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REPORT FROM THE COMMISSION

**THE MARKET FOR SOLID FUELS**

**IN THE COMMUNITY**

**IN 1996 AND THE OUTLOOK FOR 1997**



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## **I. INTRODUCTION**

1. Article 46 of the ECSC Treaty states that, to provide guidance on the course of action to be followed by all concerned, and to determine its own course of action, the Commission must conduct a study of market and price trends.

Amongst other things, this includes periodic reports on the solid fuel market and short-term forecasts. Each December the Consultative Committee of the ECSC receives a summary report covering the current year and giving the initial forecasts for the next. The main market report is normally written early in the new year, presented to the Consultative Committee at its March/April meeting, and published in May or June. Later, in September, the Consultative Committee is presented with a revised version of the report, which is then published in the last quarter of the year.

2. This report, delayed due to various problems, analyses the situation of the Community solid fuel market in 1996, makes forecasts for 1997 and gives corrected and updated data for 1995. The figures used for Austria are those initially forecast by the Austrian authorities in 1995.

The data for 1995 and 1996 are those available in January 1997. The forecasts for 1997 were made by the Member States at the end of 1996 and updated as far as possible at the time of writing.

3. Three new Member States - Austria, Finland and Sweden - joined the European Union on the 1st January 1995. This report is the second full report to consider the Community of 15 Member States. Where comparative data only exists for the 12 Member States as of the end of 1994, a special indication is explicitly made.

## II. SUMMARY AND CONCLUSIONS

4. 1996 has seen a recovery of economic activity after the slowdown seen in the second half of 1995 and early 1996. Estimates for real GDP growth have been given as only 1.6% for the year as a whole. For 1997, GDP growth should reach 2.3% on average.
5. As a result of the economic growth, energy demand has also grown. Gross inland consumption may have risen by some 3.0% in 1996 compared to the previous year. For 1997, the growth in primary energy demand could be negligible, according to forecasts.
6. Energy demand increased by 3% in 1996. Solid fuels again lost market share to the benefit of other primary energy sources, primarily gas and nuclear power. 1997 is expected to see substantial further gains for natural gas (over 12%) in the Community energy market.
7. Solids fuels are increasingly dependent upon the electricity generating sector as demand from the remaining sectors continues to decline. However it is expected that thermal coal deliveries to the iron and steel industry for PCI purposes will increase in 1997.

Demand for solid fuels may have declined by some 5.3% during 1996. However, whilst the demand for hard coal, in terms of consumption, may have dropped by 6.5%, the demand for lignite may have dropped by only 1.9% compared to 1995.

For 1997, current forecasts point to a reduction in demand for hard coal and lignite, of 6% and 5% respectively.

8. Total inland deliveries of hard coal are estimated to have fallen in 1996, reverting to trend after the increase in 1995; the reduction of 16 Mt. left deliveries at 272.4 Mt. Reductions were seen in all consumer sectors. By Member State, the biggest falls were in the United Kingdom, Germany, Belgium and Spain.

1996 saw destocking by producers and at power stations. Producer stocks are estimated to have fallen by 2.2 Mt., while at power stations destocking was more significant, at 4.8 Mt., much of it in Germany. This would imply that real consumption of hard coal during 1996 was higher than indicated by the figures for deliveries.

9. For 1997, the volume of internal hard coal deliveries is expected to decrease by 13.3 Mt. to a new low of 259.1 Mt. Whilst the forecasts are for a decrease across all the sectors, with the exception of deliveries to the iron and steel industry, the biggest tonnage change is forecast in deliveries to the public power stations, where a fall of over 12 Mt. is anticipated. By Member State, the major decreases in tonnage are expected in the United Kingdom, France, Denmark and Belgium, while Spain and Netherlands expect increased deliveries.
10. Hard coal production continues to be affected, to varying degrees, by the restructuring programs carried out by the Member States. Community production may have decreased by 6.7 Mt. during the year to 128.4 Mt. 1997 could see a drop of some 5.9 Mt. to 122.4 Mt.
11. Lignite and peat production and deliveries continue to decline as a result of the falling demand for lignite in Germany, largely due to changes in electricity generation. However Greece is increasing its output, for power generation use. Total lignite and peat production is estimated to be 270.8 Mt. in 1996 and 266.1 Mt. in 1997, compared to 281.5 Mt. in 1995.
12. Production of coke decreased in 1996 by some 1.1 Mt. to 39.9 Mt., whilst current expectations for 1997 indicate a small reduction of 0.6 Mt. Imports are estimated to have decreased during 1996 by 1.1 Mt., and 1997 is expected to see a slight decrease of 0.1 Mt.
13. During 1996, imports of hard coal from third countries may have fallen by 3.3 Mt. to 137.8 Mt., whilst current forecasts point to a decrease of 3.4 Mt. for 1997. The principal reductions in 1996 were to be seen in Belgium, Spain and Portugal, offset by gains in France, Denmark and Finland; the principal losers were South Africa, Poland and Australia, although Columbia, USA and Canada increased their hard coal exports to Europe.
14. In the international context, 1996 saw the international market grow by some 15 Mt. Most of the major supplier countries increased their exports, but some smaller exporters also increased their shipments. Colombia and Indonesia in particular exceeded expectations, while Australia and South Africa did not perform as well as had been expected early in the year.

1996 saw more tonnage moving through the spot market than in the previous year, and the spot price fell below the contract price for most of the year. However because of the higher than predicted demand in Europe, towards the year end a number of cargoes were being held over for delivery in 1997; the supply gap was filled partly by destocking at power stations.

Spot prices for 1997 are expected to soften due to easy supply from South Africa, Australia and Indonesia, and the expected flat demand in Europe; the weakness of the freight market is expected to continue, despite a late surge in 1996, and will help to keep prices low.

15. Average CIF prices during 1996 for imported coal into the Community from third countries were some 6.3 % lower than in the previous year, when expressed in US dollars.

16. The solid fuels market is affected by the changes occurring in the energy market. Low prices for alternative fuels (particularly gas), together with the increasing environmental pressures, have paralysed, to a large extent, any further penetration of solid fuels in the energy balances of most Member States in the short to medium term. Natural gas now remains the main competitor.

<b>COMPARISON OF THE MAIN FEATURES OF THE SOLID FUEL MARKET - EUR 15</b>					
<b>(million tonnes)</b>					
	<b>1995 actual</b>	<b>1996 estimates</b>	<b>1997 forecast</b>	<b>1996/95 (%) **</b>	<b>1997/96 (%)**</b>
<b>HARD COAL</b>					
<b>Resources</b>					
- Production	135.1	128.4	122.4	-4.9	-4.6
- Recoveries	3.4	3.9	3.4	+13.4	-12.7
- Imports from third countries	141.1	137.8	134.4	-2.3	-2.4
<b>Total</b>	<b>279.6</b>	<b>270.1</b>	<b>260.3</b>	<b>-3.4</b>	<b>-3.6</b>
<b>Deliveries</b>					
- To coking plants	52.4	50.2	49.9	-4.2	-0.6
- To power stations*	200.4	189.5	177.2	-5.4	-6.5
- To others	35.7	32.7	32.0	-8.3	-2.2
- Exports to third countries	0.3	0.2	0.1	-43.9	-16.0
<b>Total</b>	<b>288.7</b>	<b>272.5</b>	<b>259.2</b>	<b>-5.6</b>	<b>-4.9</b>
<b>COKE</b>					
<b>Resources</b>					
- Production	40.9	39.9	39.3	-2.5	-1.5
- Imports from third countries	7.5	6.4	6.3	-14.3	-1.5
<b>Total</b>	<b>48.4</b>	<b>46.3</b>	<b>45.6</b>	<b>-4.4</b>	<b>-1.5</b>
<b>Deliveries</b>					
- To steel industry	43.9	40.7	39.7	-7.3	-2.5
- Other deliveries within the Community	5.2	4.8	4.6	-7.9	-4.9
- Exports to third countries	0.5	0.4	0.4	-25.6	+12.3
<b>Total</b>	<b>49.6</b>	<b>45.9</b>	<b>44.7</b>	<b>-7.5</b>	<b>-2.6</b>
<b>LIGNITE</b>					
<b>Resources</b>					
- Production and imports	266.5	258.8	254.3	-2.8	-1.7
<b>Deliveries</b>					
- To briquetting plants	30.9	26.5	25.4	-14.2	-4.2
- To power stations	227.6	226.0	223.1	-0.7	-1.3
- Others (incl. exports to third countries)	7.1	6.3	5.8	-10.1	-7.8
<b>Total</b>	<b>265.6</b>	<b>258.9</b>	<b>254.4</b>	<b>-2.6</b>	<b>-1.7</b>
<b>PEAT</b>					
<b>Resources</b>					
- Production and imports	17.3	14.4	14.2	-16.4	-1.4
<b>Deliveries</b>					
- To briquetting plants	2.6	0.4	0.4	-84.5	0.0
- To power stations	7.3	11.1	10.7	+51.2	-3.2
- Others (incl. exports to third countries)	2.4	2.3	2.1	-8.2	-6.3
<b>Total</b>	<b>12.4</b>	<b>13.7</b>	<b>13.2</b>	<b>+11.8</b>	<b>-3.7</b>

(!) The sums may not add up due to rounding.

\* Including industrial and pithead power stations

\*\* The variations are calculated in kt.

### III. ECONOMIC SITUATION IN THE COMMUNITY IN 1996 AND THE OUTLOOK FOR 1997

17. The EU economy suffered a growth slowdown in the second half of 1995 and early 1996 but now appears to be back on a more favourable track. A rebound in economic activity is already underway on the basis of preliminary quarterly GDP data and on the basis of surveys among both consumers and businessmen. According to the latest Commission forecasts of November 1996, real GDP is estimated to have grown on average by 1.6% in 1996 as a whole.

Instrumental in the strengthening of economic activity was the sound rebalancing of the economic policy-mix and an EMU-related gain in the credibility of the economic policy framework in the European Union. Favourable supply side fundamentals, such as adequate wage increases and sound investment profitability, coupled with still strong external demand for European products from third countries have also contributed to the upswing during the course of 1996.

18. Given the relative weakness in economic activity in 1996, employment is estimated to have remained roughly flat in 1996, after an increase of 0.5% in 1995. The rate of unemployment in the Community which peaked in the spring of 1994 at 11.3% of the civilian labour may move only slowly downwards. On average it will remain unchanged at 10.9% in 1996 compared to a year earlier. In both Germany and France a sharp rise in unemployment has taken place between 1995 and 1996 (+0.8 of a percentage point).

Inflation, measured by the private consumption deflator, is estimated to have edged further down to 2.6 per cent for the Union as a whole in 1996 from 3% in 1995.

The budget deficit in the European Union continued declining in 1996 to reach 4.4% of GDP compared to 5% of GDP in 1995. The improvement has been the result of considerable consolidation efforts aimed at cutting deficits and, in addition, improved cyclical conditions and lower interest rates. Furthermore, the ratio of government debt to GDP is estimated to have increased in 1996, to reach 73.5% of Community GDP.

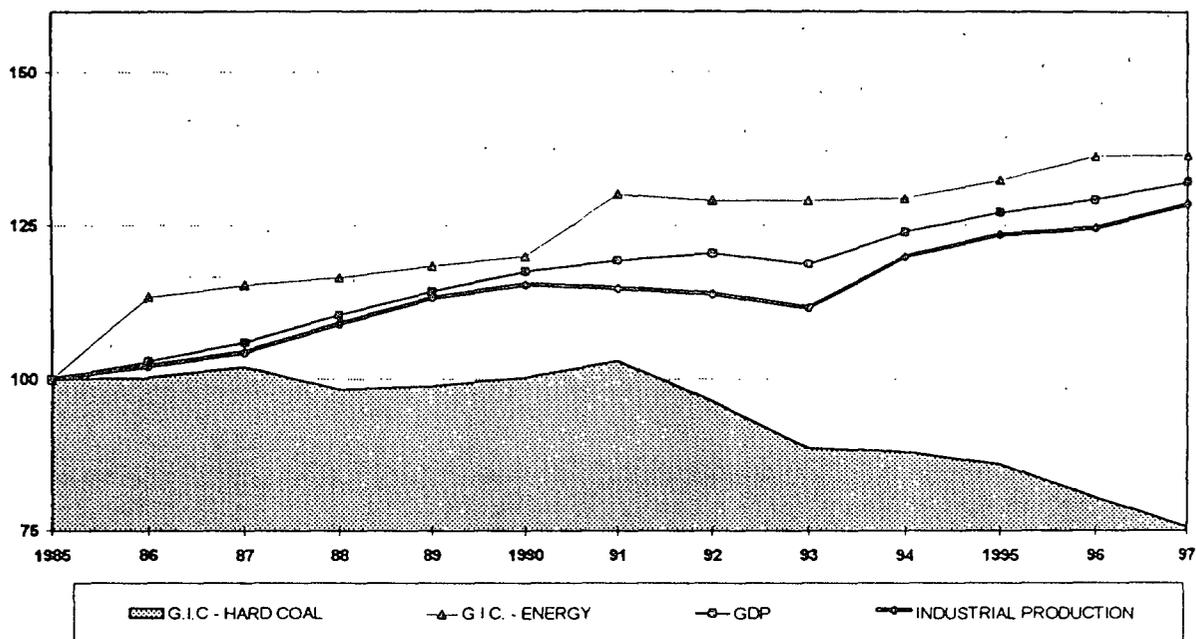
19. The favourable macro-economic environment with respect to growth is expected to continue in 1997, with real GDP accelerating through the year to reach 2.3% on average. Convergence is also expected to improve with most Member States experiencing growth rates between 2 and 3%. Only Austria and Italy should perform at lower growth rates, while Ireland and Finland are expected to record growth rates above this range.

20. The outlook for a gradual firming of economic activity in 1997 engenders the prospect of a continued, although moderate, improvement in the labour market situation. Employment may rise by 0.6 per cent in 1997, while the rate of unemployment could fall only marginally to 10.8 per cent of the civilian labour force on average in 1997. Inflation is expected to decline further to 2.2 per cent in 1997. Finally, the budget deficit for the Union as a whole should continue to fall to 3% of GDP in 1997, mainly as a result of widespread fiscal consolidation efforts. However, the expected budget deficit reduction will not be sufficient to prevent a further slight increase in the debt to GDP ratio, which could reach 73.7 percent of GDP in 1997.

#### IV. DEVELOPMENT OF THE COMMUNITY ENERGY MARKETS.<sup>1</sup>

21. According to the data available at the time of writing (covering the first 10 months of 1996), total primary energy demand in terms of gross inland consumption in the Community during 1996 is likely to have increased by some 3.0% compared to 1995. Economic growth is expected to be around 2.3 percent in 1997, but energy demand is forecast to increase by only 0.2%, assuming normal weather conditions.

TRENDS OF VARIOUS PARAMETERS (EUR-15)  
ENERGY - ECONOMY (1985 = 100)



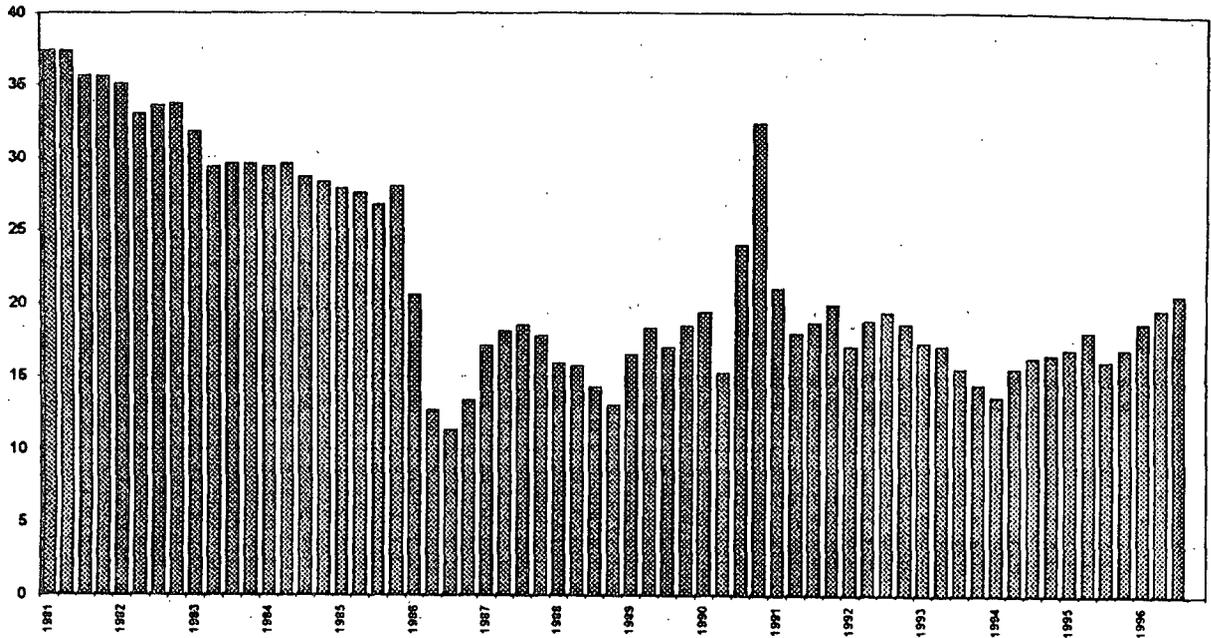
22. Crude oil CIF prices for imports into the Community increased by some 22% during 1996 compared to 1995. The average imported crude oil price for 1996 was 20.82 US dollars/barrel, as against 17.06 US dollars/barrel during 1995.

23. The main factors explaining the growth in energy demand between 1995 and 1996 are the growth in economic activity, although this has differed widely between Member States, and the more severe cold weather seen in 1996.

24. The demand for oil products, in terms of gross inland consumption, may have increased by 1.0% in 1996 compared to 1995. The oil price has been relatively high during 1996, so within competitive markets oil has been at a disadvantage, and has not kept its competitive position. Average oil price predictions for 1997 lie in a broad range of \$18 - \$21 per barrel (for Brent Blend), although this wide range indicates the diversity of opinions amongst oil analysts.

<sup>1</sup> Anticipated results in this chapter are based on consolidated data for 1996

**IMPORTED CRUDE OIL**  
US \$/barrel



25. Demand for natural gas is expected to have increased by some 12.5% during 1996, due to a large extent to the higher demand from power stations but also from industry and other consumer sectors. Demand for natural gas has risen in most of the Community countries. In Spain the Maghreb pipeline from Algeria was opened at the beginning of November, supplementing their supplies of LNG. A strategic pipeline network will connect Southern Spain to Portugal. This will provide access to natural gas for a large part of the country, and boost gas use, possibly to the detriment of coal and other fossil fuels.

Demand from power stations for gas has increased by 16.3%. Much of this increase is accounted for by the increasing number of CCGT plants in the UK, which has an estimated 35% increase because of the new capacity available. Germany and the Netherlands have also increased their gas use in power generation and on a smaller scale, Austria and Ireland have substantially increased their gas use, by 33% and nearly 40% respectively.

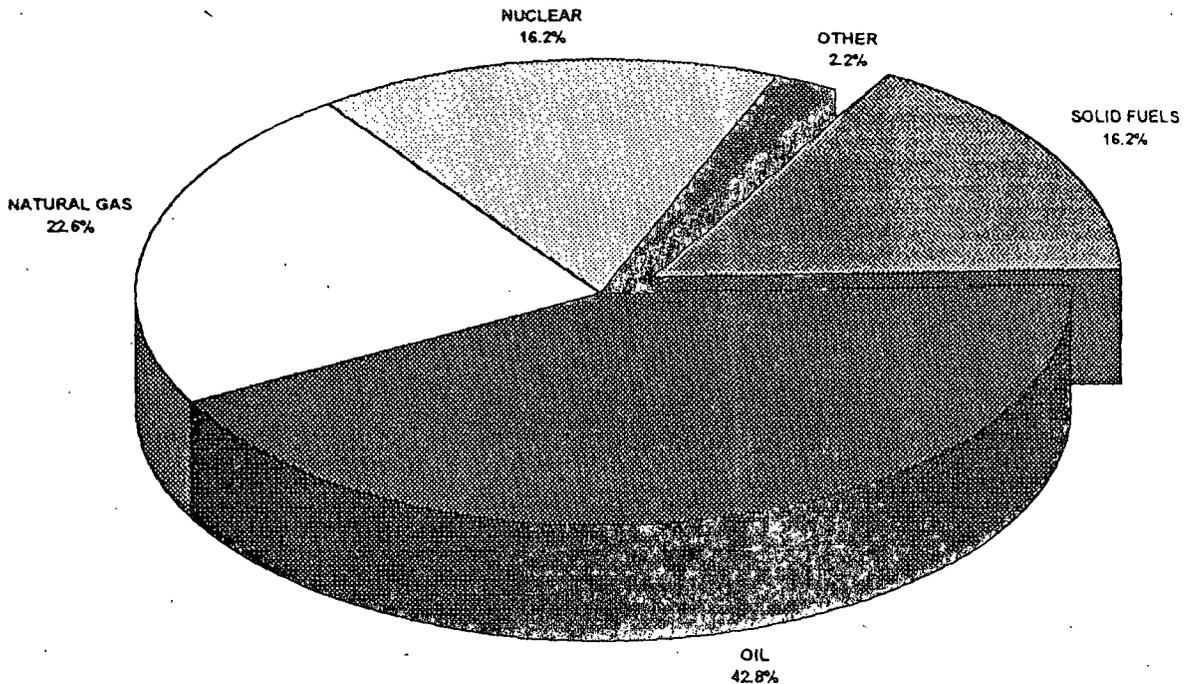
26. Despite the increase in economic activity and therefore in energy demand during 1996 compared to 1995, the total demand for solid fuels, in terms of gross inland consumption, may have declined by about 5.3%, compared to the previous year, as a result of a drop of some 1.9% for lignite and a decrease of 6.5% for hard coal

This decrease for solid fuels is mainly the result of a lower demand from power stations but also, to a lesser extent, from iron and steel and other consuming sectors.

With respect to lignite, the overall figures continue to be dominated by the lignite industry in Germany (72% of total lignite use in EUR-15). Demand in Germany has declined during 1996 compared to the previous year. However lignite use in Greece has been increasing (2.8 Mt. or +6.2%), and is forecast to increase again (+4.1%) in 1997.

Peat utilisation increased by 11% in 1996. Power station burn increased by over 80% in Finland, although half of that increase was at the expense of supply to the briquetting industry. However the utilisation of briquettes appears little changed despite this.

**SHARE OF THE VARIOUS FORMS OF ENERGY IN THE E.U. - 1996 (EUR-15)  
GROSS INLAND CONSUMPTION (Mtoe)**



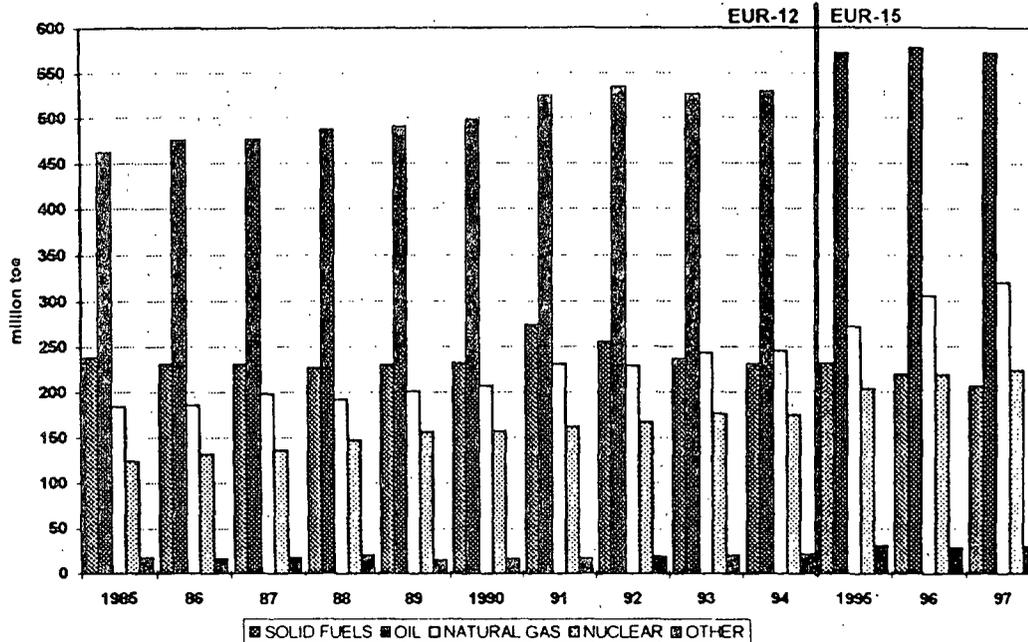
27. Electricity demand, measured by gross inland consumption, probably increased by about 2.4% in 1996. This trend could continue during 1997 as a result of the expected economic growth.

The production of nuclear electricity may have increased by 7.2% in 1996. This is largely the result of the higher production in Germany, and France, but higher levels of output seem to be occurring in all the nuclear generators.

Hydro-electric production, on a Community level, may have continued the fall seen in 1995, decreasing by a further 7% during 1996. Whilst Portugal and Spain were able to produce hydro-electric power well above normal levels, and considerably above 1995 levels, the Scandinavian countries suffered a reduction in availability because of drought. As a result electricity trading in the Scandinavian countries was considerably higher than in 1995.

Production of electricity by conventional thermal power stations may have grown in 1996 by some 2.7%, slightly more than the expected growth in electricity consumption of 2.4%. The increase results from the failure of hydro power in Scandinavia and the Alps, partially offset by increased nuclear performance. The beneficiary has been gas generation (16%). The contribution from coal, lignite and oil has dropped by around 1%.

## E.U. PRIMARY ENERGY BALANCE GROSS INLAND CONSUMPTION



\* Including new German Länder from 1991

28. With respect to energy supply, total Community primary energy production for EUR-15 in 1996 has probably increased by about 38 Mtoe (+6%) to 728 Mtoe, mainly as a result of the increases in the production of natural gas (+15%), nuclear (+7.2%), oil (+1%) and other sources (+1%), offset by the decline in the production of coal (-2%), lignite (-1%) and hydro and other sources (-7%). Nuclear power accounted for 30% of EUR-15 primary energy production, and gas for 26%. Crude oil and condensates provided 22%, while the contribution from coal and lignite was 19%.

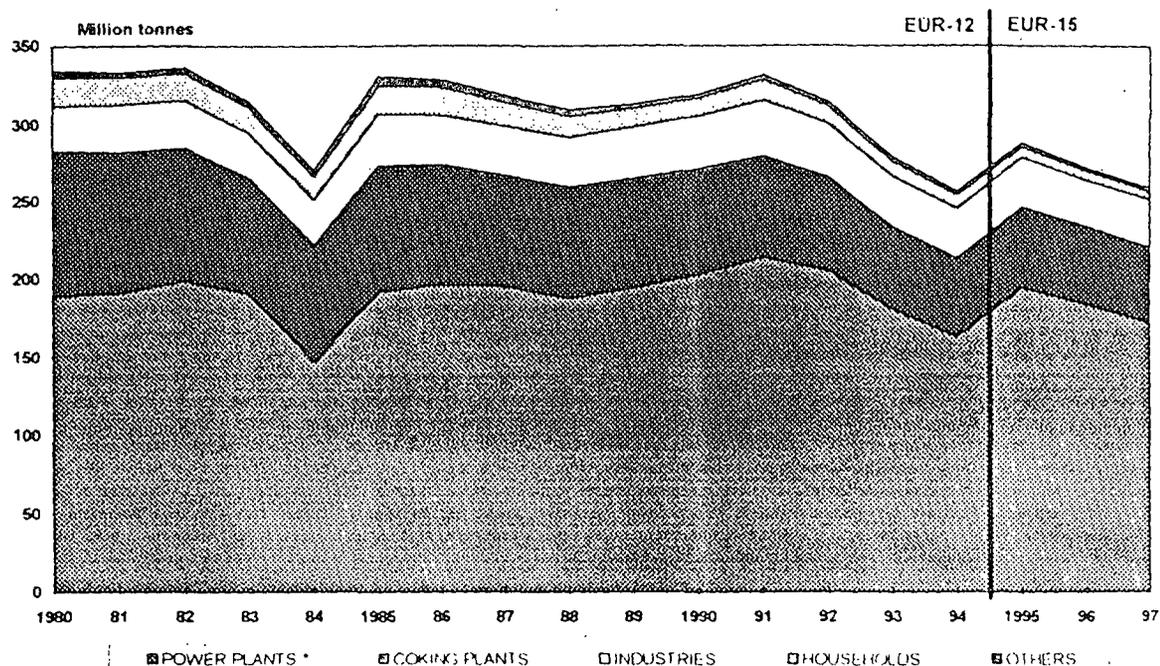
### V. DEMAND FOR SOLID FUELS

#### Deliveries of hard coal (Table 3)

29. Deliveries of hard coal in the Community fell in 1996, showing that the increase in 1995 was due to exceptional factors. Internal deliveries were 272.4 Mt., which is 16 Mt. (-5.6%) lower than that for the previous year, according to the latest estimates. Forecasts for 1997 indicate a further reduction in total inland deliveries to the Community.

Deliveries to all sectors have been declining; deliveries to public power stations have fallen by 10.5 Mt. (5.4%) to reach 179.8 Mt. In absolute terms, the main decreases were in the deliveries to cokeworks (down 2.2 Mt. or -4.2%), deliveries to the "other industries" (down 2.1 Mt. or -6.7%; including own power-generating requirements and the iron and steel industry), and deliveries to the domestic heating sector, down by some 0.2 Mt. (or -3.1%).

## INLAND DELIVERIES OF HARD COAL



\* Public and pithead power stations

\*\* Including new German Länder from 1991

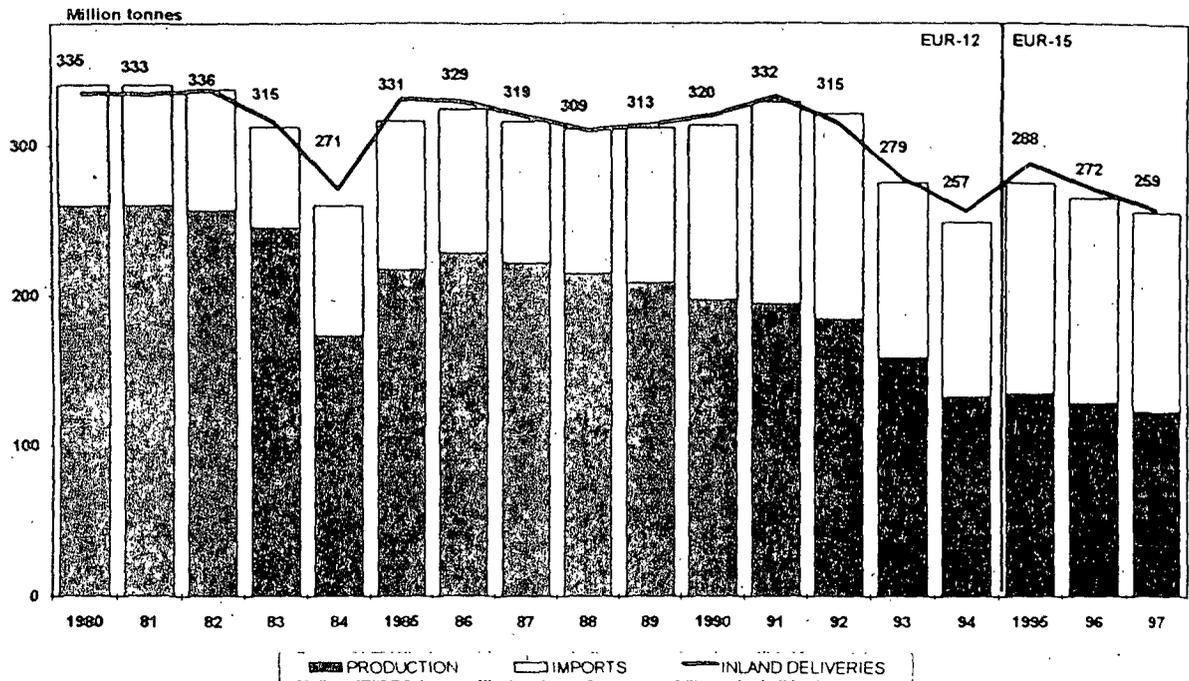
The share of hard coal deliveries for electricity generation, including autoproducers, has consequently moved up from 68% of total internal deliveries during 1995 to more than 70% in 1996. Deliveries to the two main consumer sectors, electricity generation (including colliery and industrial power stations) and coke works, still account for nearly 90% of the total.

By country, only five Member States have seen the volume of their internal deliveries decrease in 1996 compared to 1995, UK by 8 Mt., Germany by 4.3 Mt., Belgium by 2.9 Mt., Spain by 2.7 Mt. and Portugal by 0.6 Mt. Finland, the Netherlands, Italy and France each increased inland deliveries by amounts around half a million tonnes.

The recovery in the coal market witnessed in the United Kingdom in 1995 was reversed, and the figure for 1996 was 3 Mt. below that for the prior year 1994. This accounted for just under half of the decline in Community internal deliveries during 1996; the reductions in Germany and Belgium, account for the rest, while losses in Spain were offset by small gains elsewhere.

Tonnages in stock at power stations reduced by some 4.8 Mt., while some 2.2 Mt. coal were lifted at collieries.

## TREND IN PRODUCTION AND IMPORTS OF HARD COAL



\* Including German Länder from 1991

30. For 1997 the picture for internal hard coal deliveries in the Community shows further decline on the levels of 1996. Forecasts for internal deliveries point to a fall of 13.3 Mt. (-4.9%) to a new low of 259.1 Mt. The forecasts are for a decrease across many sectors, with the exception of deliveries to the steel industry where a rise of more than 0.7 Mt. (+7.7%) is expected. The decrease in deliveries to the public power stations of 11.7 Mt. would account for around 88% of the anticipated total fall in deliveries.

A comparison with 1996, by Member State, reveals that major decreases are anticipated in the United Kingdom (-8.1 Mt. or -11.8%), in France (-3.7 Mt. or -16%) and in Denmark (-2.6 Mt. or -19.1%). Spain expects an increase of coal deliveries of 1.6 Mt. or +5.3%. Other variations are less than 1 Mt.

The electricity generation sector, as the main coal consumer, to a large extent explains trend in hard coal deliveries as a whole. However, it is important to note that the quantitative projections in coal use shown need to be treated with considerable caution, since most national analysis tends to treat coal as the "residual fuel" required to supply projected total energy demand after determined amounts available from other fuels or energy sources have been supplied. So, variations on hydro-electricity or in the performance of nuclear plants can introduce large changes in the projections of coal demand. Having said that, there is no doubt that the penetration of natural gas is progressively removing some of the demand for solid fuels.

## Coke-making (tables 4 and 5)

31. Monthly figures for crude steel production in the Community in 1996 were consistently below those for 1995. The overall reduction was expected to be 7%. Production was lower than market requirement, and there was a substantial stock lift to absorb last year's surplus stocks; this applied to both producers and dealers.

Crude steel production during 1996 may have totalled 148 Mt., which would be 8 Mt. less (-5%) than the output for 1995. There were falls in the larger countries, with the exception of UK, where a slight rise was noted.

Production fell in the Community's major steel producing countries by around 5%, with a better performance in the second half of 1996 than was seen in the first half. The biggest falls in production were seen in the larger countries, except the UK which saw a slight increase. The slow economic growth in most of these countries was compounded by overstocking, which led to low prices and a decline in profits.

32. Activity should improve in 1997 in most steel consuming sectors, with the exception of the building and civil engineering sector, which is thought likely to suffer from member country actions to work towards convergence for the single currency; in that sector a growth of only 1.7% is forecast. The largest growth is expected in the motor industry, followed by mechanical and electrical engineering. In this context, total Community crude steel production could slightly increase to some 156 Mt., so long as imports do not increase substantially, and exports continue close to their recent levels; in the case of the UK this may be a challenge, because of the high value of sterling in the international markets.

33. In recent years, about 90% of the coke consumed in the Community has gone to the steel industry, mainly for use in the blast-furnaces. However, the running of these furnaces has undergone a number of technical modifications and improvements which have tended to reduce the amount of coke required for the production of pig-iron. In addition, there has been an increase in the production from electric arc furnaces.

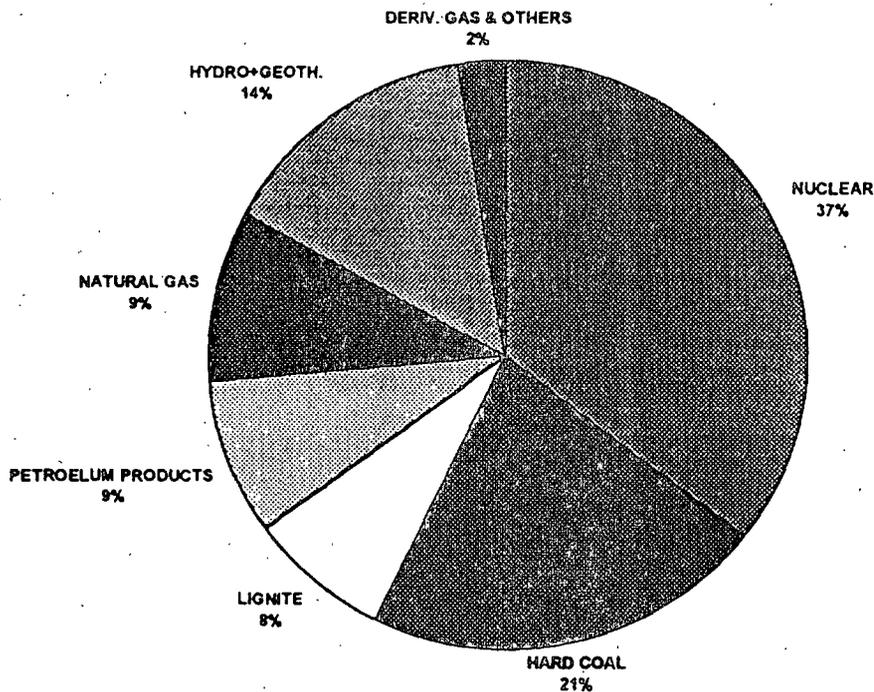
Cheaper and lower quality steam coal is now increasingly being injected into the blast furnaces. This has the advantage of not being burdened with the relatively high costs involved in producing coke. This evolution, together with other techniques being used to increase the efficiency of the blast-furnaces, has already resulted in a substantial reduction of the specific consumption of coke per tonne of pig iron.

Thus the changes which are taking place in the steel-making processes are leading to a reduction in the requirement for coke and hence for coking coal, as well as to a lower input of coal per unit of steel output. Coal usage in this sector will therefore continue to be curtailed and only deliveries of steam coal for injection into blast furnaces, as a partial substitute for coke, is expected to increase in the coming years.

34. Deliveries of coke to the steel plants may have fallen by 3.2 Mt. (-7.3%) in 1996 compared to 1995, to a level of 40.7 Mt., as a result of the fall in crude steel production. For 1997, deliveries are forecast to be some 1.0 Mt. down at 39.7 Mt.
35. The remaining internal coke deliveries appear to have barely reached 4.8 Mt. in 1996, which represents a drop of 0.4 Mt. with respect to the previous year (-7.9%). For 1997, all the indicators point to a slight decrease to 4.6 Mt.

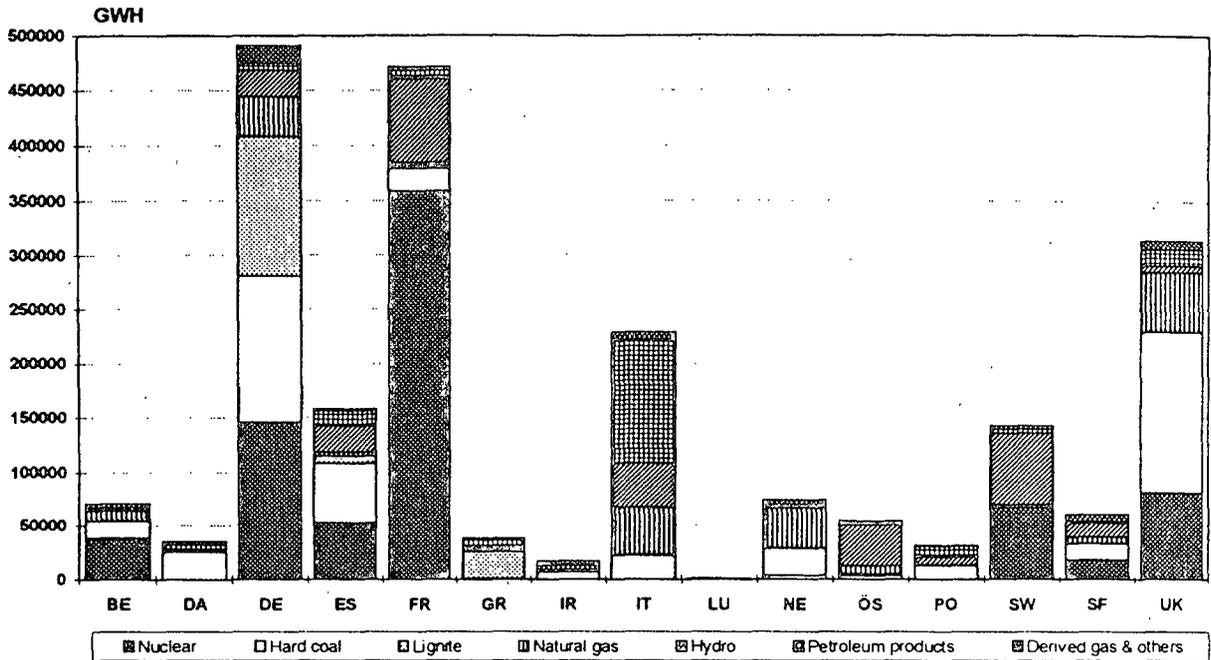
**Power stations** (Tables 6A and 6B)

36. The fuel mix for electricity generation in different Member States varies enormously within an overall picture in EUR-15 of:

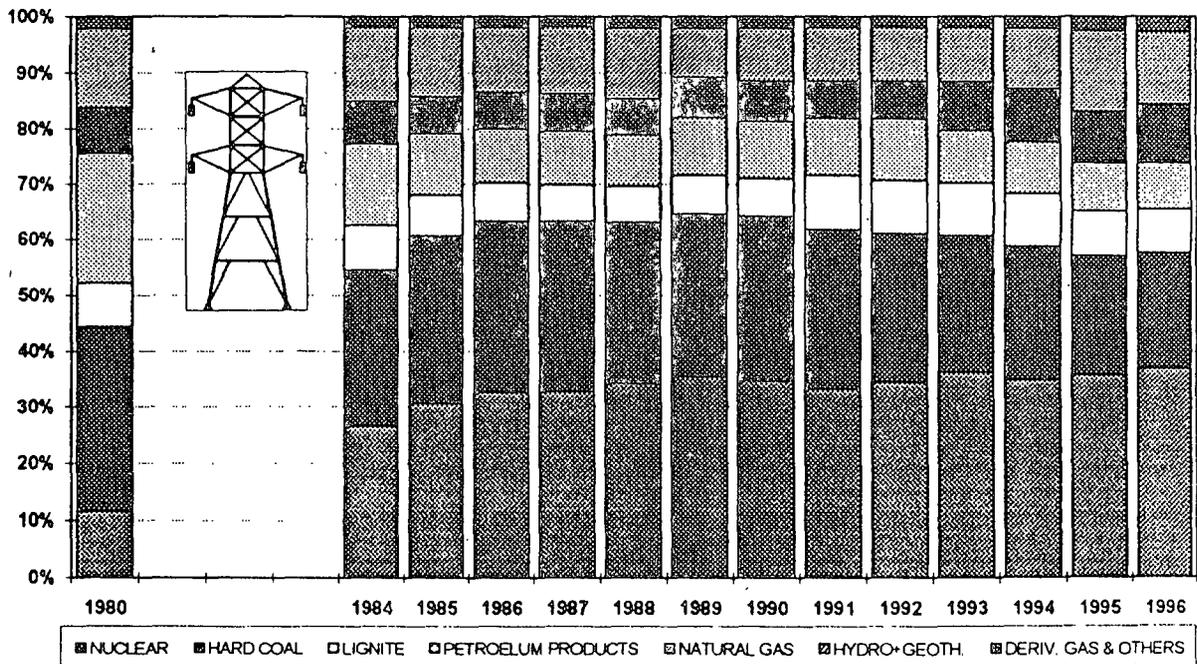


The degree of dependence of individual Member States on any fuels for power generation can differ widely from this average, and taking a snapshot in any one year will reflect the supply difficulties of that year. Most countries have a diversity of supply, and this has been increased in recent years with the help of the stance taken by the European Commission towards liberalisation of trade in the electricity market. Trading is an additional route to diversity of supply. Some countries are heavily dependent on one or two sources of supply. For example, in 1995 France generated some 76% of electricity from its nuclear industry, while Italy still relies heavily on petroleum products (50%). Netherlands has a high penetration of natural gas in power generation (51%), and Italy too has a substantial share of gas (18%), as does the United Kingdom (18% in 1995, but well over 20% by 1996). The countries where coal is a major feature are; Germany - hard coal and lignite have similar shares, and accounted for 53% of total electricity generation; the United Kingdom has a high tonnage of hard coal used in power generation (47% of generation), and Denmark is heavily hard coal oriented (72%), while Greece depends predominantly on lignite for its electricity (68%).

### Net electricity production by energy source and by Member State : 1995



### ELECTRICITY GENERATION



\*Includes new German Länder from 1991 and EUR-15 from 1995

Countries with a significant proportion of hydro-electric power are susceptible to fluctuations in rainfall, as was evident in 1995 with poor rainfall in the Mediterranean. They recovered their reservoir levels after a very wet winter, but the Scandinavian countries were then very short of water in 1996, and some reservoir levels were reported to be some 20% lower than the normal late summer levels. Coal is regarded as the 'swing' fuel in most European countries (unless imports can fill the gap), so that these fluctuations in general will have implications for coal burn. Countries susceptible to these changes are Austria (69% hydro power), Sweden (46%), Portugal (26%), Finland (21%), Italy (18%), France (16%) and Spain (15% in 1995, compared to 25% in 1996).

On the basis of the information available at the time of writing, demand in 1996 in the Community of EUR-15 for electricity, in terms of gross inland consumption, may have risen by 2.4%.

By sources, nuclear generation may have increased by almost 6% and that generated from conventional power stations by 2.7%. On the other hand, hydro-electric generation may have seen a fall of more than 7% with respect to the previous year, mainly due to the drought in Scandinavia and the Alps.

With respect to the conventional power stations, natural gas consumption has seen a further spectacular rise of over 16% compared to 1995. This has been the case particularly in the United Kingdom (+33%), the largest user of gas generation. Substantial increases in gas use among other large users were noticeable in the Netherlands (+12%) and Belgium (+9%), while amongst the smaller users, substantial increases were noted in Austria (+33%) and Ireland (+39%). In Spain, due to the opening of the natural gas pipeline from the Maghreb, gas use increased almost threefold. A substantial decrease, however, was seen in Sweden (-20%), continuing the decline of the previous year. At the same time, the consumption of solid fuels has decreased by a modest 0.3%, whilst the consumption of petroleum products may have risen by 11.8%.

Thus, natural-gas fired power stations have squeezed the use of solid fuels in power generation; this was combined with the good nuclear performance and offset by reduced hydro power. Petroleum products were also squeezed in the generation market, largely because of higher prices.

37. In 1996, hard coal deliveries to public power stations were down by 10.2 Mt. (5.3%) on the previous year's peak of 190.0 Mt. Significant reductions were in the UK (-5.2 Mt.), Spain (-2.7 Mt.), Germany (-2.3 Mt.) and Belgium (-1.1 Mt.), while deliveries to France increased by 1.2 Mt. Other changes were of less than 1 Mt.

With respect to the various Member States, there are a number of important developments to note:

- In the United Kingdom, a number of gas-fired power stations (CCGTs) were commissioned during 1996, some of them after unexpected delays because of turbine problems. Some of these are independent power projects, while others are run by the major generating companies. New CCGT stations include Medway (660 MW), Little Barford (680 MW), Didcot (660 MW), Keadby (720 MW) and Connah's Quay (1430 MW); this latter will run on sour gas. In addition the nuclear station Sizewell B has been powering up, and is expected now to be fully operational (1250 MW).
- Also during the year National Power disposed of some of its coal-burning power stations to Eastern Energy; capacity amounting to some 4000 MW was thus transferred. The divestment was enforced by the Regulator.
- Denmark became a substantial exporter of electricity, in particular to the Scandinavian countries where hydro-electric power was in short supply because of the lack of rainfall and subsequent low reservoir levels. In the 12 months to end June 1996, electricity trade amongst the Nordic countries increased by 10 TWh to 25 TWh.
- In Spain and Portugal the winter season provided plentiful rainfall, so hydro-electric power was in good supply, reducing the need for coal in electricity generation by some 20% compared to the previous year.
- At Pego in Portugal, the second coal fired unit of 300 MW came into operation during October 1995. Both units now burn coal.
- In Spain new electricity legislation is being prepared, but the coal issues are still the subject of discussions between the Ministry of Industry and the Trade Unions at the time of writing.
- In Germany the 900 MW lignite-fired power station at Schkopau was successfully commissioned; the first of the two units had come on-line in 1995.
- Germany is now one of the world leaders in wind power, with some 1600 MW installed (compared with 1650 MW in the United States at the end of 1996. New developments will be towards larger unit sizes.
- In Italy, a new Regulatory body had at last been appointed by the end of the year; this is a pre-requisite for the privatisation of ENEL. Its first duty will be to consider the complex arrangement of electricity tariffs.
- The coal gasification power station at Buggenum in the Netherlands is in operation (250 MW); the plant is expected to have a net efficiency of 43%, and is claimed to be the cleanest coal-fired power station in existence.
- In the autumn of 1996, the IGCC ELCOGAS power plant (320 MW) at Puertollano in Spain, supported by the THERMIE programme of the European Commission, started operation.

38. Stocks at power plants during 1996 appear to have decreased by some 4.8 Mt. compared to 1995. The principal movements have occurred in Germany (a decrease of 3.4 Mt.), Spain (increasing by 2.0 Mt.) and the United Kingdom (a decrease of 2.0 Mt.).

It should be noted that, by Council Decision 97/7/EC<sup>2</sup> of 20 December 1996, the requirement on Member States to maintain minimum stocks of fossil fuel at thermal power stations was repealed. In practice, this is not expected to have much impact on stock levels.

39. For 1997, the forecasts for hard coal deliveries to the public utilities for the Community are for a fall of 11.7 Mt. (-6.5%) compared to 1996, down to 168.2 Mt. The most notable losses are likely to be in the UK (-6.9 Mt.), France (-3.4 Mt.) and in Denmark (-2.5 Mt.). Spain will expect to use an extra 1.2 Mt. in the power stations.

It should be re-emphasised that these forecasts need to be treated with considerable caution, since there is a tendency to treat coal as the "residual fuel" to supply projected energy demand after determined amounts available from other fuels have been supplied.

With respect to the various Member States, there are a number of important developments to note:

- In the UK PowerGen will cease to burn Orimulsion at the end of March 1997, and will replace it with coal and gas. However National Power is seeking consent to convert an oil-fired station to burn Orimulsion.
- Both major generators in England and Wales are switching a number of coal-fired power stations to dual firing; this will enable them to burn more gas, and is likely to have an adverse effect on total coal burn in the future. The future demand for coal in England and Wales beyond March 1998 is highly uncertain. The contracts negotiated by the major generators before coal privatisation expire at that time, and while a number of smaller contracts are in place which will bridge that gap, the bulk of the coal tonnage used by the major generators will be up for discussion. The total tonnage of coal burn will be considerably reduced because of the size of the gas generation market, and the addition of Sizewell nuclear power station; some 20-30 Mt. may have been lost to the coal market since the last contracts were agreed. In addition it is likely that indigenous suppliers will be under strong price pressures to compete with imported coals, particularly if the pound remains strong. The Generators progress in the installation of dual firing facilities at coal burning stations poses a further threat.
- In Spain, new legislation for a liberalised electricity market should be in operation by the end of the year, according to the energy plans of the Ministry of Industry.
- The first stage of privatisation for Electricite de Portugal will begin in 1997, to sell off 20-25% of the group.

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<sup>2</sup> O.J. L 3 of 7.01.1997, p.6

- In France, the two units at the new nuclear power station at Chooz (N4 type PWR) are being brought on line, and the first unit is expected to be up to full power by March 1997; 25% of the power will go to the Belgian market. The new design is experiencing teething problems; it is hoped that the two units at Sivaux (of 1450 MW each) will be commissioned a year after the Chooz units. France plans no further nuclear stations.
  - The smaller nuclear unit (56 MW) in the Netherlands at Dodewaard, has been announced for closure in March 1997, seven years early.
  - In Italy the Brindisi Sud power station (2400 MW, initially to be oil fired) was reported on line by the end of 1996. The desulphurisation equipment to enable the station to burn coal is expected to be installed by 1998.
40. With respect to hard coal deliveries to the colliery power stations and to the auto-producers, these will decline by 0.5 Mt. in 1997 compared with 1996. This decline will be split between collieries in France and other industry in the UK.
41. Turning to the prospects in the electricity production for the years up to 2010, the "Investments and Planning in the European Electricity Supply Industry" study by UNIPEDE expects electricity consumption to increase at a faster rate than that for total energy.

Conventional fuels are expected to remain the backbone of electricity generation in 2010, but the mix will shift away from coal, lignite and oil to gas. The share of gas-fired generation is projected to grow two and a half times, reaching a market share of just under 20%, by 2010, and resulting in the displacement of coal for base-load generation.

The anticipated evolution of electricity generation, by source, during the period 1995-2010 is as follows:

ELECTRICITY GENERATION BY SOURCE - EUR 15 SIGNIFICANCE OF DIFFERENT SOURCES OF FUEL						
	1994		2000		2010	
	TWh	%	TWh	%	TWh	%
◦ Hydro and other	324	15	347	14	371	13
◦ Nuclear	748	35	835	34	853	30
◦ Thermal, of which:	1.082	50	1.260	52	1.640	57
Coal	494	23	459	19	586	20
Lignite	183	8	182	7	199	7
Oil products	163	8	144	6	147	5
Natural gas	191	9	385	17	518	19
Others	51	2	90	3	190	6
<b>TOTAL NET PRODUCTION</b>	<b>2.154</b>	<b>100</b>	<b>2.442</b>	<b>100</b>	<b>2.864</b>	<b>100</b>

Whilst it is anticipated that there will be a small decline in the importance of nuclear and other primary sources in favour of fossil fuel fired generation, there are some significant changes projected for thermally generated electricity. Coal and lignite are expected to retain importance whilst gas generation is projected to significantly increase.

Between 1994 and the year 2000, the European plant generating capacity is expected to increase by some 44 GW to reach 575 GW. Growth in new plant capacity will be dominated by gas fired plant (an increase of 36 GW) with continuing reductions in oil-fired plant. Growth in nuclear is restricted to France only.

Between 2000 and 2010, generating capacity is expected to increase by 54 GW to reach 629 GW. The capacity of coal-fired plant is expected to decrease slightly, with new stations based on clean coal technology replacing those stations closing down. Gas-fired plant (12 GW increase) and "others" (derived gas, renewables and non-specified) dominate the growth in new capacity over the period.

MAXIMUM NET ELECTRICITY GENERATING CAPACITY IN 1995-2010 - EUR-15						
TYPE OF ORIGIN	1995		2000		2010	
	GW	%	GW	%	GW	%
NUCLEAR	120	22.6	126	21.9	127	20.8
<b>SOLID FUELS</b>						
Coal	114	21.5	116	20.2	113	18.6
Lignite	31	5.8	30	5.2	31	5.1
OIL	47	9.0	38	6.5	29	4.9
NATURAL GAS	84	15.8	120	20.8	132	21.7
HYDRO	115	21.7	119	20.7	123	20.2
OTHERS	20	3.7	26	4.6	53	8.7
<b>TOTAL</b>	<b>531</b>	<b>100</b>	<b>575</b>	<b>100</b>	<b>608</b>	<b>100</b>

The main conclusions that can be drawn from these forecasts are the following:

- Coal consumption at power stations is expected to decline appreciably by the end of this decade compared to 1994. Natural gas power plants are likely to absorb some two thirds of the increase in demand.
- In the first decade of the new century, coal consumption at power stations could increase significantly. This would mainly be as a result of a higher average rate of utilisation of the coal power plants, given that net installed capacity is now forecast to decrease slightly. Hard coal and natural gas are expected to cover 60% of the expected increasing demand.

#### Other industries (Table 7)

42. "Other industries" covers a variety of industries. The most important for the potential consumption of hard coal is the cement industry and, to a lesser extent, the chemical, sugar, paper and ceramic industries.

Despite the positive growth in the economy of the Community in 1996, which has led to an increase in general industrial activity, it is the competitive pricing of alternative fuels such as gas, and to a lesser extent oil, which could explain the loss of penetration by coal in this sector.

For the Community as a whole, hard coal deliveries to this sector, excluding own power generation, may have fallen by some 1.1 Mt. (-7.4%) in 1996, when compared to 1995, to less than 15 Mt. This is despite the increases observed in Netherlands, Portugal, Spain and Finland, which were offset by falls in Belgium, Germany and UK (a drop of nearly 2 Mt. or -47%).

43. In 1997, the volume of hard coal deliveries to this sector is again expected to decrease slightly, as current forecasts are for a fall of 0.2%. The main reductions are anticipated in Germany and in Denmark.

#### Domestic use (Table 8)

44. The fall in the consumption of solid fuels in this sector is undoubtedly less pronounced than in recent years. This market is declining steadily and is showing no signs of stability in the near future. Colder winter weather conditions in recent years have not halted the decline in solid fuel use in the home; more significant has been the fierce price competition from alternative fuels or energy sources such as natural gas, electricity and, to a lesser extent, petroleum products, combined with their greater convenience in use. Also, in many cases, the new environmental regulations do not favour the use of solid fuels, especially in urban areas.

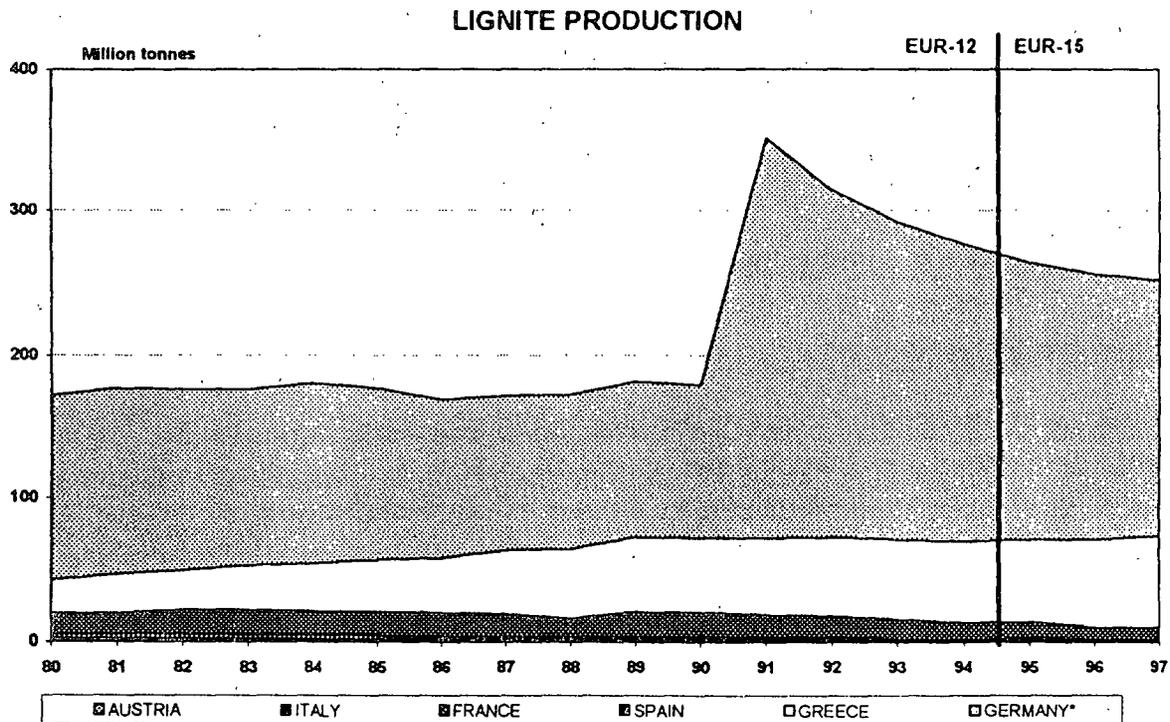
Deliveries of hard coal for domestic consumption, including supplies to miners' families, fell to 6.7 Mt. in 1996 from 6.9 Mt. in 1995 (which represents a fall of some 3.1%). Patent fuel, coke and lignite briquette deliveries also continue to decline steadily (the estimate for patent fuels for 1997 should be treated with extreme caution given that many figures are Commission estimates).

Total solid fuels deliveries to this sector, including hard coal, patent fuels, coke and lignite and peat briquettes, are estimated to have been 13.4 Mt. in 1996, as against 14.1 Mt. in 1995 (a drop of 5%) and a further reduction of some 1.4 Mt. is forecast for 1997.

**Deliveries of lignite and peat (Table 9)**

45. Total internal deliveries of lignite and peat are expected to have decreased during 1996 to 272.6 Mt., which would be some 5.4 Mt. down on the previous year. This would be due to the decrease in deliveries to briquetting plants (-6.6 Mt.) offset by deliveries to power stations (+2.1 Mt.), although deliveries to other sectors may also have declined by 0.9 Mt.

The main decrease of 7.6 Mt. is expected in Germany, due principally to the lower demand from the briquetting plants, but also from the power plants and other sectors. Spain is expected to follow with a 2.5 Mt. reduction, caused by the lower demand from the power plants, as a result of an increasing use of imported coal for blending to reduce sulphur emissions, but also due to the depletion of lignite reserves. In Greece, deliveries of lignite to power stations are estimated to have increased by 3.6 Mt.

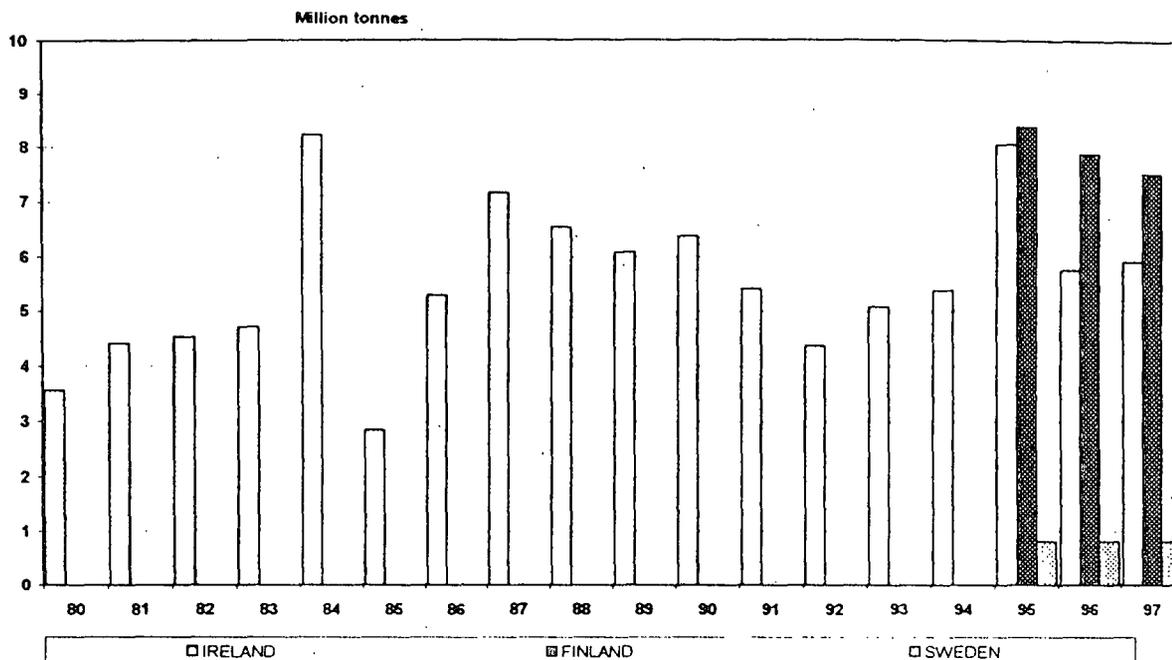


\*Including new German Länder from 1991

46. The forecasts for 1997 indicate that deliveries are likely to continue to fall, by some 5 Mt. or - 0.8%. This is due once again to the anticipated decrease in demand from all the consumer sectors in Germany. On the other hand, the demand from the utilities in Greece could increase by 2.5 Mt. during 1997. No significant changes are forecast in the other Member States with respect to 1996.

In the peat market, Finland's consumption is likely to be reduced in 1996, as briquetting ceases and peat goes straight to the power stations. Ireland's consumption in 1996 will be lower than for 1995, but will rise again in 1997.

### PEAT PRODUCTION



\* EUR-15 from 1995

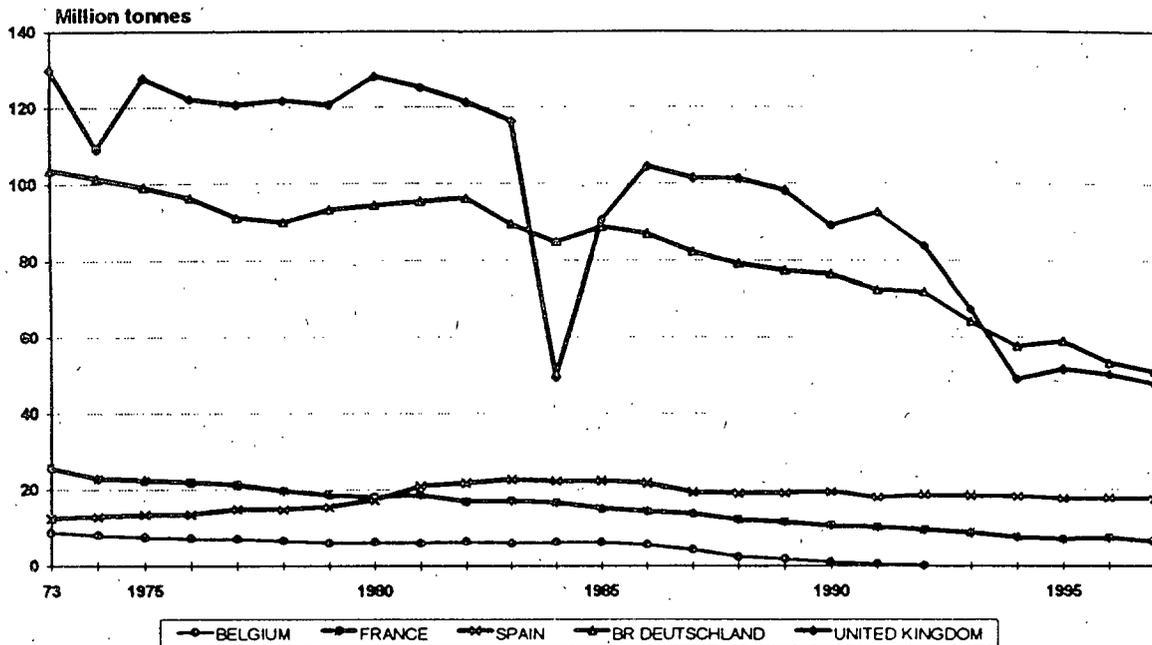
## VI. COMMUNITY SOLID FUEL PRODUCTION

### Hard coal (Table 10)

47. Community hard coal production in 1996 continued to be affected, to varying degrees, by the policies of the Member States to restructure, rationalise and modernise their industries in order to improve their competitiveness. Community production may have decreased by 6.7 Mt. (4.9%) during the year, compared to 1995, to 128.4 Mt. This reversed the exceptional increase of 1995, and brought production to a level just below that of 1994.

By Member State, the most significant changes are estimated to have been in the United Kingdom, where production fell by some 1.4 Mt. (-2.6%), and Germany with a decrease of 5.8 Mt. (-9.8%). On the other hand, Spain and France are both expected to have seen their hard coal production increase by some 0.3 Mt. (+5%) and 0.1 Mt. (+1%) respectively.

## HARD COAL PRODUCTION



48. 1997 is forecast to see a large drop in Community production; some country estimates have been revised downward since last year's report. Estimates currently point to a total of some 122.4 Mt., which would be some 5.9 Mt. lower than the 1996 figure.

Yet again, the most significant variation may well occur in the United Kingdom with a fall of 2.5 Mt. (-5.1%), followed by Germany with around 2.2 Mt. (-4.2%), France with 0.9 Mt. (-11.9%) and Spain with 0.3 Mt. (-1.7%).

In Spain, production in the Asturias coalfield increased by nearly 0.5 Mt. (+15%), showing that the reduction in output was a result of the unfortunate accident in 1995. This increase was offset by reductions elsewhere in Spain, to give overall a small increase in output, but this will not be sustained in 1997.

In the United Kingdom, one of the smaller coal mining companies suffered financial difficulties and was put into receivership, with an unfortunate effect on its mines. Three pits continue under new management, while three collieries in the Midlands and one in South Wales were closed. The poor performance of nuclear and gas-fired power stations has been remedied, and a number of new power stations have been commissioned or restored to full power during the year. The cold winters have helped to offset this effect, and gas-fired power stations on interruptible supplies have had their gas supplies cut. While some may have switched to alternative fuels (usually gasoil), some of the shortfall will have benefited coal. However, the outlook for 1997 is for lower use of coal than in 1996. Furthermore, indigenous production may be under pressure from imports because of the strong pound.

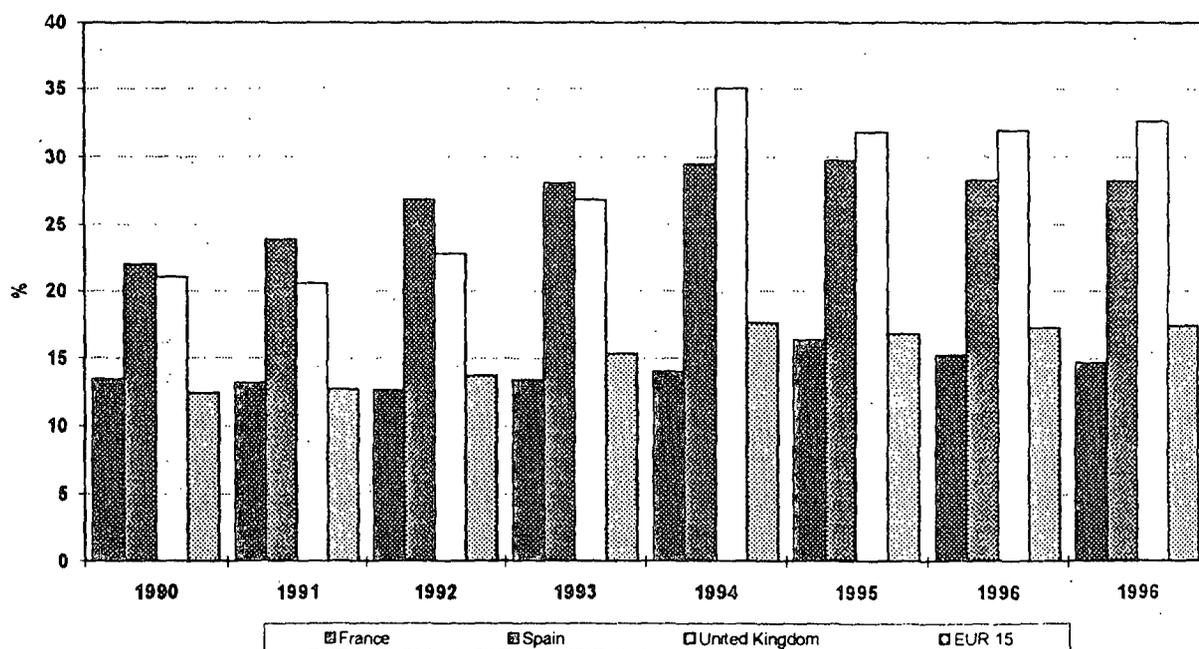
Production reduced in Germany in 1996; production in the "Ruhr" coalfield fell by almost 4 Mt., which was 2 Mt. below the 1994 level, whilst production in "Saar" and "Aachen" coalfields dropped by 1 Mt. and 0.5 Mt. respectively. On the other hand, production remained steady at Ibbenburen.

For 1997, production is expected to drop by 0.9 Mt. in the "Ruhr" coalfield and by 0.4 Mt. at "Saar" coalfield. The "Aachen" coalfield will be closing, and only a residual quantity of coal will be produced.

In France, the increase in production seen in 1996 will be more than reversed in 1997.

49. Costs of opencast mining are considerably lower than for deep mining, so it is to be expected that mining companies will be pleased to operate opencast sites. In addition, less preparation of the coal for market is required. Formerly there were many derelict sites of former mines, and of old colliery spoil heaps, that needed to be cleared, and opencast mining was providing an increasing share of tonnage for the market. The proportion of opencast coal in the production rose to a peak in 1994, when 18% of production in EUR-15 was from opencast sites. In the UK this was as high as 35%, while in Spain it was nearly 30%, and in France only 14%.

OPENCAST PRODUCTION AS A PERCENTAGE OF THE TOTAL COAL PRODUCTION



Environmentalists have been becoming increasingly active to prevent this type of mining, and, particularly in the UK, it is becoming difficult for mining companies to gain new consents; the planning process is becoming longer and more costly. While overall the proportion of coal from opencast sites is similar, at about 18%, the proportions in each of the major opencasting countries have been declining faster than the decline in deep mining activity. This makes it more difficult also for mining enterprises to keep costs down, and will have an increasing impact in the future as existing sites are worked out.

50. In accordance with the Community State aid framework Decision 3632/93/ECSC, Member States which had the intention of granting aid to their coal industry (France, Germany, Spain and the UK) submitted their modernisation, rationalisation and restructuring plans to the Commission during 1994. Aid notifications were received in 1996 from Member States, including Portugal for closure support.

#### Lignite and peat (Tables 9, 26 and 27)

51. Lignite and peat production and consumption are intimately linked to the generation of electricity (some 83% of the available resources of the Community). Lignite and peat production in 1996 is estimated to have been some 270.8 Mt., which is 10.7 Mt. (-3.8%) less than in the previous year. This is due to the lower production in Germany (-7.2 Mt.), which principally affected the main producing areas such as Lausitz (-8.5 Mt.) and Mitteldeutschland (-1.2 Mt.), but offset by increased production in Rheinland (+2.8 Mt.). Production was also down in Spain (-2.5 Mt.), while Greece went against the general trend and increased production by 2.8 Mt.. Peat production in Finland decreased to 7.9 Mt. although deliveries to power stations displacing the briquetting process (+30%).

For 1997, total lignite production is forecast to decrease by 4.5 Mt. (-1.8%) to around 251.9 Mt. Greece expects a slight increase in lignite production, whilst Germany believes that its lignite production will fall by some 7.6 Mt. to reach 178 Mt. Once again, the fall in deliveries to the briquetting plants and particularly to the power stations are expected to be the main cause.

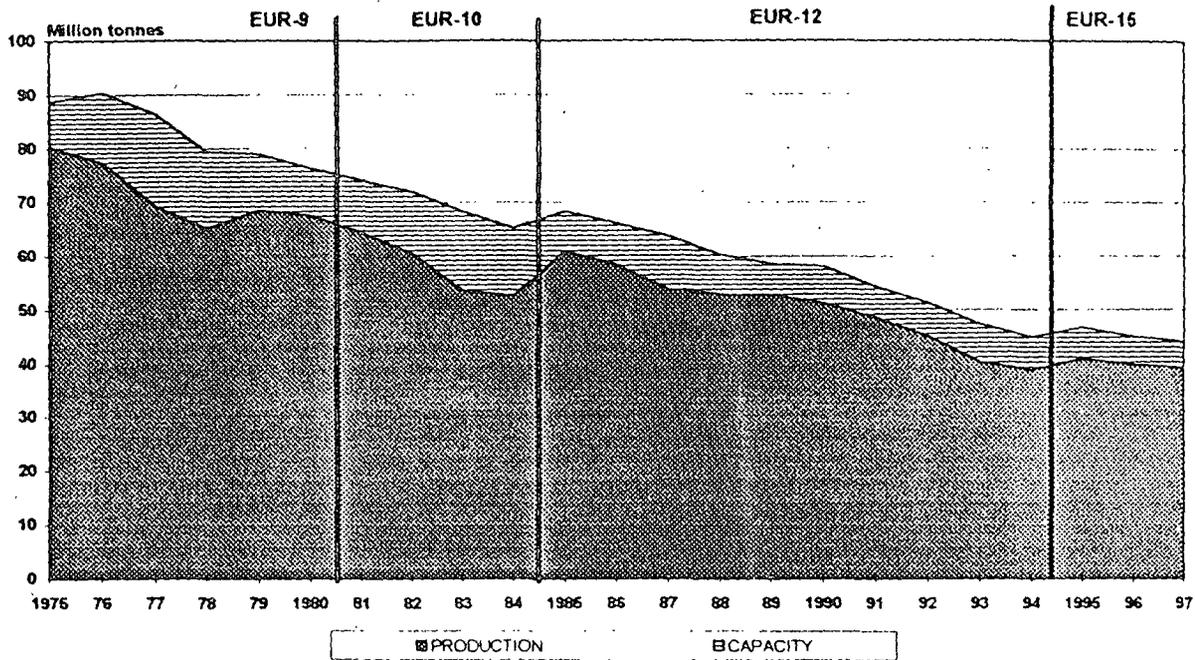
52. The production of lignite and peat briquettes in 1996 is estimated to have been 8.7 Mt., compared with 9.4 Mt. in 1995, with Germany producing around 95% of the total tonnage. For 1997, the forecasts would indicate a new decrease of 0.6 Mt. to 8.1 Mt.

#### Coke (Tables 11A and 11B)

53. Total Community coke production capacity in 1996 is estimated at 44.9 Mt., as compared to 46.8 Mt. in 1995, whilst the forecast for 1997 is for 44.0 Mt. On the other hand, actual coke production in 1996 is expected to have been 39.9 Mt. (a decrease of 1.0 Mt. or -2.5%). This continues the decline which was temporarily reversed in 1995. For 1997, all indicators point to a reduction, as in 1996, of 0.6 Mt. (-1.5%) to a total of 39.3 Mt. At the same time, the coke-production/nominal-capacity ratio, which appears to have improved from some 87% in 1995 to 89% in 1996, looks set to stabilise at around that level in 1997. The coke yield appears to be improving slightly, from 78% in 1995 to nearly 81% expected in 1997.

The steel industry absorbs about 90% of the coke available on the internal market. However structural and technological changes which are also taking place within the Community's steel industry, together with increasing production of crude steel from electric furnaces, will inevitably lead to a decline in the requirement for coke. It is not surprising therefore that the overall trend for Community coke production is one of continuous decline. Imports of coke from third countries have also declined recently.

## COKE PRODUCTION AND CAPACITY



### Labour and productivity (Tables 12A and 12B)

54. The annual average Community underground workforce is expected to have fallen once again by some 3,800 (or 4%) in 1996, compared to the 6,900 jobs lost in 1995, to a new total of around 97,200, below 100,000 for the first time. Germany accounted for the lion's share (82%) of these losses, followed by France (11%) and Spain (6%). Figures for the United Kingdom are Commission estimates, but reflect a period of relative stability after the period of intensive restructuring just prior to the privatisation of the British Coal Corporation; they do not reflect any changes due to the failure of Coal Investments Ltd.

The forecasts for 1997 point to further job losses of the order of some 6,100, with some 61% being accounted for by Germany, 18% by Spain and 10% by France. Estimated losses in the United Kingdom for 1997 amount to 11% of losses in the European Community.

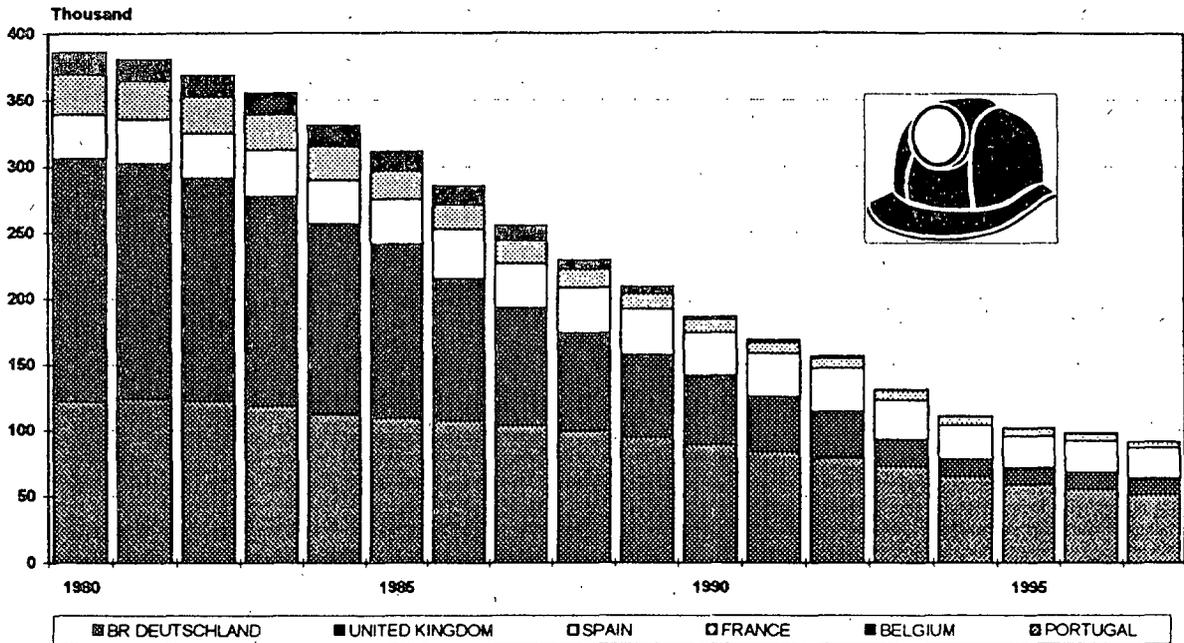
55. Productivity is still increasing, a logical consequence of the restructuring measures adopted by all the coal-producing Member States which are concomitant with the closure of the least profitable, and generally least efficient, pits, but also as a result of the improvements introduced into the mines remaining in operation. On the other hand, in the process of closing a mine, it is the non-production workers who are the first to leave and this is why very pronounced productivity gains can be observed in the stages leading up to the final closure of mining operations.

The productivity in underground workings, for the Community as a whole, are expected to have risen from 725 kg/man-hour in 1995 to 745 in 1996. There was little change in productivity in the United Kingdom, which reached some 1423 kg/man-hour, 85% higher than that expected to have been achieved in Germany, where productivity rose from 749 to 770 kg/man-hour. Productivity in

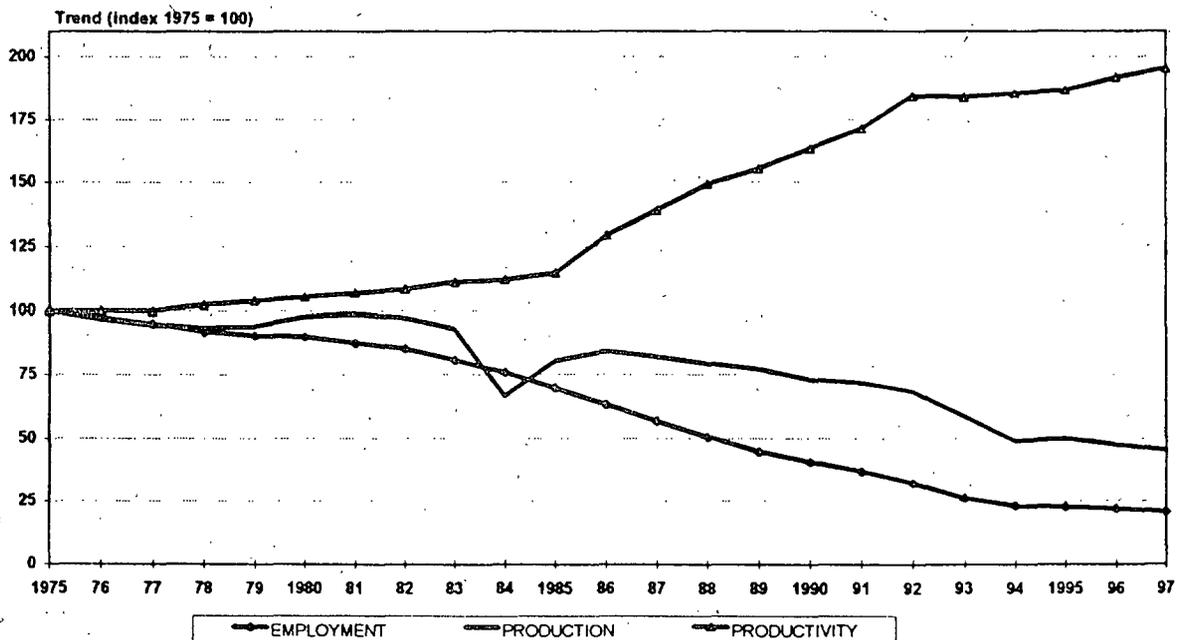
France is improving as a result of the restructuring and colliery closures, and is now only a little below Germany. However underground productivity in Spain only reached some 40% of the levels in France, but did make some improvement from 292 to 309 kg/man-hour; this low level can be partly attributed to the smaller size of many mines.

For 1997, as a result of the restructuring programmes in progress, productivity could increase once again by some 1.9% to some 759 kg/man-hour.

### PERSONNEL EMPLOYED UNDERGROUND



### TREND OF THE COAL INDUSTRY EMPLOYMENT, PRODUCTION AND PRODUCTIVITY



## State aids

56. Financial aid from the Member States to the hard coal industry is discussed in a separate report, so only a brief summary of the financial aid to current production authorised by the Commission is given in this table:

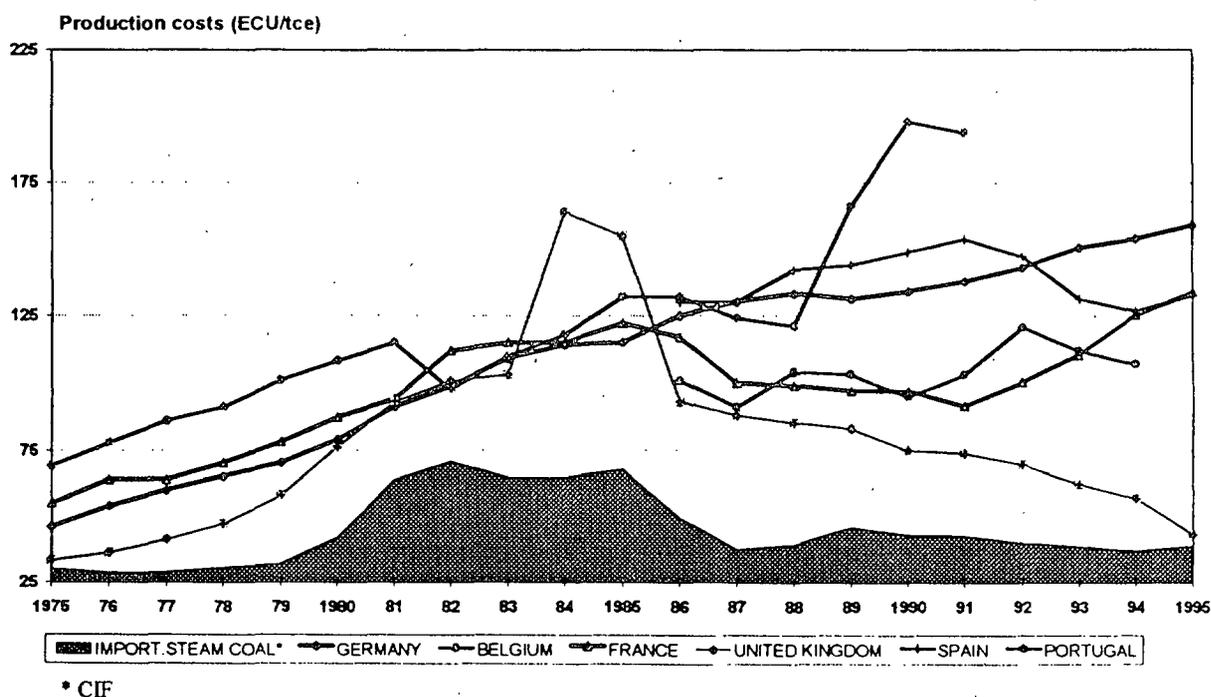
	TOTAL INTERVENTION TO CURRENT PRODUCTION (MECU)			INTERVENTION PER TONNE (ECU)		
	1994	1995	1996	1994	1995	1996**
Germany	*4845.8	4784.2	5370.2	*84.1	81.3	101.12
France	298.0	56.9	87.6	40.0	8.1	11.95
Spain	730.8	731.9	730.8	40.2	41.5	41.1
Portugal	1.8	--	--	12.4	--	--
United Kingdom	20.1	--	--	0.4	--	--
<b>Total</b>	<b>5896.5</b>	<b>5572.9</b>	<b>6188.7</b>	<b>*44.7</b>	<b>40.9</b>	<b>48.2</b>

\* This amount excludes ECU 2779 million (DM 5350 million) for the purpose of clearing debts from the compensation fund.

\*\* Based on the latest estimates for production

57. With respect to State aid to the coal industry, it should be noted that 1996 was the third year of operation of Commission Decision No 3632/93/ECSC<sup>3</sup> on State aid rules for the coal industry. As foreseen in that Decision, Member States which had the intention of granting aid to their coal industry submitted their restructuring, modernisation and rationalisation plans during 1994. Member States submitted further requests for authorisation of aid to the coal industry (mostly in respect of 1997) which were approved by the Commission during 1996.

## COAL INDUSTRY COST TRENDS



<sup>3</sup> O.J. L329 of 30.12.1993, p.12

58. In Germany, as a result of the decision of the Constitutional Court to declare the "Kohlepfennig" levy system unconstitutional, subsidy for the supplies of steam coal to the power sector is now financed from the public budget.

The new supply contracts between the hard coal producers and the electricity generators for 1996 were negotiated using a new system; it has been agreed to establish a value in DM/tce for the average frontier price of imported coal, to provide a means of reference for future prices for domestic coal sales. There is Government commitment to granting the German hard coal industry subsidies of 7.5 billion DM in 1996 (and 7.0 billion DM in each of 1997 and 1998) to support future sales of steam coal.

Under the provisions of Decision 3632/93/ECSC, the Commission has authorised aid, in two separate Decisions, of DM 9.165 billion to the German coal industry for 1995, consisting of:

- aid under the scheme to maintain underground workers totalling DM 95 million;
- aid for compensation between coalfields and compensation for coal with a low volatile matter content totalling DM 143.6 million;
- a financial measure totalling DM 5 900 million, in the context of the third Law on electricity produced from coal;
- a financial measure totalling DM 200 million to cover exceptional costs of a number of coal undertakings;
- an aid of DM 2 826.9 million for deliveries of coal and coke to the Community steel industry.

In addition, under the provisions of Decision 3632/93/ECSC, the Commission has also authorised aid of DM 10.4546 billion to the German coal industry for 1996, consisting of:

- aid under the scheme to maintain underground workers totalling DM 97 million;
- aid totalling DM 7 500 million, in the context of the fifth Law on electricity produced from coal;
- aid totalling DM 200 million to cover exceptional costs of a number of coal undertakings;
- an aid of DM 2 657.6 million for deliveries of coal and coke to the Community steel industry.

In all of its Decisions, the Commission took account of the priority which had be given to the need to make every possible effort to ease the social and regional impact of the restructuring of the German coal industry.

In assessing the aid, the Commission nonetheless recognised that the reduction in costs, of the order of 3.6% between 1992 and 1995, is totally inadequate and confirms the need for a firm approach to capacity reduction.

59. Under the provisions of Decision 3632/93/ECSC, the Commission authorised aid of 141 316 million pesetas to the Spanish coal industry for 1995, consisting of:

- aid to cover operating losses totalling 119 303 million pesetas;
- aid to cover exceptional welfare charges for workers who lose their jobs as a result of the measures to modernise, rationalise, restructure and reduce the activity of the Spanish coal industry, totalling 14 723 million pesetas;
- aid to cover the technical costs of closing down installations as a result of the measures to modernise, rationalise, restructure and reduce the activity of the Spanish coal industry, totalling 7 140 million pesetas;
- aid in favour of research and development projects totalling 50 million pesetas;
- aid in favour of environmental protection totalling 100 million pesetas.

In addition, under the provisions of Decision 3632/93/ECSC, the Commission authorised aid of 141 377 million pesetas to the Spanish coal industry for 1996, consisting of:

- aid to cover operating losses totalling 117 481 million pesetas;
- aid to cover exceptional welfare charges for workers who lose their jobs as a result of the measures to modernise, rationalise, restructure and reduce the activity of the Spanish coal industry, totalling 17 159 million pesetas;
- aid to cover the technical costs of closing down installations as a result of the measures to modernise, rationalise, restructure and reduce the activity of the Spanish coal industry, totalling 6 587 million pesetas;
- aid in favour of research and development projects totalling 50 million pesetas;
- aid in favour of environmental protection totalling 100 million pesetas.

In both of the above-mentioned decisions, the Commission also recognised the commitment of Spain to adjust the existing mechanism for granting aid before 31 December 1996, the maximum transitory period allowed for in paragraph 2 of Article 2 of Decision 3632/93/ECSC, in order that all aid should be "entered in Member States' national, regional or local public budgets or channelled through strictly equivalent mechanisms".

The Commission also took account of the priority which must be given to the need to make every possible effort to ease the social and regional impact of the restructuring of the Spanish coal industry. As Decision 3632/93/ECSC came into force, indigenous coal prices substantially decreased by more than 30% with respect to the previous "reference price". The difference between the old and the new "reference price" has emerged as an indirect operating aid, or reduction of capacity aid, although it continues to be financed by the electricity tariffs. This explains why Spanish State aid since 1994 displays such a large increase with respect to 1993 and the previous years.

In accordance with Article 9(7) of Commission Decision 3632/93/ECSC on the requirement that schemes linked to agreements between producers and consumers must be modified by 31 December 1996 to bring them into line with the provisions of the Decision, the Spanish government approved a Royal Decree on 28 December 1995 on the specific costs on electricity generation linked to aid granted to the coal industry. This took effect on 1 January 1996. This Royal Decree provides that financial assistance to coal industry coming from the electricity sector will be limited to a ceiling of 5% of the electricity bill and has been fixed for 1996 at 4.864%. A large portion of this aid will go towards covering the operating losses of the coal undertakings.

These operating losses are defined as being the difference between the standard production cost of coal and the standard cost of indigenous coal purchases, both defined by parametric formulas; the latter has been fixed at about \$ 86 per tce at the power station for 1995. In addition, those coal undertakings covered by "Contrato Programa" with the state will receive further assistance from the national budget.

In authorising the aid for 1996, the Commission noted the undertaking by Spain to take the necessary measures to bring their aid mechanism into line with the provisions of Article 2(2) of Decision No 3632/93/ECSC by 31 December 1996 at the latest.

60. With respect to France, a modernisation, rationalisation and restructuring plan was submitted by the national authorities at the end of 1994, together with the notification of the planned assistance for 1994 and 1995. The Commission delivered a positive opinion on the restructuring plan submitted, which was based upon a "Coal Agreement" reached between "Charbonnages de France" and the coal trade unions. This agreement foresees the closure of coal mining activities by the year 2005.

Under the provisions of Decision 3632/93/ECSC, the Commission authorised aid for FF. 4 366 million to the French coal industry for 1995. This aid consisted of the following:

- aid for reduction of activity to cover operating losses totalling FF. 371 million;
- aid for research and development totalling FF. 15 million;
- a financial measure totalling FF. 3 980 million to cover exceptional costs.

In addition, under the provisions of Decision 3632/93/ECSC, the Commission authorised aid for FF. 4 415 million to the French coal industry for 1996. This aid consisted of the following:

- aid for reduction of activity to cover operating losses totalling FF. 569 million;
- aid for research and development totalling FF. 15 million;
- a financial measure totalling FF. 3 831 million to cover exceptional costs.

61. For the United Kingdom, the Commission authorisation under the provisions of Decision 3632/93/ECSC to grant aid in the 1995/96 financial year was contained in the Commission Decision of November 1994, as amended by the Commission Decision of February 1996. Aid authorised for the 1995/96 financial year was as follows:

- aid totalling £ 130 million to the Coal Authority to cover liabilities for the environmental and physical damage caused by the production activities before the privatisation of British Coal;
- aid totalling £ 327 million to cover compensation of inherited social liabilities such as hearing loss and other industrial injury, concessionary fuel entitlement to coal and pension schemes for former British Coal workers;
- aid totalling £ 25 million to British Coal to cover exceptional social-welfare payments to workers affected by the restructuring of the coal industry;
- aid totalling £ 70 million to British Coal to cover cost arising from residual activities prior to the dissolution of British Coal following privatisation;

In addition, a financial measure was authorised for the 1994/95 and 1995/96 financial years to British Coal to reflect the heavy burden of restructuring cost funded by loans and the fall in the value of the company's assets in recent years.

The Commission also authorised, under the provisions of Decision 3632/93/ECSC, aid to be granted by the United Kingdom in the 1996/97 financial year, as follows:

- aid totalling £ 37 million for the British Coal Corporation or the public administration succeeding it to cover exceptional social welfare benefits for workers who lose their jobs as a result of the restructuring, rationalisation and modernisation of the UK coal industry;
- aid totalling £ 115 million for contributions to pension funds for former workers of the British Coal Corporation and their dependants;
- aid totalling £ 90 million for a concessionary entitlement to coal and smokeless fuel, or, in certain cases, cash-in-lieu for former workers of the British Coal Corporation and their dependants;
- aid totalling £ 35 million for compensation for industrial injury and damage to health for former workers of the British Coal Corporation and their dependants;
- aid totalling £ 95 million in the 1996/97 financial year to cover environmental damage caused by the production activities before the privatisation;
- aid totalling £ 6 million to cover the costs arising from the residual activities of the British Coal Corporation.

62. On 29 May 1996, the Commission authorised Portugal to grant financial assistance for 1995 and 1996, totalling ESC 345.95 million to cover the compensation to be paid to workers who lost their jobs as a result of the closure of the last Portuguese mine.

### Investment trends (Table 13)

62a. Estimates indicate a fall in investment in 1996 compared to 1995, reversing the trend of the previous year. For the Community as a whole, investments are expected to have been some 514.4 MECU in 1996, some 3% above the level of 1994. Germany is expected to have reduced its investment in 1996 by 98.7 MECU compared with the previous year, and Spanish investment will have reduced by 36.3 MECU. However UK investment is expected to have increased by 17.7 MECU, partly as a result of additional expenditure on new equipment.

## **VII. SOLID FUEL PRICES**

### Exchange rate (Table 14)

63. The value of the US dollar increased slightly compared with most Community currencies during 1996, reversing the trend of the two previous years. The US dollar's average appreciation with respect to the ECU was of the order of some 3.1% in 1996 compared to 1995, with the biggest appreciation occurring during the first half of 1996 and fluctuating thereafter. The US dollar has increased by 5% in relation to the Deutschmark (year on year), while the pound sterling has increased against the US dollar by some 4.5%. Other currencies to have strengthened against the US dollar are Italy (+5.3%) and Sweden (+6.0%) year on year. This has a significance for coal trading in making dollar deals more attractive for coal buyers in these countries, although exports become more expensive in dollar terms.

### Trend of imported coal prices

64. 1996 began with the prospect of strong demand in Asia, but with European demand expected to fall, and an overall picture of oversupply, while freight prices were on a downward trend. Against this background, spot prices were strong, often above the contract levels, but for most of the year combined with extremely low freight rates. As the year progressed, spot prices eased, particularly after the completion of 1996 contracts. With the possibility of undersupply in Europe, the price decline seen to June was arrested, and spot prices from some areas again were higher than contract prices, continuing thus until the end of the year. By the year end, it is estimated that about 5 Mt. of 1996 coal deliveries to Europe were deferred to 1997 because of supply problems. The deferral may have consequences where deals included the freight element, since the very low freight rates in the early autumn may not be repeatable.

Despite this background, steam coal prices for coal delivered to European ports in 1996 were some \$2-5 per tonne lower than in 1995, partly as a result of the very low freight rates, on a CIF basis, prices were also weaker until towards the end of the year. During September, coal prices from America rose by some \$2.75/tonne over the previous month; US prices were expected to remain high until after the first quarter 1997, particularly for premium fuels. Recent reports suggest that Australia was accepting netback prices lower than would be available from South Africa or Colombia. FOB rates of less than US \$30 /tonne were offered for steam coals, with a freight rate of \$8-9.

Contracts for 1996 were signed at the following price levels:

	FOB (\$/t)	Freight (\$/t)	C&F	(\$/t)G.C.V. (Kcal/kg)
SOUTH AFRICA	30-34	5-8	35-42	6,000-6,200
COLOMBIA	32-37	4-6	36-43	6,280 -6,670
USA	30-35	4-6	34-41	6,280 -6,670
AUSTRALIA	30-34	7-11	37-45	6,000-6,400

65. During 1996 the European steam coal market was weak, against a strong market in Asia. About two thirds of the coal was committed under contract and, particularly in the autumn, little spot coal was available. Under these conditions, spot prices continued to firm up in the second half of the year and remained, generally, higher than contract prices during the year. A feature of 1996 was the low demand for low sulphur coals from and in the United States until the latter part of the year; in the US the cost of emissions permits was considered low, and in parts of Europe the increased gas burn led to more flexibility on sulphur emissions from coal, making the higher sulphur products acceptable.

66. The annual contracts for 1997 between the European utilities and the foreign suppliers are still being negotiated by a number of utilities, against a background of overhang of 1996 deliveries. The supply difficulties from a few producers, and the rapid increase in freight rates towards the end of 1996, encouraged some buyers to wait before committing to new contracts. US prices for 1997 deals are reported to be at rollover, or a slight increase on last year, while Colombia looks to be up to \$2 higher; Australia is little changed, despite the strength of the Australian dollar; freight prices are not as attractive as they were in the autumn. South African prices are helped by the weak Rand and are reported down around US \$1 on last year's deals.

The spot prices during 1997 are expected to weaken again as a result of the flat demand in Europe, the additional new production in Latin America and possible increases in Australia and Indonesia, and the expected continuing weakness of the freight market.

67. The European steel mills concluded negotiations with the US, Canadian, Australian and Polish suppliers for Fiscal year 1996 in a much more balanced market situation than in the year before. US and Canadian suppliers obtained FOB price increases for low and mid volatile coals, while price levels dropped slightly for high volatile coals. US low volatile coals increased by between 1.50 and 2.0 US dollars per tonne, mid volatile coals increased by between 1 and 2 US dollars per tonne and high volatile coals suffered reductions of between 0.35 and 1.35 US dollars per tonne depending upon the quality. Canadian coals achieved price increases of around 1.80 US dollars per tonne (low and mid volatile).

Australian coals were fixed at roll-over prices or slight increases of less than 0.5 US dollars per tonne on a CIF basis. This was the result of an increase of between 2.5 to 3 US dollars per tonne FOB and a more or less similar reduction on freight charges.

Polish coals also obtained a FOB price increase of between 1 and 2 US dollars per tonne, to a level of around 52.25 US dollars per tonne.

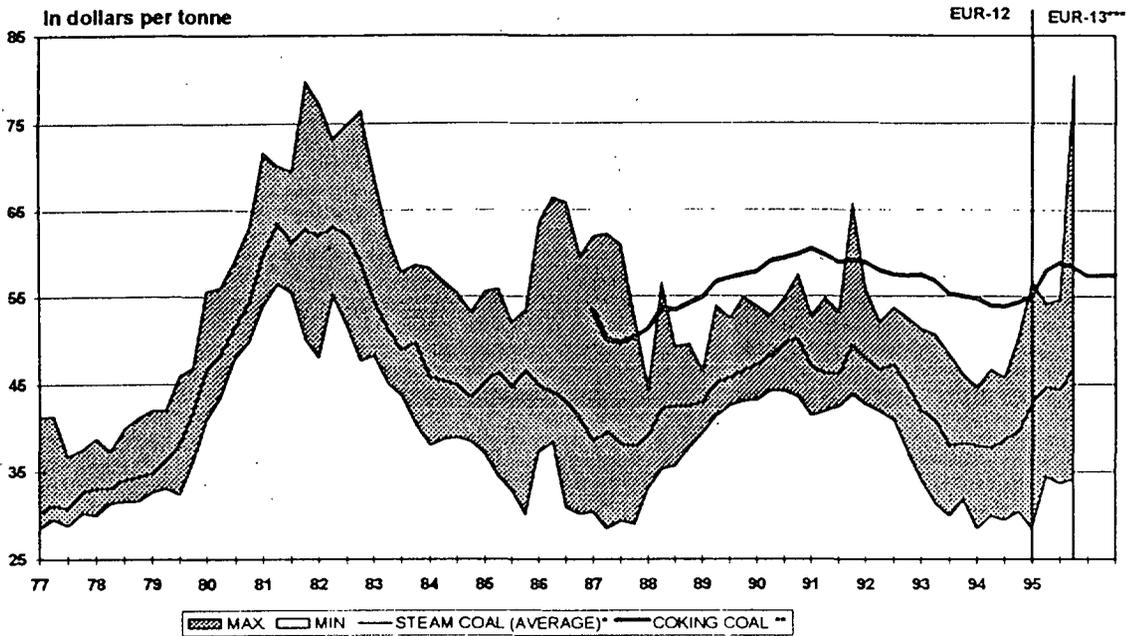
Finally, it is important to emphasise that, due to the weak freight market, the European steel mills have been able to either roll-over or reduce the average CIF price for coal this year:

The prices for Fiscal year 1996 are at the following levels:

CANADA	46.50 - 48.30 \$/t FOB
USA High Vol.	53.00 - 54.50 \$/t FOB
USA Mid Vol.	59.50 - 61.50 \$/t FOB
USA Low Vol.	54.50 - 55.00 \$/t FOB
AUSTRALIA	51.25 - 52.80 \$/t FOB
POLAND	52.00 - 52.50 \$/T FOB

68. At the time of writing the negotiations for coking coal purchases by European steel mills for FY 1997/8 had not begun. Reports suggest that supply and demand will be reasonably well in balance, so prices are not expected to move very far from the levels of 1996. Decisions by the German government on the Huette Contract have been postponed until March, at the time of writing. The quantity of imported coal will depend on the level of subsidies available for German coking coals.

## AVERAGE CIF PRICES FOR HARD COAL IMPORTED FROM THIRD COUNTRIES



- \* Weighted average price (price range)
- \*\* Guide price (new reference)

69. Both coking coal and steam coal CIF prices into the Community decreased during 1996 with respect to the average prices quoted in the previous year (on the basis of the data available for part of the year). On average, CIF prices in US dollars for steam coal were some 6.3% lower in the first half of 1996 than in the year 1995 (despite a fairly low price at the beginning of 1995), whilst for coking coal qualities the average CIF prices for Community imports in 1996 (3 quarters) were only fractionally lower than in the full year 1995.

On average the ratio between coking coal and steam coal CIF prices for Community imports, which had remained fairly steady in 1995 (in the range 113 to 115), had moved apart in the second quarter of 1996, to give a ratio of 118.1; this was a result of a fall in steam coal prices against a steady coking coal price.

### (a) Coking coal (Tables 15A and 15B)

70. Coking coal prices on the international market had been declining from the peak reached in the first quarter of 1991, until the third quarter of 1994, when prices started to rise again, towards the levels (in nominal terms) in 1991. Since then there has been a gentle decline in the coking coal price.

71. The guide CIF price for the major Community ports calculated by the Commission for coking coal imported from the United States, Australia, Poland and Canada under medium- and long-term contracts started 1991 on a downward trend which hit a low of 53.80 US dollars per standard tonne in the third quarter of 1994.

The guide price per standard tonne then increased to a high of 58.90 US dollars in the third quarter of 1995 before decreasing again to 57.40 US dollars in the first quarter of 1996. It has remained at a similar level since then; the third quarter guide price was 57.60 US dollars per standard tonne (29386 Kj/Kg net CV).

World shipping rates fell throughout most of the year, in September reaching the lowest levels of the Baltic Freight Index seen for 4 years. In the autumn a steep increase was seen, as grain harvests suddenly hit the market. However the inherent oversupply in the shipping market is likely to persist for some years on present forecasts, as new tonnages come on to the market without commensurate scrapping of older vessels. This indicates a likely continuation of the weak rates seen in 1996, unless other factors influence the market.

Atlantic ocean freight rates were less volatile during 1996 than some of the longer distance rates. On a quarterly average, Cape size vessels from Hampton Roads dropped from an average rate of \$5.85/t in the first quarter to a low of \$4.90 in the third quarter, rising again to around \$5.40 in the last quarter. Panamax rates from the Gulf suffered more from the slump in freight rates in the summer, falling from around \$8.35/t in the first half of 1996 to \$6.75 in the third quarter, and rising sharply to \$8.60 in the last quarter. Rates in early 1997 have been at the higher end of the ranges seen in 1996, and in the case of Capesize shipping, have exceeded them.

72. The Commission's guide price calculation was altered on 1st January 1987 in order to adapt the reference quality to the average qualities of the coking coal currently being imported from non-Community countries. Nevertheless, in its publications, the Commission continues to indicate the old guide price that is calculated using the previous formula.

**(b) Steam coal (Tables 15A and 15C)**

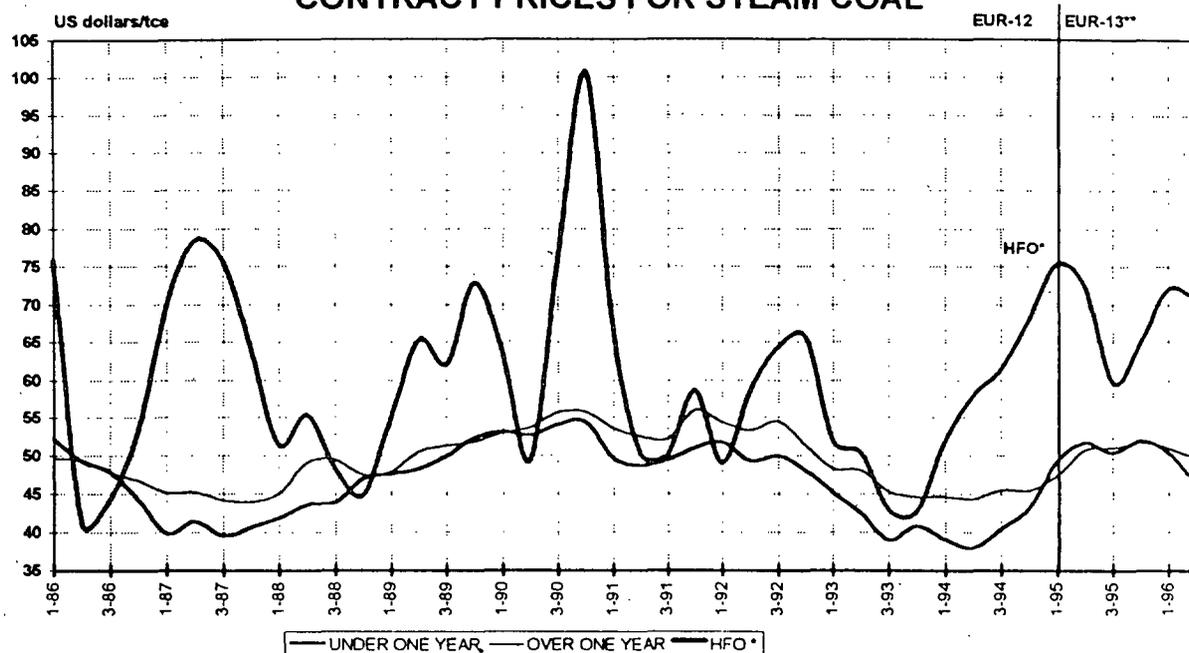
73. From a low of 42.68 US dollars per tce in the second quarter of 1994 the average CIF price, at the major European ports, for steam coal imported from non-Community countries increased steadily to the high of 51.84 US dollars per tce registered for the fourth quarter of 1995 (an increase of 21.5%). Since then the price has fallen to 42.80 US dollars per tce in the second quarter of 1996, approximately the rate pertaining at the beginning of 1995. This is some 6% below the peak at the end of 1995.

1995 was marked by the fact that for much of the year, average spot prices were higher than contract prices (over one year); this situation no longer holds, and figures for mid-1996 show spot prices some \$3.23 below average contract prices.

On average, CIF prices expressed in US dollars were 6.3% lower in the first half of 1996 (latest available figures at the time of writing) as compared to the full year 1995.

The Member States provided the Commission with the figures for steam coal imports in accordance with Decisions 77/707/ECSC and 85/161/ECSC.

### CIF PRICES FOR COAL IMPORTS CONTRACT PRICES FOR STEAM COAL



\* Spot price Rotterdam; 3.5% sulphur

## VIII. TRADE IN SOLID FUELS

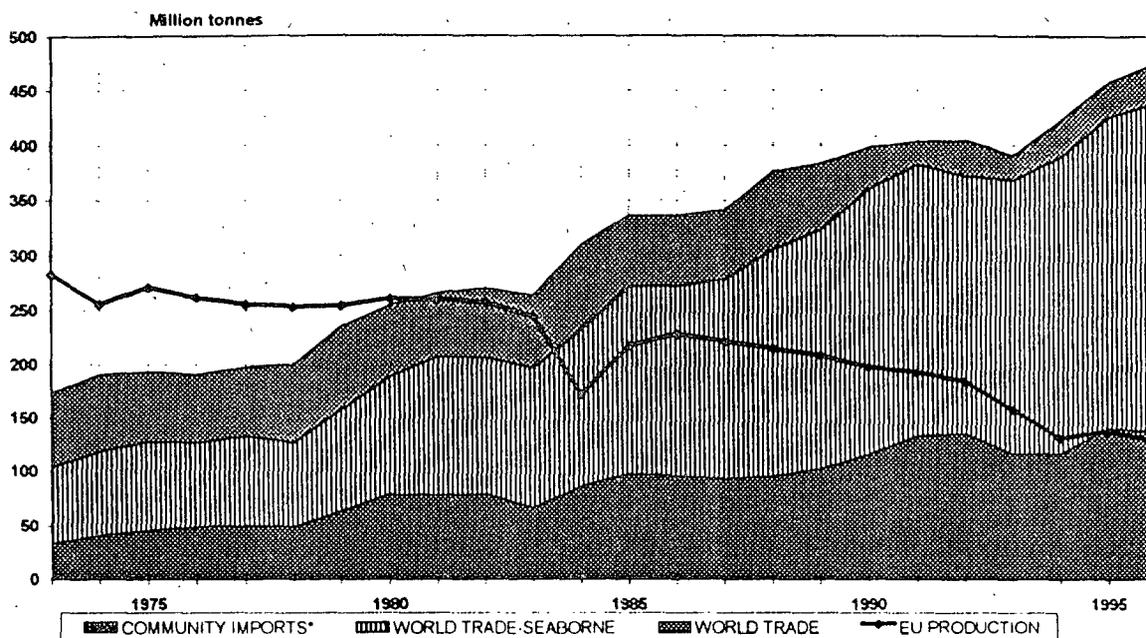
### Hard coal: world trade and production

74. Although precise data for 1996 is not yet available for many of the hard coal producing countries, world hard coal production is estimated to have slightly increased as most of the major producers (Canada, South Africa, China, Australia, Colombia, Indonesia, etc.) have increased their production according to the partial figures currently available for 1996. In particular, it is likely that China will have increased its output by over 100 Mt. in 1996. These increases have more than offset the fall in production in the former Soviet Union and other countries which are rationalising their coal mining industries.

75. In 1995, world coal trade seaborne is estimated to have increased significantly (almost 10%), by more than 38 Mt. to nearly 425 Mt. The increase has been mainly due to the higher demand for thermal coal qualities, but coking coal demand has also increased, by some 5%.

Estimates for 1996 suggest that world coal trade seaborne has increased a further 15 Mt., predominantly in thermal coals, to approach 440 Mt. The main increases in thermal coal imports are to Japan and smaller importers; the increases in coking coal imports are to West Europe and to South Korea. The beneficiaries are Colombia, Indonesia and other smaller exporters for thermal coals, and Australia and Canada for coking coals.

### EVOLUTION OF THE WORLD TRADE FOR COAL COMMUNITY PRODUCTION AND IMPORTS



\* Including new German Länder from 1991 and EUR-15 from 1995

76. With respect to the international market and the balance between offer and demand, as far as steam coal is concerned, the anticipated increase in world steam coal trade that was forecast in 1995, at around 15-16 Mt. for 1996 (mainly in Asia), was a slight underestimate. It had been anticipated that there would be overcapacity in the steam coal market in 1996, but the market started showing signs of tightness in the autumn because of demand strength and supply problems, particularly from Australia and South Africa, but later also from US. The world steam coal trade (including PCI coals) will thus probably be close to 270 Mt. in 1996.

This additional demand has been dominated by Asian requirements. Europe and the Mediterranean accounted for over 5 Mt. and Asia accounted for the remaining 12 Mt. Demand increased only slightly in the Americas mainly because of increases in demand from Chile.

77. With respect to the supply side, the big factor in achieving the market balance has been the increased production from Colombia and Indonesia, accounting for over 12 Mt. extra supply. Canada has also been able to increase its supply to Pacific markets. However there are reported to be up to 5 Mt. deferred deliveries in Europe at the year end.

78. With respect to the European market, the demand for coal was stronger than initially expected but until towards the year end the supply kept pace with demand, largely due to additional capacity from Colombia. Early in the year an oversupply was expected, but US deliveries were affected by snow and Australia was affected by torrential rain. Spot prices eased in the quarter. By mid year, Asian growth was seen to be stronger than forecast, while European demand eased. Supply from Russia and Poland was poor, as were deliveries from China (railroad problems, and local high prices), South Africa (weather problems), Venezuela and Australia. The supply difficulties were more noticeable in Europe, where the failure of hydroelectricity in Northern Europe, and repairs in the French nuclear industry, were offset by abundant rains in the Iberian peninsula, led to additional coal demand of some 4 Mt. Spot prices firmed, and again overtook contract prices in the autumn.

Colombia contributed to maintaining the market balance by increasing its exports to Europe. Additional production again came mostly from Drummond, Mina Pribbenow, (approximately 2.2 Mt. extra tonnage in 1996) and from Prodeco, who increased production at Cerrejon Central.

Supplies from South Africa are traditionally the spot market in Europe, but their delivery problems because of rains reduced availability from this source.

Australian supplies were less in evidence in Europe because of their industrial relations and management problems, despite the substantial reductions in freight rates. Their exports went mainly to supplying the increased demand in Asia.

79. The projections for 1997 forecast a decrease in demand for steam coal in Europe. The only countries where demand is expected to increase are Germany, UK and, in the Mediterranean basin, Israel (1 Mt.) and Morocco. Demand is expected to decrease in Spain, Netherlands and Belgium, and the 2 Mt. increase seen in 1996 in France will be reversed.

Supplies to Europe in 1997 are expected to be increased from Colombia, Australia and South Africa. Colombian expansion will continue, but perhaps not as fast as in 1996 because of constraints in the infrastructure; improvements will increase availability in 1998.

South Africa will probably increase its level of exports to both Europe and the Far East. The problems of 1996 at the Richards Bay Coal Terminal have delayed some expansion plans, although capacity there is being steadily increased (about 0.5 Mtpa). The alternative route through Matola has been used intermittently, although expansion plans there hope to increase capacity to 4 Mtpa. Anglovaal is keen to support a Panamax scheme here. Output from Sasol's recently commissioned Twistdraai mine is expected to reach 2 Mt. in 1997, and 3 Mt. in 1998.

Polish coal is receiving high prices from a strong demand in the domestic market, where mine mouth prices are reported to be \$34/t, although miners are pressing for further increases. At these price levels, exports are likely to fall in 1998. Russian coal is likely to experience supply problems as a result of restructuring and cash crises, and is developing markets closer to home. Exports to West Europe are unlikely in any quantity.

The United States has been experiencing a strong domestic market in the second half of 1996, partly because of a number of nuclear outages for repairs, and partly because high sulphur coals are again popular because of the low cost of sulphur dioxide emission allowances. Exports to Europe will be determined by the domestic demand in the US, and the prices of US coal will be a consequence of the domestic market rather than the international market.

80. With respect to coking coal, the rate of growth of world trade during the last six or seven years has been much slower than that for steam coal. Preliminary estimates for 1996 expect a total seaborne trade of 178 Mt.

The main suppliers of coking coal to Europe are the United States (which accounts for almost 40%), Australia (with over 30%), Poland (approaching 20%) and the balance distributed between Canada and to a lesser extent, Russia and South Africa (these last two mostly for PCI coals).

An estimated 26 Mt. of PCI was used in the world in 1996, and 36 - 40 Mt. is expected to be required in 2000. By then Japan expects almost 20% of coal purchased for its steel market to be used for PCI. European use of PCI in 1996 was 8.7 Mt.; forecast demand in Europe for 2000 is 11 Mt.

81. With respect to the world trade in coke, this remained relatively stable from 1990 (14.2 Mt.) to 1993 (14.6 Mt.), but then increased to 16.3 Mt. in 1994 and to an estimated 17.1 Mt. in 1995. This growth was a result of coke shortages in the western world, which worsened at the same time that the steel industry experienced a recovery. While the trade in coke dropped a little in 1996, in 1997 it is expected to remain broadly stable in the Americas, but demand in the Indian sub-continent and in Turkey is expected to grow. However the surplus of supply in early 1997 is providing prices down \$10/t on recent prices of around \$70 FOB. Total world trade in coke could amount some 20 Mt. by the year 2000.

China is the major new source for the world market. Chinese coke production is expected to increase from 28% of world capacity in 1994 to nearly 40% by the year 2000. New installations are also planned in Taiwan and Indonesia. However not all coke from China and the Far East is suitable for West European use because it lacks the strength required. The leading importing regions are North America, Western Europe, South America (Brazil) and Asia (India).

82. During 1996 a diplomatic conference recommended that coal should be deleted from the list of "hazardous and noxious substances" (HNS) being transported at sea, countering the proposed reclassification of coal by the "International Maritime Organisation". The majority of European countries supported coal's exclusion from the list; the HNS convention will have to be ratified by national governments to be enforced; it creates a system of compensation and liability in case of accidents at sea.

Community trade with third countries (Tables 17 and 18)

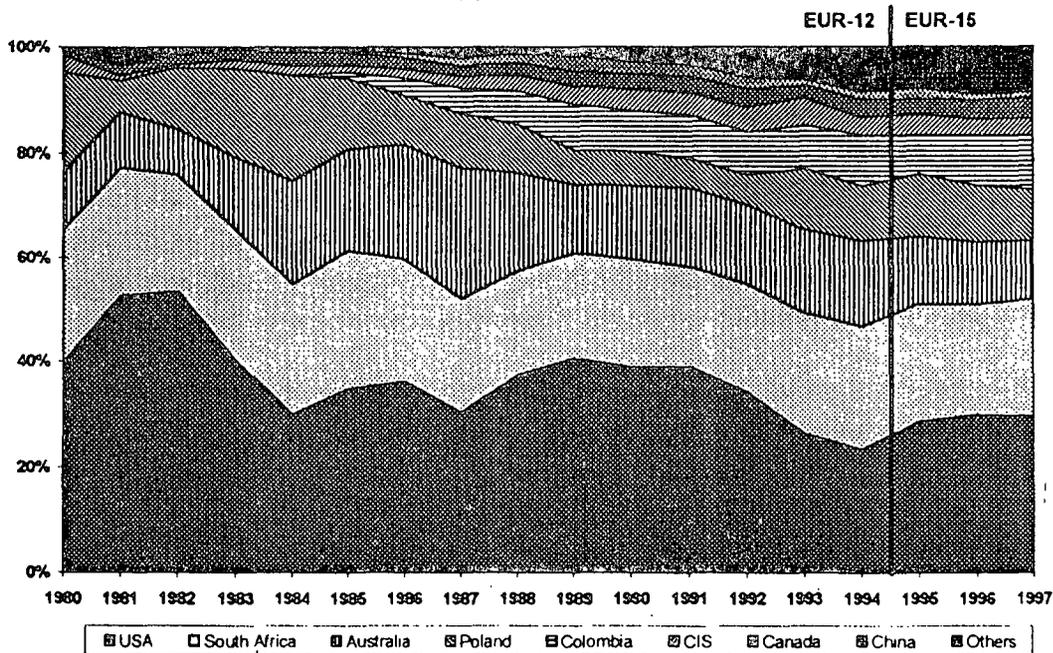
83. In 1996, imports of hard coal from third countries are expected to have reduced with respect to the previous year but are expected to be well above the levels of 1995. Total imports are estimated to be 137.8 Mt., which is 3.3 Mt. (-2.3%) less than in 1995.

By country, the main changes are in Belgium (-3.2 Mt.), Spain (-2.0 Mt.), Portugal (-0.8 Mt.), Finland (+0.6 Mt.), Denmark (+0.7 Mt.), and France (+2.1 Mt.). These changes are predominantly the effect of changes in the electricity market, as indicated in paragraph 38.

With respect to the suppliers, increases have principally been taken by Colombia (+2.6 Mt.), with Canada and the United States gaining 0.8 Mt. each, while South Africa and Poland have been the principal losers (-2.5 Mt. and -2.1 Mt.); Australia, CIS and China will also each have lost exports of over 1 Mt.

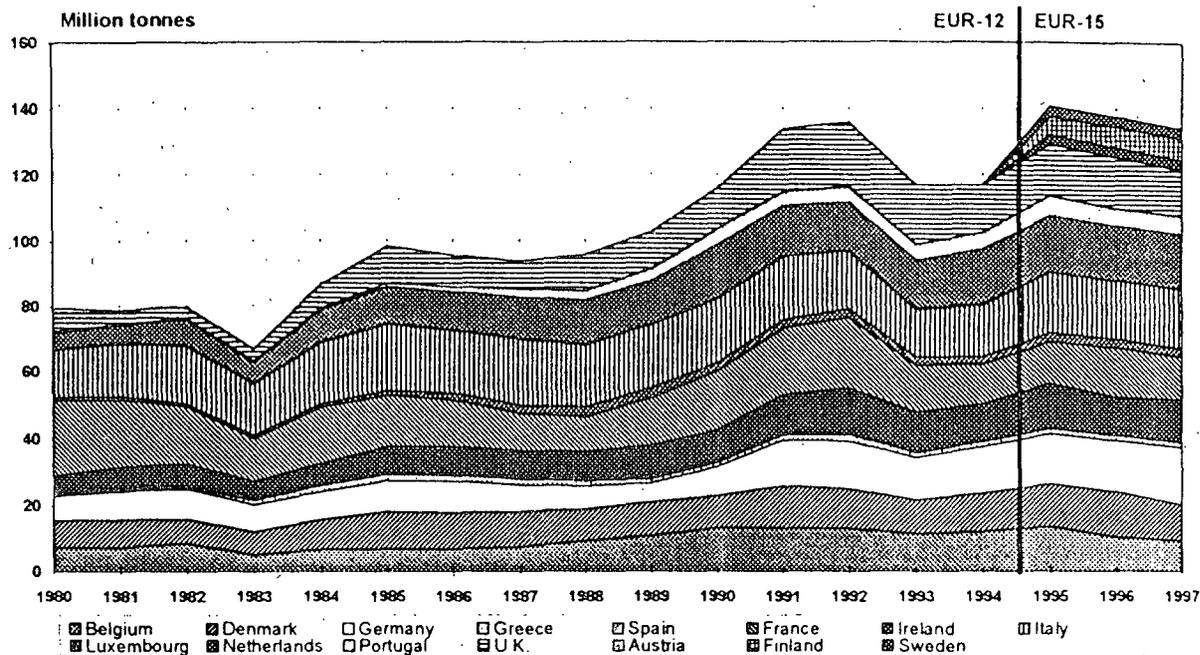
84. For 1997, imports of hard coal from third countries could decrease 3.4 Mt. (-2.4%), similar to 1996, down to 134.4 Mt. The main variations are expected in Denmark (again a decrease of 2.6 Mt.) and in France (a decrease of 2.1 Mt., similar to 1996). The UK and Belgium will also reduce imports by over a million tonnes each, while Germany expects to import some 1.7 Mt. more than 1996, and Spain some 1.3 Mt. By suppliers, Poland will be the biggest loser (-2 Mt.), followed by the United States, and Australia (over 1 Mt. each); South Africa may increase exports to Europe by some one million tonnes.

**HARD COAL IMPORTED FROM THIRD COUNTRIES  
MARKET SHARES\***



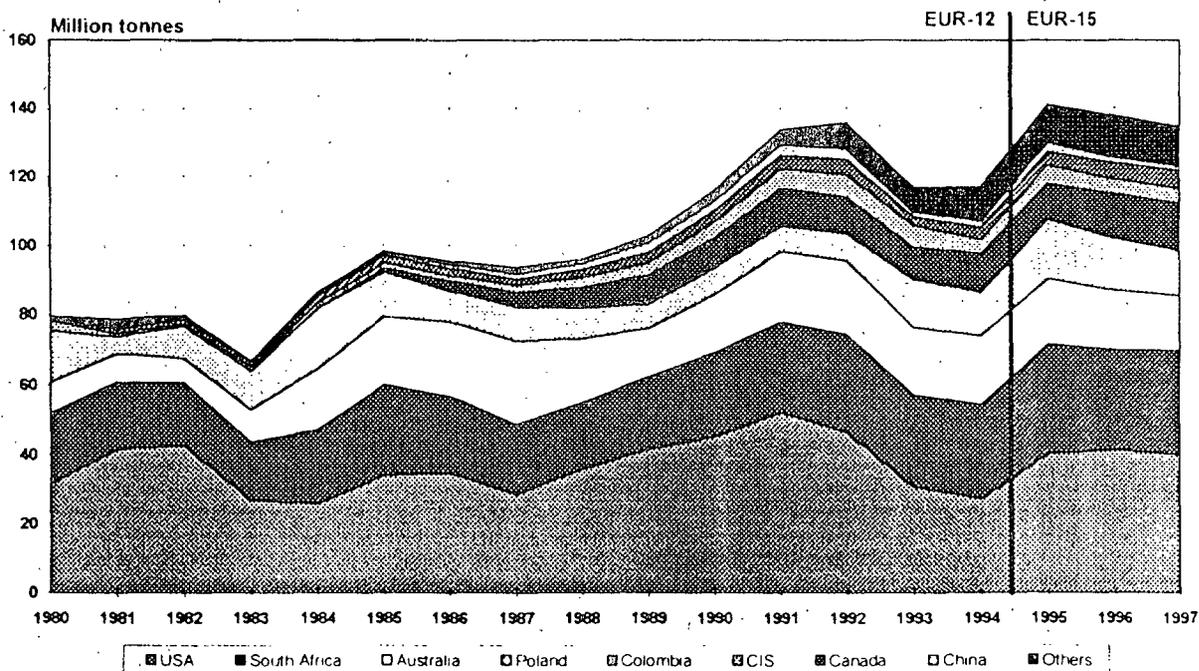
\* Including new German Länder from 1991

## HARD COAL FROM THIRD COUNTRIES BY MEMBER STATE\*



\* Including new German Länder from 1991

## HARD COAL IMPORTED FROM THIRD COUNTRIES



\* Including new German Länder from 1991

85. The United States continues to be the Community's main external supplier, with an increased market share of some 30%, followed by South Africa (21%), Australia (12%), Poland (11%) and Colombia (9%). The relatively low freight rates will reduce the differential between the Australian coal and suppliers nearer to Europe, and help them to compete in the market if they wish to ship to Europe in preference to their local purchasers

### Intra-Community trade (Tables 19A and 19B, 20A and 20B)

86. As usual, there remain discrepancies between the figures that each country claims to have exported to other Member States and what the latter claim to have actually imported. Therefore, for the purposes of historical comparison, the figures for imports, which are usually lower, will be taken as the basis for this report.

However, since the 1st January 1993 and the implementation of the Single Market, the removal of custom checks has led to many Member States having difficulties in determining the volume of coal in intra-Community trade. There can also be distortions resulting from imports to the North West Europe ARA (Amsterdam, Rotterdam, Antwerp) ports, which are then moved on to other countries.

The intra-Community hard coal trade may have fallen slightly to some 3.1 Mt. in 1996, down from 3.8 Mt. in 1995. The forecast for 1997 is for some 3.0 Mt.

With regard to the hard coal produced within the Community, it is free to move between Member States. However, national arrangements, consumption and pricing systems do not at present favour such movements. In addition, the prices producers are paid for their exports are generally comparable to those of deliveries from non-Community countries and, taking account of the Community production costs, are therefore not usually profitable. Therefore intra-community trade is usually only likely if subsidies are received, which allow the price of this coal to be aligned with the price of coal coming from third countries. It should be borne in mind that the figures for intra-Community exchanges also includes coal coming from third countries which has been put into free practice within the Community, particularly noticeable with imports to the ARA ports.

87. The intra-Community trade in coking coal is expected to have been around 1.9 Mt. in 1996, compared with 1.8 Mt. in 1995. In 1997 the trade is expected to revert to approximately 1.8 Mt.

88. Since 1st January 1991 there have been no intra-Community restrictions on the imports of hard coal originating in third countries which have been put in free practice within the Community.

### **IX. STOCKS ( Table 21)**

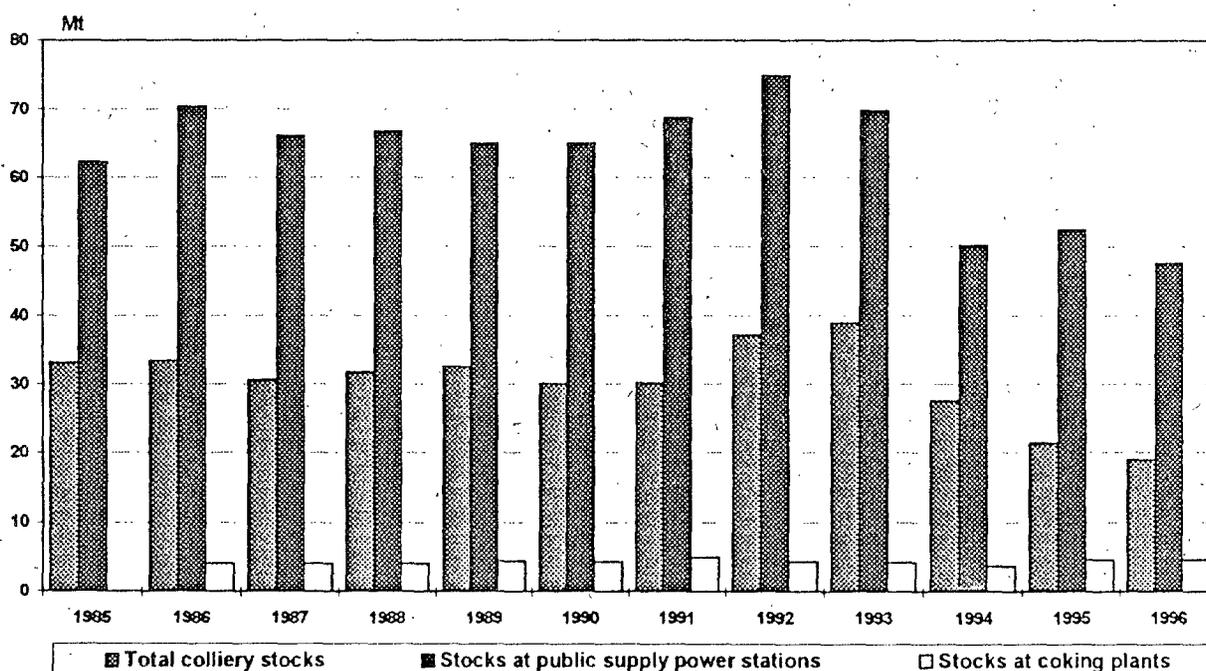
89. The heavy destocking seen in stocks of hard coal at the collieries in 1995 appears to have ended. Producers' stocks of hard coal may have decreased by only 2.2 Mt. during 1996, compared to 1995, to a total of some 19.0 Mt. by the end of the year. The most significant decrease has been seen in the United Kingdom, down some 3.0 Mt. (according to Commission estimates) to a new total of only 4.2 Mt.; elsewhere stocks have increased very slightly.

Stocks at power plants during 1996 appear to have continued the reduction seen in 1995, and are estimated to have reduced by 4.8 Mt. compared to 1995. The principal movements have occurred in Germany (a decrease of 3.4 Mt.), the United Kingdom (a decrease of 2.0 Mt.), Denmark (down 0.6 Mt.), France (a reduction of 0.5 Mt.) and Austria (Commission estimates suggest a reduction of 0.4 Mt.). On the other hand, stocks of coal at Spain's power stations have increased by 2.0 Mt.

Stocks of coke at coking plants may have also declined by 0.2 Mt. to 3.5 Mt., while coal stocks appear to be at the same level as 1995 at 4.7 Mt.

Total stocks (mines plus power stations) are estimated at 66.7 Mt. In absolute terms, the biggest stocks are those in Germany (21.9 Mt.), the United Kingdom (11.9 Mt.), Spain (11.3 Mt.), Denmark (7.0 Mt.), and France (5.9 Mt.).

## STOCKS AT THE END OF THE YEAR



\* EUR-15 from 1995 onwards

90. The combined (collieries and utilities) coal stocks represent:

- some 37% of the total hard coal deliveries to power plants in 1996 (nearly 39% in 1995), or some 4.4 months of Community hard coal consumption by the utilities during 1996;
- around 24.5% of the total inland deliveries in the Community during 1996 (just over 25.5% in 1995), or some 2.9 months of total Community hard coal demand;
- some 52% of the Community hard coal production during 1996 (54.6% in 1995), or 6.2 months of Community hard coal production, and
- some 48% of the hard coal imports to the Community from third countries during 1996 (52% in 1995).

Nearly 87% of these stocks are concentrated in five Member States: Germany with some 33% of the total, the United Kingdom with some 18%, Spain with some 17%, and Denmark and France with 10% and 9% respectively.

91. For 1997 hard coal stocks could slightly decrease overall; in Germany the utilities are expected to destock while the producers increase their coal stocks; Spanish utilities are expected to destock, while power stations in Denmark and France expect to increase their stocks.

# ANNEXES

TABLE 1

Gross internal energy consumption  
European Union (EUR-15)

	1995 Provisional		1996 Provisional		1997 Forecasts	
	M Toe	%	M Toe	%	M Toe	%
Solid fuels	231.9	17.7	219.6	16.2	207.0	15.3
Oil	572.4	43.6	578.1	42.8	572.9	42.3
Natural Gas	271.7	20.7	305.6	22.6	320.1	23.6
Nuclear energy	204.5	15.6	219.3	16.2	223.8	16.5
Other (1)	32.2	2.5	29.3	2.2	30.6	2.3
<b>Total</b>	<b>1312.7</b>	<b>100.0</b>	<b>1351.9</b>	<b>100.0</b>	<b>1354.3</b>	<b>100.0</b>

Source : Based on Eurostat

(1) includes hydro and the balance of foreign trade

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TABLE 2

## Share of solid fuels in gross internal energy consumption

	Year	Hard coal		Lignite and peat		Total Solid Fuels	
		M Toe	%	M Toe	%	M Toe	%
E U R 1 0	1973	194.5	20.9	27.5	3.0	222.0	23.8
	1974	187.7	20.6	29.3	3.2	217.0	23.8
	1975	166.9	19.4	27.2	3.2	194.1	22.6
	1976	176.6	19.3	32.2	3.5	208.8	22.8
	1977	173.5	19.0	29.9	3.3	203.4	22.3
	1978	175.7	18.7	29.8	3.2	205.5	21.8
	1979	191.3	19.4	31.9	3.2	223.2	22.6
E U R 1 2	1980	202.6	19.6	35.7	3.5	238.3	23.1
	1981	201.1	20.1	37.5	3.8	238.6	23.9
	1982	197.3	20.2	37.2	3.8	234.5	24.0
	1983	192.4	20.0	38.0	3.9	230.4	23.9
	1984	180.6	18.2	39.1	3.9	219.7	22.2
	1985	200.7	19.5	38.3	3.7	239.0	23.2
	1986	195.8	18.8	35.8	3.4	231.5	22.2
	1987	198.1	18.6	33.2	3.1	231.3	21.8
	1988	193.0	17.9	33.8	3.1	226.8	21.0
	1989	195.6	17.8	35.4	3.2	231.0	21.0
	1990	199.4	17.9	34.9	3.1	234.3	21.0
EUR12*	1991	203.3	16.9	70.9	5.9	274.2	22.8
	1992	192.8	16.1	63.6	5.3	256.5	21.5
	1993	172.8	14.5	58.7	4.9	231.5	19.5
	1994	176.4	14.7	55.2	4.6	231.6	19.3
EUR15	1995	177.8	14.7	54.1	4.5	231.9	19.1
	1996	166.3	13.5	53.3	4.3	219.6	17.8
	1997	156.3	12.7	50.7	4.1	207.0	16.8

\* Including the new German Länder

TABLE 3

## COMMUNITY HARD COAL DELIVERIES BY SECTOR AND BY COUNTRY

(In millions of metric tons)

	1995 Actual	1996 Estimates	1997 Forecasts	1996 / 1995 % Difference	1997 / 1996 % Difference
<b>A. Sector</b>					
- Thermal power stations (1)	200.4	189.5	177.2	-5.4	-6.5
- Coke ovens	52.4	50.2	49.9	-4.2	-0.6
- Iron and steel industry	10.2	9.6	10.3	-6.1	7.7
- Other industries	15.9	14.8	14.3	-7.2	-3.5
- Domestic sector & coal workers	6.9	6.6	5.7	-3.1	-14.0
- Patent fuel plants	1.6	1.5	1.5	-7.6	-1.5
- Own consumption at mines	0.1	0.1	0.1	-2.0	12.2
- Gasworks	0.0	0.0	0.0	0.0	0.0
- Others	0.9	0.1	0.1	-91.2	-8.5
<b>Total</b>	<b>288.4</b>	<b>272.4</b>	<b>259.1</b>	<b>-5.6</b>	<b>-4.9</b>

<b>B. Country</b>					
Belgium	13.7	10.8	9.7	-21.4	-10.2
Denmark	12.9	13.6	11.0	5.4	-19.1
Germany	76.2	71.9	71.8	-5.7	-0.1
Spain	31.8	29.1	30.7	-8.4	5.3
France	22.6	22.9	19.2	1.2	-16.0
Greece	1.5	1.4	1.5	-4.8	2.9
Ireland	2.7	2.8	2.8	4.1	-0.7
Italy	17.4	17.9	17.9 *	2.4	0.0
Luxembourg	0.2	0.2	0.2	6.0	-15.2
Netherlands	14.1	14.7	15.2	4.1	3.4
Austria	3.0 +	3.0 +	3.0 *	0.0	0.0
Portugal	6.0	5.2	5.4	-14.2	4.9
Finland	6.2	6.8	6.8	9.6	0.0
Sweden	3.1	3.2	3.2	1.5	0.0
United Kingdom	77.0	69.0 *	60.9 *	-10.4	-11.8
<b>EUR-15</b>	<b>288.4</b>	<b>272.4</b>	<b>259.1</b>	<b>-5.6</b>	<b>-4.9</b>

(1) Including pithead power stations and "other" power stations  
+ figures provided in December 1995; \* Commission estimates

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TABLE 4

## COKE DELIVERIES BY SECTOR AND BY COUNTRY

(In thousands of metric tons)

	1995	1996	1997	1996 / 1995	1997 / 1996
	Actual	Estimates	Forecasts	% Difference	% Difference
<b>A. Sector</b>					
- Iron and steel industry	43934	40740	39714	-7.3	-2.5
- Other industries	3034	2952	2793	-2.7	-5.4
- Domestic sector	1257	1033	973	-17.8	-5.8
- Other	910	807	791	-11.3	-2.0
<b>Total</b>	<b>49135</b>	<b>45532</b>	<b>44271</b>	<b>-7.3</b>	<b>-2.8</b>

<b>B. Country</b>					
Belgium	4279	3504	3390	-18.1	-3.3
Denmark	45	30 *	30 *	-33.3	0.0
Germany	15164	13860	13900	-8.6	0.3
Spain	3134	3130	3000	-0.1	-4.2
France	6219	5519	4770	-11.3	-13.6
Greece	12	11	11	-8.3	0.0
Ireland	6	5	5	-16.7	0.0
Italy	5657	5370	5370 *	-5.1	0.0
Luxembourg	521	468	395	-10.2	-15.6
Netherlands	2360	2400	2500	1.7	4.2
Austria	2000	2000 +	2000 *	0.0	0.0
Portugal	333	330	330	-0.9	0.0
Finland	1194 *	1070	1000	-10.4	-6.5
Sweden	1460	1450	1450	-0.7	0.0
United Kingdom	6751	6385 *	6120 *	-5.4	-4.2
<b>EUR-15</b>	<b>49135</b>	<b>45532</b>	<b>44271</b>	<b>-7.3</b>	<b>-2.8</b>

+ figures provided in December 1995; \* Commission estimates

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TABLE 5

## DELIVERIES OF HARD COAL TO COKING PLANTS BY MEMBER STATES (1)

(In thousands of metric tons)

1995 : Actual 1996 : Estimates 1997 : Forecasts	National hard coal*	Hard coal from other ECSC countries*	Total ECSC hard coal	Hard coal from third countries	Total supplies
Belgium		20	20	5232	5252
1995					
1996					3785
1997					3700
Germany	13704		13704		13704
1995					
1996					13080
1997					13200
Spain		14	14	3422	3436
1995					
1996					3095
1997					3400
France	814	3	817	6922	7739
1995					
1996					7361
1997					7025
Italy		110 *	110 *	6855	6965
1995					
1996					6930
1997					6930 *
Netherlands				4057	4057
1995					
1996					4500
1997					4500
Austria					
1995					
1996					
1997					
Portugal				540	540
1995					
1996					450
1997					450
Finland		14	14	1270	1284
1995					
1996					1300
1997					1200
Sweden		10	10	1501	1511
1995					
1996					1640
1997					1640
United Kingdom	364 *		364 *	7550 *	7914
1995					
1996					8050 *
1997					7850 *
EUR-15	14882	147	15029	34578	52402
1995					
1996					50191
1997					49895

(1) For 1996 and 1997 the breakdown by origin is not available

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\* The breakdown by origin for 1995 is a Commission estimation

TABLE 6A

## DELIVERIES OF HARD COAL TO POWER PLANTS BY MEMBER STATES

(In thousands of metric tons)

1995 : Actual 1996 : Estimates 1997 : Forecasts	Public power stations (1)					Private generating plants		Total
	National hard coal	Hard coal from other ECSC countries	Total ECSC hard coal	Hard coal from third countries	Total public power stations	Collieries	Other industry	
<b>Belgium</b>		24	24	6367	6391			6391
1995					5290			5290
1996					4350			4350
1997								
<b>Denmark</b>		31	31	12292	12323			12323
1995					13000			13000
1996					10500			10500
1997								
<b>Germany</b>	43045		43045	6948	49993	1200	3684	54877
1995					47700	1200	3100	52000
1996					47800	1200	3000	52000
1997								
<b>Spain</b>	17937		17937	9514	27451			27451
1995					24799			24799
1996					26000			26000
1997								
<b>France</b>	3987		3987	1043	5030	3361	453	8844
1995					6270	2990	450	9710
1996					2830	2756	450	6036
1997								
<b>Greece</b>				114	114			114
1995					100			100
1996					100			100
1997								
<b>Ireland</b>				2312	2312			2312
1995					2350			2350
1996					2350			2350
1997								
<b>Italy</b>				8130	8130			8130
1995					8500			8500
1996					8500 *			8500 *
1997								
<b>Luxembourg</b>								
1995								
1996								
1997								
<b>Netherlands</b>				9064	9064		30	9094
1995					8500			8500
1996					9000			9000
1997								
<b>Austria</b>					600 +			600 +
1995					600 +			600 +
1996					600 *			600 *
1997								
<b>Portugal</b>				4879	4879			4879
1995					4000			4000
1996					4200			4200
1997								
<b>Finland</b>		56	56	4864	4920			4920
1995					5100		300	5400
1996					5200		300	5500
1997								
<b>Sweden</b>		18	18	782	800			800
1995					827			827
1996					827			827
1997								
<b>United Kingdom</b>	51070		51070	6905	57975		1645	59620
1995					52800 *		1600	54400 *
1996					45900 *		1350 *	47250 *
1997								
<b>EUR-15</b>	116039	129	116168	73214	189982	4561	5812	200355
1995					179836	4190	5450	189476
1996					168157	3956	5100	177213
1997								

(1) For 1996 and 1997 the breakdown by origin is not available

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+ Figures provided in December 1995; \* Commission estimates

TABLE 6B

**DELIVERIES OF SOLID FUELS TO PUBLIC AND PITHEAD POWER STATIONS  
(EXCLUDING OTHER INDUSTRIES)**

(In millions of metric tons)

	1995 Actual	1996 Estimate	1997 Forecast	1996 / 1995 % Difference	1997 / 1996 % Difference
<b>Belgium</b>					
- Hard coal	6.4	5.3	4.4	-17.2	-17.8
<b>Denmark</b>					
- Hard coal	12.3	13.0	10.5	5.5	-19.2
<b>Germany</b>					
- Hard coal	51.2	48.9	49.0	-4.5	0.2
- Brown coal	158.2	155.5	150.0	-1.7	-3.5
<b>Spain</b>					
- Hard coal	27.5	24.8	26.0	-9.7	4.8
- Brown coal	10.7	8.2	8.5	-23.2	3.7
<b>France</b>					
- Hard coal	8.4	9.3	5.6	10.4	-39.7
- Brown coal	1.3	1.3	1.1		-12.5
<b>Greece</b>					
- Hard coal	0.1	0.1	0.1	-12.3	
- Brown coal	56.2	59.8	62.3	6.3	4.2
<b>Ireland</b>					
- Hard coal	2.3	2.4	2.4	1.6	
- Peat	3.0	3.2	3.2	6.6	
<b>Italy</b>					
- Hard coal	8.1	8.5	8.5 *	4.6	
- Brown coal	0.4	0.3	0.3 *	-20.4	
<b>Netherlands</b>					
- Hard coal	9.1	8.5	9.0	-6.2	5.9
<b>Austria</b>					
- Hard coal	0.6 +	0.6 +	0.6 *		
- Brown coal	0.9 +	0.9 +	0.9 *	5.9	
<b>Portugal</b>					
- Hard coal	4.9	4.0	4.2	-18.0	5.0
<b>Finland</b>					
- Hard coal	4.9	5.1	5.2	3.7	2.0
- Peat	4.3	7.9	7.5	82.4	-4.6
<b>Sweden</b>					
- Hard coal	0.8	0.8	0.8	3.4	
<b>United Kingdom</b>					
- Hard coal	58.0	52.8 *	45.9 *	-8.9	-13.1
<b>EUR-15</b>					
- Hard coal	194.5	184.0	172.1	-5.4	-6.5
- Brown coal	227.6	226.0	223.1	-0.7	-1.3
- Peat	7.3	11.1	10.7	51.2	-3.2

\* Commission estimates; + figures provided in December 1995

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TABLE 7

**HARD COAL AND COKE DELIVERIES TO OTHER INDUSTRIES  
(EXCLUDING THE IRON AND STEEL INDUSTRY AND POWER STATIONS)**

(In millions of metric tons)

	1995 Actual	1996 Estimates	1997 Forecasts	1996 / 1995 % Difference	1997 / 1996 % Difference
<b>A. HARD COAL</b>					
Belgium	723	575	550	-20.5	-4.3
Denmark	301	300	250	-0.3	-16.7
Germany	3664	3500	3300	-4.5	-5.7
Spain	563	800	800	42.1	
France	2500	2500	2450		-2.0
Greece	1261	1207	1248	-4.3	3.4
Ireland	107	127	126	18.7	-0.8
Italy	1100	1130	1130 *	2.7	
Luxembourg	123	130	100	5.7	-23.1
Netherlands	110	800	800	627.3	
Austria	200	200 +	200 *		
Portugal	584	700	750	19.9	7.1
Finland		100	100		
Sweden	416	410	410	-1.4	
United Kingdom	4301	2300 *	2050 *	-46.5	-10.9
<b>EUR-15</b>	<b>15953</b>	<b>14779</b>	<b>14264</b>	<b>-7.4</b>	<b>-3.5</b>

<b>B. COKE</b>					
Belgium	112	44	45	-60.7	2.3
Denmark	44	30 *	30 *	-31.8	
Germany	1095	1200	1100	9.6	-8.3
Spain					
France	636	630	600	-0.9	-4.8
Greece	11	11	11		
Ireland		2	2		
Italy	200	200	200 *		
Luxembourg					
Netherlands	180	100	100	-44.4	
Austria	260 +	260 +	260 *		
Portugal	83	80	80	-3.6	
Finland		50	50		
Sweden	65	65	65		
United Kingdom	348	280 *	250 *	-19.5	-10.7
<b>EUR-15</b>	<b>3034</b>	<b>2952</b>	<b>2793</b>	<b>-2.7</b>	<b>-5.4</b>

+ figures provided in December 1995; \* Commission estimates

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TABLE 8

## DELIVERIES OF SOLID FUELS TO THE DOMESTIC SECTOR (WORKERS INCLUDED)

(In thousands of metric tons)

1995 : Actual 1996 : Estimates 1997 : Forecasts	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxem- bourg	Nether- lands	Austria	Portugal	Finland	Sweden	United Kingdom	EUR-15
<b>A. HARD COAL, PATENT FUELS, COKE</b>																
<b>Hard coal</b>																
1995	462		1665	300	954		288	50		10	298 +				2848 *	6855
1996	400	200	1280	400	900		319	50			298 +				2795 *	6642
1997	400	150	1070	425	810		300	50 *			298 *				2210 *	5713
<b>Patent fuels</b>																
1995	17		292		387										708	1404
1996	27		280		352										800 *	1459
1997	21		240		320										725 *	1306
<b>Coke</b>																
1995	8		879		106			90			273 +				178	1534
1996	10		670		100			70			273 +				170 *	1293
1997	10		610		90			70 *			273 *				170 *	1223
<b>Total</b>																
1995	487		2836	300	1447		268	140		10	571 +				3734 *	9793
1996	437	200	2230	400	1352		319	120			571 +				3765 *	9394
1997	431	150	1920	425	1220		300	120 *			571 *				3105 *	8242
% 1996 / 1995	-10.3		-21.4	33.3	-6.6		19.0	-14.3		-100.0					0.8	-4.1
% 1997 / 1996	-1.4		-13.9	6.3	-9.8		-6.0								-17.5	-12.3
<b>B. LIGNITE BRIQUETTES AND PEAT BRIQUETTES</b>																
1995	10		3916				270		5	1	120 +					4322
1996	10		3600				290		5		120 +					4025
1997	10		3300				290		5		120 *					3725

+ Figures provided in December 1995; \* Commission estimates

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TABLE 9

## DELIVERIES OF LIGNITE AND PEAT BY SECTOR AND MEMBER STATE

(In millions of metric tons)

1995 : Actual 1996 : Estimates 1997 : Forecasts	Raw Products											
	Power stations			Briquetting plants			Others			Total		
	1995	1996	1997	1995	1996	1997	1995	1996	1997	1995	1996	1997
Belgium							0.2	0.2	0.2	0.2	0.2	0.2
Denmark												
Germany	158.2	155.5	150.0	30.6	26.2	25.1	6.0	5.4	4.9	194.7	187.1	180.0
Spain	10.7	8.2	8.5							10.7	8.2	8.5
France	1.3	1.3	1.1				0.2	0.1	0.1	1.5	1.4	1.2
Greece	56.2	59.8	62.3	0.2	0.2	0.2	0.5	0.5	0.5	57.0	60.5	63.0
Ireland	3.0	3.2	3.2	0.8	0.4	0.4	1.6	1.5	1.4	5.5	5.1	5.0
Italy	0.4	0.3	0.3 *				0.0			0.4	0.3	0.3 *
Luxembourg							0.0	0.0	0.0	0.0	0.0	0.0
Netherlands				0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1
Austria	0.9 +	0.9 +	0.9 *	0.1 +	0.1 +	0.1 *	0.1 +	0.0 +	0.0 *	1.0 +	1.0 +	1.0 *
Portugal												
Finland	4.3	7.9	7.5	1.7			0.1			6.1	7.9	7.5
Sweden							0.8	0.8	0.8	0.8	0.8	0.8
United Kingdom												
EUR-15	235.0	237.1	233.9	33.5	26.9	25.8	9.5	8.6	8.0	278.0	272.6	267.6

+ Figures provided in December 1995; \* Commission estimates

TABLE 10A  
HARD COAL PRODUCTION BY AREA

(In thousands of metric tons)

	1995	1996	1997
Ruhr	46864	42790	41870
Aachen	1654	1130	170
Ibbenburen	1746	1640	1640
Saar + Kleinzechen	8595	7545	7180
<b>GERMANY</b>	<b>58859</b>	<b>53105</b>	<b>50860</b>
Central Asturias	3100	3550	3475
Bierzo-Villablino + Narcea	6692	6450	6365
Norte Leon + Palencia	1913	1900	1835
Sur	1944	1850	1825
Aragon-Cataluña, Baleares	4032	4050	4000
<b>SPAIN</b>	<b>17681</b>	<b>17800</b>	<b>17500</b>
Lorraine	5825	6200	5500
Centre-Midi	1189	1135	961
<b>FRANCE</b>	<b>7014</b>	<b>7335</b>	<b>6461</b>
<b>IRELAND</b>	<b>1</b>	<b>1</b>	<b>2</b>
Sulcis (Sardinia)			
<b>ITALY</b>			
Deep-mined	35150	34140 *	32100 *
Opencast	16369	16020 *	15525 *
<b>UNITED KINGDOM</b>	<b>51519</b>	<b>50160 *</b>	<b>47625 *</b>
<b>EUR 15</b>	<b>135074</b>	<b>128401</b>	<b>122448</b>

\* Commission estimates

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TABLE 10B  
LIGNITE PRODUCTION BY AREA

(In thousands of metric tons)

	1995	1996	1997
GKB	1295	1000 +	1000 *
WTK			
<b>AUSTRIA</b>	<b>1295</b>	<b>1000 +</b>	<b>1000 *</b>
Rheinland	100185	103000	103000
Helmstedt	4074	3792	3790
Hessen	153	162	160
Bayern	58	60	60
Lausitz	70668	62197	54600
Mitteldeutschland	17618	16390	16390
<b>GERMANY</b>	<b>192756</b>	<b>185601</b>	<b>178000</b>
Ptolemais	34110	35000	38000
Megalopolis	13440	13000	13000
Amindeo	7520	8000	8000
Others	2592	4500	4000
<b>GREECE</b>	<b>57662</b>	<b>60500</b>	<b>63000</b>
La Coruña	10776	8200	8500
<b>SPAIN</b>	<b>10776</b>	<b>8200</b>	<b>8500</b>
Centre-Midi	1401	800	1100
<b>FRANCE</b>	<b>1401</b>	<b>800</b>	<b>1100</b>
Valdarno	367	290	290 *
<b>ITALY</b>	<b>367</b>	<b>290</b>	<b>290 *</b>
<b>EUR 15</b>	<b>264257</b>	<b>256391</b>	<b>251890</b>

\* Commission estimates; + figures provided in December 1995

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TABLE 10C  
PEAT PRODUCTION BY AREA

(In thousands of metric tons)

	1995	1996	1997
<b>IRELAND</b>	<b>8051</b>	<b>5740</b>	<b>5898</b>
North Finland		4220	4000
East Finland		1092	1000
West Finland		2548	2500
South Finland		7	10
<b>FINLAND</b>	<b>8382</b>	<b>7867</b>	<b>7510</b>
<b>SWEDEN</b>	<b>813</b>	<b>813</b>	<b>810</b>
<b>EUR 15</b>	<b>17246</b>	<b>14420</b>	<b>14218</b>

\* Commission estimates

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TABLE 11A  
COKE PRODUCTION

(In millions of metric tons)

	Coke production capacity	% difference compared with the previous year	Hard coal deliveries	Coke production
<b>1995 : Actual</b>				
Belgium	4.5		5.3	3.7
Germany	12.3		13.7	11.1
Spain	2.5	-32.4	3.4	2.4
France	6.4		7.7	5.6
Italy	7.8		7.0	5.2
Netherlands	3.1		4.1	2.9
Austria	1.4			1.4 +
Portugal	0.4	-20.0	0.5	0.3
Finland	0.9		1.3	0.9
Sweden	1.1		1.5	1.1
United Kingdom (a)	6.4	-3.0	7.9	6.2
<b>EUR-15</b>	<b>46.8</b>	<b>-1.3</b>	<b>52.4</b>	<b>40.9</b>
<b>1996 : Provisional</b>				
Belgium	4.5		3.8	3.4
Germany	11.7	-4.9	13.1	10.6
Spain	2.5		3.1	2.4
France	5.5	-14.1	7.4	5.3
Italy	7.8		6.9	5.1
Netherlands	3.1		4.5	3.0
Austria	1.4			1.4 +
Portugal	0.4		0.5	0.3
Finland	0.9		1.3	0.9
Sweden	1.1		1.6	1.2
United Kingdom (a)	6.0	-6.2	8.1 *	6.2 *
<b>EUR-15</b>	<b>44.9</b>	<b>-4.1</b>	<b>50.2</b>	<b>39.9</b>
<b>1997 : Forecasts</b>				
Belgium	4.5		3.7	3.3
Germany	11.7		13.2	10.7
Spain	2.0	-20.0	3.4	2.5
France	5.5		7.0	4.9
Italy	7.8		6.9 *	5.1 *
Netherlands	3.1		4.5	3.0
Austria	1.4			1.4 *
Portugal	0.4		0.5	0.3
Finland	0.9		1.2	0.9
Sweden	1.1		1.6	1.2
United Kingdom (a)	5.6	-6.7	7.9 *	6.1 *
<b>EUR-15</b>	<b>44.0</b>	<b>-2.0</b>	<b>49.9</b>	<b>39.3</b>

(a) Without LTC for the United Kingdom

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+ figures provided in December 1995; \* Commission estimates

TABLE 11B

## COKING PLANT CAPACITY DISTRIBUTION

(Million tonnes)

	1995 Actual	1996 Estimates	1997 Forecasts
- Colliery plants	7.1	5.6	5.6
- Iron and steel industry	38.5	38.1	37.6
- Independent (*)	1.2	1.2	0.8
<b>EUR-15</b>	<b>46.8</b>	<b>44.9</b>	<b>44.0</b>

\* Without LTC for the United Kingdom

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TABLE 12A

PERSONNEL EMPLOYED UNDERGROUND  
(yearly average)

(in thousands)

	1995 Actual	1996 Estimates	1997 Forecasts
Germany	58.4	55.3	51.6
Spain	24.0	23.7	22.6
France	6.1	5.7	5.1
United Kingdom	12.5	12.5 *	11.8 *
<b>EUR-15</b>	<b>101.0</b>	<b>97.2</b>	<b>91.1</b>

\* Commission estimates

TABLE 12B

## OUTPUT PER MAN/HOUR UNDERGROUND

(Kg per man/hour)

	1995	1996	1997
	Actual	Estimates	Forecasts
Germany	749	770	790 *
Spain	292	309	319
France	649	743	766
United Kingdom	1420 *	1423 *	1449 *
<b>EUR-15</b>	<b>725</b>	<b>745 *</b>	<b>759 *</b>

\* Commission estimates

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TABLE 13

INVESTMENTS IN THE COAL INDUSTRY  
(COAL EXTRACTION AND PREPARATION)

(million ECU)

	1995	1996	1997
	Actual	Estimates	Forecasts
Germany	405.2	306.5	-
Spain	176.2	139.9	-
France	23.5	24.2	-
United Kingdom	26.1	43.8	-
<b>EUR-15</b>	<b>631.0</b>	<b>514.4</b>	<b>-</b>

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TABLE 14

## Exchange rates : US \$ - European currencies

1 US Dollar =		ASCH	BFR	DKR	DM	DRA	PTA	FF	FM	IRL	LIT	HFL	ESC	SWK	UKL	ECU
1995	1st quarter	10.41	30.47	5.861	1.479	234.27	130.51	5.164	4.582	0.6356	1641.5	1.658	153.89	7.375	0.6320	0.785
	2nd quarter	9.83	28.73	5.474	1.397	226.57	122.96	4.919	4.297	0.6148	1665.5	1.564	147.33	7.299	0.6264	0.751
	3rd quarter	10.08	29.46	5.563	1.433	231.18	122.87	4.950	4.307	0.6207	1610.2	1.605	149.39	7.185	0.6357	0.762
	4th quarter	10.02	29.27	5.519	1.423	234.70	122.28	4.930	4.278	0.6233	1598.1	1.594	149.48	6.688	0.6406	0.759
	Year : 1995	10.08	29.48	5.604	1.433	231.68	124.65	4.990	4.366	0.6236	1628.8	1.605	149.97	7.137	0.6337	0.764
1996	1st quarter	10.33	30.18	5.677	1.468	241.40	123.69	5.035	4.531	0.6332	1573.4	1.644	152.30	6.781	0.6531	0.777
	2nd quarter	10.71	31.29	5.873	1.522	242.27	127.47	5.159	4.721	0.6366	1555.3	1.703	156.50	6.734	0.6561	0.797
	3rd quarter	10.54	30.85	5.778	1.498	238.00	126.58	5.094	4.536	0.6218	1521.4	1.680	153.61	6.634	0.6433	0.785
	4th quarter	10.77	31.53	5.867	1.530	241.10	128.82	5.174	4.585	0.6088	1522.1	1.717	154.56	6.679	0.6119	0.792
	Year : 1996	10.59	30.96	5.799	1.505	240.70	126.64	5.115	4.593	0.6251	1543.0	1.686	154.24	6.707	0.6411	0.788
% Difference																
4th Qu. 1996 /4th Qu 1995		7.5	7.7	6.3	7.5	2.7	6.3	5.0	7.2	-2.3	-4.8	7.7	3.4	-0.1	-4.5	4.4 %
Year 1996 /year 1995		5.0	5.0	3.5	5.0	3.9	1.6	2.5	5.2	0.2	-5.3	5.0	2.8	-6.0	1.2	3.1 %

TABLE 15 A

## Quarterly average CIF prices for coal imported from third countries

(US \$)

	1995				1996			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
<b>A. STEAM COAL (1)</b>								
NCV (Kj/Kg)	26169	25756	25777	25974	25794	25825	25467	n.a.
- per tonne	42.84	44.86	44.79	45.95	44.75	42.80	41.75	n.a.
- per tce	47.97	51.04	50.91	51.84	50.84	48.56	48.04	n.a.
<b>B. COKING COAL (2)</b>								
NCV (Kj/Kg)	29386	29386	29386	29386	29386	29386	29386	29386
- per standard tonne (3) (4)	55.00	58.00	58.90	58.40	57.40	57.50	57.60	n.a.
- per tce	54.84	57.83	58.73	58.23	57.24	57.34	57.44	n.a.
<b>Ratio B/A (%) per tce</b>	114.3 %	113.3 %	115.4 %	112.3 %	112.6 %	118.1 %	119.6 %	n.a.

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(1) As per the quarterly reports from the Member States (Decision 86/161/ECSC of the 26th February 1985 modifying Decision 77/707/ECSC of the 7th November 1977).

(2) Guide price (Decision 73/287/ECSC of the 25th July 1973 and Decision 3632/93/ECSC of the 28th December 1993). Reference date : the beginning of the quarter.

(3) Specification of the standard quality : ashes 7.5%, water 8%, volatile matter 26%, sulphur 0.8%.

(4) Trends of the mean value : at the first of January of each year :

1970	17.50	1977	61.65	1984	66.20	1991	60.40
1971	23.90	1978	62.10	1985	62.75	1992	58.90
1972	23.65	1979	63.95	1986	61.90	1993	57.50
1973	26.05	1980	68.50	1987	53.40	1994	54.70
1974	31.90	1981	75.70	1988	51.30	1995	55.00
1975	59.55	1982	82.45	1989	54.85	1996	57.40
1976	62.75	1983	76.25	1990	57.80		

TABLE 15B

## COKING COAL IMPORTS

Guide price in national currencies per tce, new reference grade

Reference date	USD	ASCH	BFR	DKR	DM	DRA	PTA	FF	FM	IRL	LIT	HFL	ESC	SWK	UKL	ECU
<b>1995</b>																
1st quarter	55.00	572.33	1678.10	322.36	81.33	12885	7178	284.02	252.02	34.96	90285	91.18	8453	405.65	34.76	43.19
2nd quarter	58.00	570.05	1666.38	317.51	81.05	13141	7132	285.28	249.25	35.66	96598	90.73	8545	423.34	36.33	43.58
3rd quarter	58.90	593.46	1735.21	327.64	84.38	13617	7237	291.53	253.67	36.56	94841	94.51	8799	423.18	37.44	44.88
4th quarter	58.40	584.95	1709.25	322.33	83.13	13706	7141	287.89	249.83	36.40	93330	93.10	8730	390.60	37.41	44.33
<b>1996</b>																
1st quarter	57.40	592.66	1732.41	325.84	84.27	13856	7100	288.99	260.10	36.34	90311	94.36	8742	389.22	37.49	44.59
2nd quarter	57.50	615.84	1799.39	337.71	87.53	13931	7330	296.62	271.44	36.60	89430	97.93	8999	387.21	37.73	45.83
3rd quarter	57.60	607.07	1776.97	332.78	86.27	13709	7291	293.44	261.29	35.82	87631	96.77	8848	382.11	37.06	45.20
4th quarter	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
<b>% Difference</b>																
3rd Qu. 1996 /3rd Qu 1995	-2.2	2.3	2.4	1.6	2.2	0.7	0.7	0.7	3.0	-2.0	-7.6	2.4	0.5	-9.7	-1.0	0.7 %

TABLE 15C

**STEAM COAL IMPORTS**  
Average price in national currencies per tce

Reference date	USD	ASCH	BFR	DKR	DM	DRA	PTA	FF	FM	IRL	LIT	HFL	ESC	SWK	UKL	ECU
<b>1995</b>																
1st quarter	47.97	499.18	1461.86	281.18	70.93	11238	6261	247.71	219.81	30.49	78745	79.52	7372	353.80	30.31	37.67
2nd quarter	51.04	501.64	1466.41	279.41	71.32	11564	6276	251.05	219.34	31.38	85006	79.84	7520	372.54	31.97	38.35
3rd quarter	50.91	512.95	1499.82	283.19	72.93	11770	6255	251.98	219.26	31.60	81976	81.89	7606	385.77	32.36	38.79
4th quarter	51.84	519.24	1517.25	286.13	73.79	12167	6339	255.55	221.77	32.31	82847	82.64	7749	346.73	33.21	39.35
<b>1996</b>																
1st quarter	50.84	524.92	1534.42	288.60	74.64	12273	6289	255.96	230.37	32.19	79990	83.57	7743	344.74	33.20	39.49
2nd quarter	48.56	520.09	1519.62	285.21	73.92	11785	6190	250.50	229.23	30.91	75525	82.71	7600	327.00	31.86	38.71
3rd quarter	48.04	506.31	1482.04	277.55	71.95	11434	6081	244.73	217.92	29.87	73087	80.71	7379	318.69	30.91	37.70
4th quarter	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>% Difference</b>																
3rd Qu. 1996 /3rd Qu. 1995	-5.6	-1.3	-1.2	-2.0	-1.3	-2.9	-2.8	-2.9	-0.6	-5.5	-10.8	-1.2	-3.0	-12.9	-4.5	-2.8 %

TABLE 16

## WORLD COAL PRODUCTION AND TRADE

I. WORLD TRADE BY COUNTRY AND REGION	1994	1995	1996 (1)
Community imports from third countries	132	141	139
Imports : Japan	116	122	126
Imports : NIC-Asia (2)	74	82	84
Imports : other countries	68	81	90
<b>(a) Subtotal coal sea-borne trade</b>	<b>390</b>	<b>426</b>	<b>439</b>
of which: - Coking coal	167	175	178
- Others	223	251	261
Intra-Community coal trade	7	6	5
Intra-Eastern European trade (3)	12	12	12
USA-Canada trade	10	12	17
Other overland trade	4	3	3
<b>(b) Subtotal regional trade</b>	<b>33</b>	<b>33</b>	<b>37</b>
<b>(c) TOTAL WORLD TRADE (= a + b)</b>	<b>423</b>	<b>458</b>	<b>476</b>
of which: - Coking coal	178	185	190
- Others	245	273	286
<i>Difference from year to year (%)</i>	<b>8.0</b>	<b>8.3</b>	<b>3.8</b>
<b>II. WORLD PRODUCTION OF COAL</b>			
Western Europe	131	135	129
<i>(EUR)</i>	<i>131</i>	<i>135</i>	<i>129</i>
North America	894	895	901
<i>(USA)</i>	<i>857</i>	<i>856</i>	<i>860</i>
<i>(Canada)</i>	<i>37</i>	<i>39</i>	<i>41</i>
CIS	370	325	315
China	1240	1292	1360
Poland	134	137	136
South Africa	196	206	211
Australia	176	191	196
India	255	266	275
Japan	7	6	6
Latin America	34	37	39
<i>(Colombia)</i>	<i>23</i>	<i>26</i>	<i>27</i>
Rest of the world	125	139	145
<b>(d) TOTAL WORLD PRODUCTION OF COAL</b>	<b>3561</b>	<b>3629</b>	<b>3713</b>
<b>III. SEA-BORNE TRADE OF COAL IN % OF WORLD PRODUCTION (a/d)</b>	<b>11.0</b>	<b>11.7</b>	<b>11.8</b>

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(1) Commission estimates : January 1997

(2) Newly-Industrialised Countries in East Asia : Hong Kong, South Korea and Taiwan

(3) Countries with an economy in transition (Bulgaria, Czech Republic, Slovakia, Hungary, Poland, Romania, CIS)

TABLE 17

## IMPORTS OF HARD COAL FROM THIRD COUNTRIES

(In millions of metric tons)

	1994 Actual	1995 Actual	1996 Estimates	1997 Forecasts
<b>A. By country of destination</b>				
Belgium	12.1	13.7	10.5	9.4
Denmark	11.5	12.9	13.6	11.0
Germany	13.9	14.9	15.3	17.0
Greece	1.5	1.4	1.4	1.5
Spain	11.4	13.6	11.6	12.9
France	11.9	12.8	14.9	12.7
Ireland	2.2	2.7	2.6 *	2.6 *
Italy	15.9	18.5	18.0	18.0 *
Luxembourg	0.2	0.1	0.1	0.1
Netherlands	16.7	17.0	16.5	17.0
Austria	2.6	3.0 +	3.0 +	3.0 *
Portugal	5.0	6.0	5.2	5.4
Finland	7.9	5.7	6.3	6.6
Sweden	3.0	3.2	3.2	3.2
United Kingdom	14.6	15.6	15.7 *	14.2 *
<b>EUR-15</b>	<b>130.4</b>	<b>141.1</b>	<b>137.8</b>	<b>134.4</b>

<b>B. By country of origin</b>				
USA	28.2	40.4	41.2	39.7
Canada	3.7	4.0	4.8	5.3
Australia	20.0	18.4	16.7	15.5
South Africa	27.5	31.3	28.8	29.9
Poland	18.6	17.2	15.1	13.1
CIS	6.5	5.3	4.1	4.2
China	1.7	2.8	1.5	1.2
Colombia	11.3	10.4	13.0	13.8
Others	12.8	11.3	12.6	11.7
<b>EUR-15</b>	<b>130.4</b>	<b>141.1</b>	<b>137.8</b>	<b>134.4</b>

+ figures provided in December 1995; \* Commission estimates

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TABLE 18

## COAL IMPORTS FROM THIRD COUNTRIES

(In thousands of metric tons)

1996	U.S.A	Canada	Australia	South Africa	Poland	CIS	China	Colombia	Others	Total Imports
Belgium	3550	250	2150	3500	350	110	200	250	160	10520
Denmark	3000		1250	4250	3000	1000		1000	100	13600
Germany	2950		1060	5380	3000	60	30	1800	1020	15300
Spain	3700	375	800	5000				800	900	11575
France	4600	1000	2900	2000	1120	50	550	1800	900	14920
Greece	36			1123		250				1409
Ireland	998 *		114 *	219 *	290 *			8 *	943 *	2572 *
Italy	9260	1150	2360	3700	100	500	280	540	100	17990
Luxembourg				97						97
Netherlands	6000	300	1500	1500	500	100	400	3500	2700	16500
Austria				75 +	1200 +	120 +			1600 +	2995 +
Portugal	1350	200	150	1550		50		1500	350	5150
Finland	120				4000	1500		350	330	6300
Sweden	953		635		1112	318			159	3177
UK	4669 *	1533 *	3778 *	400 *	400 *	87 *		1500 *	3333 *	15700 *
EUR-15	41186	4808	16697	28794	15072	4145	1460	13048	12595	137805

(In thousands of metric tons)

1997	U.S.A	Canada	Australia	South Africa	Poland	CIS	China	Colombia	Others	Total Imports
Belgium	3200	200	1900	3150	300	105	200	200	110	9365
Denmark	2400		1000	3500	2400	800		800	100	11000
Germany	3000	100	1200	5600	3200	200	100	1900	1700	17000
Spain	4000	400	800	5700		200		900	900	12900
France	3900	800	2800	1800	750	50	500	1300	800	12700
Greece	36			1123		250			41	1450
Ireland	998 *		114 *	219 *	290 *			8 *	943 *	2572 *
Italy	9260 *	1150 *	2360 *	3700 *	100 *	500 *	280 *	540 *	100 *	17990 *
Luxembourg				85						85
Netherlands	6000	300	1500	1500	450	100	150	3500	3500	17000
Austria				75 *	1200 *	120 *			1600 *	2995 *
Portugal	1400	200	200	1600		50		1600	350	5400
Finland	200				3200	1500		300	1400	6600
Sweden	953		635		1112	318			159	3177
UK	4400 *	2100 *	3000 *	1800 *	50 *	50 *		2800 *		14200 *
EUR-15	39747	5250	15509	29852	13052	4243	1230	13848	11703	134434

\* Commission estimates; + figures provided in December 1995

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TABLE 19A

## INTRA-COMMUNITY TRADE OF COAL IN 1997

(In thousands of metric tons)

To	From ---->															United Kingdom	Total deliveries Total receipts
	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxembourg	Netherlands	Austria	Portugal	Finland	Sweden			
Belgium			240							200					100 *	540	
			290		1					12					47	350	
Denmark																	
Germany	180				131 *										900 *	1191	
	290				300					400					10	1000	
Spain	2		2							1500						1504	
	10		55							130		5			100	300	
France	296		100							100					200 *	696	
			200												100	300	
Greece										300						300	
Ireland															300 *	300	
	2 *		4 *							2 *					120 *	128 *	
Italy	2		5													7	
					10 *											10 *	
Luxembourg	55															55	
	50		10		2					48						110	
Netherlands	130		2													132	
	300		150												50	500	
Austria			1													1	
			2 +		3 +											5 +	
Portugal																	
Finland																	
										45 *					155 *	200	
Sweden																	
United Kingdom	5		50							200						255	
			50 *													50 *	
Total deliveries	650		400		131 *					2300					1500 *	4981	
Total receipts	642		706		316					507					482	2953	

1st Line : data supplied by the exporting Member State; 2nd Line : data supplied by the importing Member State

\* Commission estimates; + figures provided in December 1995

TABLE 198

## INTRA-COMMUNITY TRADE OF COAL IN 1996

(In thousands of metric tons)

To	From ---->	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxembourg	Netherlands	Austria	Portugal	Finland	Sweden	United Kingdom	Total deliveries	Total receipts
Belgium				320							200					90 *	610	
				295		3					14					48	360	
Denmark																25 *	25	
Germany	165					219 *										50 *	434	
	250					300					320					30	900	
Spain	2		8								2100					40 *	2150	
	10		35								40					75	160	
France	320		150								50					150 *	670	
			200													100	300	
Greece											300						300	
Ireland			5													330 *	335	
	2 *		4 *								2 *					120 *	128	
Italy	2		10														12	
						10											10	
Luxembourg	65																65	
	66		12			2											133	
Netherlands	150		5														155	
	300		150													50	500	
Austria			2														2	
			2 +			3 +											5 +	
Portugal																		
Finland																		
Sweden											34 *						116 *	150
																	15 *	15
United Kingdom	6		100								150						258	
			500 *														500 *	
Total deliveries	710		600			219 *					2800					700 *	5029	
Total receipts	618		1163			318					423					464	3146	

1st Line : data supplied by the exporting Member State; 2nd Line : data supplied by the importing Member State

\* Commission estimates; + figures provided in December 1995

TABLE 20A

## INTRA-COMMUNITY TRADE OF COKE IN 1997

(In thousands of metric tons)

To	From ---->														Total deliveries	
	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxembourg	Netherlands	Austria	Portugal	Finland	Sweden	United Kingdom	Total receipts
Belgium			10		53 *					150						213
					8					2						10
Denmark	5				1 *											6
	15 *		2 *	2 *	6 *					1 *					4 *	30 *
Germany	120				57 *					300					10 *	487
	150				50					190	10					400
Spain					16 *											16
			10		15							15			10	50
France	125		5							500					20 *	650
										450						450
Greece																
								11 *								11
Ireland					0 *										1 *	1
Italy			20		59 *											79
					40 *					30 *						70 *
Luxembourg	256															256
	120		10							265						395
Netherlands	20		50		11 *											81
			50													50
Austria	1		10		7 *											18
			24 +		8 +			19 +								51 +
Portugal																
Finland	3				37 *											40
					27 *					133 *					40 *	200
Sweden	20				44 *										50 *	114
United Kingdom	10		10		32 *					50						102
					20 *					30 *						50 *
Total deliveries	560		105		317 *					1000					80	2082
Total receipts	285		86	2	159			30		1101	10				45	1788

1st Line : data supplied by the exporting Member State; 2nd Line : data supplied by the importing Member State

\* Commission estimates; + figures provided in December 1995

TABLE 20B

## INTRA-COMMUNITY TRADE OF COKE IN 1996

To From ---->	(In thousands of metric tons)													(In thousands of metric tons)			
	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxembourg	Netherlands	Austria	Portugal	Finland	Sweden	United Kingdom	Total deliveries	Total receipts
Belgium			10		59 *					150					5 *	224	
					10					3					1	14	
Denmark	6			6	1 *										10 *	23	
	15 *		2 *	2 *	6 *					1 *					4 *	30 *	
Germany	125			1	63 *					300					5 *	494	
	200				60			2		230	8					500	
Spain					18 *											18	
		3			20			5		5		10		2	5	50	
France	130		5	30						500					10 *	675	
	50									400						450	
Greece																	
								11 *								11	
Ireland															5 *	5	
					0										1	1	
Italy			25	7	66 *											98	
					40					30						70	
Luxembourg	260															260	
	144		10							314						468	
Netherlands	24		60	5	12 *											101	
			50													50	
Austria	1		15		8 *											24	
			24 +		8 +			19 +								51 +	
Portugal				7												7	
Finland	4				41 *											45	
					20 *					100 *					30 *	150	
Sweden	25			4	49 *										40 *	118	
United Kingdom	15		15	10	35 *					50						125	
	25 *			10 *	25 *											60 *	
Total deliveries	590		130	70	352 *					1000					75 *	2217	
Total receipts	434		86	12	169			32		1078	8				36	1905	

1st Line : data supplied by the exporting Member State; 2nd Line : data supplied by the importing Member State  
 \* Commission estimates; + figures provided in December 1995

TABLE 21

## STOCKS

(In millions of metric tons)

	Producers (Hard coal)			Power Stations (Hard coal)			Coking plants					
	1995 Actual	1996 Estimate	1997 Forecast	1995 Actual	1996 Estimate	1997 Forecast	(Coke)			(Hard coal)		
							1995 Actual	1996 Estimate	1997 Forecast	1995 Actual	1996 Estimate	1997 Forecast
Belgium				0.6	0.6	0.6	0.0	0.0	0.0	0.4	0.4	0.4
Denmark				7.6	7.0	7.5						
Germany	12.3	12.6	15.2	12.7	9.3	6.0	1.8	1.5	1.2	0.2	0.3	0.3
Spain	0.9	1.3	0.9	8.0	10.0	8.2	0.1	0.2 *	n.a.	0.5	0.5	0.5
France	0.7	0.8	0.5	5.6	5.1	5.8	0.6	0.6	0.5	0.2	0.2	0.2
Greece							0.0	0.0	n.a.			
Ireland	0.0	0.0	0.0 *	0.4	0.4	n.a.						
Italy				1.3	1.5 *	n.a.	0.2	0.2	n.a.	0.9 *	0.9 *	n.a.
Luxembourg												
Netherlands				1.8 *	1.8 *	n.a.	0.2	0.2	n.a.	0.5 *	0.5 *	n.a.
Austria				1.4	1.0 *	n.a.						
Portugal				1.0	1.1	1.2	0.0	0.0	0.0	0.1	0.1	0.1
Finland				1.6	1.7	1.7 *						
Sweden				0.8	0.6 *	n.a.	0.2	0.2	0.2 *	0.7	0.7 *	n.a.
United Kingdom	7.2	4.2 *	n.a.	9.7	7.7		0.7	0.7 *	n.a.	1.1	1.1 *	n.a.
EUR-15	21.2	19.0	n.a.	52.5	47.7	n.a.	3.7	3.5	n.a.	4.7	4.7	n.a.

\* Commission estimates

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TABLE 22  
HARD COAL BALANCE SHEET FOR 1997

(In thousands of metric tons)

	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxem- bourg	Nether- lands	Austria	Portugal	Finland	Sweden	United Kingdom	EUR-15
1. PRODUCTION (t = t)			50860	17500	6461		2								47825 *	122448
2. RECOVERIES	600		1700		500										600 *	3400
3. RECEIPTS FROM ECSC COUNTRIES	350		1000	300	300		128 *	10 *	110	500	5 *		200		50 *	2953
4. IMPORTS FROM THIRD COUNTRIES	9365	11000	17000	12900	12700	1450	2572 *	17990 *	85	17000	2995 *	5400	6600	3177	14200 *	134434
5. AVAILABILITIES (1 + 2 + 3 + 4)	10315	11000	70560	30700	19961	1450	2702 *	18000 *	195	17500	3000 *	5400	6800	3177	62475 *	260282
6. TOTAL INLAND DELIVERIES	9655	11000	71780	30700	19222	1450	2778	17860 *	195	15200	3000 *	5400	6800	3177	60875 *	259092
A. POWER STATIONS AT MINES			1200		2756											3956
B. POWER STATIONS	4350	10500	47800	26000	2830	100	2350	8500 *		9000	600 *	4200	5200	827	45900 *	168157
C. COKING PLANTS	3700		13200	3400	7025			6930 *		4500		450	1200	1640	7850 *	49895
D. IRON AND STEEL INDUSTRY (of which POWER STATIONS)	650	100	1800		2684	100	1	1200 *	95	900	1900 *			300	600 *	10330
E. OTHER INDUSTRIES (of which POWER STATIONS)	550	250	6300	800	2900	1248	126	1130 *	100	800	200 *	750	400	410	3400 *	19364
F. DOMESTIC HEATING	400	150	1000	350	810		300	50 *			298 *				2040 *	5398
G. MISCELLANEOUS (TOTAL 1 - 5)	5		480	150	217	2	1	50 *			2 *				1085 *	1992
1. ISSUE TO WORKERS			70	75											170 *	315
2. PATENT FUEL PLANTS	5		370		217										900 *	1492
3. OWN CONSUMPTION AT MINES			30	75											5 *	110
4. GASWORKS																
5. RAILWAYS							1				2 *				10 *	13
6. OTHERS			10				1	1	50 *							62
7. DELIVERIES TO ECSC COUNTRIES	650		400		131 *					2300					1500 *	4981
8. EXPORTS TO THIRD COUNTRIES	10		10		19 *		3								100 *	142
9. TOTAL DELIVERIES (6 + 7 + 8)	10315	11000	72190	30700	19372	1450	2781	17860 *	195	17500	3000 *	5400	6800	3177	62475 *	259234
10. MOVEMENT OF PRODUCERS AND IMPORTERS STOCKS (5-9)			-1630		589		-79	140 *								-980

\* Commission estimates

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TABLE 23

## HARD COAL BALANCE SHEET FOR 1996

(In thousands of metric tons)

	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxem- bourg	Nether- lands	Austria	Portugal	Finland	Sweden	United Kingdom	EUR-15
1. PRODUCTION (t = t)			53105	17800	7335		1								50160 *	128401
2. RECOVERIES	600		2000		496										800 *	3896
3. RECEIPTS FROM ECSC COUNTRIES	360		900	160	300		128	10	133	500	5 +		150		500 *	3146
4. IMPORTS FROM THIRD COUNTRIES	10520	13600	15300	11575	14920	1409	2572	17990	97	16500	2995 +	5150	6300	3177	15700 *	137805
5. AVAILABILITIES (1 + 2 + 3 + 4)	11480	13600	71305	29535	23051	1409	2701	18000	230	17000	3000 +	5150	6450	3177	67160 *	270102
6. TOTAL INLAND DELIVERIES	10755	13600	71860	29144	22893	1409	2798	17860	230	14700	3000 +	5150	6800	3177	69000 *	272376
A. POWER STATIONS AT MINES			1200		2990											4190
B. POWER STATIONS	5290	13000	47700	24799	6270	100	2350	8500		8500	600 +	4000	5100	827	52800 *	179836
C. COKING PLANTS	3785		13080	3095	7361			6930		4500		450	1300	1640	8050 *	50191
D. IRON AND STEEL INDUSTRY (of which POWER STATIONS)	700	100	1600		2192	100	1	1200	100	900	1900 +			300	500 *	9593
E. OTHER INDUSTRIES (of which POWER STATIONS)	575	300	6600	800	2950	1207	127	1130	130	800	200 +	700	400	410	3900 *	20229
F. DOMESTIC HEATING	400	200	1200	350	900		319	50			298 +				2600 *	6317
G. MISCELLANEOUS (TOTAL 1 - 6)	5		480	100	230	2	1	50			2 +				1150 *	2020
1. ISSUE TO WORKERS			80	50											195 *	325
2. PATENT FUEL PLANTS	5		340		230										940 *	1515
3. OWN CONSUMPTION AT MINES			40	50											8 *	98
4. GASWORKS																
5. RAILWAYS						1					2 +				7 *	10
6. OTHERS			20			1	1	50								72
7. DELIVERIES TO ECSC COUNTRIES	710		600		219 *		0			2800					700 *	5029
8. EXPORTS TO THIRD COUNTRIES	15		20		31 *		3								100 *	169
9. TOTAL DELIVERIES (6 + 7 + 8)	11480	13600	72480	29144	23143	1409	2801	17860	230	17500	3000 +	5150	6800	3177	69800 *	272545
10. MOVEMENT OF PRODUCERS' AND IMPORTERS STOCKS (5-9)			-1175	391	-92		-100	140		-500			-350		-2640 *	-4326

\* Commission estimates; + figures provided in December 1995

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TABLE 24  
COKE BALANCE SHEET FOR 1997

(In thousands of metric tons)

	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxem- bourg	Nether- lands	Austria	Portugal	Finland	Sweden	United Kingdom	EUR-15
1. PRODUCTION (t=t)	3300		10700	2450	4919			5100 *		3000	1400 *	330	870	1150	6050 *	39269
2. RECEIPTS FROM ECSC COUNTRIES	10	30 *	400	50	450	11	1 *	70 *	395	50	51 *		200		50 *	1768
3. IMPORTS FROM THIRD COUNTRIES	650		2600	500	300		5 *	300 *		400	549 *	30	370	300	300 *	6304
4. TOTAL AVAILABILITIES (1+2+3)	3960	30 *	13700	3000	5669	11	6 *	5470 *	395	3450	2000 *	360	1440	1450	6400 *	45573
5. TOTAL INLAND DELIVERIES	3390	30 *	13900	3000	4770	11	5	5370 *	395	2500	-2000 *	330	1000	1450	6120 *	44271
A. STEEL INDUSTRY	3325		11800	3000	3966		3	5100 *	395	2400	1440 *	250	950	1385	5700 *	39714
B. OTHER INDUSTRIES	45	30 *	1100		600	11	2	200 *		100	280 *	80	50	65	250 *	2793
C. DOMESTIC SECTOR	5		400		90			70 *			273 *				135 *	973
D. MISCELLANEOUS of which :	15		600		114						27 *				35 *	791
1. ISSUE TO WORKERS	5		210												35 *	260
2. OWN CONSUMPTION																
3. OTHERS	10		390		114						27 *					641
6. DELIVERIES TO ECSC COUNTRIES	580		105		317 *					1000					80 *	2062
7. EXPORTS TO THIRD COUNTRIES	15		5		70 *			100 *				30			200 *	420
8. TOTAL DELIVERIES (5+6+7)	3965	30 *	14010	3000	5167	11	5	5470 *	395	3500	2000 *	360	1000	1450	6400 *	44691
9. STOCK MOVEMENT AT																
PRODUCTION & IMPORTS (4-8)	5		310		512		1			50			440			588

\* Commission estimates

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TABLE 25  
COKE BALANCE SHEET FOR 1996

(In thousands of metric tons)

	Belgium	Denmark	Germany	Spain	France	Greece	Ireland	Italy	Luxem- bourg	Nether- lenda	Austria	Portugal	Finland	Sweden	United Kingdom	EUR-15
1. PRODUCTION (t = t)	3400		10600	2435	5288			5100		3000	1400 +	330	920	1150	6240 *	39863
2. RECEIPTS FROM ECSC COUNTRIES	14	30 *	500	50	450	11	1	70	468	50	51 +		150		60 *	1905
3. IMPORTS FROM THIRD COUNTRIES	692		2600	645	330		5	300		350	549 +	30	300	300	300 *	6401
4. TOTAL AVAILABILITIES (1 + 2 + 3)	4108	30 *	13700	3130	6068	11	6	6470	488	3400	2000 +	360	1370	1450	6600 *	46264
5. TOTAL INLAND DELIVERIES	3504	30 *	13860	3130	5519	11	5	5370	468	2400	2000 +	330	1070	1450	6385 *	45532
A.- STEEL INDUSTRY	3440		11600	3130	4669		3	5100	468	2300	1440 +	250	1020	1385	5935 *	40740
B.- OTHER INDUSTRIES	44	30 *	1200		630	11	2	200		100	280 +	80	50	65	280 *	2952
C.- DOMESTIC SECTOR	5		450		100			70			273 +				135 *	1033
D.- MISCELLANEOUS of which :	15		610		120						27 +				35 *	807
1. ISSUE TO WORKERS	5		220												35 *	260
2. OWN CONSUMPTION																
3. OTHERS	10		390		120						27 +					647
6. DELIVERIES TO ECSC COUNTRIES	590		130	70	352 *					1000					75 *	2217
7. EXPORTS TO THIRD COUNTRIES	18		10		78 *			100				30			140 *	374
8. TOTAL DELIVERIES (5 + 6 + 7)	4110	30 *	14000	3200	5949	11	6	6470	488	3400	2000 +	360	1070	1450	6600 *	45906
9. STOCK MOVEMENT AT																
PRODUCTION & IMPORTS (4-8)	-4		100	-70	119		1						300			446

\* Commission estimates; + figures provided in December 1995

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TABLE 26

## LIGNITE AND PEAT BALANCE SHEETS FOR 1997

## LIGNITE

(In thousands of metric tons)

	Belgium	Germany	Spain	France	Greece	Ireland	Italy	Luxem- bourg	Nether- lands	Austria	EUR-15
<b>A. RAW PRODUCT</b>											
- AVAILABILITIES :	180	180000	8500	1150	63000	50 *	300 *	9	100	1010 *	254299
PRODUCTION		178000	8500	1100	63000		290 *			1000 *	251890
IMPORTS	180	2000		50		50 *	10 *	9	100	10 *	2409
- UTILIZATION :	180	180000	8500	1226	63000	50 *	300 *	9	100	1000 *	254365
BRIQUETTING PLANTS		25078			180				50	80 *	25388
POWER STATIONS		150000	8500	1131	62300		300 *			900 *	223131
OTHERS	180	4922		95	520	50 *		9	50	20 *	5846

## PEAT (In thousands of metric tons)

	Ireland	Finland	Sweden	EUR-15
	5898	7510	810	14218
	5898	7510	810	14218
	4937	7510	810	13257
	400			400
	3227	7510		10737
	1310		810	2120

	Belgium	Germany	Spain	France	Greece	Ireland	Italy	Luxem- bourg	Nether- lands	Austria	EUR-15
<b>B. BRIQUETTES</b>											
- AVAILABILITIES :	10	8100			100			5		151 *	8201
PRODUCTION		7700			100						7800
ARRIVAL FROM ECSC COUNTRIES	10							5		150 *	165
IMPORTS FROM THIRD COUNTRIES		400								1 *	401
- UTILIZATION	10	8100			90			5		151 *	7831
POWER STATIONS		320			57					10 *	387
INDUSTRY		3260								19 *	3279
DOMESTIC	10	3300						5		120 *	3435
DELIVERIES TO OTHER ECSC COUNTRIES		525									525
EXPORTS TO NON-MEMBER COUNTRIES		30									30
- OTHERS		665			33					2 *	700

	Ireland	Finland	Sweden	EUR-15
	320 *			320
	320 *			320
	310			300
	290			290
	10			10
	10			10

\* Commission estimates

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TABLE 27

## LIGNITE AND PEAT BALANCE SHEETS FOR 1996

## LIGNITE

(In thousands of metric tons)

## PEAT

(In thousands of metric tons)

	LIGNITE											PEAT			
	Belgium	Germany	Spain	France	Greece	Ireland	Italy	Luxem- bourg	Nether- lands	Austria	EUR-15	Ireland	Finland	Sweden	EUR-15
<b>A. RAW PRODUCT</b>															
- AVAILABILITIES :	195	187601	8200	850	60500	50	300	9	100	1010 +	258815	5740	7869	813	14422
PRODUCTION		185801	8200	800	60500		290			1000 +	256391	5740	7867	813	14420
IMPORTS	195	2000		50		50	10	9	100	10 +	2424		2		2
- UTILIZATION :	195	187061	8200	1403	60500	50	300	9	100	1000 +	258818	5077	7870	813	13760
BRIQUETTING PLANTS		28178			180				50	80 +	26488	400			400
POWER STATIONS		155505	8200	1293	59791		300			900 +	225989	3227	7870		11097
OTHERS	195	5378		110	529	50		9	50	20 +	6341	1450		813	2283
<b>B. BRIQUETTES</b>															
- AVAILABILITIES :	10	8720			107	2		5		151 +	8828	300			300
PRODUCTION		8320			107						8427	300			300
ARRIVAL FROM ECSC COUNTRIES	10					2		5		150 +	167				
IMPORTS FROM THIRD COUNTRIES		400				0				1 +	401				
- UTILIZATION	10	8720			90	2		5		151 +	8451	310			300
POWER STATIONS		320			57					10 +	387				
INDUSTRY		3580								19 +	3599				
DOMESTIC	10	3600						5		120 +	3735	290			290
DELIVERIES TO OTHER ECSC COUNTRIES		525				2					527	10			10
EXPORTS TO NON-MEMBER COUNTRIES		30									30				
- OTHERS		665			33					2 +	700	10			10

\* Commission estimates; + figures provided in December 1995

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