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REPORT OF THE COMMISSION

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THE MARKET FOR SOLID FUELS IN THE COMMUNITY

IN 1987 AND THE OUTLOOK FOR 1988

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I. INTRODUCTION AND SUMMARY

1. Article 46 of the ECSC Treaty provides that the Commission shall, in order to provide guidance on the course of action to be followed by all concerned and to determine its own course of action : conduct, in accordance with the provisions of this Treaty, " a continuous study of market and price trends".

Among the results of this study are periodic market reports for solid fuels, short term forecasts included. A first concise report covering main features of the current year and first forecasts for the year to come is submitted to the ECSC Consultative Committee in December. The main market report is usually established at the beginning of each year, submitted to the Consultative Committee in March and released to the public in May/June. It is followed by a "Revision of the market report" issued during the fourth quarter of the year.

In addition, the study of developments in the market constitutes one of the instruments allowing the Commission to fulfil its task under the Council Recommendation for long-term Community energy policy objectives. This task is to review periodically progress made towards the role of solid fuels as defined in the Community objectives and to report to the Council.

2. This report analyses the state of the Community solid fuels market in the year 1987, forecasts developments for 1988, and provides final reference data for 1986.

The data for 1986 and 1987 are those available in January 1988 for the Community of Twelve. The forecasts for 1988 were drawn up at the end of 1987 and partially updated at the beginning of 1988. Changes of data which occurred at a later stage were incorporated in this report as far as they were proposed on the occasion of the meeting of the ECSC Consultative Committee in March.

The revision of the market report in mid-year will allow developments during the first half year both in the general economy and in the energy field to be evaluated and their impact on the solid fuels to be analysed.

3. In 1987 economic growth in real terms in the Community was, at 2.7 %, about as high as in the previous year (2.6 %). The domestic market was expanding ; as a consequence of the strengthening of the European currencies with respect to the US dollar, imports strongly increased while exports were stagnant.

As a consequence of increasing internal demand and rising exports, economic growth is expected to be higher than 2,5% in 1988.

4. After the dramatic fall of oil prices from an average of about 36 ECU per barrel (cif) of crude oil in 1985 to about 15 ECU per barrel in 1986, crude oil prices slightly increased to an average of 15,6 ECU per barrel in 1987. Prices for other fuels such as gas and coal remained at a correspondingly low level throughout 1987.

Primary energy demand in the Community grew by 0.5 % in 1987 as compared to 1.3 % in 1986 ; growth rate in 1988 is expected to be 0,5 % or less due to the mild weather conditions during the first months of the year.

At present there is no shortage of any form of energy, nor is there a shortage expected within the near future.

5. The influence of the overall background of the low oil price level, which was still minor in 1986, took on some momentum in 1987 as shown in the following table ; resources (Community production + recoveries + imports from third countries) of hard coal went down 3.8 % ; deliveries were 4.2 % less than in the previous year. Stocks at power stations, however, have been reduced substantially during 1987 ; real consumption of hard coal for electricity generation therefore increased slightly. Power stations use at present nearly 2/3 of hard coal resources of the Community.

In 1988 resources and deliveries are expected to decrease by 1-1.5 %.

The share of third country imports in total Community hard coal resources continues to increase slowly : 28.5 % in 1986, 29 % in 1987 and about 30 % in 1988.

Consumption of lignite and peat has been constant in 1986 and 1987 and is expected to remain so in 1988.

Coke deliveries, however, are steadily decreasing ; resources continue to exceed deliveries.

(million tonnes)

	1986 Actual	1987 Provisio- nal	1988 Forecasts	% 1988/ 1987
<b>Coal</b>				
<b>Resources :</b>				
- Production	233.6	225.0	219.1	- 2.6
- Recoveries	6.8	4.3	4.4	+ 2.3
- Imports from third countries	<u>95.5</u>	<u>93.7</u>	<u>95.7</u>	<u>+ 2.1</u>
	335.9	323.0	319.2	- 1.2
<b>Deliveries :</b>				
- to coking plants	77.6	72.7	69.9	- 3.9
- to power stations	208.2	200.7	198.2	- 1.2
- to others	49.8	48.0	48.1	+ 0.2
- Exports to third countries	<u>2.1</u>	<u>1.6</u>	<u>1.4</u>	<u>-12.5</u>
Total :	337.7	323.0	317.6	- 1.7
<b>Lignite and Peat</b>				
<b>Resources :</b>				
- Production and Imports	181.1	181.1	182.2	+ 0.6
<b>Deliveries :</b>				
- to briquetting plants	16.8	20.3	20.4	+ 0.5
- to power stations	156.8	154.9	156.1	+ 0.8
- to others (exports to third countries included)	<u>7.0</u>	<u>5.3</u>	<u>4.7</u>	<u>-11.3</u>
Total	180.6	180.5	181.2	+ 0.4
<b>Coke</b>				
<b>Resources :</b>				
- Production	58.4	54.3	52.2	- 3.9
- Importation	<u>1.2</u>	<u>0.8</u>	<u>0.8</u>	-
Total :	59.6	55.1	53.0	- 3.8
<b>Deliveries :</b>				
- To the steel industry	48.2	45.0	44.2	- 1.8
- Others within the Community	7.5	6.1	5.7	- 6.6
- Exports to third countries	<u>1.9</u>	<u>1.8</u>	<u>1.8</u>	-
Total :	57.6	52.9	51.7	- 2.3

6. The list prices of coal and coke undertakings in the Community remained generally stable in 1987, except in Belgium, Italy and the Netherlands where substantial reductions of coke prices were registered. Prices on the world coal market - which the Community's mines have to take significantly into account in sales policy - continued to decline. This trend seems not to be continued in 1988. However the gap between the price of imported coal and the cost of production in the Community remains very large although considerable success in cost control has been obtained.
7. Producers' stocks of hard coal decreased in 1987; for 1988 a slight increase is forecast. Coke stocks increased in 1987 on the other hand. The forecasts established at the end of 1987, prior to the recovery in the iron and steel markets, show a further increase in 1988.
8. In 1987 the share of solid fuels in gross internal energy consumption counted for 22.2%; this is the same value as in 1986. This apparent stability in a situation where resources and deliveries are decreasing and total energy demand is increasing, is to be explained by major stock reductions, mainly at power stations. For 1988 a practically constant value is to be expected (21.9%). Overall development therefore appears less unfavourable than forecast in previous reports.

## II - ECONOMIC SITUATION AND PROSPECTS

### Continued growth at only moderate rates

9. Economic activity in the Community continued to expand at a rate comparable to that in the years before; this was essentially due to a good performance during the last six months of 1987. The estimated increase in gross domestic product was 2.7% in real terms. As in 1986, growth was chiefly due to expansion in internal demand (3.9%). However, owing to the major appreciation of European currencies against the dollar at the end of 1986, the Community's exports to the rest of the world were practically static in volume terms, while imports increased considerably. For this reason the external balance made a large negative contribution to the growth of Community output. This trend meets the requirements of the international adjustment process, which demands that countries in surplus should support the growth of world trade by their imports.

Whereas in 1986 growth in internal demand was chiefly supported by private consumption, in 1987 gross capital formation also made a contribution. In particular, capital investment grew at the fairly high rate of 6.7% owing to an improvement in the internal and external outlook during the year and to an increase in the rate of capacity utilization.

10. With the implementation in recent years of policies which have improved the relationship between output growth and growth in employment over 1.1 million jobs were created in 1987 (+ 0.9%) despite the low growth rate. Even this, however, caused only a marginal fall in unemployment, which was still 11.7% of the civil working population in 1987.

Wage moderation and the recent improvement in the terms of trade due to the appreciation of European currencies all had a very beneficial impact on price trends. In 1987 the private consumption deflator was only slightly above 3% for the Community as a whole - the best outcome for 20 years. The fall in import prices also alleviated the effect on the Community balance of payments of the adverse change in import and export volumes. The Community's surplus on current account was about 1% of gross domestic product in 1987 compared with 1.5% in the preceding year.

#### The outlook for 1988

11. It is now becoming increasingly clear that the stockmarket fall of October 1987 and the exchange rate instability of the end of last year have not affected economic activity in 1988 as much as had been feared. The latest available indications suggest that, on condition that exchange rates remain at their present levels, economic growth in the Community should remain above 2.5% in 1988.

In the Community, the more optimistic outlook for 1988 is due essentially to a stronger growth of domestic demand than previously forecast. The most dynamic components are private consumption and investment in equipment. Exports as well are expected to rise considerably in real terms. Since imports, however, will increase even more than exports, the Community will continue to play its part in the international adjustment process. The EC trade surplus is forecast to decline from 0.9% of GDP in 1987 to around 0.5% in 1988.

In the Community, employment will increase by around 0.8% in 1988, which will produce only a small reduction in the unemployment level which remains above 11% of the civilian work force. Inflation will remain around the 1987 figure of just over 3%.

12. There are, however, caveats behind this more optimistic outlook. The international adjustment in 1988 will progress very slowly. In spite of higher rates of growth of imports, the Asian newly industrializing countries' and Japan's surpluses will remain at the previous high levels while the American deficit will decline only slightly. This delay increases the risk of a sudden loss of market confidence which could endanger the stability of exchange rates which has prevailed since the beginning of 1988.

### III - DEVELOPMENTS ON THE COMMUNITY ENERGY MARKET

#### Energy prices

13. After the spectacular fall in energy prices recorded in 1986, 1987 was characterised by a certain increase in the price of oil imported by the Community. On the basis of available information the average price (cif) of imported crude oil was \$ 17.9/barrel in 1987, as against \$ 14.5/barrel in 1986, an increase of the order of 23%. However, because of the fall in the value of the dollar, this increase is less significant when expressed in national currencies.

The prices of oil products followed this upward movement from the beginning of last year. Nevertheless, it is probable that their average level over the entire year will be very close to that of 1986.

As a result of the indexing system included in the majority of gas contracts, gas prices followed the falling price of oil in 1986 with a certain time-lag. In consequence, the prices of imported gas fell very sharply during the first half of 1987, with a slight tendency to rise later on.

14. The prices of imported coal (steam coal and coking coal) continued to fall slightly throughout the first three quarters of 1987. This matter is analysed in more detail later on in the report.

15. It is very difficult, in the current climate, to forecast the development of prices in 1988. Certain downward pressures appeared at the very beginning of the year on the oil market (prices less than \$ 14/barrel). It may be supposed that the average level of prices in 1988 will be lower than that of 1987 and approach a level of \$ 16/barrel.

#### Energy demand and supply

16. In spite of an economic growth rate of the order of 2.7% and particularly severe climatic conditions during the first quarter, the demand for primary energy in the Community increased only very slightly in 1987. On the basis of information for the first three quarters, it can be estimated that, over the whole year, the increase in overall demand will be close to 0.5%.

17. During the first nine months, overall demand for oil products fell by about 1.8% and total deliveries by about 0.9%. Following stock build-up in 1986, deliveries of gas oil went down by 4%.

On the other hand, 1987 was characterised by certain interesting phenomena. For example, a rapid growth in demand for natural gas (between 5% and 6% over the year) was observed, due mainly to favorable price developments. Moreover, and in spite of an increase of about 3% in electricity consumption, a slowing-down in the growth of nuclear production was noted. As a result of a reduction in output in Italy and the United Kingdom, nuclear energy production increased by only 2% during the first 9 months of the year.

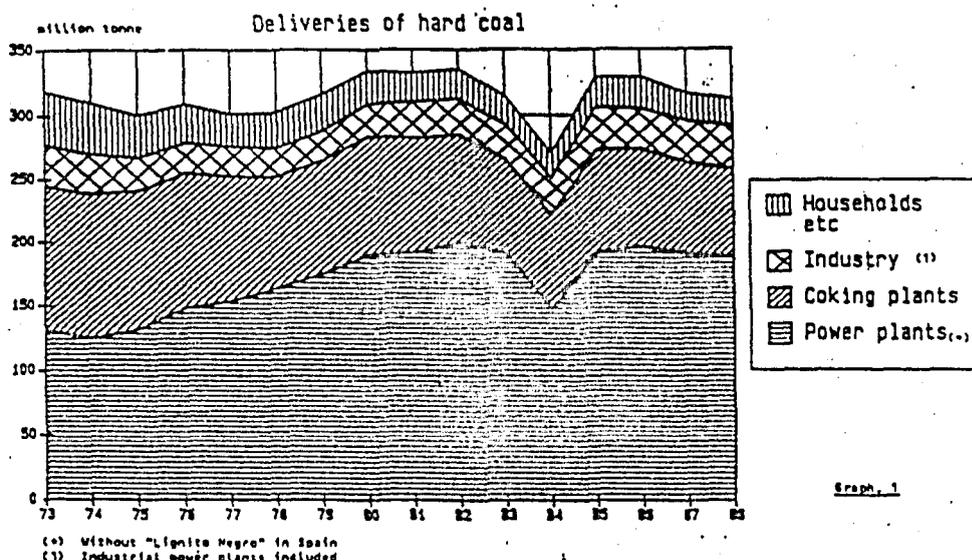
18. The most recent Commission forecasts for 1988 suggest a slight growth in overall demand of 0.5% ; mild weather conditions during the first months of the year might further reduce this value. However, the major uncertainty for 1988 is linked to the economic climate which remains uncertain after the events on the stock market at the end of 1987.
19. As has been the case in the recent past, the supply of all forms of energy is largely sufficient and there is little danger that difficulties will appear in the near future.

IV. DEMAND FOR SOLID FUELS

20. Demand by sector and country

(Table 3) (Graph 1)

Internal deliveries of hard coal went down from 335.6 million tonnes in 1986 to 321.4 million tonnes in 1987. For 1988 a further slight decline to 316.3 million tonnes is forecast.



Deliveries to thermal power stations went down by 3.6 % in 1987 ; for 1988 a further decline by 1.2 % to under 200 million tonnes is expected. Also in the coking sector the decline in demand will continue. After a 6.3 % decline in 1987 deliveries will go down another 3.9 % to 70 million tonnes in 1988. However, a remarkable increase in coal consumption for blast furnace injection has been noticed. The third main hard coal market, "other industries" features, after a slight decrease of 0.9 % in 1987 an increase of 0.9 % forecast for 1988. For the domestic sector a fall of 18.1 % in 1987 is followed by a further decline of 4 % in 1988.

21. The picture of a continuously decreasing demand for the Community as a whole is the result of different trends in Member States. Most of the coal producing countries (United Kingdom, Germany, Spain, France) feature declining deliveries, whereas in the other Member States the deliveries mainly to power plants are stable or slightly increasing.

The reasons for this development will be examined in the following sector by sector analysis.

22. Cokemaking

(Tables 4 and 5)

Overall coke consumption which had already decreased by 11 % in 1986 fell again by 8 % to 51.1 million tonnes in 1987. This was due to a 7 % decrease in demand from the iron and steel industry and a fall of 47 % of deliveries to the domestic sector, where consumption in 1987 went down to 1.8 million tonnes.

Demand in the domestic sector was strongly influenced by the continuing low oil and gas prices. The deliveries to "other industries" remain nearly stable.

The further slight decline of 2.3 % to 50.0 million tonnes in total coke deliveries forecast for 1988 is based on forecasts established at the end of 1987. The stronger demand for the first half of 1988 as now manifested might lead to more favourable results for this year.

23. Deliveries of hard coal to coking plants totalled 77.6 million tonnes in 1986, of which 39 % are import deliveries from third countries. Only in Italy and the Netherlands deliveries are increasing between 1986 and 1988 ; in all other Member States they remain stable or are decreasing. In Germany, where no significant quantities of coking coal are imported from third countries, deliveries of hard coal are expected to decrease by 5.9 million tonnes between 1986 and 1988.

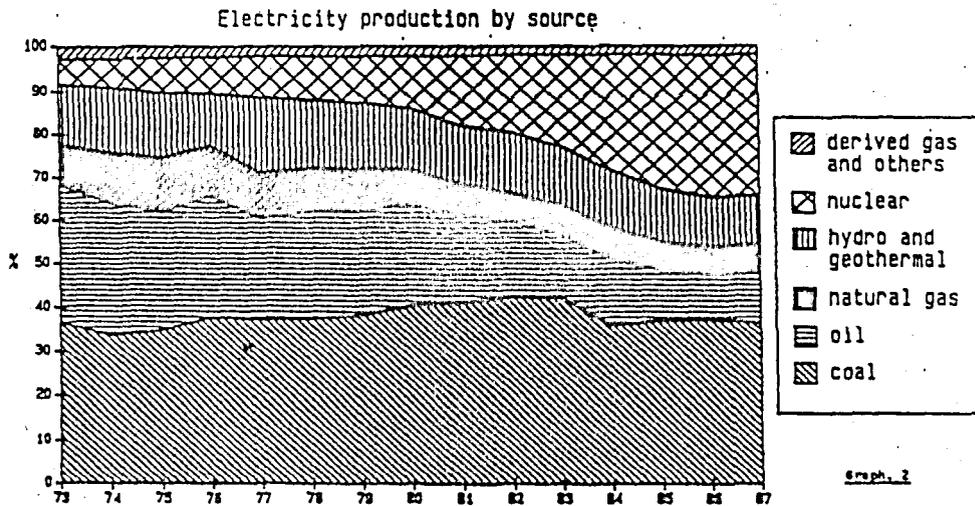
24. Power stations

(Tables 6A and 6B) (Graph 2)

In 1987 the power stations received 200.7 million tonnes of hard coal or 62 % of the hard coal deliveries in the Community. This figure is down 3.6 % on 1986. Against the background of further falling world market prices for steam coal at the beginning of the year, as a result of worldwide production overcapacities, stocks at power stations were run down during 1987. Real consumption at power stations in 1987 is close to the value of 1986. In spite of

a slight reduction of 1.2 %, down to 198.2 million tonnes, in deliveries, real consumption in power stations is likely to remain constant also in 1988. Since less low quality coal is used in power stations, and since modern units are replacing old less efficient plant capacity, total coal based electricity generation is likely to increase slightly.

25. This overall picture of a relatively stable situation varies widely between Member States : increasing deliveries are forecast for Denmark, Ireland, the Netherlands and Portugal. Stagnant supplies are forecast for Spain, Greece and Italy. Other Member States with a high electricity generation based on nuclear and solid fuels, like Belgium, Germany, France and the United Kingdom expect decreasing coal deliveries to power stations in 1988. In France, where deliveries fell by 24 % in 1987, a further 23 % drop to 7.8 million tonnes in 1988 is expected.
26. Lignite and peat deliveries to power stations remain stable : 156.8 million tonnes in 1986, 154.9 in 1987 and 156.1 in 1988. Slight decreases in Germany are compensated by corresponding increases in Greece.



27. Graph 2 shows the shares of primary energies in electricity generation since 1973. In 1974 the share of solid fuels has been with 34 % at its lowest ; it reached a maximum of 42 % in 1982 ; in 1987 it was, with 37 % half way in between. Not only nuclear production is progressing, but since 1987 the amounts of oil products, natural gas and derived gas burnt in power stations are increasing (+ 8% in 1987).

28. Other Industries

(Table 7)

The forecasts for 1987 and 1988 of total deliveries to other industries show only minor variations compared with 1986 as shown in Table 7. It should however be taken into consideration that most of the figures have an even more provisional character than usual owing to the variety of solid fuel users covered by this table and uncertainty about future coal and oil price trends. Cement industries, which had converted to coal during the first half of the 80s more than 80 % of their production capacity, have since 1986 been increasingly using petroleum coke and, to a lesser extent, gas and fuel oil. The behaviour of this industry is very sensitive to the oil/coal price differential and thus difficult to predict.

Coke consumption in other industries is limited mainly to specific applications ; only minor variations are to be expected.

NB. The industrial uses of solid fuels considered here do not include consumption in power stations by undertakings producing their own electricity, or undertakings' own use of steam from cogeneration plant.

29. Domestic consumption

(Table 8)

The stable low prices for oil and gas were even more strongly felt in this sector than in "other industries".

Although it was not possible to present Table 8 in a sufficiently consolidated form, it nevertheless points to the following conclusions : all types of solid fuels, (hard coal, coke and other hard coal and lignite and peat based patent fuels) show, Ireland, Greece and Spain excepted, a substantial decrease in 1987. This tendency will continue in 1988.

The share of solid fuels in total domestic energy consumption is steadily decreasing : 6.6 % in 1986, 6.0 % in 1987 and 5.8 % in 1988. This traditional trend is accelerated by the unfavourable coal/oil price relationship.

30. Deliveries of lignite and peat

(Table 9)

Total deliveries of raw products, together with their breakdown by Member State, showed only slight variations. Decreases in Germany and France are compensated by increases mainly in Greece.

Lignite and peat in 1986 accounted for :

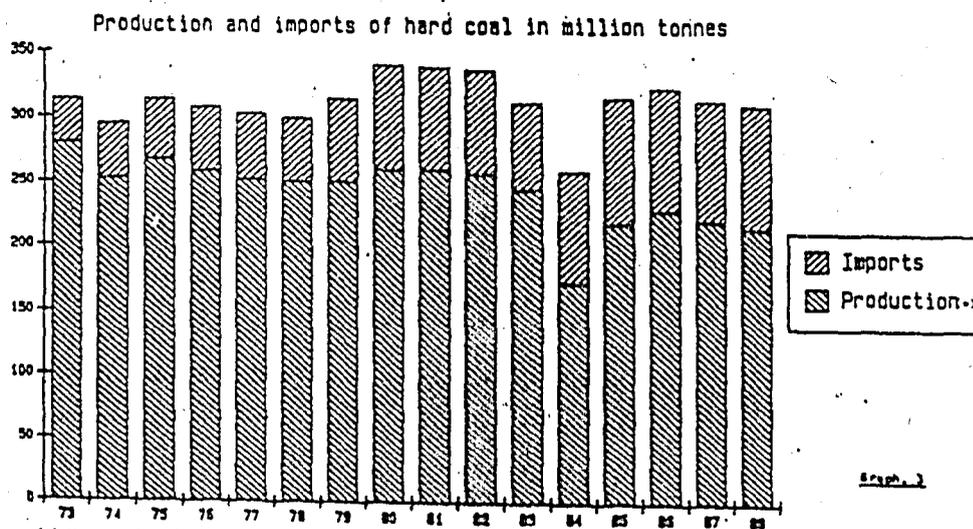
- 3.2 % of total inland energy consumption,
- 14.6 % of total inland solid fuel consumption,
- 19.2 % of indigenous solid fuel production,
- 8.3 % of total fuel inputs to electricity generation.

V. COMMUNITY PRODUCTION OF SOLID FUELS

31. Hard coal

(Table 10 - Graph 3)

Hard coal production in the Community was 225 million tonnes in 1987, about 8.6 million tonnes less than 1986. The decline is due to reductions in Belgium (-21 %), Germany (-5 %), Spain (-12 %) and France (-5 %) whereas the production in the United Kingdom remained stable (+0.7 %).



(\*) Without "Lignite Negro" in Spain  
 1984 : 5.8 Mio t ; 1987 : 5.0 Mio t ; 1988 5.1 Mio t.

Graph 3

In 1988 reduced production in Belgium (-34 %), Germany (-3 %) and France (-10 %) as well as a stable production level in Spain and the United Kingdom will lead to a total Community production forecast of 219 million tonnes.

32. The sharp decrease (- 48 % in two years) in coal production in Belgium is the result of mine closures in the Campine coalfield. Production is scheduled, however, to remain at about 2.5 million tonnes for a certain time.

In order to adjust to the long term development of sales opportunities in the steel industry area and in the heat market, which are now assessed as being smaller than previously appraised, a stagewise reduction in production capacity in Germany of 13 to 15 million tonnes by 1995 has been decided. This measure aims also at a reduction of the increasing burden of State aids in support of the indigenous hard coal production.

In addition, in France and Spain restructuring efforts are currently leading to reductions in production capacities.

33. Lignite and Peat

(Tables 26 and 27)

Lignite and peat production in the Community remained at 178.5 million tonnes in 1986 and 1987. Forecasts for 1988 show only marginal variation (+ 0.8 %). An increase in production (+ 5 %) is expected only in Greece.

34. Coke

(Tables 11A and 11B - Graph 4)

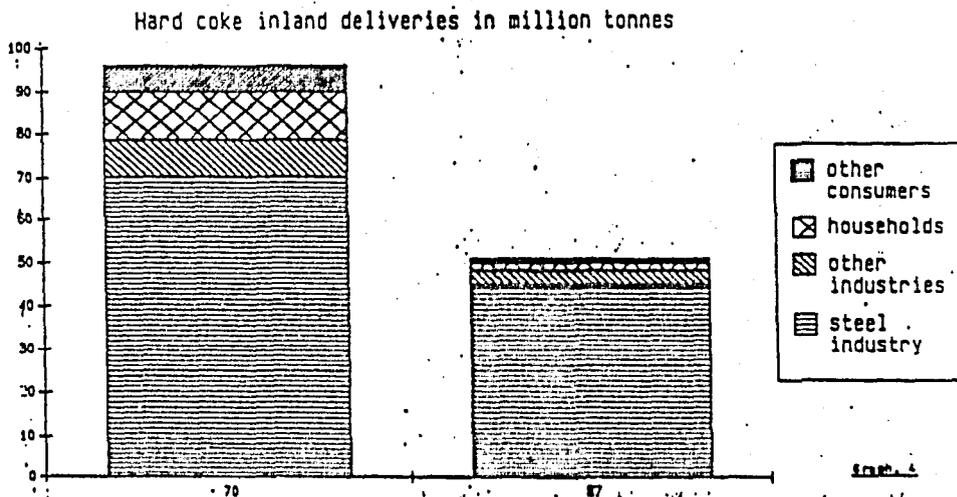
Coking capacity, which was at a level of 66.2 million tonnes of coke in 1986, fell in 1987 by 3% to 64.3 million tonnes in 1987; a further drop of 2.3% to 62.8 million tonnes is forecast for 1988. As can be seen from Table 11B, the reduction in capacity primarily relates to pithead coking plants; in this sector extensive closures have been only partly compensated by replacements.

The capacity reduction in the steel sector is due to the closure of a medium-size coking plant in Belgium and partial closures in France and Spain.

35. Comparison with Table 4, "Deliveries of coke", shows that coke supplies are assured for 1988; even where, because of a stronger demand by the steel industry, requirements cannot be met from current local or regional production and supplies from third countries are scarce as a result of the situation in the steel industries of the major producing countries, recourse can be made to the still extensive coke stocks held by some producers.

However, this comfortable situation with regard to security of supply cannot be counted on in the medium term. The reasons for this are many ; they may be summed up in a simplified way as follows :

- The present generation of coking plants in the Community is partly superannuated ; this is particularly the case for the pithead and independent coking plants. In the immediate future, in a number of cases, important decisions about investment and closures will be needed. Structural and economic difficulties, specific to the coking industry, will make these decisions very difficult to take.



- The structure of coke use has developed as follows : In 1970 in the area of the present Community of Twelve, 70.3 million tonnes, or 73 % of coke deliveries totalling 96.2 million tonnes, went to the steel industry. Only this part of the market was affected by the steel industry's economic cycle. The remaining 26 million tonnes were delivered to users who were not subject to economic cycles (the domestic sector) or whose economic cycles were not in phase with those of steel (e.g. the chemical industry). By 1987, 45 million tonnes, or about 90 % of total coke sales went to the steel industry.

Sales to the domestic sector unaffected by economic cycles shrank to 3.5 % and will decline further. Sales to general industry are concentrated on a limited number of sectors (e.g. electrometallurgy), whose economic cycles can coincide with those of the steel industry.

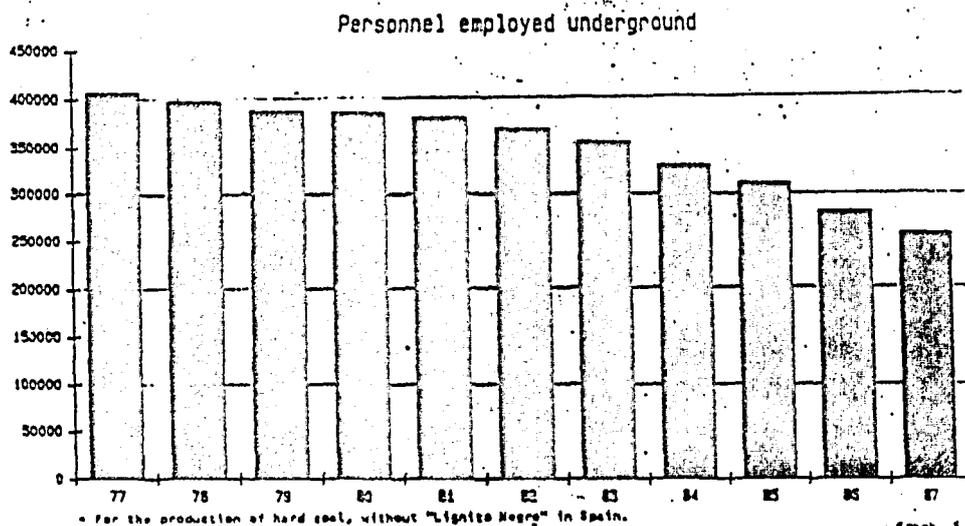
Demand for coke is thus, today and in the future, closely tied to the requirements of the iron and steel industry. The latter must have a clear idea of what its future needs will be, what capacity is needed to supply these needs, and who shall maintain it. Other coke requirements, which accounted for about 6 million tonnes in 1987, will probably decline further ; a medium-term annual requirement for only about 2.5 to 3.5 million tonnes seems not to be unlikely.

36. Personnel and productivity

(Table 12 A and B - Graph 5)

The reduction of the work force continued in 1987 and will continue in 1988. It is most spectacular in Belgium (5400 jobs lost throughout the year 1987) due to the mine closures in the last producing coalfield in Limbourg. By comparison of yearly averages the reduction of personnel employed underground in Belgium amounts to 3100 in 1987 and 3900 in 1988.

From 1986 to 1987 average yearly personnel employed underground was reduced in the Community by 26 900 worker or 9.4 % ; over the same period hard coal production decreased by 3.7 % only.



Productivity in 1987 thus shows a 4.4 % improvement compared with 1986 ; forecasts for 1988 are not available and would in most cases contain too much speculation.

37. State aids

Aids granted by Member States are the subject of a special memorandum and can be summarized as follows :

	<u>Total aid</u>			<u>Aid per tonne</u>		
	Million ECU			ECU		
	1986	1987	1988	1986	1987	1988
Belgium	309.3	362.5	202.5	55.23	61.97	69.35
Germany	1732.5	1965.7	2003.4	19.87	25.73	26.15
France	523.1	428.6	249.8	36.23	33.22	20.22
Spain	262.2	437.6		12.02	18.72	
Portugal	4.5	1.8		21.57	8.0	
United Kingdom	460.0	152.0		4.40	1.47	
<b>Total</b>	<b>3291.6</b>	<b>3348.2</b>		<b>14.08</b>	<b>15.09</b>	

The figures, however, are of only limited value for the comparison between coal producing Member countries, taking into account the varying qualities and differing pricing practices as well as different approaches with regard to the measures considered as aids.

38. Trend in Investments

(Table 13)

Planned Investments in the extraction and preparation of hard coal remained about stable in 1987 as compared with total investments in 1986 ; this is due to substantial increases in Germany and France compensated by a drop in the United Kingdom. By now, however, there are indications that the German investment plans have not been fully accomplished and investment expenditures in the Community therefore might have sunk beneath the level of 1986.

According to present Member States' forecasts a 20 % fall of total investments is expected for 1988.

## VI - PRICES FOR SOLID FUELS

(Table 14 A)

39. The fall of the US dollar against Community currencies observed since August 1985 continued strongly throughout 1987, amounting to 16% against the ECU.

40. Development of list prices

(Table 14 B and C)

These tables give tax-free, pithead list prices for various types of coal by coalfield in national currencies and US dollars.

The limited changes since 1 January 1987 can be explained partly by the fall in world market prices and partly by the successful control of costs. They can be summarised as follows :

### Belgium

In Belgium the price of some long flame and bituminous coals fell by 2.3% and that of coke by between 3 and 28.6%.

### Germany

In Germany there was a partial increase in prices for hard coal of up to 3.3%. Only a few individual mining undertakings reduced their prices for most domestic coal and briquettes by 0.9 to 10.8%. Prices of coals not affected by these increases or reductions remained in force unchanged. With the exception of one undertaking which raised its coke prices by 0.8 to 2.1%, prices for coke remained stable in other areas.

### France

Apart from seasonal variations, prices in the French coalfields remained unchanged.

### Italy

Coke prices in Italy were reduced by between 3.1% and 10.4%.

### Netherlands

There was a reduction in coke prices of between 15.1 and 29.4 % in the Netherlands where mainly imported coking coal is used for cokemaking.

United Kingdom

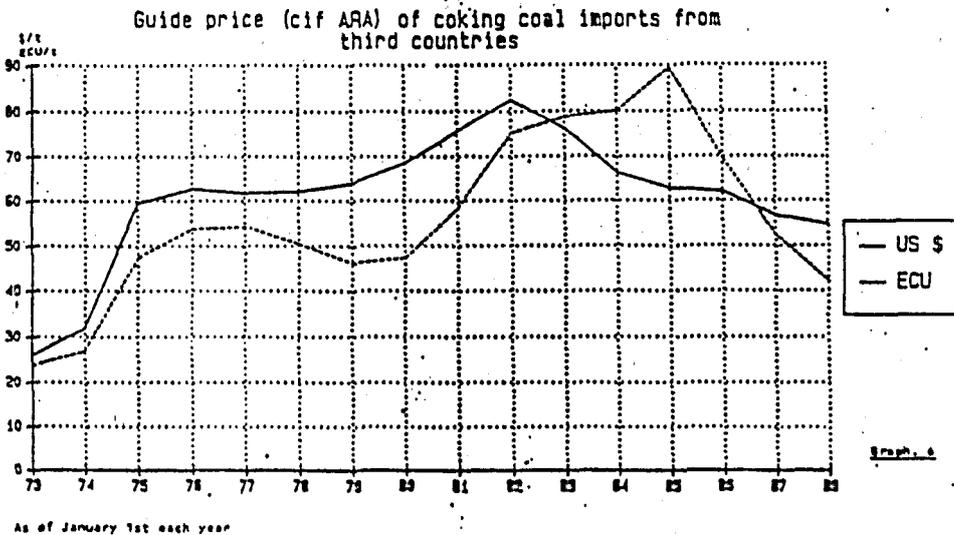
Prices for industrial coal were increased in November by an average of 2.75%. On 1.1.1988 there was an increase of 2.2 to 4% in the price of domestic coal. Furnous coke went up by 7 to 7.7%.

41. Development in the prices of imported coal

a) Coking coal

(Tables 15A and 15B - Graph 6)

The decline observed since the beginning of the 1980s in the indicative price calculated by the Commission of the European Communities<sup>(1)</sup> continued, if only in a weaker form, during the first three quarters of 1987. The fall in the third quarter of 1987 in relation to the first quarter was 6.8%, or US \$ 3.65 (49.75 against US \$ 53.40). This brought the indicative price (as calculated for the new reference quality) below US \$ 50 for the first time since 1974. The slight rise of US \$ 0.55 to US \$ 50.30 noted in the fourth quarter was due to increased Atlantic freight charges.



(1) Average cif price at large Community ports for coking coal from the USA, Australia, Poland and Canada under medium and long-term contracts (Decision 73/287/ECSC of 25 July 1973 and Decision 2064/86/ECSC of 30 June 1986).

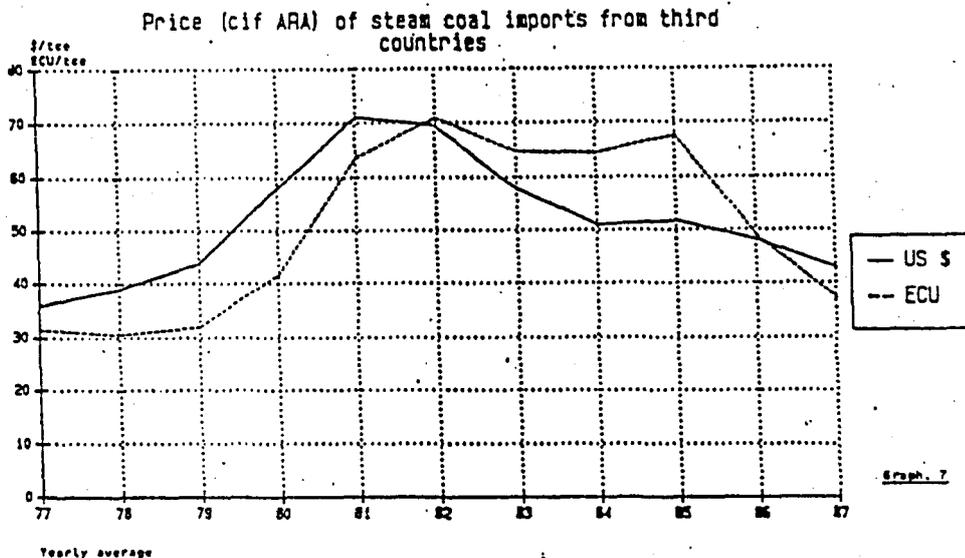
The quality corrections necessary to calculate the indicative price on the basis of an underlying standard quality were adapted on 1 January 1987 - for the first time since 1970 - to the current average quality of coking coal imports from third countries (see table 15, footnote (3)). The consequence is to cause a break, as of 1 January 1987, in the series of indicative prices published since 1970. For a better understanding of table 15, it should thus be borne in mind that, in addition to the normal price difference, there is a further reduction in the indicative price calculated on the old basis as a result of the changeover from the fourth quarter of 1986 to the first quarter of 1987; this reduction amounts for the first quarter and the subsequent period to a little over three dollars.

For these reasons, the Commission's quarterly notification of the development of indicative prices to the coal and steel industries will include the old series of figures as well as the new figures calculated as from 1.1.1987.

42. b) Steam coal

(Tables 15A and 15C - Graph 7)

The average price cif large Community ports of power stations coal imported from third countries decreased by 11 %, from US \$ 47.80 during the 3rd quarter 1986 to US \$ 42.50 during the 3rd quarter 1987. Expressed in European currencies, the price decrease was for certain countries more than 20 %.



The price of comparable Community coals was between US \$ 103 and US \$ 135 per toe during the 3rd quarter of 1987.

The relevant data concerning imports of steam coal into the Community are communicated via the Member States governments. The information has to be forwarded by the national administration within 80 days after the end of each quarter (Decisions 77/707/ECSC and 85/161/ECSE).

43. Household coal prices

(Table 16)

This table shows the changes in the price of coal delivered to the consumer for anthracite (and coke in Italy) between 1 July 1986 and 1 July 1987. These changes differ according to country, varying between + 5% in Spain and - 8% in the United Kingdom.

There are remarkable differences in price levels (e.g. between France and Spain a factor of 2.1) throughout the Community; they cannot be explained by differences in taxation or exchange rates but result from differences in commercial policies.

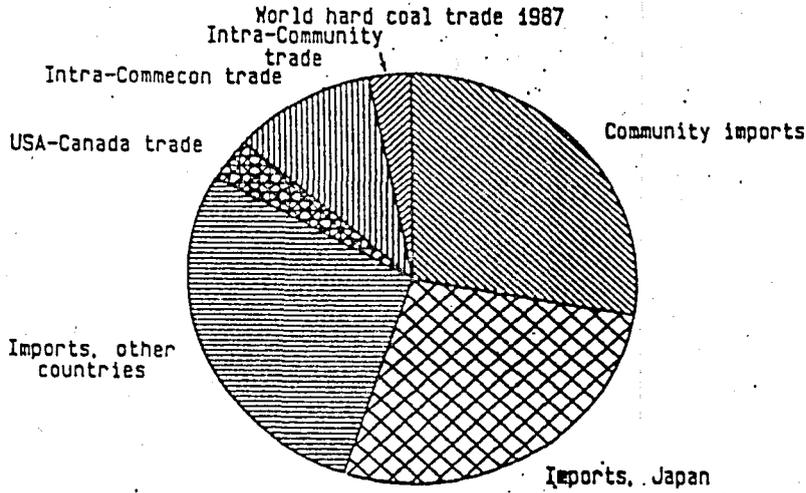
VII - TRADE IN SOLID FUELS

44. World coal trade and production

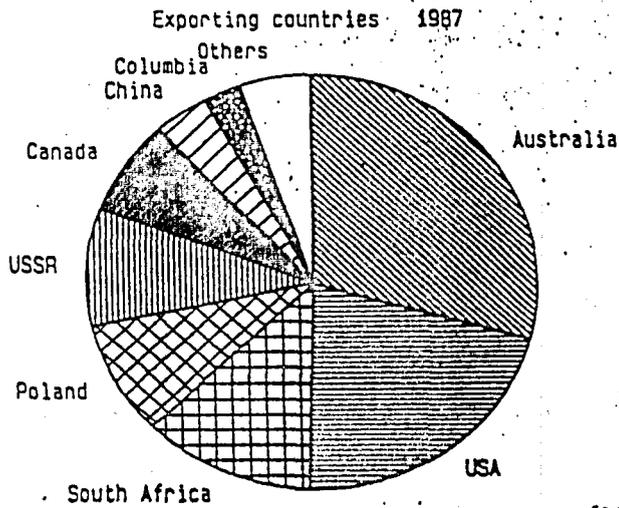
(Tables 17 - Graphs 8 and 9)

The world coal market in 1987 was characterised by overcapacity in most exporting countries (State-trading countries excepted) which, in conjunction with generally restricted development of the world economy and moderate growth in world steel production, has led to intensive competition among exporters. As a result, the world market prices for coal fell below the already low level of 1986. For many producers, present coal prices are not sufficient to fully cover all their costs.

Even so, world production of hard coal hit a new peak of 3.4 thousand million tonnes in 1987. The increase in production, at 2.5%, was somewhat below the longer-term trend of the years since 1973. The additional production of hard coal, principally in China, the USSR and the USA, did not, however, enter the world market but served almost exclusively to satisfy increasing internal requirements. These arose from strongly increased electricity production and, in China, from the generally strongly increasing energy needs.



Graph. 8



Graph. 9

The volume of trade on the world market declined slightly by 2 million tonnes to 337 million tonnes. Trade in both coking coal and steam coal were affected. Coking coal, in the meantime, became less important in terms of seaborne trade as well as in world coal trade in general.

The decline in trade is attributable to a reduction in exchanges within the Community and also within Comecon. Seaborne trade, on the other hand, generally picked up slightly, but its share of world hard coal production nevertheless further declined.

While the demand side of world coal trade changed very little from 1986 to 1987, larger structural changes are to be noted on the supply side. Benefitting from still relatively low freight rates, - which in the meantime, however, have increased markedly - Australian exports expanded strongly. In contrast, deliveries from the USA, always in second place behind Australia on the world coal market, decline further. With prices at the upper end of the scale and increasing internal requirements for power station coal, the USA lost further parts of the market last year.

Moreover, South Africa had to face losses of exports, largely for reasons not associated with economics. The significant decline of Polish exports was brought about by increasing internal requirements, coupled with largely stagnant production. Exports from other major exporting countries, such as Canada and the USSR, underwent very little change.

The winning of significant parts of the market by Colombia and China is to be noted. These newcomers intend to increase their exports strongly in the years to come. In addition, Venezuela and Indonesia have begun to ship initial test deliveries. In a few years they also could make a significant contribution to the world coal market.

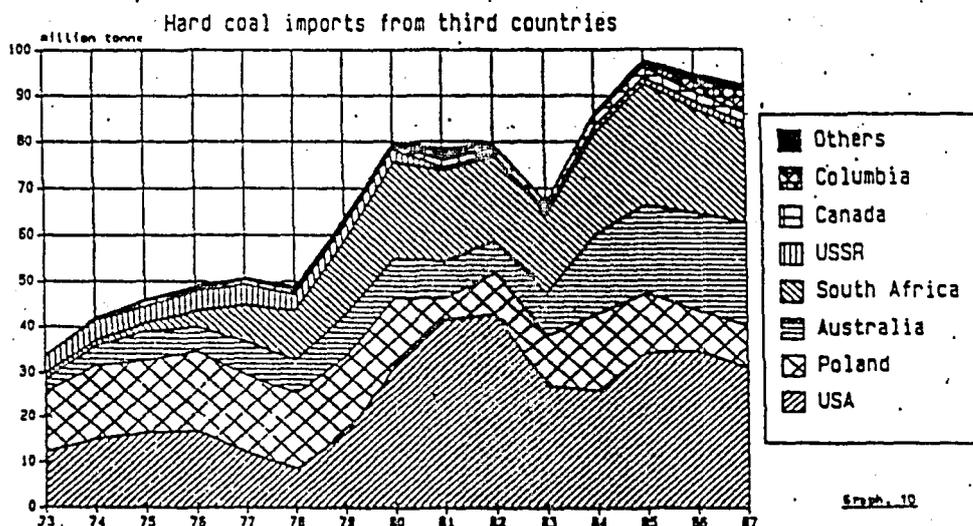
The trade volume for 1988 is forecast to be slightly up on the previous year at 341 million tonnes. Besides increasing deliveries from China and Colombia, the contribution of Australia to supplies should increase further. In contrast, deliveries from the USA on the world market are expected to decline.

The growth in world coal trade this year should relate almost entirely to steam coal and should take the form of maritime trade. Other inland trade is expected to continue its structural decline.

45. Trade with third countries

(Table 18 - Graph 10)

Community imports from third countries fell back by almost 2 million tonnes to 94 million tonnes in 1987, in spite of lower import prices and a slight improvement in steel production. The reasons for this are to be found in developments relating to electricity production and the heat market.



In France, Germany and the United Kingdom in particular, significantly less coal was brought in for power stations. While this reduction can be attributed to increased nuclear electricity and hydroelectric production and to the increased use of hydrocarbons in power stations, these factors did not have an effect in the United Kingdom. Rather, the British coal industry's contribution to electricity production, which had been much reduced as a result of the strike of 1984/1985, increased further, and this was at the expense of imported coal. Stocks at power stations have also been reduced. Portugal and Ireland, on the other hand, strongly increased their imports from third countries.

Italy remained the principal importing country with one-fifth of all third country imports. An eighth of these deliveries from non-Community countries went to the Netherlands, France and Denmark respectively. Spain, with scarcely 10%, took fifth place.

The main exporter to the Community were the USA which, despite falling deliveries, still accounted for about one-third of the Community's imports. The market share of Australia, the second highest supplier for the first time in 1987, increased further, reaching about a quarter of the total. South Africa, which took third place, lost large quantities because of boycotting by some Member States and could only deliver 20% of total imports. Deliveries from Poland, which made up about 10% of supplies from third countries, improved slightly. Of the smaller suppliers with less than a 5% share of the market, only the newcomers, Colombia and China were able to export significantly increasing quantities to the Community.

Last year, supplies to the Community from Colombia were already larger than the total amount delivered by Australia, South Africa and Canada together to the present Community of 12 in 1973. The supply structure at that time, which was decisively influenced by Poland and the USA, has changed, in response to the increasing importance of power station coal, in favour of deliveries from South Africa and Australia. These two countries profited, together with the USA, particularly from the strongly increasing, oil price-related demand for power station coal in the Community. Poland has, apart from a critical period in the early 1980s, largely maintained its contribution to third country imports for about 15 years, whereas the share from the USSR shows a falling tendency over the same period. Deliveries from Canada, on the other hand, have tended to increase, although their share of Community imports is still small.

46. The provision of imported coal to the Community in 1988 will also be mainly based on supplies from the USA, Australia, South Africa and Poland, of which the USA and Australia are expected to increase their shares, while South Africa and Poland are both expected to deliver smaller quantities. Increasing exports from Colombia and China should also contribute to total third country imports rising once again to the level of 1986.

All Community countries - with the exception of France and the United Kingdom - are forecast to increase, or at least maintain, their imports from third countries in 1988. The distribution of deliveries from third countries to Community countries will thus not change significantly.

47. Intra-Community trade

(Tables 19 and 20)

After a peak around the year 1982, when a difficult supply situation in third countries obliged coal consumers in the Community to rely on the secure supply and flexibility of the Community's producers, the decline in trade both of coal and coke is continuing. This drop is mainly due to the decline in pig iron production in the central Community steel regions of Lorraine and Luxembourg, which are by tradition supplied with coking coal and/or coke from Germany.

The following table summarizes the developments in trade for the period 1986 to 1988 :

	(In million tonnes)			(In %)	
	1986	1987	1988	1987/1986	1988/1987
Hard coal	10.9	9.5	8.5	- 12.8	-10.5
Coke	4.6	3.8	3.0	- 17.4	-21.1

In 1987, Intra-Community trade represented only 3 % of total hard coal resources and 6 % of coke resources of the Community.

VIII. STOCKS

(Table 21)

48. Producers' stocks of hard coal did not vary much in the period covered by this report. They went down from 26.8 million tonnes at the end of 1986 to 24.1 million tonnes at the end of 1987, representing about 39 calendar days of production. A stock of 26.0 million tonnes is forecast for the end of 1988.
49. Coke stocks went up by 19% from 6.2 million tonnes at the end of 1986 to 7.4 million tonnes at the end of 1987, representing 49 calendar days of production. According to forecasts, established at the end of 1987, prior to the recovery in the iron and steel market, a further increase to 8.7 million tonnes equivalent to 61 days of production was to be expected for 1988.

## IX. CONCLUSIONS

50. The consequences of the continuing low oil price and dollar exchange rates for the market of solid fuels, although far from negligible, have been less dramatic than would have been expected. This conclusion, drawn in last year's market report, remains valid today but needs to be placed in the context of events in 1987.

Deliveries to power plants, which account for about two thirds of the total, have remained rather stable. The main reason for this is the long term commitment of utilities to burn Community coal and, in most cases, the still competitive position of imported coal as a result of falling world market prices. But it cannot be ignored that in 1987 consumption of hydrocarbons in power stations increased by 8%, whereas growth in net electricity generation was only 3%. Solid fuels lost here a potential market of about 5 million toe.

The decrease in coal input to coking plants was, above all, influenced by developments in the iron and steel industry. Prospects now appear to be less unfavourable than a year ago.

In "other industries" and in the domestic sector, persisting highly competitive prices for hydrocarbons resulted in further market pressure on solid fuels. Penetration of solid fuels in other industries during the first half of this decade slowed down drastically. In the domestic sector, the traditional decline in solid fuel use was accelerated.

Altogether there is at present a falling tendency for the share of solid fuels in total energy consumption.

In its Communication to the Council on the "Review of Member States' energy policies and the Community's energy objectives for 1995" the Commission will draw the Council's attention to the present unsatisfactory development in solid fuel use in the Community.

COMMUNITY ACTIONS RELATING TO SOLID FUELS

51. The Commission prepared a report to the Council on the application by Member States of the Council Recommendations of 24 May 1983 concerning the encouragement of investment in the use of solid fuel in industry (83/250/EEC) and in public buildings and district heating (83/251/EEC).

52. Research and Development

- Within the framework of ECSC research aids totalling 25.3 MECU were granted to projects in the fields of mining technology and coal upgrading.
- Under the EEC programme for energy demonstration projects, aids totalling 16.9 MECU for projects in the field of liquefaction and gasification of solid fuels and 15.7 MECU for projects in the field of substitution of hydrocarbons by solid fuels were granted in 1987.
- In the framework of the third EEC non-nuclear energy R & D programme (1985-1988) aids of 17.5 MECU have been granted to projects relating to the use of solid fuels.

An important aim of these R, D & D programmes is to encourage the more general use of coal and other solid fuels (lignite and peat) as an alternative to oil and gas, especially in the general industry sector, by developing technology to enable solid fuels to be utilized in a more convenient and efficient manner. Strong emphasis is placed on rendering their use acceptable in environmental terms. This aspect is also important with respect to the use of solid fuels for electricity generation where, in addition to the problems of emissions and disposal of residues, interest is turning towards the development of combined cycle systems capable of producing electricity at higher efficiency.

Progress in solid fuel technology was reviewed at a conference on "Coal in the Heat Market" in Berlin on 22 and 23 June 1987.

**TABLE 1**

**Gross internal energy consumption  
Community**

	1986 Actual		1987 Provisional		1988 Forecasts	
	10 <sup>6</sup> toe	%	10 <sup>6</sup> toe	%	10 <sup>6</sup> toe	%
Solid fuels	231.7	22.2	232.5	22.2	230.6	21.9
Oil	474.3	45.5	472.2	45.1	473.5	44.9
Natural gas	186.8	17.9	194.2	18.5	196.5	18.6
Nuclear energy	132.9	12.8	134.6	12.8	137.5	13.1
Other	17.0	1.6	14.6	1.4	15.6	1.5
Total	1 042.7	100.0	1 048.1	100.0	1 053.7	100.0

Source : - Energy in Europe.  
- EUROSTAT.

**TABLE 2**

**Shares of the various forms of energy in gross internal consumption of energy by country in 1987**

Provisional

(10<sup>6</sup> toe)

	Solid fuels	Petroleum products	Natural gas	Nuclear	Other	Total
Belgium	8.8	19.0	7.1	9.9	0.2	45.0
%	19.6	42.2	15.8	22.0	0.4	100.0
Denmark	7.7	10.0	1.3	-	0.1	19.1
%	40.3	52.4	6.8	-	0.5	100.0
Germany	75.2	111.1	45.0	31.2	2.8	265.3
%	28.3	41.9	17.0	11.7	1.1	100.0
Spain	20.0	39.0	2.7	10.2	2.0	73.9
%	27.1	52.8	3.6	13.8	2.7	100.0
France	18.0	84.5	24.1	68.2	2.0	196.8
%	9.1	42.9	12.3	34.7	1.0	100.0
Greece	6.5	10.5	0.1	-	0.3	17.4
%	37.4	60.3	0.6	-	1.7	100.0
Ireland	3.9	4.5	1.3	-	0.1	9.8
%	39.8	45.9	13.3	-	1.0	100.0
Italy	14.5	84.0	31.5	0.1	5.0	135.1
%	10.7	62.2	23.3	0.1	3.7	100.0
Luxemburg	1.1	1.3	0.3	-	0.3	3.0
%	36.7	43.3	10.0	-	10.0	100.0
Netherlands	7.2	23.2	33.5	0.8	0.2	64.9
%	11.1	35.8	51.6	1.2	0.3	100.0
Portugal	1.7	9.5	-	-	0.4	11.6
%	14.7	81.9	-	-	3.4	100.0
United Kingdom	67.9	75.6	47.3	14.2	1.2	206.2
%	32.9	36.7	22.9	6.9	0.6	100.0
Total 1987	232.5	472.2	194.2	134.6	14.6	1 048.1
%	22.2	45.1	18.5	12.8	1.4	100.0
Total 1988	230.6	473.5	196.5	137.5	15.6	1 053.7
%	21.9	44.9	18.6	13.1	1.5	100.0

TABLE 3

## Community hard coal deliveries by sector and by country

(10<sup>6</sup> tonnes)

	COMMUNITY				
	1986 Actual	1987 Provisional	1988 Forecasts	1987/1986 % Difference	1988/1987 % Difference
<b>A) SECTOR</b>					
- Thermal power stations	208.2	200.7	198.2	- 3.6	- 1.2
- Coke ovens	77.6	72.7	69.9	- 6.3	- 3.9
- Iron and steel industry	2.0	2.7	3.5	+ 35.0	+ 29.6
- Other industries	23.5	23.4	23.6	- 0.4	+ 0.9
- Domestic sector and coal workers	17.7	14.5	13.9	- 18.1	- 4.1
- Patent fuel plants	3.2	2.8	2.6	- 12.5	- 3.7
- Own consumption at mines	1.0	0.5	0.5	+ 50.0	-
- Gasworks	-	0.1	0.2	-	+100.0
- Others	2.4	4.0	3.9	+ 66.7	- 2.5
<b>Total</b>	<b>335.6</b>	<b>321.4</b>	<b>316.3</b>	<b>- 4.2</b>	<b>- 1.6</b>
<b>B) COUNTRY</b>					
Belgium	13.2	13.3	13.0	+ 0.8	- 2.3
Denmark	12.5	12.4	12.8	- 0.8	+ 3.2
Germany (FR)	90.0	84.6	81.2	- 6.0	- 4.0
Spain	30.5	28.9	28.9	- 5.2	-
France	32.3	27.8	25.2	- 13.9	- 9.4
Greece	1.8	1.7	1.7	- 5.5	-
Ireland	2.3	3.4	3.5	+ 47.8	+ 2.9
Italy	20.5	20.4	20.9	- 0.5	+ 2.5
Luxemburg	0.2	0.2	0.1	-	+ 50.0
Netherlands	10.6	10.7	11.2	+ 0.9	+ 4.7
Portugal	2.2	3.1	3.3	+ 40.9	+ 6.5
United Kingdom	119.5	114.9	114.5	- 3.8	- 0.3
<b>COMMUNITY</b>	<b>335.6</b>	<b>321.4</b>	<b>316.3</b>	<b>- 4.2</b>	<b>- 1.6</b>

<sup>1</sup> Including "lignito negro" of Spain.

**TABLE 4**

**Coke deliveries by sector and by country**

('000 tonnes)

	COMMUNITY				
	1986 Actual	1987 Provi- sional	1988 Forecasts	% Difference	
				1987/1986	1988/1987
<b>A) Sector</b>					
Iron and steel in- dustry	48 201	45 010	44 195	- 6.6	- 1.8
Other industries	3 326	3 372	3 221	+ 1.4	- 4.5
Domestic sector	3 427	1 821	1 669	- 46.9	- 8.3
Others	726	941	870	+ 29.6	- 7.5
<b>Total</b>	<b>55 680</b>	<b>51 144</b>	<b>49 955</b>	<b>- 8.1</b>	<b>- 2.3</b>
<b>B) Country</b>					
Belgium	5 037	4 800	4 550	- 4.7	- 5.2
Denmark	55	50	45	- 9.1	- 10.0
Germany (FR)	18 436	16 654	16 150	- 9.7	- 3.0
Spain	3 248	3 081	3 112	- 5.1	+ 1.0
France	8 916	8 510	8 150	- 4.6	- 4.2
Greece	33	34	40	+ 3.0	+ 17.6
Ireland	5	3	3	- 40.0	-
Italy	6 910	6 745	6 990	- 2.4	+ 3.6
Luxembourg	1 692	1 321	1 305	- 21.9	- 1.2
Netherlands	2 447	2 220	2 200	- 9.3	- 0.9
Portugal	350	326	310	- 6.9	- 4.9
United Kingdom	8 352	7 400	7 100	- 11.4	- 4.1
Statistical difference	199	-	-	-	-
<b>COMMUNITY</b>	<b>55 680</b>	<b>51 144</b>	<b>49 955</b>	<b>- 8.1</b>	<b>- 2.3</b>

<sup>1</sup> Including statistical difference.

**TABLE 5**  
**Deliveries of hard coal to coking plants<sup>1</sup>**

('000 tonnes)

1986 : Actual 1987 : Provisional 1988 : Forecasts		National hard coal	Hard coal from other ECSC countries	Total ECSC hard coal	Hard coal from third countries	Total supplies
Belgium	1986 1987 1988	2 628	598	3 226	3 404	6 630 6 525 6 475
Germany (FR)	1986 1987 1988	29 586 25 939 23 700	33 - -	29 619 25 939 23 700	- - -	29 619 25 939 23 700
Spain	1986 1987 1988	1 356	-	1 356	3 097	4 453 4 200 4 000
France	1986 1987 1988	2 915	1 500	4 415	6 100	10 515 9 800 9 500
Italy	1986 1987 1988	-	1 576	1 576	8 115	9 691 9 700 10 100
Netherlands	1986 1987 1988	-	462	462	3 503	3 965 4 340 4 300
Portugal	1986 1987 1988	-	-	-	343	343 410 380
United Kingdom	1986 1987 1988	6 352	-	6 352	6 022	12 374 11 800 11 400
Community	1986 1987 1988	42 837	4 169	47 006	30 584	77 590 72 714 69 855

<sup>1</sup> For 1987 and 1988 the breakdown by origin is not available except for the FR of Germany.

TABLE 6 A

## Deliveries of hard coal to power stations

('000 tonnes)

1986 : Actual 1987 : Provisional 1988 : Forecasts	Public power stations <sup>1</sup>					Private genera- ting plants		Total	
	Natio- nal hard coal	Hard coal from ECSC coun- tries	Total ECSC hard coal	Hard coal from third coun- tries	Total public power sta- tions	Collie- ries	Other indus- tries		
Belgium	1986	2 836	-	2 836	1 641	4 477	330	-	4 807
	1987					4 680	355	-	5 035
	1988					4 230	250	-	4 480
Denmark	1986	-	1 040	1 040	10 318	11 358	-	-	11 358
	1987					11 450	-	-	11 450
	1988					11 850	-	-	11 850
Germany (RF)	1986	39 145	340	39 485	5 333	44 818	2 507	5 523	52 848
	1987	38 240	378	38 618	4 208	42 826	2 458	5 405	50 689
	1988	37 800	350	38 150	4 250	42 400	2 200	5 300	49 900
Spain	1986	18 912	-	18 912	3 033	21 945	-	-	21 945
	1987					19 900	-	-	19 900
	1988					19 900	-	-	19 900
France	1986	2 090	405	2 495	4 832	7 327	5 870	120	13 317
	1987					4 300	5 600	250	10 150
	1988					2 700	4 900	250	7 850
Greece	1986	-	-	-	422	422	-	-	422
	1987					200	-	-	200
	1988					200	-	-	200
Ireland	1986	-	630	630	-	630	-	-	630
	1987					1 596	-	-	1 596
	1988					1 848	-	-	1 848
Italy	1986	-	-	-	9 393	9 393	-	-	9 393
	1987					9 800	-	-	9 800
	1988					9 800	-	-	9 800
Luxem- bourg	1986	-	-	-	-	-	-	-	-
	1987					-	-	-	-
	1988					-	-	-	-
Nether- lands	1986	-	51	51	5 185	5 236	-	300	5 536
	1987					5 100	-	300	5 400
	1988					5 500	-	330	5 830
Portugal	1986	200	106	306	1 000	1 306	-	-	1 306
	1987					1 876	-	-	1 876
	1988					2 000	-	-	2 000
United Kingdom	1986	85 505	-	85 505	1 187	86 692	N.D.	N.D.	86 692
	1987					84 600	N.D.	N.D.	84 600
	1988					84 500	N.D.	N.D.	84 500
Commu- nity	1986	148 688	2 572	151 260	42 344	193 604	8 707	5 943	208 254
	1987					186 328	8 413	5 955	200 696
	1988					184 928	7 350	5 880	198 158

<sup>1</sup> For 1987 and 1988 the breakdown by origin is not available except for the FR of Germany.

TABLE 6 B

Deliveries of solid fuels to power stations  
(including pithead power stations)

	1986 Actual	1987 Provisio- nal	1988 Forecasts	(10 <sup>6</sup> tonnes) % Difference	
				1987/1986	1988/1987
<u>Belgium</u>					
Hard coal	4.8	5.0	4.5	+ 4.2	- 10.0
<u>Denmark</u>					
Hard coal	11.4	11.4	11.9	-	+ 4.4
<u>Germany (RF)</u>					
Hard coal	47.3	45.3	44.6	- 4.2	- 1.5
Black lignite	2.5	2.5	2.2	-	- 12.0
Brown coal	95.9	93.5	92.7	- 2.5	- 0.9
<u>Spain</u>					
Hard coal	22.0	19.9	19.9	- 9.5	-
Brown coal	16.5	16.5	16.5	-	-
<u>France</u>					
Hard coal	13.2	9.9	7.6	- 25.0	- 23.2
Black lignite	2.0	1.3	1.3	- 35.0	-
Brown coal	0.4	0.3	0.3	- 25.0	-
<u>Greece</u>					
Hard coal	0.4	0.2	0.2	- 50.0	-
Brown coal	36.4	38.0	40.0	+ 4.4	+ 5.3
<u>Ireland</u>					
Hard coal	0.6	1.6	1.8	+166.7	+ 12.5
Peat	2.3	3.7	3.6	+ 60.9	- 2.7
<u>Italy</u>					
Hard coal	9.4	9.8	9.8	+ 4.3	-
Brown coal	1.6	1.7	1.7	+ 6.2	-
<u>Netherlands</u>					
Hard coal	5.2	5.1	5.5	- 1.9	+ 7.8
<u>Portugal</u>					
Hard coal	1.3	1.9	2.0	+ 46.2	+ 5.3
<u>United Kingdom</u>					
Hard coal	86.7	84.6	84.5	- 2.4	- 0.1
<u>Community</u>					
Hard coal	202.3	194.7	192.3	- 3.8	- 1.2
Black lignite	4.5	3.8	3.5	- 15.6	- 7.9
Brown coal	153.1	153.7	154.8	+ 0.4	+ 0.7

**TABLE 7**

**Hard coal and coke deliveries to other industries  
(excluding power stations)**

('000 tonnes)

	1986 Actual	1987 Provisional	1988 Forecasts	% Difference	
				1987/1986	1988/1987
<b>A) <u>Hard coal</u></b>					
Belgium	700	600	650	- 14.3	+ 8.3
Denmark	360	400	400	+ 11.1	-
Germany (RF) (1)	5 910	3 264	3 000	..	- 8.1
Spain	2 550	2 674	2 947	+ 4.9	+ 10.2
France	3 680	3 830	3 830	+ 4.1	-
Greece	1 340	1 400	1 400	+ 4.5	-
Ireland	420	428	384	+ 1.9	- 10.3
Italy	1 230	940	1 010	- 23.6	+ 7.4
Luxembourg	120	85	85	- 29.2	-
Netherlands	610	450	420	- 26.2	- 6.7
Portugal	330	820	870	..	+ 6.1
United Kingdom (2)	6 360	8 500	8 600	..	+ 1.2
<b>Community</b>	<b>23 610</b>	<b>23 391</b>	<b>23 596</b>	<b>- 0.9</b>	<b>+ 0.9</b>
<b>B) <u>Coke</u></b>					
Belgium	177	70	120	- 60.5	+ 71.4
Denmark	37	30	25	- 18.9	- 16.7
Germany (RF)	1 233	1 019	850	- 17.4	- 16.6
Spain	-	360	362	..	+ 0.6
France	744	730	700	- 1.9	- 4.1
Greece	20	20	20	-	-
Ireland	5	3	3	- 40.0	-
Italy	306	503	521	+ 64.4	+ 3.6
Luxembourg	-	-	-	-	-
Netherlands	199	120	100	- 39.7	- 16.7
Portugal	270	17	20	..	+ 17.6
United Kingdom	230	500*	500*	..	-
<b>Community</b>	<b>3 221</b>	<b>3 372</b>	<b>3 221</b>	<b>+ 4.7</b>	<b>- 4.5</b>

(1) Including power stations for 1986.

(2) Including power stations for 1987 and 1988.

\* Forecasts of the Commission.

TABLE 8

## Deliveries of solid fuels to the domestic sector

('000 tonnes)

1986 : Actual 1987 : Provisional 1988 : Forecasts	B	DK	DE	SP	F	GR	IRL	IT	LUX	NL	P	UK	EUR	
<b>A. Hard coal, patent fuels and coke</b>														
Hard coal	1986	1 343	699	1 185	616	2 365	2	1 251	120	3	36	-	10 024	17 644
	1987	1 060	450	981	1 796	2 150	-	1 358	-	2	30	-	6 700	14 527
	1988	1 060	450	800	1 767	1 900	-	1 224	-	2	40	-	6 700	13 943
Patent fuels	1986	101	-	726	11	1 219	-	-	-	1	-	-	775	2 833
	1987	80	-	684	-	1 100	-	-	-	1	-	-	N.D.	N.D.
	1988	75	-	580	-	1 000	-	-	-	1	-	-	N.D.	N.D.
Coke	1986	33	18	1 084	-	177	3	-	125	2	-	-	1 985	3 427
	1987	30	20	938	-	200	-	-	132	1	-	-	500	1 821
	1988	30	20	800	-	180	-	-	138	1	-	-	500	1 669
Total	1986	1 477	717	2 995	627	3 761	5	1 251	245	6	36	-	12 784	23 904
	1987	1 170	470	2 603	1 796	3 450	-	1 358	132	4	30	-	N.D.	N.D.
	1988	1 165	470	2 180	1 767	3 080	-	1 224	138	4	40	-	N.D.	N.D.
% 1987/1986		- 20.8	- 34.4	- 13.1	+186.4	- 8.3	-	+ 8.6	- 46.1	- 33.3	- 16.7	-	..	..
% 1988/1987		- 0.4	-	- 16.3	- 1.6	- 10.7	-	- 9.9	+ 4.5	-	+ 33.3	-	..	..
<b>B. Lignite briquettes, peat and peat briquettes</b>														
	1986	65	24	2 502	-	109	50	2 024	-	27	13	-	-	4 814
	1987	55	30	2 250	-	110	100	2 103	-	25	-	-	-	4 673
	1988	55	25	1 950	-	100	100	1 580	-	25	-	-	-	3 835

**TABLE 9**

**Deliveries of Lignite and peat by sector and by Member State**

(10<sup>6</sup> tonnes)

1986 : Actual 1987 : Provisional 1988 : Forecasts	RAW PRODUCTS											
	Power stations			Briquetting plants			Others			Total		
	1986	1987	1988	1986	1987	1988	1986	1987	1988	1986	1987	1988
Belgium	-	-	-	-	-	-	-	-	-	-	-	-
Denmark	-	-	-	-	-	-	-	-	-	-	-	-
Germany (FR)	98.3	93.5	92.7	15.2	18.5	18.5	3.3	1.5	1.5	116.8	113.5	112.7
Spain	16.3	16.4	16.5	-	-	-	0.2	-	-	16.5	16.4	16.5
France	2.4	1.6	1.6	-	-	-	0.3	0.2	0.1	2.7	1.8	1.7
Greece	36.4	38.0	40.0	0.2	0.5	0.5	1.5	1.5	1.5	38.1	40.0	42.0
Ireland	2.3	3.7	3.6	1.4	1.3	1.4	1.7	2.1	1.6	5.4	7.1	6.6
Italy	1.1	1.7	1.7	-	-	-	-	-	-	1.1	1.7	1.7
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-
Community	156.8	154.9	156.1	16.8	20.3	20.4	7.0	5.3	4.7	180.6	180.5	181.2

TABLE 10

## Hard coal production by areas

	('000 tonnes)		
	1986 Actual	1987 Provisional	1988 Forecasts
Belgium	5 590	4 405	2 920
Ruhr	68 806	63 873	62 400
Aachen	4 993	4 979	4 800
Ibbenbüren(Nieders.)	2 360	2 361	2 300
Saar + Kleinzechen	10 967	11 167	10 600
Germany(FR)	87 126	82 380	80 100
Central Asturiana	4 997	4 521	4 422
Bierzo, Villablino,			
Narcea	6 125	5 294	5 183
León, Este, Palencia	2 534	2 284	2 238
Sur	2 479	2 201	2 157
Aragon, Cataluña,			
Baleares	5 823	5 000	5 100
Spain*	21 958	19 300	19 100
Nord Pas-de-Calais	1 722	1 433	1 040
Lorraine	9 897	9 800	9 280
Centre Midi	2 775	2 397	1 980
France	14 394	13 630	12 300
Ireland	54	55	55
Portugal	250	235	250
Scotland	3 654	..	..
Northern	10 182	..	..
Yorkshire	27 799	..	..
North-Western	9 883	..	..
Midlands-Kent	31 238	..	..
South Wales	6 723	..	..
BC Opencast	12 939	..	..
Licensed mines/Opencast	1 844	..	..
United Kingdom	104 262	105 000	104 400
Community	233 634	225 005	219 125

\* Including black lignite

TABLE 11 A

Coking  
1986 - 1988(10<sup>6</sup> t per annum)

	Coke production capacity	Hard coal consumption	Coke production	% difference compared with the previous year
1986 (Actual)				
Belgium	6.3	6.6	5.1	- 6.0
Germany (FR)	24.5	29.6	22.7	+ 2.1
Spain	4.3	4.5	3.0	-
France	9.1	10.7	8.3	- 7.1
Italy	10.2	10.0	7.2	- 2.9
Netherlands	3.0	3.9	2.9	-
Portugal	0.3	0.3	0.3	-
United Kingdom	8.5(a)	12.4	8.9	- 13.3
Community	66.2	78.0	58.4	- 3.2
1987 (Provisional)				
Belgium	6.0	6.5	5.0	- 4.8
Germany (FR)	23.2	25.9	19.8	- 5.3
Spain	4.3	4.2	3.0	-
France	8.6	9.8	7.8	- 5.5
Italy	10.2	9.7	7.0	-
Netherlands	3.1	4.3	2.8	+ 3.3
Portugal	0.3	0.4	0.3	-
United Kingdom	8.6(a)	11.8	8.6	+ 1.2
Community	64.3	72.7	54.3	- 2.9
1988 (Forecasts)				
Belgium	6.0	6.5	4.9	-
Germany (FR)	22.3	23.7	18.2	- 3.5
Spain	3.9	4.0	2.8	- 9.3
France	8.4	9.5	7.6	- 2.3
Italy	10.2	10.1	7.3	-
Netherlands	3.1	4.3	2.8	-
Portugal	0.3	0.4	0.3	-
United Kingdom	8.6(a)	11.4	8.3	-
Community	62.8	69.9	52.2	- 2.2

(a) Without LTC for the United Kingdom.

**TABLE 11 B**

**Coking plant capacity distribution**

(10<sup>6</sup> tonnes)

	1986 Actual	1987 Provisional	1988 Forecasts
Colliery plants	21.6	20.0	19.1
Iron and steel industries	41.9	41.5	41.0
Independent(a)	2.7	2.7	2.7
<b>Total</b>	<b>66.2</b>	<b>64.2</b>	<b>62.8</b>

(a) Without LTC for the United Kingdom.

TABLE 12 A

**Personnel employed underground  
(yearly average)**

('000)

	1986 Actual	1987 Provisional	1988 Forecasts
Belgium	13.3	10.2	6.3
Germany (FR)	107.1	103.4	99.7
Spain	38.0	36.7	36.3
France	18.5	18.5	15.0
Portugal	0.8	0.8	0.8
United Kingdom	108.0	89,3	..
Ireland	0.3	0.2	0.2
Community	286.0	259,1	..

**TABLE 12 B**

**Output per man/hour underground**

(kg per man/hour)

	1986 Actual	1987 Provisional	1988 Forecasts
Belgium	321	316	325
Germany (FR)	602	616	628
Spain	292	297	295
France	427	499	..
Portugal	..	..	..
United Kingdom	512	575	..
Community	505	542	..

**TABLE 13**

**Investments in the coal industry  
(Coal extraction and preparation)**

(million ECU)

	1986 Actual	1987 Provisional	1988 Forecasts
Belgium	37.6	17.0	3.2
Germany (FR)	418.8	526.6	317.0
Spain	..	..	..
France	58.2	78.6	54.4
Portugal	..	..	..
United Kingdom	910.9	784.8	739.9
Community	1 425.5	1 407.0	1 114.5

TABLE 14 A

Exchange rates :  
US \$ - European currencies

1 US-Dollar =	FB	DKR	DM	PTA	FF	Dr.	Lit.	Fl.	Esc.	£	ECU
a) 2nd January 1987	39.95	7.2625	1.9183	130.45	6.3535	137.79	1.337.-	2.1674	144.60	0.6691	0.9342
b) 1st July 1987	37.8025	6.909	1.8227	126.20	6.08	136.92	1.320.25	2.052	142.73	0.6169	0.8827
c) 4th January 1988	33.12	6.094	1.5815	108.00	5.352	126.13	1.166.25	1.7791	129.958	0.5328	0.7814
Difference in % $\frac{c}{a}$	- 17	- 16	- 18	- 17	- 16	- 8	- 13	- 18	- 10	- 20	- 16

TABLE 14 B

Pre-tax pithead list-prices for Community coal on 1 January 1987, 1 July 1987 and 1 January 1988

(US \$ (1) (2))

Category	Type	Date	Ruhr	Aachen	Saar	Belgium	Nord	Lorraine	South Wales	Scotland	South Yorkshire	Oviedo	Leon	Maximum price	Minimum price	Difference %
Anthracite	Nuts 3 20/30 mm	1.1.87	203.65	227.97	-	-	211.50	-	158.21	-	-	-	130.32	227.97	130.32	74.9
		1.7.87	214.84	240.49	-	-	220.89	-	174.19	-	-	-	134.71	240.49	134.71	78.5
		1.1.88	247.47	250.00	-	-	251.03	-	203.77	-	-	-	157.41	251.03	157.41	59.5
Lean coal	Nuts 3 20/30 mm	1.1.87	-	195.83	-	-	-	-	130.30	-	-	-	122.65	195.83	122.65	59.7
		1.7.87	-	208.24	-	-	-	-	140.81	-	-	-	126.78	208.24	126.78	64.3
		1.1.88	-	239.87	-	-	-	-	164.72	-	-	-	148.15	239.87	148.15	61.9
Semi-bituminous	Nuts 4 10/20 mm	1.1.87	163.54	189.06	-	-	-	-	-	-	-	-	-	189.06	163.54	15.6
		1.7.87	172.53	201.10	-	-	-	-	-	-	-	-	-	201.10	172.53	16.6
		1.1.88	198.73	231.65	-	-	-	-	-	-	-	-	-	231.65	198.73	16.6
Long flame	Nuts 2 30/50 mm	1.1.87	144.79	-	169.27	125.16	-	106.61	-	99.70	98.81	123.12	-	169.27	98.81	71.3
		1.7.87	156.04	-	178.57	132.28	-	111.35	-	107.74	106.77	127.27	-	178.57	106.77	67.3
		1.1.88	179.75	-	205.70	150.97	-	126.54	-	126.98	-	148.71	-	205.70	126.54	62.6
Long flame	Nuts 5 6/10 mm	1.1.87	144.79	-	-	101.38	-	105.51(3)	-	99.55	94.78	-	-	144.79	94.78	52.8
		1.7.87	156.04	-	-	107.14	-	110.20(4)	-	107.58	102.42	-	-	156.04	102.42	52.4
		1.1.88	179.75	-	-	122.28	-	125.23(5)	-	127.74	123.02	-	-	179.75	122.58	46.6
Coking coal	Medium or high volatile	1.1.87	137.24	156.25	158.85	91.36	-	100.94	96.72	-	-	-	-	158.85	91.36	73.9
		1.7.87	148.08	168.41	167.58	96.56	-	105.43	104.52	-	-	-	-	168.41	96.56	74.4
		1.1.88	170.57	193.99	193.04	110.21	-	119.81	122.26	-	-	-	-	193.99	110.21	76.0
Coke	Blast furnace > 40 mm	1.1.87	199.48	222.92	215.10	154.57	172.44	167.72	146.12	146.12	146.12	-	-	222.92	146.12	52.6
		1.7.87	210.44	240.11	226.92	163.36	180.10	175.16	157.90	157.90	157.90	-	-	240.11	157.90	52.1
		1.1.88	242.41	276.58	261.39	144.93	204.67	199.07	184.72	184.72	184.72	-	-	276.58	184.72	49.7

(1): Dollar exchange rate

DM

FB

FF

£

Pta

2.1.87

1.92 100

39.95 100

6.35 100

0.67 100 130.45 100

1.7.87

1.82 95

37.80 95

6.08 96

0.62 93 126.20 97

1.1.88

1.58 82

33.12 83

5.35 84

0.53 79 108.00 83

(2) Prices are not adjusted for quality differences.

Power stations : (3) 122.05/127.72 \$/t

Power stations : (4) 127.47/133.39 \$/t

Power stations : (5) 144.86/151.59 \$/t

TABLE 14c

Pre-tax pithead list-prices for Community coal on 1 January 1987, 1 July 1987 and 1 January 1988

Category	Type	Date	(in national currencies)										
			Ruhr DM	Aachen DM	Saar DM	Belgium FB	Nord FF	Lorraine FF	South Wales £	Scotland £	South Yorkshire £	Oviedo Pta	Leon Pta
Anthracite	Nuts 3 20/30 mm	1.1.87	391.-	437.70	-	-	1.343.-	-	106.-	-	-	-	17 000
		1.7.87	391.-	437.70	-	-	1.343.-	-	108.-	-	-	-	17 000
		1.1.88	391.-	395.00	-	-	1.343.-	-	108.-	-	-	-	17 000
Lean coal	Nuts 3 20/30 mm	1.1.87	-	376.-	-	-	-	-	87.30	-	-	-	16 000
		1.7.87	-	379.-	-	-	-	-	87.30	-	-	-	16 000
		1.1.88	-	379.-	-	-	-	-	87.30	-	-	-	16 000
Semi-bituminous	Nuts 4 10/20 mm	1.1.87	314.-	363.-	-	-	-	-	-	-	-	-	-
		1.7.87	314.-	366.-	-	-	-	-	-	-	-	-	-
		1.1.88	314.-	366.-	-	-	-	-	-	-	-	-	-
Long flame	Nuts 2 30/50 mm	1.1.87	278.-	-	325.-	5 000.-	-	677.-	-	66.80	66.20	16 061	-
		1.7.87	284.-	-	325.-	5 000.-	-	677.-	-	66.80	66.20	16 061	-
		1.1.88	284.-	-	325.-	5 000.-	-	677.-	-	67.30	-	16 061	-
Long flame	Nuts 5 6/10 mm	1.1.87	278.-	-	-	4 050.-	-	670. <sup>(2)</sup>	-	66.70	63.50	-	-
		1.7.87	284.-	-	-	4 050.-	-	670. <sup>(3)</sup>	-	66.70	63.50	-	-
		1.1.88	284.-	-	-	4 050.-	-	670. <sup>(4)</sup>	-	67.70	65.20	-	-
Coking coal	Medium or high volatile	1.1.87	263.50	300.-	305.-	3 650.-	-	641.-	64.80	-	-	-	-
		1.7.87	269.50	306.50	305.-	3 650.-	-	641.-	64.80	-	-	-	-
		1.1.88	269.50	306.50	305.-	3 650.-	-	641.-	64.80	-	-	-	-
Coke	Blast furnace > 40 mm	1.1.87	383.-	428.-	413.-	6 175. <sup>(1)</sup>	1 095.-	1 065.-	97.90	97.90	97.90	-	-
		1.7.87	383.-	437.-	413.-	6 175.-	1 095.-	1 065.-	97.90	97.90	97.90	-	-
		1.1.88	383.-	437.-	413.-	4 800.-	1 095.-	1 065.-	97.90	97.90	97.90	-	-

(1) Carcoke

(2) Power stations : 775.-/811.- FF

(3) Power stations : 775.-/811.- FF

(4) Power stations : 775.-/811.- FF

**TABLE 15 A**

**Average cif prices for coal imported from third countries**

	(US \$)							
	First quarter 1986	Second quarter 1986	Third quarter 1986	Fourth quarter 1986	First quarter 1987	Second quarter 1987	Third quarter 1987	Fourth quarter 1987
A) Steam coal (1) NCV (Kj/kg)	26 101	26 102	26 346	26 159	26 200	26 400	26.355	..
per tonne (t = t)	44.85	44.05	43.10	41.05	38.75	39.80	38.40	..
per tonne = 29.3 GJ	50.20	49.35	47.80	45.85	43.20	44.00	42.50	..
B) Coking coal (2) NCV (KJ/kg)	31 124	31 124	31 124	31 124	29 386	29 386	29 386	29 386
per standard tonne (3) (4)	61.90	58.20	57.10	56.85	53.40	50.10	49.75	50.30
per tonne = 29.3 GJ	58.30	54.80	53.75	53.55	53.25	49.95	49.60	50.15
Ratio B : A, per tonne = 29.3 GJ	116 %	111 %	112 %	117 %	123 %	114 %	117 %	

- (1) As per quarterly reports from the Member States (Decision 86/161/ECSC of 26 February 1985 modifying the Decision 77/707/ECSC of 7 November 1977).
- (2) Guide price (Decision 73/287/ECSC of 25 July 1973 and Decision 2064/86/ECSC of 30 June 1986), reference date : beginning of quarter.
- (3) Specifications of the standard quality till 31 December 1986 : ashes 6 %, water 5 %, volatile matters 24 %; from 1st January 1987 : ashes 7.5 %, water 8 %, volatile matters 26 %.
- (4) Trends of the mean value : at the first of January of each year :
- |      |       |      |       |      |       |      |       |      |              |
|------|-------|------|-------|------|-------|------|-------|------|--------------|
| 1970 | 17.50 | 1974 | 31.90 | 1978 | 62.10 | 1982 | 82.45 | 1986 | 61.90        |
| 1971 | 23.90 | 1975 | 59.55 | 1979 | 63.95 | 1983 | 76.25 | 1987 | 53.40        |
| 1972 | 23.65 | 1976 | 62.75 | 1980 | 68.50 | 1984 | 66.20 | 1987 | 50.30 (1.10) |
| 1973 | 26.05 | 1977 | 61.65 | 1981 | 75.70 | 1985 | 62.75 |      |              |

TABLE 15 B

## Coking Coal Imports

Guide price in national currencies : 1986 per tonne of 31.1 GJ,  
former reference grade ; 1987 per tonne of 29.4 GJ, new reference grade

Reference date :	USD	DM	FB	FF	£	FL.	Esc.	PTA	Lit.
1. Quarter 1986	61.90	152	3.100	466	43	171	9.765	9.475	103.000
2. Quarter 1986	58.20	136	2.780	417	40	153	8.820	8.520	92.000
3. Quarter 1986	57.10	125	2.550	398	37	140	8.490	7.950	86.000
4. Quarter 1986	56.85	115	2.390	377	39	130	8.350	7.580	80.000
1. Quarter 1987	53.40	102	2.130	339	36	116	7.720	6.970	71.400
2. Quarter 1987	50.10	71	2.185	303	31	103	7.050	6.390	64.900
3. Quarter 1987	49.75	91	1.880	302	31	102	7.100	6.280	65.680
4. Quarter 1987	50.30	93	1.925	309	31	104	7.300	6.150	66.900
Difference in% (1) 4. Quarter 1987/ 1. Quarter 1986	- 18.7	- 38.8	- 37.9	- 33.7	- 27.9	- 39.2	- 25.2	- 35.1	- 35.0
Same period (2)	- 13.7	- 35.5	- 33.9	- 29.6	- 23.3	- 35.1	- 20.6	- 31.1	- 31.1

(1) Reference grades : see title.

(2) For comparison only ; price based on reference grade in application until 31 December 1986.

TABLE 15 C

Average price for imported steam coal (in national currencies per tonne of 29.3 GJ)

Reference date :	US \$	DM	FB	FF	Fl.	Lit.	UK £	Dr.	PTA	Esc.	Dkr.	IR £
3rd Quarter 1986	47.80	100.21	2.066	324.70	112.99	68.943	31.72	6.510	6.499	7.013	376.52	34.46
4th Quarter 1986	45.85	92.57	1.923	302.84	104.61	64.060	32.04	6.313	6.191	6.798	349.15	33.38
1st Quarter 1987	43.20	80.12	1.662	266.37	90.46	56.606	28.37	5.834	5.588	6.154	302.83	29.90
2nd Quarter 1987	44.00	79.68	1.652	265.72	89.87	57.083	26.94	5.905	5.577	6.189	300.07	29.77
3rd Quarter 1987	42.50	77.81	1.615	259.57	87.62	56.354	26.26	5.884	5.297	6.101	296.57	29.10
Difference in % 3rd Quarter 1987/ 3rd Quarter 1986	- 11.1	- 22.4	- 21.8	- 20.1	- 22.5	- 18.3	- 17.2	- 9.6	- 18.5	- 13.0	- 21.2	- 15.6

**TABLE 16**

**Delivered prices for domestic coal  
(including taxes)**

(Ecu/tce)

	1 July 1986	1 July 1987	+/- %
Belgium	257.73	267.91	+ 3.9
France	319.28	312.16	- 2.2
Germany	256.18	265.45	+ 3.6
Ireland	181.86	..	..
Italy	302.04	286.82	- 5.0
Netherlands	296.21	310.58	+ 4.9
Spain	141.62	148.55	+ 4.9
United Kingdom	212.30	195.27	- 8.0

TABLE 17

## World coal production and trade

(Mio tonnes)

I. WORLD TRADE BY COUNTRY AND REGION	1985	1986	1987 (1)	1988 (2)
Imports, Japan	94	92	92	93
Community imports from third countries	98	95	94	96
Imports, other countries	85	92	94	98
Sub-total coal sea-borne trade(a)	277	279	280	287
Coking coal	140	136	136	136
Others	137	143	144	151
Intra-Community coal trade	13	11	10	9
Intra-Comecon trade (3)	34	36	34	34
United States - Canada trade	15	13	13	11
Sub-total coal regional trade(b)	62	60	57	54
Total : coal world trade (c) (c) = (a) + (b)	339	339	337	341
Coking coal	165	160	159	159
Others	174	179	178	182
Difference from year to year (%)	+ 7 %	+ 0 %	- 1 %	+ 1 %
II. WORLD PRODUCTION OF COAL	1985	1986	1987 (1)	
Western Europe (EUR)	224 (224)	234 (234)	225 (225)	
North America (United States) (Canada)	776 (741) ( 34)	771 (740) ( 31)	790 (760) ( 30)	
USSR	569	587	600	
China	813	840	880	
Poland	192	192	193	
South Africa	173	177	180	
Australia	139	160	165	
India	149	163	172	
Japan	16	16	14	
Latin America	28	31	34	
Rest of the world	146	147	148	
Total world production of coal(d)	3 225	3 318	3 401	
III. SEA-BORNE TRADE OF COAL IN % OF WORLD PRODUCTION  (a):(d)	8.6 %	8.4 %	8.2 %	

(1) Estimates

(2) Forecasts

(3) Countries with centrally planned economy (Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania, USSR)

**TABLE 18**

**Hard coal from third countries  
1986-1988**

	(10 <sup>6</sup> tonnes)		
	1986 Actual	1987 Provisional	1988 Forecasts
<b>A) <u>By country of destination</u></b>			
Belgium	6.8	7.2	8.4
Denmark	11.0	11.4	11.8
Germany (FR)	9.4	7.6	7.5
Spain	8.7	9.2	9.3
France	13.9	11.6	11.0
Greece	1.7	1.7	1.8
Ireland	2.0	2.7	2.7
Italy	19.0	19.0	19.5
Luxembourg	0.2	0.1	0.1
Netherlands	11.5	11.8	12.2
Portugal	1.5	2.6	2.8
United Kingdom	9.8	8.8	8.6
Community	95.5	93.7	95.7
<b>B) <u>By country of origin</u></b>			
USA	34.7	30.9	32.5
Canada	2.1	2.1	2.2
Australia	21.0	22.3	22.9
South Africa	22.4	19.7	19.2
Poland	8.9	9.4	9.0
USSR	1.6	1.7	1.9
Others	4.8	7.6	8.0
Community	95.5	93.7	95.7

TABLE 19

Trend of Intra-Community trade in hard coal  
1986 - 1988

('000 tonnes)

to \ From	('000 tonnes)													
	Belgique	Danmark	Deutsch- land (BR)	España	France	Hellas	Irland	Italia	Luxembourg	Neder- land	Portugal	United Kingdom	Communi- ty	
Belgique	1986	■	-	1 620	-	15	-	-	-	-	45	-	50	1 730
	1987	■	-	1 385	-	-	-	-	-	260	-	5	1 650	
	1988	■	-	1 215	-	20	-	-	-	210	-	5	1 450	
Danmark	1986	-	■	5	-	-	-	-	-	10	-	1 065	1 080	
	1987	-	■	-	-	-	-	-	-	45	-	1 115	1 160	
	1988	-	■	-	-	-	-	-	-	40	-	1 020	1 060	
Deutsch- land (BR)	1986	290	-	■	-	415	-	-	-	55	-	220	980	
	1987	100	-	■	-	395	-	-	-	50	-	195	740	
	1988	100	-	■	-	210	-	-	-	50	-	140	500	
España	1986	20	-	-	■	-	-	-	-	-	-	5	25	
	1987	-	-	-	■	-	-	-	-	30	-	-	30	
	1988	-	-	-	■	-	-	-	-	25	-	-	25	
France	1986	185	-	2 270	-	■	-	-	-	-	-	515	2 970	
	1987	20	-	1 885	-	■	-	-	-	25	-	170	2 100	
	1988	20	-	1 750	-	■	-	-	-	70	-	140	1 980	
Hellas	1986	-	-	-	-	-	■	-	-	-	-	-	-	
	1987	-	-	-	-	-	■	-	-	-	-	-	-	
	1988	-	-	-	-	-	■	-	-	-	-	-	-	
Irland	1986	10	25	15	-	40	-	■	-	110	-	470	670	
	1987	15	-	-	-	65	-	■	-	80	-	330	490	
	1988	15	-	-	-	50	-	■	-	70	-	265	400	
Italia	1986	-	-	1 550	-	-	-	■	-	-	-	-	1 550	
	1987	-	-	1 350	-	-	-	■	-	-	-	50	1 400	
	1988	-	-	1 250	-	-	-	■	-	-	-	50	1 300	
Luxembourg	1986	20	-	5	-	-	-	-	■	-	-	-	25	
	1987	-	-	5	-	-	-	-	■	15	-	-	20	
	1988	-	-	5	-	-	-	-	■	15	-	-	20	
Nederland	1986	90	-	690	-	-	-	10	-	■	-	10	800	
	1987	80	-	510	-	-	-	-	-	■	-	20	610	
	1988	30	-	510	-	-	-	-	-	■	-	10	550	
Portugal	1986	-	-	-	-	5	-	-	-	-	■	215	220	
	1987	-	-	-	-	15	-	-	-	-	■	225	240	
	1988	-	-	-	-	10	-	-	-	-	■	210	220	
United Kingdom	1986	170	-	440	-	30	-	10	-	220	-	■	870	
	1987	300	10	200	-	-	-	15	-	505	-	■	1 030	
	1988	290	10	170	-	-	-	10	-	515	-	■	995	
Community	1986	785	25	6 595	-	505	-	10	10	440	-	2 550	10 920	
	1987	515	10	5 335	-	475	-	15	-	1 010	-	2 110	9 470	
	1988	455	10	4 900	-	290	-	10	-	995	-	1 840	8 500	

TABLE 20

Trend of intra-Community trade in coke  
1986 - 1988

From to	To													
	Belgique	Danmark	Deutsch- land (BR)	España	France	Hellas	Irland	Italia	Luxembourg	Neder- land	Portugal	United Kingdom	Communi- ty	
Belgique	1986	■	-	130	-	70	-	-	-	-	230	-	70	500
	1987	■	-	110	-	20	-	-	-	180	-	5	315	
	1988	■	-	45	-	15	-	-	-	100	-	-	160	
Danmark	1986	10	■	15	-	25	-	-	-	-	-	5	55	
	1987	10	■	-	-	25	-	-	-	-	-	10	45	
	1988	5	■	10	-	20	-	-	-	-	-	5	40	
Deutsch- land (BR)	1986	240	-	■	-	110	-	-	-	-	135	-	130	615
	1987	230	-	■	10	90	-	-	-	125	-	30	485	
	1988	200	-	■	-	65	-	-	-	110	-	25	400	
España	1986	10	-	10	■	30	-	-	-	-	-	10	60	
	1987	15	-	5	■	30	-	-	-	-	-	10	60	
	1988	-	-	10	■	15	-	-	-	-	-	5	30	
France	1986	190	-	830	-	■	-	-	-	-	250	-	-	1 270
	1987	220	-	495	-	■	-	-	-	-	465	-	-	1 180
	1988	160	-	400	-	■	-	-	-	-	340	-	-	900
Hellas	1986	-	-	-	-	5	■	-	-	-	-	-	-	5
	1987	-	-	-	-	-	■	-	-	-	-	-	-	-
	1988	-	-	-	-	5	■	-	-	-	-	-	-	5
Irland	1986	-	-	-	-	-	-	■	-	-	-	-	5	5
	1987	-	-	-	-	-	-	■	-	-	-	-	5	5
	1988	-	-	-	-	-	-	■	-	-	-	-	5	5
Italia	1986	10	-	10	-	40	-	-	■	-	-	-	-	60
	1987	-	-	170	-	-	-	-	■	-	-	-	-	170
	1988	5	-	10	-	35	-	-	■	-	-	-	-	50
Luxembourg	1986	190	-	1 415	-	-	-	-	-	5	-	-	-	1 610
	1987	135	-	1 160	-	-	-	-	-	-	-	-	-	1 295
	1988	90	-	1 160	-	-	-	-	-	-	-	-	-	1 250
Nederland	1986	-	-	180	-	20	-	-	-	-	■	-	180	380
	1987	-	-	80	-	-	-	-	-	-	■	-	70	150
	1988	25	-	65	-	20	-	-	-	-	■	-	65	175
Portugal	1986	-	-	10	-	-	-	-	-	-	10	■	15	35
	1987	-	-	5	-	-	-	-	-	-	-	■	5	10
	1988	-	-	-	10	-	-	-	-	-	-	■	10	20
United Kingdom	1986	-	-	-	-	-	-	-	-	-	-	-	■	-
	1987	-	-	-	-	90	-	-	-	-	-	-	■	110
	1988	-	-	20	-	-	-	-	-	-	-	-	■	-
Community	1986	650	-	2 590	10	300	-	-	-	630	-	415	4 595	
	1987	610	-	2 045	10	255	-	-	-	770	-	135	3 825	
	1988	485	-	1 700	10	175	-	-	-	550	-	115	3 035	

**TABLE 21**

**Producers' stocks of hard coal and coke  
(at the end of the year)**

	1986 Actual	1987 Provisional		1988 Forecasts	
		1 000 tonnes	Number of calendar days covered	1 000 tonnes	Number of calendar days covered
<b>1. Hard Coal</b>					
Belgium	661	462	38	295	37
Germany (FR) (1)	11 151	11 335	50	13 185	60
Spain (2)	1 600	1 859	35	1 992	38
France	4 385	3 904	150	..	..
Ireland	20	20	133	..	..
Portugal	2	9	14	4	6
United Kingdom	8 971	6 521	23	..	..
Community	26 790	24 110	39	26 000*	43
<b>2. Coke</b>					
Belgium	72	64	5	70	5
Germany (FR) (1)	4 259	5 729	106	6 280	126
Spain	213	165	20	113	15
France	521	514	24	..	..
Greece	19	20*	-	20	-
Italy	348	388	20	240	12
Netherlands	61	35	5	..	..
Portugal	29	19	24	20	25
United Kingdom	655	415	18	..	..
Community	6 177	7 349	49	8 700*	61

(1) Excluding the national reserve (6 675 t hard coal and 2 776 t coke for the 3 years)

(2) Including black lignite.

(\*) Forecasts

TABLE 22

Hard coal balance sheet for 1988

('000 tonnes)

	Belgique	Danmark	Deutschland	Espana	France	Hellas	Ireland	Italia	Luxembourg	Nederland	Portugal	United Kingdom	EUR-12
1. Production (t) t)	2 920	-	80 100	19 100	12 300	-	55	-	-	-	250	104 400	219 125
2. Recoveries	900	-	500	300	650	-	-	-	-	-	-	2 000	4 350
3. Arrivals from ECSC countries	1 450	1 060	500	25	1 980	-	400	1 300	20	550	220	995	(8 500)
4. Imports from non-member countries	8 415	11 750	7 500	9 300	11 000	1 800	2 745	19 520	131	12 150	2 800	8 600	95 711
5. Availabilities (1+2+3+4)	13 685	12 810	88 600	28 725	25 930	1 800	3 200	20 820	151	12 700	3 270	115 995	319 186
6. Internal deliveries :													7 350
a) colliery power stations	250	-	2 200	-	4 900	-	-	-	-	-	-	-	184 928
b) public power stations	4 230	11 850	42 400	19 900	2 700	200	1 848	9 800	-	5 500	2 000	84 500	69 855
c) coke ovens	6 475	-	23 700	4 000	9 500	-	-	10 100	-	4 300	380	11 400	3 875
d) steel industry	300	-	1 600	200	1 070	100	-	-	55	350	-	200	(380)
(of which power stations)	(-)	(-)	(300)	(-)	(80)	(-)	(-)	(-)	(-)	(-)	(-)	(n.a.)	(380)
e) other industries	650	400	8 000	2 947	4 000	1 400	384	1 010	85	750	870	8 600	29 096
(of which power stations)	(-)	(-)	(5 000)	(-)	(170)	(-)	(-)	(-)	(-)	(330)	(-)	(n.a.)	(5 500)
f) domestic sector	1 050	450	700	1 536	1 900	-	1 224	-	2	40	-	5 500	12 402
g) miscellaneous (total)	35	150	2 650	315	1 090	-	-	-	-	225	1	4 300	8 766
of which : 1. issues to workers	(10)	(-)	(100)	(231)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(1 200)	(1 541)
2. patent fuel	(20)	(-)	(850)	(20)	(900)	(-)	(-)	(-)	(-)	(-)	(-)	(800)	(2 590)
3. own consumption	(5)	(-)	(250)	(64)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(200)	(519)
4. gasworks	(-)	(-)	(150)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(150)
5. railways	(-)	(-)	(200)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(1)	(-)	(201)
6. others	(-)	(150)	(1 100)	(-)	(190)	(-)	(-)	(-)	(-)	(225)	(-)	(2 100)	(3 765)
7. Total internal deliveries (6)	12 990	12 850	81 250	28 898	25 160	1 700	3 456	20 910	142	11 165	3 251	114 500	316 272
8. Deliveries to ECSC	455	10	4 900	-	290	-	10	-	-	995	-	1 840	(8 500)
9. Exports to non-member countries	55	50	600	-	150	100	-	-	-	305	-	100	1 360
10. Total deliveries (7+8+9)	13 500	12 910	86 750	28 898	25 600	1 800	3 466	20 910	142	12 465	3 251	116 440	317 632
11. Movement of producers' and importers' stocks (5 to 10)	+ 185	- 100	+1 850	- 173	+ 330	-	- 266	- 90	+ 9	+ 235	+ 19	- 445	+1 554

n.a. = not available

TABLE 23

## Hard coal balance sheet for 1987

('000 tonnes)

	Belgique	Danmark	Deutsch-land	España	France	Grecias	Ireland	Italia	Luxemb- bourg	Nederland	Portugal	United Kingdom	EUR-12
1. Production (t ) t)	4 405	-	82 380	19 300	13 630	-	55	-	-	-	235	105 000	225 005
2. Recoveries:	900	-	55	287	1 020	-	-	-	-	-	-	2 000	4 262
3. Arrivals from ECSC countries	1 650	1 160	740	30	2 100	-	490	1 400	20	610	240	1 030	(9 470)
4. Imports from non-member countries	7 175	11 350	7 640	9 200	11 600	1 700	2 694	19 070	143	11 775	2 611	8 800	93 758
5. Availabilities (1+2+3+4)	14 130	12 510	90 815	28 817	28 350	1 700	3 239	20 470	163	12 385	3 086	116 830	323 025
6. Internal deliveries :													
a) colliery power stations	355	-	2 458	-	5 600	-	-	-	-	-	-	-	8 413
b) public power stations	4 680	11 450	42 826	19 900	4 300	200	1 596	9 800	-	5 100	1 876	84 600	186 328
c) coke ovens	6 525	-	25 939	4 200	9 800	-	-	9 700	-	4 340	410	11 800	72 714
d) steel industry	100	-	1 224	233	800	100	-	-	65	330	-	200	3 052
(of which power stations)	(-)	(-)	(305)	(-)	(80)	(-)	(-)	(-)	(-)	(-)	(-)	(n. a.)	(385)
e) other industries	600	400	8 364	2 674	4 000	1 400	428	940	85	750	820	8 500	28 961
(of which power stations)	(-)	(-)	(5 100)	(-)	(170)	(-)	(-)	(-)	(-)	(300)	(-)	(n. a.)	(5 570)
f) domestic sector	1 050	450	855	1 569	2 150	-	1 358	-	2	30	-	5 500	12 964
g) miscellaneous (total)	35	150	2 897	310	1 200	-	-	-	-	115	1	4 300	9 008
of which :													
1. issues to workers	(10)	(-)	(126)	(227)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(1 200)	(1 563)
2. patent fuel	(20)	(-)	(1 020)	(21)	(1 000)	(-)	(-)	(-)	(-)	(-)	(-)	(800)	(2 861)
3. own consumption	(5)	(-)	(223)	(62)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(200)	(490)
4. gasworks	(-)	(-)	(117)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(117)
5. railways	(-)	(-)	(189)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(1)	(-)	(193)
6. others	(-)	(150)	(1 222)	(-)	(200)	(-)	(-)	(-)	(-)	(115)	(-)	(2 100)	(3 787)
7. Total internal deliveries (6)	13 345	12 450	84 563	28 886	27 850	1 700	3 382	20 440	152	10 665	3 107	114 900	321 445
8. Deliveries to ECSC	515	10	5 335	-	475	-	15	-	-	1 010	-	2 110	(9 470)
9. Exports to non-member countries	55	50	730	2	165	-	-	-	-	275	-	300	1 575
10. Total deliveries (7+8+9)	13 915	12 510	90 628	28 888	28 490	1 700	3 397	20 440	152	11 950	3 107	117 310	323 017
11. Movement of producers' and importers' stocks (5 to 10)	+ 215	-	+ 187	- 71	- 140	-	- 158	+ 30	+ 11	+ 435	- 21	- 480	+ 8

n.a. = not available

TABLE. 24  
Coke balance sheet for 1988

('000 tonnes)

	Belgique	Danmark	Deutschland	España	France	Hellas	Ireland	Italia	Luxembourg	Nederland	Portugal	United Kingdom	EUR-12
1. Production	4 900	-	18 200	2 800	7 600	-	-	7 260	-	2 800	290	8 300	52 150
2. Receipts from ECSC Countries	160	40	400	30	900	5	5	50	1 250	175	20	-	(3 035)
3. Imports from third countries	140	5	200	110	200	35	-	-	20	125	-	-	835
4. Availabilities (1+2+3)	5 200	45	18 800	2 940	8 700	40	5	7 310	1 270	3 100	310	8 300	52 985
5. Inland deliveries :													
a) Steel industry	4 400	-	14 200	2 750	7 000	20	-	6 331	1 304	2 100	290	5 800*	44 195
b) Other industries	120	25	850	362	700	20	3	521	-	100	20	500*	3 221
c) Domestic sector	20	20	350	-	180	-	-	138	1	-	-	500*	1 209
d) Miscellaneous	10	-	750	-	270	-	-	-	-	-	-	300*	1 330
of which													
- issues to workers	(10)	(-)	(450)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(460)
- own consumption	(-)	(-)	(200)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(200)
- other	(-)	(-)	(100)	(-)	(270)	(-)	(-)	(-)	(-)	(-)	(-)	(300)	(670)
6. Total inland deliveries (5)	4 550	45	16 150	3 112	8 150	40	3	6 990	1 305	2 200	310	7 100*	49 955
7. Deliveries to ECSC countries	485	-	1 700	10	175	-	-	-	-	550	-	115*	(3 035)
8. Exports to third countries	45	-	400	10	200	-	-	330	-	100	-	700*	1 785
9. Total deliveries (6+7+8)	5 080	45	18 250	3 132	8 525	40	3	7 320	1 305	2 850	310	7 915	51 740
10. Stock movement at production and import (4 to 9)	+ 120	-	+ 550	- 192	+ 175	-	+ 2	- 10	- 35	+ 250	-	+ 385	+ 1 245

(\*) Forecasts of the Commission of the European Communities.

TABLE 25  
Coke balance sheet for 1987

('000 tonnes)

	Belgium	Denmark	Deutsch-land	España	France	Greece	Ireland	Italia	Luxem-bourg	Niederland	Portugal	United Kingdom	EUR-12
1. Production	4 950	-	19 819	3 017	7 800	-	-	7 000	-	2 800	300	8 600	54 286
2. Receipts from ECSC Countries	315	45	485	60	1 180	-	5	170	1 295	150	10	110	(3 825)
3. Imports from third countries	195	5	257**	100	80	30	-	-	17	125	-	-	809
4. Availabilities (1+2+3)	5 460	50	20 561	3 177	9 060	30	5	7 170	1 312	3 075	310	8 710	55 095
5. Inland deliveries :													
a) Steel industry	4 700	-	14 436	2 721	7 300	14	-	6 110	1 320	2 100	309	6 000*	45 010
b) Other industries	70	30	1 019	360	730	20	3	503	-	120	17	500*	3 372
c) Domestic sector	20	20	446	-	200	-	-	132	1	-	-	500*	1 319
d) Miscellaneous	10	-	753	-	280	-	-	-	-	-	-	400*	1 443
of which													
- issues to workers	(10)	(-)	(492)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(502)
- own consumption	(-)	(-)	(181)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(-)	(181)
- other	(-)	(-)	(80)	(-)	(280)	(-)	(-)	(-)	(-)	(-)	(-)	(400)	(760)
6. Total inland deliveries (5)	4 800	50	16 654	3 081	8 510	34	3	6 745	1 321	2 220	326	7 400*	51 144
7. Deliveries to ECSC countries	610	-	2 045	10	255	-	-	-	-	770	-	135*	(3 825)
8. Exports to third countries	45	-	385	10	200	-	-	315	-	75	-	700*	1 730
9. Total deliveries (6+7+8)	5 455	50	19 084	3 101	8 965	34	3	7 060	1 321	3 065	326	8 235	52 874
10. Stock movement at production and import (4 to 9)	+ 5	-	+1 477	+ 76	+ 95	- 4	+ 2	+ 110	- 9	+ 10	- 16	+ 475	+2 221

(\*) Forecasts of the Commission of the European Communities.

(\*\*) For Germany (FR), including the "Zukäufe"

Table 26 is not in the original document.

