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The Market for Solid Fuels in the Community in 2008 and Estimates for 2009

Contents

1.	Introduction.....	- 6 -
1.1.	World Supply and Demand.....	- 6 -
1.2.	World Prices	- 7 -
1.3.	Long Term Outlook	- 7 -
2.	Coal in a European Context.....	- 8 -
2.1.	European Overview	- 8 -
2.2.	Coal in the EU Strategic Energy Reviews	- 9 -
2.3.	Manpower in the European Coal Industry.....	- 10 -
2.4.	European Electricity Generation.....	- 10 -
2.5.	Emissions of CO ₂ from Coal in the EU	- 14 -
3.	General Considerations.....	- 17 -
3.1.	Reserves.....	- 17 -
3.2.	Demand Drivers.....	- 21 -
3.3.	Coal and Gas Prices	- 21 -
3.4.	Emissions Trading	- 22 -
3.5.	Reservoir Levels for Hydro Generation.....	- 23 -
3.6.	Currencies	- 24 -
3.7.	Coal Derivatives and Forward Prices for Steam Coal.....	- 26 -
3.8.	Market Supply Structure.....	- 27 -
3.9.	Steel Industry Developments.....	- 27 -
4.	Hard Coal – Production and Consumption in the EU.....	- 29 -
4.1.	EU Production Trends	- 29 -
4.2.	EU Consumption Trends	- 30 -
5.	Coke – Production and Consumption in the EU.....	- 31 -
6.	International Hard Coal and Coke Markets	- 33 -
6.1.	Major Hard Coal Producers	- 33 -
6.2.	Hard Coal Trade.....	- 35 -
6.3.	Steam Coal Trade.....	- 36 -
6.4.	Coking Coal Trade.....	- 37 -

6.5.	Coke Trade.....	- 37 -
6.6.	Imports to the EU.....	- 37 -
6.7.	International Price Trends.....	- 40 -
6.8.	Coking Coal Prices	- 42 -
6.9.	Coke Prices	- 43 -
6.10.	World Transport Infrastructure	- 44 -
6.11.	Freight Considerations	- 44 -
7.	Lignite and Peat – Production and Consumption	- 46 -
7.1.	World Context.....	- 46 -
7.2.	EU Production Trends	- 47 -
7.3.	Consumption.....	- 48 -
7.4.	Peat Production	- 48 -
7.5.	Oil Shale	- 48 -
8.	State Aid to the indigenous hard coal industry in the EU.....	- 49 -
9.	Conclusions.....	- 50 -
9.1.	World Context.....	- 50 -
9.2.	European Context	- 51 -
9.3.	Coal in EU Electricity Generation	- 51 -
9.4.	EU Reserves of Coal and Lignite	- 51 -
9.5.	EU Hard Coal Production and Consumption.....	- 51 -
9.6.	World Hard Coal Trade	- 51 -
9.7.	EU Hard Coal Imports	- 52 -
9.8.	International Coal Prices.....	- 52 -
9.9.	Lignite and Peat	- 52 -

Figures

Figure 1 - World Total Primary Energy Supply	- 6 -
Figure 2 - Outlook for World Coal Demand (IEA Reference Scenario)	- 8 -
Figure 3 - EU Solid Fuel Supply in 2008 (Million Tonnes Coal Equivalent)	- 9 -
Figure 4 – Electricity Generation by Fuel Source 2007	- 12 -
Figure 5 – Electricity Generation Capacity Planned, Under Development, and Under Construction in the EU.....	- 14 -
Figure 6 – CO2 Emissions from Combustion of Solid Fuels	- 15 -
Figure 7 - World Reserves of Coal	- 18 -
Figure 8 – Europe’s Fossil Fuel Reserves Map	- 20 -
Figure 9 - Coal and Gas Prices to UK Power Producers	- 22 -
Figure 10 – EUETS Carbon Prices	- 23 -
Figure 11 - Scandinavian Reservoir Levels (percent).....	- 24 -
Figure 12 - Exchange Rates for Key Currencies	- 25 -
Figure 13 – Movements in Exchange Rates	- 26 -
Figure 14 - Historic Spot and Forward Swap Prices.....	- 27 -
Figure 15 – Top Ten World Steel Producers 2008 (Mt crude steel).....	- 29 -
Figure 16 - EU Hard Coal Production Trends	- 29 -
Figure 17 – EU Consumption Trends for Hard Coal (Mt).....	- 31 -
Figure 18 – EU Coke Production Trends.....	- 32 -
Figure 19 – Hard Coal Seaborne Trade 2008	- 35 -
Figure 20 - World Seaborne Hard Coal Trade.....	- 36 -
Figure 21 – EU Import Sources	- 38 -
Figure 22 – EU Import Volumes by Member State.....	- 39 -
Figure 23 – North West Europe Steam Coal Prices.....	- 40 -
Figure 24 – Price of Steam Coal Imported from Third Countries	- 41 -
Figure 25 – Price of Coking Coal Imported from Third Countries	- 43 -

Figure 26 - Spot Chinese Coke Prices	- 44 -
Figure 27 - Spot Sea Freight Rates - Richards Bay (South Africa) to Rotterdam	- 45 -
Figure 28 – EU Lignite Production Trends.....	- 47 -

Tables

Table 1 – Manpower in the European Coal Industry.....	- 10 -
Table 2 - Net Electricity Generation by Fuel Source 2007 (GWh)	- 13 -
Table 3 – Emissions of CO2 in 2007 from Combustion of Solid Fuels	- 15 -
Table 4 - European Coal Reserves (Mt)	- 18 -
Table 5 – Growth in World Crude Steel Production.....	- 28 -
Table 6 – Major World Hard Coal Producers (Mt).....	- 33 -
Table 7 - Price Trends in Coking Coal (US \$/Tonne FOB Australia).....	- 42 -
Table 8 – Major World Lignite Producers (Mt).....	- 46 -
Table 9 – State Aid 2003 – 2008 – amounts actually granted by Member States (only for the main coal aid granters in the EU- 27) or authorised by the Commission for the relevant year in million €	- 50 -

Annexes

Annex 1 – Summary of EU-27 Data.....	- 53 -
Annex 2 - Supplies and deliveries in the EU of Hard Coal, Coke and Lignite in 2007 and 2008.....	- 55 -

This document has been produced using data provided by the Member States and observations from market participants up to the end of 2009. Where data has not been available, clearly indicated estimations have been made by the Commission services. Note that the data may differ from that of Eurostat.

Graphs and tables used in this document have been produced by the Commission services on the basis of data provided by the Member States unless a different source is identified under the individual graph or table.

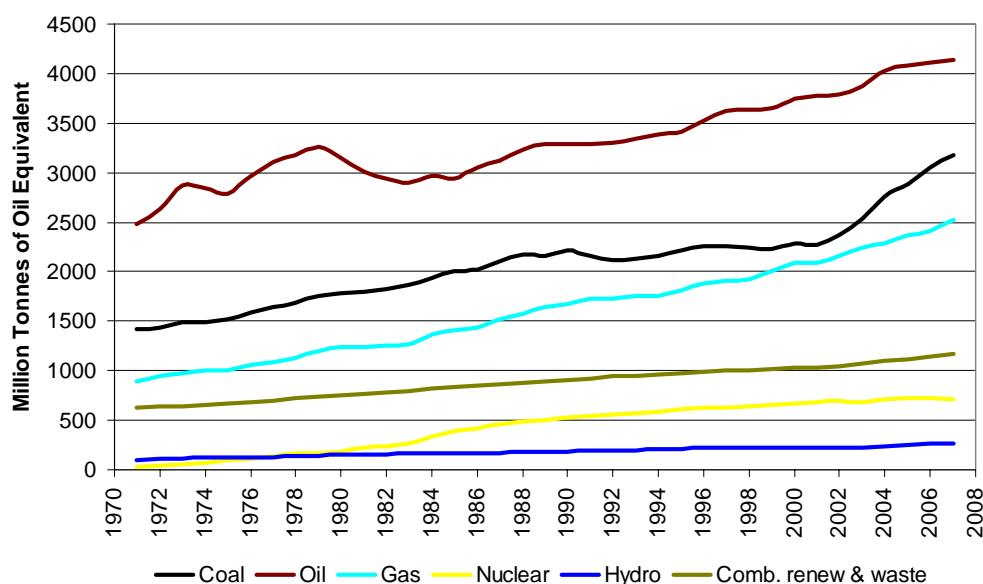
1. INTRODUCTION

Article 7 paragraph (c) of the Council Regulation (EC) No 405/2003 of 27 February 2003 concerning Community monitoring of imports of hard coal originating in third countries, requires the Commission to report each year, in an appropriate form, data and information on the market in solid fuels in the Community in the preceding year together with a market outlook for the current year.¹

1.1. World Supply and Demand

In 2008 total world coal production (hard coal and lignite) increased by 6.2%, continuing the growth of the last ten years, where 2008 production was 48% higher than 1998 levels.² The following graph illustrates the long term growth in coal demand compared to other energy sources.³

Figure 1 - World Total Primary Energy Supply



Source – IEA 2009

Hard coal production in 2008 increased by 7.4% to 5,845 million tonnes (Mt), following an increase of 4.5% in 2007. Cumulative growth since 1998

¹ The Commission staff working document covers only the data to 2008 in comparison with 2007. The data for the previous years can be found on the following website (http://ec.europa.eu/energy/observatory/coal/report_solid_fuels_market_en.htm). The information on the solid fuel market 2009 cannot be summarized before all 27 Member States have reported.

² Source – IEA Coal Information 2009

³ Source – IEA World Energy Outlook 2009

is 59.0%. Lignite⁴ production decreased by 0.4% to 951 Mt in 2008, compared to growth of 1.7% in 2007, and remains just 2.7% above the 1995 production level.

Analysis of proven hard coal and lignite reserve data indicates that, at current world production levels, there are approximately 146 years of reserves available.

Total coal demand increased by 6.8%, or 310 million tonnes coal equivalent⁵ (Mtce) in 2008, following a six year trend of annual increases averaging 6.3%.

Global trade in hard coal also continued to grow in 2008, albeit at a much lower pace than the previous five years, with hard coal exports up 1.6% (15 Mt) to 938 Mt following a 57 Mt increase in 2007. Steam coal exports in 2008 decreased by 1.2% to 676 Mt after 5.0% growth in 2007, whereas coking coal exports continued to show strong growth of 9.7% to 262 Mt, following growth of 10.8% in the previous year.

1.2. World Prices

The commodities boom in the early part of 2008 had a massive effect on coal prices with average CIF⁴ steam coal prices for the year increasing by 68% to \$137.79/tonne in Europe, and by 77% to \$125.42/tonne in Japan. This compared to 2007 when prices increased by 17.8% in Europe and by 12.0% in Japan. Average steam coal FOB⁶ prices likewise increased in 2008 – by 108.2% in Colombia, 89.6% in Indonesia, 80.5% in Australia and 72.7% in South Africa.⁷

Spot prices for international steam coal showed unprecedented levels of volatility. For example, the delivered price to North West Europe peaked at around \$220/tonne in July 2008, before falling rapidly as a result of the world financial crisis. The price dropped below \$70/tonne in January 2009 and generally traded around \$70/tonne for the remainder of the year.

1.3. Long Term Outlook

In its Reference Scenario⁸, the IEA projects coal demand increasing to 6,981 Mtce in 2030, a 53% increase on 2007. Whilst a demand reduction is seen in

⁴ For the purposes of the EU statistics in all parts of the document and the attached tables, lignite, brown coal and peat are grouped together and included in a single EU total. (Production of oil shale is not included in the solid fuel totals but figures are reported later in section 7.5.)

⁵ IEA definition of 1 million tonne coal equivalent equals 0.7 tonnes oil equivalent, or 7 million kilocalories

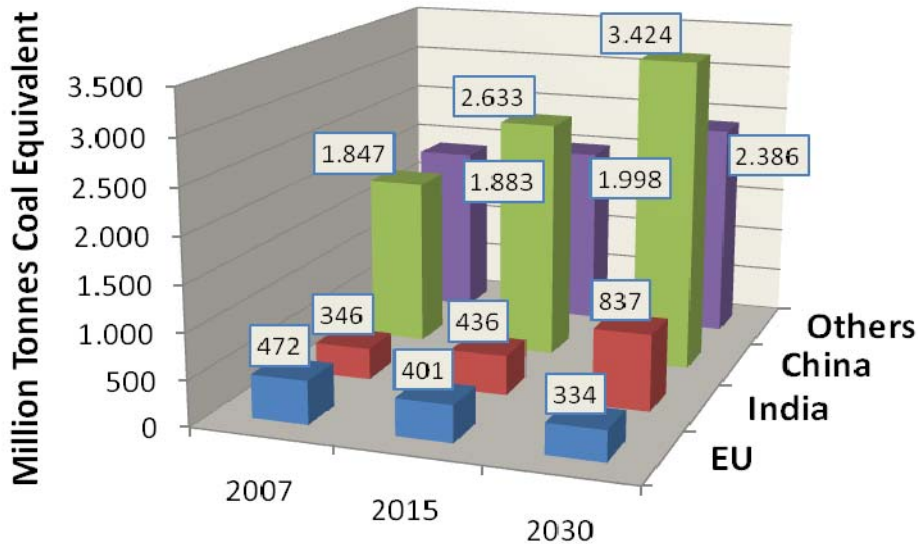
⁶ Free on board

⁷ Source – IEA Coal Information 2009

⁸ The Reference Scenario is not a forecast but is a baseline picture of how global energy markets would evolve if governments make no changes to existing policies and measures

the EU, major increases in demand are seen in India and China, as illustrated by the following chart⁹.

Figure 2 - Outlook for World Coal Demand (IEA Reference Scenario)



Source – IEA 2009

2. COAL IN A EUROPEAN CONTEXT

2.1. European Overview

Europe is the third largest region worldwide in terms of coal consumption, after China and the USA. In the European Union around sixty percent of consumption is derived from indigenous production, with 146 Mt of hard coal and 434 Mt of lignite produced in 2008. Production figures expressed on a common basis of tonnes coal equivalent (tce) are 123 Mtce of hard coal and 133 Mtce of lignite. Coal covers around 18% of the primary energy demands in the European Union; about 30% of power generation is based on coal.¹⁰

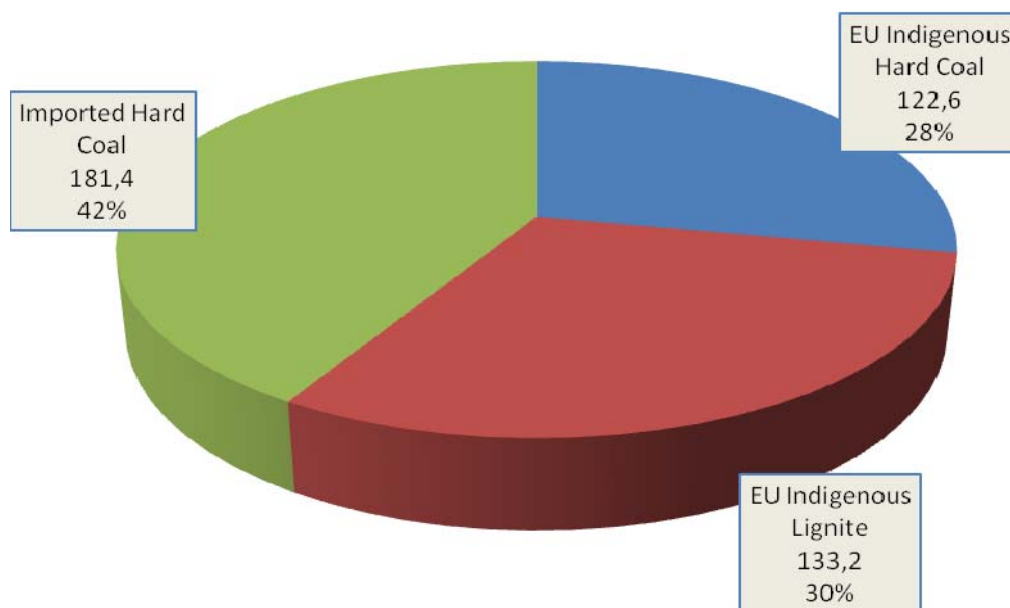
The chart below illustrates the contribution of indigenous hard coal and lignite, together with imported hard coal, to total EU solid fuel supply, all expressed in tonnes of coal equivalent.¹¹

⁹ Source – IEA World Energy Outlook 2009

¹⁰ Source – Eurostat 2007 data

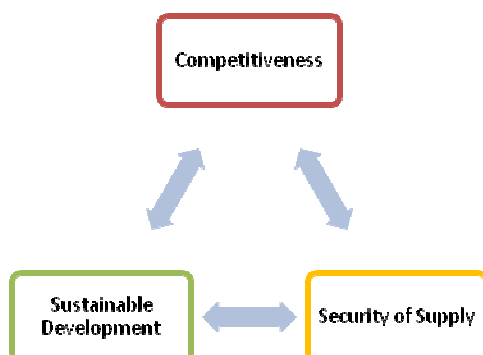
¹¹ Assumes average calorific value of imported hard coal of 6,000 kcal/kg

Figure 3 - EU Solid Fuel Supply in 2008 (Million Tonnes Coal Equivalent)



2.2. Coal in the EU Strategic Energy Reviews

In the first Strategic Energy Review the concept of the Energy Triangle was introduced, illustrated by the diagram below.



In the Second Strategic Energy Review, published in November 2008, the Commission called on Parliament and Council to welcome, inter alia, “the Commission’s intention to promote the environmentally-compatible development of the EU’s indigenous fossil fuel resources and to encourage the

Berlin Fossil Fuel Forum to develop a concrete set of recommendations regarding the action necessary to further this objective.”

The European Commission is pursuing discussion with stakeholders through the Berlin Forum, the National Coal Experts’ meetings and the Coal Dialogue on best use of EU’s indigenous coal resources. These discussions cover topics including the transparency of the EU coal inventory, regulatory frameworks related to land access and management of environmental impacts, public awareness and acceptance, research and innovation, and the continuing availability of a skilled workforce. The preparation of a working document on the subject is under way.

2.3. Manpower in the European Coal Industry

The coal industry in Europe is a major employer, with over 250,000 employees in total. The following table shows the latest available manpower data for 2009 (except where indicated). This refers to direct employees, not including contract labour or those working in the generation sector.

Table 1 – Manpower in the European Coal Industry

	Lignite/Surface	Hard Coal/Deep	Total
Bulgaria	8,500	4,900	13,400
Czech Republic*	7,300	11,400	18,700
Germany	16,475	29,000	45,475
Greece	5,900		5,900
Hungary	3,100		3,100
Poland*	17,400	116,000	133,400
Romania*	14,400	11,500	25,900
Slovak Republic	2,500	2,500	5,000
Slovenia*	2,100		2,100
Spain*		5,800	5,800
UK	3,594	2,174	5,768
Total	81,269	183,274	264,543

*Euracoal data for 2008

Employment is especially important in those regions where operations are concentrated, and where they may have been present for many years. In such regions there are usually significant numbers of further employees in supporting and related industries.

2.4. European Electricity Generation

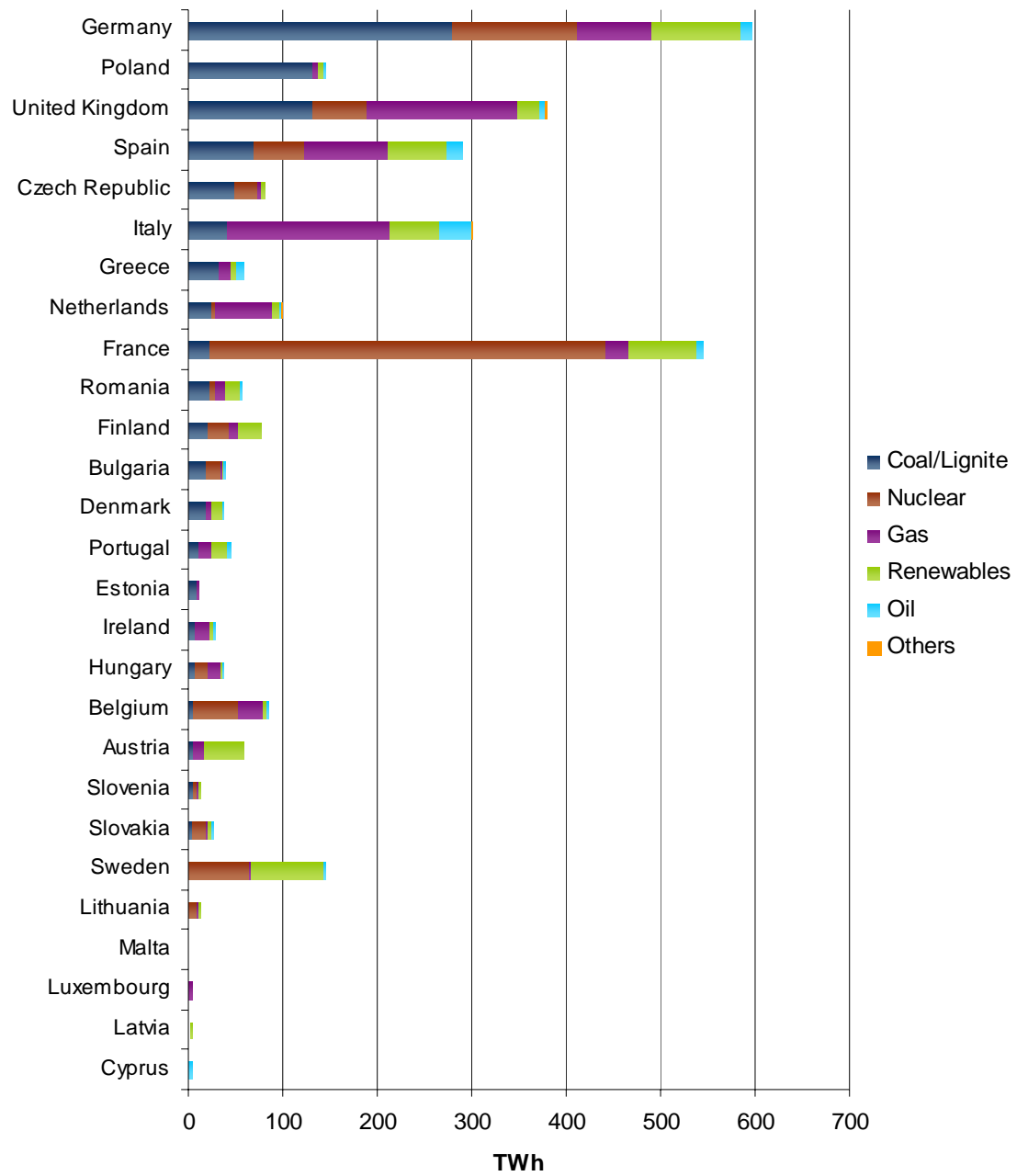
The use of coal in electricity generation varies widely across the EU member states. In Poland over 90% of electricity is generated from hard coal and

lignite, whereas in France 4% is generated from coal and 77% is nuclear ¹². The split of generation for the EU 27 in 2007 was coal 29%, nuclear 28%, gas 23%, renewables 17%, oil and others 3%.

The use of hard coal and lignite in power generation in 2007, compared to other fuels, is illustrated by the following chart. This shows all the Member States, ranked by their coal usage in electricity generation.

¹² Source – Eurostat 2007 data

Figure 4 – Electricity Generation by Fuel Source 2007



The corresponding figures and percentages are given in Table 2 below.

Table 2 - Net Electricity Generation by Fuel Source 2007 (GWh)

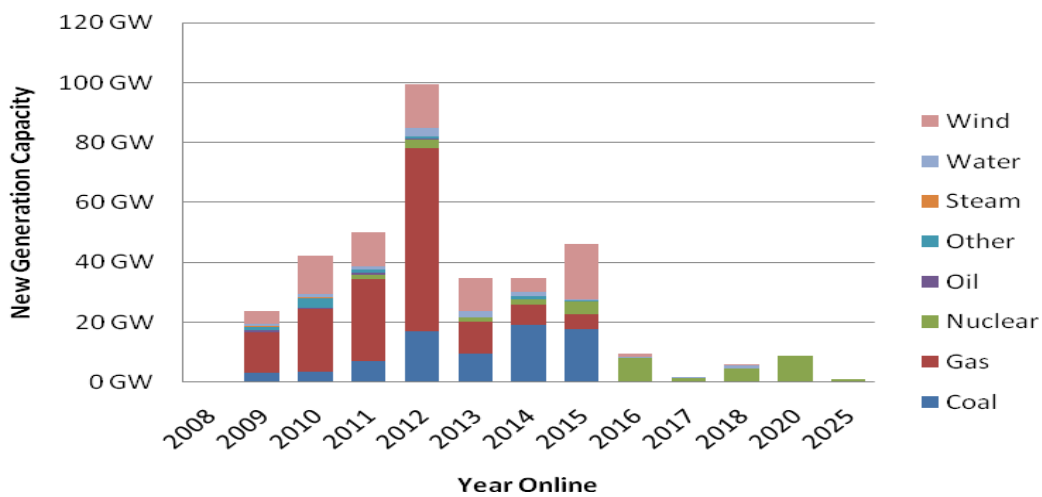
2007	Coal / Lignite	Nuclear	Gas	Renewables	Oil	Others	Total	Coal%
Germany	278.94	133.23	78.27	94.37	10.49	0.06	595.36	47%
Poland	132.55		4.67	5.76	2.10	0.31	145.38	91%
United Kingdom	131.61	57.25	159.94	23.79	4.52	1.34	378.45	35%
Spain	69.83	52.60	89.61	61.04	17.68	0.30	291.05	24%
Czech Republic	49.06	24.62	3.89	3.74	0.11		81.41	60%
Italy	42.16		170.39	53.71	33.84	1.16	301.26	14%
Greece	32.06		12.74	5.35	8.92	0.02	59.09	54%
Netherlands	23.93	3.97	60.11	8.89	2.13	0.18	99.20	24%
France	23.06	418.61	24.28	72.65	5.81		544.42	4%
Romania	22.54	6.28	10.57	15.78	0.99		56.17	40%
Finland	20.24	22.50	10.54	23.70	0.44	0.39	77.82	26%
Bulgaria	19.51	13.69	2.12	3.25	0.50	0.01	39.07	50%
Denmark	18.73		6.51	10.84	1.04	0.17	37.28	50%
Portugal	11.96		12.66	16.58	4.70		45.88	26%
Estonia	10.25		0.53	0.14	0.03		10.95	94%
Ireland	7.53		15.18	3.09	1.95		27.75	27%
Hungary	6.82	13.83	14.19	1.89	0.50		37.22	18%
Belgium	6.25	45.85	26.31	5.16	0.79	0.74	85.09	7%
Austria	6.00		10.72	41.06	1.23	0.32	59.32	10%
Slovenia	4.87	5.43	0.40	3.31	0.03		14.04	35%
Slovakia	4.33	14.14	1.84	4.77	0.64	0.04	25.75	17%
Sweden	0.63	64.28	1.43	77.33	1.04	0.42	145.13	0%
Lithuania	0.01	9.08	2.11	1.10	0.36	0.22	12.88	0%
Cyprus					4.60		4.60	0%
Latvia			1.77	2.80	0.02		4.58	0%
Luxembourg			2.87	1.07			3.94	0%

Malta					2.17		2.17	0%
EU-27	922.87	885.36	723.62	541.15	106.58	5.68	3185.27	29%
Percentages	29%	28%	23%	17%	3%	0%	100%	

Source – Eurostat

A significant amount of new generation capacity needs to be built in the coming years to meet increased demand and to replace ageing plants. The following chart illustrates generation capacity planned, under development and under construction, plotted to show the year it is planned to be online.¹³

Figure 5 – Electricity Generation Capacity Planned, Under Development, and Under Construction in the EU



Source – Platts

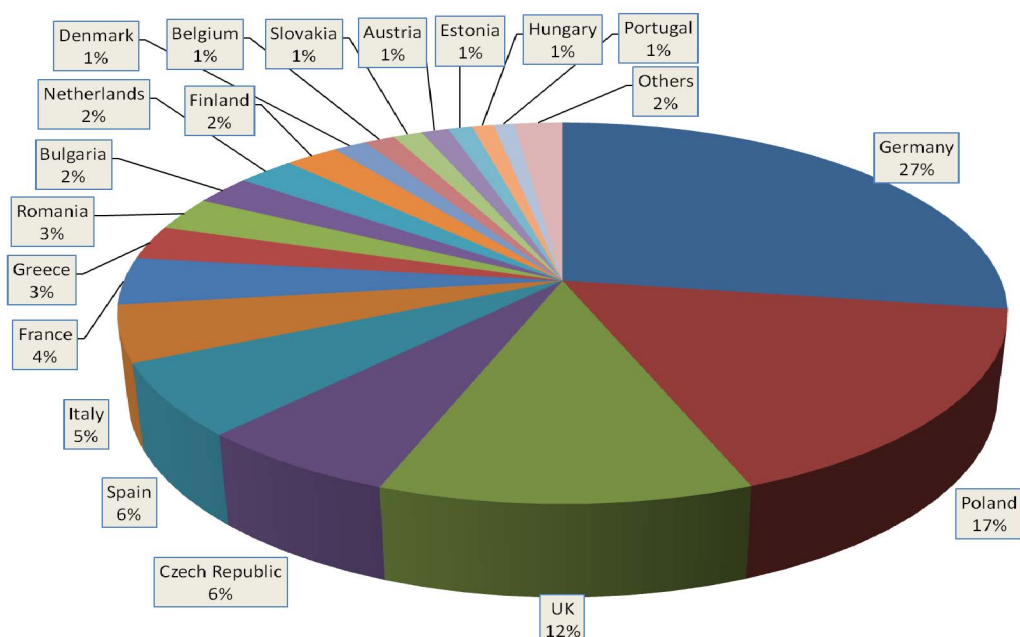
2.5. Emissions of CO₂ from Coal in the EU

The split in estimated emissions of CO₂ in 2007 from combustion of coal, lignite and peat between EU member states is illustrated by the following chart¹⁴.

¹³ CCS can be expected to play an important role in delivering on the joint EU objectives of secure and competitive electricity supplies and facing up to the climate change challenge which requires rapid decarbonisation of the EU energy system. It is not however likely to be applied on a wider scale in new build power plants before 2020. On the other hand, based on requirements in Article 33 of the Directive 2009/31/EC on the geological storage of carbon dioxide, all new combustion plants with a rated electrical output of 300 megawatts or more in the meantime have to be constructed as “capture ready”.

¹⁴ Source – IEA

Figure 6 – CO2 Emissions from Combustion of Solid Fuels



Source - IEA

It can be seen that the three largest emitters, Germany, Poland and the UK account for 56% of the EU's emissions from burning solid fuels. Detailed figures are given in below.

Table 3 – Emissions of CO2 in 2007 from Combustion of Solid Fuels

Country	Million Tonnes CO ₂	Total Approach	(Sectoral Change on 2006
Austria	15.0		-9.1%
Belgium	16.7		-5.7%
Bulgaria	31.3		11.8%
Cyprus	0.1		-50.0%
Czech Republic	80.1		2.7%
Denmark	18.1		-16.3%
Estonia	13.1		26.0%
Finland	29.0		-5.5%
France	50.9		0.9%
Germany	347.5		2.4%

Greece	36.6	5.5%
Hungary	11.7	0.0%
Ireland	9.0	-7.0%
Italy	60.5	-13.3%
Latvia	0.4	17.6%
Lithuania	1.0	-6.5%
Luxembourg	0.3	-30.2%
Malta	0.0	0.0%
Netherlands	31.3	8.7%
Poland	212.4	-1.6%
Portugal	11.2	-13.5%
Romania	36.1	-1.4%
Slovakia	15.8	-2.3%
Slovenia	6.6	3.1%
Spain	78.7	13.7%
Sweden	8.9	-0.7%
UK	146.9	-6.9%
Total	1,269.2	-0.3%

Source – IEA

The IEA calculates total CO₂ emissions both by the ‘sectoral approach’ (based on consumption in each sector) and by the reference approach (based on overall national fuel balances). The figures given here are from the sectoral approach, based on the total of all the sectors.

On this basis, total EU emissions of CO₂ from combustion of solid fuels in 2007 were 1.27 billion tonnes, a reduction of 0.3% on 2006.

3. GENERAL CONSIDERATIONS

3.1. Reserves

Europe possesses substantial reserves of coal and lignite, which represent around 80% of Europe's fossil fuel reserves. There are a number of different ways of assessing these deposits, but whichever way the assessment is carried out, the figures are substantial. The World Energy Council¹⁵ gives estimates of proven recoverable reserves in Europe (at the end of 2005) of around 30 billion tonnes (Bt), including around 8.5 Bt hard coal and 21.5 Bt lignite (including sub-bituminous coal). The German Federal Institute for Geosciences and Natural Resources (BGR), which uses different classifications, gives reserves¹⁶ at the end of 2008 of 19 Bt and resources¹⁷ of 475 Bt of hard coal, and reserves of 65 Bt and resources of 302 Bt of lignite¹⁸. The following maps illustrate the world distribution of reserves of hard coal and lignite.

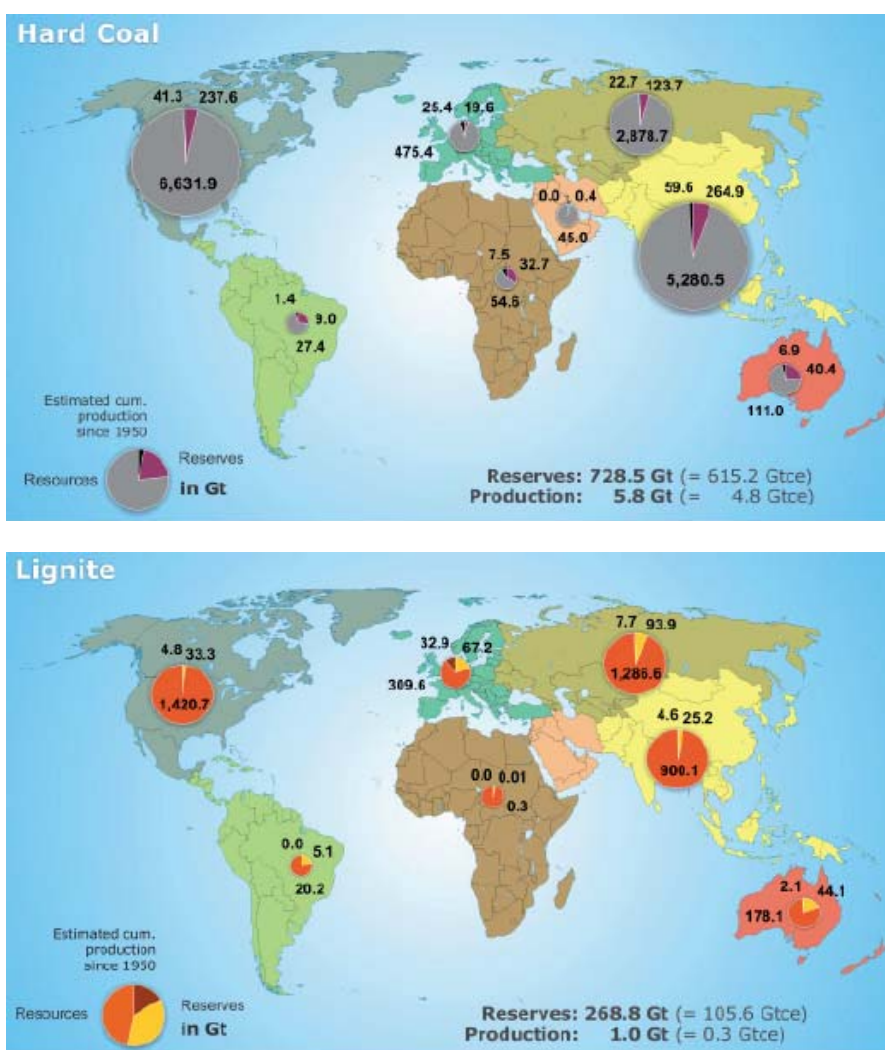
¹⁵ Source – World Energy Council 2007 Survey of Energy Resources

¹⁶ According to the BGR reserves are defined as the quantity that can be recovered economically from a mineral deposit at current prices with current technology

¹⁷ According to the BGR resources are defined as demonstrated quantities that cannot be recovered at current prices with current technology but might be recoverable in the future, as well as quantities that are geologically possible but have not been demonstrated

¹⁸ Source – BGR Reserves, Resources and Availability of Energy Resources 2009

Figure 7 - World Reserves of Coal



Source – BGR Reserves, Resources and Availability of Energy Resources 2008

The following table gives the BGR assessments of significant reserves in European states at the end of 2008.

Table 4 - European Coal Reserves (Mt)

	Hard Coal Reserves	Hard Coal Resources	Lignite Reserves	Lignite Resources
Austria				333
Belgium		2,115		
Bulgaria	68	1,320	1,928	4,194
Czech Republic	3,063	21,216	184	772

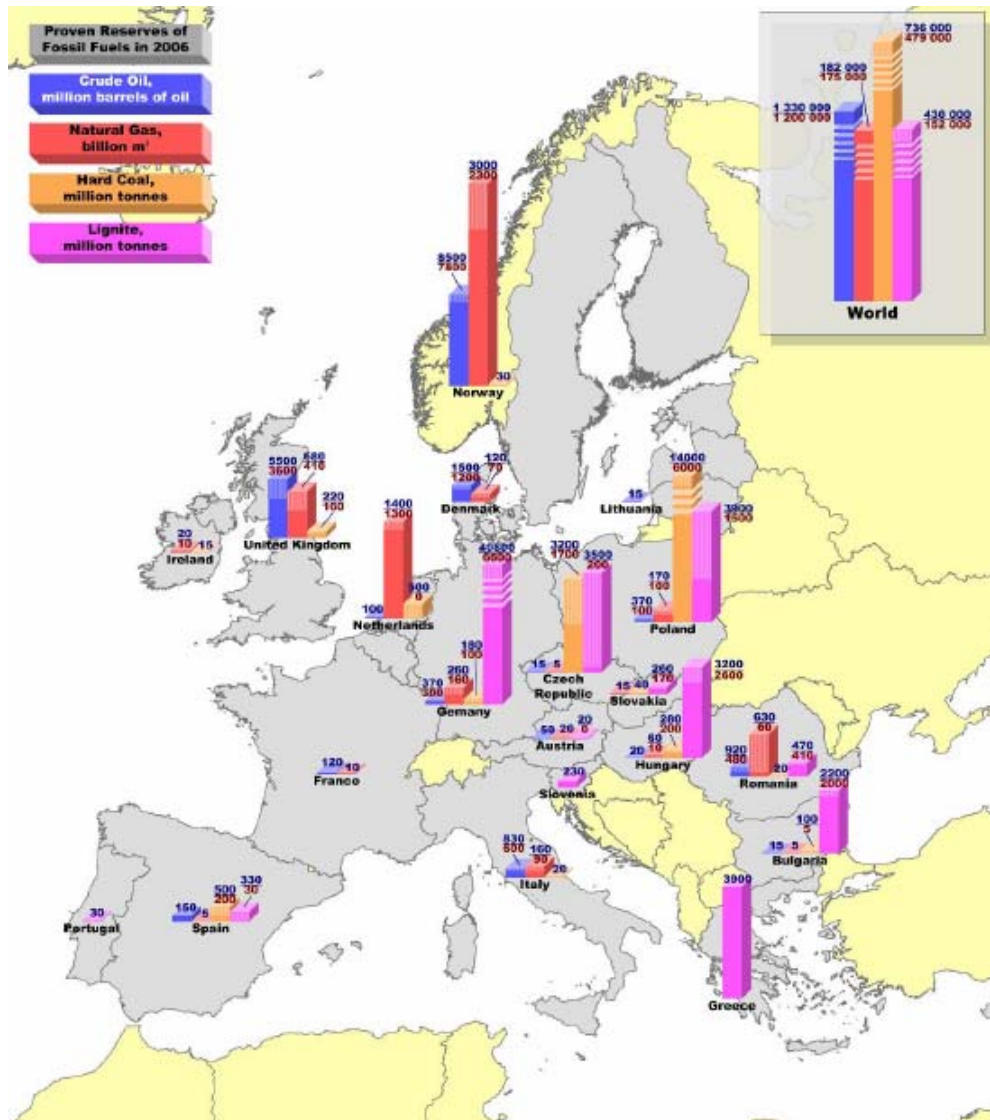
France		160		114
Germany	99	82,949	40,600	36,500
Greece			2,876	3,554
Hungary	276	5,075	2,633	2,704
Ireland	14	26		
Italy	10	600	7	22
Netherlands	497	2,750		
Poland	12,650	164,659	3,791	219,651
Portugal	3		33	33
Romania	14	2,373	408	7,947
Slovakia	97	386	83	525
Slovenia	56	39	315	341
Spain	868	3,363	319	
Sweden	1	4		
United Kingdom	432	186,700		1,000
EU Total	18,148	473,735	53,177	277,690
Albania			794	
Bosnia Herzegovina	484	146	2,369	1,814
Croatia				300
Kosovo			1,564	9,262
Macedonia			332	300
Norway	24	68		
Serbia Montenegro	544	648	7,112	13,074
Europe Total	19,200	474,597	65,348	302,440

Source – BGR Reserves, Resources and Availability of Energy Resources 2008

The largest hard coal reserve is in Poland, representing 70% of the EU total. In the case of lignite, reserves are present in a swathe from Germany through Central Europe and the Balkans, to Greece. Within the EU, Germany has the largest deposit, with major reserves also in Poland, Greece, Hungary, and Bulgaria.

A comparison between reserves of coal and lignite with other fossil fuels is illustrated by the following map¹⁹.

Figure 8 – Europe’s Fossil Fuel Reserves Map



Source – European Commission

¹⁹ Source – Commission Staff Working Document: Europe's current and future energy position Demand – resources - investments

3.2. Demand Drivers

Coal demand in Europe is dominated by the power sector, accounting for 69% of overall consumption in the case of hard coal and 94% for lignite. Demand is driven by a complex set of factors and constraints. The starting point is demand for electricity, which is mainly impacted by the energy intensity of the economy, the level of industrial activity, the changing behaviour of consumers, and the weather. The prime determinant of how demand for electricity can be met is the available capacity of different forms of generation.

For a given level of generation capacity, the market will broadly optimise the system, depending on competing fuel prices, the price of CO₂ permits under the EU Emissions Trading System, power plant efficiencies, and environmental constraints. As a generality, hydro, nuclear and renewable generation will always run if it is available. Shortages or problems in any of these sectors are likely to lead to increased coal generation. Scandinavian reservoir levels, for example, are an important factor in coal demand in Northern Europe. Oil generation will only run in circumstances of extremely high demand or where there is no other availability.

Much coal capacity runs 'base load'. However, at times when there is an excess of generating plant available on the system, coal and gas generation tends to compete for 'mid-merit' operation (i.e. during those periods when there is sufficient margin between demand and potential supply for choices to be made). The market choice between generation from coal or gas depends on the relationship between the coal price and the gas price, together with the impact on each of the carbon price, usually expressed as the difference between the 'clean dark spread' and the 'clean spark spread'.

The following paragraphs deal with some of these demand drivers in more detail

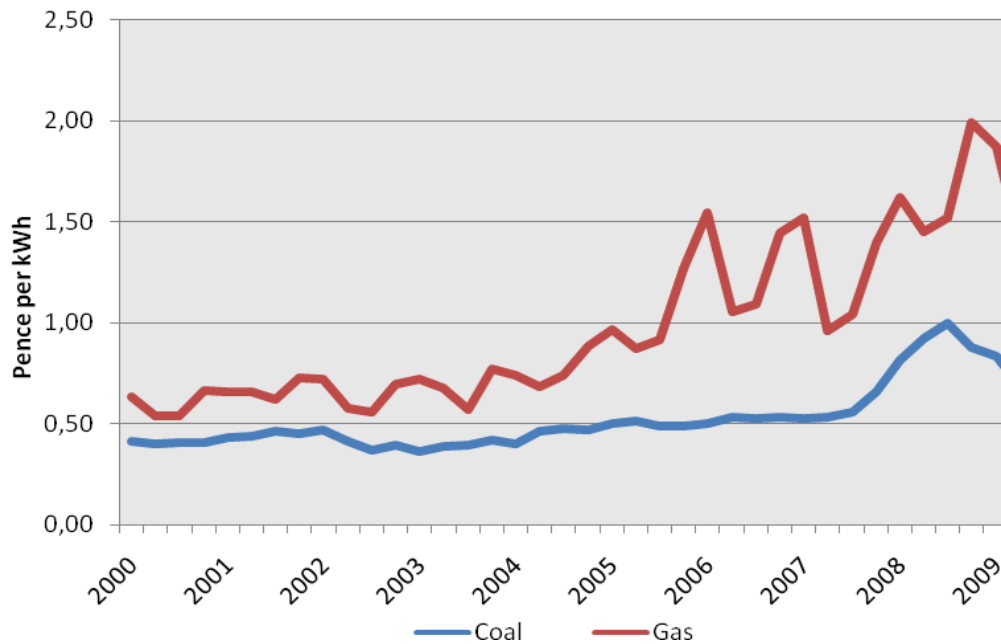
3.3. Coal and Gas Prices

The dramatic increases in gas prices in the middle of the decade made coal-fired generation significantly more attractive where there is a choice of capacity, for example in the UK and in Spain. This led to high coal demand in 2006, but as gas prices reduced during 2007, coal demand fell back, and during 2008 was further constrained by environmental factors. Reducing gas prices in 2009 have made fuel-switching to gas attractive for those companies which have the ability to do so, particularly affecting coal-fired generation in the UK and Spain.

Coal and gas prices to major power producers in the UK are illustrated by the following chart.²⁰

²⁰ Source – DECC Energy Statistics (UK)

Figure 9 - Coal and Gas Prices to UK Power Producers



Source – DECC Energy Statistics (UK)

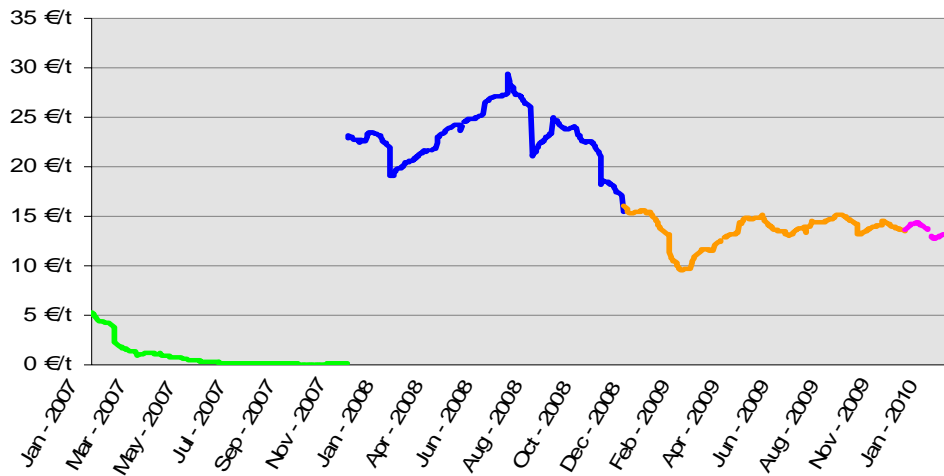
3.4. Emissions Trading

The second phase of the EU Emissions Trading System started in 2008 and permit prices initially ranged between €20 to €30 per tonne of CO₂. However, a collapse in demand associated with the economic downturn led to a fall in values to below €10 in early 2009. Permits have since traded in a range generally between €2 and €5.

Carbon prices for the second phase are illustrated in the following chart²¹.

²¹ Source – Platts 2009

Figure 10 – EUETS Carbon Prices



Source – Platts

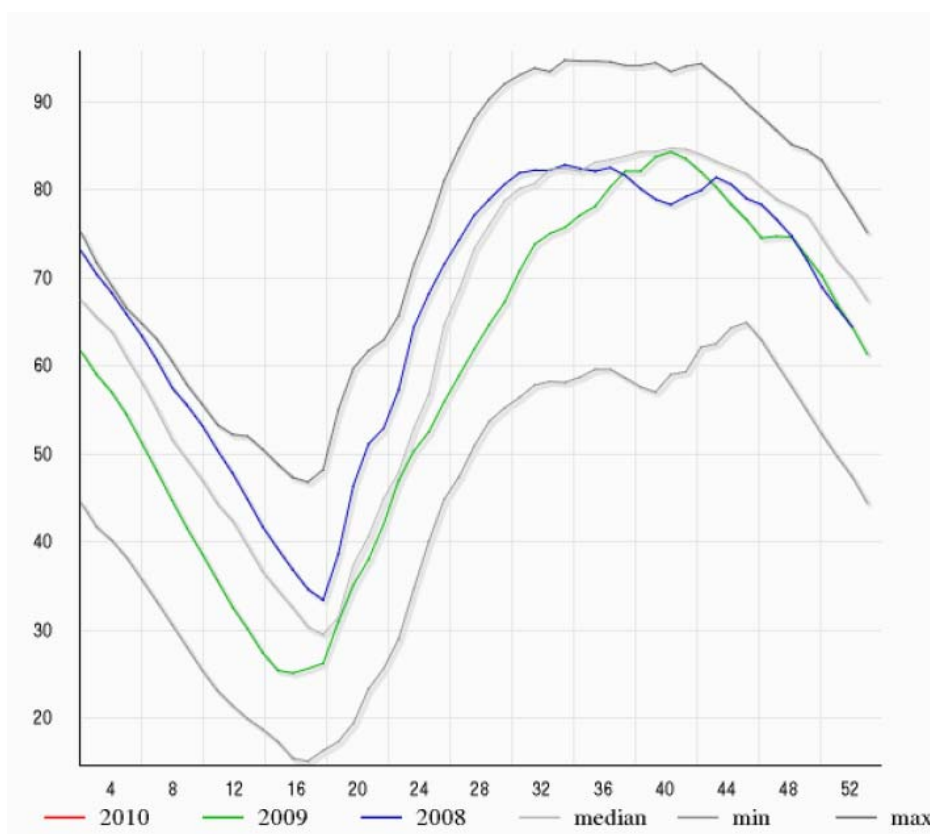
At the lower levels of CO₂ prices, seen from the end of 2008, it might have been expected that coal would continue to run ahead of gas, increasing coal demand. However, this can be counteracted by a reduction in gas prices, such as has been seen during 2009.

3.5. Reservoir Levels for Hydro Generation

Reservoir levels in Spain have not been a major driver in constraining coal burn in recent years, compared to other factors such as low gas prices.

Reservoir levels in Scandinavia were around median levels for most of 2008 and 2009 (as illustrated by the following graph), again not having a significant effect on coal generation.

Figure 11 - Scandinavian Reservoir Levels (percent)



Minimum, maximum and median levels are for the period 1990 to 2006

Source – Nordpool

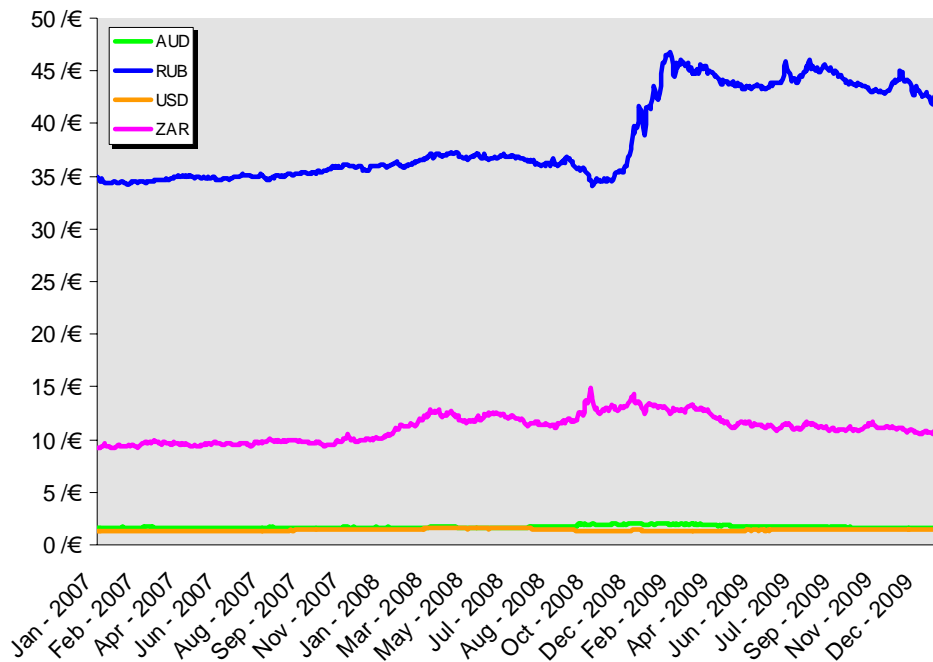
3.6. Currencies

Internationally traded coal is generally priced in US dollars. However, the relationship of the dollar to currency in the producing country is important both in setting market prices and in determining competitiveness and profitability of suppliers. For example, where the South African rand is falling against the dollar, it makes it easier for South African coals to compete and profitability increases against the same dollar price. The Currency movements against the Euro are illustrated by the following chart²².

²²

Source – ECB

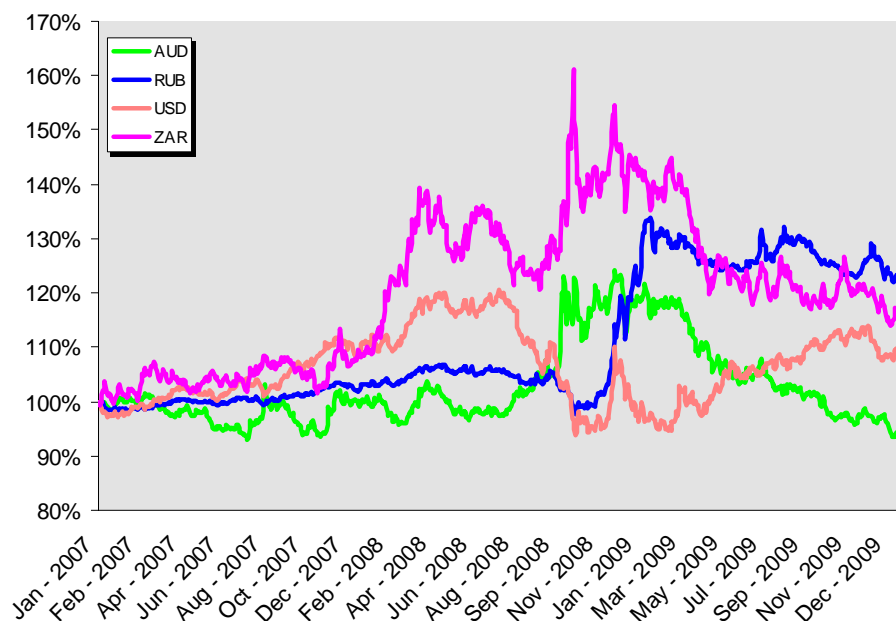
Figure 12 - Exchange Rates for Key Currencies



Source – ECB

Relative movements in exchange rates can be more clearly seen if all the rates are arbitrarily indexed to a value of 1.00 at January 2007, as illustrated by the following chart. This shows how the US dollar weakened against the Euro through 2007 and the first half of 2008, before strengthening again towards the end of the year. The currency then weakened again through 2009. The South African Rand declined in value significantly towards the end of 2008, before recovering some ground during 2009. The Australian Dollar showed a similar pattern on a smaller scale. The most abrupt movement was in the Russian Rouble which weakened significantly into 2009 and has remained weak against the Euro. This explains why, for example, coal exports from Russia to Europe can remain profitable at lower US\$ prices.

Figure 13 – Movements in Exchange Rates



Source – ECB

3.7. Coal Derivatives and Forward Prices for Steam Coal

Over recent years we have seen the emergence and rapid growth of trading in coal derivatives – ‘paper trading’ – with swaps based on indices such as API 2 (the North West Europe index) and API 4 (the South African index). The volume of trade in coal swaps is now several times greater than the physical market.

Coal swaps enable the physical and financial risks of buying coal to be decoupled, and are used by buyers and sellers in the market to hedge transactions. The liquidity of the market in coal derivatives has been helped by the increased number of participants; banks and finance houses began to trade coal swaps in addition to the major buyers, sellers and traders. Most transactions are on an OTC²³ basis, although exchange based transactions have more recently begun to gain ground.

The following chart shows the forward values of coal swaps for North West Europe as at the end of 2009, compared to historic prices.²⁴

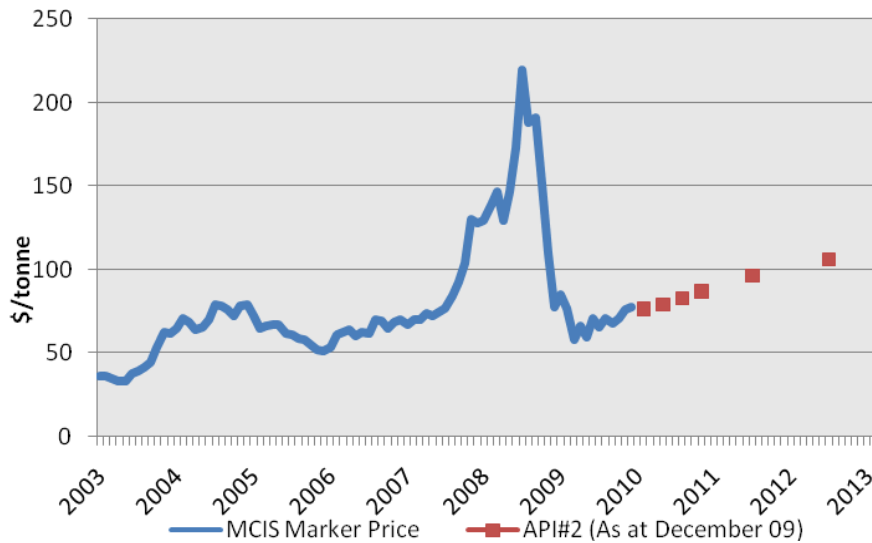
²³

Over the counter

²⁴

Source – McCloskey Coal Information Services

Figure 14 - Historic Spot and Forward Swap Prices



Source – McCloskey Coal Information Services

3.8. Market Supply Structure

Compared to some other commodities, the supply structure for the international coal market is extremely diverse. There is some tendency towards market concentration in all of the producing countries. However, the long-term world market prospects are also encouraging new companies into the coal export business, therefore expanding the pool of suppliers.

In the case of coking coal – above all, hard coking coal – Australia has created a strongly dominant position with almost 68% market share, which in turn is in the hands of just a few producers. However, another player – CVRD – has stepped onto the coking coal scene. CVRD is developing into another market participant through projects in Mozambique and Venezuela, as well as the entry into Australian coal mining. The significant further consolidation which would have arisen from the planned takeover of Rio Tinto by BHP Billiton is no longer in prospect.

Competition in the area of steam coal continues to be broader, and in recent years Russia and Indonesia have strengthened their position, as well as the USA returning to steam coal exports in periods of higher prices.

3.9. Steel Industry Developments

Crude steel production around the world fell by 14 Mt from 1.344 Bt to 1.330 Bt in 2008 (-1.0%), illustrated by the table below.²⁵ China produced 38% of the world's steel and saw modest growth of 2% whilst the rest of the world suffered a decline of 3%. Estimated figures for 2009 illustrate the

²⁵ Source – World Steel Association

effect of the financial crisis, with world steel production reducing by a further 10%. China, however, returned to strong growth (+13%) whereas the rest of the world saw a major reduction in output (-24%).

Table 5 – Growth in World Crude Steel Production

	2006		2007		2008		2009 (Est)	
	Mt	%	Mt	%	Mt	%	Mt	%
China	423	+19	489	+15	500	+2	566	+13
Rest of World	826	+5	855	+4	830	-3	629	-24
Total	1,249	+9	1,344	+8	1,330	-1	1,195	-10

Source – World Steel Association

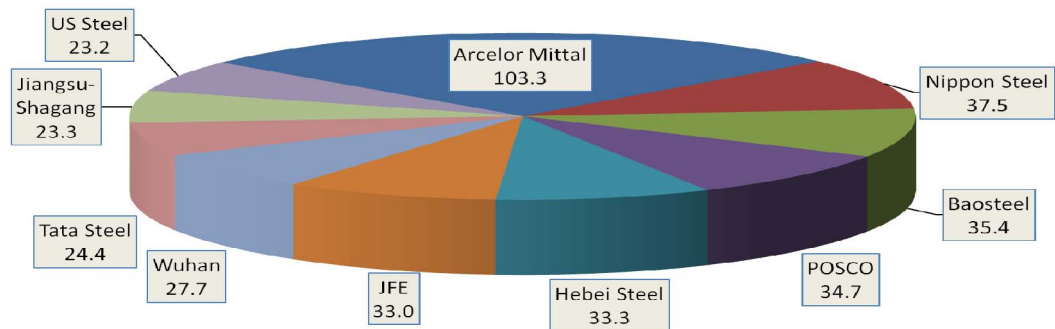
During 2008 European steel production reduced by 5% compared to the previous year, with the financial crisis only taking hold in the last quarter. However, the full force of the crisis was seen in 2009 when production was estimated to be 30% down on 2008.

Following the creation of Arcelor Mittal Steel in 2006 and the acquisition of Corus Group by Tata Steel in 2007, there has been no further significant consolidation in the steel sector. The following chart shows how Arcelor Mittal produced almost as much steel as the three next-largest companies combined during 2008.²⁶ Tata Steel fell from sixth to eighth position compared to 2007. However, it should be noted that these top ten producers only accounted for 28% of total world production.

²⁶

Source – World Steel Association

Figure 15 – Top Ten World Steel Producers 2008 (Mt crude steel)

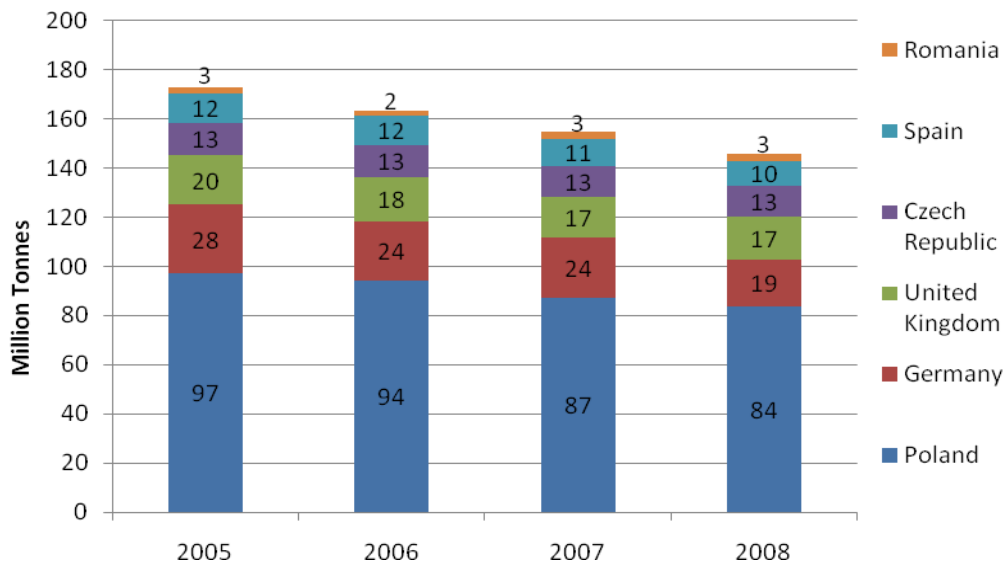


4. HARD COAL – PRODUCTION AND CONSUMPTION IN THE EU

4.1. EU Production Trends

Indigenous production continued its decline in 2008, with the overall trend expected to continue in 2009. The following chart shows trends for the major producing countries.

Figure 16 - EU Hard Coal Production Trends



Hard coal production reduced by 5.7% in 2008, to 146.0 Mt compared to 154.8 Mt in 2007. Detailed figures are given in the Annexes at the end of this document.

The average calorific value of European hard coal is estimated at 24.61 GJ per tonne²⁷. On this basis, hard coal production in 2007, expressed in standard units of coal equivalent, was 122.6 Mtce.

In Poland production reduced by 3.8 Mt (-4.3%) to 83.7 Mt. Mines have suffered from a lack of investment in recent decades for the development of new reserves. There is no significant progress with privatisation, and the economic downturn has led to further obstacles in sourcing capital for investment. Production figures for 2009 are expected to show a further reduction to around 82 Mt. In 2008 Poland became a net coal importer for the first time (also taking into account exports to other EU member states).

The largest reduction in production from 2007 to 2008, in both absolute and percentage terms, was in Germany, with production reducing by 5.0 Mt (-20.8%) to 19.1 Mt as a result of the continuing mine closure programme. This programme is planned to achieve an orderly end to German mining by 2018. Production in 2009 is expected to fall further to around 14.7 Mt.

UK production increased by 0.9 Mt in 2008 (5.6%) to 17.5 Mt. Mining companies had more success in gaining planning permission for surface mines than in recent years, and the Hatfield deep mine was reopened. Production is expected to increase by a similar margin in 2009. At the end of 2009 there were six major deep mines in operation together with a number of small underground mines and around 30 surface mines of various sizes.

Production in the Czech Republic decreased slightly in 2008 to 12.6 Mt. Coking coal accounts for around 60% of production volumes. The company, OKD, which owns the Czech mines, was planning major investments; if these plans are not realised, there is a threat of a rapid drop in production in the next few years as developed reserves are exhausted.

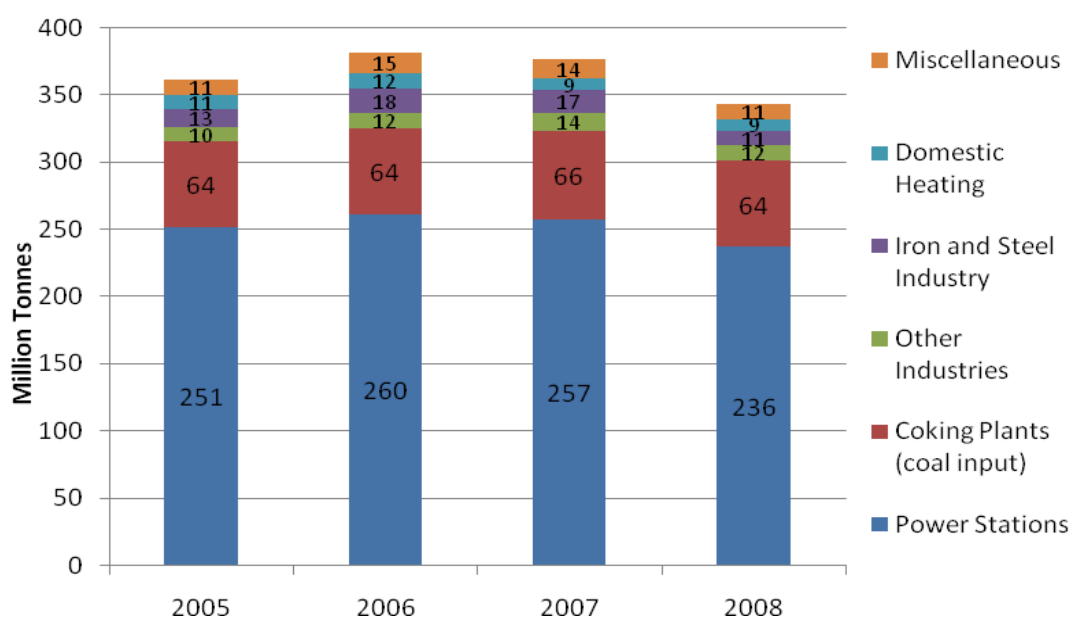
In Spain production reduced by 0.8 Mt to 10.2 Mt in 2008.

4.2. EU Consumption Trends

Trends in total consumption of hard coal are illustrated by the following chart.

²⁷ Based on data in IEA Coal Information 2009

Figure 17 – EU Consumption Trends for Hard Coal (Mt)



Total hard coal consumption was 342.9 Mt in 2008 compared to 376.1 Mt in 2007. Consumption continues to be dominated by the power sector at 69% followed by coke production at 19%. Power station consumption was down by 8.1% in 2008 compared to 2007, whilst use for coke production was down by 2.4%.

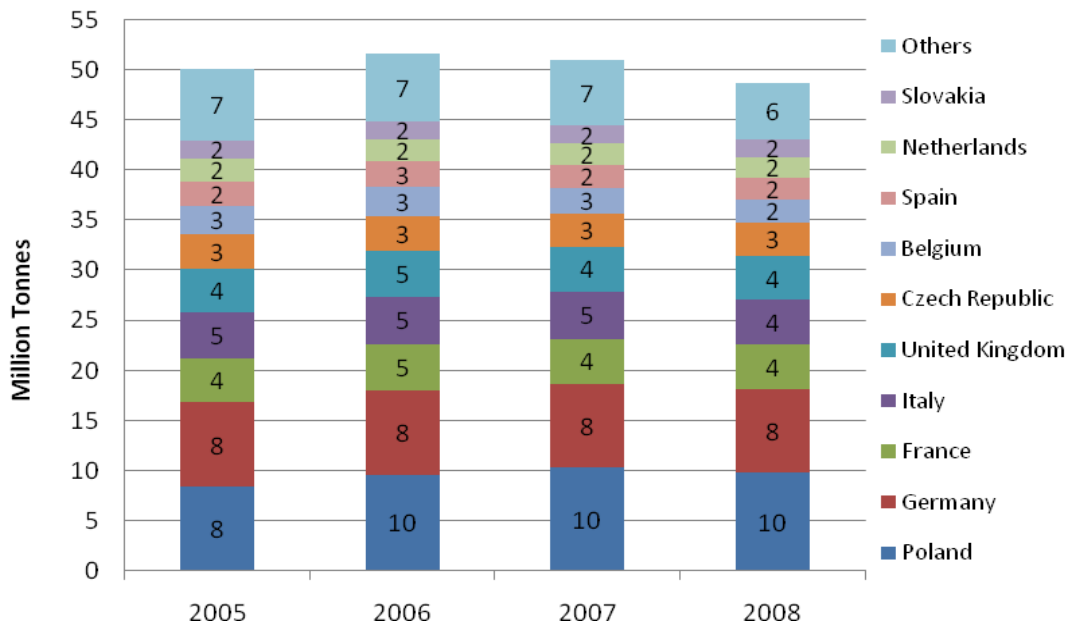
Underlying the overall reduction in power station consumption were some significant reductions in individual member states. In 2008, power station consumption reduced by 4.8 Mt (-9.3%) in the UK, by 4.4 Mt (-15.2%) in Spain and by 3.5 Mt (-6.6%) in Germany. Other significant reductions were 1.9 Mt in Poland (-4.1%), and 1.9 Mt in Finland (-34.0%). Only Italy increased its consumption for power generation, by 0.7 Mt (4.6%).

The reduced demand of 1.6 Mt from coking plants in 2008 was an early indication of the effects of the financial crisis in the steel industry, with further marked reductions expected in 2009.

5. COKE – PRODUCTION AND CONSUMPTION IN THE EU

Production trends for coke are illustrated by the following chart.

Figure 18 – EU Coke Production Trends



Total EU production of coke was 48.9 Mt in 2008 compared with 51.0 Mt in 2007, a reduction of 4.1%. Total EU consumption of coke in 2008 was 51.2 Mt compared with 53.6 Mt in 2007, a reduction of 4.5%. At 5.5 Mt, coke imports supply around 11% of the market.

As can be seen from the chart above, production of coke is widespread around Europe.

6. INTERNATIONAL HARD COAL AND COKE MARKETS

6.1. Major Hard Coal Producers

World hard coal production continued to show strong growth in 2008, despite the fourth quarter slowdown due to the global economic downturn. In fact, it showed stronger growth than the previous three years in a period encompassing seven years of record growth. It was again driven by growth in production from non-OECD countries, with a 9.9% growth in 2008, making the last four years of annual growth average 8.2%. Production increased in China, USA, India, Russia, Indonesia, Kazakhstan and Colombia, but declined in South Africa, and Poland.

The following table shows figures for the largest producers²⁸.

Table 6 – Major World Hard Coal Producers (Mt)

	2006	2007	2008
PR of China	2320.2	2466.4	2761.4
United States	991.5	981.7	1006.6
India	428.2	454.4	489.5
Australia	299.7	323.8	325.4
Russia	210.4	217.9	247.1
Indonesia	195.8	230.2	246.2
South Africa	244.8	247.7	235.8
Kazakhstan	92.0	93.5	104.4
Poland	95.2	88.3	84.3
Colombia	65.6	69.9	78.6
Ukraine	61.4	58.7	59.3
Others	204.2	209.4	206.7
Total	5209.0	5441.9	5845.3

Source – IEA Coal Information 2009

²⁸

Source – IEA Coal Information 2009

China accounts for over 47% of world hard coal production. Output grew by 12% in 2008, accounting for 73% of the increase in world production. China's production has more than doubled since 2000 which allows the country to meet fast growing demand for coal-fired generation and steel making. However, as a major coal exporter, China moved from the second largest hard coal exporter in 2001 to the sixth in 2008. During 2009, coal exports have fallen further, and imports are expected to show a dramatic increase, making China a major net coal importer of around 100 Mt.

Coal production in the United States increased by 2.5% in 2008 after a 1.0% fall in 2007. As well as being the second largest global hard coal producing country, the United States is the seventh largest exporter.

India is the third largest hard coal producer, and increased production by 7.7% in 2008. Although it dominates South Asian production, Indian coal contains very high ash levels, and is consumed domestically – India is increasingly dependent on imports because of its rapidly growing power requirements.

Australia remains the largest hard coal exporter, but increased production by just 0.5% in 2008, compared to an increase in production of 8.0% between 2006 and 2007.

Russia expanded its output by 13.4% in 2008, and remained the largest international coal supplier to the European Union. From 2005 it has overtaken South Africa as the world's third largest coal exporter, and in 2008 overtook Indonesia and South Africa to become the world's fifth largest producer.

Indonesia is the sixth largest hard coal producer but second largest exporter in the world (and the largest exporter of steam coal). Coal production continued to show strong growth, up by 6.9% in 2008.

South Africa accounts for 97% of Africa's hard coal production but in recent years production has been fairly static or declining, and it has dropped into seventh place amongst world coal producers, and sixth place amongst exporters. Production reduced by 4.8% in 2008 compared to 1.2% growth in 2007.

Kazakhstan increased production by 11.6% in 2008 and produced more than 100 Mt for the first time since 1993. Around 30% of production is exported, mainly overland to Russia.

Poland is the only EU country to rank amongst the world's major hard coal producers, remaining in ninth place in 2008.

Colombian production increased by 12.5% in 2008 following an increase of 11.1% in 2006 and 6.6% in 2007. Colombia is the fourth largest exporter in the world.

6.2. Hard Coal Trade

A high proportion of world coal production is consumed within the country of origin – around 85%, and this is especially true of the two largest producers, China and the USA. Relatively small proportional changes in supply and demand in these countries can have a major impact on international market dynamics.

World hard coal trade grew by 1.3%, or 11.8 Mt, in 2008 to an estimated total of 937.8 Mt²⁹.

The major steam coal exporting nations are Indonesia, Australia, Russia, Colombia and South Africa, whereas for coking coal the major exporters are Australia, the United States and Canada.

Major world coal trade flows are illustrated by the following diagram³⁰

Figure 19 – Hard Coal Seaborne Trade 2008

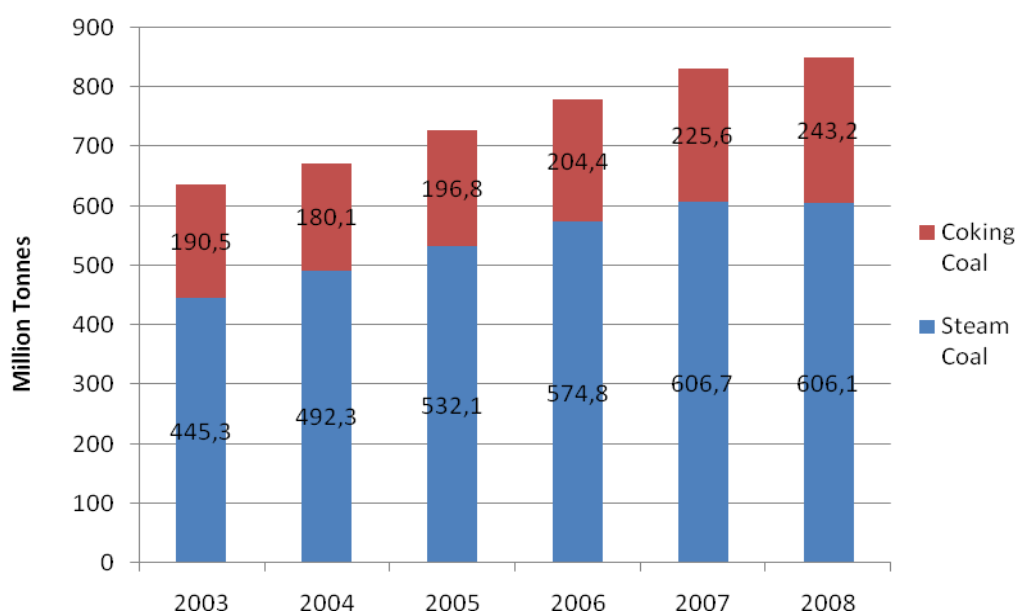


Source – Verein der Kohlenimporteure 2009

Trends in seaborne hard coal trade are illustrated by the following chart³¹

²⁹ Source IEA World Coal Information 2009
³⁰ Source – Verein der Kohlenimporteure 2009
³¹ Source – IEA World Coal Information 2009

Figure 20 - World Seaborne Hard Coal Trade



Source – IEA Coal Information 2009

6.3. Steam Coal Trade

Total world steam coal exports decreased by 8.2 Mt (1.2%) in 2008 to 676.0 Mt.

Exports from Indonesia, Australia, Colombia, and the United States rose in 2007, whereas Russia, South Africa, China, Kazakhstan and Vietnam saw declining exports.

In 2008 Indonesia increased its steam coal market share to 25.6% of the world total. Australia, Russia, Colombia and South Africa followed with respective shares of 17.1%, 12.7% 10.9% and 9.1%.

Over the last few years, and particularly in 2008, international coal supply has been slightly tighter than historically, especially in the period 1998 to 2003. Some of this arose from producers slowing down projects following a period of excess capacity, but some of the tightness was unplanned. Infrastructure failures in Australia, South Africa's failure to invest in new mines as the ownership of mines changed, and China's reduced export licenses all took coal from the market.

The expected collapse in the steam coal market in 2009 did not materialise, mainly because of the impact of China. A strong divergence between the Atlantic and Pacific markets developed during the year. Whereas demand stagnated or reduced in the USA and Europe, China became a significant net importer. Towards the end of 2009 shipments to China were reported for the first time from South Africa and Colombia, historically seen as Atlantic suppliers. South African coal is also increasingly finding a place in India; during 2009 around 15 Mt coal from South Africa switched from the Atlantic

to the Pacific market compared to the previous year. Russia also increased its supplies to the East whereas supplies to the West were stable.

The Atlantic market will decline in 2009 but the Pacific market will see renewed growth, and overall steam coal demand may not be significantly less than in 2008.

6.4. Coking Coal Trade

The world trade in coking coal increased by 6.1% to 261.8 Mt in 2008.³² Australia remained, by far, the largest exporter at 136.9 Mt, with exports up by 5.7 Mt compared to the previous year.

Early 2008 saw a dramatic tightening of the coking coal market with increasing demand coinciding with supply disruptions caused by the floods in Australia. However, towards the end of the year a slump in coking coal demand was becoming apparent because of the impact of the worldwide recession on the steel industry, and a number of major mining companies were reducing output at coking coal mines.

In 2009 a similar pattern has been seen in the steam coal market. Whereas US and European steelmakers have seen severe cutbacks, China has led a significant recovery in Asia. Nevertheless, coking coal trade is expected to suffer a reduction of up to 10% over the year.

6.5. Coke Trade

The OECD³³ countries' imports of coke increased by 2.5% in 2008 to 19.1 Mt.³⁴ Germany, the United States, Austria, Canada, Japan and France were the six major OECD coke importers in 2008, accounting for 68.9% of coke imports. Germany alone accounted for 22.7% of the OECD coke imports in 2008.

With most coke produced close to where it is used for steelmaking, international coke trade is extremely sensitive to levels of activity in the steel market. Demand for imported coke has fallen to very low levels with the economic downturn.

6.6. Imports to the EU

Imports of hard coal to the EU in 2008 of 210.6 Mt reduced by 3.2% compared to 217.7 Mt in the previous year and represented 59% of total supply. The major exporting countries to the EU were Russia (25.8%), South Africa (17.2%), the USA (14.9%), Colombia (12.8%), Australia (12.2%),

³² IEA includes coal used in coking blends and for pulverised coal injection in coking coal statistics which are not strictly coking coals

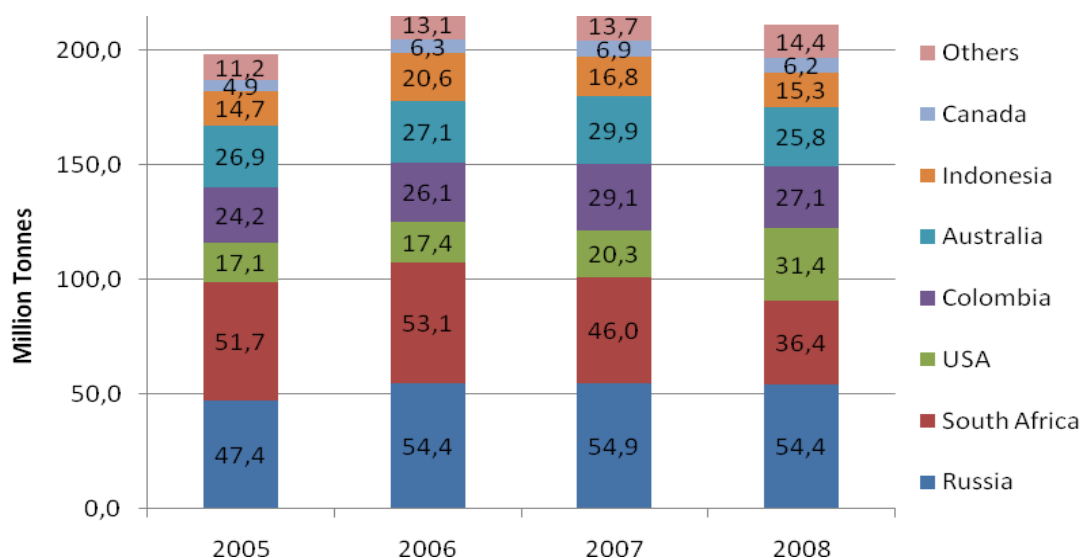
³³ Organisation of Economic Cooperation and Development

³⁴ Source – IEA Coal Information 2009

Indonesia (7.2%) and Canada (2.9%). In 2008 the USA overtook Colombia and Australia to become the EU's third largest supplier.³⁵

The split of these imports between supplying countries is illustrated by the following chart.

Figure 21 – EU Import Sources

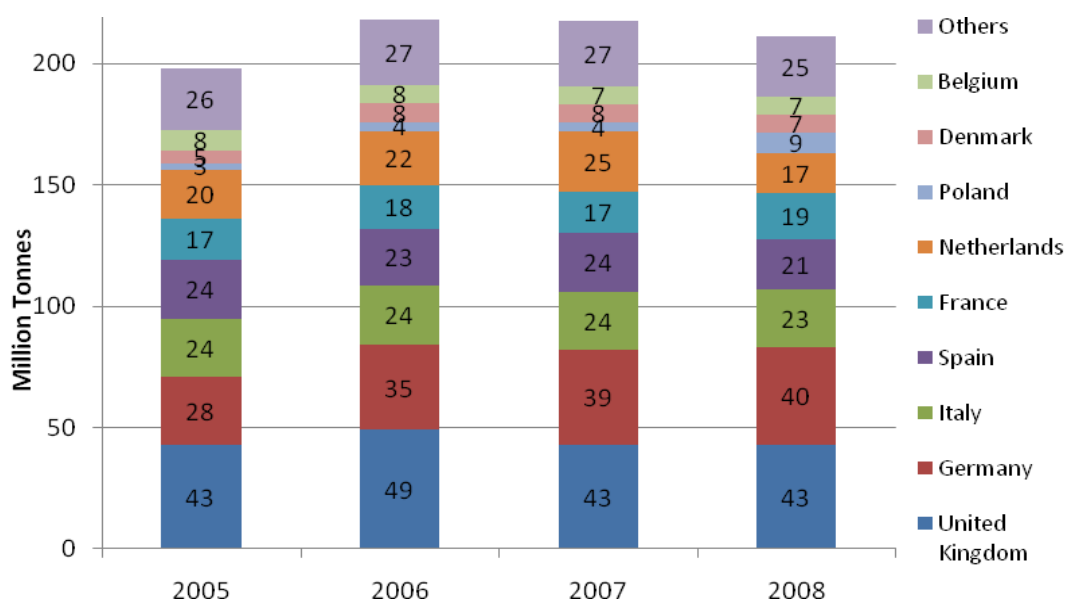


Russia has been the largest supplier to the EU since 2006. Amongst the major importers, the UK took 50% of its imports from Russia in 2008 and Germany took 23%. Russia was also the main supplier to most of the Eastern and South Eastern European Union member states. South Africa remained an important supplier, principally to Spain where it accounted for 27% of its imports, and also to Denmark (31%), Netherlands (24%), Germany (22%), Italy (20%) and France (17%).

Major European importing countries are illustrated by the following chart.

³⁵ The reporting by Member States required under the presently applicable legislation does not include detailed information on quality parameters for coking coal to allow an EU wide assessment on content of sulphur, volatiles and ash in coal."

Figure 22 – EU Import Volumes by Member State

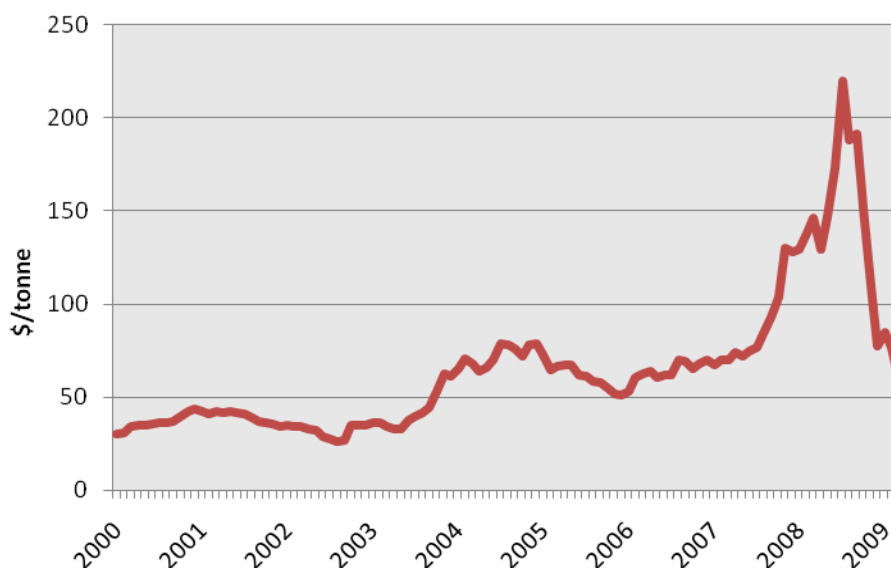


The UK remained Europe's largest coal importer in 2008 at 43.0 Mt, showing a marginal increase of 0.3% on 2007. Germany also increased imports by 3.3% to 40.2 Mt. France increased its imports by 15.2% and Poland more than doubled its imports to 8.6 Mt (+123.9%). These increases were, however, offset mainly by decreased imports in the Netherlands (-33.4%), Spain (-14.5%), and Italy (-3.1%).

6.7. International Price Trends

The following graph illustrates the development of spot steam coal prices delivered to North West Europe³⁶.

Figure 23 – North West Europe Steam Coal Prices



Source – McCloskey Coal Information Services (MCIS)

The spot price levels seen in mid 2008 were completely unprecedented in international coal markets and bore no relationship to underlying costs of production and transportation. Prices to North-West Europe reached \$219.35 on 4th July 2008.

Although there was some change in the fundamentals – the costs of mining and transport – associated with high oil prices, this would be insufficient to drive prices to these high levels. The massive and rapid increase in prices appeared to have been driven by a combination of tightness in the supply/demand balance, and speculation of traders in the market. Continued demand growth was coupled with a number of supply disruptions. There was also some ‘pull’ from the coking coal market where supplies were very tight following floods in Australia at the beginning of the year; some coals normally destined for the steam coal market were prepared as ‘semi-soft’ coking coals.

Whilst a correlation with oil prices has not generally been apparent in the past, very high oil prices provided opportunity for upward movement in coal prices, and it is noteworthy that coal and oil prices both peaked and fell back at around the same time in July.

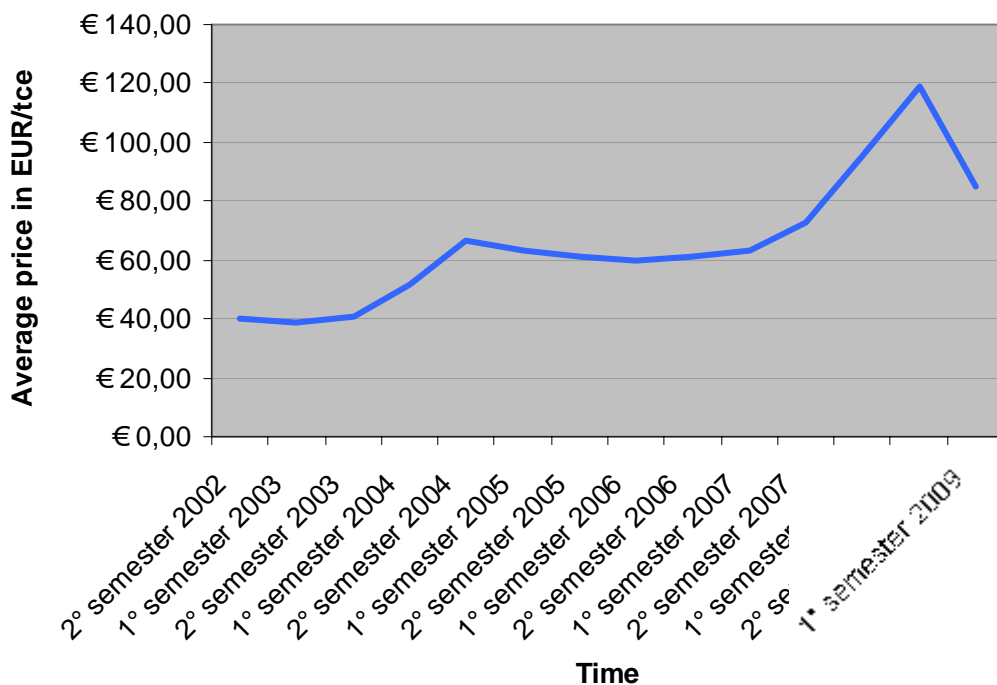
³⁶

Source – McCloskey Coal Information Services (MCIS) basis 6,000 kcal NAR ARA

The rapid fall in coal prices, as a result of the economic downturn, was even more marked than the increase earlier in the year, although it should be noted that prices ended 2008 at levels which were still high by historical standards. During 2009 prices hovered around \$60/tonne in the earlier part of the year but then showed a generally upward trend as demand recovered in the Pacific market, ending the year towards \$80/tonne. The weakness of the Atlantic market vis-à-vis the Pacific was illustrated by the fact that fob spot prices from Newcastle (Australia) were sometimes higher than prices *delivered* to North West Europe.

Import prices for steam coal reported to the European Commission are illustrated by the following chart.

Figure 24 – Price of Steam Coal Imported from Third Countries



Source – European Commission

Between the second semester of 2007 and the second semester of 2008 average prices increased by 64% to €119/tce, and then fell back by 29% to €85/tce in the first semester of 2009.

It is important to note that the prices illustrated in Figure 23 are spot prices and refer to deliveries ninety days ahead. There is therefore a time lag before these spot prices are reflected in current prices paid by customers such as those reported to the European Commission illustrated in Figure 24. The short-term volatility of international prices is also smoothed out where buyers have entered into longer-term contracts, reflecting prices which were current, or anticipated, when contracts were negotiated.

6.8. Coking Coal Prices

Unlike in thermal coal markets, pricing for coking coal is largely determined in annual contract negotiations and is strongly influenced by the resulting benchmark prices which emerge during the annual negotiating round (shown in Table 7). There are no established price indices and no derivatives. This makes pricing of metallurgical coal significantly less transparent than in thermal markets. Stringent quality considerations in the coking market mean that the commodity is not sufficiently fungible to support a liquid index and derivatives-based market.

Over recent years the most significant driver of coking coal prices has been the supply/demand balance. This was clearly illustrated by events in early 2008, with major floods in Queensland, Australia. The relatively small number of suppliers of prime coking coals, together with the burgeoning demand growth, means that any perceived perturbation to the market can have major impacts on prices. The massive rise in steam coal prices also had an effect, as suppliers sought to maintain the premium on coking coal (including semi-soft and PCI), both reflecting its scarcity and the increased costs of preparation for the market.

The global recession – and the associated major downturn in steel production (see paragraph 3.9) – had a significant impact on negotiations for coking coal prices in 2009/10, although these were elevated to some degree by tonnages contracted at the higher prices for 2008/9 and not accepted for delivery by customers.

The following table illustrates the development of prices for internationally traded coking coal, based on Australian contract prices.

Table 7 - Price Trends in Coking Coal (US \$/Tonne FOB Australia)

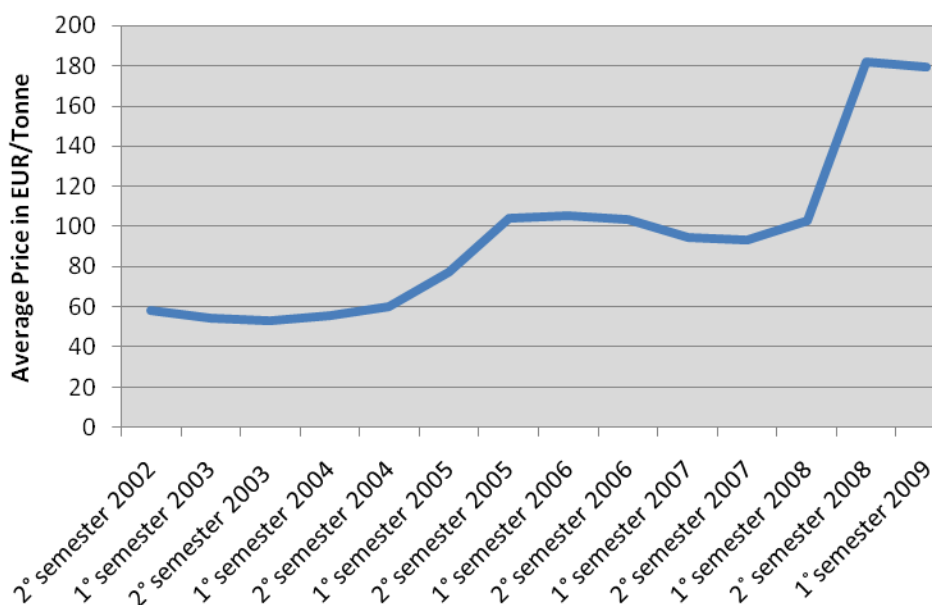
Contract Prices*	2005/6	2006/7	2007/8	2008/9	2009/10
Hard Coking Coal	125	112	96	300	129
Semi-soft Coking Coal	80	58	65	240	85
PCI	102	68	71	250	90

*April to March basis

Source – Merrill Lynch/Macquarie

Import prices for coking coal reported to the European Commission are illustrated by the following chart.

Figure 25 – Price of Coking Coal Imported from Third Countries



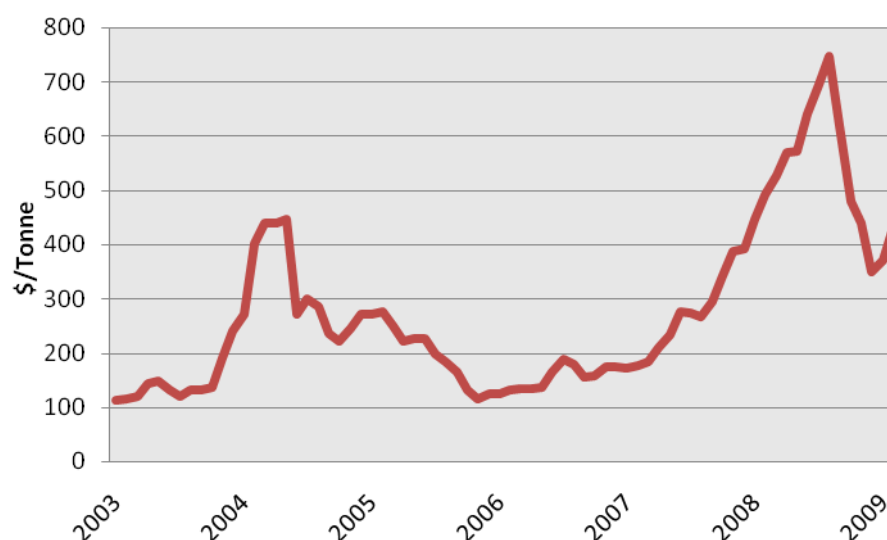
Source – European Commission

Between the second semester of 2007 and the second semester of 2008 average prices increased by 96% to €182/tonne. Prices only fell back by 1% to €80/tonne in the first semester of 2009 because of the impact of annually negotiated contracts on price levels. The impact of lower contract prices from April 2009 is likely to be seen more clearly in the second semester.

6.9. Coke Prices

Developments in coke prices to September 2009 (fob 12-12.5% ash), are illustrated by the following chart.

Figure 26 - Spot Chinese Coke Prices



Source – Euracoal

The development of coke prices reacted in a similar manner to coking coal, reflecting an overheating steel market followed by collapse as the recession took hold.

6.10. World Transport Infrastructure

Infrastructure constraints are a major factor in both the development of new coal resources around the world and in meeting surges in current demand. With the rapid growth in recent years of bulk commodities as a whole, and of coal in particular, there have been major bottlenecks in both loading and discharging ports, and domestic railway lines.

Problems vary from country to country; in Australia there has been major congestion at ports; in Russia the very long rail routes both West and East from the coal producing region in Siberia cause periodic problems because of shortage of wagons or adverse weather conditions.

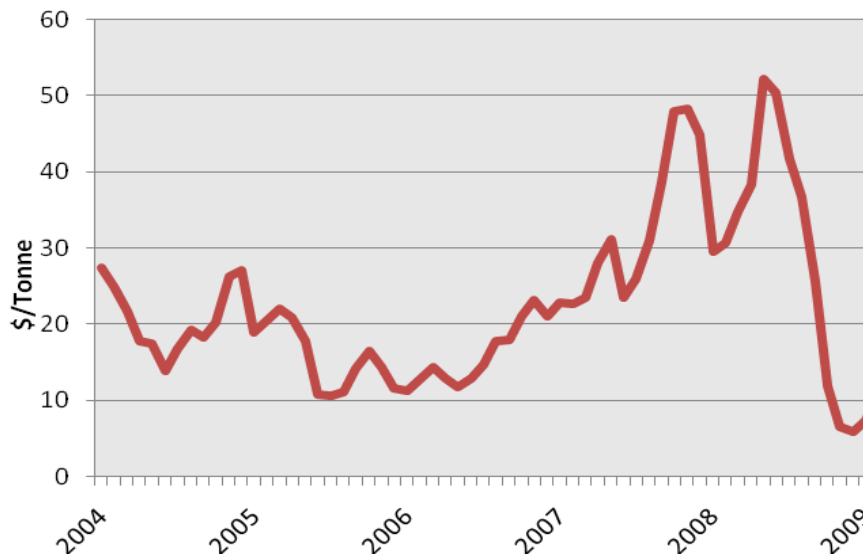
The chance to exploit market opportunities arising from the increasing demand in coal has triggered plans for a worldwide expansion of the infrastructure across all of the links of the transport chain. Expansion projects in the loading ports have been launched in Indonesia, Colombia, Russia and South Africa. Russia is acting to improve rail access to Eastern ports. However, with the reduced demand levels in 2009, transport bottlenecks have been less of a problem than in 2008 when they contributed to the high coal prices.

6.11. Freight Considerations

Delivered prices to Europe comprise both free on board (fob) prices from the country of loading and sea freight rates.

The following chart shows the development of rates from the beginning of 2004 to the end of 2009.

Figure 27 - Spot Sea Freight Rates - Richards Bay (South Africa) to Rotterdam



Source – Euracoal

Freight rates react rapidly to supply/demand dynamics and have shown major volatility in recent years. The benchmark freight rate from Richards Bay to Rotterdam ended 2008 around 10% of its peak value in the middle of the year, as a result of the initial impact of the financial crisis. During 2009 prices have responded to a resurgence in demand from China and, whilst being extremely volatile, have fluctuated between levels more in accordance with historic norms.

The peaks in prices seen at various times in recent years, and particularly during 2008, were caused by shortages in capacity, resulting from congestion at ports, on top of a rapid growth in the market both in terms of volumes and distances travelled. It is important to note that bulk carriers are used both for coal and for iron ore, for example with Chinese demand for iron ore relies heavily, for example, on long-distance deliveries from Brazil.

The dry-bulk freight market is a very pure market which reacts very swiftly to changes in the supply of ships compared with the demand for the fleet's use. During 2008 deliveries of new vessels reached record levels, in response to ever-increasing demand, meaning that the fall in freight rates was all the more dramatic as demand fell away at the end of the year.

7. LIGNITE AND PEAT – PRODUCTION AND CONSUMPTION

7.1. World Context

World production of lignite³⁷ decreased marginally by 0.4% in 2008 to 951.4 Mt. Following its 1989 peak, lignite production declined steadily until 1999, largely as a result of contractions in demand and supply in central and Eastern Europe. Since then, production has been fairly stable. The following table shows figures for the largest producers³⁸.

Table 8 – Major World Lignite Producers (Mt)

	2006	2007	2008
Germany	176.3	180.4	175.3
Russia	74.1	71.1	76.0
Turkey	61.9	72.9	73.1
Australia	67.7	65.6	72.4
United States	76.4	71.3	68.7
Greece	64.8	66.3	65.7
Poland	60.8	57.5	59.6
Czech Republic	55.2	55.0	52.7
Indonesia	30.7	34.5	38.0
Serbia-Montenegro	36.8	37.1	37.4
Canada	36.1	35.6	34.9
Romania	34.9	35.8	34.7
India	31.3	34.0	32.2
Bulgaria	25.7	28.4	28.7
Others*	107.4	110.2	102.0
Total	940.1	955.7	951.4

*IEA figures also include oil shale production in Estonia

Source – IEA Coal Information 2009

³⁷

In this document the term 'lignite' also includes brown coal

³⁸

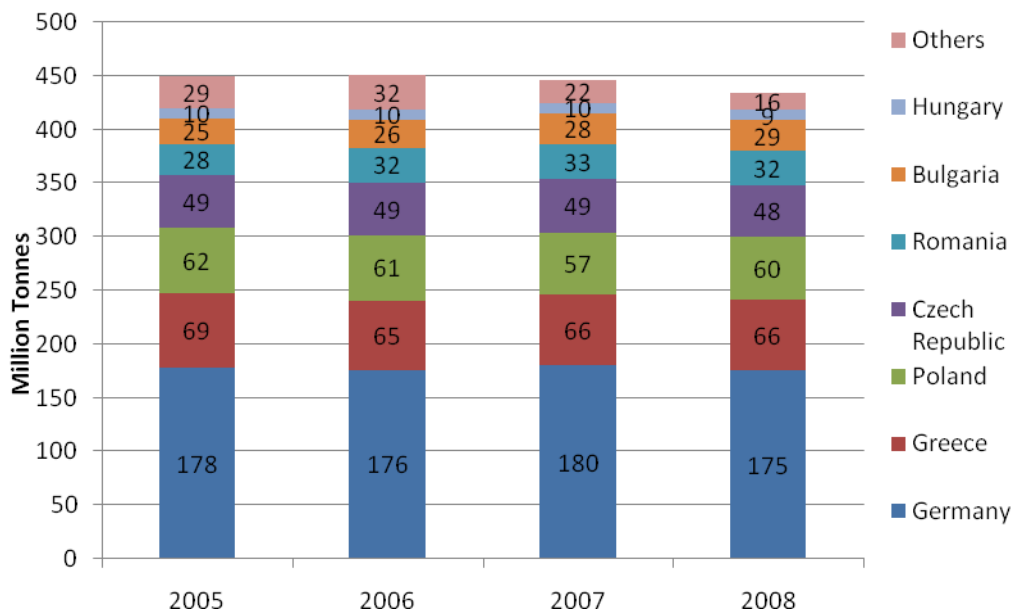
Source – IEA Coal Information 2009

Many European nations feature among the top producing countries in the world. Europe is responsible for around 50% of world production of lignite, where it represents an energy resource of key importance.

7.2. EU Production Trends

European production of lignite was 434.3 Mt in 2008 compared to 446.0 Mt in 2007. Production reduced by 2.6% in 2008 compared to the previous year. Production trends are illustrated by the following chart³⁹.

Figure 28 – EU Lignite Production Trends



The average calorific value of European lignite (including peat) is estimated at 8.99 GJ per tonne⁴⁰. On this basis, lignite production in 2008, expressed in standard units of coal equivalent, was 133.2 Mtce.

In 2008 Germany reduced its lignite production by 5.1 Mt (-2.8%) to 175.3 Mt as a result of reduced demand from the vertically integrated power sector. Production remained centred in four mining regions – the Rhineland around Cologne, Aachen and Mönchengladbach (95.8 Mt), the Lusatian mining area in South East Brandenburg and North East Saxony (57.9 Mt), the central German mining area in the South East of Saxony-Anhalt and in North West Saxony (19.5 Mt) and the Helmstedt mining area in Lower Saxony (2.1 Mt).⁴¹

³⁹ For the purposes of the EU statistics in this document and the attached tables, lignite, brown coal and peat are grouped together and included in a single EU total. (Production of oil shale is not included in the solid fuel totals but figures are reported later in paragraph 0.)

⁴⁰ Based on data in IEA Coal Information 2009

⁴¹ Source – Euracoal 2009

Greece is the EU's second largest lignite producer, in tonnage terms, and in 2008 production reduced slightly by 1.1% to 65.7 Mt. Production comes from the West Macedonia Lignite Centre in the North of the country and from the Megalopolis Centre in the Peloponnese.

In Poland, lignite production increased by 3.7% to 59.6 Mt in 2008. Two lignite operations are located in central Poland with a third in the south-western region of the country. During 2009 the first lignite was produced from the Szczercow Field. Szczercow is one of the three fields in the Belchatow lignite deposit where resources amount to 620 Mt.

Production in the Czech Republic reduced by 3.6% to 47.5 Mt in 2008. The main lignite basin and the largest mining area is the Northern Bohemian Brown Coal Basin in the North West of the country, with production from around ten mines.

Romania also has a number of lignite mines of varying sizes, mainly in the South West of the country in the Oltenia Basin; production in 2008 reduced by 2.6% to 31.8 Mt.

In Bulgaria, most of the production comes from the Maritsa East coalfield in the South East of the country. Overall Bulgarian production in 2008 increased by 1.3%, to 28.8 Mt.

7.3. Consumption

Total EU consumption of lignite in 2008 was 440.1 Mt, a decrease of 3.1% compared to 454.2 Mt in 2007. Around 94% of lignite is used in power stations with the remainder being largely used for district heating plants and domestic heating, mainly in the form of briquettes.

There is little trade in lignite because of its low heat value and resulting high unit transportation costs. This means generally that power stations burning lignite are situated close to the mines, with supply and demand being closely matched. Total EU imports of lignite in 2008 were 1.2 Mt, only 0.3% of total supply.

7.4. Peat Production

Within the overall lignite figures, production and consumption of peat is included. Production comes mainly from Finland, Ireland, Sweden, Estonia and Lithuania. In 2008, 9.3 Mt of peat was produced, an increase of 0.7 Mt compared to production of 8.6 Mt in 2007. Consumption of peat in 2008 was 14.1 Mt, a decrease of 1.2 Mt compared to consumption of 15.3 Mt in 2007.

7.5. Oil Shale

Oil shale statistics are not included in any of the tables or figures in this document. In 2008, 16.1 Mt of oil shale was produced in Estonia compared to 16.5 Mt in 2007 (-2.4%). Oil shale consumption of 15.7 Mt was used

mainly in the power generation sector where consumption was 12.1 Mt. In 2006 consumption was 17.0 Mt including 13.5 Mt in power generation.

8. STATE AID TO THE INDIGENOUS HARD COAL INDUSTRY IN THE EU

In line with Council Regulation on State aid to the coal industry⁴², the amount of current production aid continued to decline. At the same time, Member States continued to finance measures related to restructuring and consolidation of their coal sectors. A large part of the financing was directed to environmental clean-up measures or early retirement schemes – so called exceptional costs according to the before mentioned Regulation. When taking into account aid to cover production losses only, subsidised coal serves for only 1.4 % of the electricity production in the EU.

⁴² Council Regulation N° 1407/2002 of 23 July 2002, OJ L 205 of 02.082002, p.1

**Table 9 – State Aid 2003 – 2008 – amounts actually granted by Member States
(only for the main coal aid granters in the EU- 27) or authorised by the
Commission for the relevant year in million €**

Country	2003	2004	2005	2006	2007	2008
Germany						
- current production aid	2639	2483	2114	1472	1347	727
- aid related to exceptional costs	780	556	602	882	994	1055
Spain						
- current production aid	569	340	502	467	448	434
- aid related to exceptional costs	550	573	582	345	359	373
Poland						169
- aid related to exceptional costs	903	913	369	60	87	
Romania						
- current production aid	n/a	n/a	n/a	n/a	112	93
Hungary						
- current production aid	n/a	44	39	38	36	34
- aid related to exceptional costs	n/a	48	6	4	4	4

9. CONCLUSIONS

9.1. World Context

In 2008 total world coal production (hard coal and lignite) increased by 6.2%, continuing the growth of the last ten years, where 2008 production was 48% higher than 1998 levels. Analysis of proven coal and lignite reserve data indicates that, at current world production levels, there are approximately 146 years of reserves available. Global trade in hard coal also continued to grow in 2008, albeit at a much lower pace than the previous five years, with hard coal exports up 1.6% (15 Mt) to 938 Mt. Spot prices for international

steam coal showed unprecedented levels of volatility in 2008. For example the delivered price to North West Europe peaked at around \$220/tonne in July 2008 before falling rapidly as a result of the world financial crisis. The price dropped below \$70/tonne in January 2009, and generally traded around \$70/tonne for the remainder of the year.

9.2. European Context

Europe is the third largest region worldwide in terms of coal consumption, after China and the USA. In the European Union around sixty percent of consumption is derived from indigenous production, with 146 Mt of hard coal and 434 Mt of lignite produced in 2008. The European Commission is pursuing discussion with stakeholders through the Berlin Forum, the National Coal Experts' meetings and the Coal Dialogue, and has produced a 'Non-Paper' on the Best Use of EU's Indigenous Coal Resources. This covers topics including the transparency of the EU coal inventory, regulatory frameworks related to land access and management of environmental impacts, public awareness and acceptance, research and innovation, and the continuing availability of a skilled workforce.

9.3. Coal in EU Electricity Generation

The use of coal in electricity generation varies widely across the EU member states. In Poland over 90% of electricity is generated from coal and lignite whereas in France 4% is generated from coal and 77% is nuclear (2007 data). The split of generation for the EU 27 in 2007 was coal 29%, nuclear 28%, gas 23%, renewables 17%, oil and others 3%.

9.4. EU Reserves of Coal and Lignite

Europe possesses substantial reserves of coal and lignite, which represent around 80% of Europe's fossil fuel reserves. World Energy Council figures show EU reserves of hard coal at 8.5 Bt and lignite at 21.5 Bt. The largest hard coal reserve is in Poland, representing 70% of the EU total. In the case of lignite, reserves are present in a swathe from Germany through Central Europe and the Balkans, to Greece. Within the EU, Germany has the largest deposit, with major reserves also in Poland, Greece, Hungary, and Bulgaria.

9.5. EU Hard Coal Production and Consumption

Indigenous European production of hard coal has continued its decline, and is forecast to decline further in 2009. Production reduced by 5.7% in 2008, to 146.0 Mt. Consumption continues to be dominated by the power sector at 69%, followed by coke production at 19%.

9.6. World Hard Coal Trade

A high proportion of world coal production is consumed within the country of origin – around 85%, and this is especially true of the two largest producers, China and the USA. Relatively small proportional changes in supply and demand in these countries can have a major impact on

international market dynamics. The major steam coal exporting nations are Indonesia, Australia, Russia, Colombia and South Africa, whereas for coking coal the major exporters are Australia, the United States and Canada.

Total world steam coal exports decreased by 8.2 Mt (1.2%) in 2008 to 676.0 Mt. The expected collapse in the steam coal market in 2009 did not materialise, mainly because of the impact of China. The world trade in coking coal increased by 6.1% to 261.8 Mt in 2008. Australia remained, by far, the largest exporter at 136.9 Mt. Early 2008 saw a dramatic tightening of the coking coal market. However, towards the end of the year a slump in coking coal demand was becoming apparent because of the impact of the worldwide recession on the steel industry. In 2009, whereas US and European steelmakers have seen severe cutbacks, China has led a significant recovery in Asia. Nevertheless, coking coal trade is expected to suffer a reduction of up to 10% over the year.

9.7. EU Hard Coal Imports

Imports of hard coal to the EU in 2008 of 210.6 Mt reduced by 3.2% compared to 217.7 Mt in the previous year and represented 59% of total supply. The major exporting countries to the EU were Russia (25.8%), South Africa (17.2%), the USA (14.9%), Colombia (12.8%), Australia (12.2%), Indonesia (7.2%) and Canada (2.9%).

9.8. International Coal Prices

The very high spot price levels seen in mid 2008 were completely unprecedented in international coal markets and bore no relationship to underlying costs of production and transportation. The rapid fall in coal prices as a result of the economic downturn was even more marked than the increase earlier in the year. During 2009 prices hovered around \$60/tonne in the earlier part of the year but then showed a generally upward trend as demand recovered in the Pacific market, ending the year towards \$80/tonne. The benchmark freight rate from Richards Bay to Rotterdam ended 2008 around 10% of its peak value in the middle of the year, as a result of the initial impact of the financial crisis. During 2009 prices have responded to a resurgence in demand from China and, whilst being extremely volatile, have fluctuated between levels more in accordance with historic norms.

9.9. Lignite and Peat

World production of lignite decreased marginally by 0.4% in 2008 to 951.4 Mt. Many European nations feature amongst the top producing countries in the world. Europe is responsible for around 50% of world production of lignite, where it represents an energy resource of key importance. EU production of lignite (including peat) was 434.3 Mt in 2008 compared to 446.0 Mt in the previous year. Around 94% of lignite is used in power stations with the remainder being largely used for district heating plants and domestic heating, mainly in the form of briquettes.

Annex 1 – Summary of EU-27 Data

	2007	2008	% Change
Hard Coal			
Availabilities			
Production	154.8	146.0	-5.7
Recoveries	2.0	1.8	-10.0
Imports from third countries	217.7	211.0	-3.1
Total	374.5	358.8	-4.2
Deliveries			
Power Stations*	257.2	236.4	-8.1
Coking Plants	65.5	63.9	-2.4
Others	53.4	42.5	-20.4
Exports to third countries	1.1	0.6	-47.1
Total	377.2	343.4	-8.9
Coke			
Availabilities			
Production	51.0	48.8	-4.5
Imports from third countries	5.3	5.5	4.2
Total	56.3	54.2	-3.7
Deliveries			
Steel Industry	43.6	43.2	-0.9
Others	10.0	7.9	-20.9
Exports to third countries	1.5	1.4	-8.9
Total	55.1	52.5	-4.8
Lignite			
Availabilities			
Production	446.0	434.3	-2.6

Imports from third countries	1.3	1.3	-2.0
Total	447.3	435.5	-2.6
Deliveries			
Power Stations*	430.4	414.2	-3.8
Briquetting Plants	14.3	16.0	12.1
Others	9.6	10.2	6.5
Total	454.2	440.4	-3.1

*Including industrial and pithead power stations

**Annex 2 - Supplies and deliveries in the EU of Hard Coal, Coke and Lignite in
2007 and 2008**

Table 1
Supplies and Deliveries of Hard Coal in 2007 (Part 1)

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
1. Production (t=)			18		12,882					24,185				158
of which :														
A - Underground			18		12,874					24,185				158
B - Opencast					8									
2. Recoveries					315				422					
3. Receipts from other EU Countries	3,614	193	284		2,404	520		284	2,367	6,685		816	310	761
4. Total imports from Third Countries	564	7,223	2,244	35	133	7,603	176	6,386	16,592	38,926	605	1,184	1,942	24,195
of which :														
A - USA	377	1,729	544		40	6		354	1,862	3,265		486	73	3,053
B - Canada		186						529	583	1,760				1,084
C - Australia	45	2,321	35			144		559	6,082	5,626		64	387	3,086
D - South Africa					6				3,971	7,689	36			4,178
E - Russian Federation	103	1,009	386	29	90	2,267	176	4,824	1,111	8,976	412	545		804
F - China		15			3			2	263					
G - Colombia		28				2,475		88	1,805	5,923			322	2,112
H - Indonesia						288			36		18		633	7,886
I - Venezuela		277							477					340
J - Others	39	17	1,278			324		30	402	5,687	67	89	38	652
5. Total Availabilities (1+2+3+4)	4,178	7,416	2,547	35	15,734	8,123	176	6,670	19,380	69,796	605	2,000	2,252	25,114
6. Gross Inland Consumption*	4,201	6,504	2,547	49	9,908	7,907	131	6,898	20,866	70,212	711	1,965	2,351	25,118
A - Power Stations (public & mine)	1,920	2,192	1,880		3,854	7,522		5,462	8,993	52,296	1	282	1,815	16,254
B - Coking Plants (coal input)	1,917	3,426	667		4,110			1,241	5,951	10,501		1,458		6,197
C - Iron and Steel Industry**		446			715				3,110	3,115				1,740
D - Other Industries	340	271		49	1,138	214	121	189	2,320	2,935	708	149	211	918
of which Power Stations					288				309	2,924				
E - Domestic Heating	24	165			91	171	10		480	1,185	2	63	244	1
F - Miscellaneous (Total (i)+(ii)+(iii))		4						6	12	180		13	81	8
(i) Issue to Workers										90				
(ii) Patent Fuel Plants		4							12	88		8	43	
(iii) Others								6		2		5	38	8
7. Deliveries to Other EU Countries	1	1,484			5,676	109			182	96				57
8. Exports to Third Countries		2			150	81			31	2	16			
9. Total Deliveries (6+7+8)	4,203	7,990	2,547	49	15,734	8,097	131	6,898	21,079	70,310	727	1,965	2,351	25,175

* Including transformation for coke

** PCI Coal

Table 1
Supplies and Deliveries of Hard Coal in 2007 (Part 2)
 (in thousands of metric tonnes)

Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia (Estimate)	Slovenia	Spain	Sweden	United Kingdom	Total EU-27	Member State	
					87,406		2,638			11,001		16,540	154,828	1. Production (t=t)	
					87,406		2,638			6,670		7,674	141,623	of which :	
					818					4,330		8,866	13,204	A - Underground	
												467	2,022	B - Opencast	
														2. Recoveries	
		57		1,006	1,914	3		2,941		163	726	495	25,543	3. Receipts from other EU Countries	
150	362	51		24,910	3,857	4,779	4,047	2,042	48	24,277	2,454	42,870	217,655	4. Total imports from Third Countries	
					2,315		389	1,258	220			1,363	423	2,523	of which :
					779							158		1,771	A - USA
					1,757			526				3,715	1,316	4,260	B - Canada
					6,825		1,551					8,771		7,742	C - Australia
150	360	51		2,407	3,055	126	1,991	1,818		2,705	707	20,854	54,905	D - South Africa	
					6							3		265	E - Russian Federation
					175	2,403						2,307		3,854	F - China
					1,866	60						4,599		1,455	G - Colombia
					1,162		40					382			H - Indonesia
					299	622	250	233	4	48		274	8	146	I - Venezuela
150	362	108		25,916	93,995	4,782	6,684	4,983	48	35,440	3,180	60,372	400,046	J - Others	
162	379	108		13,375	85,399	4,720	6,684	5,120	48	34,442	3,408	62,886	376,099	5. Total Availabilities (1+2+3+4)	
17				8,675	45,378	4,442	3,819	2,166		28,795	935	51,031	247,729	6. Gross Inland Consumption*	
				3,107	11,801		2,865	2,854		241	1,990	7,175	65,501	A - Power Stations (public & mine)	
				1,593	1,943	11			10	4,143	21		16,890	B - Coking Plants (coal input)	
77	203	65		7,828	267				38	873	454	3,762	23,130	C - Iron and Steel Industry**	
				4,394								1,541	9,456	D - Other Industries	
												648	8,731	of which Power Stations	
68	74			5,075				100		330				E - Domestic Heating	
				13,373						60		8	271	F - Miscellaneous (Total (i)+(ii)+(iii))	
				911										(i) Issue to Workers	
													245	(ii) Patent Fuel Plants	
					12,462					60	8	26	12,717	(iii) Others	
				11,499	11,406					909		481	31,900	7. Deliveries to Other EU Countries	
				281	400	13		17		65		40	1,100	8. Exports to Third Countries	
162	379	108		25,155	97,205	4,733	6,684	5,137	48	35,416	3,410	63,407	409,100	9. Total Deliveries (6+7+8)	

* Including transformation for coke
 ** PCI Coal

Table 2
Supplies and Deliveries of Hard Coal in 2008 (Part 1)

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
1. Production (t=t)			19		12,651					19,144				120
of which :														
A - Underground			19		12,651					19,144				120
B - Opencast														
2. Recoveries					230		6		277					
3. Receipts from other EU Countries	2,551	302	135		1,830	264		89	2,172	5,929		547	117	1,646
4. Total imports from Third Countries	651	7,134	1,983	46	477	7,306	123	5,455	19,113	40,194	664	1,384	2,386	23,453
of which :														
A - USA	510	1,853	317		224	344		533	4,072	5,373	66	839	142	3,254
B - Canada		60						393	544	1,629		72		984
C - Australia		2,252			18			292	6,319	4,443		18	394	2,923
D - South Africa		1,941				2,243		191	3,317	8,816		51	294	4,596
E - Russian Federation	68	550	391	46	236	2,604	123	3,770	1,826	9,157		329	383	918
F - China		40							167			110		
G - Colombia		209				1,680		68	1,956	4,667			779	2,429
H - Indonesia		219						129	2			18	478	7,212
I - Venezuela									435					395
J - Others	73	9	1,274			435		79	474	6,109	90	72	297	742
5. Total Availabilities (1+2+3+4)	3,202	7,436	2,137	46	15,188	7,570	129	5,544	21,562	65,267	664	1,931	2,503	25,219
6. Gross Inland Consumption*	4,143	5,731	2,137	40	9,119	6,998	129	5,027	19,548	66,549	523	1,914	2,226	25,430
A - Power Stations (public & mine)	1,697	1,953	1,735		3,096	6,677		3,607	8,190	48,822		258	1,690	17,000
B - Coking Plants (coal input)	1,827	2,737	402		4,301			1,235	5,986	10,251		1,432		6,249
C - Iron and Steel Industry**	281	478			812				2,636	2,911				1,218
D - Other Industries	265	325		40	846	194	120	180	2,241	3,115	520	161	188	962
of which Power Stations					254				311	3,067				
E - Domestic Heating	74	231				127	9		480	1,341	3	55	271	1
F - Miscellaneous (Total (i)+(ii)+(iii))		7			64			5	15	109		8	77	
(i) Issue to Workers									107					
(ii) Patent Fuel Plants		6							15			4	39	
(iii) Others		1						5		2		4	38	
7. Deliveries to Other EU Countries	1	1,122			6,299	129			186	140		3		47
8. Exports to Third Countries		93				27				5	2			
9. Total Deliveries (6+7+8)	4,144	6,946	2,137	40	15,418	7,154	129	5,027	19,734	66,694	525	1,917	2,226	25,477

* Including transformation for coke

** PCI Coal

Table 2
Supplies and Deliveries of Hard Coal in 2008 (Part 2)

(in thousands of metric tonnes)

Latvia	Lithuania	Luxembourg (Estimate)	Malta	Netherlands	Poland	Portugal	Romania	Slovakia*	Slovenia (Estimate)	Spain	Sweden	United Kingdom	Total EU-27	Member State	
					83,648		2,801			10,187		17,463	146,033	1. Production (=t)	
					83,648		2,801			4,254		8,034	130,671	of which:	
					674					5,933		9,429	15,362	A - Underground	
										184		449	1,820	B - Opencast	
	17	57		1,047	1,464	3	64	2,222		213	376	893	21,938	2. Recoveries	
														3. Receipts from other EU Countries	
167	366	51		16,578	8,637	3,826	2,404	2,287	48	20,754	2,481	42,995	210,963	4. Total imports from Third Countries	
														of which:	
					3,129	1,659	273	1,148	408	2,380	567	4,353	31,444	A - USA	
					584			70	169	235		1,435	6,175	B - Canada	
					600			214		3,195	1,139	4,004	25,811	C - Australia	
		51			3,906		1,101			5,601		4,264	36,372	D - South Africa	
167	363				891	5,226	21	826	1,677	2,623	764	21,440	54,399	E - Russian Federation	
					73					115		15	520	F - China	
					5,360	489	2,015	104		1,995		5,354	27,105	G - Colombia	
					886		154			4,064		2,122	15,284	H - Indonesia	
					1,024					192	11	8	2,065	I - Venezuela	
	3				125	1,263	262	43	33	48	355		11,786	J - Others	
167	383	108			17,625	94,422	3,829	5,270	4,509	48	31,339	2,857	61,800	380,755	5. Total Availabilities (1+2+3+4)
162	326	108			12,627	75,672	4,140	5,270	4,483	48	29,502	2,774	58,240	342,866	6. Gross Inland Consumption*
21					8,224	43,506	4,032	3,261	1,897		24,430	761	46,278	227,135	A - Power Stations (public & mine)
					3,049	9,907		2,003	2,499		3,364	1,620	7,045	63,907	B - Coking Plants (coal input)
		43			1,354	412	10			10	661	17	10,843	10,843	C - Iron and Steel Industry**
78	172	65			6,545		98			38	677	370	3,875	21,075	D - Other Industries
					4,139								1,541	9,312	of which Power Stations
63	154				4,661			88		320			691	8,569	E - Domestic Heating
					10,640			6		50		7	351	11,339	F - Miscellaneous (Total (i)+(ii)+(iii))
					1,025			6						1,138	(i) Issue to Workers
													340	404	(ii) Patent Fuel Plants
					9,615					50	7		11	9,733	(iii) Others
	8				6,276	7,929	11		4	1,741	3	690	24,589	7. Deliveries to Other EU Countries	
					101	168	29		21	95	7	34	582	8. Exports to Third Countries	
165	334	108		19,004	83,768	4,180	5,270	4,508	48	31,338	2,784	58,964	368,039	9. Total Deliveries (6+7+8)	

*Consumption
 Split Estimated

* Including transformation for coke
 ** PCI Coal

Table 3
Supplies and Deliveries of Coke in 2007 (Part 1)

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France	Germany	Greece	Hungary	Ireland	Italy
1. Production (t=)	1,423	2,607	453		3,258		40	865	4,465	8,441		1,017		4,727
2. Recoveries														
3. Receipts from other EU Countries	1,266	17	3		722	3		421	627	2,740		27		
4. Total imports from Third Countries		201	270	143		32		151	444	1,953				426
of which :														
A - USA		3								7				39
B - Canada										2				
C - Australia														
D - South Africa														
E - Russian Federation		154	12					69	22	58				
F - China		44	41			32		82	409					295
G - Colombia										34				
H - Indonesia										8				
I - Venezuela														
J - Others			216	143					4	1,853				92
5. Total Availabilities (1+2+3+4)	2,689	2,825	726	143	3,980	35	40	1,438	5,536	13,134		1,044		5,153
6. Gross Inland Consumption	2,697	2,667	726	144	3,233	38		1,414	4,974	13,188		775		4,977
A - Power Stations (public & mine)														
B - Coking Plants (coal input)	1				122							2		
C - Iron and Steel Industry	2,670	2,609			2,976			1,379	4,268	12,710		755		4,934
D - Other Industries		53	726	144	110	38		35	649	392		18		43
of which Power Stations														
E - Domestic Heating	26	5								84				
F - Miscellaneous (Total (i)+(ii)+(iii))					25				57	2				
(i) Issue to Workers										2				
(ii) Patent Fuel Plants														
(iii) Others									57					
7. Deliveries to Other EU Countries		102			717				675	13		150		177
8. Exports to Third Countries					30		40	3	121			119		39
9. Total Deliveries (6+7+8)	2,697	2,769	726	144	3,980	38	40	1,417	5,770	13,201		1,044		5,193

Table 3
Supplies and Deliveries of Coke in 2007 (Part 2)

(in thousands of metric tonnes)

Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia (Estimate)	Slovenia	Spain	Sweden	United Kingdom	Total EU-27	Member State
				2 172	10 265		1 557	1 854		2 222	1 194	4 477	51 037	1. Production (t=t)
														2. Recoveries
				204		1	740	389		35	140	228	7 563	3. Receipts from other EU Countries
3	24			305	124		24	31	62	101	126	840	5 260	4. Total imports from Third Countries
														of which :
										15			64	A - USA
												1	2	B - Canada
													1	C - Australia
														D - South Africa
3				71				4		67		183	643	E - Russian Federation
	16			217	100						22	633	1 891	F - China
				17						10	18		87	G - Colombia
														H - Indonesia
														I - Venezuela
	9				24		24	27	62	9	86	23	2 572	J - Others
3	24			2 681	10 389	1	2 321	2 274	62	2 358	1 460	5 545	63 861	5. Total Availabilities (1+2+3+4)
4	24			2 148	4 237	4	2 121	2 143	62	1 305	1 472	5 252	53 605	6. Gross Inland Consumption
											1 292	4 392	5 809	A - Power Stations (public & mine)
														B - Coking Plants (coal input)
4				1 930	3 214		1 891	2 143	62	1 158	115	757	43 575	C - Iron and Steel Industry
	24			218	771	4	230			147	65	88	3 755	D - Other Industries
														of which Power Stations
					252							15	382	E - Domestic Heating
														F - Miscellaneous (Total (i)+(ii)+(iii))
														(i) Issue to Workers
														(ii) Patent Fuel Plants
														(iii) Others
				560	5 034			123		983	25	218	8 777	7. Deliveries to Other EU Countries
				6	1 021					71	2	39	1 491	8. Exports to Third Countries
4	24			2 714	10 292	4	2 121	2 266	62	2 358	1 499	5 509	63 872	9. Total Deliveries (6+7+8)

Table 4
Supplies and Deliveries of Coke in 2008 (Part 1)

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland*	France	Germany	Greece	Hungary	Ireland	Italy
1. Production (t=t)	1,410	2,309	277		3,399		35	860	4,488	8,246		999		4,486
2. Recoveries														
3. Receipts from other EU Countries	1,288	15	1		578	1		392	646	2,259		16		
4. Total imports from Third Countries	8	835	106	163	13	38		141	664	2,088				229
of which :														
A - USA	3	35								12				93
B - Canada										19				
C - Australia										176				
D - South Africa														
E - Russian Federation		770			13			64	12	11				
F - China		28				38		76	564					136
G - Colombia										46				
H - Indonesia		2												
I - Venezuela														
J - Others	5		106	163					70	1,843				
5. Total Availabilities (1+2+3+4)	2,706	3,159	384	163	3,990	39	35	1,394	5,798	12,593		1,015		4,715
6. Gross Inland Consumption	2,684	3,042	384	153	3,102	35		1,381	4,972	12,542		735		4,295
A - Power Stations (public & mine)														
B - Coking Plants (coal input)					116								2	
C - Iron and Steel Industry	2,617	2,975			2,881			1,351	4,303	12,171		724		4,252
D - Other Industries		59	384	153	80	35		30	641	326		9		43
of which Power Stations														
E - Domestic Heating	67	8			25					43				
F - Miscellaneous (Total (i)+(ii)+(iii))									28	2				
(i) Issue to Workers										2				
(ii) Patent Fuel Plants														
(iii) Others									28					
7. Deliveries to Other EU Countries		90			847				983			129		214
8. Exports to Third Countries		17			41		35	6	10			122		25
9. Total Deliveries (6+7+8)	2,684	3,149	384	153	3,990	35	35	1,387	5,965	12,542		986		4,534

* Imports
 Estimated

Table 4
Supplies and Deliveries of Coke in 2008 (Part 2)

(in thousands of metric tonnes)

Latvia	Lithuania	Luxembourg	Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia (Estimate)	Spain	Sweden	United Kingdom	Total EU-27	Member State
				2.109	9.831		984	1.737		2.111	1.119	4.359	48.759	1. Production (=t)
				129		4	921	236		67	121	195	6.874	2. Recoveries
	5													3. Receipts from other EU Countries
3	10			100			26	135	62	137	198	527	5.483	4. Total imports from Third Countries
				21						42	5		211	of which :
												22	41	A - USA
													176	B - Canada
														C - Australia
														D - South Africa
3				57			1	134		81			175	E - Russian Federation
	7										8		75	F - China
				12						4	11		46	G - Colombia
														H - Indonesia
														I - Venezuela
	3			10			25		62	9	174		210	J - Others
3	15			2.338	9.831	4	1.930	2.108	62	2.315	1.438	5.081	61.116	5. Total Availabilities (1+2+3+4)
5	16			2.121	3.778	4	1.930	1.909	62	1.691	1.436	4.840	51.117	6. Gross Inland Consumption
												4.097	4.215	A - Power Stations (public & mine)
5				1.917	2.836		1.900	1.909	62	1.272	1.376		635	B - Coking Plants (coal input)
	16			204	707	4	30			419	60		95	C - Iron and Steel Industry
					235								14	D - Other Industries
														of which Power Stations
														E - Domestic Heating
														F - Miscellaneous (Total (i)+(ii)+(iii))
														(i) Issue to Workers
														(ii) Patent Fuel Plants
														(iii) Others
				368	4.683			76		592	19	151	8.152	7. Deliveries to Other EU Countries
					900			123		32	14	34	1.359	8. Exports to Third Countries
5	16			2.489	9.361	4	1.930	2.108	62	2.315	1.469	5.025	60.628	9. Total Deliveries (6+7+8)

Table 5
Supplies and Deliveries of Brown Coal and Lignite in 2007 (Part 1)

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia (peat)	Finland (peat)	France	Germany	Greece	Hungary	Ireland (peat)	Italy
1. Production (t=)			28,373		49,289		475	4,466		180,409	66,464	9,818	3,040	
of which :														
A - Underground			620		902							1,397		
B - Opencast			27,753		48,387		475	4,466		180,409	66,464	8,421	3,040	
2. Recoveries														
3. Receipts from other EU Countries	63	317			33				51	27		277	11	5
4. Total imports from Third Countries											6	375		
of which :														
A - USA														
B - Canada														
C - Australia														
D - South Africa														
E - Russian Federation												375		
F - China														
G - Colombia														
H - Indonesia														
I - Venezuela														
J - Others											6			
5. Total Availabilities (1+2+3+4)	63	317	28,373		49,322		475	4,466	51	180,436	66,470	10,470	3,051	5
6. Gross Inland Consumption	63	316	28,373		48,246		456	10,018	51	180,471	66,341	10,088	3,813	5
A - Power Stations (public & mine)	1		27,589		41,344			8,312		167,027	66,024	9,783	2,316	
B - Coking Plants (coal input)														
C - Iron and Steel Industry														
D - Other Industries	38	316	65		5,327		456	1,596	51	875	313	42	38	
of which Power Stations					3,041		64						38	
E - Domestic Heating	24		98		1,100			55		1	4	251	869	
F - Miscellaneous (Total (i)+(ii)+(iii))			622		475			55		12,568		12	589	5
(i) Issue to Workers														
(ii) Patent Fuel Plants			622		475					12,568		1	586	
(iii) Others								55				11	3	5
7. Deliveries to Other EU Countries	1				1,075		61	53				393		
8. Exports to Third Countries					1									
9. Total Deliveries (6+7+8)	64	316	28,373		49,322		517	10,071	51	180,471	66,341	10,481	3,813	5

Table 5
Supplies and Deliveries of Brown Coal and Lignite in 2007 (Part 2)

(in thousands of metric tonnes)

Latvia (peat)	Lithuania (mainly peat)	Luxembourg	Malta	Netherlands	Poland*	Portugal	Romania	Slovakia (Estimate)	Slovenia	Spain	Sweden (peat)	United Kingdom	Total EU-27	Member State
11	66				57,472		32,636	2,112	4,693	6,180	514		446,018	1. Production (t=t)
														of which :
							1,388	2,112	4,693				11,112	A - Underground
11	66				57,472		31,248			6,180	514		434,906	B - Opencast
														2. Recoveries
		7		58			477	726			379		2,431	3. Receipts from other EU Countries
	8						359		533				1,281	4. Total imports from Third Countries
														of which :
														A - USA
														B - Canada
														C - Australia
							78						453	D - South Africa
														E - Russian Federation
														F - China
									533				533	G - Colombia
														H - Indonesia
	8						282						296	I - Venezuela
														J - Others
11	74	7		58	57,472		33,473	2,838	5,226	6,180	893		449,731	5. Total Availabilities (1+2+3+4)
9	88	7		58	57,472		33,091	2,955	5,226	6,180	893		454,220	6. Gross Inland Consumption
8	88				56,772		33,059	2,655	5,226	6,180	860		427,244	A - Power Stations (public & mine)
														B - Coking Plants (coal input)
														C - Iron and Steel Industry
		7									33		9,164	D - Other Industries
													3,143	of which Power Stations
1					700		13	300					3,416	E - Domestic Heating
				51			19						14,396	F - Miscellaneous (Total (i)+(ii)+(iii))
							19						19	(i) Issue to Workers
				51									14,252	(ii) Patent Fuel Plants
													125	(iii) Others
10	1												1,594	7. Deliveries to Other EU Countries
														8. Exports to Third Countries
19	89	7		58	57,472		33,091	2,955	5,226	6,180	893		455,815	9. Total Deliveries (6+7+8)

*Consumption
 Split Estimated

Table 6
Supplies and Deliveries of Brown Coal and Lignite in 2008 (Part 1)

(in thousands of metric tonnes)

Member State	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia (peat)	Finland* (peat)	France	Germany	Greece*	Hungary	Ireland (peat)	Italy
1. Production (t=t)			28,751		47,537		214	4,780		175,313	65,720	9,404	3,356	
of which :														
A - Underground			365		711			4,780				1,286		
B - Opencast			28,385		46,826		214			175,313	65,720	8,118	3,356	
2. Recoveries														
3. Receipts from other EU Countries	71	282			86				67	28		429	26	5
4. Total imports from Third Countries												384		
of which :														
A - USA														
B - Canada														
C - Australia														
D - South Africa														
E - Russian Federation												379		
F - China														
G - Colombia														
H - Indonesia													5	
I - Venezuela														
J - Others														
5. Total Availabilities (1+2+3+4)	71	282	28,751		47,623		214	4,780	67	175,341	65,720	10,217	3,383	5
6. Gross Inland Consumption	73	282	28,751		46,084		207	8,020	67	175,194	65,720	9,930	4,610	5
A - Power Stations (public & mine)			27,034		38,927		133	6,654		161,005	65,406	9,535	3,002	
B - Coking Plants (coal input)														
C - Iron and Steel Industry														
D - Other Industries	42	278	51		5,795		74	1,278	67	736	310	43	39	
of which Power Stations					2,196								39	
E - Domestic Heating	31	4	109		1,100			44		1	4	348	864	
F - Miscellaneous (Total (i)+(ii)+(iii))			1,558		262			44		13,452		4	705	5
(i) Issue to Workers													2	702
(ii) Patent Fuel Plants			1,558		262					13,452			2	3
(iii) Others								44						
7. Deliveries to Other EU Countries	6				1,535		118			15		152		
8. Exports to Third Countries					4									
9. Total Deliveries (6+7+8)	79	282	28,751		47,623		325	8,020	67	175,209	65,720	10,082	4,610	5

*Consumption
 Split Estimated

*Consumption
 Split Estimated

Table 6
Supplies and Deliveries of Brown Coal and Lignite in 2008 (Part 2)

(in thousands of metric tonnes)

Latvia (peat)	Lithuania (peat)	Luxembourg (Estimate)	Malta	Netherlands	Poland*	Portugal	Romania	Slovakia*	Slovenia	Spain	Sweden (peat)	United Kingdom	Total EU-27	Member State
11	59				59,570		31,787	2,423	4,521		837		434,283	1. Production (=t)
							1,276	2,423	4,521				15,362	of which :
11	59				59,570		30,511				837		418,920	A - Underground
														B - Opencast
														2. Recoveries
		7		45			141	820			363		2,370	3. Receipts from other EU Countries
							159	92	620		1		1,256	4. Total imports from Third Countries
														of which :
														A - USA
														B - Canada
														C - Australia
								92						D - South Africa
														E - Russian Federation
														F - China
									620					G - Colombia
														H - Indonesia
														I - Venezuela
							159				1		160	J - Others
11	59	7		45	59,570		32,087	3,335	5,141		1,201		437,910	5. Total Availabilities (1+2+3+4)
9	32	7		45	59,570		32,069	3,335	5,141		1,201		440,352	6. Gross Inland Consumption
8	32				58,844		32,050	2,996	5,141		1,169		411,937	A - Power Stations (public & mine)
														B - Coking Plants (coal input)
														C - Iron and Steel Industry
														D - Other Industries
												32	8,795	of which Power Stations
													2,235	E - Domestic Heating
1					726		10	339					3,580	F - Miscellaneous (Total (i)+(ii)+(iii))
							6						16,041	(i) Issue to Workers
							6						6	(ii) Patent Fuel Plants
													15,976	(iii) Others
													59	
													1,831	7. Deliveries to Other EU Countries
													4	8. Exports to Third Countries
9	37	7		45	59,570		32,069	3,335	5,141		1,201		442,187	9. Total Deliveries (6+7+8)

*Consumption
 Split Estimated

*Consumption
 Split Estimated