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ORIENTATION PAPER  
ON  
FUTURE AID STRATEGY FOR SHIPBUILDING

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(communication from the Commission to the Council)

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## I. INTRODUCTION

Since the first oil crisis many basic industries in the EEC have experienced declining markets but in few has the recession been so protracted and severe as in the shipbuilding industry. Within this sector employment in new building has since 1975 within the present enlarged Community dropped by more than 50 % and capacity has been reduced by close to 50 %.

Within the Community during the last decade Member States have responded to the crisis by a progressive retreat within the sector from one restructuring plan to another, involving increasing social and regional problems for Member States, and continuous requests for public support and protection, which have stretched the exigences to State budgetary resources and which has at the same time led to a gradual segregation of the national markets within the EEC.

One of the principal causes of this crisis has been the large excess capacity within the world's merchant fleet. The surplus, which has been steadily aggravated by speculative ordering unrelated to the need of the market, is today of an estimated order of somewhat 150 million dwt, which corresponds to 6 years production of all shipyards in the world at the 1985-level of production, and this at a time when seaborne trade expressed in tonnes/miles is more than 10 % below the level of 1975.

Another main cause has been the development and expansion in certain third countries of new shipbuilding capacities which have proved extremely competitive.

Despite significant restructuring efforts involving heavy economic and social sacrifices the crisis has continued to deepen. Unless remedial action is taken the sector seems destined to decline still further. Presently, the level of new orders has deteriorated to a new low which makes drastic structural interventions necessary both inside the Community and by its main competitors.

Given the short and medium-term outlook for the market, it is unrealistic to expect any lessening of the crisis. Market forecasts for the coming 10-year period give no hope for a better utilization rate of the existing excess capacities.

Faced with these sombre perspectives concerted action at Community level is needed if the sector is to survive in the long term.

Since shipbuilding will continue in most yards only if supported by public finance the future aid strategy is the key element in the survival of the sector.

Only by gearing the Community policy towards reinforcing the competitiveness of its shipbuilding industry on the areas, where it remains relatively most competitive, i.e. on high technology ships and vessels on which it has developed a lead as to know-how, can a healthy and effective core of activities be ensured, on which the future existence of the sector can be based.

Concentration on high technology shipbuilding activities will provide Community shipyards with a sound foundation on which to follow any future trends of the market.

## II. AID STRATEGY FOR COMMUNITY SHIPBUILDING AFTER 1986

1. Since 1981 aid to the shipbuilding sector has been governed by the Fifth Directive which expires at the end of 1986. The Directive has set out the terms and conditions under which the Commission has been able to authorise substantial volumes of state aid to the shipbuilding industry.

By linking the Commission's approval of these aids to strict, specific conditions relating to restructuring measures to be undertaken by the aid beneficiaries, progress has been made in the structural adaptation of the Community's shipbuilding industry during the period involved.

The aid rules laid down in the Fifth Directive have, however suffered from certain shortcomings. They have not been able to ensure full aid transparency because they do not place all kinds of assistance to shipyards on an equal footing throughout the Community.

Moreover, together with a general increase in state aids throughout the Community, national policies in response to the shipbuilding and shipping crises have resulted in an increased segregation of the national markets within the EEC which has seen intra-Community deliveries drop from more than 20 % in years of low aid intensity (1973-1975) to below 5 % during the period of the Fifth Directive (see Annex 1, p. 13).

2. The world crisis in shipbuilding continues to deepen.

The important grants and credit facilities accorded to shipowners have largely reduced the clients' own investment risk and have thus led to an increase in tonnage which largely exceeds a market need which has been declining due to a continuing trend towards less bulky cargo over shorter distances in the world's seaborne trade.

The volume of world-wide shipbuilding overcapacity is generally estimated around 30 %, this in spite of the extensive structural adaptations carried out during the last 10 years. In the enlarged EC capacities have been almost halved from approximately 6.6 million cgt in 1975 to approximately 3.5 million cgt at present.

Together with the overcapacity of operational tonnage on the shipping market the fierce price competition for new building has negatively affected freight rates. The overcapacity situation for shipbuilding has caused prices to slump to a level where often they hardly make any contribution to fixed costs in West European shipyards. This in turn has had an adverse affect on shipbuilding prices.

The price problem has been accentuated by the fact that a major share of the new capacity brought on-stream over the last ten years in the Far East is extremely cost competitive. Differences in the cost structure in favour of these Far Eastern price leaders compared to European yards can be up to 50 % for standardized vessels in series, which explains the dramatic fall in prices for certain types of ships.

3. Since the end of 1984 the structural crisis in this sector has been aggravated by a cyclical "crisis within a crisis". Forecasts of yearly average newbuilding demand have recently been made by the Association of West European Shipbuilders (AWES) and the Shipbuilders Association of Japan (SAJ). They came to a remarkably similar conclusion :

<u>(million cgt)</u>	<u>AWES</u>	<u>SAJ</u>
1984-1990	12.7	13.3
1990-1995	18.5	19.0

These have to be compared with a 1985 world output of 13.7 million cgt (of these approx. 16.5 % or 2,3 million cgt fall within EEC 12). However, this +/- 13 million cgt for 1984-90 is the average of a slump in production of around 11 million cgt for 1987-88 (already initiated by a level of new orders of 10,3 million cgt in 1985) and a possible resumption in annual demand of around 15 million cgt at the end of the present decade. However, on the basis of the information presently available to the Commission, it is doubtful when and whether any such resumption will take place.

Due to the differences in cost structure between West European yards and the Far Eastern price leaders for the most common types of ships, any improvement in market prices due to a rise in demand or to a reduction of the excess capacities will immediately initiate an expansion of capacity in the latter countries, which will find this profitable long before the prices have reached a level sufficient to cover the operating costs of European yards.

4. The expiry of the Fifth Directive at the end of this year provides an opportunity to look in detail at the future of the industry and to decide how best to improve its possibilities of restoring its competitiveness in the long term.

The last extension of the Fifth Directive assumed some recovery in the market by 1987. This upturn has not occurred, and in fact, the situation has even further deteriorated. It is clear that the sector is suffering from a fundamental structural crisis rather than a cyclical problem of demand. Market prospects remain bleak and it would be shortsighted to continue to respond to the aggravation of the crisis by multiplying the volume of operating aids. Such an approach would not seem the most appropriate way to use the increasingly scarce budgetary means of Member States. It would furthermore tend to increase the segregation of the

national markets and jeopardize the existence of enterprises, which have already taken or are presently going through extensive painful restructuring measures in order to adapt to the realities of the market.

The Commission recognizes, however, that state aid will continue to be necessary in order to encourage restructuring in many yards and in view of the cost differences which exist for most categories of ships in comparison to Far Eastern competitors.

The Commission now proposes a tighter and more selective aid policy, which supports the trend of shifting production away from relatively unsophisticated ships such as crude oil tankers and bulk carriers toward more technologically advanced ships for which the EEC cost disadvantage is relatively lower, and which establishes fair uniform conditions for intra Community competition. This constitutes the most appropriate and positive approach to ensure in the long term the maintenance of a sufficient level of activities in European shipyards and thereby the survival of an efficient and competitive European shipbuilding industry.

5. This future aid strategy to be pursued by the Commission is based on the following main considerations :

- the present depressed state of the market and its future prospects;
- the need to provide a suitable instrument for achieving Community objectives leading to the development of a common market and ensuring that intra-Community competition is carried out on equal terms for all Community operations;
- the need to intensify structural change which can, in the longer term, lead to a healthy and competitive shipbuilding industry in the Community;

- the need to take into account the social and regional problems.

6. These considerations lead the Commission to propose a differentiated approach to the two basic types of aid ; production aid and aid for restructuring.

A. Production aid

Given the prevailing and foreseeable trends in world shipbuilding together with budgetary constraints within Member States there is an increasing tendency to question the justification for continued expenditure of scarce state resources in certain sectors of the shipbuilding industry where no cost-related return in the form of restored competitiveness can be expected in the foreseeable future.

A key element of the proposal is a reduced level of production aid which is geared to meet competition in the areas of shipbuilding where, compared to the Far Eastern yards, the Community's competitive disadvantage is lowest, and where there is a real possibility of restoring long term competitiveness (eg. in areas where EC yards have acquired particular know-how through specialisation such as highly sophisticated, technological vessels, together with ferries and cruise liners).

In order to improve the overall competitiveness and to develop an undistorted common market in shipbuilding by reversing the recent trend toward segregation of national markets, this reduced level of production aid should be attained by means of a common uniform maximum ceiling, based on compensation for the cost disadvantages of the most efficient European yards compared to the price of the most competitive Far Eastern price leaders in the categories of ships for which the European yards are relatively more competitive.

The criteria for fixing and applying the common maximum ceiling for production aid will be the following :

- i) it will be fixed by the Commission after consultation with Member States;
- ii) the base for the fixing of the ceiling will be a study by an independent shipbuilding consultancy appraising for the various categories of ships the relative cost position of the most effective Community yards compared to the far Eastern price leaders, hereby taking into consideration the price level and sales conditions practised by the latter;
- iii) in fixing the ceiling due consideration will be given to the expected long term consequences for shipbuilding activity maintainable in the EEC, aimed both at ensuring the optimal activity level justifiable on economic grounds and at urging the structural adjustment;
- iv) The comparative cost equation and the prevailing market price level will be continuously monitored by the Commission, and if there is a significant change in one of the variables the ceiling will be adjusted accordingly - again after consultation with Member States at a multilateral meeting, chaired by the Commission.
- v) Only the basic criteria for establishing the ceiling, not its concrete nominal level, will be stipulated in the aid Directive.

Nevertheless, the Member States will be informed of the level of the ceiling by the Commission before adopting their position on the Directive.

- vi) The proposed system will not exclude the granting of production aid for any specific type of vessel, although in fixing the maximum ceiling for production aid the Commission will be guided by the Community's relative level of competitive disadvantage in the construction of different type of vessels. Below the aid ceiling it will be for Member States to decide on the precise allocation of aid.

- vii) It is imperative in order to avoid discrimination, to make all forms of production aid subject to the aid ceiling, including loss compensation and such aid which is granted indirectly through third persons.

Full transparency as to such aids and their de facto application must therefore be ensured.

This implies e.g. that the grant equivalent of financing facilities and tax concessions granted to shipowners for investments in ships will be included, even if de jure not linked to national yards, if the benefit accrues mainly to national yards.

- viii) Loss compensation for trading losses will also be included within the ceiling. The burden of proof that trading losses are not concerned is incumbent on the aid beneficiary. Due to the difficulties of allocating loss compensation to individual shipbuilding contracts its aid intensity will be calculated as a percentage of the turnover in merchant shipbuilding of the yard concerned.

- ix) It is proposed in the initial stages to exclude from the ceiling the aid element contained in the standard OECD export credit terms.

Although the granting of such credits at terms below those prevailing at the national market constitutes an aid, the fact that they represent negotiated general international terms does by an alignment strategy allow this aid element to be disregarded within the ceiling.

- x) Some Member States grant aid to developing countries in the form of ships. For example, under prevailing OECD terms such ships must contain a minimum "gift" element of 25 %. Such aid should not be included under the aid ceiling but it will be necessary to ensure strict control of compliance with the OECD criteria through obligatory prior notification of such cases.

- xi) As the production aid ceiling represents an alignment with the most efficient yards to Far Eastern prices its application is not conditional on restructuring measures. It should, however, in itself constitute a built-in incentive for less competitive yards to accelerate and intensify the structural adjustments necessary in order to maintain a sufficient level of activities within this production support level.

B. Restructuring aid

As all Member States should have equal opportunities to compete at the reduced level of production aid the Commission will consider aids necessary to carry through the desired structural changes, i.e. in particular aid destined to cover the costs of total or partial closures, normal expenditure occasioned by total or partial closures, or investment costs connected to specialization and innovation or research and development costs, provided that it does not lead to an increase in capacity.

No aid ceiling will be imposed when aids serving the necessary structural adjustments enabling yards to operate under the new production aid ceiling are concerned. In the appreciation of such aid the Commission will be guided by the common interest in having a viable shipbuilding industry, taking into account the persistent structural disparities of yards in the different Member States.

Restructuring aid will be monitored closely to ensure that it is limited to covering normal expenditure related to structural adjustment which is both genuine and irreversible. In cooperation with technical experts the Commission will endeavour to establish a yardstick for measuring capacity reductions.

The Commission is conscious of the social and regional consequences which are likely to result from these structural changes; see in that context the following two chapters.

7. It is proposed to treat ship conversion in the same way as shipbuilding. On the other hand, the Commission does not envisage allowing for aid for shiprepair except for total and partial closures, in line with the present provisions of the Fifth Directive. There is currently a considerable overcapacity in this sector and a further concentration here is likely as a result of the new aid strategy for shipbuilding.

The aid policy must be geared towards avoiding the maintenance of continued overcapacity by production aid and towards supporting the necessary structural adjustment through aid for this purpose.

8. Full aid transparency is a vital element in assuring the proper functioning of a Community aid system both in respect of operational aids and burden-sharing with regard to restructuring efforts. Consequently the Commission will strengthen the notification rules, and also the a posteriori reporting obligations of Member States as regards actual aid payments, and the achievement of restructuring objectives.
9. Home credit schemes are operated in certain Member States. The Commission has taken note of the reticence expressed by the majority of Member States on the possible introduction of a Community Home Credit Scheme as the sole form of production aid for Community shipbuilding. It does not therefore intend to pursue this matter at the present time.
10. In order to allow for the proposed aid strategy to produce a structural effect in the sector, it is proposed that the new aid rules apply for a 5-year period until the end of 1991.

However, the Commission reserves the right, if necessary, to make proposals for an adaptation of the scheme. After two years of operation of the new scheme it will report to the Council.

11. In Spain and Portugal the restructuring process is less advanced than in other Member States and the immediate application of the proposed maximum obligatory production aid ceiling may cause special difficulties in these countries.

It is proposed to allow these two new Member States a certain transitional period, during which through intensified and accelerated restructuring they may become able to conform with the new rules.

During this transitional period, which should be shorter than the validity of the new regime, it would seem reasonable to apply the current aid rules with the emphasis on the following conditions :

- a clear degressivity in production aid during the transitional period;
- the adoption of restructuring plans, which after the end of the transitional period will make them capable of operating under the new aid rules.

12. The Commission will present to the Council a detailed proposal for a new aid regime in the autumn 1986.

### III. THE CONSEQUENCES OF THE PROPOSED AID STRATEGY

#### 1. Industrial Consequences

- 1.1. A trend towards shifting the West European shipbuilding output towards non-standardized ships with high-added value is already very distinct, see the AWES figures in the attached statistic on development of merchant shipbuilding by region and type of ship 1978-1985 in 1000 cgt and % (Annex 2).

This trend inevitably leads to a certain reduction in shipbuilding activities within the EEC, less, however, measured in construction value than in construction volume.

The proposed uniform aid ceiling for production aid will ensure that this structural adjustment takes place in an orderly way which in the long term renders maximum advantage to the Community.

- 1.2. The proposed aid policy will have an optimal effect on competitiveness, if the Member States use their aid to strengthen or maintain the position of the most competitive yards, rather than trying to spread the cuts out evenly across the board. It is important for a yard not to fall below a certain critical level of capacity and output, beyond which it begins to lose its ability to innovate, technological diversity and versatility.

The yards, too, will have every interest in using the aid available for innovative designs within a more selective range of ship types.

- 1.3. The competitiveness of European yards relative to their Asian rivals increases through the 15 ship types in the OECD classification, as these become more technically sophisticated and non-standardized, and Community yards are able to compensate for their cost disadvantages with greater know-how and experience.

For large oil tankers and bulk carriers Community yards are so uncompetitive that their position is scarcely worth defending.

They are better placed for ships - and this even applies to tankers and bulk carriers - fitted with cargo-handling facilities or designed for special kinds of cargo : e.g. bulk carriers fitted with their own handling facilities for serving ports without proper infrastructure, ships for transporting cargoes requiring special conditions (product carriers, LNG carriers, LPG carriers, reefers, chemical carriers) or vessels of recent and innovative design (Ro-Ro vessels, container ships).

Because of its know-how and experience, especially in finishing and special equipment, the Community is even better placed for non-cargo ships, such as passenger liners and ferries.

Finally, geographical proximity and close links between shipyards and owners will play a role with the smaller, less expensive vessels or those used over a more limited geographical area (fishing vessels and other non-cargo ships such as tugs, dredgers, etc...). Close links

with the owners clearly favour Asian yards for car carriers, as that is where the main car exporters are, and in fact Asian goods have a virtual monopoly of car carriers. However, such links can also operate to the advantage of yards in the importing countries, as is the case with LNG carriers which the LNG purchaser often negotiates to be built by yards in his country.

1.4. The conclusions as to the types of vessels for which the Community industry's position is or is not worth depending are not universally true or unchanging :

- The classification is necessarily crude and does not reflect the varying degrees of sophistication possible within the same category, which can differ by a factor of two or more. This is especially true of the general cargo category. There is a constant demand for ships to meet special requirements.
- A technological lead sometimes rests on identification of a need, and may be short-lived if the technology used in building the vessel is easily transferable or standardizable. For example, container ships are now standardized, the cgt coefficient for LNG carriers has fallen from over 4 to 1.25 in the space of a few years, and this is starting to apply to Ro-Ro vessels and reefers.
- Fluctuations in demand and hence prices sometimes allow the Community industry to win orders for which it is usually not competitive enough (e.g., the comparative surge in demand for bulk carriers in 1983-84).
- Conversely, the sectors where Community yards appear strongest are not immune to attack from our Asian competitors; for example, Japanese yards, and recently Korean ones too, have won orders for ferries and passenger ships.

However, broadly speaking it is safe to say that a ceiling on production aid of around the average difference between the prices (including credit facilities) Community and Asian yards are able to offer on different types of vessels would mean the following for Community yards :

- a very substantial reduction in the production of unsophisticated and largely standardized vessels (bulk carriers and tankers); in 1985 these made up 14.2 % of the Community industry's output but had already fallen to only 8.7 % of new orders. It should be stressed that technologically a withdrawal from this segment would not be irreversible : by maintaining a lead in more sophisticated technology it would be comparatively easy to reactivate less sophisticated technologies when the market permitted or conditions required;
- maintenance or strengthening of Community yards' position in sectors in which they have little or no competitive disadvantage : ferries, passenger ships, fishing vessels, other non-cargo vessels. This segment accounted for 26.3 % of Community output in 1985 but 38.9 % of its order intake;
- in the intermediate categories (general cargo ships, reefers, Ro-Ro vessels, chemical carriers, container ships, LPG and LNG carriers), which accounted for 59.5 % of Community output and 52.3 % of new orders in 1985 and in which the Community industry, although under a definite cost disadvantage, still has a position worth defending, whether the Community manages to hold on to its present market share or to retrench to a smaller-scale, but competitively more stable position will mainly depend on :
  - . the yards' strategies for innovation in design and improvements in production processes,
  - . the cooperation between yards and equipment suppliers to promote and utilize technological advances and standardization in equipment,

. the help the public authorities are able to give to stimulate these trends:

Yards would in any case remain free to choose their own product mix, provided their aid requirements did not exceed the ceiling for production aid set by the Commission. Within its chosen product mix, a yard would even be able to continue producing some bulk carriers or tankers, provided it was able to make up for the losses on these from its building of other more profitable ships.

## 2. International Consequences

The Commission is conscious of the importance which must be attached to the particular international dimension of this sector.

Present worldwide overcapacity remains considerable and only by a common burden-sharing by the necessary structural adaptations will it be possible to halt the price slump and to arrive at a normal market situation, where the sector can exist without aid support.

In order to re-inforce its international negotiating power the Community will have to convince third countries that the Community is willing to improve competitiveness and efficiency inside its own market. An aid policy which aims at providing undifferentiated support regardless of market developments hardly seems an appropriate basis for negotiation. On the other hand, the fact that the production aid ceiling is flexible and directly linked to the market behaviour of Far Eastern price leaders provides the Commission with a useful bargaining base for its negotiations on capacity reductions with these countries. Moreover, the intensified structural adjustments which are part of the new aid strategy will re-inforce the strength and credibility of the Commission as a negotiating partner.

3. International Measures

The Commission will intensify its pressure at the international level to obtain from the Japanese market leader and the Korean price leaders a more equitable contribution to the structural contractions necessary to reach a better worldwide equilibrium between supply and demand.

It is the Commission's intention alongside the efforts displayed at the multinational level within Working Group 6 of the OECD - efforts which it must be allowed have so far only brought modest results - to take the offensive by pursuing ad hoc bilateral discussions at a high level with both Japan and South Korea.

## I. SITUATION AND STRUCTURAL TRENDS IN THE SHIPBUILDING SECTOR

### 1. Production and market shares<sup>1</sup>

1.1. Shipbuilding in the broad sense accounts for 1.4 % of industrial employment and 1.1 % of the value added by industry. The relationship between these two indicators is in itself an indication that value added per capita is much lower in the shipbuilding sector than in industry as a whole<sup>2</sup>, one of the reasons being that shipbuilding is heavily dependent on components and materials supplied.

1.2. In 1985 the shipbuilding industry of the Community of Ten produced 2 million cgt as against 5.1 million cgt in 1976, thus accounting for 14.2 % of the world total of 14.1 million cgt. This level is the lowest recorded since the beginning of the crisis and represents a 61 % reduction since 1976.

This decline has not only affected Community producers : it has also hit those in Japan and in the rest of the world, although to a lesser extent (Japan down 22.2 %, the rest of the world down 36 %). By contrast, the only major producer whose output has increased regularly from year to year is South Korea, which has recorded a 266 % increase in production since 1980 (thereby raising its share of the world market from 3.5 % in 1980 to 11.5 % in 1985).

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<sup>1</sup> As a general rule, tonnages are expressed in terms of compensated gross tonnes (cgt). This is not a physical unit but simply a statistical unit which reflects the volume of work that goes into building a vessel by multiplying the physical unit (gt = gross tonnes) by a coefficient, which is either greater or smaller than 1 according to the complexity of the vessel type.

<sup>2</sup> It is not easy to place shipbuilding in the strict sense of the word, that is to say the building of new merchant ships, in perspective within the Community's industrial structure, since the macroeconomic indicators relate only to shipbuilding in the broad sense (i.e. including repairs, military vessels and allied activities).

- 1.3. Forecasts for world shipbuilding for the coming years, according to figures supplied by the trade associations, are as follows :

	<u>annual average - m cgt</u>	
	1984-90	1990-95
AWES *	12.7	18.5
SAJ **	13.3	19.0

\* Association of West European Shipbuilders

\*\* Shipbuilders Association of Japan

According to these estimates, completions for the period 1984-90 are likely to amount to 12.7 million cgt annually, i.e. 12 % less than during the previous five years. However, this average does not reflect the slump in the market in the short term : the AWES graph (Table 1) points to a fall to under 11 million cgt in 1987.

This is already foreshadowed by the new order intake figures of only 10.3 million cgt in 1985 and the latest figures for the first quarter of 1986. The figures in fact show a fall in demand greater than was assumed in the newbuilding forecasts.

1.4. Worldwide order intake (million cgt)

1982	1984	1985	Last 12 months (April 1985 - March 1986)
14.8	11.7	10.3	9.7

This steady fall in demand has inevitably affected the level of order books. At the end of March 1986 order books in the enlarged Community were estimated at around 3.5 million cgt. Annual production capacity in the

Community is estimated at 3.4 million cgt, and average annual production in the Community over the last three years has been about 2.5 million cgt. Hence, current order books represent only one year's work if capacity were fully used and less than one-and-a-half years' work at recent production levels.

In 1987-90 annual production is forecast to be 15 million cgt worldwide and in 1990-95 18.5 million cgt.

Thus, demand is only expected to regain the pre-1976 levels of 17-20 million cgt in the fairly long term and in view of the accelerating and intensifying structural adjustment in shipping, even these forecasts could turn out to be over-optimistic and may need to be revised downwards.

## 2. Capacities and rates of utilisation

2.1. Although world output has fallen by around 36% since 1976, world production capacities have not been reduced to the same extent. Since the term production capacity can be defined in a variety of ways, the figures vary according to their respective sources. Nevertheless, all the statistics point strongly to the existence of substantial surplus capacity in the world, in spite of the efforts deployed by most shipbuilders to reduce capacity in response to the steadily falling world demand.

It would appear, on the basis of the various estimates available<sup>3</sup>, that world production capacity was reduced by around 20% between the beginning of 1976 and 1985. According to the same figures, capacity was cut by some 45 % in the Community and around 37 % in Japan, while capacity in Eastern Europe remained stable; in South Korea, Taiwan and the People's Republic of China, on the other hand, capacity has increased considerably.

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<sup>3</sup> OECD; AWES; Institute of Shipping Economics and Logistics, Bremen

Also within the Community the degree of capacity-reduction has varied :

from over 50 % in the U.K. and the Netherlands to  
between 40 and 50 % in Germany,  
between 30 and 40 % in Denmark and  
30 % or less in France, Italy and Belgium.

- 2.2. The rate of utilization of existing capacity, estimated at around 70 % for the Community as a whole, also varies considerably from one Member State to another :

70 % or more for Germany, Denmark and the Netherlands  
around 50 % for Greece and Belgium and  
around 40 % in Italy, the U.K. and France.

- 2.3. The above figures show that comparing the medium-term demand forecasts with production capacities in 1985, the surplus production capacity worldwide is likely to be around 30% between now and the beginning of the next decade, unless the major shipbuilding countries substantially reduce their over-capacity.

### 3. Employment

- 3.1. Over the last ten years total employment in Community shipyards has fallen by almost 50 %. The reduction in Japan over the same period has been of the order of 40 %. In South Korea, by contrast, the workforce in the shipbuilding industry is now two-and-a-half times what it was ten years ago.
- 3.2. The Member States of the Community which have suffered the most substantial job losses are the United Kingdom (64 %) and the Netherlands (58 %); the remaining countries have seen employment levels in this sector fall by between 28 % in the case of Greece and 52 % in the case of Belgium.

3.3. The 50 % decline in the Community labour force has affected the ship-building industry as a whole (including the building of new vessels, off-shore constructions, military vessels and repairs). The trend in the various naval activities over the last ten years has been as follows :

- Building of new merchant vessels            - 59%
- Repairs    - 33%
- Military vessels                                    + 26%

Consequently, some of the massive losses of jobs in the building of new ships in the Community have been absorbed in other sectors of the industry, particularly military construction and the off-shore sector. This phenomenon is highlighted by the change in the distribution of labour within the industry since the beginning of 1976.

	<u>1976</u>	<u>1985</u>
New merchant ships	71.3%	57 %
Military construction	4.4%	10.8%
Ship repairs	14.3%	18.6%
Off-shore	-	2.1%
Other activities	10.0%	11.5%

3.4. It should be noted that the levels of job losses and of output in tonnes (not in value) in the Community have followed a virtually parallel trend. The increases in productivity, which have been effectively achieved, have been largely offset by low capacity utilization.

#### 4. Prices and profitability

4.1. From the trends in the prices charged by Japanese and Korean yards for new ships over the last ten years (see Annex 3), it is clear that, apart from a short-lived upturn in 1980-81, prices for most types of ships (except for medium-size oil tankers and bulk carriers) have continued to fall,

dropping back to their 1976 levels in 1984 and falling even lower in 1985. Between 1980 and 1985, prices quoted both in US dollars and in yen have fallen by more than 50 % in certain cases.

- 4.2. It is plain that the cost of shipbuilding has risen considerably over the last ten years. One need only look at trends in steel prices and labour costs, which alone account for at least half of the cost of a ship, between 1980 and 1985.
- 4.3. A fall in price of this magnitude, notwithstanding continually rising costs, means marginal or even negative levels of profitability even in the most competitive shipyards and has led to renewed calls for increases in government subsidies.

In Japan the number of loss-making yards is increasing; in Europe a yard that makes a profit has become the exception in the present market situation.

## 5. Types of production

- 5.1. As a result of the decline in world prices for vessels over the last ten years, Community producers have become considerably less competitive internationally for certain categories of ships.

Grouping ships into three major categories, the situation is as follows :

- for oil tankers and bulk carriers, costs in the Community are approximately 50 % higher than world prices set by the Asian yards. The Community's share of world deliveries has fallen to the point where (at less than 8 %) it can be considered to be marginal;
- in the case of the various types of cargo vessels, the difference between costs in the Community and world prices between 10 and 20 %. Thus, while it may be losing its cost competitiveness, the Community is nevertheless holding its ground on the world market;

- for non-cargo carrying vessels, costs in the Community do not appear to be higher than those of shipbuilders in other countries; although the Community does not have a predominant market share at present, the share it does have seems to be safe.

5.2. Hence, the Far Eastern shipyards enjoy a definite advantage over Community yards when it comes to series-produced large and medium-sized ships. This advantage is due to a number of factors such as :

- economies of scale, which they enjoy precisely because they are able to manufacture in larger quantities
- newer and more efficient yards
- low labour costs and higher productivity
- equipment (e.g. large engines) manufactured on the spot and at more competitive prices.

The Community still maintains some advantages and hence can stay reasonably competitive in the third category of ships, and to some extent in the second, thanks to :

- the higher level of technical expertise in design, know-how and finishing,
- the smaller proportion of the total value of the ship accounted for by labour costs,
- the importance of sophisticated equipment which, in the main, is still European-made,

- the fact that although shipbuilding is a worldwide activity by definition, a shipowner may in certain cases e.g. in the case of ships which require intensive supervision, prefer to order from a European yard because of the geographical distances involved. (This relative advantage can account for between 3 and 5 % of the cost).

5.3. These factors are reflected in particular in the fact that Community production expressed in terms of cgt (the unit which converts gross tonnes into tonnes per hour of work) enjoys a much higher coefficient<sup>4</sup> than the other shipbuilding countries of the world, in particular the Asian countries.

Indeed, the degree of technical sophistication of ships built in Europe, which is also reflected in the cost of components and equipment, is such that even though the labour cost per tonne is higher in Europe, labour still accounts for a smaller share of the total cost per completed tonne.

As the trend in the coefficients of the various major producers shows, the Community has continued to maintain this qualitative edge :

CGT coefficient

	<u>1976</u>	<u>1980</u>	<u>1985</u>
Community	0.67	1.37	1.09
Japan	0.52	0.85	0.68
South Korea	0.42	0.42	0.62

<sup>4</sup> The higher the coefficient, the more sophisticated the ship

This means that the Community's market shares are, increasingly, far smaller when expressed in physical units than when expressed in cgt :

Community share of world production

	<u>1976</u>	<u>1980</u>	<u>1985</u>
CGT	23.3	19.3	14.0
GT	22.6	14.0	10.1

In the case of Japan and Korea the ratio is completely the reverse :

<u>Japan</u>	<u>1976</u>	<u>1980</u>	<u>1985</u>
CGT	37.8%	41.2%	45.9%
GT	46.8%	48.2%	52.2%

Korea

CGT	1.6%	3.5%	11.5%
GT	2.4%	4.1%	14.4%

The picture of recent and future demand for the main categories of ships (which are given in descending order of technical sophistication and

therefore in ascending order in terms of the cgt coefficient) is as follows :

	<u>1980</u>	<u>1985</u>	<u>1984-85(est)</u>
Oil tankers and bulk carriers	50.7%	29.3%	34 - 36%
Cargo vessels	33.3%	49.8%	36 - 38%
Non-cargo carrying vessels	16.0%	20.8%	27 - 29%

The corresponding breakdown of demand for Community production is as follows :

	<u>1980</u>	<u>1985</u>
Oil tankers/bulk carriers	28.4%	8.7%
Cargo vessels	41.5%	52.3%
Non-cargo carrying vessels	30.0%	38.9%

Thus, thanks to its expertise, Community industry is reasonably competitive in a substantial segment of the market which is substantial and will remain so :

- with over 60 % of the tonnage this segment accounts for a far greater share of the world's production in value terms,
- even if the Community's position is eroded - as it is likely to be - by the progress of its rivals, there are on the other hand signs of a relative reduction in the number of very heavy ships being series-built and a tendency towards a greater measure of technical sophistication in certain areas (e.g. for the transport of refined petroleum products).

6. Structural trends in shipbuilding in the Community

The structure of shipbuilding in the Community has undergone far-reaching changes over the last ten years, which have been prompted in particular by the need to adapt the industry both quantitatively and qualitatively to market trends. The measures taken have been in various forms: complete closures of yards, partial closures, conversion of existing plant for allied activities such as repairs, construction of offshore structures or military vessels, mothballing of part of the plant and equipment, shedding of labour, centralisation of management of certain yards involving the suppression of some of the amalgamated firms or converting them to other activities.

Overall, the number of shipyards in the Member States<sup>5</sup> fell from 214 at the beginning of 1976 to 153 at the end of 1985. Consequently, the actual number of yards has fallen by 29 %. However, since some of the remaining yards have taken some plant out of operation, the reduction in capacity terms is as indicated above. The pattern has differed from one Member State to another, depending partly on the competitive situation and partly on current policies, the industrial fabric specific to that sector and on social and regional constraints. The figures below provide an idea of this trend, although they are not strictly comparable from one Member State to another.

Number of shipyards in the Community

	B	DK	D	F	GR	IRL	I	NL	UK	EC(10)	S	P
1975	8	22	45	16	2	1	11	65	44	214	45	13
1980	8	21	41	14	2	1	11	54	29	182	44	13
1985	8	19	38	14	2	-	10	45	19	153	31	13

<sup>5</sup> These figures refer only to shipyards above a certain size which build primarily merchant vessels. Nevertheless, the criteria that determine this threshold size may vary from one Member State to another; it is assumed that the shipyards covered by these figures represent at least 90 % of national capacity.

Number of large shipyards

	B	DK	D	F	GR	IRL	I	NL	UK	EC(10)	S	P
1985	1	1	5	5	1	-	3	-	4	20		

In Belgium, two major shipyards were amalgamated in 1982, following the bankruptcy of one of them; this involved rationalization measures and capacity-shedding as well as diversification of production. A medium-size shipyard was declared bankrupt in 1984. The Belgian state has a financial stake in the capital of the large yard.

In Denmark the only major yard builds mainly medium-sized vessels. Of the medium-sized yards, two have abandoned the construction of merchant ships, one in 1978 and the other in 1983. The shipyards in this group build specialized ships. A particular feature of the Danish situation is the special relationship between the shipyards and the shipowners, who own most of the shipbuilding firms.

In France, the number of major yards has remained unchanged. In 1982 they were amalgamated into two industrial undertakings whose parent companies are nationalised. This operation was accompanied by measures to rationalise and reduce capacity and conversion to other activities mainly connected with shipping. Some small and medium-sized yards were amalgamated prior to 1986; the restructuring operations carried out since then have been aimed primarily at reducing the capacity of those undertakings. The Normed group, representing three large yards and 7,000 employees has recently filed for bankruptcy before the commercial court.

In Germany, two major yards have ceased shipbuilding activity since 1983; at the same time a number of undertakings operating large yards were amalgamated in 1983 and 1985. For some of the yards this involved drastic reductions in capacity through conversion to other activities, particularly connected with shipping. Eight small to medium-sized yards have been closed since 1975. Generally, shipyards are under private ownership.

In Greece, generally speaking, shipyards have substantially reduced shipbuilding activity. Ireland's only shipyard was closed in 1984.

In Italy, the building of civil ships has been concentrated since 1975 on a small number of yards; the remaining yards have either been converted to the building of military vessels or repair work or have been mothballed. This has applied to large and small shipyards alike. In 1984 the state-owned yards, which make up a very large proportion of this sector, were amalgamated, involving in particular rationalization measures and centralization of management.

In the Netherlands, various mergers have taken place, particularly between the large and medium-sized yards; as a result a number, including the only large yard, have been converted to shipping-related activities other than the building of merchant ships. Taking all shipyards together, 15 yards have been closed and 6 have stopped building ships. Most of the ownership of these yards is in private hands.

In the United Kingdom a substantial proportion of the shipbuilding industry was nationalised in 1977 and since then more than 20 yards have been closed; some have been given over to shipping activities other than the building of merchant ships. There have been recent moves to re-privatise the undertakings carrying out these activities.

#### 7. Intra-Community trade

The volume of intra-Community trade in the shipbuilding sector is very small. The most striking feature is the drastic drop in intra-Community trade that has occurred since the last period of low aid support inside the EEC (1973-75).

The following table shows the deliveries of ships from EEC yards by flag destination in 1973-75 compared to the period of the Fifth directive.

(in million brt)

	1973	1974	1975	1981	1982	1983	1984	1985
Total EEC deliveries	6.70	7.36	7.61	2.21	2.16	2.53	2.19	1.66
Hereof								
to national markets	3.00	4.13	3.55	0.94	1.23	1.41	1.46	1.07
to other EEC countries	1.44	1.35	1.84	0.05	0.11	0.21	0.08	0.06
to third countries	2.26	1.88	2.22	1.22	0.82	0.91	0.65	0.53
EEC intra-Community deliveries out of total deliveries	21.5%	18.3%	24.2%	2.3%	5.1%	8.3%	3.7%	3.6%

Source : Lloyds Register

Table 1

CONTRACT PRICES FOR ORDERS OF NEW VESSELS 1976-83(Prices at the end of the year in US\$ million  
charged by Japanese and Korean shipyards)

	1976	1978	1979	1980	1981	1982	1983	1984	1985
30.000 dwt product carrier	15,0	16,0	23,0	26,0	25,0	17,0	16,0	14,5	13,0
87.000 dwt oil tanker	16,0	20,0	30,0	36,0	40,0	25,0	24,0	22,0	19,5
210.000 dwt oil tanker	-	38,0	45,0	57,0	68,0	48,0	46,0	42,0	36,0
96.000 dwt oil/bulk/ore carrier	23,0	24,0	35,0	47,0	44,0	30,0	28,0	26,0	22,5
30.000 dwt bulk carrier	11,0	12,0	15,5	20,0	19,0	13,0	12,0	11,0	10,0
70.000 dwt bulk carrier	16,0	19,0	26,0	30,0	29,0	19,0	18,0	16,5	15,0
120.000 dwt bulk carrier	24,0	26,0	33,0	44,0	42,0	26,0	25,0	24,0	20,5
125.000 cbm LNG carrier	105,0	115,0	125,0	150,0	175,0	150,0	150,0	130,0	130,0
75.000 cbm LPG carrier	42,0	45,0	60,0	75,0	75,0	53,0	50,0	45,0	42,5
5.000 dwt roll-on/roll-off ship	10,0	12,0	14,0	16,0	20,0	15,0	12,0	10,0	9,0

Source : Fearnleys

Trend of Japanese prices in Yen

(in '000 million)

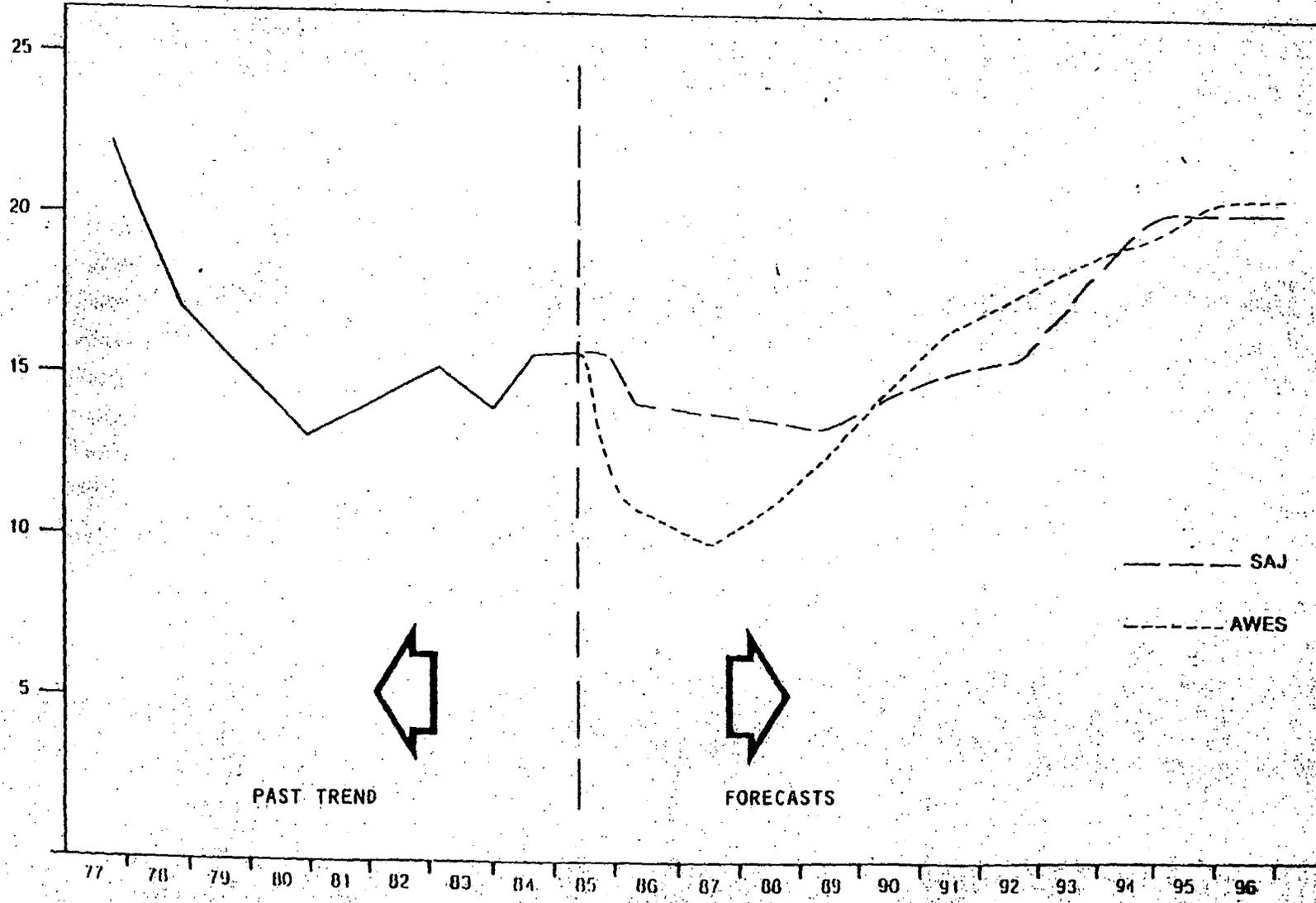
	1979	1980	1981	1982	1983	1984	1985
35.000 dwt bulk carrier	3,4	4,0	4,7	4,6	3,3	3,2	3,1
60.000 dwt oil tanker	4,1	6,2	6,4	6,2	-	-	3,2

(Source : Shipstat - B.S.)

PAST AND FORECAST FUTURE TRENDS IN  
WORLD PRODUCTION OF SHIPYARDS (million cgt)

cgt

SOURCE: AWES/SAJ



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NEW ORDERS

(tbc)

	1983	1984	1985	April 85 - April 86
BELGIUM	58 700	69 500	26 800	13 000
DENMARK	428 900	405 200	86 000	81 500
FRANCE	136 400	106 500	262 500	193 100
F.R. GERMANY	550 400	644 500	819 700	637 100
IRELAND	-	-	-	-
ITALY	57 100	68 200	257 400	622 900
NETHERLANDS	237 300	248 400	268 800	206 900
UNITED KINGDOM	150 400	107 600	224 400	61 700
GREECE	4 600	7 400	29 400	30 400
EEC 10	1 623 800	1 657 200	1 975 800	1 847 400
PORTUGAL		30 600	1 200	4 200
SPAIN		92 200	197 600	256 900
EEC 12		1 780 000	2 174 600	2 108 500
REST OF AWES				
WESTERN EUROPE				
JAPAN	7 389 100	6 040 000	4 440 000	4 516 200
REST OF WORLD OF WHICH EASTERN BLOCK	1 544 000	1 143 900	1 414 000	1 360 000
SOUTH KOREA	2 147 100	1 180 900	806 500	711 200
T O T A L	14 850 100	11 777 600	10 321 300	9 756 800

## Annex 2

DEVELOPMENT OF MERCHANT SHIP NEWBUILDING BY REGION AND TYPE OF SHIP 1978 TO 1985 IN 1.000 CGT<sup>1)</sup> AND % (= MERCHANT SHARES)

		ANES		Japan		S.-Korea from 1982		Others <sup>3)</sup>		Total	
		CGT	%	CGT	%	CGT	%	CGT	%	CGT	%
Dry Cargo Ships incl. Container- ships	1978	2876,0	36,0	3265,3	40,9			1836,8	23,0	7978,6	48,2
	1979	2701,4	37,3	2628,5	36,3			1906,4	26,3	7236,0	51,4
	1980	1747,8	33,1	2099,7	39,8			1431,9	27,1	5279,8	41,8
	1981	1662,0	39,9	1343,7	32,3			1159,1	27,8	4164,8	30,3
	1982	1468,2	35,5	1450,6	35,1	167,3	4,0	1219,7	29,5	4138,5	28,4
	1983	1258,4	28,2	1809,2	40,5	301,6	6,8	1396,6	31,3	4464,2	32,9
	1984	1335,1	26,4	2145,2	42,4	542,1	10,7	1581,7	31,2	5061,9	33,0
1985	1190,2	26,7	1844,0	41,4	521,3	11,7	1423,2	31,9	4457,3	31,5	
Bulk- Carriers incl. Combined Carriers	1978	521,3	19,3	1438,5	53,4			735,9	27,3	2695,5	16,3
	1979	311,7	22,5	527,4	38,1			546,7	39,5	1385,6	9,8
	1980	197,4	13,3	569,9	38,5			713,6	48,2	1480,8	11,7
	1981	441,8	13,3	1856,1	55,7			1034,8	31,0	3332,7	24,2
	1982	625,6	14,7	2439,9	57,3	473,2	11,1	1196,1	28,1	4261,6	29,2
	1983	723,6	21,7	1664,6	49,9	447,1	13,4	949,5	28,4	3337,7	24,6
	1984	517,3	9,7	3601,0	67,6	249,5	4,7	1207,4	22,7	5325,7	34,7
1985	358,4	7,2	3145,7	63,0	768,8	15,4	1486,6	29,8	4990,7	35,2	
Oil Tanker	1978	968,9	45,6	533,3	25,1			623,4	29,3	2125,7	12,8
	1979	611,1	29,8	949,1	46,3			489,4	23,9	2049,5	14,6
	1980	294,5	14,5	1473,4	72,6			260,7	12,8	2029,0	16,1
	1981	470,5	19,2	1519,5	62,0			459,6	18,8	2449,6	17,8
	1982	324,6	16,1	1181,8	58,6	100,6	5,0	511,8	25,4	2018,2	13,8
	1983	532,8	34,8	500,0	32,7	113,2	7,4	496,5	32,5	1529,3	11,3
	1984	97,6	15,9	183,7	30,0	170,5	27,8	331,9	54,2	613,2	4,0
1985	19,8	4,1	293,7	60,5	66,3	13,7	172,2	35,5	485,7	3,4	
Gas/Chem. and Prod. Tankers <sup>4)</sup>	1978	435,6	50,0	73,1	8,4			362,1	41,6	870,7	5,3
	1979	481,8	53,2	180,8	20,0			242,5	26,8	904,9	6,4
	1980	426,7	47,1	379,1	41,8			100,1	11,0	906,0	7,2
	1981	607,2	53,3	426,5	37,4			106,4	9,3	1140,1	8,3
	1982	655,3	57,1	283,1	24,7	119,7	10,4	208,8	18,2	1147,2	7,9
	1983	421,7	39,7	473,2	44,5	42,6	4,0	168,5	15,8	1063,4	7,8
	1984	463,0	29,0	859,0	53,7	35,7	2,2	276,7	17,3	1598,7	10,4
1985	523,3	27,1	833,0	43,1	217,0	11,2	577,7	29,9	1933,9	13,6	
Fishing Vessels	1978	262,0	26,1	208,5	20,8			534,6	53,2	1004,7	6,1
	1979	180,3	21,6	262,3	31,4			393,1	47,0	835,9	5,9
	1980	213,6	21,6	304,8	30,8			470,1	47,5	988,7	7,8
	1981	175,1	23,8	179,6	24,4			380,6	51,8	735,3	5,3
	1982	148,7	18,6	119,6	14,9	-	-	533,0	66,5	801,3	5,5
	1983	222,3	26,1	126,3	14,8	9,5	1,1	504,0	59,1	852,6	6,3
	1984	197,6	22,5	132,4	15,1	6,8	0,8	547,0	62,4	877,1	5,7
1985	169,7	25,4	145,0	21,7	10,2	1,5	354,2	52,9	669,0	4,7	
Other NCCV	1978	769,2	41,1	601,7	32,1			501,0	26,8	1872,0	11,3
	1979	821,7	49,3	427,5	25,7			416,9	25,0	1666,4	11,8
	1980	1051,5	53,9	380,0	19,5			519,0	26,6	1950,8	15,4
	1981	1162,8	60,2	270,2	14,0			499,0	25,8	1932,0	14,0
	1982	1062,6	47,8	336,1	15,1	19,6	0,9	8822,3	37,0	2221,0	15,2
	1983	1217,1	52,8	334,9	14,5	71,5	3,1	753,1	32,7	2305,1	17,0
	1984	800,4	42,8	315,1	16,9	29,4	1,6	754,4	40,3	1869,9	12,2
1985	827,7	50,7	237,1	14,5	49,7	3,0	567,2	34,8	1631,9	11,5	
Total	1978	5832,9	35,3	6120,5	37,0	504,6	3,0	4593,3	27,8	16546,7	100,0
	1979	5107,9	36,3	4975,2	35,3	449,7	3,2	3994,4	28,4	14077,7	100,0
	1980	3931,8	31,1	5207,2	41,2	445,7	3,5	3496,3	27,7	12635,2	100,0
	1981	4519,4	32,9	5595,6	40,7	516,0	3,8	3639,5	26,5	13754,5	100,0
	1982	4285,0	29,4	5811,1	39,8	880,4	6,0	4491,7	30,8	14587,8	100,0
	1983	4375,9	32,3	4908,2	36,2	985,5	7,3	4268,2	31,5	13552,3	100,0
	1984	3410,9	22,2	7236,6	47,2	1034,1	6,7	4699,0	30,6	15346,5	100,0
1985	3088,9	21,8	6498,4	45,9	1633,3	11,5	4581,3	32,3	14168,6	100,0	

Source: Lloyd's Register of Shipping, differences due to rounding

- 1) from 1984 based on new CGT coefficients
- 2) from 1982 including Greece
- 3) including South-Korea
- 4) from 1984 including Product Tankers