

**SNF REPORT 68/00**

**Changes in the Distribution of  
the World Fleet, 1970-87**

by  
**Stig Tenold**

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## **CHANGES IN THE DISTRIBUTION OF THE WORLD FLEET, 1970-87**

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### **Non-technical summary**

In the period from 1970 to the late 1980s, the pattern of registry of the world fleet changed. Prior to 1970 the industrialised countries had dominated the shipping sector. However, from 1970 to 1987 the share of the world fleet registered in these countries was virtually halved, declining from approximately two thirds to one third. This report analyses the basis for this development.

The apparent shift in the maritime hegemony can be explained by the changes in the shipping industry and the international economy. Parallel with the shipping crisis, the profitability of the shipping sector declined. Due to high costs it became increasingly difficult for OECD-countries to compete in the international shipping market. This led to the transfer of a large share of the OECD-fleet to Flag of Convenience-registries. Moreover, it provided several Asian countries, dubbed the Emerging Maritime Nations, with an opportunity to increase their involvement in the shipping industry.

The share of the world fleet registered in Emerging Maritime Nations in Asia increased from less than 3.5 per cent in 1970 to almost 15 per cent by 1987. The analysis in this report shows that the factors which can account for the increasing importance of Asian countries in manufacturing production, to some extent can explain the growing fleets of the Emerging Maritime Nations in Asia. The combination of relatively inexpensive labour, high domestic and foreign investments and policies focussing on fleet growth was important for the increased participation of the Asian countries in the shipping industry.

The increasing share of the world fleet registered in Emerging Maritime Nations and countries offering Flag of Convenience-facilities was related to the shipping crisis. The single most important reason for the growth of these fleets was the reduced competitiveness of OECD-flag shipping and the increased focus on costs in a depressed market. The fact that shipping had become a mature and relatively

standardised industry reduced the competitive advantage of the Traditional Maritime Nations.

The changes in the distribution of the world fleet are illustrated by aggregate data on the registry of the world fleet. Moreover, the transformation of the shipping sector is elucidated by means of data on Norwegian vessel sales. Norway was particularly hard hit by the shipping crisis, and the Norwegian fleet had the highest relative reduction of all major fleets in the period 1973-87.

A purpose-built database includes information on the purchasers and subsequent country of registry for the majority of vessels that were sold from Norway in the period 1970-86. The analysis shows that this development encompasses the changing pattern of registration presented in the first part of the report.

The analysis of the vessels sold from Norway illustrates both the increasing importance of Asian shipowners and the transfer of vessels to countries offering Flag of Convenience-facilities. Asian shipowners bought approximately 17 per cent of the Norwegian second-hand tonnage. This proportion was high, considering that the countries in question on average owned approximately seven per cent of the world fleet in the period. More than half of the tonnage sold from Norway went on to be registered in Flag of Convenience-countries. However, the ultimate owner interests of approximately 80 per cent of this tonnage remained with companies based in the OECD-countries.

Following the liberalisation of the Norwegian flag policy in the late 1970s and early 1980s, a large share of the decline of the Norwegian fleet can be explained by traditional “flagging out” of vessels. The basis for this development, viz the changes in the Norwegian shipping policy, is presented. In the 1980s more than half of the vessels sold from Norway and registered in Flag of Convenience-countries were managed by Norwegian shipowners, compared with less than ten per cent in the 1970s.

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## **CHANGES IN THE DISTRIBUTION OF THE WORLD FLEET, 1970-87**

This report consists of two main parts, arranged in four chapters.<sup>1</sup> The first chapter is a very brief introduction to the demand and supply development of the shipping sector in the period from 1970 to 1987. This presentation provides a backdrop for the subsequent analysis of the changes in the world fleet.

Chapter 2 details the changes in the maritime hegemony from the early 1970s to the late 1980s, characterised by the reduced importance of the OECD-countries and the corresponding increase in the fleets registered in Flag of Convenience-countries (FoC-countries) and Emerging Maritime Nations in Asia.<sup>2</sup> International data on the development of national fleets are used to describe the changes.

Some of the factors which can explain the reduced importance of the OECD-countries are analysed in Chapter 3. First, the basis for the growth of the Flags of Convenience is detailed. Second, some of the factors which can account for the growing importance of the Asian fleets are examined. Third, the basis for the changes in the distribution of the international fleet is analysed in a more theoretical context. The analysis shows that the changes in the international maritime hegemony can be understood in terms of a shift in the conditions conducive to successful maritime enterprise.

The final part of the paper illustrates the changes in the distribution of the world fleet through a presentation of some aspects of the internationalisation of Norwegian shipping companies in the period 1970-87. The analysis emphasises the changes in the Norwegian shipping policy and the fate of the vessels which were sold in the Norwegian second-hand market. Although not directly comparable to the development in the other OECD-countries, the Norwegian experience illustrates the shift in the international maritime hegemony from the Traditional Maritime Nations to FoC-countries and Emerging Maritime Nations.

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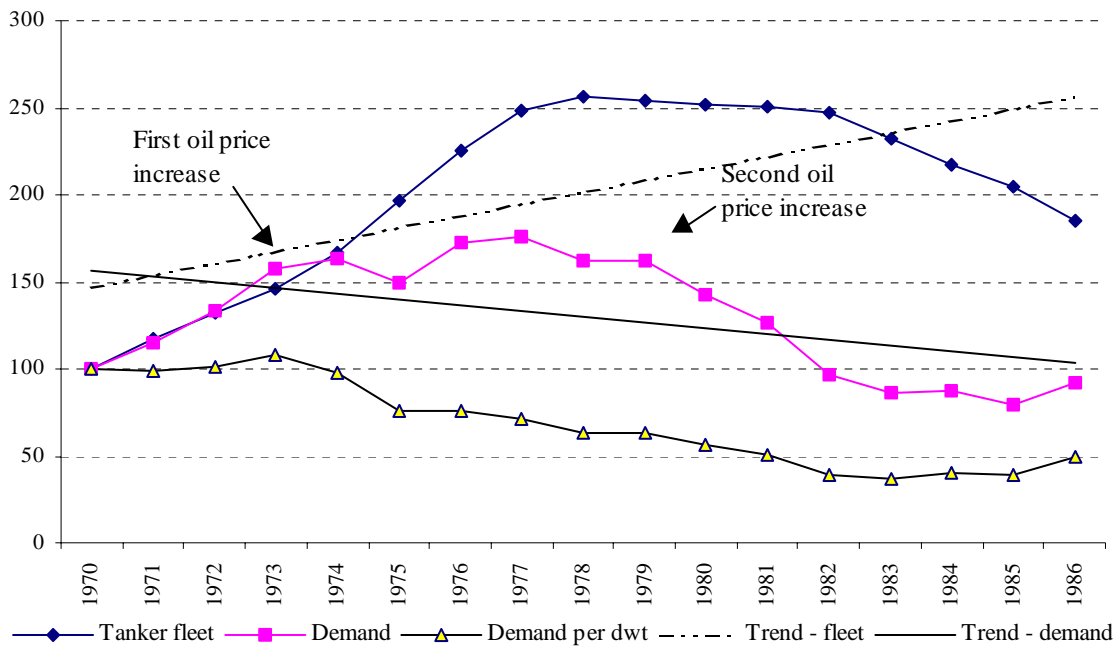
<sup>1</sup> The report is a part of the SNF project No 1065, "The multinational activities of Norwegian shipowning companies", and is mainly based on data from chapters 9 and 10 in Tenold (2000c).

<sup>2</sup> It has been claimed that the term "Flags of Convenience" should be avoided, as it is a value-laden term. Supporters of this institution prefer to use the term "Flags of Necessity". In the following analysis I have chosen to use the former term, as it is considerably more common than the latter. This is a conscious choice on my part, but it is a choice based on clarity of presentation rather than politics.

## CHAPTER 1. INTRODUCTION – THE SHIPPING CRISIS

The development of the early 1970s heralded a new epoch in the postwar development of international shipping. The demand for shipping services, which had grown substantially in the postwar period, stagnated from 1974 onwards and after 1979 actually decreased. The result of the imbalance between shipping demand and supply was a long period of depression in the shipping industry.

Figure 1. Tanker demand and supply (1970=100), 1970-86<sup>3</sup>



The basis for the first part of the shipping crisis – from 1974 to 1979 – was the difference between the expected and the actual development. As a result of the euphoria in the shipping industry in the early 1970s, the world order books increased considerably, and a large amount of mammoth tankers was contracted. The shipowners' favourable view of the prospective demand development was augmented by subsidised shipbuilding, timecharters which underpinned the optimism and favourable financing conditions (Tenold, 2000c:72-117).

As a result of the low growth of tanker transport demand after the oil price increases of 1973/74, freight rates and vessel values plunged. However, due to the

<sup>3</sup> Figures adapted from the tables of world transport demand in ton-miles and world fleet in dead weight tons (dwt) in Fearnley & Egers Chartering Co. Ltd., *Review*, various issues.



inertia in the shipping sector, vessels contracted during the period of great expectations in the early 1970s were yet to be delivered. Unprecedented levels of new tonnage entering the depressed market amplified the imbalance between supply and demand.

The basis for the second part of the shipping crisis – in the first half of the 1980s – was somewhat different, although the roots were the same. Following the oil price increases in the late 1970s, the demand for oil transport declined considerably. Even a substantial reduction of the tanker fleet was insufficient to neutralise the negative effects of the demand reduction. By 1986, world seaborne trade had fallen by 25 per cent relative to the peak in 1979, mostly as a result of the fact that the transport of crude oil was more than halved.<sup>4</sup>

The depression in the period from the early 1970s to the late 1980s was the most serious crisis in the shipping industry in the 20<sup>th</sup> century. In some market segments, notably the tanker market, the oversupply at times exceeded 100 per cent, ie there were more than two vessels chasing every cargo. However, although the situation was not as bad as in the tanker market, most segments of the shipping sector were characterised by depressed freight rate levels, supply surpluses and low or non-existent profits.

Parallel with the crisis, the shipping industry went through considerable changes. The structural development of the industry was characterised by the growth of the Emerging Maritime Nations and the Flag of Convenience-fleets. The share of the world fleet which was registered outside the traditional registries of the industrial countries doubled, from a third in mid 1970 to almost two thirds by the middle of the next decade.<sup>5</sup> One of the aims of this report is to answer the question “*How did the distribution of the world fleet change in the period 1970-87, and which factors can explain this development?*”

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<sup>4</sup> Based on figures from Fearnley & Egers Chartering Co. Ltd., *Review 1989*, p. 34.

<sup>5</sup> The figures on the importance of the respective groups differ depending on the definitions utilised and the basis for the comparison. Due to differences of this type, the figures should be seen as indicative rather than absolute measures.

## **CHAPTER 2. STRUCTURAL CHANGES IN INTERNATIONAL SHIPPING**

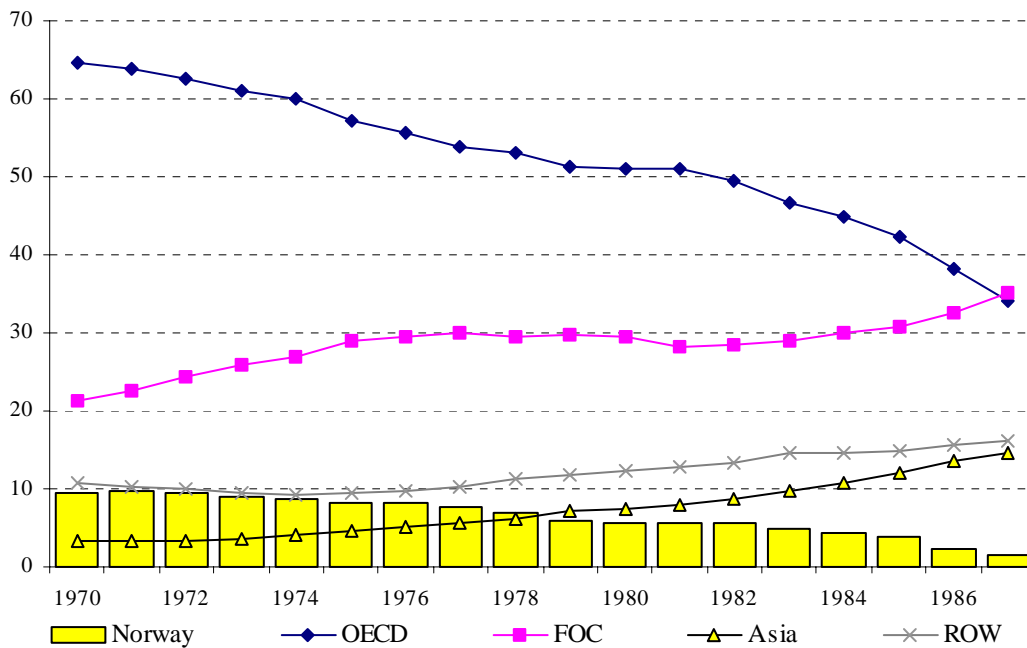
There were considerable changes in the composition of the world fleet in the period after the freight market broke down. One significant development trait was the continuing growth of vessels registered in “open registries”, or FoC-countries, such as Bahamas, Liberia, Panama, etc. More important for the shift in maritime dominance, however, was the increased participation of some relatively new entrants in the maritime sector. These countries, often dubbed Emerging Maritime Nations, were non-OECD developing countries, and it was especially Asian countries which increased their share of the world fleet. The increase in the fleets of the Emerging Maritime Nations was particularly prominent in the first half of the 1980s, by which time the long-term effects of the freight market breakdown had begun to take their toll. By 1987 the whole structure of the maritime industry had been transformed. The hegemony of the Traditional Maritime Nations, represented by the OECD-countries, had been successfully challenged by FoC-countries and Emerging Maritime Nations. This chapter details this development.

### **2.1. The reduced importance of Traditional Maritime Nations**

The traditional industrial powers had controlled international shipping in the first decades of the postwar period. Their position was reflected both in the standing of their domestic fleets and in the amount of tonnage they operated under Flags of Convenience. Indeed, the use of FoC-registries was largely an effect of intra-OECD competition. Although the FoC-fleets to some extent were outside the jurisdiction of the Traditional Maritime Nations, the companies having the ultimate owner interests were generally not.

During the shipping crisis, the fleets of the Traditional Maritime Nations were drastically reduced, both in absolute terms and as share of the world fleet. The reduced position of the Traditional Maritime Nations was to some extent reflected in the increase in the use of Flags of Convenience, but the main challenge to their position came from Emerging Maritime Nations. Figure 2 illustrates the challenged position of the OECD-members in the international shipping market.

Figure 2. Distribution of the world fleet, per cent of tonnage, 1970-87<sup>6</sup>



The FoC-countries increased their share of the world fleet until 1977, but then stagnated.<sup>7</sup> The growth in the FoC-share from 1982 onwards was augmented by the introduction of several new “countries” which opened for registration under the domestic flag, including the Cayman Islands, Saint Vincent and Vanuatu. The basis for the reduction of the Norwegian fleet will be discussed in Chapter 4.

The increase of the Asian fleet partly reflects the strong growth of China, Hong Kong and Singapore. The group as a whole, however, increased its tonnage from 11.5 million dwt in 1970 to more than 93 million dwt in 1987.<sup>8</sup> The same period witnessed an insignificant increase of the OECD-fleet from 215.5 million dwt to 218 million dwt. The latter figure was considerably lower than the OECD peak at 356 million dwt in 1978, and in the period 1970-87 the OECD-countries’ share of the world fleet was practically halved, falling from 64.5 to 34 per cent.

The reduction in the fleet of the OECD-countries was particularly marked from 1980 onwards, ie after it had become evident that the crisis was a structural

<sup>6</sup> The figures have been taken from the data on the international fleet measured in dwt in OECD, *Maritime Transport*, various issues. All fleets of less than 400,000 grt have been included in the Rest of the World-fleet. There is some degree of movement between the various groups, though not to an extent which significantly affects the results.

<sup>7</sup> The FoC-countries included in the figure are Bahamas (1971 and 1982-87), Bermuda, the Cayman Islands (1985-87), Cyprus, Gibraltar (1985-87), Liberia, Malta (1982-87), Panama, Somalia (1970-77), Saint Vincent (1986-87) and Vanuatu (1987).

<sup>8</sup> The countries included in the Asian fleet are China, Hong Kong, India, Indonesia, Malaysia (1974-), the Philippines, Singapore, South Korea and Taiwan.

rather than a temporary phenomenon. This reduction reflects two significant trends. On the one hand, it was the result of a significant disinvestment in the shipping sector in Traditional Maritime Nations. On the other hand, the apparent reduction was partly mitigated by the transfer of OECD-owned tonnage to Flags of Convenience.

## **2.2. The increasing fleets of the Flags of Convenience**

The amount of tonnage registered under Flags of Convenience increased considerably after the introduction of such registries in the interwar period, and their share of the world fleet more than doubled in the ten years after 1963.<sup>9</sup> In this respect, the growing importance of the Flags of Convenience can be seen as a long-term trend.

The British Rochdale-committee (1970:51) identified six common features distinguishing FoC-countries:

- ❑ Non-citizens are allowed ownership and/or control of merchant vessels.
- ❑ Access to registry is easy, and there are no restrictions on the transfer of registry.
- ❑ Income tax is not levied locally or is low, and an annual tonnage fee is usually the main charge.
- ❑ The country of registry is a small power with no national requirement for a large fleet, although the receipt from tonnage fees may amount to a substantial share of national income or balance of payments.
- ❑ Manning of ships by non-nationals is freely permitted.
- ❑ The country has neither the power nor the administrative machinery necessary to effectively impose any government or international regulations.

The existence of Flags of Convenience has been controversial, and it has been claimed that these registries have become unregulated refuges for the fleets of shipowners with sub-standard vessels. This discussion lies outside the scope of this report.<sup>10</sup>

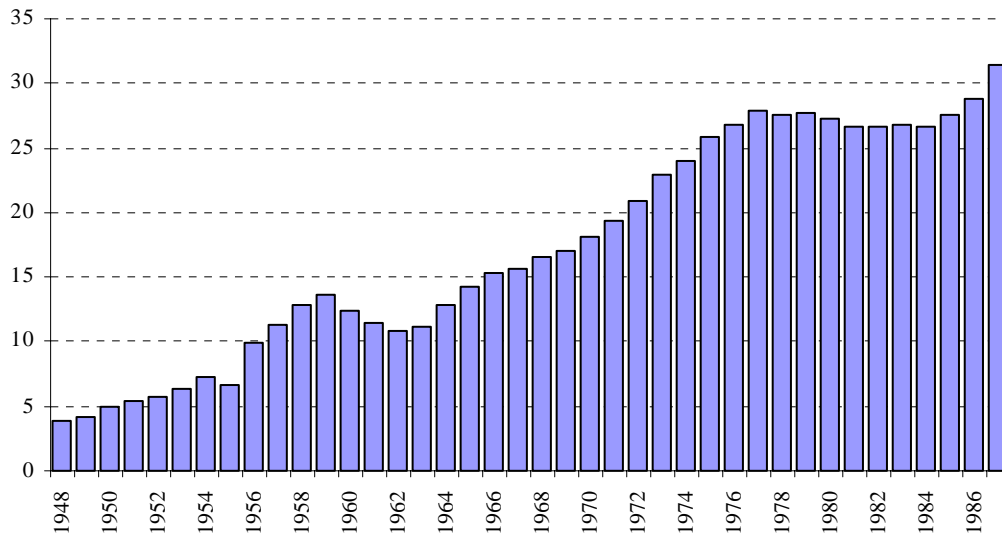
On the international level, there have been attempts to regulate the nationality composition of the world fleet, eg through the introduction of the *genuine link*-principle. However, the fleets of the FoC-countries, and also the number of countries offering such registries, increased considerably in the postwar period.

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<sup>9</sup> Flags of Convenience existed before this – for instance several British shipowners regarded Norway as a Flag of Convenience in the late 19<sup>th</sup> Century. However, it was in the interwar period that some of the Flags of Convenience that came to dominate the development in the postwar period first rose to prominence.

<sup>10</sup> For an analysis of the loss records of vessels flying Flags of Convenience in the early part of the 1970s, see OECD, *Maritime Transport 1974*, pp. 88-105.

Figure 3. FoC-tonnage as share of the world fleet, per cent, 1948-87<sup>11</sup>



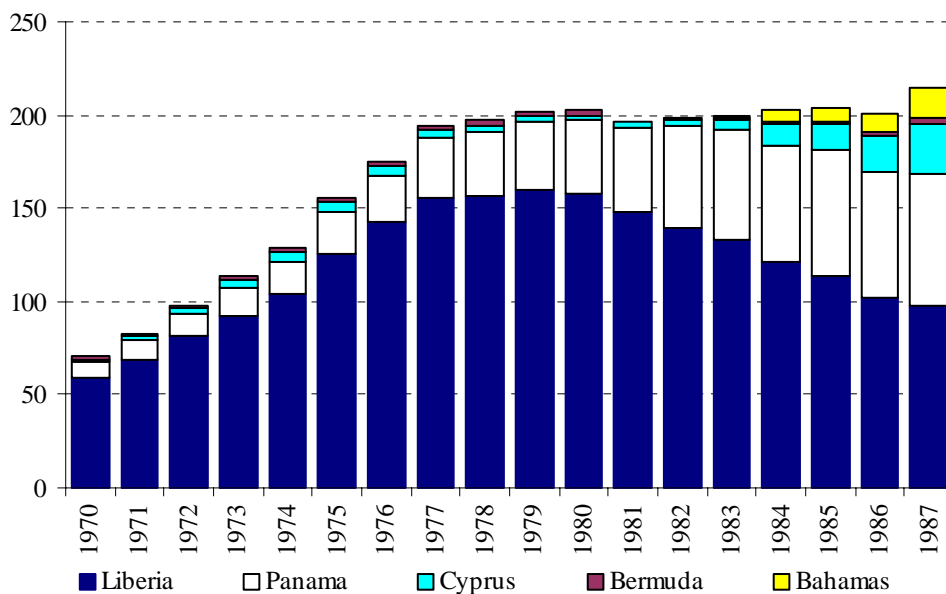
The amount of tonnage registered in FoC-countries temporarily culminated in 1979, with their share of the world fleet reaching a temporary peak two years earlier. One reason for the decline of FOC-registered tonnage after 1979 was the increased scrapping which was also evident in Traditional Maritime Nations. Some countries, eg Liberia, had a relatively large share of independent and oil company-owned tanker tonnage. Tanker tonnage comprised 62 per cent of the Liberian fleet in mid 1980, compared with 42 per cent for the world fleet as a whole (OECD, 1981:132). As a result of the overcapacity of large tankers this tonnage was particularly suitable for scrapping.

Furthermore, the decline of the Liberian fleet can be explained by increased political uncertainty. The vessels leaving the registry for this reason, however, were likely to be transferred to other Flags of Convenience, rather than Traditional Maritime Nations. Accordingly, the 20.7 mill. dwt reduction of the Liberian fleet in the period 1979-82, was partly reflected in a growth of almost 19 mill. dwt for the Panama fleet.

<sup>11</sup> The figure is based on data from Metaxas (1985:17), augmented by figures from the annual lists of the international fleet measured in grt in OECD, *Maritime Transport*, for the years 1983-87. The FoC-countries included are Bahamas (1983-87), Bermuda (1983-87), the Cayman Islands (1985-87), Cyprus (1966), Liberia, Malta (1983-87), Panama, Honduras (to 1983), Costa Rica (1953-60 and 1975-83), the Lebanon (1960-83), Saint Vincent (1985-87), Singapore (1968-83) and Somalia (1960-83). Due to the fact that this figure is based on grt, and has a different definition of FoCs from the one used in the rest of the paper, the figures deviate from those presented elsewhere. For instance, the FoC-share of the world fleet declines by more than 3 percentage points when grt rather than dwt is used to estimate the 1972-figure.

In 1983 Metaxas claimed that the slight reduction in the importance of the Flags of Convenience was a temporary and basically cyclical phenomenon. In principle this was correct, as the reduced share of world tonnage registered in FoC-countries only represented a minor, temporary setback. From 1982 their share started to increase again. In addition to the old stalwarts such as Cyprus, Liberia and Panama, new “countries” such as Vanuatu, Gibraltar and the Cayman Islands entered the scene.<sup>12</sup> The result of the increased competition was a low level of tonnage fees and a reduction of standards.

Figure 4. The major Flags of Convenience, million dwt, 1970-87<sup>13</sup>



In the latter part of the 1980s the increasing amount of tonnage outside the traditional registries was augmented by national “open registries” in Traditional Maritime Nations. These institutions represented a supplement and alternative to Flags of Convenience. Vessels registered in open registries were subject to some of the traditional maritime legislation, but were granted special privileges which made them a credible and cost-effective alternative to Flags of Convenience.

The increase in the fleets of the FoC-countries represents only one facet of the changing structure of the maritime industry. As a result of the fact that roughly two thirds of the total FoC-tonnage were owned by the OECD-countries in the late 1980s,

<sup>12</sup> The definition of Flags of Convenience affects the timing of their resurrection. In the 1980s some countries, such as Hong Kong, the Philippines and Singapore were defined by the International Transport Workers’ Federation as “Flags of Convenience on a ship by ship basis”.

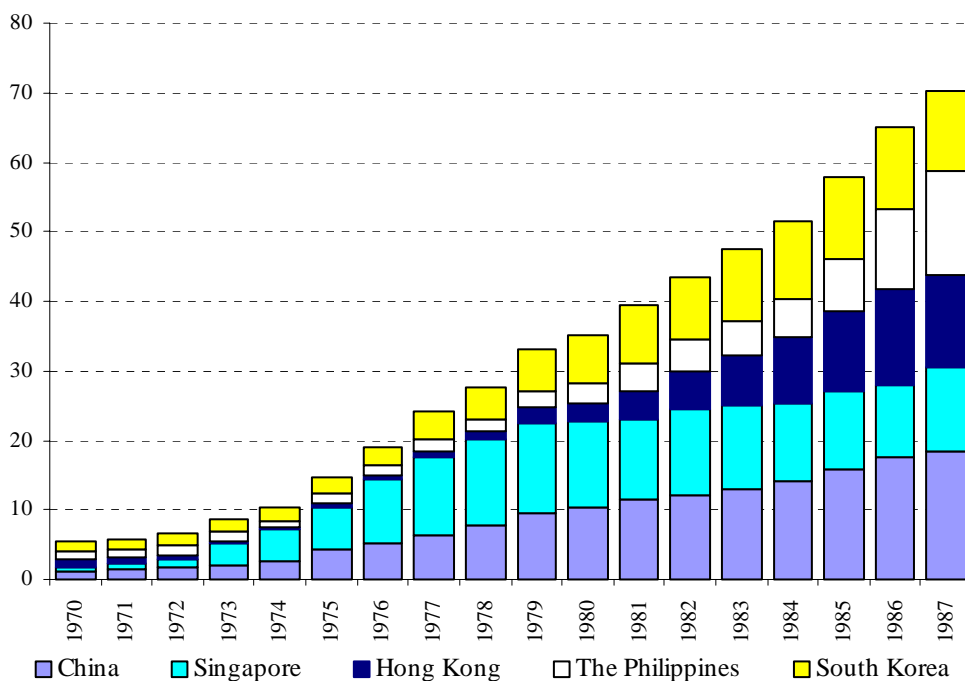
<sup>13</sup> The figures are based on the data on the international fleet measured in dwt in OECD, *Maritime Transport*, various issues.

an analysis of market shares based on registry overstates the reduced importance of the Traditional Maritime Nations. Indeed, the most important feature of the structural transformation in the shipping industry was not the changes in the pattern of registration of OECD-tonnage, but rather the entry into the shipping sector of countries at a relatively low stage of development.

### 2.3. The entry of non-OECD developing countries

It was particularly two groups of countries which increased their tonnage heavily in the period after the shipping crisis. The fleets of the oil-producing countries were almost negligible in the beginning of the 1970s, but had increased to approximately 3.5 per cent of the world fleet by 1983. The amount of tonnage owned by the oil-producing countries increased from approximately five million dwt in 1975 to 21.7 million dwt in 1987, peaking at approximately 24 million dwt in 1983.<sup>14</sup> Even though their fleet growth was strong, the oil-producing countries were relatively unimportant in an international perspective. More significant, however, was the strong growth of non-OECD developing countries, in particular a handful of Asian nations.

Figure 5. Five most important Asian fleets, million dwt, 1970-87



<sup>14</sup> Figures on the fleets of the oil-producing countries from the table of the world fleet in OECD, *Maritime Transport*, various issues. The countries included are Algeria, Iran, Iraq, Libya, Kuwait, Saudi Arabia, United Arab Emirates and Venezuela.

As Figure 2 showed, the Asian share of the world fleet increased from less than 3.5 per cent in 1970 to almost 15 per cent by 1987. Figure 5 presents the increase in the size of the fleets of the countries which were responsible for the bulk of the Asian fleet growth.

The annual average growth rate of the fleets of Singapore and Hong Kong was more than 20 per cent, and shipowners in these countries were also among the important users of FoC-facilities. China, Malaysia, the Philippines and South Korea registered double-digit growth as well. The result was a massive transfer of shipping transport capacity from the Traditional Maritime Nations to the Emerging Maritime Nations in Asia.

The basis for the fleet growth varied between the different countries. However, two factors on the demand side were particularly important for the growth. First, the growth may be explained by the growing trade between Asia and the rest of the world. Second, the growing demand for Asian shipping was related to the strong economic growth which occurred in several Asian nations. In this respect, the increasing importance of the Asian countries in international shipping reflects their growing significance in the world economy. Asia's share of world trade and world production doubled in the period from 1970 to the late 1980s (Wang, 1997:3-8).

Moreover, on the supply side there were two further causes of the strong growth of the Asian fleet, and this is the part of the explanation which is focussed upon in this report. The first reason was the conducive conditions for shipping in Asian countries, with regard to factors such as labour and investment. The second reason was the specific policies which were implemented, with the aim of creating and increasing national fleets. These policies were a result of the "*perception that shipping is closely linked to economic and social development and therefore should be promoted.*" (Chia, 1989:107)



### **CHAPTER 3. THE REASONS FOR THE STRUCTURAL TRANSFORMATION**

In many respects, the relocation of the international maritime industry mirrors one of the most important development traits of the international economy in the period since the 1960s. In the same way as countries which had previously been at a low level of development gained importance in the maritime sector, the momentum of world industrial production shifted from the OECD-countries to Newly Industrialised Countries, particularly in Asia. The subsequent analysis is based upon the hypothesis that the factors used to explain the transformation of international manufacturing may be applied in a maritime context. Prior to the analysis of the growth of the Emerging Maritime Nations, the basis for the increasing share of the world fleet registered in FoC-countries is analysed.

#### **3.1. The growth of the FoC-fleets**

On the one hand, the growing use of FoC-registries was the continuation of a long-term trend. As the analysis in Chapter 2 showed, the use of FoC-registries had increased considerably in the postwar period. On the other hand, the growing attention paid to costs in connection with the shipping crisis, the changing shipping policies of Traditional Maritime Nations and the increasing internationalisation of domestic economies can account for the phenomenon. The last element implies that the combination of capital from high labour-cost industrialised countries and labour from low labour-cost developing countries became both increasingly feasible and more advantageous.

The basis for the increase in the amount of tonnage and the share of the world fleet flying Flags of Convenience can be understood in terms of the factors which motivated shipowners to register vessels in FoC-countries. An OECD-report (1972:97-102) identified the following advantages for shipowners operating under Flags of Convenience:

- *Taxation* – The taxation levels offered by Flags of Convenience were low, and usually consisted of a one-time registration fee and an annual tonnage fee; see Tenold (2000:6) for an introduction to the charges in effect in the early 1970s. Moreover, income or corporation taxes were seldom levied on maritime

corporations, and shipowners utilising FoCs also escaped fiscal controls.

- *Cost advantages* – In most of the Traditional Maritime Nations manning requirements and relatively high minimum-wage standards determined the manning costs. In FoC-countries such regulations, and consequently the actual crew costs, were of less importance. Moreover, some Traditional Maritime Nations had expensive restrictions with regard to vessels purchases and repair, eg the United States or, with regard to insurance, eg France.
- *Financing advantages* – According to the OECD (1972:101), some owners with FoC-registered vessels were favourably treated by banks and other financing institutions. The basis for this was the fact that the operation of FoC-registered vessels was unlikely to be negatively affected by increasing tax levels, currency turmoil or government intervention
- *Particular advantages* – For shipowners of some nations, eg Israel or South Africa, the registry of vessels in FoC-countries could remove the odium associated with the domestic flag. FoC-vessels were also less likely to be dictated by the government in the case of war or other emergencies.

Whereas the advantages presented above undoubtedly were important in explaining the growing FoC-share and -fleets, some factors reduced the benefits of registering vessels in FoC-countries. First, regulations in the home country of the owner may have reduced shipowners' possibilities to register vessels in countries offering FoC-facilities. Second, the existence of government grants and favourable financing arrangements encouraged shipowners to register vessels in Traditional Maritime Nations. In particular, generous possibilities with regard to depreciation may have implied that some ship investments were subject to only a limited amount of taxation even in Traditional Maritime Nations. Third, the fact that FoC-countries had limited powers in diplomatic and other matters may have reduced the shipowners' propensity to register their vessels in such registries.

The factors which encouraged shipowners to register their vessels in FoC-countries may have acquired a more important position during the shipping crisis, and may thus contribute to an understanding of the increasing share of the international fleet registered in such countries. It may be argued that the favourable demand conditions in the shipping sector prior to the shipping crisis facilitated the profitable operation of shipping from high-cost countries, but that the subsequent changes in the

state of the shipping market enhanced the flight of tonnage to FoC-countries and Emerging Maritime Nations as the possibilities for profitable operation in Traditional Maritime Nations were reduced.

The basis for the increase in the FoC-fleets was to a large extent similar to the factors which are used to explain the growth of the Asian fleets in Chapter 3.2. The most important factors were:

- The liberalisation of the shipping policies of several Traditional Maritime Nations, which implied that transfers to FoC-registries which previously had been illegal became possible.
- The increasing integration and liberalisation of the international economy, which implied that the importance of restrictions on capital movements, international investments and foreign ownership were reduced.
- The increasing focus on costs, which favoured registers allowing the utilisation of relatively inexpensive crews.
- Changes in the taxation and grant regimes in Traditional Maritime Nations which made these countries less advantageous.<sup>15</sup>
- Changes in the attitude to FoCs, following endeavours by FoC-countries to improve their image (Metaxas, 1985:58-59).

The growth of the FoC-fleets was one of the factors challenging the historical dominance of the shipping market by Traditional Maritime Nations. However, this growth was largely based on investments undertaken by OECD-agents, as the analysis in Chapter 4 will show. This implies that the most important structural change in the shipping sector was not the transfer of registration of OECD-controlled tonnage to FoCs, but rather the increasingly important role played by Emerging Maritime Nations.

### **3.2. The increasing importance of Asian countries**

The changes in the localisation of the manufacturing and shipping industries were the result of an interaction between the development in the countries which lost their position and the development in the countries which increased their role in the international economy. The development in the shipping sector might be explained by

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<sup>15</sup> However, at least in the initial period after the freight market breakdown, arrangements which made Traditional Maritime Nations *more* attractive were more important.

some of the elements which have been used to account for the changes in international manufacturing. Most analyses of the increased importance of the Newly Industrialised Countries in the international economy focus on certain aspects of these countries (Tenold, 1997). Common explanations include;

- The access to a large, relatively cheap and sufficiently skilled labour force
- High rates of investment, reflecting both a high domestic savings rate and a willingness to attract foreign capital and technology
- Sensible economic policies which facilitated savings and investments, and which sometimes targeted specific sectors
- Favourable international conditions, including access to internationally mobile capital, high demand and reduced trade barriers

Notwithstanding the fact that the basis of the growth differed between the various countries, the elements presented above may be relevant to the changes in the international maritime industry. The following analysis illustrates that the first three elements have undoubtedly made a positive contribution to the fleet expansion of some of the non-traditional shipping nations in Asia.

#### *Labour*

As a result of the freight market breakdown, profit margins were squeezed and shipowners were forced to focus on costs. Whereas the majority of costs are equal for shipowners of all nations, wages are strongly affected by the choice of flag. In most of the Traditional Maritime Nations, domestic labour legislation made it compulsory for vessels flying the domestic flag to have a certain amount or proportion of domestic seamen among the ship's personnel. The effect on costs could be substantial – in 1973 the wage costs for the operation of a 6-8,000 grt dry bulk vessel in a low labour-cost country were 40 per cent lower than if the vessel had been flying the Norwegian flag, representing an annual saving of NOK 600,000 (Stortingsmelding 23 (1975-76):62).

The close connection between the depressed freight market and the increased focus on costs implies that there is a direct link between the shipping crisis and the changes in the international shipping hegemony. When the demand for shipping transport capacity grew fast in the first postwar decades, the revenues were sufficient to allow shipping to be operated from high-cost countries despite higher variable costs. When the freight market broke down, it became increasingly difficult for high-cost countries to compete and operate profitably at the prevailing freight rate level.

In several Asian countries the existence of a relatively cheap labour force with maritime training and experience was an important stimulus to the growth of the domestic fleets. Some countries had a long tradition of providing seamen for vessels flying foreign flags, and this personnel could easily be employed on domestically owned vessels.

In 1978 personnel from South Korea, the Philippines and Taiwan made up almost 50 per cent of the personnel employed on Liberia-registered vessels. In addition to bringing valuable foreign exchange to the domestic economy, some of the seamen utilised their income and experiences from the shipping sector to establish their own maritime businesses.

In other countries, the attractiveness of a cheap, yet skilled, labour force was supplemented by measures making it advantageous to employ local labour. In the expansionary phase of the Singapore fleet, benefits in the form of tax rebates were granted to shipowners registering their vessels in Singapore and employing local labour (Tenold, 2000:4). The access to skilful, low-cost labour has consequently been one of the important reasons for the growth of some of the most important Emerging Maritime Nations.

### *Investment*

High domestic rates of savings and investments are important in explaining the high manufacturing and economic growth of the Newly Industrialised Countries, relative to other developing countries and the industrialised nations. In both the manufacturing and the shipping sector the access to foreign capital was crucial, and capital was acquired through a combination of debt and Foreign Direct Investment. The latter element is particularly important in an analysis of the relocation of the international maritime industry.

In the 1970s and 1980s, several shipowning companies relocated some or all of their operations from Europe and North America to Asia. This relocation was motivated by two main factors. First, it was a result of the booming trade both within the region and from Asia to other parts of the world. Relocation of maritime activities to Asia increased the proximity to some of the shipping sector's high-growth customers. Second, the relocation was motivated by cost factors, both with regard to manning and with regard to communication and land-based activities. The capital and skills brought to Asia by these companies were important for the development of the

domestic shipping environments. The presence of the foreign subsidiaries supplemented the growth of locally based shipping.

The fact that foreign companies established sales offices, subsidiaries or shipowning companies in the Emerging Maritime Nations was crucial for the growth of some of these countries as maritime centres. Moreover, the development of some Asian fleets was the direct result of strong linkages to other countries, as in the case of the *shikumisen*-deals between Hong Kong shipowners and Japanese corporations. Domestic investments in shipping, and the integration of the Asian countries into the international ship finance market, enhanced the growth of locally based shipping. Several of the countries had long traditions in the regional shipping industry, and in many instances the increase in their fleets was the result of an expansion of local companies which supplemented the relocation of shipping companies from the Traditional Maritime Nations.

One factor which might have increased the Emerging Maritime Nations' possibilities to compete in the international shipping sector is the reduction in vessels values. Following the freight market breakdown, the price of vessels declined considerably – in some cases by as much as 80 per cent within two years. Accordingly, investments in modern tonnage did not require the same amount of capital as it usually had. The fact that the cost of entry into the shipping market fell, may have increased the possibilities for companies in Emerging Maritime Nations to expand their fleets, particularly when viewed in relation to their advantageous position with regard to manning costs.

### *Policies*

A common element in the growth of the Emerging Maritime Nations was the attempt to encourage the entry of foreign maritime companies and the expansion of local companies through specific policies. In the manufacturing sector the extent and effects of such policies are controversial. In the shipping sector, however, it is fairly easy to see that policy measures have been successful in expanding the fleets of certain countries. Singapore is perhaps the best example of this relationship between shipping policy and fleet growth.<sup>16</sup>

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<sup>16</sup> See Tenold (2000) for an introduction to the growth of the Singapore fleet and the basis for this growth, and Lauriat (1985) for an introduction to the policy measures introduced in other ASEAN-nations.

In 1968 the Singapore authorities decided to open their flag to shipowners of all nations. The policy was based on measures similar to those in traditional Flags of Convenience. However, contrary to the more traditional FoC-countries, the Singapore authorities tried to establish a relatively close link between the domestic economy and the shipping sector. The most important mechanism in this respect was the tax rebates offered to shipowners employing domestic crews.

The success of the scheme was overwhelming, and the Singapore fleet increased from approximately 250,000 grt to almost 8 million grt within a ten-year-period. In an effort to clean up the image of the Singapore flag, the authorities introduced stricter regulation of the country's fleet in the late 1970s. The shipping policy had nevertheless been successful in creating a strong national fleet and a viable shipping environment, augmented by the importance of Singapore as a regional maritime hub. The introduction of higher standards did not lead to any significant flight of tonnage. In 1987 Singapore ranked 13<sup>th</sup> among the world's maritime nations.

Other Asian countries chose alternative means of increasing their tonnage. The basis for the growth of the Chinese-registered fleet is briefly presented in Lauriat (1985:211). In Malaysia a state-owned national shipping line, the Malaysian International Shipping Corporation Berhad (MISC), was established in 1968. The tonnage owned by MISC increased considerably in the 1970s, following an aggressive fleet expansion programme (Trace & Chia, 1988:56-57). In the early 1980s, the Fourth Malaysia Plan specifically stated that the government's objective was to make the country a "*maritime nation*" (Chia, 1989:111).

The provision of labour and capital, and the effects of specific policies, seems to have been important for the growth of Asian manufacturing and shipping. The final elements commonly used to explain the growth of the manufacturing production of the Newly Industrialised Countries – access to internationally mobile capital, high demand and reduced trade barriers – only to some extent apply to the shipping sector. As already shown, the access to internationally mobile capital was important. However, it would be foolhardy to claim that the shipping sector was subject to high demand. Rather, the opposite was the case – demand for shipping services was falling. Nevertheless, the depressed state of the shipping market may be important in an explanation of the reduction of the share of the world fleet registered in the Traditional Maritime Nations.

The combination of the increased focus on costs and the reduced competitiveness of the Traditional Maritime Nations is perhaps the single most important explanation of the transfer of vessels to Flags of Convenience and New Maritime Nations. The shipping policies of several of the most important maritime nations were changed following the freight market breakdown. The use of low-cost foreign labour was facilitated by increased access to registry abroad and relaxation of domestic manning policies.<sup>17</sup> Judging by the changes in the world fleet, the former option proves to have been particularly attractive. In the late 1980s, US companies owned tonnage registered under 36 flags, and shipowners in the United Kingdom, Japan, Germany, Norway, Greece, Hong Kong and the Netherlands also operated tonnage under more than 20 different flags.

Reduced trade barriers have been used to explain the growth of manufacturing in the Newly Industrialised Countries. The experience of the shipping sector is to some extent different. On the one hand, the Emerging Maritime Nations may have benefited from the low barriers to trade encountered when offering bulk shipping services to and from the OECD-countries, as well as the indirect effect of trade liberalisation on the demand for seaborne transport. At the same time, however, several of the countries expanded their own shipping activity through the introduction of restrictions on the transport of domestic imports and exports. In the beginning of the 1980s, the UNCTAD Code of Conduct with its 40-40-20 cargo sharing arrangement was put into effect. This arrangement enhanced the possibilities of Emerging Maritime Nations to develop domestic liner fleets.

In addition to cargo reservation, some Emerging Maritime Nations used subsidies in order to build up domestic merchant marines. Even though the overall costs of such schemes generally exceed the benefits, cargo reservation and fleet subsidies may have been successful in increasing the size of domestic fleets. The cargo sharing arrangements and use of subsidies do not correspond well with the idea of reduced barriers to trade which is important in an explanation of the rise of the Asian countries as manufacturing producers. Nevertheless, the effect of these measures on the development of the fleets of Emerging Maritime Nations may be seen as positive when the expansion of the domestic fleets, rather than the net cost to the

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<sup>17</sup> In the case of the Norwegian International Ship Register (NIS), established 1987, the only condition is that the head officer is a Norwegian national, although this condition may easily be waived.



countries, is used as measuring rod.<sup>18</sup>

Another reason for the increased attractiveness of Emerging Maritime Nations and Flags of Convenience may have been the reduction of vessels standards. As a result of the overcapacity in the shipping sector, investments in new tonnage dwindled. New investments were unlikely to be profitable, and it became increasingly difficult for shipping companies to accumulate the funds necessary for fleet modernisation and expansion. However, shipowners were unwilling to scrap existing tonnage in the hope that a market upturn would generate increasing demand for both transport services and second-hand tonnage.

The reduced construction of new vessels and the reluctance to scrap older ships led to an increase in the average age of the world fleet and an apparent increase in ship casualties. The proportion of the world tonnage older than ten years increased from 41 per cent in 1980 to 61 per cent in 1987. The tonnage lost increased from approximately one million grt, representing 0.25 per cent of the world fleet, in 1977 to 2.7 million grt, or 0.6 per cent of the fleet, in 1986.<sup>19</sup>

The reduction of vessel standards may have prompted the transfer of tonnage from Traditional Maritime Countries to Emerging Maritime Nations and FoCs, as some of the countries in the latter group were often regarded as having a more lenient attitude with regard to seaworthiness. The claim is difficult to substantiate, but may nevertheless have played a minor role in an explanation of the shift in the flag distribution of the world fleet. The main reasons for this shift in the maritime hierarchy are the factors described above, with particular emphasis on the need to reduce costs in a depressed market.

Helen Thanopoulou (1995) has offered an alternative explanation of the transformation of the international distribution of the shipping industry. She has suggested the existence of a feedback relationship between the entrance of less-developed countries in shipping and the prolongation and deepening of maritime crises. In many respects her analysis is similar to the one presented above, but her focus is on the dynamics of the international economy, rather than specific features of the Emerging Maritime Nations.

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<sup>18</sup> See Yeats (1981) for an introduction to some of the economic aspects.

<sup>19</sup> Figures for age distribution from Table XVIII and for losses from Table XX in OECD, *Maritime Transport*, 1981 and 1987.

The basis for Thanopoulou's analysis is that depression periods in shipping adversely affect the higher-cost units' possibilities of staying in the market. Traditional Maritime Nations attempted to increase specialisation, focusing on capital intensive segments in order to maintain a competitive advantage. The effort proved only partly successful, and the Emerging Maritime Nations made a dynamic entry into all shipping segments, regardless of capital intensity. According to Thanopoulou, this challenge can be explained by the fact that shipping services in general had become relatively standardised, following the Vernon product cycle. Accordingly, the Traditional Maritime Nations did no longer have any particular advantages in the production of shipping services.

Sletmo has also used the framework of the Vernon product cycle on the shipping industry. At the introductory stage, the product – ie the shipping service – is non-standardised, implying that the provision is affected by technical and commercial experimentation. As the product matures it becomes more standardised, a fact which changes the competitive advantage of various suppliers. According to Sletmo (1989:286), the changes in the distribution of the world fleet are the result of the maturity of the bulk sector; *“the impossibility of long-term product differentiation in bulk shipping and the high degree of substitutability of highly mobile services make the search for least-cost production systems even more essential in shipping than in manufacturing.”*

The maturation of shipping services within a Vernon product cycle framework provides one explanation of the changes in the hierarchy of international shipping. In many ways, the services offered by the shipping industry evolved in a manner which rewarded the properties and factor relationships found in several Asian countries. Simultaneously, vessel ownership in Traditional Maritime Nations became unfavourable, following developments in the shipping market, in terms of eg reduced freight rates, and in the domestic economy, eg through increasing wages for seamen.

It is thus evident that the decline of the Traditional Maritime Nations can be understood in the context of development traits which are familiar from the manufacturing sector. The structural changes in the maritime sector were the result of changes in the international division of labour; the maturation and standardisation of products and services and the increasing importance of Newly Industrialised Countries as well as the reduced viability of OECD shipping.

## CHAPTER 4. THE NORWEGIAN ELEMENT

Being one of the world's leading maritime nations, Norway was affected by most of the development traits presented above. The Norwegian fleet declined substantially over the period 1970-87, and a large number of the vessels which Norwegian shipowners disposed of went on to be registered in FoC-countries or Emerging Maritime Nations. However, the Norwegian development to some extent differs from the previous presentation, mainly with regard to timing. This chapter analyses the Norwegian contribution to the changes in the world fleet by means of an examination of the vessels leaving the Norwegian fleet.

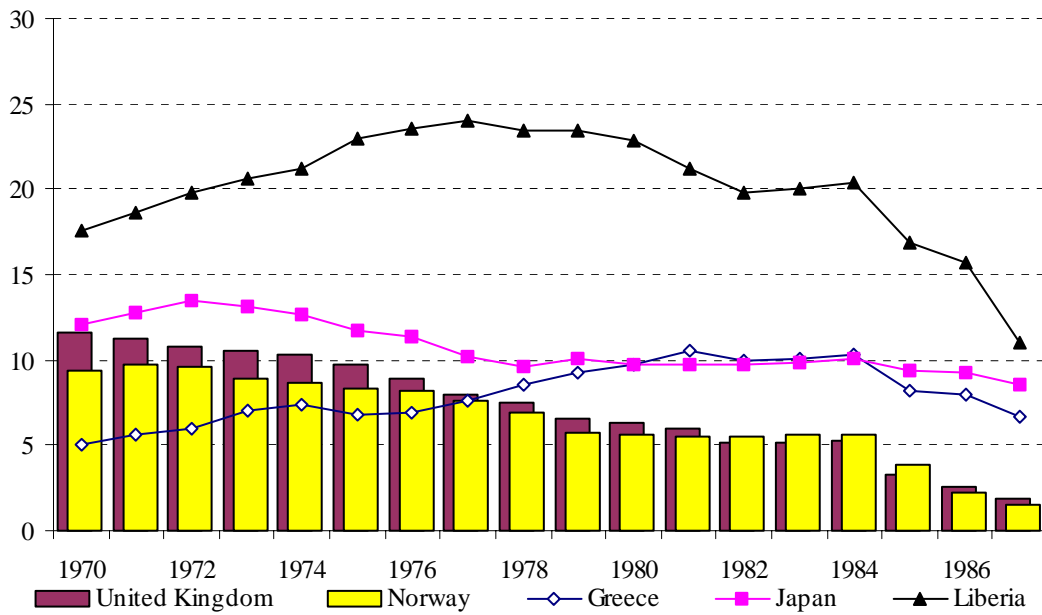
Table 1. The development of the largest OECD-fleets, 1973-87<sup>20</sup>

	1973 1000 dwt	1980 1000 dwt	1987 1000 dwt	Change 1973-80	Change 1980-87	Change 1973-87
Denmark	6,512	8,703	6,961	33.6	-20.0	6.9
France	13,286	20,861	8,407	57.0	-59.7	-36.7
Germany	12,148	13,332	5,659	9.7	-57.6	-53.4
Greece	31,438	67,048	42,776	113.3	-36.2	36.1
Italy	13,185	17,951	12,178	36.2	-32.2	-7.6
Japan	58,585	67,321	54,669	14.9	-18.8	-6.7
The Netherlands	7,264	8,999	5,123	23.9	-43.1	-29.5
Norway	40,087	38,885	9,657	-3.0	-75.2	-75.9
Sweden	8,802	13,522	2,403	53.6	-82.2	-72.7
United Kingdom	47,155	43,814	11,677	-7.1	-73.3	-75.2

During the expansive period in the early 1970s, the Norwegian share of the world fleet was relatively constant, whereas the OECD's importance was reduced. However, following the shipping crisis, the exodus of Norwegian vessels occurred earlier and was more pronounced than for any other major shipping nation save Great Britain. This development occurred despite the restrictive Norwegian flag policy and the measures which were introduced to keep supposedly valuable tonnage on Norwegian hands.

<sup>20</sup> The table is based on the dead weight tonnage of the ten largest OECD fleets in 1970, representing all vessels greater than 100 grt. The figures have been taken from the tables of the world and OECD fleets in the appendix of OECD, *Maritime Transport*, various issues. The fleet of the United States has been excluded.

Figure 6. Development of the most important fleets, per cent of world fleet, 1970-87<sup>21</sup>



The massive reduction of the Norwegian fleet has two main explanations. On the one hand, tonnage was sold abroad by shipowners in financial difficulties. Norwegian shipowners were more severely affected by the shipping crisis than their international competitors (Tenold, 2000c:149-158). On the other hand, the liberalisation of the Norwegian flag policy facilitated the foreign registry of Norwegian-owned vessels, and this element was particularly prominent from 1984 onwards, although some effects of the liberalisation were visible at an earlier point.

During the shipping crisis, the character of the Norwegian maritime industry was transformed. By analysing the development of the Norwegian shipping industry in the period 1970-87, we can clearly see some of the effects of the international shipping crisis, although the development traits also reflect the increased internationalisation of the shipping industry. It is difficult to differentiate the effects of the crisis from the general, long-term development of the shipping sector. However, with regard to Norwegian shipowners, some of the development traits were clearly the results of new opportunities following the liberalisation of the Norwegian shipping policy brought about by the crisis.

<sup>21</sup> The figure depicts the various countries' share of the world fleet. It is based on figures from the tables of the world fleet and the fleets of the OECD-countries, measured in dwt, in OECD, *Maritime Transport*, the annual issues from 1970 to 1987.

#### **4.1. Changes in the Norwegian shipping policy**

The shipping crisis, and the ensuing depressed state of the Norwegian shipping industry, have been extensively used as justification for the shift in policy. Consequently, the internationalisation of the Norwegian shipping industry, visible through increased foreign registry and a focus on ship management as a substitute for or supplement to vessel ownership, would not have occurred to the same extent if the freight markets had been good and revenues sufficient for continued profitable operation under the Norwegian flag. In this respect it is evident that the changes in the distribution of the world fleet, at least with regard to the reduced Norwegian influence in the international shipping sector, can be considered as a direct consequence of the shipping crisis.

Traditionally, the Norwegian legislation had affected the structure of the shipping industry through two mechanisms. The shipping legislation constrained foreign agents' access to the Norwegian register by laying down strict rules for the ownership of vessels included in the Norwegian register. Moreover, the foreign exchange legislation restricted Norwegian subjects' access to owning ships outside the Norwegian registry.

In the postwar period, Norwegian investments abroad were restricted under the provision of *Valutaloven* [The Currency Control Act]. As a result of the foreign exchange legislation, Norwegian agents were generally not allowed to invest in foreign shipowning companies. Shipowners wishing to invest abroad had to apply to the Ministry of Trade and Shipping for exemption from the general rules. In accordance with the increased foreign investments of Norwegian companies, the practice was gradually liberalised in the postwar period. However, the authorities claim that the enforcement of the regulation was relatively strict for shipowning companies until the late 1970s.

Norwegian currency controls have thus been used as a tool of Norwegian flag policy, restricting the foreign investments of Norwegian shipowning companies. Despite these restrictions, some Norwegian-owned vessels were flying foreign flags, either as a result of exemptions from the general rule or through investments in companies established before the strict currency control regime was introduced during the Second World War.

In the 1970s, the Norwegian shipowners' foreign investments were low compared with those of most of their competitors. Licenses were not granted in connection with applications where the main reasons were to exploit advantages with regard to lower taxes, cheaper crews, lower social expenses or to exploit advantages in connection with subsidies or national preferences. The authorities claimed that they had a "*relatively restrictive attitude*" (Stortingsmelding 23 (1975-76):24) and that "*the traditional practice of allowing registration under foreign flags can be considered restrictive*" (Norges Offentlige Utredninger (1980:45):27). However, a former bureaucrat in the Ministry of Trade and Shipping has claimed that the licensing practice had in fact been liberal, but was influenced by a great deal of arbitrariness (Breistein, 1984:83).

In 1975, the government emphasised that "*Norwegian shipping, as a main rule, shall be based on vessels flying the Norwegian flag and employing Norwegian crews*" (Stortingsmelding 23 (1975-76):25). The government made provisions for the flagging out of vessels due to high Norwegian costs, but this possibility was refuted by the parliament. It is thus evident that there was some movement towards liberalisation of the flag policy, but that there was no majority support for such a change. However, the shipping crisis made the problems even more acute, and paved the way for changes in the policy. In 1979, a parliamentary committee supported temporary flagging out of Norwegian vessels as an alternative to the sale of these vessels to foreign-owned companies.

The large outflow of Norwegian tonnage after the restrictions on foreign registry were eased might indicate an unsatiated need for foreign registry which the previous legislation had been able to hold back. However, two trends were working in tandem, both affected by the sad state of the shipping market. On the one hand, vessels were sold to foreign shipowners which could operate them in a more effective manner. On the other hand, Norwegian shipowners, encouraged by lower restrictions on manning and payment, transferred parts of their fleets to foreign registries in an attempt at increasing their competitiveness. In 1984, Norwegian shipowners held interests in almost 400 foreign-registered vessels, totalling more than ten million dead weight tons.

By the middle of the 1980s, the authorities had realised that "*a flexible flag policy is necessary to maintain a Norwegian shipping sector*" (Stortingsmelding 53

(1984-85):40). The act establishing an open Norwegian ship register was passed, and the new institution came into effect from 1 July 1987. Simultaneously, liberalisation of the foreign exchange legislation had made it easier for Norwegian shipowning companies to establish subsidiaries abroad.

The changes represented a reorientation of the Norwegian flag policy and contributed to a considerable influx of tonnage in the Norwegian fleet. The basis for the major turnaround in Norwegian flag policy was twofold:

- that “*the access to operation under a foreign flag in many cases is a condition for the operation of shipping from Norway*” and
- that “*this kind of shipping implies that the most profitable functions, demanding the highest competence, are maintained as Norwegian businesses*”

The establishment of the Norwegian International Ship Register (NIS) was a means through which the authorities sought to maintain and develop Norwegian maritime competence, while at the same time countering the exodus of Norwegian tonnage to foreign flags. In many ways the establishment of an open registry may be seen as a response to the changed state of the shipping market and the changes in the distribution of the world fleet which are the topic of this report.

Like in the case of the structural transformation of the world fleet, the internationalisation of Norwegian shipping and the policy changes which facilitated this development, were the result of two concurrent trends. The shift in Norwegian policy was both a response to the shipping crisis and a result of more long-term changes in the maritime hegemony and the structure of the shipping sector. An investigation of the parliamentary proceedings illustrates this, and also indicates when and to which extent the various elements have been important.

The liberalisation of the Norwegian flag policy in the late 1970s can be considered a direct response to the shipping crisis. The proposition to the parliament refers to previous consideration of the flag issue, and emphasises that “*the possibilities for profitable operation under the Norwegian flag have been considerably reduced after the parliament’s discussion of the Shipping-report [1975-76]*” (Stortingsproposisjon nr. 46 (1978-79):10). In the recommendation from the extended Committee on Finance and Economic Affairs “*the current situation of the shipping industry*”, ie the shipping crisis, is used to justify the liberalisation of the possibilities for foreign registry (Innst. S. nr. 167 (1978-79):9). The first steps towards

a more liberal shipping policy can thus be directly attributed to the effects of the shipping crisis.

The second stage of liberalisation was not a result of the shipping crisis *per se*, but rather a reflection of the increasing discord between the Norwegian shipping policy and the shipping policies of other nations. The Ministry of Trade and Shipping emphasised that “[i]n the evaluation of the flag policy, allowances must be made for the fact that an increasing share of the world fleet is registered in countries with free registers.” As a result of the policy changes, Norwegian shipowners were allowed to transfer “*technically obsolete tonnage*” as a means to diversifying their operation (Stortingsmelding nr. 52 (1980-81):30-31).

By the mid 1980s the third stage of liberalisation came into effect. The authorities had realised that “[a] restrictive flag policy will only delay the development towards operation under foreign flags” (Stortingsmelding nr. 53 (1984-85):41). Accordingly, the government suggested that the procedures prior to foreign registry should be simplified. The general prohibition was terminated, and replaced with general access to foreign registry. Instead of a policy disallowing foreign registry, which in certain circumstances could be waived, the policy became one of tolerance, but with two specified prohibitions. Applications were no longer dealt with on an individual basis. Rather, all applications were endorsed, unless there were specific reasons for refusal.

The reduction of the Norwegian fleet was dramatic in the period leading up to the changes in flag policy. However, three features of the Norwegian shipping policy may have delayed the outflow, relative to other OECD-countries. First, it is reasonable to assume that some of the vessels which were transferred to foreign registries would have been transferred at an earlier point in the absence of a restrictive flag policy. Second, the Norwegian authorities introduced tax measures, particularly in connection with the taxation of limited partnerships [kommandittselskap], which were only available for vessels flying the Norwegian flag. Third, the existence of the Guarantee Institute contributed to the preservation of large tankers and bulk carriers on the Norwegian registry.



## 4.2. The internationalisation of Norwegian shipping

The complexity of ownership in the shipping sector leaves a lot to be desired with regard to the determination of a ship's nationality. As Cashman (1981:73) puts it, “[i]t is a brave man who will address the question of who owns the fleet and put forward a hypothesis without some inner feeling of disquiet and vulnerability.” In the following analysis, two approaches have been chosen to present the increased internationalisation of Norwegian shipping. First, I focus on the tonnage registered in the two most important FoC-registries, Liberia and Panama, but where the “managing owners” are registered in Norway. Second, I present the tonnage leaving the Norwegian registry, but which was still managed from Norway the subsequent year.

The number of vessels and amount of Norwegian-managed tonnage registered under Flags of Convenience represent a crude measure of the internationalisation of the Norwegian shipping industry. Nevertheless, the development is conspicuous. In 1970, five Norwegian-managed vessels were registered in Liberia, and five years later the figure had been doubled.<sup>22</sup> In the next five-year-period, from 1975 to 1980, the number of Norwegian-affiliated Liberia-registered vessels increased to 33, and another three vessels were registered in Panama.

From 1980 to 1986, there was an average annual increase of 20 per cent in the number of vessels managed by Norwegian shipowners and registered in Liberia and Panama. Moreover, the average size of the vessels increased by 15 per cent over the same period. Altogether, the amount of Norwegian-managed tonnage registered in Liberia and Panama increased from less than 800,000 grt in 1980 to more than 2.8 million grt in 1986.

By analysing the amount of Norwegian-managed tonnage registered in the two most important FoC-countries, two notable trends are illuminated. First, the figures reveal the tonnage owned by Norwegian shipowning companies, but registered in countries offering FoC-facilities. Second, the figures show the increased use of Norwegian management companies by foreign shipowners. The latter trend is likely to be underestimated as the main source, the Veritas-registry, is unable to capture the chartering-in of foreign vessels on long timecharters, bareboat charters, etc.

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<sup>22</sup> All figures in the subsequent analysis refer to vessels of more than 5,000 grt.

Figure 7. Liberia- and Panama-vessels managed from Norway, 1000 grt, 1970-86<sup>23</sup>

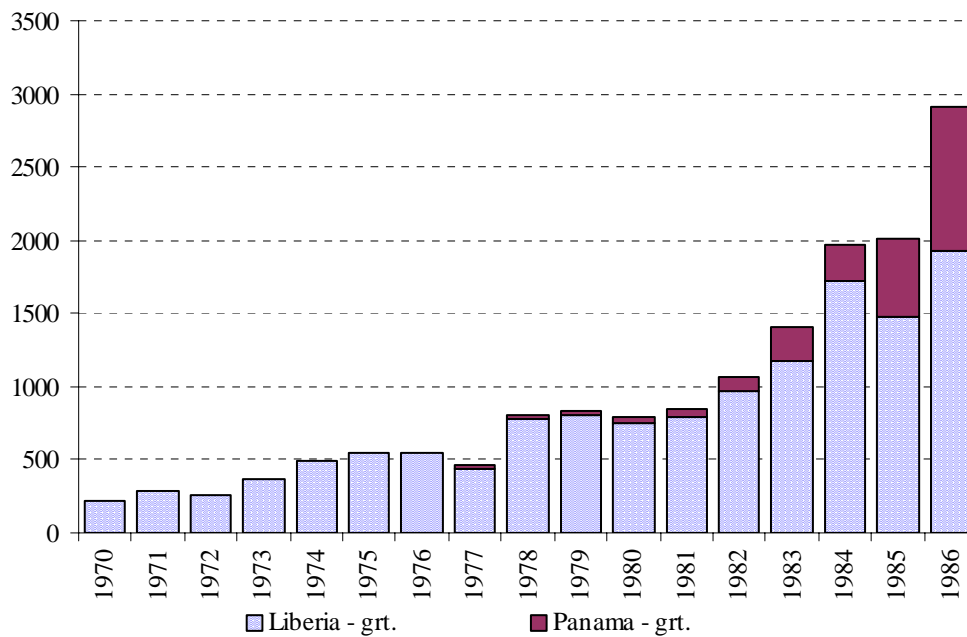


Figure 7 gives an indication of the increase in foreign-registered tonnage with Norwegian management. Until 1978 ore carriers managed by Sig. Bergesen d.y. & Co accounted for more than 50 per cent of the Liberia-registered tonnage. The company was allowed to register these vessels abroad due to cooperation with international ore conglomerates. The subsequent increase in Norwegian-affiliated tonnage registered in FoC-countries is as much a result of the political development previously described as of changing economic considerations.

From 1980 onwards, foreign registry was allowed to secure the profitable operation of vessels which were to be sold abroad after an expected increase in second-hand values. In the period 1980-83, 64 vessels were transferred abroad as an alternative to sale (Stortingsmelding nr. 53 (1984-85):36). This practice is one of the reasons for the relatively high turnover of the Norwegian-managed vessels in the Liberian and Panamanian fleets. However, several companies had to apply for an extension of the initial two-year temporary waiver, as the anticipated value increases failed to materialise.

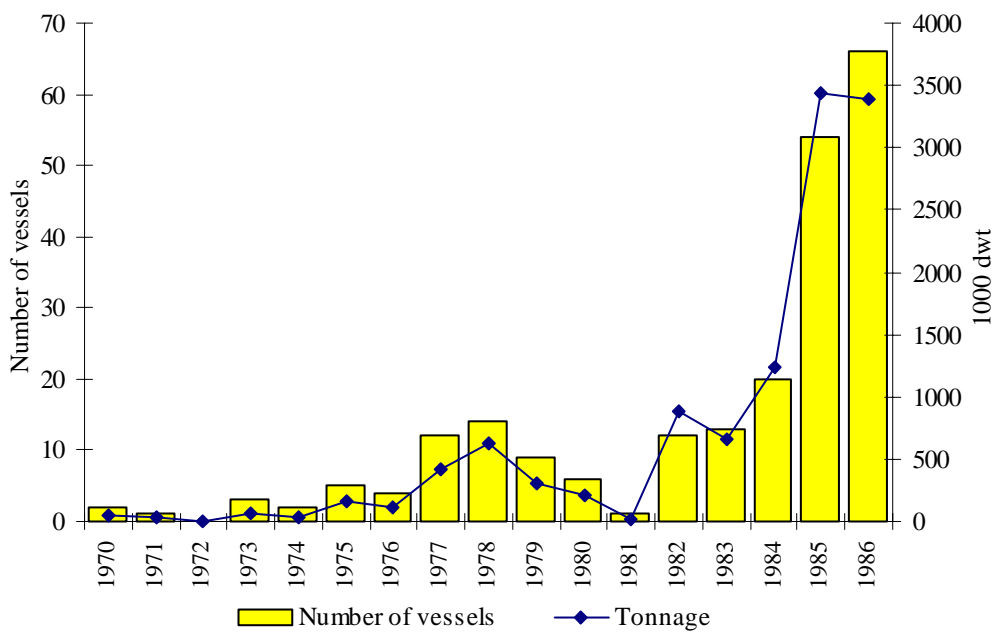
Later, foreign registry was still considered an exemption from the general rule, but the practice became so liberal as to facilitate large-scale registry under foreign

<sup>23</sup> The chart is based on a database consisting of figures from the list of national fleets by owner in the Veritas-registries, 1970-86. Vessels below 5,000 grt and vessels managed by Gotaas-Larsen's and Stolt-Nielsen's Norwegian affiliates or by foreign affiliates of Norwegian companies, such as the Hong Kong arms of Wallem and the Thoresen/BK/ Teigen-companies, have been excluded.

flags. By the middle of the 1980s, the dire conditions in the shipping industry had forced the authorities to make a total reversal of their flag policy. The aim was no longer, as in 1975, that “*Norwegian shipping, as a main rule, shall be based on vessels flying the Norwegian flag and employing Norwegian crews*”, but rather that “[a]ccess to operation under a foreign flag in many cases is a condition for the operation of shipping from Norway.”<sup>24</sup> The policy change was accompanied by a quadrupling of the Norwegian-controlled tonnage registered in Liberia and Panama.

The effects of the changes in the Norwegian shipping policy are evident from Figure 8. The figure shows tonnage and number of vessels sold abroad from Norwegian ship-owners, where the management of the vessels the following year was a Norwegian company.

Figure 8. Vessels sold, with continued Norwegian management, 1970-86<sup>25</sup>



<sup>24</sup> Quotes from Stortingsmelding nr. 23 ((1975-76): 25) and Stortingsmelding nr. 53 ((1984-85):41).

<sup>25</sup> Based on the Veritas-database, as presented in Chapter 4.3.

Figure 8 shows that the number of vessels transferred to foreign registries increased considerably after it became possible to transfer vessels abroad as an alternative to disposal. The trend accelerated after the shift in shipping policy from “prohibition with possible waivers” to “free-for-all with some exceptions” in the mid 1980s.

The data on which Figure 8 is based also reveal a strong tendency towards increasing average size of the tonnage sold abroad, but managed from Norway. Nine of the 13 vessels transferred in the period 1970-75 were bulk carriers, and the average tonnage was approximately 23,000 dwt. In the period 1976-80, the average tonnage increased to almost 40,000 dwt, largely as a result of the inclusion of some medium-size tankers. In the period 1981-86 fourteen mammoth tankers were transferred abroad, but still operated from Norway, contributing to an increase in average vessel size to almost 53,000 dwt.

### **4.3. The Tonnage Leaving the Fleet**

The subsequent analysis examines the fate of the vessels deleted from the Norwegian registry in the period 1970-86, and is based on a database presented in more detail in Tenold (2000c:258-267). Five main sources were consulted when the database was compiled, viz the Veritas-register, secondary literature, eg the histories of individual shipping companies, the database of the Norwegian fleet at the Bergen Maritime Museum, Lloyd’s Register and reports from brokers. In the cases where information varied between the different sources, the sources have been ranked in the order presented above. Alternative information has been indicated in the database.

The considerable amount of sources utilised has made it possible to determine the fate of the majority of the vessels which were sold in the Norwegian market, either to other Norwegian shipowners or to foreign agents. On average, information on the new owners is available for more than 90 per cent of the tonnage which changed owners. Measured by the number of transactions, information on the new owners is available for 1,600 of approximately 1,780 transactions. Information on the new country of registry, but not the new owner, is available in 167 instances, and only 13 vessels have been deleted from the main database without information on the new country of registry or the new owners.<sup>26</sup>

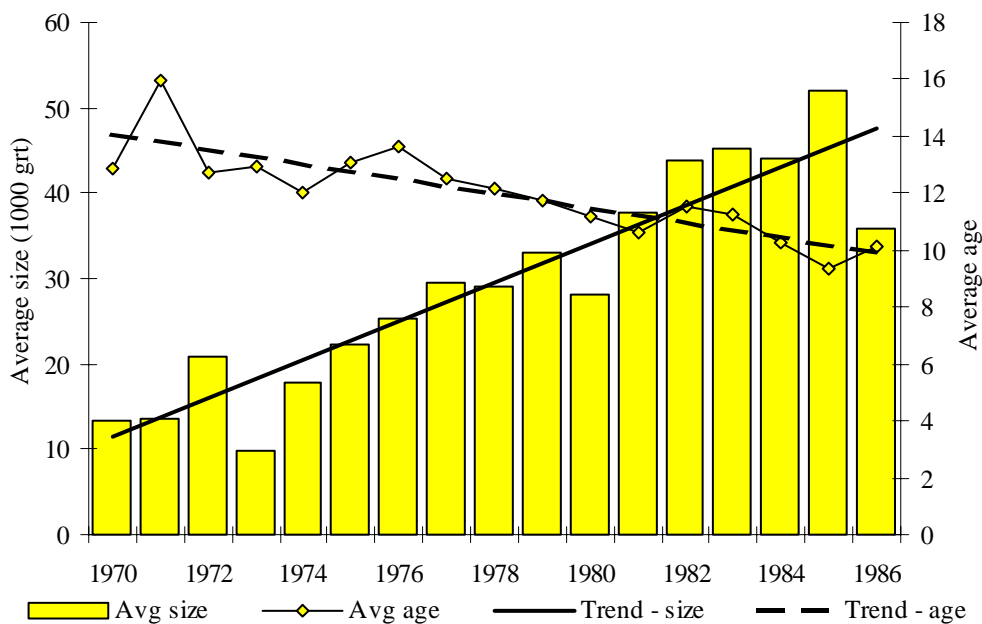
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<sup>26</sup> The 1,600 entries also include vessels which were scrapped.

Accordingly, the sales database is a useful tool for an analysis of the fate of the vessels which were sold in the Norwegian second-hand market for ships in the period 1970-86. The database only includes vessels above 5,000 grt.

The vessels which left the Norwegian fleet in the latter part of the period were both larger and more recently built than the vessels which were sold in the beginning of the period. The average size of the vessels sold from Norway increased from approximately 13,000 grt in 1970 to more than 50,000 grt in 1985.<sup>27</sup> Indeed, from 1983 until 1985 the vessels which were sold in the Norwegian market and registered abroad were larger than the average vessels in the Norwegian fleet. This can be explained by the fact that a large amount of the tonnage ordered during the tanker market heyday, ie mammoth tankers and combination carriers, were disposed of. Almost 50 tankers and combination carriers above 100,000 grt were sold from 1983 to 1985.

Figure 9. Average age and size of vessels sold from Norway, 1970-86



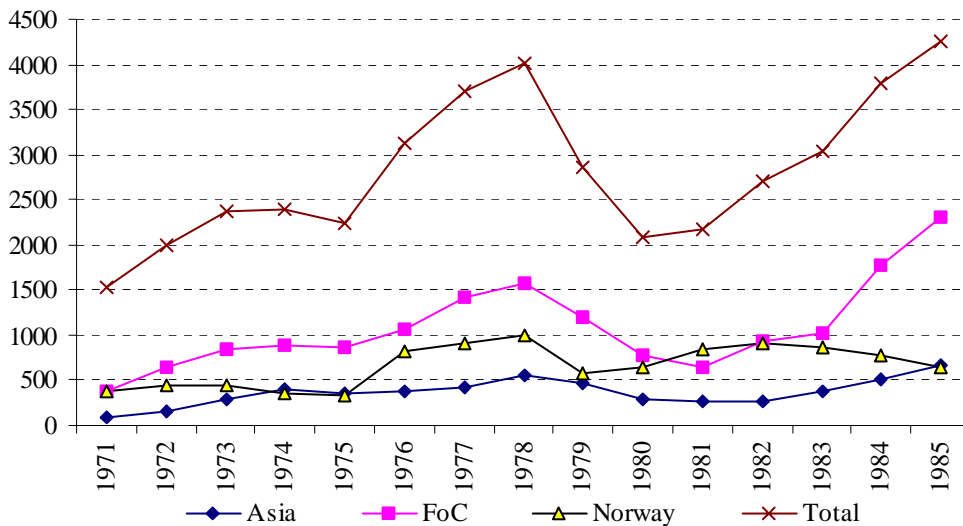
The average age of the vessels sold abroad decreased from approximately 13 years in the early 1970s to approximately ten years in the latter part of the period. However, the vessels which were sold abroad were older than the average of the Norwegian fleet throughout the period.

<sup>27</sup> The average size in 1986 was lower, due to the fact that relatively few large tankers were sold.

### 4.3.1. Where did they go?

The amount of tonnage which changed owners varied considerably from one year to the next. The majority of the tonnage was either transferred from one Norwegian owner to another or registered in Flags of Convenience-countries or Asian countries. In aggregate, 40 per cent of the tonnage changing owner was registered in an FoC-country, 13 per cent was registered in Asia and 22.5 per cent was transferred within the Norwegian market.

Figure 10. Tonnage changing owners, 1000 grt, three-year moving average, 1971-85



The data upon which Figure 10 is based show that the share of the tonnage which was transferred between Norwegian owners fluctuated around a quarter of all tonnage until 1982, but thereafter fell dramatically, averaging 16 per cent from 1983 to 1986.<sup>28</sup>

The aim of this part of the report is to examine the fate of the vessels which left the Norwegian register. Vessels which were scrapped or lost have not been included in the analysis. This amounts to 52 vessels, totalling 1.25 million grt in the period 1970-79, and 22 vessels, totalling 2.1 million grt in the period 1980-86.<sup>29</sup> In an international perspective, the amount of tonnage which changed hands within Norway

<sup>28</sup> The chart shows the total amount of tonnage for which the new country of registry is known, as well as the amount of tonnage which went to each of the three most important recipients – new Norwegian owners, Flag of Convenience-countries and Asian countries. In order to improve the readability of the presentation, the figures have been converted to three year moving averages.

<sup>29</sup> Moreover, the thirteen vessels for which ownership and country of registry were unknown have been left out. This refers to three vessels, totalling approximately 30,000 grt, in the period 1970-79, and ten vessels, amounting to approximately 300,000 grt, from 1980 to 1986.

is relatively unimportant. The following analysis is consequently based upon the vessels which were deleted from the Norwegian registry and transferred to foreign shipowners.

The vessels which were deleted from the Norwegian registry have been categorised in five groups. The majority of the tonnage, in excess of 52 per cent, went on to be registered in FoC-countries.<sup>30</sup> The second largest group consists of the Asian countries, in particular China and Singapore. The basis for these transfers was elucidated in Chapter 3. Approximately 17 per cent of the Norwegian tonnage sold abroad was subsequently registered in this region.<sup>31</sup>

A considerable portion of the Norwegian fleet was taken over by Greek shipowners, either for operation under the Greek flag or FoCs. In the 1970s more than 19 per cent of the Norwegian tonnage sold abroad was transferred to the Greek flag, but this share fell to less than eight per cent in the period 1980-86. In aggregate 14 per cent of the tonnage deleted from the Norwegian registry in the period 1970-86 was subsequently registered in Greece.

Less than ten per cent of the tonnage sold from Norway went on to be registered in other OECD-countries.<sup>32</sup> Approximately eight per cent of the tonnage, comprising less than three million grt, was sold to other countries, including oil-producing countries, communist countries and developing countries.<sup>33</sup> When the Norwegian ownership was terminated, the vessels were registered in more than sixty different countries, a prime example of the fact that the market for second-hand ships is truly international.

In aggregate, tonnage amounting to more than 37.7 million grt was sold from Norway for registry abroad in the period 1970-86. The sales database includes information on the subsequent country of registry for almost 37,4 million grt of this tonnage. Table 2 shows how this tonnage was distributed among the various new registries.

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<sup>30</sup> The countries included in the "Flag of Convenience"-category are Bahamas, Bermuda, Cayman Islands, Curacao, Cyprus, Gibraltar, Liberia, Malta, Panama, Somalia and the Lebanon.

<sup>31</sup> The category "Asia" comprises Bangladesh, China, Hong Kong, India, Indonesia, Pakistan, Singapore, South Korea, Sri Lanka, Taiwan, Thailand, the Philippines and Vietnam.

<sup>32</sup> The OECD-countries receiving tonnage were Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Portugal, Sweden, the Netherlands, the United Kingdom and the United States. Greece has been excluded from these figures.

<sup>33</sup> The countries which received tonnage from Norway, and have been included in the "other"-category are Albania, Algeria, Argentina, Bulgaria, Cameroon, Chile, Colombia, DDR, Egypt, Iran, Iraq, Kuwait, Mexico, North Korea, Nigeria, Poland, Russia, Saudi Arabia, Tanzania, Turkey, United Arab Emirates, Uruguay and Venezuela.

Table 2. Tonnage leaving Norway by new country of registry<sup>34</sup>

	1970-79		1980-86		1970-86		
	Grt	Share	Grt	Share	Grt	Share	World share
Asia	3,276,936	16.1	3,012,087	17.7	6,289,023	16.8	7.3
FoCs	9,465,815	46.5	9,984,617	58.8	19,450,432	52.1	28.4
OECD	2,332,106	11.4	1,075,229	6.3	3,407,335	9.1	52.3
Greece	3,910,144	19.2	1,323,440	7.8	5,233,584	14.0	
Other	1,387,491	6.8	1,593,477	9.4	2,980,968	8.0	12

In the last two columns of Table 2, the recipients' shares of the tonnage sold from Norway have been compared with their shares of the world fleet. The share of the tonnage which was registered in OECD-countries was relatively low, even when we adjust for the inclusion of the Norwegian and Greek fleets. There are two main reasons for this. First, the OECD-countries' share of the world fleet was declining over the period. Second, a large portion of the tonnage which left the Norwegian registry was unsuitable for operation from high-cost, industrialised countries. Rather, the shipowners purchasing the vessels could only operate them profitably in low labour-cost countries, which typically were countries outside the OECD.

The share of the tonnage sold to FoC-countries, Greece and Asia was relatively high. The explanations are the opposite of those which can account for the relatively low share of tonnage sold to OECD-countries. On the one hand, these registries were expanding heavily in the period. Accordingly, one should expect that their acquisition of tonnage was relatively high, compared with the size of their current fleets. On the other hand, by utilising low-cost labour, shipowners in these countries could operate old vessels profitably even after they were unsuitable for operation with the Norwegian flag. In this respect, Greece differed from the other OECD-countries, as it was a relatively low labour-cost flag.

<sup>34</sup> The figures in the last column indicate the groups' average share of the world fleet in the period 1970-86. The figure for the OECD-fleet includes both Norway and Greece.



Figure 11. New registry, per cent of grt on an annual basis, 1970-86<sup>35</sup>

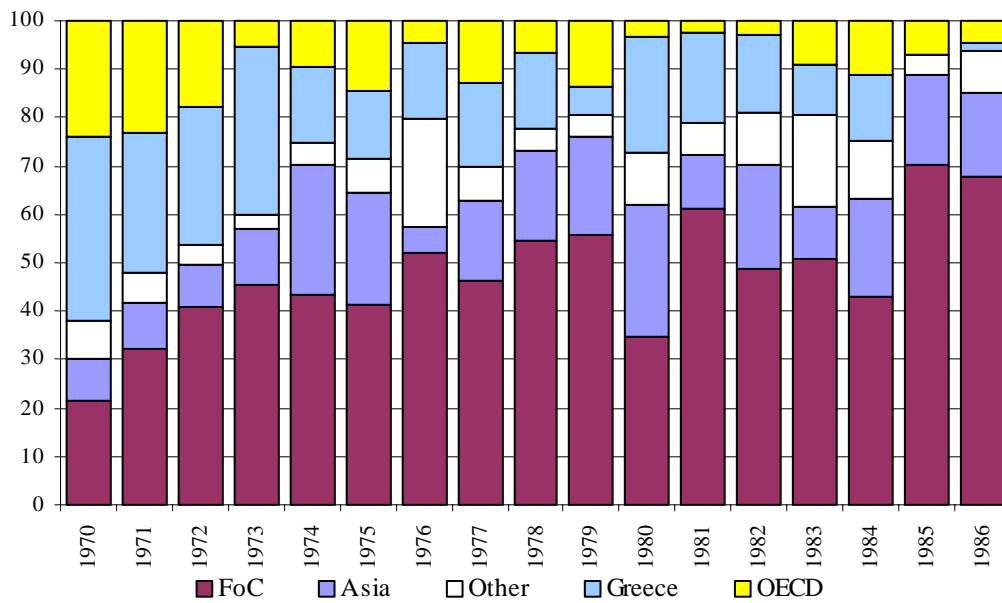


Figure 11 shows where the vessels sold by Norwegian shipowners were subsequently registered. The columns refer to per cent of the annual sales, and do not take into account the fact that the volume of tonnage sold varied from one year to the next.

Greek shipowners with vessels flying the Greek flag were particularly eager to purchase Norwegian second-hand tonnage in the early part of the period. In 1970 alone, 27 vessels were sold for registry in Greece. More than half of this tonnage was purchased by Greek-based shipowners, whereas exiled Greek shipowners in Great Britain bought more than 40 per cent. The rest was purchased by Greek shipowners who had companies incorporated or based in the United States, but preferred to fly the Greek flag. Moreover, Greek shipowners, both Greek- and foreign-based, bought a considerable share of the vessels which were registered in FoC-countries.<sup>36</sup>

Shipowners utilising Flags of Convenience increased their share of the purchases of Norwegian vessels in the early 1970s, and the share was stabilised at approximately 50 per cent in the period 1973-84. However, in 1985 and 1986 more than two thirds of the vessels leaving the Norwegian fleet were registered in FoC-countries. As the subsequent analysis will show, the high share in the 1980s was largely the result of traditional flagging out of Norwegian vessels.

<sup>35</sup> The chart shows the distribution of the vessels leaving the Norwegian fleet, based on grt.

<sup>36</sup> In this analysis all shipowners have been defined by their country of operation. Accordingly, a large share of the vessels which were managed by British and American companies were in fact owned by Greek citizens or other shipowners of Greek origin.

The third group buying a considerable share of the Norwegian tonnage was Asian shipowners. The most important countries in the “Asia”-category were China, Hong Kong, Singapore and the Philippines. In both Singapore and the Philippines, some of the vessels were purchased by agents with strong links to the Norwegian shipping sector. These agents were either Norwegians who had begun their careers abroad or companies established by Norwegian shipowners. As Figure 11 indicates, OECD-countries, with the exception of Greece, and the countries in the “other”-category were relatively unimportant.

#### **4.3.2. Where did they really go?**

As country of registry often differs from the nationality of the actual owner, the results of the previous analysis do not necessarily correspond with the nationality of the shipowners who purchased the Norwegian vessels. However, the sales database includes information on the majority of the new managing owners as well, and this enables us to analyse the new ownership of the vessels which left the Norwegian fleet.

The subsequent analysis focuses on the localisation of the *managing owners*, rather than country of registry. It should be emphasised that the growth of the ship management industry implies that some of the companies registered as managing owners, in particular in the latter part of the period, were in fact only managing the vessels for owners based in other countries. However, the extent of this practice was not so large as to affect the conclusions to any considerable extent.

Data on the new managing owners are available for approximately 90 per cent of the observations, regardless of whether number of transactions or volume of tonnage sold is used. However, approximately 22 per cent of the tonnage was sold in the Norwegian market, where information on the new ownership was available for all of the vessels. This implies that the observations of new *foreign* ownership are lower than 90 per cent.<sup>37</sup> Although precise information is lacking for approximately 14 per cent of the vessels, representing 16 per cent of the tonnage, the data can be considered relatively reliable with regard to the real ownership of the vessels which left the Norwegian fleet.

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<sup>37</sup> In a handful of instances the database contains information on the name of the new company, but not where the company is based. The number of companies for which the location of the owners is not identified is 196, rather than the previously mentioned 179, which is the number of vessels for which the owners have not been identified. The term foreign owners includes Norwegian companies with vessels registered abroad.

The analysis reveals two striking, but not surprising, features. First, there was little correspondence between the registration and the actual ownership of the vessels which left the Norwegian registry. This can be accounted for by the large share of the fleet transferred to FoC-countries. Second, the effects of the liberalisation of the Norwegian flag policy are evident, and flagging out can explain quite a lot of the changes in registration from 1984 onwards.

The analysis in the previous subchapter showed that the OECD-countries were suspiciously absent in connection with the new registration of the tonnage which left the Norwegian fleet. Excluding Norway, the OECD-countries' average share of the world fleet was approximately 45 per cent in the period 1970-86. However, the OECD-countries purchased only 23.1 per cent of the Norwegian tonnage, and the majority of this tonnage was bought by Greek shipowners. An analysis of actual ownership neutralises this effect. Whereas less than a quarter of the tonnage sold abroad was registered in OECD-countries, companies based in these countries were the actual buyers of more than 70 per cent of the tonnage sold from Norway.<sup>38</sup>

#### *Analysis of vessels sold from Norway*

The buyers of the tonnage which was sold from Norway have been divided into five main categories. The most important group consists of companies in the OECD-countries, which bought the majority of the tonnage which was sold abroad by Norwegian shipowners, largely for registration in FoC-countries.<sup>39</sup> The second most important group is Norwegian shipowners, who "bought" more than 21 per cent of the tonnage which left the Norwegian fleet and was registered elsewhere. However, the Norwegian share increased considerably, from less than seven per cent in the 1970s to almost 39 per cent in the period 1980-86.

Shipowners in Asian countries bought 18.5 per cent of the tonnage sold from Norway. This figure was higher than the 16.8 per cent of the tonnage which was registered in Asia. The reason for this was that some Asian owners, in particular in Hong Kong and Singapore, chose to register their vessels in FoC-countries.<sup>40</sup> However, this effect was to some extent neutralised by the fact that some of the

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<sup>38</sup> The figure includes Greece and vessels which were registered outside Norway, but managed by Norwegian-based companies.

<sup>39</sup> The OECD-based companies which bought Norwegian tonnage were located in Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Portugal, Spain, Sweden, the Netherlands, the United Kingdom and the United States.

<sup>40</sup> The Asian companies which bought vessels from Norway were located in Bangladesh, China, Hong Kong, India,

companies that registered their fleets in Asian countries were based outside the region.

Companies based in countries grouped in the “other”-category bought less than six per cent of the tonnage.<sup>41</sup> The “other”-category consists of a motley crew of owners based in countries which were relatively insignificant in an international maritime perspective. The vast majority of the vessels sold to these countries were registered in the country where the owner was localised, although there are some instances of separation of registry and ownership.

Just like the registry of the vessels gives little indication of the actual nationality of the owners, the addresses of some shipping companies do not reveal where the ultimate owner interests are based. These companies have been included in the last category, called tax havens, which consists of companies for which the given address refers to countries with little limitation on foreign ownership. The countries included in this category are largely the same as those included in the FoC-category in the previous example. In addition, Monaco has been defined as a tax haven. The inclusion of Switzerland in this category could be justified due to the discretion of the country’s banking system, but I have chosen to include the Swiss shipowning companies in the OECD-category.<sup>42</sup>

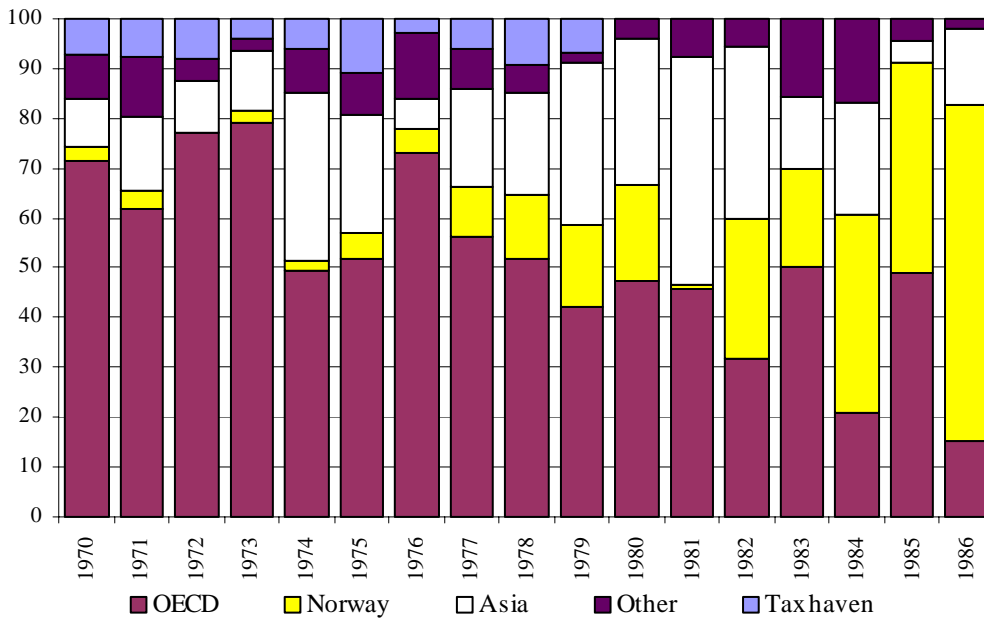
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Indonesia, Pakistan, Singapore, South Korea, Sri Lanka, Taiwan, the Philippines and Vietnam.

<sup>41</sup> The companies were based in Albania, Algeria, Argentina, British West Indies, Bulgaria, Chile, Colombia, DDR, Iraq, Israel, Kuwait, Mexico, New Zealand, Nigeria, Poland, Russia, Saudi Arabia, South Africa, Tanzania, Turkey, United Arab Emirates, Uruguay and Venezuela.

<sup>42</sup> Some of the companies registered as based in Switzerland were “trusts”, one of the favourite institutions utilised by shipowners wishing to avoid a revelation of their actual ownership. The countries included in the “tax havens”-category are Bermuda, Cyprus, Gibraltar, Liberia, Malta, Monaco, Panama and the Lebanon.

Figure 12. Tonnage sold from Norway by actual ownership, 1970-86



The important position of the OECD-countries with regard to the ownership of the vessels sold from Norway is evident from Figure 12.<sup>43</sup> The largest recipients were Norwegian companies registering their vessels outside Norway. They purchased slightly more than 30 per cent of the tonnage bought by OECD-companies, followed by British companies, with 19 per cent, and Greek shipowners, with 17 per cent of the tonnage. US owners acquired approximately ten per cent of the tonnage, whereas companies in other OECD-countries, in particular Finland, Germany, Sweden and the Netherlands, bought 23 per cent of the tonnage which was bought by OECD-based companies.

The tonnage which was taken over by Asian owners can broadly be put into three categories. First, Asian companies acquired a considerable amount of relatively old vessels, in particular at the beginning of the period. These vessels were largely intended for transport in regional waters, but do not weigh heavily when tonnage is used as the basis for analysis. Second, relatively modern bulk tonnage was sold to shipowners in Hong Kong and Singapore after the freight market breakdown, often for registry in FoC-countries. Third, several agents with close links to the Norwegian shipping industry operated from Asian countries, in particular Singapore. Moreover,

<sup>43</sup> The average of the annual shares of the tonnage sold to OECD-countries was approximately two thirds. However, 70.7 per cent of the tonnage sold abroad went to OECD-countries. The discrepancy is a result of the fact that the other groups, in particular Asian countries, had high annual shares around the turn of the decade, when the amount of tonnage sold was relatively low.

some Norwegian shipowning companies were responsible for the establishment of new companies in this region, and in several instances tonnage was transferred from the Norwegian register to these new companies.

*Analysis of the tonnage transferred to Flags of Convenience*

The considerable difference between the country of registry and the nationality of the actual owners is largely the result of the use of Flags of Convenience. However, the sales database may shed light upon the actual ownership of the FoC-fleets in a manner which is usually not possible in connection with aggregate data on the world fleet.<sup>44</sup>

Vessels amounting to almost 17 million grt were transferred from Norway to Flags of Convenience in the period 1970-86. The database contains information on the actual ownership for 87 per cent of the tonnage which was later registered in FoC-countries. This relates to approximately 89 per cent of the 656 observations of vessels leaving the Norwegian fleet for inclusion in such registries. The results of the analysis vary greatly depending on the period of observation.

Table 3. Previously Norwegian-registered tonnage in FoCs – actual owner

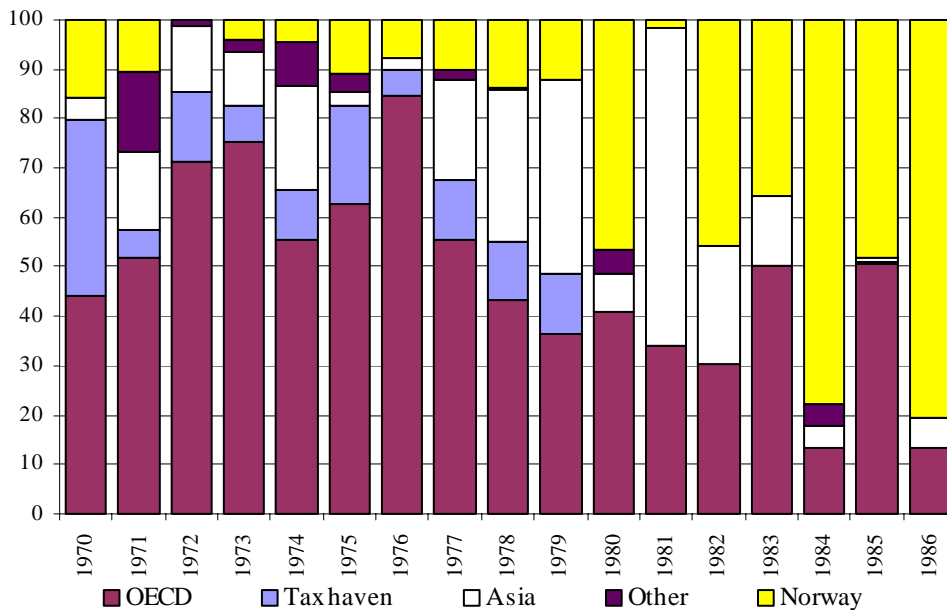
	1970-79		1980-86		1970-86	
	Tonnage grt	Share	Tonnage grt	Share	Tonnage grt	Share
Tax haven	984,135	12.1	7,975	0.1	992,110	5.8
OECD	5,394,620	66.6	7,884,824	88.8	13,279,444	78.2
<i>Greece</i>	<i>612,918</i>	<i>7.6</i>	<i>511,441</i>	<i>5.8</i>	<i>1,124,359</i>	<i>6.6</i>
<i>Norway</i>	<i>737,674</i>	<i>9.1</i>	<i>4,825,064</i>	<i>54.3</i>	<i>5,562,738</i>	<i>32.8</i>
<i>UK</i>	<i>1,407,206</i>	<i>17.4</i>	<i>780,079</i>	<i>8.8</i>	<i>2,187,285</i>	<i>12.9</i>
<i>US</i>	<i>1,569,421</i>	<i>19.4</i>	<i>229,005</i>	<i>2.6</i>	<i>1,798,426</i>	<i>10.6</i>
<i>Other OECD</i>	<i>1,067,401</i>	<i>13.2</i>	<i>1,539,235</i>	<i>17.3</i>	<i>2,606,636</i>	<i>15.3</i>
Asia	1,533,844	18.9	939,747	10.6	2,473,591	14.6
Other	189,553	2.3	48,828	0.5	238,381	1.4

<sup>44</sup> The countries included in the FoC-category are Bahamas, Bermuda, Cayman Islands, Curacao, Cyprus, Gibraltar, Liberia, Malta, Panama, Somalia and the Lebanon. Bermuda, Cyprus, Gibraltar, Liberia, Monaco, Panama and the Lebanon are also included in the “tax haven”-category.

In the 1970s, the majority of the vessels which left the Norwegian fleet and were registered in Flags of Convenience were purchased by OECD-based owners, and this share increased in the period 1980-86.<sup>45</sup> Companies registered in tax havens received a significant amount of the tonnage in the 1970s, but were nigh on absent in the 1980s. Asian owners were responsible for a significant share of the FoC-tonnage. Most of these vessels were owned by shipowning companies based in Hong Kong and Singapore.<sup>46</sup>

The amount of tonnage owned by shipowners outside tax havens, the OECD and Asia was negligible. Whereas shipowners in the “other”-category bought approximately seven per cent of the tonnage sold from Norway, they owned only 1.4 per cent of the tonnage which was later registered in FoC-countries. This is a result of the fact that the majority of the tonnage owned by shipowning companies in these countries was flying the domestic flag. Whereas shipowners in 23 countries in the “other”-category bought vessels from Norway, only shipowners in three of these countries registered their vessels in FoC-countries.<sup>47</sup>

Figure 13. Flag of Convenience-registered vessels by owner nationality, 1970-86



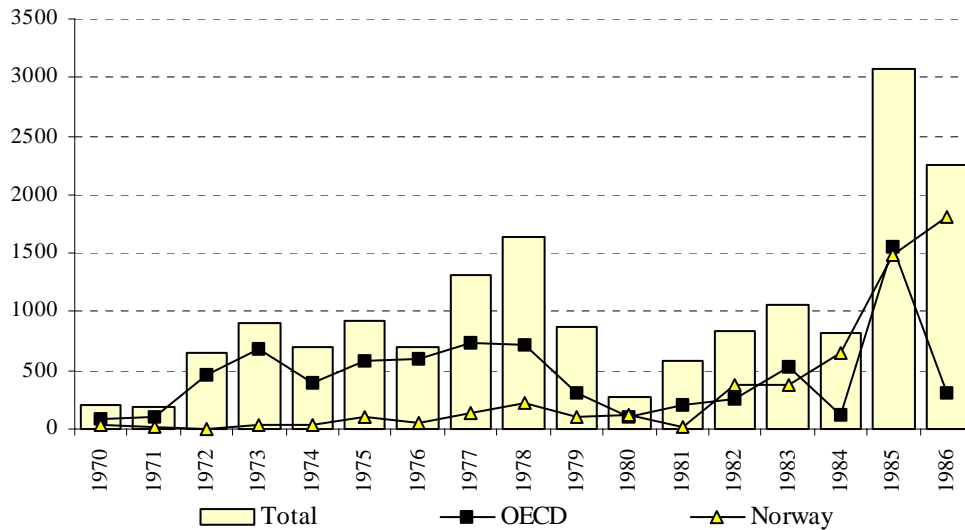
<sup>45</sup> In addition to owners in the countries specified above, owners in Belgium, Canada, Denmark, Finland, Germany, Italy, Portugal, Spain, Sweden and the Netherlands bought tonnage from Norway, and registered these vessels in FoC-countries.

<sup>46</sup> The Asian owners which had vessels registered in FoC-countries were based in Hong Kong, Indonesia, Singapore, South Korea, Taiwan and the Philippines,

<sup>47</sup> These owners were based in Argentina, Israel and Saudi Arabia.

If the ownership of the vessels which were transferred to Flags of Convenience is broken down on an annual basis, the considerable changes in the importance of the various countries become evident.<sup>48</sup> The most striking development is the increasing importance of Norwegian shipowners, a direct result of the changes in the Norwegian flag policy.

Figure 14. Real ownership of vessels transferred to FoCs, 1000 grt, 1970-86



The share of the FoC-registered vessels which was in fact purchased by Norwegian shipowners amounted to almost two thirds of the tonnage in the years 1984 to 1986. This was closely related to the liberalisation of the Norwegian flag policy, and may to some extent be the result of a pent-up pressure which had existed for a number of years.

The analysis in this chapter has shown that the tonnage which left the Norwegian registry may shed light upon the changes in the international distribution of the world fleet. Moreover, the analysis confirms the OECD-countries' dominance with regard to the actual ownership of the FoC-tonnage. However, the large amount of Norwegian second-hand tonnage purchased by Asian shipowners reflects the challenge to the OECD-countries' maritime hegemony.

<sup>48</sup> The figure refers to ships over 5,000 grt deleted from the Norwegian registry and registered in Flag of Convenience-countries. The OECD-figures do not include Norway.



## CHAPTER FIVE – SUMMARY

The aim of this report has been to examine and explain the changes in the international distribution of the world fleet in the period 1970-87. This development has been elucidated by means of an analysis of the subsequent registry and ownership of the vessels which were sold from the Norwegian registry.

Parallel with the shipping crisis, the share of the world fleet registered in the OECD-countries was virtually halved, falling from 64.5 per cent in 1970 to 34 per cent in 1987. The decrease was partly a result of the growth of the fleets registered in countries offering Flag of Convenience-facilities. However, the ultimate owner interests of these vessels largely remained with companies based in the Traditional Maritime Nations. As such, it represented a change in registry, but not necessarily a change in the control of the vessels. More importantly, the period witnessed the strong growth of the fleets of several Emerging Maritime Nations, primarily in Asia.

The Asian countries analysed in this report increased their fleets from 11.5 million dwt in 1970 to more than 93 million dwt in 1987. The majority of the growth took place in China, Hong Kong, Singapore, the Philippines and South Korea, the combined fleets of which increased from 5.5 million dwt to more than 70 million dwt over the period. The Asian share of the world fleet increased from less than 3.5 per cent in 1970 to almost 15 per cent by 1987.

The basis for the growth of the FoC-fleets was briefly analysed, with focus on the factors which encouraged shipowners to take advantage of such facilities, particularly with regard to taxation and cost advantages. The growth of the FoC-fleets was to some extent a continuation of development trends which were manifest even before the shipping crisis.

The increased importance of the Asian countries in the maritime sector was seen in relation to the factors which have commonly been used to explain the increasingly important position of Asian countries in the manufacturing industry. On the shipping demand side, the increasing trade between Asia and the rest of the world and the strong economic growth in the region were important factors for the growth of Asian shipping.

The main focus of the analysis of the growing Asian fleets was the supply side factors which were important for the development, in particular labour, investments

and shipping policies. Indeed, one of the reasons for the shift in the distribution of the world fleet was a change in the conditions conducive to maritime enterprise. This shift favoured Asian countries.

Several Asian countries had a long history of providing maritime personnel for FoC-vessels, and the existence of a competent, but relatively cheap, labour force is one of the reasons for the growth of the Asian fleets. Wages became increasingly important, parallel with the depressed rates and the growth in the tonnage surplus. The restrictions on manning requirements and remuneration in Traditional Maritime Nations may explain the flight of tonnage from these countries, following a loss of competitiveness. Whereas shipowners in good times could make a profit even though their costs were relatively high, partly as a result of fast technological development, such strategies became increasingly difficult to follow in a depressed market.

The investments in shipping in the Emerging Maritime Nations were a combination of local investments and Foreign Direct Investments by shipping companies originally based in Traditional Maritime Nations. Local investments were enhanced by the increasing savings rates in the region, as well as the fact that the dramatic reduction of vessels values reduced the cost of entry into the shipping market. Foreign Direct Investments were motivated by the growing production and trade in the region, as well as by cost factors.

The Emerging Maritime Nations followed a variety of shipping policies, but in some countries it is evident that the policy measures were important in increasing the amount of tonnage flying the domestic flag. However, the single most important reason for the large transfer of tonnage to FoC-registries and Emerging Maritime Nations was probably the reduced competitiveness of the Traditional Maritime Nations and the increased focus on costs in a depressed market.

The reduced competitiveness and focus on costs correspond with the theories put forward by Thanopoulou and Sletmo, based on the Vernon product cycle. They claim that shipping had become a mature, standardised product. The maturation changed the competitive advantage of various suppliers, in this case by reducing the advantages of Traditional Maritime Nations in providing shipping services.

The changes in the distribution of the world fleet were illustrated by an analysis of the subsequent registration and ownership of the tonnage which left the Norwegian fleet. Norway was one of the countries which were hardest hit by the

shipping crisis, and experienced the strongest decline in the size of the fleet in the period 1973-87.

The analysis of the vessels sold from Norway showed that more than 60 different countries purchased tonnage from Norway, but that more than half of the tonnage went to FoC-registries. The FoC-share increased over the period from 1970 to 1987, whereas the share which went to Asian countries was relatively constant, averaging 16.8 per cent. Almost 80 per cent of the tonnage which was registered in FoC-countries was in fact managed or owned by shipowners in the OECD-countries, a fact which means that registry-data alone exaggerate the reduction in the Traditional Maritime Nations' control of shipping.

The analysis also illustrated the effects of the changes in the Norwegian flag policy. In the 1970s, less than ten per cent of the vessels sold from Norway and registered in FoC-countries were managed by Norwegian shipowners, compared with more than half in the 1980s.

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