CONCENTRATION IN SHIPPING

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INTRODUCTION

Recent economic development has brought about an extension of concentration in almost every field of the economy: manufacturing industries, services, retail trade and transport as well as the mass media, film production and distribution.

The definition of the word "concentration"—now used as widely as "integration" —requires some more detailed explanation, as its nature and significance vary remarkably when we look at its different aspects. We can say, however, that there exist two quite independent processes, viz. *concentration*—defined sometimes as accumulation[1]—and *centralisation*, which represents a merger of the capital employed by different undertakings.

Although concentration and centralisation represent two separate and independent methods by which capital grows, they appear simultaneously and are mutually complementary. They may therefore be regarded as one process, which leads, as a rule, to concentration of production.

Generally, both concentration and centralisation are defined as "economic concentration", or simply "concentration". In this paper we use the general term "concentration in shipping" to mean the growth of shipping firms which comes about both by internal accumulation and by centralisation.

The importance of concentration in shipping depends upon various factors, such as the degree of monopoly in the industry, the extent of intra- and inter-industry competition, the capital intensity of investment and the risk of losses.

The aim of this paper is to consider briefly some quantitative and qualitative aspects of concentration in shipping. Although the comparison of concentration ratios in different fleets is often impossible, we shall try to show the degree of concentration in fleets of some selected countries. These countries are: Japan, Great Britain, Norway, U.S.A., West Germany and Sweden. According to *Lloyd's Register of Shipping Statistical Tables* these countries had on 1 July 1972 an aggregate tonnage of 116,233,000 tons gross or 181,728,000 tons deadweight, that is 43·3 per cent (gross) or 43·9 per cent (dwt) of world tonnage. Taking into account the size of the fleets and their structure (see Table 1), as well as the shipping policies of this group of countries, we may regard them as representative of the world fleet as a whole.

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[1]According to Karl Marx's theory, accumulation [i.e. "savings" in Western economic jargon—Ed.] leads to concentration of private capital, i.e. that which is created by individual producers (owners). Concentration is thus related to accumulation, or rather identical with it. Concentration, however, was not fast enough to meet the requirements of technical progress and economies of scale. These requirements were met by centralisation (social accumulation, as Marx calls it) in the form of mergers, acquisitions, etc.

TABLE 1

The Structure of the Merchant Fleets of some Selected Countries
(*at* 1 *July* 1972)

Ships of 100 *Tons Gross and Upwards*

	Total		*Oil Tankers*		*General Cargo*[x]		*Combined Carriers*		*Others*	
Flag	000 *grt*	%	000 *grt*	%	000 *grt*	%	000 *grt*	%	000 *grt*	%
Japan	34,929	100·0	12,717	36·4	6,773	19·4	2,886	8·3	12,553	35·9
Gt. Britain	28,625	100·0	13,671	47·7	5,970	20·9	1,253	4·4	7,731	27·0
Norway	23,507	100·0	10,681	45·4	2,392	10·2	2,965	12·6	7,469	31·8
U.S.A.	15.024	100·0	4,589	30·6	5,767	38·4	—	—	4,668	31·0
W. Germany	8,516	100·0	1,882	22·1	3,672	43·1	81	0·9	2,881	33·9
Sweden	5,632	100·0	2,020	35·9	1,205	21·4	820	14·5	1,587	28·2

Source: Lloyd's Register of Shipping Statistical Tables, 1972.

[x]Incl. passenger/cargo vessels.

GENERAL TRENDS

Sea transport depends heavily on fixed capital. Capital assets, which are among the most expensive in the entire economy, play a predominant role. Shipping is thus a capital intensive mode of transport, and this fact is—in my belief—one of the most significant reasons for the constant growth of the concentration ratio in shipping. Galloping inflation and the rise in other costs combine to make the industry ever more and more capital intensive. The price of a standard cargo vessel is now almost twice as high as it was ten years ago. The prices of other categories of ships have risen much faster. A 250,000 tons deadweight tanker costs today twice as much as it did two to three years ago.[2]

Apart from capital, such factors as competition between shipowners in home and foreign markets, and the risk of losses, are also important in the movement towards close co-operation. Concentration thus becomes a necessity. This is especially evident in container shipping, as only a few owners can afford to engage in this extremely expensive service. The future development of world sea transport is thus closely linked with concentration of economic power and rationalisation of the activities of shipowners.

Concentration in shipping can come about both by actual and by contractual amalgamation. The first is achieved, as we have already stated, by a shipping firm's internal accumulation as well as by mergers and acquisitions. The latter comes about by shipping cartels. Both forms, irrespective of their economic power and organisational structure, have as their main purpose the cutting down of competition between operators.

Considering the problem of concentration in shipping in general terms, one can say that it is marked, over the years, by a more and more obvious growth of large firms. The following figures illustrate this tendency. In world shipping as a whole, in 1914 four firms owned 500,000 tons gross and upwards. They had at their disposal 0·04 per cent of the world fleet. By 1939 the number of firms with 500,000 tons had increased to 14 and their share of world tonnage amounted to 14 per cent. In the early fifties companies of this size owned 28·4 per cent of the world's tonnage. Today their share can be estimated (as the detailed figures are not available) at some 40–45 per cent. In the mid-fifties shipping companies operating 100,000 tons gross and over controlled 54·2 per cent of world tonnage.

Table 2 gives figures for Japan, Great Britain, Norway, U.S.A., West Germany and Sweden, with the tonnage of the ten largest companies in each country and their share of the whole fleet. The highest concentration ratio is found in Sweden: the ten largest firms had at their disposal 72·1 per cent of the national fleet. The ten largest firms in the Japanese fleet had 52·1 per cent, in Britain 44·2 per cent, in U.S.A. 42·5 per cent and in Germany 51·2 per cent. The Norwegian fleet had the lowest concentration ratio: the ten largest firms operated only 33·0 per cent. The dates to which the figures relate are shown in the Table.

Table 3 contains interesting data showing the number of very large firms (i.e. with 500,000 tons gross and over) in each of these countries. The largest are in Japan. In 1970 nine companies (each exceeding 500,000 tons gross) operated 50·2 per cent of

[2]For further details see the annual *Fairplay* publication: *Fluctuations in shipping values.*

TABLE 2

Tonnage of the Ten Largest Shipping Companies in some Selected Countries

Flag	*Year*	*Total tonnage of ships of* 500 *tons gross and upwards in* 000 *grt*	*Tonnage of ten largest firms*		*Average tonnage per firm*
			000 *grt*	%	000 *grt*
Japan	1970	24,142	12,583	52·1	1258·3
Gt. Britain	1966	20,522	9,071	44·2	907·1
Norway	1969	18,016	5.952	33·0	595·2
U.S.A.	1970	15,547	7,612	42·5	761·2
W. Germany	1969	6,701	3,434	51·2	343·4
Sweden	1969	4,561	3,291	72·1	329·1

Sources: *Statistik der Schiffahrt*, Oktober 1969 and Januar 1970: *Japanese Shipping Today*, The Japanese Shipowners' Association, Tokyo 1971; *International Shipping and Shipbuilding Directory*, 1971; *The Syren and Shipping Illustrated*, January 1966; *British Shipping Statistics* 1970–1971.

TABLE 3

The Number of Firms Operating 500,000 *grt and over in some Selected Countries, and their Share of Total Tonnage*

Flag	*Year*	*Firms with* 500,000 *grt and over*		*Share in the total[x] tonnage in %*	*Average tonnage per firm* 000 *grt*
		Number	000 *grt*		
Japan	1970	9	12,125	50·2	1,347·2
Gt. Britain	1966	6	7,269	35·4	1,211·5
Norway	1969	5	3,867	21·4	773·4
U.S.A.	1970	6	5,782	37·2	963·6
W. Germany	1969	—	—	—	—
Sweden	1969	3	2,032	44·6	677·3

Sources: See Table 2
[x]Ships of 500 grt and upwards.

the total tonnage. In Sweden companies of this size owned 44·6 per cent, while in Britain, America and Norway the respective figures were 35·4, 37·2, and 21·4 per cent. West Germany had no firm of this size.[3]

The largest Japanese firm—Nippon Yusen Kaisha—operated in 1970 2,438,000 tons gross. The largest American operator—Chevron Shipping Company—owned in the same year 1,696,000 tons gross. Britain's P. and O. possessed in 1966 2,353,000

[3]Now, after a merger between Norddeutscher Lloyd and the Hamburg Amerika Linie, the largest German firm—the HAPAG-LLOYD—operates more than 1 m. tons deadweight.

tons gross. The Norwegian Sig. Bergensen d.y. and Co. and the Swedish Bromström-koncernen operated in 1969 1,192,000 and 806,000 tons gross respectively.

It is to be noted that the concentration ratios in these countries came about in different ways. The Japanese fleet concentration resulted from the government's interventionist policy within the shipping industry. The Japanese Parliament adopted in 1963 the so-called Two Shipping Laws, which created a basis for a rapid concentration growth. The operators were forced to concentrate. That is why Japan now has one of the most concentrated fleets in the world.

British and Norwegian owners increased their tonnage in other ways. Their governments' shipping policies did not much affect the structure and organisation of shipping companies. The concentration ratios in the Norwegian, and still more in the British, fleets[4] were the result of economic forces. The same can be said of some other fleets.

The process of concentration in American and Swedish fleets is characterised by strong links between shipping and industry. This aspect will be considered briefly in the next section.

FORMS OF CONCENTRATION

The universality of the phenomenon of concentration does not, naturally, mean that its forms are identical. On the contrary, they vary remarkably from liner to tramp and tanker shipping. In other words, concentration has both a quantitative aspect (i.e., a given degree of concentration) and a qualitative character (various forms of this process in each type of shipping).

Generally, liner shipping is more strongly concentrated than tramps. In 1959 the twelve largest British liner companies had 529 ships aggregating 4·8 million tons gross. At the same time, the twelve largest tramp enterprises operated 108 ships totalling 804,000 tons gross.[5] In Dutch shipping there were on 1 January 1971 four liner companies with 100,000 tons gross each, but only two tramp firms of this size.[6] The liner companies owned 210 ships with a total of 1,530,000 tons gross. The tramp companies operated 34 ships with 458,000 tons gross in all.

This predominant position of liner companies in the process of concentration is mainly due to their particularly high capital intensity. Liners operate on scheduled routes, and are often not fully loaded. Therefore a single shipping route requires several vessels. According to Paul de Roussiers,[7] a weekly service from Le Havre to New York required six vessels. On the shipping line from Marseilles to the Far East one departure a month involved as many as 12 ships. Few owners can afford to

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[4]In the period 1900–1962 five large British firms (P. and O., Royal Mail, Blue Funnel, Cunard and Furness Withy & Co.) acquired some 40 smaller enterprises. See S. Ladyka, T. Lodykowski: *Wspolczesna zegluga morska*, Gdynia 1966, p. 50. In the Norwegian fleet centralisation by mergers, acquisitions, etc., was rare: the growth of firms resulted from their internal accumulation and borrowings.

[5]See *Fairplay*, 14 January 1960, pp. 123–125.

[6]See Koninklijke Nederlandsche Reedersvereeniging: *Jaarverslag*, 1970, pp. 122–125.

[7]Paul de Roussiers: *Les grands industries modernes*. Tome IV—*Les transports maritimes*. Paris, 1926, pp. 45–46.

maintain their own services. Consequently, the owners have pressed for rationalisation, i.e. the amalgamation of individual firms to serve a given trade route.

This tendency led straight to joint-service agreements, pools, conferences, and other forms of centralisation.[8] Owing to its special features (e.g. high capital intensity, total tonnage requirements and inevitably international character), liner shipping quickly became the part of the shipping industry with the highest degree of monopoly.

Although they depend on the character of the shipping industry itself, the processes of concentration may involve outside enterprises; shipping companies may themselves merge or they may merge with firms in other fields of economic activity. Mergers and acquisitions between shipping and industrial companies are common nowadays. They result from the fact that, as the shipping industry becomes more and more capital intensive and requires a continual flow of new capital, this can be most easily brought about by a merger with an industrial corporation.

On the other hand, industrial concerns themselves demand new transport services to meet their own transport needs. Thus industrial fleets are being established, either wholly or partly owned by industrial companies. These fleets include the tonnage of independent owners working under time charters. In practice these time charters may be extended over the whole lives of the ships.

On the other hand, those shipping companies which are strong enough tend to control other industrial or transport enterprises. Usually their aim is to integrate the whole transport chain, but they often own firms outside transport. This represents another aspect of concentration in shipping.

All these problems have their inevitable practical results. The diversification of shipping companies' activities brings about a need to establish new structures of organisation, as well as new methods of management. Thus concentration is a significant factor leading to structural changes in the shipping industry.

CONCLUSIONS

We can see that shipping is a specific example of the general economic phenomenon of concentration. Concentration ratios almost everywhere are relatively high, irrespective of the size of fleets and their structure and character. What is more, the degree of concentration is particularly high in some smaller fleets, such as the Swedish, Danish, Dutch and Belgian.

As in other fields of economic activity, this high degree of oligopoly arises from high capital intensity, the risk of losses and other economic factors. The influence of state policy is also important.

Finally, we must emphasise that the processes of concentration in shipping involve the nature of the industry itself, as well as the relations between this mode of transport and other fields of economic activity.

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[8]Note that this goes beyond a single country's fleet and is an international process (liner conferences bring together the shipping companies of many countries).