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AND THE ECONOMIC AND SOCIAL COMMITTEE

New Challenges For Maritime Industries

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A. INTRODUCTION

Maritime issues have become increasingly important on an international level in ecological, economic and political terms.

The Community should actively react to this, because of its long coastline, its dependence on foreign trade and efficient shipping services, and its environmental interests. The EC should evaluate what would be the best way to tackle maritime challenges, and this also includes improving the competitiveness of the EC's maritime industries. These industries include shipping, shipbuilding, the service sector, marine equipment and the "resources of the sea" industry including fishing. The Community should quickly find answers to the following questions:

- what are the maritime interests of the EC;
- how its maritime interests are affected by current and future developments in the international maritime field;
- how to ensure that different maritime aspects are regarded as part of the Community's overall maritime dimension, as they are the common basis of the EC's maritime future;
- whether Member States' maritime policies are still adequate in the context of a rapidly changing and increasingly demanding international maritime environment;
- how to promote on a European level the Community's maritime interests and, especially, the competitiveness of the EC's maritime industries.

This Communication seeks an open discussion on the increasing importance of the Community's maritime dimension and aims to find the EC's answer to current and future challenges. Its primary intention is to develop the relevant maritime issues in the framework of general principles of the Community's industrial policy, as recently explained in the Commission's Communication "Industrial policy in an open and competitive environment" (1)

(1) COM(90) 556 final, 16 November 1990.

In this context, it is worth mentioning that this Communication does not follow the more traditional approach of concentrating on sector specific aspects. Instead, the approach pursued in this Communication is a general and horizontal one, as it addresses the whole maritime dimension - which is of common concern to the different parties involved.

The basic objectives and contents of this Communication are the following :

- to underline the importance of maritime issues and the Community's interest's in this field (chapter B);
- to describe the key issues for improving the competitiveness of the EC maritime industries, in comparison with its main international competitors (chapter C);
- to outline the possibilities for a maritime initiative, in the framework for the Community's industrial policy concept (chapter D);
- to propose a discussion forum with representatives of all the interested parties (maritime industries, research institutes, Member States' Maritime and Industrial Administrations and the Commission for example), which should contribute to a more precise definition of the type of actions to be developed in order to improve the competitiveness of these EC maritime sectors

These contributions, in the form of a report, should be presented to the Commission within 9 months.

B. MARITIME ISSUES AND THEIR IMPORTANCE FOR THE EUROPEAN COMMUNITY

B.1 THE IMPORTANCE OF MARITIME ISSUES

In recent years, maritime issues - arising out of the use, exploration and exploitation of the sea and its resources - have become increasingly important.

B.1.1. Resources of the sea

Today the ocean is regarded the last major frontier on earth for the exploitation and development of resources to sustain mankind in the future. Increasing interest is therefore focussing on the resources aspect of the oceans. Because of the increasing population growth in particular and the possible depletion of vital minerals and fossil energy sources on land:

the oceans are perceived as future sources of food, energy, minerals, chemicals and space.

The possibility of intensive use of the oceans has emerged with advances in marine sciences and technology, research in fish finding, breeding techniques and aquaculture. Research is also underway on the use of the sea for the production of renewable energy, for example from tidal, wave and thermal ocean energy. However, the exploitation of minerals from the deep seabed may be a subject for the next decade.

B.1.2. Environmental aspects and international standards

a) Climate

As the ocean is the most important buffer in the global climate system, it influences the world's climate decisively. The ocean acts as a large reservoir of heat and carbon, and exchanges of both between the atmosphere and the ocean occur naturally on enormous scales. Any forecast of future global and regional change in climate has to be based on more detailed information on volume, distribution and movement of water masses, and on biogeochemical fluxes such as that of carbon.

b) Pollution

The growing awareness of the importance of the sea's resources has been accompanied by concern over the health of the oceans due to discharges from land, oil pollution caused by tanker accidents, dumping of hazardous wastes into the oceans, over-fishing of a number of species, and conflicts between states over access to and use of maritime areas.

c) Standards

Following the disasters of the "Exxon Valdez" the "Herald of Free Enterprise", and the "Scandinavian Star" and the recent accidents in the Mediterranean, there is an urgent need for more stringent international standards and rules concerning safety, pollution controlling, vessel design and operation, in the context of the International Maritime Organization (IMO).

B.1.3. Globalization of the International economy

With continuing globalization of the international economy, maritime transport will become more and more a crucial link: an estimated 95% of all internationally traded goods are transported by sea, and world seaborne trade measured in tonnes is forecast to grow by 2,1 percent per annum until the year 2000⁽¹⁾.

B.11 THE COMMUNITY'S INTEREST

The EC of 12 Member States alone has +/- 15.000 km of coastline, many islands, large peninsulas and the largest concentration of ports in the world. No continent has as much coastline relative to its surface as Europe. The exclusive economic zones of 200 nautical miles of the Member States cover an area of more than 3 mill. km².

B.11.1 Employment

Figures from the Member States indicate that in the sector of fisheries alone there are approximately 300.000 persons working at sea.

As it is assumed that for every one fisherman employed at sea there are four to five employed on land, employment in the fisheries sector within the Community amounts to 1.5 up to 1.8 million people. On the basis of this figure, employment for the maritime industry as a whole (including shipbuilding, maritime transport, off-shore industries etc.) can be

(1) EEC Maritime Industries, report by Moore Stephens - Accountants, 1989.

estimated roughly at 2.5 million people. In other words, employment in the maritime industry is considerably larger than, for example, employment in the sector energy and water in the Community.

B.II.2 Trade

a) EC Dependence on trade

The EC is the world's biggest trading partner. Extra-EC exports alone account for about 25% of world exports, and 90% of the Community's external trade is carried by ships. Given Europe's high foreign trade exposure of 18% of GNP (1990), higher than the USA's 16% or Japan's 17%, not counting the growing importance of services and foreign direct investment, and given Europe's internal liberalization process, the EC is dependent on efficient and safe transport facilities.

b) Increase in European trade

Short sea transport, defined as transport along Europe's geographic coastline plus the Mediterranean, the Baltic Sea and Black Sea coasts, and inland waterway transport will increase with the completion of the internal market, but equally with the liberalization process in central and eastern European countries. Trade and transport demand in Europe, already high, will rise further.

The EC is trying to work out such solutions, through a variety of proposals in the transport field and also with regard to its trans-European network programme⁽¹⁾. Maritime and inland waterway transport are in many cases an alternative to heavily congested land transport and therefore an important element in the framework of the European infrastructure programmes.

Efficient port facilities, application of new container technologies, new types of ferries, combined transport, development of intermodalism, better exploitation of inland waterways and investment in modern ship-types - prerequisites for efficient sea transport - are consequently of direct interest to the EC's future transport concept.

(1) COM(90)585 final, 10 December 1990.

B.11.3 Environment

The EC's transport problems and the international pollution of the oceans relate both to the Community's environmental interest in the maritime sector.

Due to increasing transport problems, the Community has a specific interest in transport methods, which harm the environment as little as possible. In this respect, short sea and inland waterway transport may offer an alternative to land transport.

Vessels consume less energy per tonne carried and cause less environmental disturbance in terms of noise and air pollution than any other means of transportation. In many cases, short sea transport and inland waterway transport are also likely to be the most cost-effective means of transport.

With regard to its long coastlines, its partly endangered fish stocks, but also with regard to the impact on the climate, the Community has a vital interest in the health of the oceans. High and effectively applied international standards are therefore in the interest of the Community.

In all international maritime areas and markets, it is crucial that European standards be set at the requisite level and be compatible with international standards. In the absence of internationally agreed standards, it will also be necessary to set standards at the European level, leading to the creation of international standards. Standards for new technologies must be delivered quickly, if they are to meet the needs of the market.

In 1990, the USA implemented unilateral regulations which will require newly-built tankers which want to enter US harbours to be double hulled. On the other hand, the Japanese are proposing - in the context of current IMO negotiations - an alternative, the mid-deck tanker, developed by a leading Japanese yard.

Although certain EC yards from four Member States are jointly developing their own tanker design, the discussions on this matter in the IMO are left to individual Member States.

B.11.4 Fisheries

The European Community is one of the most important sea fishing powers in the world. It also has the world's largest market for fishery and aquaculture products which are supplied to a great extent by growing imports.

The challenges for the Community are in particular: the improvement of conservation and control measures; the reduction of the over-capacity of the fleet; the developing of new technologies for fishing, the processing and marketing industry on land; research; and the maintenance and extension of fishing possibilities in international and external waters⁽¹⁾.

Increasing demand for fish on world markets, particularly in the industrialised countries, together with the limitations of fishing resources, contribute to the fact that aquaculture is becoming increasingly important in economic terms.

With a view to strengthening the scientific and technological base of the Community's fishing industry the fisheries and aquaculture research programme FAR was introduced (1988-1992). The new agricultural and agro-industrial research programme which includes fisheries, is part of the third framework programme.

(1) Article 8 of Regulation 170/83 (CEE) on the basic provisions concerning the Common Fisheries Policy provides for a report to be produced by the Commission and presented to the Council : this report will cover the situation in the fisheries sector and will indicate current problems and guidelines for the future.

The report will be presented in the 1st quarter of 1991, and the contribution on fisheries in this communication is therefore limited.

B.11.5 Marine science and technology

The resources of the sea industry is only slowly taking shape. However, as it will be of crucial importance in the long run, the foundations for a successful EC industry have to be laid today. As a prerequisite, marine science and technology is therefore an area that deserves the utmost attention.

The EC's Marine Science and Technology R&D programme MAST⁽¹⁾ is aimed at improving knowledge of the marine environment in order to promote new exploration technologies for the protection and exploitation of marine resources. It also aims to improve coordination and cooperation amongst national R&D programmes.

The EC's BRITE/EURAM programme addresses materials and manufacturing technologies, including subjects such as automated welding in order to increase the safety and efficiency of ship construction.

At the same time, it should be recognized, however, that exploitation of the oceans as an interdisciplinary area depends on the cooperation of the different sectors and disciplines concerned. This cooperation has to be strengthened today, if Europe does not want to lose out against its main international competitors.

B.111. The new EC maritime challenges

The EC's specific maritime interests have to be seen against the background of the international maritime dimension.

Environmentally necessary international safety and design standards, as fixed by the IMO for example, directly affect the EC's environment policy. At the same time, they also affect the situation and perspectives of EC shipowners, for whom new standards very often mean higher investment costs. Community yards are also affected, since they have to adapt to these new standards.

The resources of the sea are another example. Future possibilities for successfully competing in this slowly emerging market depend not only on advances in the marine science discipline but also on the conversion of scientific knowledge into industrial applications. In other words,

(1) JO L200 of 13.07.1989, JO C174 of 16.07.1990

cooperation and collaboration are necessary between the different sectors and disciplines concerned, and this is of particular importance in the case of small and medium size enterprises (SMEs).

However, these are only examples of areas where the existence of common interests and/or synergy effects between different maritime sectors are already apparent. Given the complexity of the whole maritime dimension, and the interdependences between the health of the oceans and their resources on the one hand, and shipping, shipbuilding and exploitation of the resources of the oceans on the other, all maritime issues are elements of one maritime dimension.

In this respect, the importance of all the service sectors (financial, insurance, classification...) for the maritime dimension must be borne in mind. Here, Europe has developed a whole range of expertise and know-how, and has the greatest possible interest in not losing the competitive advantages it has achieved.

It is in this way that this document addresses the whole maritime sphere, in order to prepare for the better exploitation of current and future synergy effects between all maritime disciplines.

C. EUROPE'S MARITIME INDUSTRIES : ELEMENTS FOR EUROPEAN COMPETITIVENESS

Europe's maritime future depends on the competitiveness of its industries. Only efficient maritime industries can guarantee that the Community will be in a position to participate adequately and successfully in international trade, and benefit from the exploitation of the oceans. Therefore, the current situation in the different maritime industries and their adjustment and development processes, as well as their willingness to cooperate, are of importance to Europe's future, both in economic and political terms.

Maritime industries like shipping and shipbuilding are traditional sectors, facing strong competition from third countries.

Worldwide overcapacity in shipping and shipbuilding, unfair pricing practices and shipbuilding subsidies in all forms have left their mark. Ship prices have not always covered building costs, and freight rates have

sometimes been very low. With regard to the shipbuilding sector, very little room was left for investing in modern equipment, advanced production facilities or the development of new production technologies.

Maritime activities are increasingly demanding from a technological point of view. Nowadays, a modern cruise ship can contain as many computerised items as many naval ships. A cruise ship can be considered a miniature town in which all technical aspects of modern life are concentrated. As already underlined in the Commission's communication "Industrial policy in an open and competitive environment"⁽¹⁾ it is no longer possible to speak today of high or low technology industries, but only of products that may have different levels of sophistication.

Shipowners are constantly demanding the latest designs from shipbuilders and equipment manufacturers. Quietness, safety and economy have to respond to the latest technical levels. The possibility of building technologically sophisticated ships, allowing EC shipowners to operate with smaller but highly trained crews, may allow for improving the competitiveness of EC fleets vis-à-vis those of third countries. Shipowners thus need to be provided with the necessary devices like for example fully integrated ship control systems or remotely controlled deck machinery. Suppliers of electronic and computerized devices for automatic procedures have therefore a special role to play as they have to respond to these demands.

C.1 THE SHIPBUILDING SECTOR

The shipbuilding sector is responsible for providing efficient, modern and safe ships, and is dependent on R&D in order to make technological advancements and improvements for all types of maritime transport.

The performance of the shipbuilding sector and its possibility to invest in R&D is therefore an important factor for the EC's maritime interests.

(1) COM(90)556 final, 16 November 1990.

Today, the EC's market share of 20% (compared with Japan's 38%) is based mainly on the construction of ships with a high technology content, where the Community still has a comparative advantage. However, Japan's recent efforts to conquer this part of the market, starting with the successful construction of container and passenger vessels, pose serious difficulties for the industry. These difficulties are even more serious, given that EC-shipbuilders operate in a deeply fragmented European market, where the first signs of cooperation emerged only recently, for example with the creation of a common R&D committee, COREDES (Cooperation for Research and Development in European Shipbuilding).

The introduction of modern production technologies, additional R&D efforts and better exploitation of the benefits of the internal market, including a higher degree of intra-Community cooperation, are therefore urgently needed. Reviewing the potential of shipbuilding technologies for marine utilization should be envisaged, for example with regard to new offshore structures, research vessels for science and industry and deep sea mining equipment, built by specialised yards.

The capacity to provide any safe and environmentally friendly ship type, at the lowest possible price under free and fair normal competitive conditions, is absolutely necessary for the shipbuilding sector.

Shipowners will soon call for a new generation of high-speed cargo (and passenger) ships to meet the requirements of just-in-time delivery and a division of labour for certain high-value or sensitive products.

Against this background, attention should also be paid to the situation of those warship yards that are affected by declining military budgets. These yards are gradually trying to compensate for the fall in military orders by increased activity in civil areas. Given the special technological know-how of the warship yards, their experience and skills could be of great value a priori for civil activities, for instance in assisting in the exploration and exploitation of the oceans, in the development of new unmanned submersibles and underwater robotics.

C.11 THE EC-FLEET

EC fleets are facing a multitude of challenges. In 1975 the fleet registered in the Community amounted to more than 30% of the world fleet. Since then, however, the Community's share has declined sharply, and did not even reach 15% in 1990.

This decline has resulted in part from the growth of protectionist measures by third countries and unfair pricing practices. The Commission is constantly trying, in international fora, to combat such developments and to create and preserve open markets and fair competition in shipping worldwide. These were important objectives of the four Council regulations adopted in 1986¹⁾.

In a climate of strong international competition, protracted oversupply of shipping services worldwide, and a consequent fall in freight rates, the Community fleet has suffered a comparative disadvantage. The costs associated with the employment of crews from the Member States have been in many cases an important element in this disadvantage.

Community shipowners are increasingly using the open registers of third countries. Also Member States themselves have developed additional or second registers which, while being of help to some shipowners, do present the danger of an increasing divergence of operating conditions between Member States' fleets and distortions of competition between Community shipowners.

The Commission has put forward a package of positive measures and proposals intended to stem the decline in the size of the Community fleet and in the employment of Community seafarers: "A future for the Community shipping industry: Measures to improve the operating conditions of Community shipping" (COM (89)266 final of 3 August 1989). They include a proposal for a Community shipping register (EUROS), improvements to the effectiveness of Port State Control, and the implementation of the principle of freedom to provide maritime services within the Member States.

1) Council regulation (EEC) No. 4055/86, 4056/86, 4057/86 and 4058/86 of 22 December 1986, OJ L378, 31 December 1986

Some of the proposals in the package have already been approved, and others have been subject to discussion in the Council and other Community institutions. In particular, the EUROS proposal has been modified in the light of comments from the European Parliament. Further modifications, which would have the effect of exempting seafarers who serve on EUROS ships from income tax, are under active consideration. These would reduce the costs to the shipping industry associated with employment of Community nationals. This would also help to improve the competitive position of the EC fleet.

In developing these and other proposals, the Commission has borne in mind that the Community fleet must operate in a very difficult world market situation.

The subject of maritime transport, and especially the need to improve the competitiveness of EC shipping, will form an important element of the comprehensive White Paper on future Community transport policy which the Commission intends to prepare during the autumn of 1991.

As a consequence of strong international competition, the Community is pursuing the development, in technical and economical terms, of a modern fishing fleet capable of supplying the market with products at reasonable prices and which meet high quality and health requirements.

C.III THE EQUIPMENT INDUSTRY

The EC marine and off-shore equipment industry consists of a large variety of mostly medium-sized companies, which supply not only the commercial and the defence sectors, but also the non-marine sector. This sector covers all kinds of ship-machinery, navigational and safety equipment as well as marine environmental instrumentation.

In the absence of technical harmonization of marine equipment, there are few opportunities to exploit economies of scale, especially for safety-related equipment.

Opportunities for European manufacturers to exploit possible European markets have not all been exhausted, for example in equipment for exploring and exploiting the oceans. Ships' propulsion machinery is another example.

Manufacture in Europe is becoming less and less important, whereas imports of machinery built in Japan or Korea under European licences are rising.

C.IV RESOURCES OF THE SEA INDUSTRY AND MARINE RESEARCH

The emerging resources of the sea industry is not a well defined unit, but consists of all industries that provide the infrastructure and services for the exploration and exploitation of the oceans.

For example the offshore sector comprises the construction sector - rigs, platforms, mostly built by specialised yards - and marine technology explorations, field developments, and other services, including supply vessels. This sub-sector thus brings together equipment industry, yards, and marine science and technology.

In order to be successful, the resources of the sea industry has to rely on R&D in marine science and technology and the transfer of technologies from other industries.

Modern complex marine science necessitates optimal organisation of marine research. In spite of the close links between basic and applied research and between the various disciplines, there is still in most Member States the traditional institutional separation between research in fisheries; defence, ocean mining, navigation, coastal engineering, and in basic oceanography, marine biology and geology.

R&D in marine technology in the Community has been so dominated by the requirements of offshore, oil and gas, and defence, that it has created a situation where the technology already developed now needs to be adapted and extended into other promising areas. These include electrical and electronic engineering in the marine environment, underwater acoustics and communication to facilitate offshore exploitation and operations, especially in deepwater, including the development of autonomous (unmanned) vehicles and robotic mid-water and sea-bed systems.

Despite their common problems, the extent of cooperation among Europe's maritime industries is still too limited and this is especially the case as regards R&D and the development of common projects.

C.V SITUATION IN JAPAN AND THE USA

In Japan, shipping and shipbuilding are closely interlinked either at the level of industrial conglomerates or as far as support measures are concerned. These links are most clearly exposed by the home credit scheme which provides Japanese shipowners with low-cost financing which is inevitably used for the purchase of Japanese built vessels. Another example are R&D subsidies which are ostensibly paid to independent research institutes, but in fact ought to be more properly regarded as a direct benefit to the marine industries. Japan is highly dependent on imports of raw materials and exports of industrial goods, and therefore places great importance on strong and efficient maritime industries.

The Japanese government is currently investing 286 million ECU annually in ocean technology R&D programmes. R&D in shipbuilding is being carried out in Japan on a high-speed "Techno-superliner" with a total budget of about 72 million ECU, and on a highly reliable marine propulsion plant with an estimated budget of 15 million ECU.

In 1990 the Japan Shipbuilding Industry Foundation started drawing up the concept of a new-type offshore structure as part of measures to stabilize the business of shipbuilding companies. The work involves research concerning ocean space development and utilization by use of large-sized floating structures.

In the USA, a complex system of measures gives support to shipbuilding and shipping, namely through the restriction of cargo and of national built requirements in respect of domestic trade (Jones Act). As far as shipping is concerned, these restrictions run against the objective of a free and open market in shipping services.

Although the USA has been absent from the merchant shipbuilding sector for about ten years, its recent initiative - aimed at the elimination of trade-distortive measures and practices in the shipbuilding sector on a worldwide basis - is a signal of the importance it places on the construction of merchant ships at a moment when budgetary cuts are drastically reducing the volume of new orders for warship yards.

D. A NEW EUROPEAN MARITIME INITIATIVE

D.1 AN APPROACH IN THE FRAMEWORK OF THE COMMISSION'S INDUSTRIAL POLICY CONCEPT

In the past, the Commission has undertaken and proposed a range of different initiatives. Although some of these have been adopted, others are still waiting for the necessary approval by the Council.

A comprehensive view of all the maritime issues is, however, still missing. A new approach with real impact for the whole of Europe's maritime industries is therefore essential.

According to the Commission's industrial policy concept⁽¹⁾, the Commission's intention can not be to create a substitute for efforts made by companies themselves. The Commission can only give special attention to those areas which play a key role in the economy as a whole. In this respect, the maritime industry is given special mention in the communication on the EC's industrial policy.

D.11 TOWARDS A COHERENT MARITIME APPROACH - Action points

Based on the analysis of future challenges and the current state of the EC's industries, several interrelated areas have been identified as deserving special attention from the Community. These areas concern the basis of all maritime industries, and are supposed to have a dominant impact on their competitiveness, as they are also decisive in improved exploitation of synergy effects. Strengthening them, via horizontal support measures, should be regarded as an urgent task.

(1) COM(90)556 final, 16 November 1990.

D.11.1 Business environment : achievement of the internal market

One of the most important aspects of the Commission's internal market programme is the elimination of trade barriers. In the marine equipment industry, however, technical barriers to trade still exist.

A draft directive is therefore in preparation and will harmonize technical regulations related to marine equipment used on board merchant ships. It is envisaged that the directive will include marine equipment for which it is essential to promote the safety of life at sea, and for the protection of the marine environment from pollution by hazardous substances.

D.11.2 Safety

Maritime safety is an issue of great importance. The Commission is preparing a Communication covering a wide range of aspects in this area.

A distinction has to be made between navigational safety, safety on board, safety at work and safety of the environment.

Maritime activities are one of the most exposed to different types of accidents. Fatal accidents are especially high with regard to transport and fishing activities.

The Commission in its White Paper will address the following items:

- the interpretation and implementation of international regulations at European level, taking into account existing Community legislation;
- improved safety on passenger ferries and environmental friendly tanker designs
- initiatives in the universal application of navigational aid systems;
- more frequent port inspections focusing on compliance with existing safety standards and observance of environmental and social regulations and in order to avoid any unfair competition through cost advantages when norms and regulations are not observed.

As far as fishing is concerned a study has shown that one out of two accidents is related to the ship itself (safety of the ship) and the other is related to the activity of the fisherman (safety at work). This distinction is of importance as it indicates that better equipment and better professional training are needed. The Commission is preparing a directive on minimal requirements concerning safety and health at work on board fishing vessels

D.11.3 R&D

An integrated Community approach to maritime R&D should be envisaged. Shipbuilders, shipowners and the equipment industry should jointly define their interests and should develop common strategies with regard to the increasing demand in technological issues.

The success of cooperative arrangements will depend to a large extent on the gradual concentration and strengthening of R&D on a number of selected projects, involving customers, manufacturers and suppliers.

Europe's maritime R&D base should be strengthened through a coordination of European maritime science and technology R&D requirements. The identification of priority areas is also advocated through a better cooperation of the existing European R&D programmes (e.g. MAST, EURET, BRITE/EURAM, EUREKA (EUROMAR), etc.)

D.11.4 Transport

The potential of waterborne transport - both maritime and inland waterway - for relieving congested and environmentally harmful land transport should be fully developed. Attention needs to be paid to such aspects as container technology, intermodalism and the integration of industrial-logistics with transport-logistics. The Commission is already carrying out work on the development of a combined transport network including maritime links, and the extension of transport infrastructure policies and funding arrangements to the ports is also being pursued, in recognition of the

Importance of efficient ports with good connections to road, rail and inland waterway. These aspects will be among those to be covered in the following White Paper on transport policy, mentioned above.

D.11.5 Training

Better training is needed in order to reduce the number of accidents caused by human errors in the work place and at sea.

Moreover, in order to strengthen Europe's maritime competitiveness, adequate training of manpower is necessary not only in research but also in the industry, in the new technologies employed, including management and working practices, information systems, planning, and quality assurance.

As the EC is not a low labour cost zone, it is necessary to rely more on the advantages of better training. Competitiveness, productivity and a high level of training always go hand in hand.

The achievement of competitive maritime industries will depend on the willing cooperation - in accordance with EC competition law - of customers, manufacturers, and supply chain and research establishments on a European basis. The recruitment of sufficiently well-trained and motivated scientists and engineers and their further training will play a central role.

This applies equally to all people working on board ship. An EC Directive is therefore being prepared and aims to:

- promote adequate qualifications for seamen and mechanics;
- promote the harmonisation of training of Community seamen and ensure the uniform application of the rules laid down by the IMO;
- guarantee navigational security and environmental protection at the same time, by sailors with adequate qualifications.

D.11.6 Environment

A better approach to maritime environment preservation is necessary. A clear framework for EC initiatives in this field must be defined. Shipbuilders, shipowners, equipment industry and all sectors related to the port facilities should jointly define common strategies for a better marine environment.

Particularly worth mentioning are:

- the interpretation and implementation of IMO rules at European level, taking into account existing Community legislation
- the promotion of a comprehensive policy on port reception facilities
- the promotion of new technological systems for surveillance, combat and control of marine pollution either operational or accidental.

D.11.7 Competition in the EC

Strict control of state aids is a necessary condition for undistorted competition. The 7th directive on state aids to shipbuilding⁽¹⁾ has so far proved to be a very effective instrument. Equally, with regard to shipping and the proposed EC register, regard is given to the objective of achieving a real convergence, of the conditions of competition among Member States⁽²⁾.

Competition law also refers to trans-frontier cooperation, and here it must be remembered that national markets or European markets are not always the decisive markets, especially with regard to joint ventures. For maritime industries, the concept of traditional frontiers is not fully applicable (eg flag of convenience, difficulty in applying import duties, etc), so the concept of worldwide international competition may - especially in some sectors - be of particular importance when European cooperation undertakings in this sector are judged.

(1) JO L 380/27, 21 December 1990.

(2) See "Financial and Fiscal Measures concerning Shipping Operations with Ships registered in the Community", SEC(89)921.

D.II.8 International Dimension

Shipbuilding, and to some extent other maritime industries, have been subject to strong unfair and subsidised competition from third countries. This should be eliminated in order to create a free and fair international environment for European companies.

The Community is actively seeking - in the context of current OECD negotiations - an international agreement against trade distortive measures, including unfair pricing practices, in the shipbuilding sector. In this respect the Community as a whole is assuming the EC's responsibility vis-a-vis its main international competitors.

It is equally important to have a harmonised Community position, especially in the framework of the International Maritime Organisation (IMO).

D.III AN INTEGRATED EUROPEAN ANSWER

The implementation of the horizontal measures as described above would contribute to maritime sectors keeping up with the newest developments, benefitting fully from the achievement of the internal market, and better exploiting all synergy effects.

However, maritime challenges, relating to the resources of the sea, to pollution of the oceans, transport developments and international standards for example can no longer be tackled on the basis of each specific item in isolation. Already today, but even more importantly in the future, maritime challenges demand new strategies, which are based on the technical knowledge, the experience, and the R&D efforts of all maritime industries and all related research institutes.

The different maritime issues and challenges have thus to be recognised as parts of an overall maritime dimension and have to be dealt with accordingly.

A new global and horizontal approach is necessary - based on cooperation between the different industries concerned, research institutes, universities, Member States Administrations and the Commission. Only such a framework allows the maritime interests of the Community to be pursued.

In the EC a framework for an efficient exchange of information through permanent dialogue between all parties concerned should be created. Areas of common interest to two or more of the maritime parties can then be identified and analysed at community level. These areas may, for example, include standards, research and development, port facilities or environmental issues. Closer vertical and horizontal cooperation could result in the recognition of common aims, projects and market lead strategies.

Against this background, an appropriate forum is proposed to contribute to the definition and the preparation of the details of this approach being implemented. The forum should be made up of representatives from the industries concerned, research institutes, Member States' Maritime and Industrial Administrations and Commission officials.

As far as the Commission is concerned, a group, composed of all the Directorates-General concerned, could represent the Commission.

With regard to the terms of reference, the forum - organised through a network of working groups - should :

- provide the framework for an efficient exchange of information between all relevant parties concerned;*
- collect and analyse the common interests of the various industries;*
- identify priority areas, where common interests do exist and where - respecting the subsidiarity principle - actions at EC level might be appropriate.*

These areas might for example relate to:

- industrial maritime implications of global transport systems;*
- common R&D projects, with the involvement of users, producers and suppliers of technological equipment;*

- *implications for the maritime industry of the national, EC and international (including maritime safety and environmental) regulations, and directives,*
- *transfer of technology between military and civil activities, including R&D, improved use of existing military capacities for alternative uses;*
- *activities in fields which hold the key to future developments, for example in areas like resources of the sea, environmental technology, etc.;*
- *evaluation of recommendations for international safety and environmental standards;*
- *the need for standardisation work at European level, quality assurance procedures for maritime industries.*

E. CONCLUSIONS

The Community is aware of the increasing importance of the maritime dimension. Maritime matters are directly involved in the EC's economic and political interests.

Europe's maritime interests are too wide-ranging to enable the maritime industries to safeguard them on their own, especially as some of them face severe adjustment problems.

Given this situation, the Community needs to strengthen its maritime basis in order to be in a position to benefit from future developments in the maritime dimension. However, this can not be done by the industry, Member States or the Commission individually.

Consequently, better internal policy coordination, as well as an improved understanding between the different companies in each sector concerned, the different maritime industries, Member States and the Commission altogether is needed.

It is therefore proposed to create a discussion Forum, made up of all the parties concerned, with the following tasks:

- *define more precisely the scope of the global and horizontal approach, by identifying the priority areas, and the types of actions to be developed, in order to improve the competitiveness of the EC maritime industries within the Community as well as on world level;*

- assess the appropriate method for the implementation of these actions.

The forum should present a report to the Commission 9 months after approval of this communication.

Following this report the Commission will examine whether a further communication to the Council and the European Parliament would be appropriate, in order to propose concrete actions of common interest to the maritime industries.

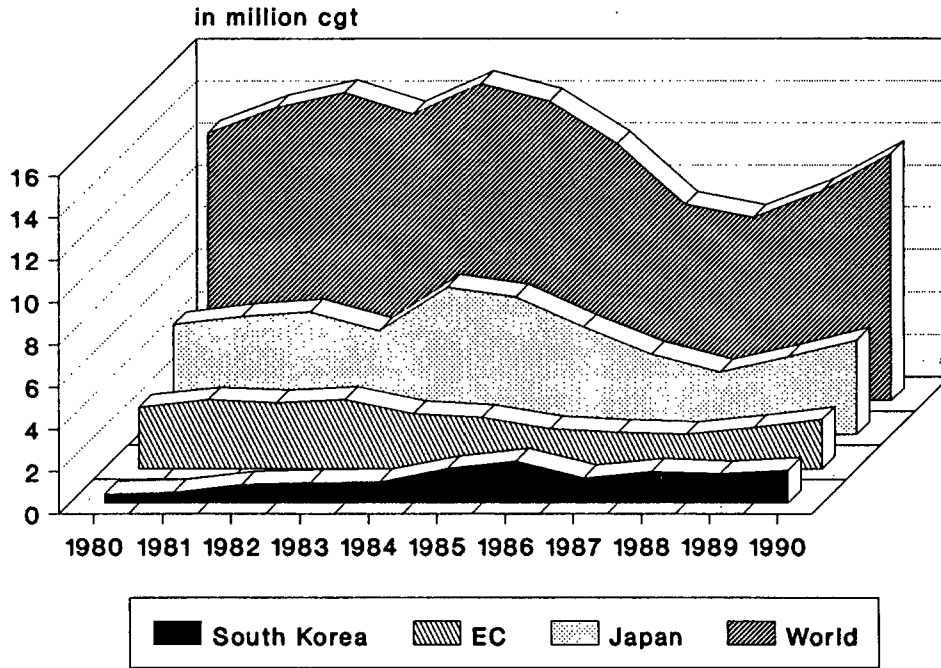
ANNEX

- **Shipbuilding**
- **Merchant Fleets**
- **World Seaborne Trade**
- **Aquaculture**

Shipbuilding

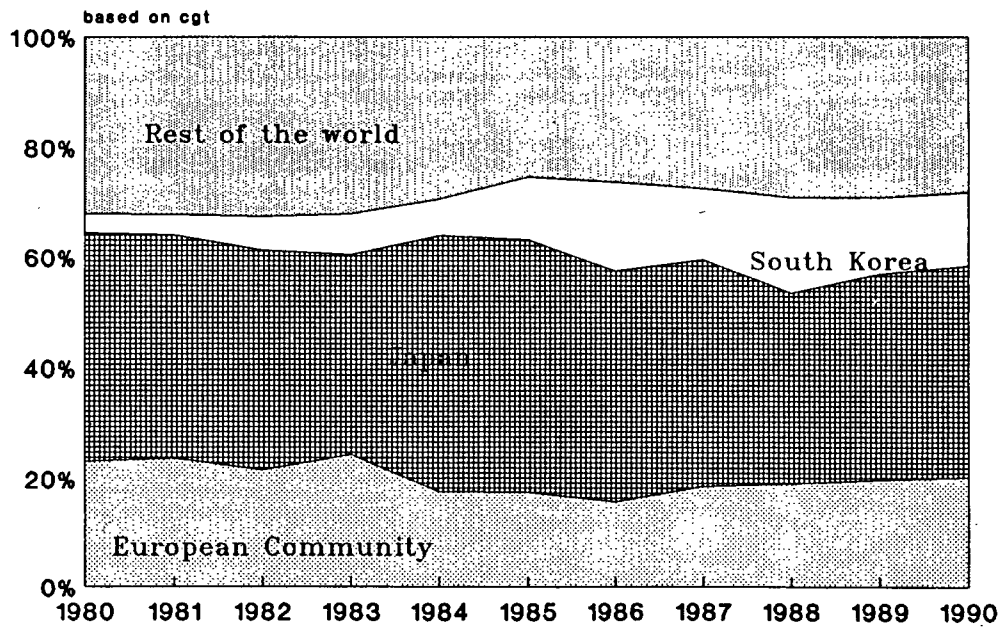
- **World Production Of Ships**
- **Order Books**
- **Newbuilding Prices**
- **Shipbuilding World Marketshares**
- **Employment**

World Production of Ships



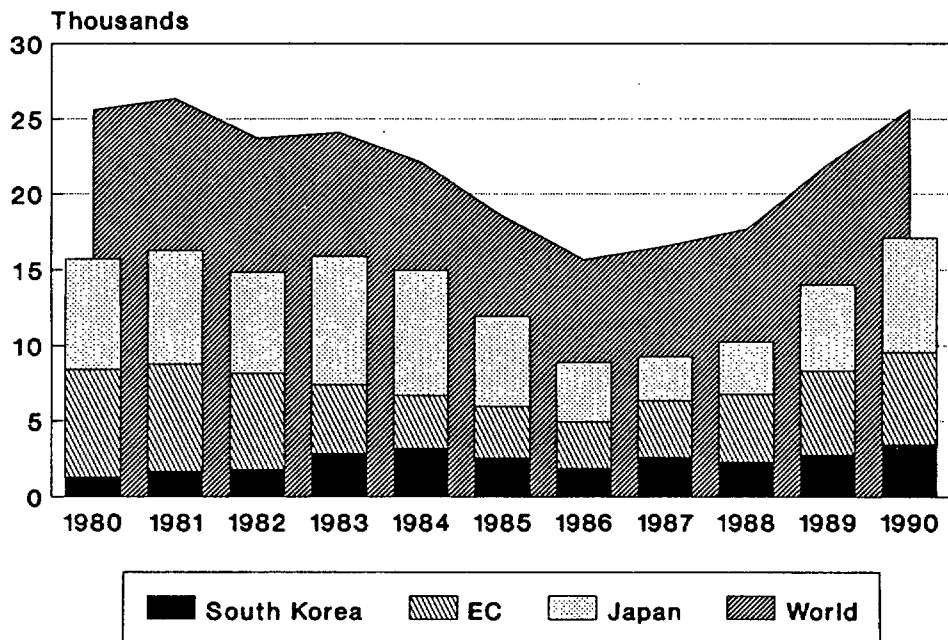
Lloyd's Maritime Information Service

Production of ships : shares in world production



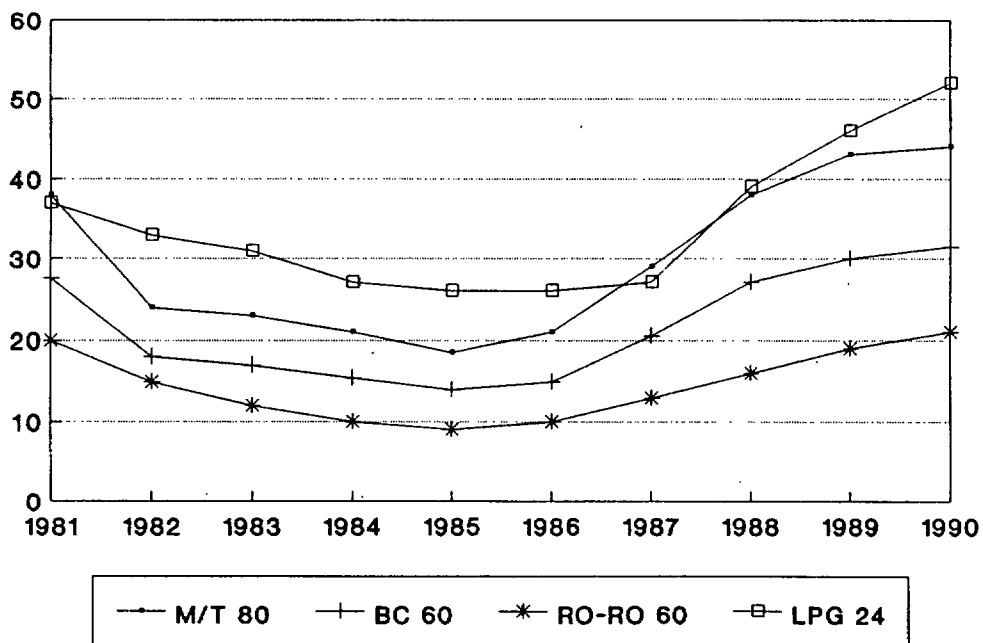
Lloyd's Maritime Information Service

Order Books (in million cgt)



Lloyd's Maritime Information Service

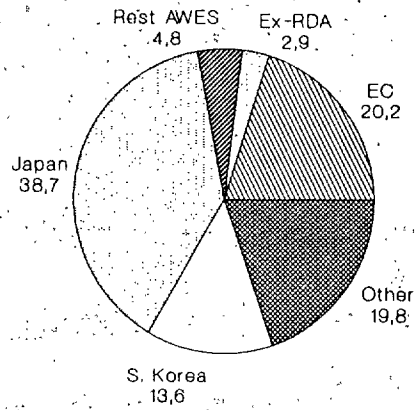
Newbuilding Prices (in million US-Dollar)



Fearnley's Review 1990

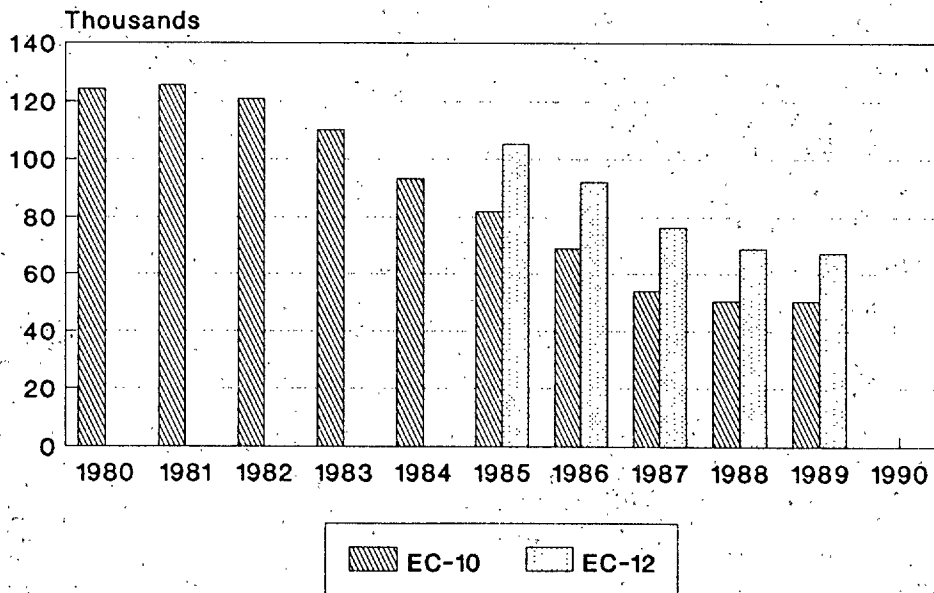
Shipbuilding-Worldmarketshares 1990

based on cgt



Lloyd's Maritime Information Service

Employment construction of new vessels



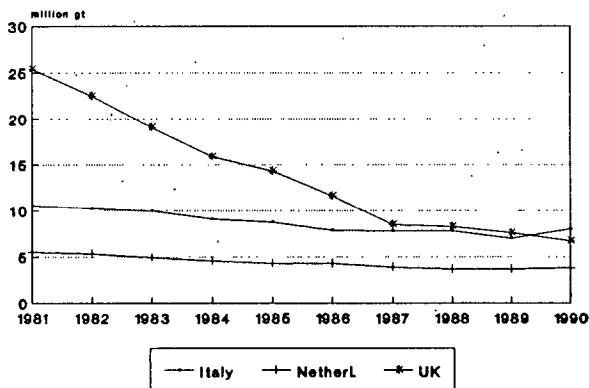
National sources

Merchant Fleets

- The Community Fleets
- Merchant Fleet - World and EC
- Estimated World Fleet 1991-1994

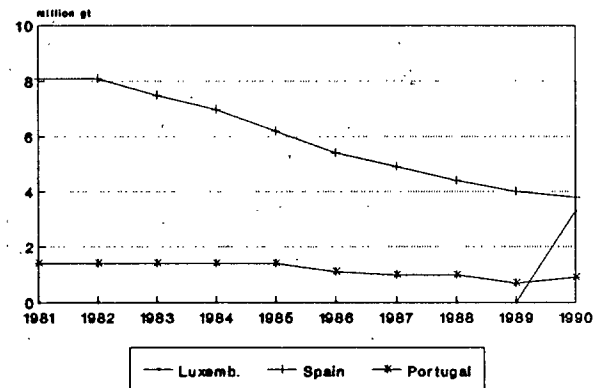
The Community Fleets

Member States' Fleets
by flag



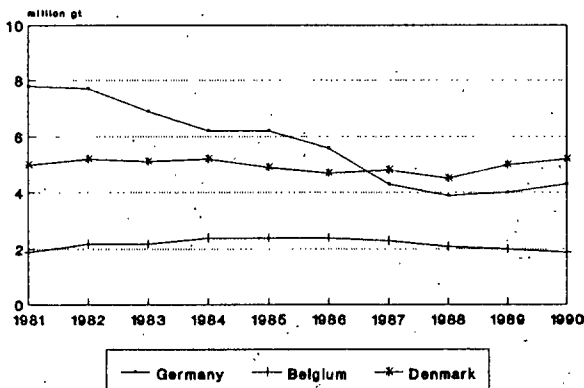
Lloyd's Register of Shipping

Member States' Fleets
by flag



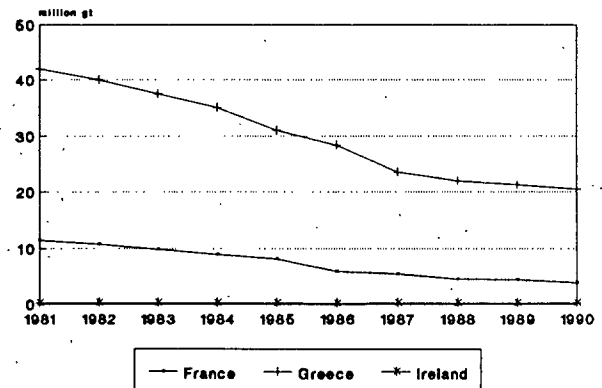
Lloyd's Register of Shipping

Member States' Fleets
by flag



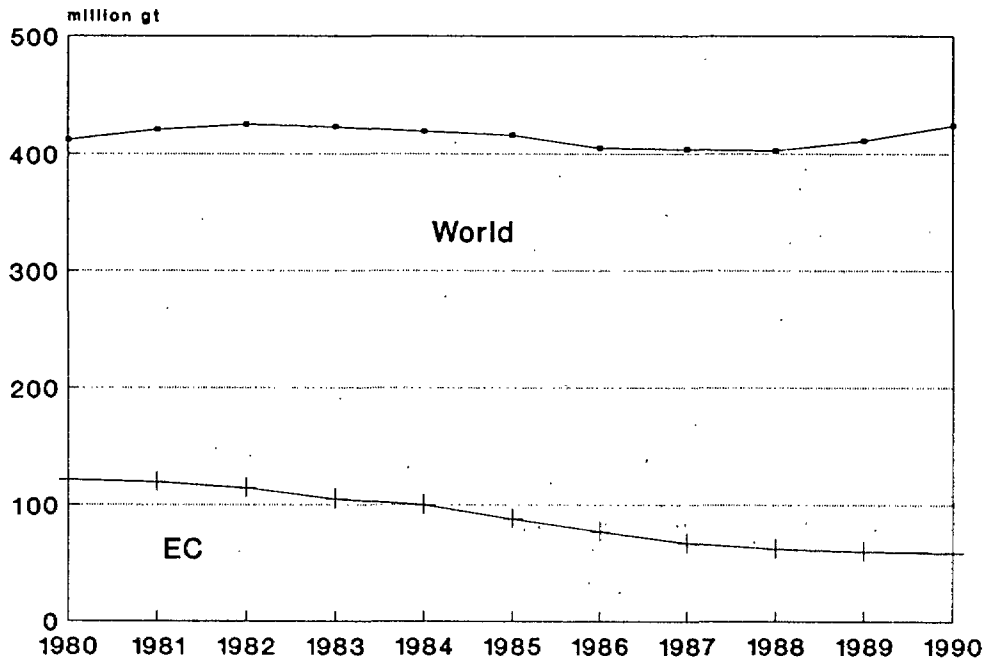
Lloyd's Register of Shipping

Member States' Fleets
by flag



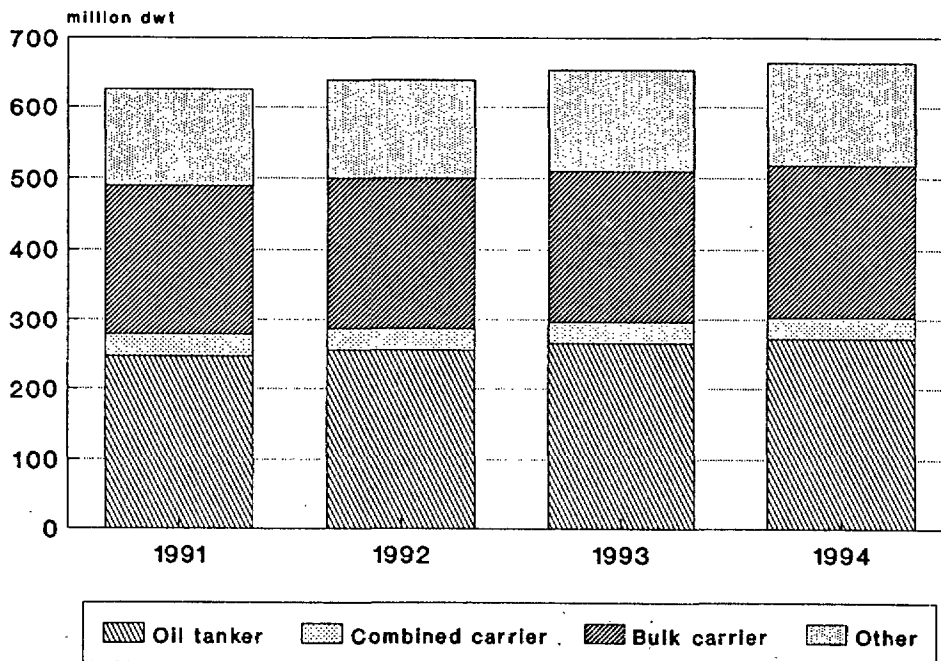
Lloyd's Register of Shipping

World and EC Fleet



Lloyd's Register of Shipping

Estimated World Fleet

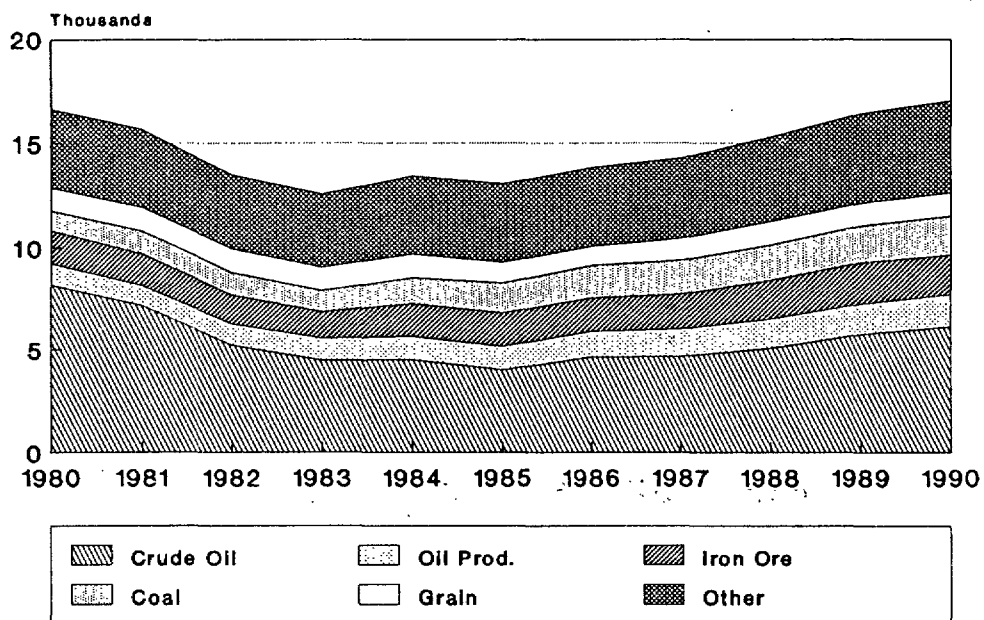


Fearnley's Review 1990

World Seaborne Trade

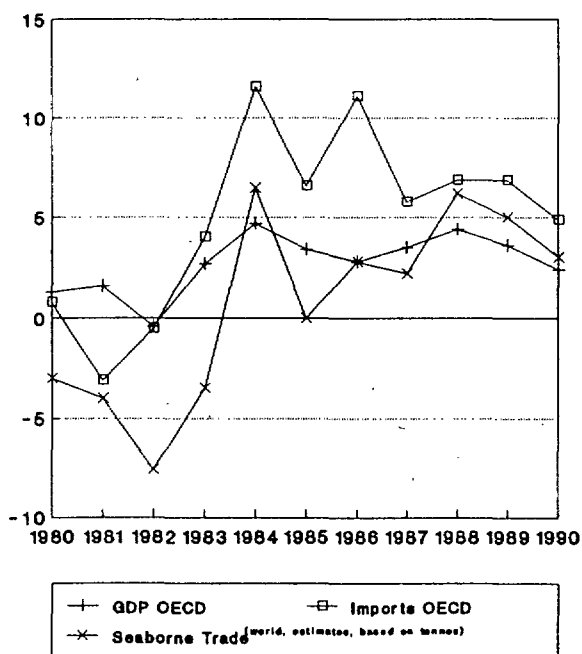
- World Seaborne Trade
in tonne-miles
- Economic Growth And
Seaborne Trade

World Seaborne Trade (in billion tonne-miles)



Source: Fearnley's Review 1990

Economic Growth And Seaborne Trade (average annual growth rates)



Commission services

Aquaculture

- ✓ Aquaculture-Production
- ✓ Shares in world production 1985

Aquaculture

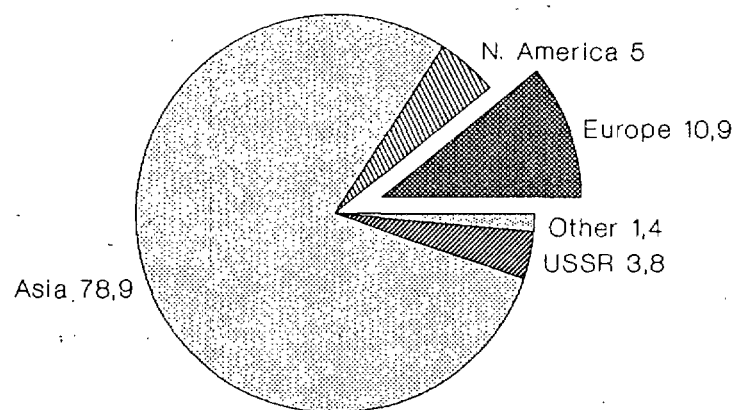
World Production 1988 (1)

- 14 million tonnes ▪ 14% of fishery
- 22 billion US\$

EC Production 1989 (2)

- 847.000 tonnes ▪ 1,6 billion ECU turnover

Shares in world production 1985 (total production, tonnes)



1) Fao, Commission services

2) Association Européenne des Economistes de la Pêche

3) *Aquakultur und Aquatechnik, Sylt 1989*