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The situation in the oil-refining industry and the impact of petroleum product imports from third countries

(Communication from the Commission to the Council)

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SUPPLARY AND CONCLUSIONS

1. The changing outlook for refining in the Community raises industrial restructuring problems which have to be solved in a way which allows industry to adjust to the new circumstances of the market but takes the social consequences of closing excess capacity into account.

The problems arise partly from changes in external trade in refined products. The solutions, therefore, will have to reflect the traditionally liberal attitude of the Community to trade policy and the options open to the Community as regards cooperation with the developing countries. Moreover, the strategic implications for security of supply must not be overlooked. Finally, the adjustment that has to be made will be satisfactory only if it complies with the Treaty rules, especially as regards free movement and competition within the Community.

- 2. Only petroleum products are discussed in this communication. Similar questions arise in the case of petrochemicals, but the Commission will examine these in their own context.
- 3. The Commission proposes that the Council should adopt the following conclusions and guidelines:

A. REFINING

- 4. The policy advocated by the Commission, and adopted by the Council, of proposing Community objectives and then leaving individual companies to bring their Community-wide capacity into line with the foreseen demand for their products, has continued to prove effective and should be continued. Primary capacity has been reduced by 33% from that of the peak year 1977 and is now about 10% in excess of the capacity required at 80% utilisation.
- 5. Provided that plant now mothballed is dismantled, or becomes inoperable, primary distillation capacity in service will be reduced by 1990 to a level close to the Commission's June 1983 estimate of 550 m.t/y as the maximum capacity required in that year
- 6. This estimate of capacity required remains appropriate in the light of the Commission's latest assessment of oil demand and the likely increase in net imports of products, assuming that there is no disproportionate rise in the Community's share of imports from third countries. The future call on refineries is, however, subject to considerable uncertainty, and developments will have to be carefully monitored.

Doc. COM(83) 304 final of 3 June 1983.

- 7. Conversion plant now in place or under construction will be adequate for any foreseeable demand in 1990. There will, however, be a need for considerable investment in quality up-grading and desulphurisation plant to meet new environmental standards, and progress will have to be monitored by the Commission.
- 8. Although the effects of certain closures in regions of the Community of high unemployment have been severe, the overall effect of restructuring upon employment has not been so serious as to impose social costs disproportionate to the economic benefits achieved or to justify special measures at Community level.

B. IMPORTS OF PETROLEUM PRODUCTS

- 9. On assumptions which seem reasonable today, it should be possible for the world market smoothly to absorb the extra volume of petroleum products that will be produced by the new export refineries which will come on stream in Saudi Arabia, Kuwait and Libya between now and 1990 if the two following conditions are fulfilled:
 - if, on the one hand, these countries maintain their traditional responsible attitude towards trade in petroleum products;
 - if, on the other hand, the large consumer markets the Community, the USA and Japan adopt similar policies towards these new developments.

Information

10. In order to provide, in the interests of all partners, the fullest picture of trade flows the Commission, with the help of the Member States and the companies, will improve the quality, collection and dissemination of information and statistics relating to trade in refined products.

Consultation with industrialised importing countries

11. The Commission will consult the Community's industrialised partners, both within the multilateral framework of the OECD and through bilateral contacts, particularly with the United States and Japan. These consultations will make it possible to evaluate the situation continuously and will also help to promote the even distribution of the extra volume of products on the world market in the interests of encouraging the smooth operation of the international oil trade.

Consultation with the exporting countries

12. At regular intervals the Commission will consult the main exporters of refined products to the Community, with regard notably to the prospects for demand and supply, the trend of supplies from these countries and the exporters' future intentions. The talks already initiated with some of these countries will provide an opportunity to draw up a suitable framework for such consultations.

Application of customs duties in the framework of the Generalised System of Preferences (GSP)

13. If it emerges from the consultations with the industrialised partners and with the exporting countries, which benefit from the Generalised System of Preferences (GSP), that the additional imports from the new refineries are likely to be marketed in an orderly manner, and without any risk of disturbing the Community market, there will be no need to contemplate tariff measures.

Nevertheless the possibility should be retained of reintroducing duties on products from these countries, should circumstances warrant it. Moreover, it is necessary, as the Member States oil experts recognised in January 1983, for the Commission and the Member States experts to analyse, on a continuing basis, the evolution of the oil trade.

Future GSP arrangements

- 14. In the course of this year the Commission will have to put forward proposals for determining the framework within which the GSP should operate from 1986 to 1990. As regards petroleum products, such proposals will have to reconcile the following two requirements:
 - the refining industry in the Community must be certain that it can continue with the rationalisation process it has started, and
 - the benefits of providing a stable outlet for the new refineries contructed in certain oil-producing developing countries must be recognised, especially when the supplies from these refineries offer a long-term economic advantage to the consumer.

Consultation in the Community

15. The Commission and the Member States will consult each other - at least once a year, and at any time when special circumstances so dictate - about the trend of imports of refined products from third countries.

I. Introduction

- 16. In a number of Communications in recent years, the last being in 1983, the Commission has drawn attention to the problems of the cil refining industry resulting from the fall in demand for petroleum products (by 24% over the period 1973-84), rising net imports, and a change in the composition of product demand which has reduced the share of residual fuel oil from 37% to 24%. These developments made inevitable the regrouping of the industry into a smaller number of more complex refineries if it were to be viable and internationally competitive.
- 17. The Council accepted the Commission's recommendation that the solution of these problems of overcapacity and imbalance should be left to the companies themselves, each adapting its operations throughout the Community to the foreseen demand for its products. It charged the Commission to monitor progress, to ensure that rationalisation did not adversely affect competition or security of supply, and to report to the Council as necessary.
- 18. The Commission has accordingly for some years regularly consulted individual companies regarding their existing and planned capacity, and drawn up capacity projections for the industry as a whole. These have been compared with forecasts of demand, and with the Commission's estimates of the capacity required in future years, so as to provide a reference for action by companies.
- 19. This report, based, like its predecessors, upon consultations with the companies, national governments and trades unions, brings up to date the figures presented in June 1983 and examines the prospective refining balance over the next five years. It is particularly concerned, however, with an examination of the consequences of increased exports of petroleum products to the Community from new refineries located in a number of crude oil producing countries in North Africa and the Middle East.

II. Capacity Trends and Community Refining Balance 3 (Annexe 1)

Capacity

20. Since the Commission reported to the Council in 1983, considerable further progress has been made in restructuring the industry. Estimated installed primary capacity has been reduced by 33% since it peaked at about 845 million tons per year in 1977 to 570 m.t/y in mid year 1985. The capacity actually in service, after deducting "mothballed" units, has fallen to 545 M.t/y. Over the period 1977-85,

2 COM (83) 304 final of 3 June 1983.

Figures in previous Communications have been adjusted to take account of new data provided by some Member States and companies, and revisions to Eurostat series.

Measurement of "operable" capacity, and hence of the true capacity surplus, presents considerable problems. In some of the larger refineries one or more distillation units were shut down and mothballed some years ago and are unlikely ever to be recommissioned. Although the equipment is preserved in a usable condition for a considerable time, it nevertheless deteriorates and eventually becomes inoperable. These units have so far been considered by the Commission as part of "operable" capacity but this treatment has become less realistic as time passes.

and excluding plants below 1 M.t/y capacity, 35 refineries have been closed and units shut down at 22 more.

21. As regards cutbacks in installed capacity in individual Member States (Annexes 2, 3 and 4), the Netherlands, Italy and the U.K. are a little below the Community average, France and Germany somewhat above it at about 34%, Belgium highest of all at 44%. In those Member States where the refining sector is much smaller, percentage capacity reductions have been lower, around 11% in Greece and about 24% in Denmark. In Ireland no reduction is possible as there is only one refinery which is, however, being operated at only 50% of capacity.

Rates of capacity utilisation vary considerably around the average of 71%, from over 80% in Germany to around 60% in Italy.

- 22. Conversion capacity has more than doubled over the period 1973-84 and now represents 30% of crude runs compared with 9% in 1973 (Annex 5). Very few new projects are reported by the companies but substantial capacity is still under construction. It is generally agreed that plant now available and to be commissioned in the next few years will be more than sufficient for any likely level and composition of product demand, at least to 1990. A new phase of investment in deep conversion may be required in the 1990's but this will depend upon the evolution of the demand for fuel oil, itself dependent on the level of the price of crude oil.
- 23. The change in the structure of the industry over the period 1977-85 towards a smaller number of more complex refineries is illustrated by the following rounded figures:

Table 1

EEC-10	: Changing	Refining	Structure	1977-85		
Type of refinery*	No.	1977 Dist. Cap. M.t/y	%	No.	1985 Dist. Cap. M.t/y	%
Simple	81	338	40	17	34	6
Semi-complex	13	67	8	16	56	10
Complex	45_	440	52	60	480	84
Total	139	<u>845</u>	100	93	570	100
Total > 1.0 M.t/y	120	837		85	567	

* Definitions :

Simple : Primary Distillation usually with reforming +

hydrodesulphurisation.

Semi-complex: "Simple" plus visbreaker/thermal cracker.

Complex : "Simple" or "Semi-complex" plus catcracker,

hydrocracker or coker.

24. Substantial programmes of investment, of the order of \$ 3000 million, will be required to permit the reduction of the lead content of gasoline, and the introduction in all Member States of an unleaded grade from 1989 at the latest. Desulphurisation capacity will also have to be greatly expanded if proposals now before the Council to reduce sulphur dioxide emissions are adopted.

The convergence of distillate and residue prices in 1983/84 has reduced the refiner's margin on conversion to little more than variable costs. Sums invested in recent years in new conversion plant are not therefore being recovered out of profits and, for some companies at least, new expenditure on plant to meet stricter environmental standards may be difficult to finance.

25. The few firm plans for closures in 1985 would reduce installed distillation capacity to 570 m.t/y. A number of companies have expressed firm intentions to reduce their capacity further without being able to specify locations. Decisions have still to be taken regarding the 27 m.t/y capacity now mothballed much of which will by 1990 have become inoperable. It seems reasonable to conclude that the installed capacity in 1990 will not exceed the Commission's June 1983 estimate of 550 m.t/y as the maximum capacity required. For consideration, however, is whether that estimate needs revision in the light of the outlook for consumption on the one hand, and for net imports of finished products on the other.

Report No. 11/83R revised of January 1984 by CONCAWE (the oil companies European organisation for environmental and health protection).

Consumption

26. Set out below is a mid-range projection by the Commission of the Community energy balance in 1990. For the various scenarios the figure for oil consumption varies between 440 and 475 m.t.

Table 2
European Community Energy Balance 1973-1990

Millions of tep.	1973	1979	1983	1990
Gross Energy consumption	968	1012	909	1060
011	601	564	438	455
Solid fuels	222	223	212	245
Natural gas	116	173	165	195
Primary electricity	29	52	94	165

Sources: Past figures - Eurostat
Projections - Commission.

- 27. Whereas the Commission expects consumption in 1990 to be at least as high as in 1983, almost all the companies consulted thought that it would be 5% or more lower. They are more pessimistic than the Commission about energy demand growth and expect oil to continue to lose ground to other fuels which will be in abundant supply and priced by utilities below oil, particularly natural gas and electricity. Their planning assumptions are that the oil price of 1990 will be at least \$ 29/bbl in nominal terms, and that demand is price-inelastic within any probable price range.
- 28. The Commission has retained as its projection for planning purposes that set out in table 2 and which shows a rise in oil consumption of 4% over 1983 by 1990. It considers that, among the many plausible scenarios, is one in which the oil price expressed in Community currencies is significantly lower in 1990 than in 1983 because of a fall in the price of oil, in the Ecu value of the dollar, or both. If this occurs, Commission studies show that GDP growth rates will increase and with them demand for energy as a whole, and for oil in particular.

Imports of Finished Products

29. Section III of this Communication examines in detail likely developments in imports of refined products from third countries, and more particularly the additional quantities which will be imported from the new refineries in North Africa and the Middle East. It

concludes that the increase in net Community imports of finished products over 1983 be of the order of 15 m.t., in 1990, or 3% of consumption.

Refining Balance - EEC-10

30. If these base case projections for consumption and imports are combined, the demand on Community refineries would evolve as follows in relation to estimated primary capacity:

Table 3				Mio. t	onnes
	1973	1983	1984 (est.)	1985	1990
Gross Consumption	601	438	455*	450	455**
Net Imports Finished Prod.	(25)	16	20	25	30
Primary Sources***	1	4	4	4	4
Stock Change	+8	-12	-8	-	-
Refinery Intake of Crude and Feedstocks	633	406	423	421	421
Mid-year installed capacity (in service)	755	675 (650	0)610(58	5)570(5	45)550°
% Utilisation	84	60(62) 69(72	74(7	7) 77

^{*} Includes temporary increase by some 10 m.t. in U.K. fuel oil use due to coal strike.

Source : Eurostat annual balances; Commission projections.

The Commission considers that the June 1983 estimated installed capacity requirement of 550 m.t/y is consistent with this projection and should not be changed. The prospective utilisation rate of 77% is only slightly below the level which the industry would consider satisfactory (80%) and leaves ample room to accommodate any unforeseen increase in oil demand.

The Refining Balance in Spain and Portugal

31. A note on the refining balance in the two candidate countries appears at annexe 6. Both countries have similar problems of excess primary capacity and changing demand patterns to those of the Member States. Their inclusion in the Community refining balance would slightly increase the degree of primary over-capacity:

^{**} Mid-range Commission projection (see para 26).

^{***} Includes directly usable by-products of natural gas production.

[°] Commission estimate of capacity required.

Capacity and Utilisation Rate 1984 (est.)

Table 4 Millions of tons EEC-10 Spain Portugal Total Installed distillation 72(62) 696 (661) 610(585) 14 capacity (m.t/y) (in service) 423 45 476 Demand on Refineries 69(72) 62(73) 59 68(72) % Utilisation

The percentage of conversion to primary distillation capacity in Spain will by 1986 be nearly as high as in EEC-10: that in Portugal about half. Product yield capability for the enlarged refining industry would be little changed.

Profitability and Structure

- 32. The benefits to the companies from rationalisation have so far been confined to the reduction of costs. Product sales prices remain depressed relative to crude oil by the excess primary and conversion capacity world-wide. Because the Community market is open to imports, there is little prospect of higher product prices, or of a refiners' margin sufficient to cover more than marginal costs, until the global balance between capacity and demand becomes tighter.
- 33. Companies operating in the Community may therefore have to continue to subsidise their downstream activities out of earnings on crude oil production. Those well placed as regards equity crude, and able to finance investment in gasoline upgrading and desulphurisation plant, may profit from increased margins, if industry capacity for these purposes lags behind requirements. The inability of some overseas export refineries to meet the new quality standards may constitute an advantage for Community refiners. In other respects the advantage enjoyed by sophisticated refiners will be less than hitherto so long as conversion capacity remains in excess of needs and the difference between residue and distillate prices relatively small.
- 34. Further downstream integration by crude oil exporters wishing to acquire a secure and predictable outlet for oil otherwise saleable only on a spot basis, and to enjoy the margin available on marketing, appears a probable development. Conversely companies heavily dependent on third party crude may reduce their downstream participation if refining margins continue to be unsatisfactory. Joint ventures on the Petroven/Veba model, between crude exporters and refiner/marketers, may well be seen as an appropriate solution to companies' problems of imbalance between their upstream resources and their downstream outlets. The Commission believes that such developments are to be welcomed as contributing to supply diversity and security.

Effects of Rationalisation on Employment (Annex 7)

35. About 16,000 jobs have been lost as a result of the closure of the 35 refineries which were above one m.t/y capacity. The available data suggest that 80% of the employees concerned were re-employed or

granted early retirement; 20%, or 3,000, were left without work or immediate pension. There were also secondary job losses in local firms dependent upon the refineries which have closed. In the case of a few refineries which employed a relatively large work force, and were located in areas of high employment, the total loss of jobs to the local community is known to have been considerable. When this occurs assistance can be given in support of national measures, and for eligible cases from the Community Regional and Social Funds.

36. These direct and secondary losses have been partially offset by increases in the numbers employed at refineries where conversion plant have been installed. There have also been considerable gains to employment in the engineering, construction and maintenance sectors as a consequence of these investments.

III. Community import policy and the effects of imports from third countries

Recent trend of external trade in refined products from third countries

- 37. Since 1978 the Community has become a net importer of refined products, whereas up till then it had traditionally been an exporter. This development has occurred in a world context of increased trade in refined products resulting from both structural and cyclical factors which have not evolved uniformly an example of the first being the rationalisation of the refining industry and of the second the relationship between the price of crude and that of products. In the Community's case, supplies to certain traditional markets have declined, whilst supplies to others have increased. Imports from third countries have gone up steadily and the shares of the main categories of supplier the developing, the industrialised and the State-trading countries while they have fluctuated have stayed more or less the same in relative magnitude.
- 38. The total volume of gross imports of petroleum products from third countries went up from 51 million t in 1978 to 88 million t in 1983, the external trade deficit increasing over the same period from 6 to 33 million (including some feedstocks). As regards the type of product, light and medium oils declined whereas gas oils and in particular fuel oils went up sharply (from 30% in 1978 to 45% in 1983). In 1983 the breakdown of imports by customs category was as follows: 47% destined for refining or chemical processing and exempt from duty; 19% imported duty-free under preferential agreements, and 14% under the GSP; the remaining 20% paid duty at the normal CCT rate

New refining capacity in the oil-exporting countries

39. In world terms, there is an excess of refining capacity on account of the fall in consumption over the last few years. The present situation and future prospects vary, however, from one region to another.

In the industrialised countries, refining is being rationalised: between 1978 and 1983 processing capacity declined, as a result of plant closures, by 14% for the whole of the OECD and by 20% in the Community (by 33% between 1977 and 1985). As was explained in part I, this is a process which still has some way to go as far as the Community is concerned.

Major centres of export refining activity, for example in South East Asia and the Caribbean, are faced with similar difficulties, and some are threatened with extinction.

⁷ Except in 1979, when a slight surplus of 3 million t was recorded.

For the products included in Annexe A (sensitive products of the GSP).

See the tables 8 to 11 annexed (feedstocks are included in these volumes).

In the non-oil producing developing countries additional refining capacity will be built to meet increased demand, but less than was expected some years ago.

- 40. By contrast, a few crude-oil exporting countries in North Africa and the Middle East (Saudi Arabia, Kuwait and Libya) are building considerable new capacity, much of which has already come on stream. This group of countries is developing its refining industry, both to meet domestic demand which is rapidly increasing, and to diversify imports. In the interests of clarity, only the new, exportorientated capacity will be discussed in the rest of this paper.
- 41. Compared with the situation at 1 January 1984, additional nominal capacity of 1.2 m b/d, or about 60 m t/y could be available by 1990, if current projects are completed on time. No other major project is planned to come on stream during this period. The following table describes the situation as it is known at present:

				BLE 5	
Country/ refinery	Owners	Date of entry into	Additional nominal capacity in service compared with 1.1.1984		
		service	thousand bbl/d	million t/y	
Saudi Arabia					
Yanbu	50% Petromin/ 50% Mobil	1984(IV)	250	12.5	
Jubail	50% Petromin/ 50% Shell	1985(I)	250	12.5	
Rabigh	50% Petromin/ 50% Petrola(**)	late 1986, or 1987(*)	325	16.25	
Libya					
Ras Lanuf	LNOC (State company)	1985(*)	220	11.0	
Kuwait					
Mina Abdullah(***)	KNPC (State company)	1986(*)	150	7.5	
TOTAL			1 195	60	

^{*} According to the latest information, but entry into service could be postponed.

^{**} A Greek company.

^{***} Expansion of present capacity.

Impact of the new refineries on world markets

42. The impact of the new export refineries in Saudi Arabia, Kuwait and Libya will depend on several factors, but in particular on the following:

a) Location of the new refineries

The new refineries will not have, by virtue of their location, a specific regional market. They may be expected to play a balancing role in the world oil market as a whole.

b) The new refineries' utilisation rate

The utilisation rate will depend both on technical factors and above all on the economic conditions in which refinery output can be sold. An assumed maximum rate of 85% would seem reasonable given the rates in previous years.

c) Range of products supplied

Within the limits imposed by the types of crude used and by the kind of plants installed, there is flexibility as regards the range of refined products that can be produced. It is not possible, therefore, to determine in advance the share of each product; refineries in Samali Arabia and Kuwait have enough conversion plant to enable them to maximise the yield of light and medium finished products.

Given the type of facilities to be installed, the refinery output from the capacity described in the table above would break down in theory into 26% fuel oil, 33% gas/diesel oil, 13% gasoline and 28% other products (naphta, kerosene, LPG, etc.). This pattern could vary significantly, however, given the flexibility of the plant and the possibility of using different types of crude oils.

d) Demand for petroleum products in the exporting countries

Although the output from the above refineries is intended orimarily for export, the level of domestic consumption in these ountries, which it has been estimated will grow at 5% a year, may have some effect on the quantity of products available for export.

By varying the plant utilisation rate, it should be possible, if necessary, to compensate for the effects of such variations in national demand which Saudi Arabia, for instance, intends to accommodate mainly by recourse to the domestic refineries.

e) Commercial strategy of the new exporting refineries

It is probable that the multinationals which have a "joint-venture" holding in the new refineries in Saudi Arabia, and are free to dispose of their share of the output, will integrate their production into their world operations as a whole. The same will apply to those undertakings in the producer countries which, like the Kuwait Petroleum Corporation (KPC), have refining/distribution activities in Europe.

The national companies in the producer countries which do not have a distribution network in Europe will have to create their own outlets for their share of joint-venture production. This is the case, in particular, with the Saudi firm Petromin. The latter, however, has announced that it intends to charge prices which will reflect those prevailing in product markets. At the same time, it has declared its wish to follow a sales policy which will not threaten the official prices of its crude oil. As regards Ras Lanuf this refinery will probably replace the contract processing agreements which Libya had in the past with refiners in the Community.

Finally, it may be assumed that the purpose of these countries in creating new export refineries is to industrialise their economies further, diversify their export markets, which consisted hitherto only of crude oil buyers, and to ensure stable outlets for those refineries. If these remain their objectives, they may be expected to refrain from aggressive pricing policies which would depress an already fragile market still further.

f) Trade in products between the Community and other third countries

One uncertainty which should not be forgotten in this analysis arises from the competition which could occur between products from State-trading countries — notably the USSR — and those from the new refineries. It is difficult to foresee how such competition will develop. In the past, the Soviet Union has shown itself flexible in adjusting to the trend of product prices on the Community market. The most likely assumption is that it will continue to seek stability by trying to maintain the level of its revenue from exporting products to the Community. Given stable prices, the volume of its deliveries should remain pretty well constant.

Relative stability has also been assumed in the case of the Community's traditional export markets such as the USA and EFTA.

Assessment of the effects on the Community market

- 43. Taking into account the various considerations mentioned above and, in particular, the average utilisation rate of 85% assumed for these refineries, it seems reasonable to make the basic assumption that the total additional volume which the new refineries in the Middle East and North Africa will put on the world market between 1984 and 1990 will be about one m b/d or 50 m t/y.
- 44. The distribution of this volume among the main consumer markets will depend primarily on the selling policy adopted by the various producers, as we have seen above. It will also depend on the degree of openness shown by various potential markets for the exports of the new refineries, i.e. chiefly the Community, the USA and Japan. It is not very likely that markets in developing countries will absorb large quantities of products.
- 45. The <u>Community</u> does not place any quantitative restrictions (quotas) on imports of petroleum products. As regards customs' duties, the Community grants total exemption to products imported for further processing or as feedstocks for the manufacture of petrochemicals. Only petroleum products destined for consumption are liable to pay

duties. These "prevailing" duties are lower than those consolidated within GATT and amount to 6% for light and medium oils and 3,5% for heavy oils (gasoils and fueloils). By virtue of agreements concluded by the Community with the EFTA, ACP and Mediterranean basin countries, imports of petroleum products from these countries are exempt from duty. Only imports from certain industrialised countries (notably the USSR and USA) are subject to duties.

- 46. In addition, the Community extends the benefits of the Generalised System of Preferences(GSP) to petroleum products. Saudi Arabia, Kuwait and Libya, the countries in which the new refineries are sited, are not associated with the Community but are covered by the GSP and can therefore enjoy the advantages which it confers. This is a unilateral concession by the Community as a result of which the greater part of the imports of petroleum products is admitted free of duty and subject to a ceiling. The ceiling is fixed on an annual basis for each of the three principal categories of products and is applied to each exporting country individually. As soon as exports by a particular country reach the ceiling, duties can be reimposed at the request of a Member State or on the initiative of the Commission. In fact, although the ceilings have been frequently and greatly exceeded since 1979, this facility has not been used.
- 47. The <u>USA</u> levies lower customs duties on petroleum products than the "prevailing" duties applied by the Community. Petroleum products are excluded, however, from the American GSP, of which Gulf countries are not in any event beneficiaries. Although the US has so far maintained an open attitude towards imports of petroleum products, certain voices in Congress and in the oil industry have recently been calling for protectionist measures.
- 48. The possibilities of importing products into <u>Japan</u> are limited in practice to fuel oil, on which the Government places quotas, and naphtha. Customs duties are generally of a similar level to those in the CCT except for fuel oil, on which duty is levied progressively depending on the total volume imported of that product. No generalised preference is granted for petroleum producs from the Gulf countries which nevertheless benefit from the GSP in respect of other types of exports to Japan. Since the middle of 1984 declarations have been made favourable to some "internationalisation" of the supply of petroleum products, but they have not so far been put into effect.
- 49. One last point that must be made is that, in future, feedstocks could account for a high proportion of the products exported by the refineries in the producer countries indeed this is already the case today. Far from encroaching upon the market of Community refineries, such feedstocks could supply them with a cheap raw material in place of crude. The fact that fuel oil accounts for a large share of the output from the new exporting refineries roughly one third suggests that this could well be the case, but whether it proves to be so will depend in part on crude—to—products price ratios and the rate at which conversion plant is utilised.
- 50. Given the above uncertainties, it is difficult to forecast what proportion of the additional 50 million tonnes will be directed towards the Community market. Assuming that the export surplus is allowed free access to the main markets of the world, a working hypothesis would be that about 20 million tonnes a year will come into

the Community by 1990 (i.e. nearly 40% of the total 9). Of this figure, tonnes would be finished products destined for consumption and the rest would be feedstocks. By 1990, such an increase would take net imports of finished products to the 30 million tonnes mark, i.e. about 7% of estimated consumption for that year. This would be in line with the development of world trade in petroleum products and would help to diversify the Community's supply and make it more flexible.

It cannot be ruled out, however, that the market will be more affected in some regions of the Community than in others. The only positive response to this problem lies in the practice of healthy competition which will tend to reinforce the integration of the Community's internal market.

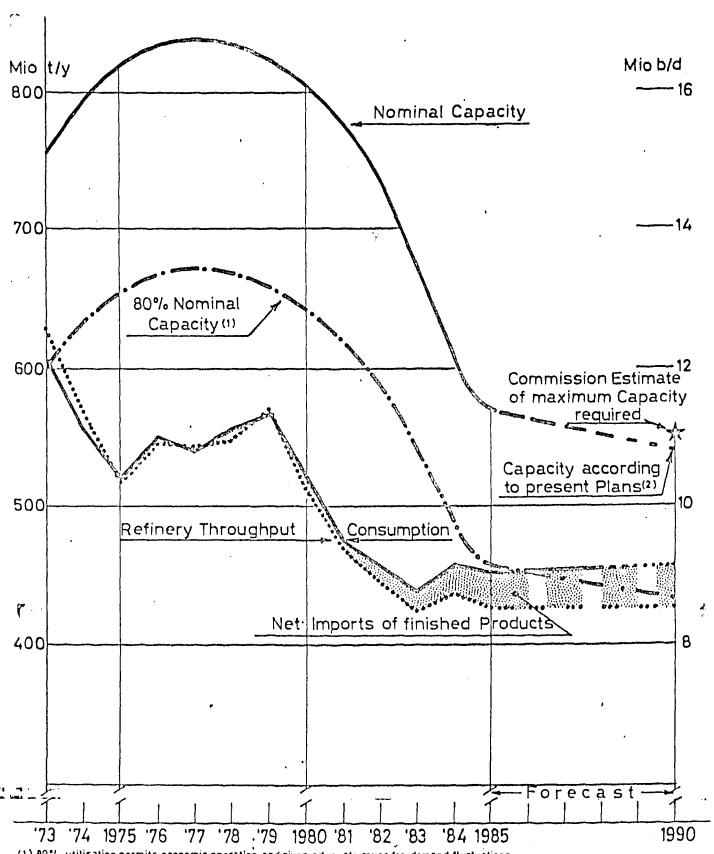
The Community's options

- 51. The Community has always applied a liberal policy as regards imports of petroleum products. This attitude should not, however, result in the Community's bearing the whole burden of the new refineries' entry into the market. Efforts must be made, therefore, to see that all the potential recipients of these exports the Community, the USA and above all Japan, in view of its present policy are prepared to adopt a similar attitude so that the products are marketed in a progressive and balanced way. It is by avoiding bidding up protectionist measures between trading partners that trade distortions damaging to all concerned will be prevented. Finally, if the new refineries have access to all the major consumer markets they will be able to exert a balancing influence, promoting market stability and the smooth operation of international trade in petroleum products.
- 52. To be able to maintain this open attitude, it is important to forecast import trends and to know exporters' intentions. The Community should therefore consult the countries in question, so that all may be informed of the prospects for oil supply and demand.
- 53. The Community will then be able to evaluate the consequences of its present policy which offers to new exporters the possibility of a stable outlet on its market to the extent that this does not jeopardise the maintenance of a level of Community refining capacity consistent with legitimate requirements in regard to security of supply.

This is the approximate increase in net imports between 1983 and 1990 given in Table 3 (para. 30).

Which would bring net imports of products (including feedstocks) to about 53 mio t (see \$ 38).

EUR-10: Primary Distillation Capacity and Throughput compared

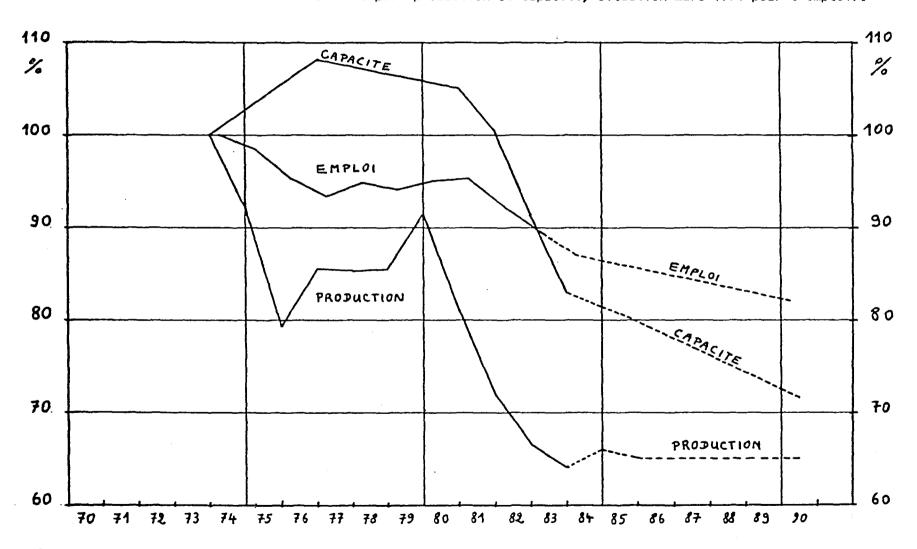


^{(1) 80%} utilisation permits economic operation and gives adequate cover for demand fluctuations

⁽²⁾ Assuming all capacity now mothballed is relired permanently

NET PRODUCTION, PRIMARY CAPACITY AND EMPLOYMENT IN THE COMMUNITY REFINING INDUSTRY PRODUCTION NETTE, CAPACITE PRIMAIRE ET EMPLOI DANS L'INDUSTRIE DU RAFFINAGE DE LA CEE.

(Base 100 = 1973 for production and capacity, March 1974 for employment).
(Base 100 - ANnée 1973 pour production et capacité, situation mars 1974 pour l'emploi).



Sources: Employment /Emploi : Eurostat - Nace

Production : Eurostat

Capacity/Capacité :: CCE - DG XVII

EEC-10: Effect on employment of changes in refining structure (includes only refineries over one million tons/year)

EUR-10 : Effets sur l'emploi des changements dans la structure du raffinage (comprend seulement les raffineries d'une capacité supérieure à 1 Mt/an)

Simple/Semi-complex	No.	7.	Av. No. employed * nombre moyen d'emplois*	No.	2	Av. No. employed* nombre moyen d'emplois*
Simple/semi-complexe	75	63	450	25	30	450
Complex/Complexe	45	37	550	60	70	550
Total	120	100	485	85	100	520
Est. Total employed			58500			44250

^{*} Based on sample of 42 refineries. Ignores falls in employment due to higher productivity.

^{*} Sur base d'un échantillon de 42 raffineries. Ne tient pas compte des réductions d'emploi dues à des augmentations de productivité.

EEC-10: EVOLUTION OF PRIMARY DISTILLATION CAPACITY - 1977-1984*

EUR-10: EVOLUTION DE LA CAPACITE DE DISTILLATION PRIMAIRE - 1977-1984*

Mio.tons/year/M.tonnes/an

	Peak year**	1.1.85	% change to 1.1.1985	Utilisation end 1984
EEC 10	844,2	583,3	- 30,9	72 ,0 %
BELGIUM	55,3	31,2	- 43,6	77,9%
DENMARK	10,9	8,3	- 23,9	69,6 %
GERMANY	159,4	104,1	- 34,7	82,6 %
FRANCE	174,5	114,6	- 34,3	66,3 %
GREECE	20,3	18,0	- 11,3	73,8 %
IRELAND	2,9	2,9		41,4%
ITALY	183,2	134,0	- 26,9	59,7 %
NETHERLANDS	102,4	71,4	- 30,3	67,2 %
U.K.	136,6	98,8	- 27,7	75,9 %

^{*} The above figures do not reconcile with the list of closures in Annex 3 because some additions to capacity were made, particularly over the years 1977-1980.

^{**} For Germany the peak year was 1979, for U.K. 1978, for other Member states and EEC-10 1977.

^{*} Les données ci-dessus ne correspondent pas à la liste des fermetures de l'annexe 3 car certaines additions de capacité ont été effectuées, notamment pendant la période 1977-1980.

^{**} Pour l'Allemagne l'année de pointe s'est située en 1979, pour le Royaume-Uni en 1978, pour les autres Etats membres de la CEE en 1977.

SOMMAIRE DES FERMETURES DE RAFFINERIES 1976-1985 SUMMARY OF EEC REFINERY CLOSURES 1976-1985

	1976	8-80	- 19	981-84		1985	1976-85	
	Р	т	P	т	Р	T	Р	т
В		_	1	3	_	-	1	3
DK	_	-	1	-	_	-	1	-
G	2	1	6	8	-	3	8	12
F	3	2	5	7	· -	~	8	9
I	-	6	3	10	-	~	3	16
N	4	-	4	~	_	~	8	1
UK	2	-	2	5	-	-	4	5
Total	11	9	22	34	-	3	33	46
<pre><1 mt/y;-Mt/an</pre>	5	5	6	6	-	-	11	11
>1 mt/y -Nt/an	6	4	16	28	-	3.	22	35
mio tons/y Mt/an	27,65	15,75	77,1	139,1	_	14, 25	104,75	169,1

Note: P = partial, T = Total
P = partielle, T = totale

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PARTIAL AND TOTAL CLOSURES IN THE EEC REFINING INDUSTRY

FERMETURES PARTIELLES ET TOTALES DANS L'INDUSTRIE DU RAFTER GE DE LA CEE

(Mio.tons/year - Mt/an)

* = Partial closure - Fermetures partielles.

1976 - 1985

	1976 - 1980	1981 - 1984	1985 -(definite closures only).
BELGIUM			(fermetures totale: seulement).
Chevron Feluy		7.0	seutement).
SIBP Antwerp (BP/FINA)		2.6*	
Texaco Ghent		9.4	
Coastal		3.8	
	0	22.8	0
DENMARK			
Gulf/KPC	0	2.4*	0
GERMANY			
Caltex Raunheim		4.5	
BP Dinslaken		8.7	
BP Hamburg	1.1*	4.0	}
Shell Godorf		0.5*	
Shell Ingolstadt		2.8	
Shell, Monheim		0.4	
Texaco Heide		0.4*	
Elf Speyer		3.0*/5.0	
Erdol Raff. Ingolstadt	3.0*		
Erdol Raff. Mannheim		2.1*	
Mobil Wilhelmshaven			8.0**
Esso Cologne		5.7	
Erdol Raff. Misburg	0.35*		2.25
URBK Wesseling		1.5*	
Veba Gelsenkirchen		2.5*	ĺ
Fina Mulheim	0.5		
Erdol Werke Frisia		2,4	
Esso Hamburg		1.0*	
Erdöl Raff. Ingolstadt			4.0
	4.95	44.5	14.25

^{**} Will be kept in operable condition after closure
** Sera maintanue en état de fonctionnement après la fermeture.

	1976 - 1980	1981 - 1984	1985
FRANCE			
BP Dunkirk	0.8*	4_4]
BP Lavera	2.5*		
BP Vernon		3.4	
CFR Gonfreville		6.8*	
CFR La Mède		3.1*	
Esso Bordeaux		2.9	
Elf Gargenville		6.1	
Elf Valenciennes		3.3	
Elf Ambes	2.1		
Elf Vern-s-Seiche	1.45		
Mobil Frontignan	0.3*		
Mobil Gravenchon		0.5*	
Shell Berre	1	7.2*	
Shell Petit-Couronne		8.1*	
Raff. de Strasbourg-Herlisheim		4.6	
Raff. de Lorraine-Hauconcourt		5.1	
karr. de Lorrame-nauconcourt	7.15	55.5	0
	7.13		
ITALY			
ENI La Spezia		4.0	
ENI Milazzo		8.0 *	
ENI Gaeta	3.9	0.0 ^	
ENI Sarom	3.7	5.8*	
ENI Volpiano	3.9	J. 0^	
ENI Porto Torres	3.7	4.0	
KPC Bertonico		5.0	1
STANIC Bari		4.6 1.5*	
ERG Genova			
SAN QUIRICO Genova		1.1	
LOMBARDA PETROLI		1.2	
ILSEA		0.5	
ANIC Ragusa		0.3	
MONTEDISON - Brindisi	1.6		
MAURA Coniolo	0.3		
VINCOR - Trieste	1.0		
OMAR - Lacchierella	. n	0.2	
OFHERS (Small)	1.0	1.3	
	11.7	37.5	0
	1		1

	1976 - 1980	1981 - 1984	1985
NETHERLANDS			
BP Rotterdam	2.9*		j
Chevron Pernis	2.0*	5.8*	
Esso Rotterdam	7.0*	0.1*	
Gulf (KPC) Rozenburg	1.*		
Mobil AMsterdam		6.5	
Shell Pernis		4.7*	
Total		0.7*	
	12.9	17.8	0
UNITED KINGDOM			
BP Belfast		1.5	
BP Llandarcy	2.6*		
BP Kent		10.4	
Esso Fawley	3.4*		
Esso Milford Haven	1	8.5	
Shell Haven	0.7*	4.2*	
Shell Stanlow		4.6*	
Shell Teesport		4.9	
Burmah Ellesmere Port		1.6	
•	6.7	35.7	0
EEC 10			
TOTAL	43.4	216.2	14.25
			_ 3333

Source : Public announcements by companies /annonces rendues publiques par les sociétés.

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EEC - 10 CONVERSION CAPACITY (mt/a)

EEC-10: CAPACITE DE TRAITEMENT DES INSTALLATIONS DE CONVERSION (Mt/an)

	<u>1973</u>	<u>1981</u>	1983	<u>1985</u>	1990
Cat. Cracker/Craqueurs catalytiques	43,0	45,9	66,2	76,6	80,7
Thermal Cracker/Visbreaker Craqueurs thermiques/viscoréducteurs	20,8	43,4	62,3	58,1	61,2
Hydrocracker Hydrocraqueurs	1,6	4,3	5,2	7,1	11,5
Coker Cokéfaction	_	1,4	9,0	9,8	11,0
Total	65,4	95,0	142,7	151,6	164,4
Cat. Cracker Equivalent */Capacité équivalente de craqueurs catalytiques	55,4	74,4	114,3	127,5	140,7
% of installed primary capacity/ % par rapport à la capacité primaire	7,3	9,5	6,9	22,4	26, 1
% of estimated crude processed/ % du brut traité	8,8	16,4	28,2	30,3	33,41

^{*}Based on total distillate yield as percentage of feed, relative to that of a cat-cracker. Ratios use are: Visbreaker 0.33 - Thermal Cracker 0.65 - Hydrocracker 1.3 - Coker 1.7.

^{*} Sur base du rendement total en distillat@exprimé en pourcent de l'alimentation, par rapport à celui de crackeur catalytique. Les rapports utilisés sont : Viscoréducteur 0.33 - Craqueur thermique 0.65 - Hydrocraqueur 1.3 - cokéfaction 1.7.

The refining industry in the two candidate countries for accession to the European countries

A. THE REFINING INDUSTRY IN SPAIN

Distillation capacity and utilisation

1. The Spanish refining industry's primary distillation capacity expanded continuously from 1973 to 1980, rising from 50.4 million tons per year to 62.1 m t/y by 1977 and peaking at 72.1 m t/y in 1980.

Since 1980, nominal primary capacity has stayed the same. Some of this capacity, however — about 10 m t/y — is not currently on stream. By 1990, nominal primary capacity could be as low as 63 m t/y, as a result of the permanent retirement of plant now out of service.

2. The quantity of crude oil processed in Spanish refineries also rose between 1973 and 1980, but to a lesser extent than primary capacity. After 1980, the quantity processed declined, but crude-oil processing in 1983 was still above the 1973 level.

The fact that distillation capacity increased more than the quantity of crude processed over the period 1973-80, and was maintained thereafter at peak level when the quantity of crude processed declined steadily between 1980 and 1983, caused the refinery utilisation rate to fall.

The primary capacity utilisation rate was 86% in 1973 and 91% in 1974, whereafter it declined progressively to 76% in 1977, 69% in 1980 and 62% in 1982 and 1983.

Conversion capacity

3. At 1 January 1985, the Spanish refining industry's reforming capacity was 7.7 m t/y and its conversion capacity 11.4 m t/y (see table). If plant still under construction is brought on stream, conversion capacity will rise to 15.3 m t/y by 1986. No further project is planned before 1990.

Conclusion

- 4. The trend for the Spanish refining industry differed from that of the Community on account of the growth in Spanish demand for petroleum products between 1977 and 1980 and the fact that this demand fell only slightly between 1980 and 1983.
- 5. Between 1985 and 1990, since there is no prospect of an upturn in the consumption of petroleum products n Spain, the problem of a reduction in Spanish primary distillation capacity will still arise, if the economics of refining are to be improved.

B. THE REFINING INDUSTRY IN PORTUGAL

Distillation capacity and utilisation

6. The Portuguese refining industry's primary distillation capacity went up from 8.5 m t/y in 1975 to 18.7 m t/y in 1980, and was then reduced to 14.0 m t/y in 1983. In 1983, 8.2 million t of crude and feedstock were processed by Portuguese refineries, giving a utilisation rate of 59%.

Conversion capacity

7. In 1983, the secondary units in the Portuguese refineries accounted for 2.2 m t/y of reforming capacity and 1.8 m t/y of conversion capacity (i.e. 0.7 million t of catalytic cracking, 0.5 million t of hydrocracking and 0.6 million t of visbreaking capacity).

Conclusion

8. The Portuguese refining industry is therefore faced with the problem of an excess of distillation capacity.

SPAIN: Distillation Capacity and Utilisation

(million b)

	1973	1977	1980	1983	1985	1990*
Primary Distillation capacity	50.4	62.1	72.1	72.1	72.1	(62)
Processed Crude	43.5	47.5	49.4	44.5		(42)
Utilisation rate	86%	76%	69%	62%		(68%)
Total consumption of petroleum products	40.1	45.9	50.7	44.2		

Source: Spanish Government.

* estimate.

SPAIN : Conversion Capacity

(Million t)

	1.1.1985	1.1.1986	1.1.1990
Reforming	7.7	7.7	7.7
Conversion Plant	11.4	15.3	15.3
of which : Catalytic cracking	4.4	6.4	6.4
Hydrocracking	0.5	0.5	0.5
Visbreaking	5.7	7.7	7.7
Coking	0.7	0.7	0.7

Source: Spanish Government

PORTUGAL: Distillation Capacity and Utilisation

(Million t)

	1975	1979	1980	1983	1985	1990
Primary Distillation Capacity *	8.5	17.5	18.7	14.0	14.4	(14.4)
Processed Crude (incl. feedstocks)**		8.3	7.6	8.2	(8.2)	(8.2)
Utilisation rate		47%	41%	59%	57%	57%
Total Consumption of petroleum products		7.0	7.7	8.5	omen and the second	

Source: * - CFP Study on refining in Europe (1975 - 1980)

⁻ Portuguese Government (1983-1990)

^{**} OhCD Quarterly Oil Statistics .

The Employment Effects of Restructuring

- 1. The number employed at refinery sites in the Community (excluding Greece), has fallen from 142,000 in 1975 to an estimated 126,000 in 1985, a loss of 16,000 jobs or 11% compared with a fall of over 30% in capacity. By 1990, assuming that capacity will then be 550 million tons/year; there could be a further net loss of 6,000 jobs.
- 2. For the refining sector strictly defined, the total employed at 120 plants (over 1 mio.t/y) in 1977 is estimated at 58,500, an average of roughly 500 per site. The 85 refineries in operation in 1985 employ about 44,250 so that 14,250 jobs have been lost since 1977. This net loss reflects, on the one hand, losses due to closures and productivity gains and, on the other increases in employment at refineries where new conversion plant has been installed. The effects of changes in structure are illustrated in the attached table.
- 3. An estimated 16,000 jobs were lost as a direct consequence of the closure of 35 refineries of over 1 mio.t/y capacity. A sample of ten refineries suggests that most of the personnel concerned found other jobs within the company or outside (60%), or received an immediate pension (20%). The remaining 20%, or 3,000, left the company without immediate employment or pension but with a cash payment or entitlement to a deferred pension.
- 4. To these direct losses are to be added those lost in local firms supplying goods and services to refineries. These are difficult to quantify, even in round figures, but the ratio of secondary to primary employment is estimated by the European Trades Union Confederation to lie between 1: 1 and 3: 1 according to local circumstances. When large refineries have closed in areas of high unemployment these secondary job losses and the effects upon local communities have undoubtedly been considerable. On the hypothesis that, for the Community, the average ratio was 2: 1, the total of secondary job losses would be 30,000.
- 5. To assess the overall net effect of restructuring upon employment throughout the Community economy there would have to be set against these local losses the considerable gains to employment in the engineering, construction and maintenance sectors brought about by the sustained programmes of investment, costing \$1,000 million per year, in conversion and upgrading plant at the refineries remaining in service.

Source: Eurostat - Nace whose figures include those engaged in refining operations and in all other activities carried out at refinery sites such as distribution, the blending and packing of lubricants and bitumen, etc., except for petrochemical manufacture.

in mio t

	-	EUR-9					EUR-10		
	1978	1979	1980	1981	1982	1983	Jan-Sept 1983	Estimates Jan-Sept. 1984	Variation Estimates Jan-Sept.84/ Jan-Sept.83
- Total imports	112,4	113,5	127,2	130,3	151,4	153,6	113,9	114,3	+ 0,4
of which : third countries	50,9	54,3	66,3	64,3	79,3	88,3	65,9	67,7	+ 2,7
- Total exports	106,5	116,6	107,4	115,5	117,2	121,0	91,0	87,0	- 4,4
- Net imports (exports)	5,9	(3,1)	19,8	14,8	34,2	32,6	22,8	27,3	-
								<u> </u>	

Source: Imports from third countries: NIMEXE (customs statistics) - Feedstocks included Other headings: CRONOS (national statistics)

EEC-10: OIL PRODUCTS IMPORTS BY COUNTRY OF ORIGIN AND ECONOMIC AREA in % of total third countries imports (1)

·		Eur-9		EUR-10								
	1978	1979	1980	1981	1982	1983	JanvSept. 1983	Estimates JanvSept. 1984				
 Industrialised countri of which: EFTA USA Spain 	es 23,8 8,7 7,6 1,0	26,0 8,3 9,6 1,6	20,6 9,0 7,2 1,1	20,2 9,6 7,6 1,9	24,5 8,6 9,7 4,2	27,0 11,4 8,6 4,9	27,6 11,3 8,8 5,0	30,0 13,7 8,3 4,7				
- Developing countries of which:OPEP OAPEC GCC - Saudi Arabia - Kuwait	35,8 23,1 14,6 10,3 4,8 4,8	39,2 25,1 14,5 9,4 2,9 5,7	47,3 27,3 17,5 7,9 3,7 3,5	44,9 25,2 22,3 9,6 5,2 3,3	40,4 25,4 21,1 8,4 2,7 5,2	37,7 27,1 24,1 11,5 1,3 9,3	40,1 27,9 24,7 11,7 1,1 9,6	41,0 31,6 29,1 13,2 2,3 10,5				
T State trading countrie	s 40,4	34,8	32,1	34,9	35,1	35,3	32,3	29,0				

⁽¹⁾ Source : EEC external trade statistics - NIMEXE

in %.

	- [EUR-9		EUR-10								
	1978	1979	1980	1981	1982	1983	JanvSept. 1983	Estimates JanvSept. 1984				
·					-			-				
Light oils	25,9	24,1	24,8	24,1	18,9	17,9	17,7	15,5				
Medium oils	3,3	2,3	1,6	1,4	1,2	1,0	1,1	0,6				
Heavy oils	60,7	60,4	62,1	61,9	69,2	70,5	70,6	72,6				
- gasoils	(31,1)	(24,4)	(22,4)	(21,8)	(24,2)	(25,3)	(23,1)	(23,0)				
- fueloils	(29,6)	(36,0)	(39,7)	(40,1)	(45,0)	(45,2)	(47,5)	(49,6)				
Other products	10,1	13,1	11,5	12,7	10,7	10,6	10,6	11,3				

(1) Source : EEC External trade statistics - NIMEXE

EEC 10 - ANALYSIS OF OIL PRODUCTS IMPORTS FROM THIRD COUNTRIES ON THE BASIS OF CUSTOMS DEFINITIONS.

in mio t./ in %

		EUR-9							EUR-10											
	1978 1979		79	1980		1981		1982		1983		JanvGapt. 1983		Est manual Jan-S 198	ept					
	aio t	z .	mio t	z .	mio t	z	mio t	x	mio t	z	aio t	z	sio t	x	aio t	z				
a)Imports at zero duty :	27,4	53,8	32,1	59,1	38,9	58,6	41,8	65,0	52,9	66,7	58,1	65,8	45,3	68,7	44,1	ئر 65				
- For specific treatment or chemical conversion	17,7	34,8	22,2	40,9	23,9	36,0	26,3	40,9	32,8	41,4	41,4	46,9	30,5	46,3	28,1	41,				
- By virtue of preferential agreement (Mediterranean	9,7	19,0	9,9	18,2	15,0	22,6	15,5	24,1	20,1	25,3	16,7	18,9	14,8	22,4	16,0	23,				
country, ACP, EFTA,) - Imports under the GSP	5,3	10,4	7,5	13,8	13,5	20,4	11,1	17,3	11,3	14,2	12,5	14,2	9,4	14,3	9,0	13,				
b)Imports on which normal CCT duty was paid	18,2	35,8	14,7	27,1	13,9	21,0	11,4	17,7	15,1	19,1	17,7	20,0	11,2	17,0	14,6	21,				
c)Total imports from third countries	50,9	100,0	54,3	100,0	66,3	100,0	64,3	100,0	79,3	100,0	88,3	100,0	65,9	100,0	67,7	100,				

Source : EEC External trade statistics - NIMEXE.