The EEC Downstream Oil Industry in 1993

JEAN-PIERRE ANGELIER

Over the last 15 years traditional state intervention in the downstream oil industry has decreased in the 12 countries of the European Community, making way for increased competition. This has come about partly as a result of the influence of the Commission of the European Community, which has taken part in the setting of common aims for member-countries concerning oil (e.g., reductions in refining capacity, increases in imports of refined products, harmonizing oil taxation). However, this movement has not been entirely to the satisfaction of the petroleum companies, who believe that oil is still handicapped by discriminatory policies in its competition with other energy forms.

Au cours des 15 dernières années, les interventions traditionnelles des Etats dans l'industrie pétrolière aval de l'Europe des 12 s'allègent, laissant place à la concurrence. Cette évolution se concrétise en partie sous l'influence de la Commission des Communautés Européennes, qui contribue à la réalisation des objectifs communs aux Etats-membres, en matière pétrolière (par exemple: réduction des capacités de raffinage, ouverture aux importations de produits raffinés, harmonisation de la fiscalité pétrolière). Mais cette évolution ne satisfait pas complètement les sociétés pétrolières qui regrettent que des mesures politiques discriminatoires handicapent toujours le pétrole, dans sa concurrence avec les autres formes d'énergie.

Oil is the principal form of energy consumed in the European Economic Community. Despite the increasing normalization of international oil markets, it continues to occupy a strategic position and to be a favoured target for state intervention. In the wake of the 1973 oil crisis and subsequent upheavals that have affected the industry, national oil policies were adopted by the EEC member states. Although these policies differ in many respects, they have one common feature — they are all aimed at reducing dependence on oil. During the 1980s, however, a noticeable change of orientation has been evident: to reinforce competition within the oil industry the role played by national authorities has diminished little by little and the development of common ground has been associated with policy initiatives taken by the Commission of the European Community.

Thus, when the Single European Act was signed in February 1986, with the aim of creating the conditions necessary to encourage free competition and increased trade between EEC member states, the oil sector was already largely competitive.

The intensification of competition is expected to reduce the cost of oil supplies in the region and increase their reliability, while at the same time improving the performance of European oil

Jean-Pierre Angelier is in the Economics Department, University of Social Sciences, Grenoble and is a Research Associate at IEPE.

companies. However, within this competitive framework, oil is still subject to discriminatory measures, as can be seen in the guidelines fixed by the Council of the European Community in 1986. Oil's share of primary energy consumption within the EEC's overall objectives for 1995 is limited to 40%, oil imports are limited to 33% of primary consumption and the use of oil for electric power generation is limited to 15%.

The competitive challenge has been taken up over the last 10 years by the EEC's oil companies, though not without persistent traces of nationalism. Oil companies have effectively adapted themselves to new operating conditions and are preparing for further changes that will result from the proposed alignment of the various EEC oil markets — changes that will mean even higher investment levels. But several questions remain unanswered in regard to the Community's objective of endowing Europe with powerful oil companies. Are the discriminatory measures to which oil is subjected still necessary? Is it not possible that they will undermine the profitability of the European downstream oil industry?

1. Radical Changes in Operating Conditions

Over the last 15 years, the oil industry in the EEC has been affected by profound changes in demand. Oil companies have adapted to these changes in a context of intense competition, not only among substitutable energy forms, but also between refined petroleum products produced in the region and those imported from outside. The extent of these changes has varied from country to country according to particular aspects of national energy policies. But whatever the individual cases, the downstream oil industry in the EEC has not, over the last 15 years, succeeded in returning to its previous profit level.

1.1 The New Features of Oil Demand

As a result of price competition the demand for petroleum products has slackened and its structure has been altered, with heavy products being much more seriously affected by competition from substitutes than are distillates or gasoline. These changes have not taken place to the same extent throughout the Community.

From 1973 to 1988, output of the EEC oil industry declined by 30% (see Table 1) because of a fall in consumption within the region and intense competition from imported petroleum products.

The reduction in the EEC's level of oil consumption can, of course, be explained in part by overall energy savings. But it is due especially to the increased use of substitutes for petroleum products: in the private residential and service sectors it has been possible to replace light heating oil with natural gas or electricity; in industry and electric power generation heavy fuel oil has been largely replaced by coal, nuclear power and, occasionally, natural gas. Only gasoline, for lack of substitutes, has remained unaffected.

Thus the oil industry finds itself in an entirely new situation in which price competition acts against petroleum products. In several countries, such a price handicap has been reinforced by energy policies that have led to a reduction in the prices of domestic energy forms relative to the prices of petroleum products. Thus demand for oil is falling in France, the United Kingdom, and Denmark, whereas it is increasing in Greece, Portugal and Spain. These differences can be partly explained by the attitudes adopted by the different governments with respect to oil.

The presence or absence of substitutes and the extent to which they are in competition in different sectors or countries has also altered the structure of oil demand: heavy fuel oil is losing ground whereas the share and volume of gasoline and distillates are both growing (see Table 2). Here again national policies have played a role. For example, the use of heavy fuel oil has been reduced greatly in the Netherlands, West Germany and France, where it has been deliberately replaced by natural gas, coal or nuclear power. On the other hand, demand for heavy fuel oil remains strong in Greece, Portugal, Italy and Ireland. The demand for distillates is relatively high in West Germany, Denmark, Belgium and Luxembourg, whereas demand for gasoline

Table 1: Outlets of EEC Refiners in 1973 and 1988 (millions of tonnes)

	1973	1988
Consumption of refined products	660	511
Foreign trade balance in refined products	27	-28
Refinery production	687	483

Sources:
De Bauw, (1987), *Bulletin mensuel du CPDP* (1989) No. 327, March.

Table 2: Demand for Oil in the EEC in 1973 and 1988 (%)

	1973	1988
Gasoline	18	22
Distillates	32	39
Heavy fuel oil	37	15
Other	13	24

Source: *Eurostat*

is relatively high in the UK — again for reasons which stem from national energy policies. As these differences show, oil demand is subject to intense competition from other energy forms and is contracting to a greater or lesser extent according to whether or not consumer countries choose to reinforce the price disadvantage of petroleum products. It is reasonable to argue that increases in the price of crude oil could not alone have led to such reductions in the demand for petroleum products (and this view is consistent with the increases in oil consumption observed in several importing countries in Europe).

Competition from refiners based outside the region also acts against European oil companies. It has taken away a large part of their export market (especially in Africa and in the Middle East) and whittled down their share of the EEC market. In the latter case, almost half of the imports of petroleum products are made by European refiners who find it more profitable to import refined products than crude oil.

1.2 European Oil Companies Adapt Their Downstream Supply

Oil companies operating within the Community have made a considerable effort to adapt themselves to the new demand situation.

North Sea exploration, which began before the first oil shock, has intensified, making it possible for the EEC to increase its oil production from 2% of the Community's oil consumption in 1973 to 27% in 1988 (140 million tonnes (Mt)). Expenditure on exploration and production of the order of $100 billion[1] during this time has been very fruitful. The UK has become a net oil exporter and Denmark and the Netherlands both produce a significant share of their own requirements. Taken as a whole, the result of this exploration effort has been to allow the EEC to reduce its dependence on imported crude, which accounted for 41% of requirements in 1988, as opposed to 60% in 1973. This reduction is, of course, related to the fall in demand for oil.

Oil companies have also radically transformed their operating equipment. Having remained hesitant until 1979, European refiners subsequently reduced their atmospheric distillation capacity by one-third — from 889 Mt/yr in 1975 to 592 Mt/yr in 1988 — a reduction comparable to the fall in demand. In addition, they increased their conversion capacity, to produce more distillates and gasoline and less heavy fuel oil from the same crude. Thus the Community's conversion capacity increased from 49 to 143 Mt/yr (in equivalent catalytic cracking capacity) between 1975 and 1988. Between 1973 and 1988, refiners on EEC territory invested $20 million. The Community's refining capability is now, on the whole, well-adapted to demand. The refinery utilization rate of around 80% is viewed as satisfactory and the supply profile of complex refineries (with conversion) is close to that of the average consumption profile. The few simple refineries still in use continue to operate because of their locations, because of the large share of heavy fuel oil in demand within their own regions, or because they are used for processing the products of other oil producers. They will not be closed as long as they are profitable.

This effort by the refiners to adapt their productive capacity has not been paralleled by uti-

1/ All dollar figures reported here are in US currency.

Inset: Oil Companies in the EEC

Principal EEC refiners in 1989*

	Majors	[1]		Large European refiners	[1]
Shell	69.6	5	ENI	58.5	1
BP	49.6	5	Total CFP	45.9	5
Exxon	47.2	8	Elf	30.3	1
Texaco	26.4	3	Petrofina	13.7	3
Mobil	24.5	2	**Total**	148.4	
Gulf/Chevron	2.9	2			
Total	220.2				

*atmospheric distillation capacity in millions of tonnes per year, 1 January 1989
Source: *Petroleum Times* (1989).
Notes: Column [1] gives the number of EEC countries in which the company has refining activities.

Four types of refining companies operating in the EEC can be distinguished:
The majors: Operating on a world scale, these companies trade in petroleum products beyond the EEC and Europe. They are very much in favour of market liberalization.
The large European refiners: ENI, Total CFP, Elf and Petrofina are active in several European countries in refining and distribution, occupying a preferential position in their home countries. They are also in favour of a liberalization of markets, but appear somewhat reticent in regard to competition with refined products from crude-exporting countries.
State-owned companies in oil exporting countries: KPI (Kuwait), PDVSA (Venezuela), Tamoil (Saudi Arabia) and Pemex (Mexico) own 37% of refining capacity in the EEC. Using this capacity and the distribution networks which they control, these companies can sell part of their oil output in the EEC. However, roughly one-half of the EEC's imports of refined products comes, not from these firms, but from other international companies.
Other refiners: These include American independents, private nationally-based companies and State-owned companies. The last type plays a particularly important role in Spain (Repsol), Portugal (Petrogal), Greece (DEP) and Ireland (Irish Refining plc).

Refining companies in the EEC in 1989*

	Majors	Large European refiners	Oil exporting countries	Other	Total
Belgium	18.6	7.7	-	5.4	31.6
Denmark	6.3	-	2.9	-	9.1
Ireland	-	-	-	2.8 (state)	2.8
France	40.8	61.3	-	-	102.1
Greece	0.3	-	-	18.5 (5.5 state)	18.8
Italy	16.2	67.1	4.3	50.6	138.2
Netherlands	58.4	6.0	3.8	1.9	70.1
Portugal		-	-	14.7 (state)	14.7
Spain		-	5.2	40.0 (36.0 state)	45.1
UK	44.7	4.4	-	13.9	62.9
W. Germany	35.0	2.0	5.4	40.9	83.2
Total	220.2	148.4	21.4	188.6 (59.0 state)	578.7

*atmospheric distillation capacity in millions of tonnes per year, 1 January 1989
Source: *Petroleum Times* (1989).

lization rates in the various countries (see Table 3). Thus the region's four major refining countries (Italy, France, West Germany, UK) have either reduced their distillation capacity or else increased their conversion rate to a level above the Community average. This has led to an intensive use of capacity only in West Germany and the UK. In contrast, Denmark and Greece have made little effort to adapt, though they still have better utilization rates than the EEC average. Again these differences can be explained by national energy policies, as well as by the positions occupied by refiners within their respective regions in relation to the processing of crude or feedstocks. (This matter is treated further below.)

Oil companies have also made a considerable effort in distribution. This was a delicate operation — the objective was to improve profitability by reducing the number of sales outlets in a stagnant market without reducing market share. Fixed costs are substantial in distribution and the only way to maintain profitability is to increase the average throughput of each outlet. This meant closing a certain number of service stations. The adjustment was gradual, with the average output per sales point having doubled over 15 years. But this trend has to be continued in many of the EEC countries if distribution is again to become economically efficient (see Table 4).

Table 3: Refining Adaptation and Efficiency in the EEC

	Rate of reduction of atmospheric distillation capacity (% 1988/1980)	Conversion rate (conversion) capacity as % of distillation capacity 1988)	Utilization rate of atmospheric distillation capacity (% 1987)
Belgium	-41	20	83
Denmark	-21	20	91
W. Germany	-45	30	92
Greece	-12	30	93
Spain	-14	18	78
France	-41	22	71
Ireland	0	0	53
Italy	-42	24	66
Netherlands	-36	25	86
Portugal	-24	11	54
UK	-36	30	91
Average	-37	24	79

Source: EEC (1988).
Note: Luxembourg has no refining industry.

Table 4: Average Output of Gasoline per Sales Point in the Four Main EEC Gasoline Markets in 1974 and 1987 (cubic metres per year)

	1974	1987
West Germany	660	1750
France	480	820
United Kindgom	680	1450
Italy	470	750

Source: Union des Chambres Syndicales des Industries Pétrolières (UCSIP).

1.3 Downstream Profitability Is Still Uncertain

Over the last 15 years, downstream oil operations in the EEC have lost money. This was not, however, simply a result of the massive investment which was made in order to adapt the industrial apparatus to the structure of demand. And, when one examines the detail of the overall balance, clear differences in performance can be seen in different countries. The British oil industry is particularly productive. Since necessary restructuring was undertaken long ago, recent investment has been proportionately smaller than in other countries. Britain is probably the most economically and technically efficient country in terms of refining. Refining is also productive in Denmark and the Netherlands.

In Spain, Greece and Portugal, the process of adaptation to the new conditions in Europe is less advanced, with a lower level of investment. In these countries, growth in demand and less change in its structure called for less far-reaching adjustments in the refinery sector. However, administered prices still maintain a certain degree of profitability in the downstream sector that is not dependent on the efficiency of capital equipment used in production. On the other hand, in Belgium, France, Italy and West Germany losses are considerable because of heavy investment in refining.

This diversity demonstrates that refining profitability depends on various factors. First, the utilization rate of distillation capacities: large overcapacity in a regional market, with free movement of products, forces prices down and reduces profitability. Eliminating overcapacity within the region as a whole can thus lead to an overall improvement in refining margins. The ratio of conversion to distillation capacity also helps explain the refining sector's performance. The higher the ratio, the higher the refiner's margin, either because the level of exploitation is higher for the same crude or because the same level of exploitation can be achieved with cheaper crudes or feedstocks. Netbacks from complex refineries are in fact higher than those for simple refineries, but not necessarily positive. Thus the efforts made by European refiners have borne fruit by allowing increases in netbacks. This strategy has not, however, been enough to guarantee the profitability of refining operations.

Another crucial factor in determining the profitability of the downstream oil industry is the acquisition cost of crude. A certain degree of autonomy has been observed in prices of petroleum products in relation to crude prices. It has been observed (see, in particular, Brondel (1987) and Ayoub (1986)) that product prices fall first and are followed by crude prices. Price increases, on the other hand, affect crude first, with petroleum products following suit later. Time lags cannot be explained simply by the period necessary to transport crude from the production location to where it is refined and the amplitude of price fluctuations is different for crude and products (see Table 5).

Such time lags make sense if we take into consideration the fact that the crude market is less competitive than the market for petroleum products. Crude prices are still affected by OPEC decisions and by what remains of the official price system (Angelier, 1987). In the petroleum products market there is strong competition between refiners as well as between products and their eventual substitutes. This difference in price formation explains why the Community's refiners can be very efficient technically while at the same time remaining in deficit. OPEC is able to fix a crude price somewhat higher than that which would prevail in a competitive market, while the refiners may be unable to pass on the increase through refined products because of competition among themselves. The result can be a reduced, and sometimes negative, profit margin.

Unable to influence crude prices, European refiners look for ways to render supply conditions more flexible so as to be able to buy oil in the most advantageous market. They may even turn to imports of refinery products. Thus the most efficient oil companies, in terms of their rate of return on refining capital, are those which are most successful in adjusting to the rules of a free oil market; i.e., those which take supplies from the widest range of sources when prices fall, but which can also use the output of their own upstream subsidiaries when prices rise. All things considered, it is this flexibility in supply that makes it possible to make a profit in European refining operations. This explains the high level of performance of the refining industries in Denmark, the Netherlands and the UK. In fact, a vast network of trade in hydrocarbons exists in the mouth of the Rhine and in the south of England, where refineries are potentially very flexible in their use of crude and feedstocks.

EEC oil companies are well-adapted to the changes taking place in oil demand and the increasingly competitive nature of the industry. But the reductions in capacity and the investments in conversion which have already been carried out are not in themselves enough to render downstream activities competitive. Positive profit margins depend, above all, on the relations between crude prices and the price of petroleum products. This is why oil companies are in favour of developing market mechanisms to determine crude prices and why they are demanding the abandonment of the discriminatory measures taken against oil by several of the Community's member states.

Table 5: European Refiners' Margins 1986-1988 ($ per barrel)

	1986				1987				1988			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4
Netback	21.53	16.37	13.54	14.56	18.58	19.29	19.31	18.74	16.32	17.64	16.02	16.09
Spot price of crude	18.03	11.72	13.93	14.75	17.87	18.75	19.03	17.90	15.78	16.18	14.38	13.53
Margin	3.50	4.65	-0.39	-0.19	0.71	0.72	0.28	0.84	0.54	1.46	1.64	2.56

Source: Calculated from data in *Petroleum Intelligence Weekly* and *Petroleum Market Intelligence.*

Note: Margins are calculated for Brent 38° oil for a refinery situated in Rotterdam.

2. The Intervention of Community Institutions in the Oil Industry

It is not the role of the Commission of the European Communities to set up a common policy — a policy that would inevitably come up against the divergence of national objectives within a strategic sector. The Commission's role, as G. Brondel (1987) has emphasized, is rather to "coordinate national policies or, even better, encourage consultation among member states, guided by commonly fixed objectives." There are essentially three common objectives concerning oil: the reduction of oil consumption, a trade policy favourable to the introduction of petroleum products from outside countries and the establishment of a single Community oil market. In relation to achieving these objectives, three types of intervention can be distinguished: those interventions which are accepted by the member states and widely practised; those which, though accepted, are still in the process of being implemented; and finally, those which have still to be undertaken and are not unanimously accepted.

2.1 Interventions Widely Accepted by Member States

Intervention by Community institutions has been widely accepted in two areas: reduction of atmospheric distillation capacity and surveillance of imports of petroleum products. The Commission addressed a recommendation to the Council of European Communities in 1981 concerning the restructuring of European refining equipment,[2] estimating that a 25% reduction in industry capacity was needed by 1985. This principle having been accepted, the task then had to be shared out among the different countries. The Commission became the coordinator, dealing with the different refiners, centralizing information without divulging sensitive data and using it to direct company choices without impinging on their freedom to make decisions. The Commission's guidance of the process of change helped to reconcile individual and collective interests and to avoid the mistakes that would have occurred due to incomplete disclosure of information in the oil industry. The effectiveness of this intervention is evident in the results obtained: the Community's refining activities again became technically efficient and closures were shared out among the companies and countries involved in an apparently equitable manner. Only a few countries (mainly the latest entrants into the Community) still have to continue their rationalization effort.

As for imports of refined products from other countries, the Commission watches to see that suppliers do not take advantage of exceptionally favourable conditions of access to crude, since this would go against the rules governing competition (*Bulletin de l'industrie pétrolière*, 1987). The first to protest against this new form of competition were the protectionists, whose case was all the stronger given the erosion of the

2/ The Commission's role in the restructuring of refining is carefully described by the former Director responsible for hydrocarbons at the EEC Commission, Mr G. Brondel, in the above-mentioned article (Brondel, 1987). See also the reference document, *EEC* (1988).

financial results of European refiners underway at that time. Afterwards opinions changed, to the point where it was generally accepted that imports were essential for the equilibrium of the European market — they contributed to the liberalization of crude markets, they provided competition which had the effect of inciting European refiners and distributors to increase their productivity levels, and they were part of necessary trade between the EEC and the rest of the world (the Middle East, North Africa and the Eastern bloc countries in particular) (Angelier, 1988).

The Commission carries out its surveillance of competition from refined products outside the EEC by monitoring the export activities of oil-producing countries and other exporters of refined products and the importing activities of Japan and the US. In the area of export activities, the Commission watches out for dumping, ready to set up customs barriers to protect its refining industry if necessary. This has not occurred, however, and OPEC countries in particular continue to export their refined products to the EEC within the framework of the General Preference System initiated by the General Agreement on Tariffs and Trade, without having to pay taxes.

In the case of imports by Japan and the United States, they are both important outlets for refiners in developing countries. If they were to close their frontiers to imports of petroleum products, there would inevitably be an increase in supplies available to Europe, pushing prices down, against the interests of the Community's refiners. In addition, the US is the main outlet for European exports of heavy products. This outlet is indispensable for the European oil industry if they are to maintain their financial equilibrium. Given that the US advocates free trade, but only practises it when it is to their advantage or when it is absolutely necessary, the Commission has to lean heavily in order that these two countries do not limit imports of petroleum products. It has so far shown itself to be effective in this respect.

2.2 *Interventions Currently Being Developed*

The aim of these interventions is to make the terms of competition the same for all the EEC's oil companies, consistent with the desires of the majority of member states. It is accepted that competition should encourage oil companies to improve their productivity and to pass the resulting gains on to the consumer in the form of lower prices. It is also accepted that the establishment of a European market without internal frontiers would make it possible to improve the reliability of oil supplies.

In fact EEC countries have already set up many of the prerequisite conditions for free competition — within a sector traditionally supervised by the state. Thus state oil monopolies are progressively disappearing, specific obligations imposed on operators are being reduced and administered price systems are being replaced by market forces. Once these three principles have been established within the Community as a whole, a veritable single oil market will not be far away.

In order to speed up the liberalization process, the Commission produced a list of obstacles still in the way of free competition in 1988 and established a timetable within which they should be scrapped (*Energie en Europe*, 1988, pp.30-38).

Greece, Portugal and Spain (the latest arrivals in the Community) are the farthest behind in integrating themselves within the single market (De Bauw, 1988). The most critical situation is that of Greece where the Community has undertaken proceedings for breach of its regulations because of the excessive slowness with which the state has carried out the modifications required of its oil system. Imports of petroleum products from other EEC member states and other third-party countries are still heavily restricted. The state refining monopoly, partly delegated, is still in effect. Selling prices of petroleum products are calculated according to a predetermined formula and are not left to market forces (Juban, 1988).

In Spain Campsa's distribution monopoly has become somewhat more flexible since June 1988 and foreign oil companies can now set up their own service stations. But imports of petroleum products from countries outside the EEC are still subject to considerable constraints. The delegated refining monopoly — obliging refiners to buy crude from the state — is still in force and will remain so until 1992.[3] In addition, the price of petroleum products is fixed by the state; a procedure for this breach of the Community's regulations has been undertaken by the Commission (Bierme, 1988).

A refining monopoly is also found in Portugal, as well as a delegated marketing monopoly and severe restrictions on imports of petroleum products.

In these three countries, the legal constraints on free competition constitute protective measures designed to guarantee the profitability of national refining and distribution industries. This is also the case for exploration-production in Denmark, Italy and the Netherlands (*Energie en Europe*, 1988), where the Commission is demanding the suppression of advantages in favour of indigenous companies.

France also has important restrictions on competition. Imports of crude and refined products from some countries are limited; refiners have to buy oil from the state; sea transport has to be by French ships; and there is a delegated refining monopoly. In contrast to the situation in other countries, these regulations are seen by oil companies as a source of extra costs and as obstacles to free competition and improved productivity.[4] These regulations are one of the instruments tending to limit oil's share in the French energy balance (despite the fact that important measures have been taken to encourage liberalization in the oil sector).

The Commission has given a high priority to the elimination of obstacles resulting from the persistence of state monopolies in oil. With time however, it is probable that the Commission will manage to persuade the member states that Community interests can be harmonized with national interests, the protection of which remains a sensitive point.

2.3 *Interventions Still To Be Undertaken*

Two very wide-ranging issues relating to the Commission's aim of setting up a single oil market have still to be dealt with: the harmonization of technical standards used to define petroleum products and, even more important, the alignment of tax systems. There is still no agreement among member states in either of these fields. Lack of harmonization would lead to major distortions in the functioning of the European market, though it would not go against the basic principle of such a market (as is the case when state monopolies are reluctant to withdraw).

Petroleum product specifications vary from country to country within the EEC and this contributes to limits on trade. Northern European countries have stricter technical standards than southern countries when it comes to protection of the environment. As a result, refined products in the north of the EEC can be sold in the south, whereas the inverse is not possible (Carpentier, 1988). Since the harmonization of technical standards is to be carried out on the basis of the strictest existing norms, a considerable investment is required of refiners and distributors in the south of the EEC. But it is these self-same refiners and distributors who are farthest behind in the alignment of competitive conditions within the Community's projected single oil market. It is thus difficult to make rapid progress in the field of normalizing technical specifications.

However, some common specifications do already exist, for example, the content of lead additives in gasoline and sulphur levels in diesel oil. It is hardly surprising that such agreements

---

3/ The principle of delegated monopoly works as follows: the state allows a company to supply a market in which it has a monopoly on the condition that certain obligations are respected, obligations that would not exist in a competitive situation; e.g., the obligation to buy crude from sources designated by the state, the maintenance of idle refining capacity and stockpiling.

4/ The French oil industry is up in arms against these handicaps which, according to their analysis, unjustifiably penalize them. See *Enerpresse* (1989), Bloch (1989) and Pradier (1988).

were made in the field of motor fuels, for these determine in large part the extent to which people and goods are transported by road within the Community. But it is likely that progress in relation to other types of fuels will be slower.

As for the tax situation concerning petroleum products, there are still considerable differences between countries. For example, the net price before tax of domestic fuel oils is the same in Belgium and Italy (0.15 $/l at the end of 1988). But when tax is included, the price ratio is 1:2.7 (0.18 $/l as against 0.48 $/l). Or, to take another example, the tax on high grade gasoline, with a net price at 0.25 $/l, varies between 0.35 $/l in West Germany and 0.83 $/l in Italy, resulting in a ratio of prices to the consumer of 1 to 1.8.[5] Because of the existence of such tax and price differentials, the movement towards the establishment of common competitive conditions within the EEC countries is highly uneven. Fiscal harmonization is currently the Commission's highest priority within the framework of the establishment of the single oil market. But it is an uphill struggle.

Indeed the problem goes far beyond oil, and is highly controversial. The UK and Luxembourg are opposed to the very idea of such tax harmonization. This issue touches two sensitive areas at the same time — national fiscal systems and national energy policies — and there is no question for the moment of drawing up common policies in these areas. The structures of present tax systems are difficult to change. The current relative shares of direct and indirect taxation are the result of a long historical process, reductions or improvements being considered as intangible social gains (as is the case in the UK for domestic heating fuels). In relation to national energy policies, indirect taxation is the favourite means of increasing price differences between energy forms whose use is to be encouraged or discouraged. It is clear that harmonizing oil taxation is a process that goes far beyond the simple operation of the oil market.

Despite differences in national points of view, the Commission has set things in motion by splitting the question in two: distinguishing between specific taxes on the one hand and Value-Added Tax (VAT) rates on the other. In regard to specific or excise taxes, the Commission has proposed the idea of an overall average rate — which can be weighted or not, depending on which products are concerned — reflecting national situations. This rate would come into force on 1 January 1993.

On VAT, the Commission has suggested that member states decide on a rate between 4% and 9% for heating fuels and between 14% and 20% for other petroleum products. It has also proposed that any other levies (such as anti-cyclical taxes or additional levies) be abolished.[6]

The implementation of these proposals would lead to an alignment of prices on similar petroleum products within the various countries and would thus allow their free movement among the Community member states. In such a situation the most competitive oil companies would be able to increase their market shares, price differences between suppliers then being essentially due to differences in costs. But, again, it is unlikely that this situation could be achieved quickly, given that it would upset national energy policies and taxation policies in member states (income from taxation in Denmark, France, Greece, Italy and Ireland would decrease; in Belgium, West Germany, Luxembourg, the Netherlands, Spain and the UK it would rise).

Thus it can be said that the Commission's interventions have acted as a catalyst, speeding up and guiding changes begun within the various national oil industries. These interventions have shown themselves to be effective whenever there has been a convergence of interests of all those involved. They have been useful in preparing for the 1992 single oil market. But since these policy actions require unanimous approval, it is very likely that the single oil market will be inaugurated with a certain number of imperfections.

5/ The author's own estimates, based on data from *Total Actualités* (1988).

6/ On the alignment of tax systems see Quinlan (1989a) and (1989b) and Vielvoye (1988).

Table 6: Excise Taxes Proposed by the EEC and Those Currently in Force

	Proposed tax	Current tax, 1 September 1988			
		West Germany	France	Italy	UK
High grade (ECU per 1000 litres)	340	255	419	550	311
Diesel (ECU per 1000 litres)	177	213	216	115	263
Heavy fuel oil (ECU per tonne)	17	7	17	8	12

Source: EEC (1988).

3. The European Oil Industry After 1992

Despite its probable imperfections at the outset, the single oil market will allow the Community to fulfil several objectives, notably the satisfaction of oil demand at lower cost and with greater security of supply. On the other hand, questions remain in regard to one of the Commission's objectives: will the region have powerful, competitive and financially self-sufficient oil companies on an international level?

3.1 Satisfying Oil Demand

According to the EEC Commission's forecast, demand for oil in the Community in 1995 will reach 520 Mt if oil prices remain at their present level and would reach 485 Mt if prices rise to $25 per barrel. The structure of demand will continue to lighten somewhat, with gasoline accounting for 22% of internal sales, distillates 40% and heavy fuel oil 15%.

Oil would then account for 40% of the region's primary energy consumption and oil imports for one-third of this consumption.

In these circumstances, European refiners would have no difficulty in satisfying overall demand. By further reducing atmospheric distillation capacity from 592 Mt in 1988 to 575 Mt in 1995, they would improve their rate of utilization, maintaining it somewhere around 80%. Imports of petroleum products would not rise, given the stagnation in Eastern bloc countries' export capacities and the increase in internal demand in the Middle East and North Africa, in the absence of any major new refinery project in these regions.

Structural and inter-regional imbalances are, however, likely to occur. The northern region of the Community will have to produce more and more white products in line with the increase in conversion capacity, leaving a surplus of gasoline and distillates produced in accordance with strict anti-pollution standards. Refineries in southern Europe on the other hand would have a surplus of fuel oil, which would be difficult to exchange with the northern region because of the lower anti-pollution standards in the south. A structural and regional balance within the EEC would only be possible through involvement in external markets, with the harmonization of competitive conditions making it possible to increase exchanges within the Community to a limited extent, the principal flows being from North to South. In addition, the EEC as a whole should remain a net exporter of heavy fuel oil, even though this product is increasingly used as feedstock in complex refineries.

The effort by European refiners and distributors to rationalize their operations and the increased supply flexibility which they have acquired have helped to reduce operating costs. Increased competition within the EEC, especially competition for market share from the most productive firms, will help to assure that these cost reductions are passed on to the consumer.

Security of supply should become strengthened in four ways:
(1) because the share of oil and imported refined products within the EEC's primary energy consumption should continue to fall; (2) because the increased size of the European oil market and the increase in the number of suppliers limits the risk of an interruption of supplies; (3) the processing overcapacity in European refineries is still

Table 7: EEC Oil Balance in 1995 According to Two Scenarios

	Scenario 1	Scenario 2
Price of oil ($ per barrel)	25-30	15-20
Total consumption (Mt)	485	520
Refinery processing (incl. feedstocks) (Mt)	455	490
Atmospheric distillation capacity (Mt/yr)	575	575
Net imports of petroleum products (Mt)	25	25

Source: EEC (1988).

greater than the volume of imported products (any shortfall in the supply of products would not be generalized, for at worst it would only affect white products); and (4) the security of the EEC's oil supplies continues to be reinforced by the tightening of financial and trade links among the main suppliers of oil to Europe and even, in the case of the Gulf Cooperation Council and of OAPEC, by the establishment of preferential political relations. As a result of these factors, it would appear that the EEC's oil supplies are much more secure today than they have been in the past. At the same time, supplies of motor fuel, which makes up half the region's oil consumption, are still subject to risks that are difficult to eliminate.

Thus it appears likely that EEC policies are leading to the achievement of two objectives for oil: satisfying demand at lowest cost and maximizing security of supply. But such optimism is not shared by oil companies operating in Europe. They are distinctly more reserved about likely developments.

3.2 *The Profitability of European Oil Companies*

It is easy to imagine what European refiners will be like after 1992. Having further reduced their atmospheric distillation capacity so as to keep only their largest plants, they will export their surplus in heavy products and import white products to satisfy customer needs. Distributors will close down one-third of their present motor fuel sales outlets.

European oil companies will get used to the supply flexibility made necessary by market forces. They will diversify towards the upstream sector (in order to capture more resource rents) if they have not done so already, or else in the direction of high value-added production, such as lubricants or petrochemicals. Such integration and diversification will be essential if firms are to be profitable. It is very likely that there will be closures among small oil companies and perhaps further withdrawals by American companies. Only the most powerful and well established oil companies will remain in the European market.

But is this Darwinian policy on the part of the Commission — by which only the fittest oil companies survive — justified? The response is far from unanimous. Some established oil companies have set up an association within the EEC in order to get themselves a better hearing. They argue as follows (*Enerpresse*, 1988; 1989). The oil crisis is over. There is overcapacity in the crude market and it will remain for a long time. OPEC has lost its market power and oil prices are now governed by competitive forces. Energy demand, particulary for oil, is no longer as rigid as it was and it is no longer appropriate to pursue a policy aimed at reducing the use of oil, even if such a policy was the correct one to adopt up until the beginning of the 1980s.

According to this view, it would be more appropriate to eliminate all the institutional obstacles which stand in the way of growth in oil consumption — particularly taxation measures which make petroleum products more expensive. By relying on competition, the Commission would make it possible for the consumer to get the benefit of even cheaper energy and would let the oil companies return to financial equilibrium, although to the present time, and for several years to come, they have had to use their profits to finance downstream investment and to cover refining and distribution deficits. If, on the other hand, these profits were ploughed into

exploration, this could increase oil reserves and help guarantee security of supplies of cheap oil.

In order to demonstrate the defects of the Community's current orientation, this argument stresses that capital from oil exporting countries is moving into European refining and distribution and that imports of petroleum products from these countries account for a large proportion of demand. These two trends could be lessened if downstream oil operations were to become competitive and profitable again and if investment capacity were to be increased thanks to unrestrained competition between energy forms.

4. Concluding Comments

Oil demand has changed considerably in the Twelve over the last 15 years. Oil companies operating within the EEC have completed the transformation of their productive capacity in such a way as to satisfy a demand which is substantially different from that which existed before 1973. This process of adaptation has been accompanied by interventions on the part of the EEC Commission.

The role of the Commission within the oil sector — to encourage consultation among the member states in areas where their interests are convergent — has so far shown itself to be effective. The reduction in downstream oil operations and the setting up of the conditions necessary for the creation of a single European oil market can be considered as successes.

This role of encouraging consultation would, however, appear to be approaching serious obstacles. Progress in the setting up of a single oil market implies going beyond the purely technical domain of the oil industry — it overlaps into national energy and taxation policies. It would appear that, when this occurs, differences between the various countries' objectives tend to outweigh their common interests. Furthermore, though there was a convergence of interests in reducing oil dependence in an international supplier's market, with the result that measures to limit oil consumption were taken for granted, this convergence has been weakening somewhat since oil has again become cheap and abundant. Under these conditions, why should countries without a competitive national form of energy not refrain from discouraging oil consumption; why should they not rely on free competition between the various energy forms?

References

Angelier, J.P. (1987) 'Les mutations des flux pétroliers internationaux de 1973 à 1987,' *Energie Internationale 1987-1988* (Paris: Economica), pp.61-73.

Angelier, J.P. (1988) 'Les politiques de raffinage des pays en développement exportateurs de pétrole et de la CEE,' *Energie Internationale 1988-1989* (Paris: Economica), pp.81-92.

Ayoub, A. (1986) 'Evolution du marché pétrolier: de l'intégration verticale à la décentralisation,' *Revue de l'Energie* March, pp.81-88.

Bierme, J.M. (1988) 'Le raffinage dans la péninsule ibérique,' *Pétrole et Techniques* October, pp.16-20.

Bloch, R. (1989) 'Pour une vigoureuse industrie du raffinage: oui à la liberté, non au protectionnisme,' *Spot* January, p.1.

Brondel, G. (1987a) 'Stratégies énergétiques et économiques de la CEE,' *Pétrole et Techniques* (334), pp.14-16.

Brondel, G. (1987b) 'La politique européenne du raffinage: restructuration 1976-1987 et impact des importations des pays tiers,' *Bulletin de l'Industrie Pétrolière* 5th November.

Bulletin de l'Industrie Pétrolière (1987) 'Pour le raffinage européen, les importations de produits ne constituent plus la menace principale,' 26th October.

Carpentier, J.J. (1988) 'L'Europe de l'énérgie en 1992: le pétrole,' *Pétrole et Techniques* May-June, pp.6-9.

De Bauw, R. (1987) 'Outlook for the refining industry in the community and trade in petroleum products,' *Pétrole Informations* May, pp. 67-73.

De Bauw, R. (1988) 'Rôle actuel et futur du raffinage sud-européen,' *Pétrole et Techniques* October, pp.20-26.

EEC (1988) *Le marché pétrolier et l'industrie du raffinage dans la Communauté: évolution récente et perspectives jusqu'en 1995* (Luxembourg), 96 pp.

Energie en Europe (1988) Special issue: 'Le marché intérieur de l'énergie.'

Enerpresse (1988) 'Lobby pétrolier à Bruxelles,' 23rd December.
— (1989) 'Le point de vue de M. Pecqueur sur les orientations pétrolières de la Communauté,' 24th January.
Juban, C. (1988) 'Structure et situation de raffinage en Italie et en Grèce,' *Pétrole et Techniques* October, pp.8-15.
Petroleum Times (1989) 'World Refinery Survey,' 17 April.
Pradier, H. (1988) 'Capacité de raffinage excédentaire ou inadaptation à l'économie de marché? Les pertes du raffinage distribution en France,' *Pétrole Informations* December, pp.8-12.
Quinlan, M. (1989a) 'West Europe: companies braced for 1992 changes,' *Petroleum Economist* January, pp.9-11.
— (1989b) 'Le pétrole dans le projet 1992,' *Enerpresse* 4th January.
Total Actualités (1988) November, p.10.
Vielvoye, R. (1988) 'Refinery closure rate to slow in Europe, but EC sizes up other woes,' *Oil and Gas Journal* 17th October, pp.17-19.