of coal fell by 61 per cent from 157 million tonnes in 1970 to 61 million tonnes in 2004. Consumption by the electricity generators increased from 77 million tonnes in 1970 to a peak of 90 million tonnes in 1980 and continued in the 80-90 million tonnes range until 1991 with the exception of the miners' strike years. With the increased use of nuclear power and natural gas, the consumption of coal by the generators fell steadily after 1991 until 1999, with the exception of 1998, when coal fired generation was called upon to make up for the temporary reduction in imported electricity from France. After 1999 coal fired generation increased. In 2000 this was because nuclear generation suffered a large number of outages for repair and maintenance, but from the end of 2000 and into 2003 the fluctuations in gas prices has enabled coal fired stations to supply electricity at a lower cost than some gas fired stations. In 2004, coal prices rose relative to gas prices and made gas cheaper to burn, this led to a reduction in the amount of coal consumed. The proportion of electricity supplied from coal in the early 1990s was around 70 per cent, falling to 28 per cent in 1999, but increasing to 33 per cent in 2004 (see [Chapter 5](#) of the main Digest). At 51 million tonnes in 2004, use of coal at power stations represents 84 per cent of total coal consumption, compared with only 49 per cent in 1970.

Chart 2.1.3: Inland consumption of coal, 1970 to 2004



(1) Includes all generators from 1987 only (see footnote (1) to Table 2.1.2).

2.1.7 A more detailed examination of historical coal statistics was published in the September 2001 issue of Energy Trends. This looked at trends in coal production, consumption and employment in the coal mining industry over the last 150 years. The updated data set on which the article is based includes data for 2004 and is available on the DTI website at:

www.dti.gov.uk/energy/inform/energy_trends/coalsince1853.xls

The original article is to be found at:

www.dti.gov.uk/energy/inform/energy_trends/2001/sep_01.pdf (page 16).

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