



Kent Academic Repository

Shore, Philip (1990) *Sunset over the Red Ensign : the decline of the British deep sea shipping 1945-89*. Doctor of Philosophy (PhD) thesis, University of Kent.

Downloaded from

<https://kar.kent.ac.uk/85961/> The University of Kent's Academic Repository KAR

The version of record is available from

<https://doi.org/10.22024/UniKent/01.02.85961>

This document version

UNSPECIFIED

DOI for this version

Licence for this version

UNSPECIFIED

Additional information

This thesis has been digitised by EThOS, the British Library digitisation service, for purposes of preservation and dissemination. It was uploaded to KAR on 09 February 2021 in order to hold its content and record within University of Kent systems. It is available Open Access using a Creative Commons Attribution, Non-commercial, No Derivatives (<https://creativecommons.org/licenses/by-nc-nd/4.0/>) licence so that the thesis and its author, can benefit from opportunities for increased readership and citation. This was done in line with University of Kent policies (<https://www.kent.ac.uk/is/strategy/docs/Kent%20Open%20Access%20policy.pdf>). If y...

Versions of research works

Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

Author Accepted Manuscripts

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in *Title of Journal*, Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

Enquiries

If you have questions about this document contact ResearchSupport@kent.ac.uk. Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our [Take Down policy](https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies) (available from <https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies>).

UNIVERSITY OF KENT AT CANTERBURY

Sunset over the Red Ensign:
The Decline of British Deepsea Shipping
1945-89.

by

Philip Shore, BSc. Econ.

A dissertation submitted for the degree of
Doctor of Philosophy

Unit for the History, Philosophy
and Social Relations
of Science

January 1990



IMAGING SERVICES NORTH

Boston Spa, Wetherby

West Yorkshire, LS23 7BQ

www.bl.uk

BEST COPY AVAILABLE.

VARIABLE PRINT QUALITY

to

my mother and father

ABSTRACT

This thesis investigates the decline of the British deepsea merchant fleet over the period 1945-1989, a decline evident in both relative terms against its major competitors and from the mid-1970s in a dramatic fall in tonnage of the British-owned fleet. For the purposes of analysing the industry's poor performance, it is necessary to divide the period into three distinct phases: post-war reconstruction without radical innovation (1945-65); rapid technological and market developments (1966-73); and severe, prolonged depression (1974-89). Methodologically, therefore, explanations valid in one phase need not apply throughout the whole period.

Chapter One sets out the scope of the study, summarises the declining fortunes of British shipping, and explains the approaches used to identify its causes. Chapters two to six present analytical treatments of these causes. First, British shipowners were slow to respond to the massive technological changes. Second, they took a pessimistic view of the markets and were reluctant to engage in new ventures until the mid-1950s. In 1958-66 and again from 1973 all shipowners had to contend with severe depressions. Third, there was a lack of action in controlling operating costs before 1965 and again from 1973. In the first period shipowners proved unwilling to use external finance, although the drawbacks of the more progressive policy were evident from 1974. Fourth, the government restricted profitability and increased the tax burden until more aid was provided from 1956, while other states' protectionism hit liner operators. Fifth, the shipowners were reduced by continual attrition, from the 1960s by consolidation of ownership and by diversification out of shipping. These in turn reflected a change in the nature of management from the traditional control by the founding families. Chapters Seven and Eight comprise five case-studies of a representative selection of shipowners in relation to issues raised in the preceding analytical chapters.

CONTENTS

Preface.

Abbreviations.

Chapter One: Introduction.

Chapter Two: The Impact of Changing Marine Technology.

Introduction.

- 2a) Developments in Tanker Design.
- 2b) From Tramp to Bulk Carrier.
- 2c) From Cargo Liner to Container Ship.
- 2d) Deepsea Passenger Vessels.
- 2e) The Organisation and Effectiveness of Technical Research.

Chapter Three: The Markets for Shipping.

Introduction.

- 3a) The Tanker Markets.
- 3b) The Markets for Dry Bulk Cargo.
- 3c) The Breakbulk Dry Cargo Trades.
- 3d) The Markets for Deepsea Passenger Vessels.
- 3e) The Role and Utility of Market Analysis and Forecasting.
- 3f) Market Insulation.
 - i) Market Insulation in the Tramp Trades.
 - ii) Liner Shipping and Conferences.

Chapter Four: Shipowners' Costs.

Introduction.

- 4a) The Cost of Marine Labour.
 - i) Wage Costs and Industrial Relations.
 - ii) Manning Levels.
- 4b) Engines and Economy in Fuel Costs.
- 4c) Marine Finance.
- 4d) Port Costs and Port Labour.

Chapter Five: The Role of the State.

Introduction.

- 5a) British Government Policies and Assistance to Shipping.
- 5b) Flags of Convenience.
- 5c) Protectionism and Flag discrimination.
- 5d) Competition from State Owned Shipping.
 - i) National Lines.
 - ii) Eastern European Competition.

Chapter Six: The Structure of the Industry and the Character of Management.

Introduction.

- 6a) Independent Tramp Shipowners.
- 6b) The Independent Liner Sector.
- 6c) Industrial Carrier Shipowners.
- 6d) The Merchant Lines.
- 6e) The Effect of Diversification.
- 6f) The Character of Management.
- 6g) Profitability and the Criteria of Success.

Chapter Seven: Case-studies of British Tramp Operators.

Introduction.

7a) The Albyn Line 1945-66.

7b) London & Overseas Freighters and the British Greeks.

7c) Shipping and the Ropner Group 1945-89.

Chapter Eight: Liner Group and Industrial Carrier Case-studies.

Introduction.

8a) From Blue Funnel to Ocean Transport & Trading.

8b) The Shipping Interests of Tate & Lyle.

Chapter Nine: Conclusion.

Bibliography.

PREFACE

Funding for this project was provided by a joint grant from the ESRC and SERC. Valuable assistance was rendered by various institutions, especially the Guildhall Library and the National Maritime Museum and also by a large number of British and foreign shipping companies. I would like to thank Alison Rook for typing much of the draft, ably assisted by Irene Crow and Dr Graeme Gooday, while Alec Dolby and Arthur Page provided advice on the mysteries of word processing technology. I am particularly grateful to my supervisor Dr Crosbie Smith for his invaluable advice and criticism in all stages of the production of this thesis. My thanks are also due to my father who provided additional funding and to my mother and brother who corrected the draft copies.

Abbreviations

Abbreviations relating to journals, directories and company sources are formed from the initials of the title of the source. For example OTT AR signifies Ocean Transport & Trading Annual Report and FT the Financial Times.

A&P - Austin & Pickersgill.

AB - Able Bodied seaman.

ACT - Associated Container Transportation (British).

ANL - Australian National Line (Australia).

APL - American President Lines (USA).

B&C - British & Commonwealth Shipping Co. (British).

BBS - Barber Blue Sea (British and Scandinavian joint service).

BDT - British Dependent Territory.

BHP - Brake Horse Power.

BHP - Broken Hill Proprietary (Australia).

BISC (Ore) - British Iron & Steel Corporation ore department.

BISN or BI - British India Steam Navigation Co. (British).

BMC - British Maritime Council.

BP - the British Petroleum Co..

BSC - British Steel Corporation (British).

BSRA - British Ship Research Association.

CCN - Companhia Colonial de Navegacao (Portugal).

CGM - Compagnie Generale Maritime (France).

CGT - Compagnie Generale Transatlantique (France).

CIF - Cost Insurance Freight.

CNN - Companhia Nacional de Navegacao (Portugal).

DOT - Department of Transport.

dwt - deadweight tons.

EHCL - Ellerman Harrison Container Line (British).
FEFC - Far Eastern Freight Conference.
FESCO - Far Eastern Shipping Co. (USSR).
FOB - Free On Board.
FOC - Flag Of Convenience.
grt - gross registered tons.
IATA - International Air Transport Association.
ITWF - International Transport Workers Federation.
JAMRI - Japan Maritime Research Institute.
KNSM - Koninklijke Nederlandsche Stoomboot Mij. (Dutch).
KOTC - Kuwait Oil Tanker Co. (Kuwait).
LASH - Lighter Aboard SHip vessel.
LNG - Liquid Natural Gas.
LOBC - London & Overseas Bulk Carriers (British).
LOF - London & Overseas Freighters (British).
LOT - London & Overseas Tankers (British).
LPG - Liquid Petroleum Gas.
MHI - Mitsubishi Heavy Industries.
MISC - Malaysian International Shipping Corporation (Malaysia).
MOL - Mitsui OSK Lines (Japan).
Morflot - Russian ministry of shipping.
MOT - Ministry Of Transport.
NBC - National Bulk Carriers (USA).
NBC - Norwegian Bulk Carriers (consortium of Norwegians and Ropners).
NCL - Norwegian Caribbean Lines (Norway).
NDL - Norddeutscher LLoyd (West Germany).
NDLS - National Docks Labour Scheme.
NMB - National Maritime Board.
NPL - National Physics Laboratory.

NNSL - Nigerian National Shipping Line.

NSFU - National Seamen's and Firemen's Union (predecessor of the NUS).

NSMO -Nederlandsche Stoomvaart Mij. Oceaan (Dutch subsidiary of OTT).

NUS - National Union of Seamen.

NYK - Nippon Yusen Kaisha (Japan).

NZL - New Zealand Line (New Zealand).

OAPEC - Organisation of Arab Petroleum Exporting Countries.

OBO - Oil-Bulk-Ore carrier.

OCL - Overseas Container Lines (British).

OECD - Organisation for Economic Co-operation and Development.

OSK - Osaka Shosen Kaisha (Japan).

OTT - Ocean Transport & Trading (British).

PAD - Pacific Australia Direct (consortium with British members).

P&O - Peninsular & Oriental Steam Navigation Co. (British).

P&OCL - Peninsular & Oriental Container Lines (British - formerly OCL).

POL - Polish Ocean Lines (Poland).

PRC - Peoples Republic of China.

PSNC - Pacific Steam Navigation Co. (British).

R&K - Rethymnis & Kulukundis (London Greek shipping company).

RCCL - Royal Caribbean Cruise Lines (Norway).

RO-RO - Roll On-Roll Off.

SAECS - Southern Africa Europe Container Service (two British members).

SHP - Shaft Horse Power.

SN - Steam Navigation.

SS - SteamShip.

SSM - Scottish Ship Management (British),

SWAL - Scandinavian West Africa Line (Scandinavian).

T&L - Tate & Lyle (British).

TEU - Twenty foot Equivalent Unit cargo container.

TGWU - Transport and General Workers Union.

ULCC - Ultra Large Crude Carrier.

USL - United States Lines (USA).

USMC/A - United States Maritime Commission or Administration.

VLCC - Very Large Crude Carrier.

Note on Ship Characteristics.

A ship's name is followed by the name of the state in which it is registered (the abbreviations for national registries are given below). The next figures are its deadweight tonnage unless otherwise specified, followed by the year in which it was built. Hence the Port Brisbane (Br 11,950/48) was British registered, had a deadweight of 11,950 tons and was completed in 1948.

Ba - Bahamas.

Br - British.

De - Danish.

Frg - West German.

In - Indian.

Ir - Iranian.

Ja - Japanese.

Li - Liberian.

Ne - Dutch.

No - Norwegian.

Pa - Panamanian.

Po - Polish.

Swe - Swedish.

US - American.'

CHAPTER ONE

Introduction

One of the most enduring popular images of Britain is that of an island state whose stature and power rests upon its maritime strength, the twin pillars of which are the Royal and Merchant Navies, their ships manned by a nation of seafarers. In the years since the Second World War there has been a rising tide of warnings of fundamental failings and decline in Britain's merchant marine from sources ranging from the distinguished academic Professor S.G.Sturmey in his book British Shipping and World Competition (1962) to populist pressure groups such as the British Maritime League and even in recent years from the industry itself. It is the purpose of this study to examine this decline in the field of deepsea merchant shipping in the post-war period.

Before proceeding, it is worthwhile to chart this decline and to attempt to see it in the perspective of earlier developments. While Britain has a great history of maritime endeavour, for our purposes we can begin with the establishment of enduring deepsea steamship services on an appreciable scale by companies such as Royal Mail and Cunard in the 1840s. By 1850 steamship tonnage at 170,000grt was still dwarfed by the sailing fleet of over 3.4mgmt. The ensuing years saw the steamship gradually gain ascendancy over windpower, a process virtually completed by the eve of the Great War. At the same time the British merchant fleet expanded rapidly to 9mgmt in 1890 and doubled again in the following generation (Table 1.1). In marked contrast, after a short boom in 1919-21, the years after the Great War saw slow growth, with the Merchant Navy failing to regain its pre-war size until the start of the Great Depression and then declining in absolute terms until the the mid-1930s. Indeed even by 1939 British shipping had not recovered to the level of 1914.

Table 1.1 Size of the Merchant Navy 1850-1986.

<u>Year</u>	<u>Gross tons (m)</u>	<u>Deadweight tons (m)</u>	<u>% of world grt</u>
1850	3.6		52
1890	9.0		50
1914	19.3		39
1919	16.3		34
1930	20.4		30
1936	17.3		27
1939	18.0 (16.9)		26 (29)
1950	17.8	23.8	21
1960	21.4	28.6	16.5
1968	21.4	30.1	11
1975	32.2	52.7	10
1978	29.8	49.7	8
1986	11.0	16.0	2.5

Sources:-BSS various years;

Sturmey, 1962, p15, 36, 61.

For the post-war era, 1939 provides the best base year, since in 1945 the figures were severely distorted by the effects of a second global war. The post-war period can be divided into three parts. The first, from 1945 until the mid-1960s, was typified by slow growth in the size of the Merchant Navy. The pre-war level was not surpassed until 1950 and even in 1968 total gross tonnage only marginally exceeded that of 1914. The eight years prior to 1976 by contrast saw a radical increase in growth in tonnage terms, with gross tonnage rising by over 50 percent while deadweight increased by more than two-thirds. It should be recognised that the delay caused by planning and then putting the results into practice pushes the origins of this growth into the early to mid-1960s. Similarly, the decisions which ended this era of growth pre-date its actual occurrence in 1975-76. These years marked the start of the third period, which saw the deadweight tonnage of the British merchant marine fall by more than two-thirds from the all-time high achieved only a decade before, while in terms of gross tonnage the fleet at 11mgt in 1986 was smaller than at any other time this century and still declining fast.

Turning from absolute to comparative examination, it can be seen from the third column of Table 1.1 that from 1850 to 1890 no less than half the world fleet was on the UK register. The statistics given by A.W. Kirkaldy, though varying somewhat from the above, also illustrate the marked dominance of British shipowners. Indeed they show an increase in the relative strength of the British fleet from 43 to 49 percent of the world total over the same period (Kirkaldy, 1914, appendix 17). In contrast, from 1890 to the Great War Britain's position declined, despite rapid growth in absolute terms, as other states such as Germany and Japan established large merchant fleets. The fall continued during the war as Britain's fleet shrank due to war losses while others, particularly those of neutral states, expanded. More seriously, in the inter-war years the

Merchant Navy failed to recover lost ground in the context of an expanding world fleet. This trend was repeated after the Second World War as Britain's percentage of the the world fleet was halved in 1950-68. Thereafter, due to its growth in 1968-75, the British fleet held its ground until 1975. In the ensuing decade there was a second sharp change in relative size, this time for the worse, as the world fleet expanded until 1983 while the Merchant Navy declined dramatically. By 1986 it accounted for a mere one-fortieth of world tonnage, in terms of which it had been reduced by a factor of twelve since 1939.

When comparison is made with the individual merchant marines of other countries, again there is a picture of general decline with the exception of the 1968-76 period. The only contrary trend is that of the USA, though figures for this state are distorted by a large inactive fleet and the use on a massive scale of non-US registries as convenience flags. Despite emerging from World War Two with a relatively small reduction in its fleet, Britain's record is far less impressive in growth terms than those of the former Axis powers which had to rebuild virtually from scratch. German tonnage increased by half over its pre-war level by 1968 while that of Italy doubled as did that of Britain's occupied ally France (Table 1.2). Two states, which like Britain had a strong maritime tradition, the Netherlands and Denmark, increased their fleets by 43 and 61 percent respectively over 1939 levels compared to 21 percent for Britain. Britain also lost its status as the largest single registry to the convenience Liberian flag in 1967, and by the end of the 1960s was being closely rivalled by two states whose registries were genuine expressions of their maritime strength. Norwegian tonnage quadrupled in 1939-68 while Japanese tonnage increased more than threefold. Indeed the latter overtook Britain as the world's second largest registry in 1970 despite the renewed growth of the Merchant Navy. Since 1975 the merchant marines of other genuine

Table 1.2 Sizes of National Flag Fleets (m grt).

<u>State</u>	<u>1939</u>	<u>1946</u>	<u>1968</u>	<u>1975</u>
UK	16.9	13.3	20.4	32.2
Norway	4.7	2.8	19.0	25.8
Japan	5.4	1.2	18.9	37.9
FRG	4.2	0.6	6.5	8.2
Italy	3.2	0.3	6.5	9.9
Holland	2.8	1.6	4.8	5.4
France	2.7	1.2	5.4	10.4
Denmark	1.8	0.7	2.9	4.3
<u>USA</u>	<u>8.7</u>	<u>40.9</u>	<u>25.6</u>	<u>13.6</u>
World	61.4	72.9	275.4	325.0

Source:- BSS various issues.

shipowning states have also declined, though not as precipitately as Britain's. By the end of 1985 Norwegian tonnage was 53 percent of its 1975 level compared to 30 percent for Britain while the convenience registries had expanded (FT 22.11.85).

We must now define the term British shipping as used in this thesis. The decline above was charted in terms of vessels on the UK register while for our purposes British shipping comprises those ships ultimately owned by companies controlled by British nationals. Thus foreign owned fleets often associated with the British register such as those of Canadian Pacific, the American oil companies and international shipowners like the London Greeks are excluded. The reason for the use of the UK register is that more accurate statistical series of ownership do not exist and until recently nearly all British owned ships were on the register. However, the 1980s have seen a sharp change in the latter respect. By the end of 1985 British shipowners operated some 7mdwt on other registries in addition to 16mdwt on the UK register (DT 7.12.85). A second point is that coastal and short sea shipping has been excluded since it is affected by different factors, such as competition from road transport, and displays different characteristics to the deepsea trades. In particular, the transport of passengers (as distinct from leisure cruising) has expanded dramatically for short sea shipping while becoming virtually extinct in the deepsea trades. Thus to include shipping serving the North European area would dramatically enlarge and confuse the already copious subject matter of the thesis.

There is a vast range of non-academic works available covering, to varying degrees, the post-war period. These fall into two groups, though most are concerned with the history of individual operators. First, there are those produced by or for the companies involved and which tend, not unnaturally, to take the company's viewpoint. Two recent examples are

E.W. Paget-Tomlinson's Bibby Line: 175 years of Achievement (1982) and Captain A.G. Russell's Port Line (1985). Second, there are enthusiast's publications like the company histories of the World Ship Society and periodicals such as Ships Monthly, Sea Breezes, and Marine News. While providing accurate details of individual ships, these seldom offer much insight into the running and economics of shipping firms.

In contrast the number of academic studies of British shipping is small. First, there are histories covering all or part of the post-war history of individual companies. These include Dr J.M. Gibbs' Morels of Cardiff (1982), Professor F.E. Hyde's Cunard and the North Atlantic (1975), John Orbell's from Cape to Cape (1978) and Dr P.N. Davies works on the West African liner trades such as the Trade Makers (1973). These publications excel at their intended task of examining in great detail all or, as in the case of the Cunard and West African studies, part of the operations of the companies concerned. However, for our purposes their limited coverage makes the extrapolation of their conclusions to the Merchant Navy as a whole problematic.

The second group of academic works consists of those which study the Merchant Navy as a whole in the post-war era. There is only one detailed work of this type, Sturmeys' British Shipping and World Competition (1962). As this was written in the late 1950s, it has to some extent become a historical document itself. Nevertheless, while its evidence and conclusions apply directly to only part of the first of our three periods, the theses put forward are extremely useful in the consideration of the developments of later years. There is also D.H. Aldcroft's analytical survey of of British shipping in the period up to the end of the 1960s in British Transport since 1914 (1975). While this covers a longer period it is obviously limited in depth by the need to examine all the British transport industries within the confines of a single book.

In addition 1970 saw the publication of the Command Report of the Committee of Inquiry into Shipping chaired by Viscount Rochdale. This contained much valuable information: for instance, its profitability survey covering the period 1957-68. However it must be noted that its value is limited insofar as the study of the entire post-war period is concerned, since it was primarily concerned with the contemporary state of the industry. From the viewpoint of this study, its timing was rather unfortunate since it coincided with the period of British shipping's best post-war performance. This resulted in a bland and somewhat over-optimistic appraisal of the situation. Furthermore, some of its areas of study are of little direct relevance to this thesis: for instance ship safety and its prolonged consideration of seafarers' training qualifications and welfare.

To compensate for the limitations of academic works in terms of numbers and coverage, and for the qualitative weaknesses of the others, the author has attempted to contact every surviving British company which has engaged in deepsea shipowning in the post-war period. This is due, first, to the need to understand the individual operators which comprised the Merchant Navy, and second, to overcome the of lack of information in many areas. This latter problem, a combination of commercial secrecy and a genuine absence of information, was noted by both Sturmeay and the Rochdale Inquiry (Sturmeay, 1962, p3; Cmnd 4337, 1970, p3). The material so gathered could with considerable validity be seen as biased in that it deliberately seeks to put the company concerned in a good light. However, it is also factually accurate and much information can be gleaned from reading between the lines, particularly when long series of information such as annual reports and accounts are available. It should be noted that it is frequently impossible to contact today the companies which are of most interest in studying a declining industry - those which have

ceased operation. Finally as far as foreign operators are concerned there is a serious information problem as efforts to contact them are frequently fruitless. Indeed, despite the resources available to it, the Rochdale Inquiry noted that there was frequently "insufficient information available to enable a proper comparison to be made" with foreign companies (Cmnd 4337, 1970, p339).

A number of hypotheses can be put forward for the decline of British shipping. These fall into two broad schools. First, there are those favoured by the industry, its component companies and sympathisers. This school tends, at least publicly, to perceive its problems as resulting from factors beyond its control. The shipowners, while resilient and tenacious, courageous and adaptable, have been continually beset by problems of titanic proportions which it is not always within their power to overcome or circumvent. Thus it is hardly surprising that many operators have given up the unequal struggle and closed or moved to the calmer waters of non-marine industries.

The second school, which includes S.G. Sturmev and D.H. Aldcroft, sees the underlying problem in terms of complacent, unenterprising management, which is frequently related to family ownership and control. As Aldcroft succinctly put it "the management of British shipping has a lot to answer for" (Aldcroft, 1975, pp254-255; Sturmev, 1962, pp394-403). Thus problems often result directly from what Sturmev termed internal factors: the failure to innovate in technological terms or to concentrate on minimising costs, for instance. As far as the external factors are concerned they are, it is argued, frequently of less importance than the industry claimed. Where they do occur, there are possible routes for their circumvention or defeat. If such action is not attempted or is not successful, then once again management failings are the root of the problem. This sort of argument is usually backed up by instances of

foreign operators who did take successful compensating action to combat external problems.

In order to assess the strengths and weaknesses of both schools, the effect of the various possible factors influencing the decline must be considered. These causes fall into five groups. Each group, as outlined below, is examined in one of the succeeding chapters. However, it should be stressed the factors rarely act in isolation but rather in concert with others. This obviously causes great problems in identifying the precise effect of individual causes on the decline of the Merchant Navy.

The first thesis is that the British shipping industry has a poor record in innovating and adopting new technology, both in existing fields and in the development of new sectors. This tends naturally to focus on internal constraints, since improvements to existing ships or the entirely new types which replace them rapidly become common property. To use an analogy, there have been no secret processes to which British operators have not had access and with which therefore they could not compete. In this regard a useful illustration of the cross linkage between different factors should be noted in that the need to adopt a range of new technologies simultaneously could impose an external constraint with regard to the financing of expensive new ships.

The factors in the second group are, in contrast, traditional mainstays of those who perceive the decline in terms of external influences. Markets, it is argued, are poor in many years and subject to violent and unpredictable fluctuations, the trading and production patterns of goods shipped being outside shipowners' control. Furthermore, the supply of shipping services is beyond the control of individual shipowners, overcapacity being exacerbated by attempts to support individual states' shipbuilding industries. While the critical school might agree with much of this, they would also propose that shipowners

could gain competitive advantage by creating new markets or that they could attempt to foresee market trends and either adapt to fluctuations or insulate themselves from their effects.

Third, there are problems caused by what can be termed the factors of production. Fuel costs are an obvious external factor, though the industry's critics might argue that if prices continue to increase shipowners could mitigate this by using the most fuel efficient propulsion available. Similarly, the cost of seafaring labour could be reduced by using cheap crews and emphasising minimum manning. Hence it too is an internal factor within the ambit of an operator's control. So far as finance is concerned, this is a factor seen by the different schools as an internal or external influence depending upon their stance. The critics believe it depends largely on an operator's ability to create and use profits and, if finance costs are rising, on his willingness to circumvent rising shipbuilding prices by calling on external finance or by buying cheaper second hand vessels. The industry would reply that loan finance has attendant risks even if it is available. Many observers have also pointed to outside finance as a major factor in the oversupply of shipping. Lastly, port problems, though they cannot often be influenced by shipowners and hence form external factors, can be alleviated by new technology.

Fourth, the impact of the policies of British and foreign governments comprise another area for the proponents of external factors. Shipowners, it is argued, can exert little influence on determined policies even of their own government, lacking the formidable parliamentary representation of their heyday or the geographical concentration to cause unpleasant political problems via heavy regional unemployment. Turning to the actions of foreign governments, it is claimed they provide more support than Britain for their shipping industries and discriminate against

British operators. Once again the critics are at variance with these arguments, disputing the relative extra benefits accruing to foreign shipowners while pointing to vast fields for expansion away from areas closed to the British fleet.

The final area, the ownership and structure of the industry and its component companies, are staple ingredients of the critical school's explanation of decline. This also ties in with important arguments put forward on British economics and social history as a whole, such as D.C. Coleman's division of British owner/managers into the disinterested elite and the narrow minded 'players', governed by their practical experience in years gone by (Coleman, 1973, pp92-116). Another thesis is put forward by M.J. Wiener in terms of an anti-industrial social consciousness among descendants of the entrepreneurial founders of companies in English Culture and the Decline of the Industrial Spirit (1982). In the context of this thesis, these arguments would point to a failure of succeeding generations of shipping managers, especially in family controlled businesses, to take the steps necessary to maintain viability or to seize opportunities. Such management might result in an industry unattractive to new entrants, thus perpetuating stagnation. However, where profitability is concerned the shipowners might claim that they have to conform to criteria of success which do not reflect the peculiarly difficult nature of their operations. The critics in contrast argue that failure to achieve success relative to other industries stems from the shortcomings of management. There is in addition one contrary note where good management might lead to a decline in British shipping - by diversifying out of shipping into the calmer waters of other industries.

Chapters 7 and 8 seek to illustrate and evaluate the effects of the factors outlined earlier. This is achieved by relating the effects of the potential causes of decline to the experiences of particular operators.

Since the industry is divided into diverse sectors the sections are chosen to cover operators from the independent tramp, liner and industrial carrier sectors. The three tramp case-studies are picked to illustrate companies with characteristics which shed light on different aspects of the decline of the Merchant Navy. The first is of a small family owned and run operator in ultimately terminal decline. The second is of a highly expansive shipowner aware of new technology and opportunities very similar to the foreign operators who have arguably performed so much better than their British counterparts. Finally I shall examine a family shipping group which, having experienced the debilitating effects of market fluctuations, attempted to combat them by both insulating itself from the market and by diversifying outside it. The liner group studied had the reputation of being the best run operation of its type. Like the last tramp case-study, it diversified heavily though the results were very different. Finally, the industrial carrier was one of the few expansive British operators before the mid-1960s. This was related to its different motivation for involvement in shipping, a factor which underwent considerable change in the depressed years after 1973.

CHAPTER TWO

The Effect of Changing Marine Technology

The post-war years have seen changes in merchant ship design and marine technology comparable in importance to the switch from wood to steel construction and from wind to mechanical propulsion in the nineteenth century. All the main sectors of the industry have witnessed tremendous efforts to increase the efficiency of marine transport. In particular the old sectionalised transport methods have been largely replaced by the introduction of integrated transport systems which have aimed at removing the bottlenecks caused by the difficulty in transferring the cargo from sea to land transport. This has in turn allowed greater exploitation of factors such as economies of scale and thus contributed significantly to the "historic trend of decreasing costs of transport" (Van den Burg, 1975, p23).

In the first four sections of this chapter the technical developments in each of the four main sectors of the deepsea shipping industry are examined and British shipowners record of developing and adopting them is compared to that of their foreign counterparts (The importance of seven major ship types in the Merchant Navy can be gauged from Table 2.1). The first section deals with the tanker trade where the main feature has been the adaptation of an existing basic design to gain economies of scale. In addition the increasing variety of bulk liquid cargoes has prompted the introduction of specialised ships to cater to their requirements. The next two sections deal with the types of ship used to carry dry bulk and breakbulk general cargo, the traditional designs having been displaced by far more efficient ships with radically different characteristics. Here too highly specialised vessels have been developed. The fourth section examines developments in the deepsea passenger trades where marine

Table 2.1 Capital Employed by Ship Type (percentages).

<u>Ship Type</u>	<u>1958</u>	<u>1963</u>	<u>1969</u>
Tankers	5.0	8.8	8.7
Tween deck tramps	13.8	13.1	13.2
Ore carriers	1.5	3.8	1.8
Bulk carriers	1.7	1.3	7.3
Cargo liners	54.6	49.2	54.1
Passenger liners	14.0	14.2	9.8
Passenger-cargo liners	9.6	9.6	5.0

Source:- Compiled from Cmnd 4337, 1970, pp458-475.

transport has been almost wholly replaced by far more efficient aerial transport. Thus technological advance eliminated one market which forced ship designs to be altered to suit the emerging cruise trade. The very strong interrelationship between technology and markets is approached by considering the markets for each sector in the first four sections of Chapter 3.

The final section explores the attention paid to research and development by the government and shipowners of Britain. The success, or lack of it, of British technical research is compared to that of other advanced marine states. This links to the theme in general examinations of the British economy that insufficient effort is put into research and Britain is at a competitive disadvantage as a result. An important factor in this is the education, training and attitude of management (Chapter 6f). It should also be noted that very important technical advances have been made in reducing manning and fuel costs (Chapter 4a and b).

2a) Developments in Tanker Design.

Post-war tankers have been built on the basis of the Isherwood design developed in the early years of the twentieth century, though ocean going bulk liquid carriers have a history going back to the 1880s. This system comprises a series of steel frames running across the vessel linked together by two longitudinal frames running the length of the vessel with an outer steel skin. The frames divide the hull interior into groups of three tanks transversely - two wing tanks and a centre tank, the latter sometimes possessing a wash plate descending vertically from the top to reduce movement of the liquid cargo in heavy seas. The transverse frames further divided the hull into separate tanks longitudinally with a double bulkhead at each end of the cargo space. The cargo is pumped from each tank through pipe systems which are connected the land terminal for

loading or discharge. To avoid interruption of the cargo space and for safety the machinery and most of the superstructure was placed aft though a small midships bridge with officers' accommodation was common.

The design outlined above with its immense strength derived from the interlinked frames has proved so good that it is universal in post-war oil tankers. Thus, unlike the ships used in other trades where radical new designs have been introduced, the bulk liquid sector has seen variations on the same basic design which was already suited to efficient bulk handling and carriage. The most obvious trend has been the increase in the size of vessel. 10,000 - 12,000dwt was the average size of early post-war tankers though larger vessels such as Eagle Oil's San Felix (Br 19,800/21) had been built. The post-war era, spurred by the availability of larger 16,800dwt T-2 standard tankers, saw a rapid increase in the maximum size of vessels (Table 2.2). 1955 saw the introduction of a vessel three times the size of the T-2, only to be overshadowed four years later by a vessel of more than double its capacity. After just seventeen years even this giant was dwarfed by vessels of over 500,000dwt.

The rationale for such increases in size is readily illustrated when it is realised that the ULCC Batillus (Fr 554,000/76) required only one crew compared to 50 crews and ships for the equivalent pre-war carrying capacity. This is reinforced when the 50 per cent rise in speeds is taken into account. A ULCC of the above size has an annual carrying capacity equal to 75 10,000dwt vessels. Such size is made possible by the availability of cargoes of sufficient volume in the crude oil market. However these giants have disadvantages in terms of draft and manoeuvrability which have forced continual upgrading of terminals. Fortunately the ability to pump the cargo means offshore terminals can be used. Some areas are still not accessible despite this; for example the North Sea is too shallow for loaded vessels of conventional design over

Table 2.2 Growth in Maximum Sizes of Tankers.

<u>Owner</u>	<u>Name</u>	<u>Dwt</u>	<u>Date</u>
Esso	<u>William Rockefeller</u>	22,600	1922
Niarchos	<u>World Glory</u>	45,100	1954
NBC	<u>Universe Leader</u>	85,500	1956
NBC	<u>Universe Daphne</u>	107,000	1960
Idemitsu	<u>Nissho Maru</u>	132,000	1962
Idemitsu	<u>Idemitsu Maru</u>	206,000	1966
NBC	<u>Universe Ireland</u>	312,000	1968
Globtik	<u>Globtik Tokyo</u>	484,000	1973
Shell	<u>Batillus</u>	550,000	1976

Sources:- Register of Ships, various issues;

MSWB, various issues.

250,000dwt (Schonknecht, 1983, p27). Some adjustment of designs, by for instance increasing vessel breadth and reducing draft, is possible which can partly alleviate draft problems. Similarly improved designs have reduced the steelwork necessary in ships of a given size aided by the relaxation of classification society regulations (Eyres, 1978, p21). For instance the Nissho Maru (Ja 132,000/62) required 30,000 tons of steel compared to 31,000 for the much larger Idemitsu Maru (Ja 206,000/66) constructed four years later.

In considering British adoption of improved tanker designs the operators should be divided into two groups. The industrial carriers, such as Shell and BP, while adopting larger types of tankers in the 1950s and early 1960s, lagged behind somewhat in comparison with the most innovative independent owners such as the NBC, Onassis and Niarchos groups which engaged in competition to produce ever larger tankers. In 1957, for instance, NBC had taken delivery of four 85,000dwt 15 knot ships and received a 104,000dwt vessel in 1959 while Onassis had a trio of 100,000dwt vessels under construction in America in 1957 and Niarchos received the Princess Sophie (Li 71,282/59) (MSWB, 1957, p71; MSWB, 1958, p125). When compared to most lesser tramp operators and foreign oil companies the industrial carriers adopted a similar range of sizes. For example BP received the British Queen (Br 49,309/58) which was of similar size to the 53,000dwt vessels received by Getty Oil from 1957 and the majority of ships delivered to the leading independents. Onassis too had seven ships in the 46,000-65,000dwt range on order in 1957 (MSWB, 1958, p72). The smaller Shell and BP vessels such as the numerous 31,000dwt and 28,000dwt ships of the mid-1950s were similar in size to the vessels delivered to companies such as G.B. Thorden of Sweden or 'Prora' and Sicilnaviglo of Italy.

Most British independent operators opted for tankers at the lower end

of the spectrum with deadweights of 20,000 tons or less, Turnbull Scott's Stonegate (Br 18,774/61) or the Stanhope SS Co.'s Stanvale (Br 19,020/57) being typical vessels. E.T. Radcliffe's Llanishen (Br 33,757/58) and Stevinson Hardy's Edward Stevinson (Br 51,615/61) were exceptional in the British independents fleets, though the P&O and Furness Withy groups also opted for some larger tankers. In the 1960s and 1970s this pattern of non-adoption of large and economical crude carriers among the independents was continued. While a number of operators acquired large combination carriers (section 2b) only Court Line, John Hudson and LOF adopted the VLCC. This was in sharp contrast to Greek, Hong Kong Chinese and Scandinavian companies. In Norway alone Knutsen, Olsen, Anders Jahre, Hoegh, Thor Dahl, Fearnley & Eger, Bjornsted & Co., Bergesen and Odd Berg were just some of the users of VLCCs, often in large numbers. Even those operators who did not use the largest types frequently had medium crude carriers (for instance Torrey Mosvold's fleet of four 70-80,000dwt tankers in 1974) or combination carriers of over 100,000dwt. The British major oil companies, in contrast to the independent tramp operators, made a strong showing in their adoption of VLCCs and ULCCs and were joined by Burmah whose fleet reached its zenith with the ordering of a pair of 483,000dwt ULCCs in the early 1970s. The large P&O group which had been involved in the use of crude carriers since the 1950s was also a notable proponent of large vessels, receiving four 214,000dwt ships in 1969-70. P&O also received a number of large combination carriers in later years while OTT took delivery of three ships of 214-270,000dwt in 1971-74 (Moody, 1974, pp249-305).

The 20,000dwt ships which British independent operators preferred in the 1950s were increasingly used to carry petroleum products, the trade volumes of which were insufficient to allow the use of larger vessels. Thus the tankers used in the product and crude trades developed

separately. The product carrier had large numbers of small tanks with separate pipe systems to enable the carriage of different grades of oil products simultaneously. Cory's Corhampton (Br 19,960/59) had no less than 26 separate tanks for example (MSWB, 1960, p43). As trade volumes increased so did the size of product tankers. H.E. Moss received vessels of 24,000dwt from the late 1960s onwards while OTT operated two vessels of 55,000dwt from 1975-76 and Ugland of Sweden recently ordered six 84,000dwt product carriers (OTT AR 1980; Moody, 1974, p270; FT 30.10.85). Adoption of such vessels was widespread in the 1950s and not only among the small number of independent tanker owners and the oil companies. Companies such as Cory's and Denholms acquired small tankers having previously concentrated on dry cargo operations. In addition the large public liner companies also adopted the type: P&O and Furness Withy in the 1950s, Cunard in the 1960s and even privately owned Blue Star, noted for its single minded concentration on the liner trades, acquired a solitary small tanker, the Pacific Star (Br 16,500/54) (MSWB, 1955, p230).

In the 1960s a related development was in vessels designed to carry not only petroleum products but also a wide range of bulk liquids from chemical solvents to vegetable oils simultaneously. Like the product tankers each tank required a separate pipe system for loading and discharge. In addition the corrosive nature of cargoes such as acids necessitated the use of easily cleaned corrosion resistant materials: stainless steel piping and tanks coated with tough epoxy resins. British operators have been heavily involved here including Tate & Lyle from the late 1960s (Chapter 8b) and BP, OTT, P&O and Swires in the 1970s.

While the parcel tanker was developed to carry a multitude of bulk liquids the availability of large volumes of some liquid commodities has resulted in single purpose specialist tankers. Important among these are the chemical tankers which have been used at various times by British

operators including Turnbull Scott, Common Bros. and the Ben Line. Such vessels are similar in design to parcel tankers but need fewer tanks since they concentrate on single commodities and are usually small. The Ben Line chemical tankers had a deadweight of only 2,750 tons. Other types include vegetable oil tankers like Unilever's Matadi Palm (Br 13,700/70), wine tankers and even orange juice carriers (RS 1980-81).

The final major type of bulk liquid vessel is the gas carrier. The first large vessels of this type were built for a German company in the 1950s and each could carry up to 1,000 tons of butane, propane or ammonia in long cylindrical tanks. While such small ships can pressurize the gas to liquify it, for vessels of over 10,000m³ liquification is achieved by refrigeration and storage in insulated tanks. Gas carriers while having a wide range of cargoes are divided into two main groups: liquid petroleum gas carriers and the even more complex liquid natural gas ships. Both these were well represented in the Merchant Navy from the late 1960s. Companies including P&O, Buries Markes, Furness Withy, Bibby and Runciman among the independents and the industrial carriers BP and Shell adopted the former, while the latter were used by OTT and P&O together with the oil companies Burmah, BP and Shell. As in other sectors some vessels are designed for multi-purpose operation though the distinct nature of the cargo limits this. OTT's Nestor (Br 78,400/77) can carry both groups of gases while other types unrepresented in the British fleet can transport LPG, ethylene or liquid chemicals (OTT AR 1981; Gas Carrier Register 1986, pp23-28).

The adoption of technical developments in tanker vessels among British shipowners thus shows considerable disparities. The trend towards large and efficient crude carriers left most independent tramp shipowners by the wayside, in sharp contrast to similar owners in some other merchant marines, and but for the strong interest of British industrial carriers

the overall record would have been very poor. In contrast small independent owners' use, first of product carriers and then of other types of specialised tanker, was rather better with the industrial carriers and large liner groups also making considerable use of technical advances in tanker vessels. However the adoption of tankers was less widespread among the small independents than that of bulkers (Chapter 2b). The reasons behind this are examined in the study of markets with which the whole question of technology is intimately linked (Chapter 3).

2b) From Tramp to Bulker.

The major vessel type used for the carriage of bulk dry cargoes such as grain, iron ore and bauxite in the immediate post-war years was the general purpose tramp. The basic design had a bridge and accommodation superstructure amidships with the machinery spaces underneath. Fore and aft were holds with tween decks between the main hold and the main deck. Some vessels also had raised fore and poop decks and were hence known as 'three island tramps' for the three raised structures above main deck level. For our purposes a useful base line vessel is the 'Liberty' ship - a standard type built in large numbers during the Second World War with three holds forward and two aft, a deadweight of 10,845 tons and capable of 11 knots (Sawyer and Mitchell, 1970, p39).

This and other similar types formed the basis of the fleets of many tramp shipowners, both British and foreign, well into the 1950s: for instance those of W.A. Souter and Thomas Dunlop & Sons (DSSME, 1954, p159, 447). Even where newbuildings rather than second hand vessels were introduced they frequently exhibited similar characteristics: for instance Dene Shipping's trio of 9,000dwt 10.5 knot tramps of 1948-51 or Denholm's four 10,000dwt vessels of 1945-51 (DSSME, 1954, p149). The latter company also acquired three standard warbuilt tramps (Denholm, 1966, p37). In

addition smaller tramps for smaller parcels of bulk cargo were common. Many of these were also of standard wartime types. Constant's five strong fleet of 1954 was composed of vessels such as the 10 knot Beltinge (Br 4,628/51), which were typical of the ships operated by owners like Sharp & Co. and Thomas Stone (DSSME, 1954, p435, 463).

Tramp ship designs, however, were not static. Some British owners adopted modest increases in size and speed, continuing a trend evident since the inception of the type in the 19th century, for instance 12,000dwt 12 knot vessels built for Chapman & Willan in 1957-60. However, foreign high cost operators, particularly from Scandinavia, tended to build faster 15 knot vessels. While these ships (like those of some British tramp operators) were designed to be chartered out as cargo liners, when off charter they were used as tramp vessels and their superior quality placed the ships of many British operators at a competitive disadvantage. This point is reinforced when it is realised that they were most likely to be competing with British shipowners in depressed periods when liner charters were not available and tramp rates were low and cargoes scarce. Their higher speeds would then attract shippers to the disadvantage of ships like the 12.5 knot British Monarch (Br 9,980/54). Salvesens, whose old tramps were too inefficient to trade in 1959, found the replacement 15 knot "vessels in fair demand because of their high suitability for the general cargo trade" (Vamplew, 1975, p129).

In reply, a few of the more innovative British tramp operators introduced vessels of higher capacity and speed with the accommodation and machinery moved aft to allow holds to be placed in the most capacious part of the ship. The Currie Line's Roland (Br 12,800/57) which retained a small amidships bridge was capable of 14.5 knots (MSWB, 1957, p6). Other owners moved all the superstructure aft: for instance Thomasson Shipping's 12 knot Riseley (Br 11,320/57). Buries Markes combined this

with a considerable increase in capacity with their La Marea (Br 14,650/58). All aft construction also allowed easier access for cargo movement, a trend furthered in the latter ship with the use of wide hatches and easy-to-move MacGregor rolling hatchcovers (MSWB, 1958, pp52-53; MSWB, 1959, p50). However such innovation was unusual among British tramp operators though there were other companies who adopted cargo liner type vessels. These were smaller than the improved tramps but capable of high speed. A good example is the three strong class of 15 knot 10,400dwt vessels built for the Britain SS Co. from 1959 (MSWB, 1959, pp42-43).

While many owners, British and foreign, continued to operate standard wartime tramps, these were increasingly outdated and by the early 1960s were approaching the end of their design lives. The prospect of block obsolescence among a large part of the world tramp fleet (700 Liberty ships were still operating in 1966) prompted a rash of 'Liberty replacement ships' (Sawyer and Mitchell, 1970, p201). The best known of these standard designs, intended for series production, were the SD-14 and 'Freedom' types. The former was based upon an earlier 'supertramp' - Tatem's 15 knot Exning (Br 16,000/65). The engine room and superstructure were well aft with four of the five holds forward of the bridge. The SD-14, while possessing its own cargo handling equipment (like most tramps), had wide hatches and unencumbered decks to allow good access to holds and the easy stowage of deck cargo. At 14,200dwt and 14 knots it was a considerable improvement on the old wartime designs and was widely adopted. In Britain a number of operators used this general purpose design rather than switching to bulkers, including Metcalfe, Sons & Co., Larrinaga SS Co., and the West Hartlepool SN Co.. The SD-14s' suitability for work as supplementary cargo liners also resulted in their acquisition by liner operators (Lingwood, 1976, pp43-61).

Despite such efforts to build larger and more economical general

cargo ships the basic design restricted advance in this direction. In particular the use of tween decks imposed an upper size limit if port times were to be kept to a reasonable level since cargo had to be moved from the recesses of the hold to the area adjacent to the hatch before it could be unloaded. Evidence of shipowners' appreciation of this problem can be seen in the popularity of the 14-16,000dwt standard tramps while the larger designs - up to 23,000dwt - received fewer orders (Maritime Transport, 1966, p50). Some shipowners had long recognised the restrictions of the tween decks design and hence moved to a new vessel type which lacked the former's restrictions on cargo handling and size.

The alternative type was the single deck bulk dry cargo ship. By removing the tween deck, hatches spanning the entire width and length of the hold could be used, making for easy access for high capacity cargo handling equipment. The holds were smooth sided to avoid small niches from which it would be difficult to unload cargo and which would also complicate cleaning before different cargoes could be loaded. Some ships also used holds with hoppers bottoms so gravity naturally forced the cargo into the centre of the hold for easy grab discharge. All these features served to reduce port times, which on average comprised 43 percent of the life of a general purpose tramp (Cund 4337, 1970, p172).

British shipowners had considerable exposure to the advantages of the single deck bulker. Deepsea ore carriers appeared around 1900 but the only British pre-war user was Campbells, which bought two 10,000dwt engines aft vessels in 1935-37 (Talbot-Booth, 1940, p299). Many British operators ordered them for chartering to BISC (Ore) from the early 1950s as can be seen from Table 2.1 (Chapter 3f). Similarly single deck colliers were widely used in the short sea trades. Many Scandinavians had been acquiring single deck bulkers from the early 1950s, frequently of standard design. For instance Lorentzens of Norway received two bridge amidships

bulklers of 13,000dwt in 1957. Similarly many expansive FOC operators acquired large bulker fleets. Niarchos for example received a series of 19,500dwt vessels from 1958. Some vessels combined the bulker design with the advantages of aft machinery and superstructure like the three 21,600dwt ships delivered to another Greek operator in 1957 (MSWB, 1958, p137, 157; MSWB, 1959, p171).

The use of bulkers by British independents for their own operations remained extremely unusual throughout the 1950s. The Stag Line did receive a pair of 8,000dwt vessels in 1953-55 and some collier companies acquired small bulkers for general trading: for instance France Fenwick, which received five vessels of between 5,600 and 8,000dwt in 1953-55, and the Hudson SS Co. (France Fenwick ARs 1953-56). While Ropner and Hunting took delivery of larger ships like the Inverfield (Br 14,205/58) at the end of the 1950s, eight times as much capital was tied up in tramps as in bulkers (Table 2.1) (Hackman, 1969, p30). It was not until 1964 that large numbers of British operators began to receive such vessels: for instance R.S. Dalgliesh's Silksworth (Br 24,840/64) or the four 43,000dwt bulkers delivered to Hain-Nourse (P&O) in 1965-66. However even then adoption of the new type represented a threshold not all British operators were willing to cross. Some like J. & C. Harrison or the Power Steamship Co. continued with tramp ships while others left shipping altogether (ISSD, 1969, pp25-58).

The more efficient bulker design also allowed the maximum size of vessels to increase. Graig Shipping's first bulker delivered in 1964 was of 28,000dwt and in 1974 took delivery of a 52,500dwt ship which was replaced in 1983 by a 108,000dwt bulker (Graig ARs 1979-84; ISSD, 1969, p36). These larger vessels bought considerable economies of scale : the Graiglas (Br 106,405/74) could carry as much cargo as four of the early vessels but needed only one crew. British bulkers were considerably

smaller than the world average in the 1960s due to the preponderance of small ore carriers chartered to BISC (Ore). But by 1971 the influx of ordinary bulkers into British ownership allowed average sizes to draw level. Thereafter the average size of the British bulkers was higher than the international average as many operators concentrated on the largest and most efficient vessels. Bibby for instance acquired three vessels of 70-80,000dwt in 1967-68 and one of 116,000dwt in 1974 (Paget-Tomlinson, 1982, pp63-65).

Bulker sizes rose more slowly than for tankers. While 1969 saw the delivery of a 160,000dwt vessel this was unusually large for a bulker, as was the Berge Stahl (Li 364,767/86), still the world's largest pure bulker. This is due to a combination of fragmented markets so that the volume of individual commodity trades rarely provides cargoes of sufficient size (Chapter 3b) and the need for deepwater wharves since unlike a tanker the bulker's cargo cannot be pumped ashore from offshore terminals. The greater suitability of tanker trades to very large ships has had important effects on the multi-purpose bulkers which sprang from a wish to acquire backhaul cargoes and to be able to switch from one market to another to gain the best freight rates. The first type was the ore-oil carrier which allowed access to the oil trades. While Bethlehem Steel (USA) used them from 1922 it was not until the 1950s that they became popular amongst shipowners (Naess, 1977, p144). Their design took advantage of the high density and hence low volume of ore cargoes. This enabled small holds to be used which could carry a large tonnage of ore, the holds being surrounded by large wing and bottom tanks to carry crude oil or ballast when ore was being carried. The complexity of such vessels resulted in high cost and to offset this the largest possible capacity was preferable to gain economies of scale. One of the first such vessels, the Sinclair Petrolore (Li 56,089/55), was very large for its time even in the

tanker trades (Table 2.2).

This search for flexibility prompted another design which could carry low density bulk cargoes as well as ore and oil - the ore, bulk and oil carrier (OBO). In this type the liquid and dry bulk cargoes were both loaded in the holds with the disadvantage that switching to oil cargoes entailed opening the tank piping, making the hatches airtight and cleaning the holds thoroughly. These vessels again tended to be as large as possible for the same reasons as ore-oil carriers and hence most of the largest bulkers are of these multi-purpose types. British adoption of these advanced types was minimal until the late 1960s when some operators such as Hunting and Bibby began to acquire them (Moody, 1974, p30-31, 103).

The attractions of flexible operation have resulted in other multi-purpose types of bulk carrier. The container-bulker and car-bulker (section 2c) are an interesting parallel to the general purpose tramp in that they carry both bulk and general cargo. However there has also been a trend in the opposite direction - specialisation. The largest group of specialised bulkers are the ore carriers from which the more flexible type stemmed. The low volume-high density of ores when compared to many other bulk cargoes means the structure of ore carriers is particularly strong (though most modern bulkers are strengthened to carry ores) and only small holds are needed. They were used by many British companies, and like other specialised bulkers their adoption was linked to market factors. The chemical company Albright & Wilson owned two 10,000dwt phosphorus carriers from 1968 for example (RS 1975-76).

Another area of technical specialisation was in cargo handling equipment. While general purpose tramps were invariably equipped with their own cargo gear the emphasis on very fast handling of bulk cargo has resulted in reliance on shore based grab cranes and other devices. Thus

geared bulkers, suited to ports lacking such equipment, have become a specialised type in their own right. A number of British companies have used such ships for instance Fisher's Thamesfield (Br 50,300/77) or T. & J. Harrison's trio of 27,135dwt bulkers delivered in 1973. The former vessel is another subtype of bulker, the forest product carrier, the cranes being used to handle parcels of timber (Fisher AR 1983; Harrison Line 1853-1977). Generally large bulkers such as the 150,000dwt ship received in 1983 by the Ben Line are unlikely to have cargo gear since craning of sufficient capacity is too large and expensive (Ben Line brochure, 7.83). There have been some exceptions to this among the continuous self-unloading bulkers. This type, which has been virtually unrepresented in the British fleet, uses very complex boom mounted conveyors. Such equipment is only justified for vessels carrying granular cargoes such as pelletised iron ore, coal or industrial salt though at least one independent Norwegian operator, Jebsens, has specialised in such vessels (Jebsen's brochure, 1987).

The effects of technical change in bulk cargo vessels on the Merchant Navy have been considerable. Many British operators placed themselves at a competitive disadvantage by both the widespread use of ships inferior to some foreign tramps and by their tardy adoption of bulkers. The latter's introduction in the bulk trades and the increasing unsuitability of tramp designs for charter to liner companies, as first the high speed cargo liner and then the container ship became prominent in the general cargo trades, served to make tramps difficult to operate profitably, particularly in depressed markets. It is notable that operators who persisted, even with efficient, modern tramps, have ceased to trade or have suffered adversely as a result. The 1960s did see many tramp operators switch to bulkers following the example set by some industrial carriers in the 1950s. However, the adoption of such improved designs did

not in itself assure success (Chapter 3b). Indeed, the multi-purpose vessels deepened market problems.

2c) From Cargo Liner to Container Ship.

In 1945 the liner trades were catered to by passenger vessels (Chapter 2d) and ships whose primary function was the carriage of breakbulk dry cargo. The basic design of these cargo liners featured an amidships superstructure containing the accommodation with machinery spaces below and holds on either side divided horizontally by tween decks. While very similar structurally to the general purpose tramp (Chapter 2b), cargo liners tended to be faster and equipped to a higher standard, with specialist equipment like refrigerated space, strong rooms and heavy lift derricks. Many cargo liners were equipped to carry up to twelve passengers. High specification tramps like Salvesen's 15 knot Saldanha (Br 12,980/59) class were usually designed for chartering out as supplementary cargo liners (Somner, 1984, pp11-12).

Though remaining loyal to the traditional basic design successive classes built for both British and foreign lines incorporated incremental improvements. The cargo capacity of Ben Line vessels continued to increase as it had since the inception of the steamship, with deadweight tonnage rising by half in 1948-64 (Table 2.3), while speeds increased by a third by 1965. Cargo liner designs were also tailored to suit the requirements of particular routes. The Benmacdhui (Br 11,500/48) class were fitted with deep tanks to carry bulk latex and oils and Ben Line ships built from the late 1950s commonly had some 13,000 cubic feet of reefer space (Blake, 1956 (1), p174; ISSD, 1969, p10). The Ben Line was not alone among British companies in running vessels of such high technical quality. Reefer owners in particular built some magnificent vessels like the 22.5 knot refrigerated mailship Goodhope Castle (Br

Table 2.3 Characteristics of Ben line Cargo Liners.

<u>Name</u>	<u>Grt</u>	<u>Dwt</u>	<u>Built</u>	<u>Speed (kts)</u>	<u>Engine</u>
<u>Bengloe</u>	1,850		1878		Compound SS
<u>Bengloe</u>	3,000		1895		Triple expansion SS
<u>Benledi</u>	3,900		1904		" " "
<u>Benvenue</u>	5,900		1927		Quadruple expansion SS
<u>Benalbanach*</u>	7,700	10,450	1947	15	Steam turbine
<u>Benmacdhui</u>	7,800	11,500	1948	15.5	" "
<u>Benreoch</u>	10,100	12,400	1952	17	" "
<u>Benloyal</u>	11,500	11,200	1959	20	" "
<u>Benarty*</u>	10,300	12,600	1963	17.5	Motorship
<u>Bendearg</u>	8,600	16,300	1964	19	"
<u>Benledi</u>	11,900	13,800	1965	21.5	"
<u>Benstac</u>	8,600	15,900	1968	22	"
<u>Benalder</u>	55,900	49,600	1972	23	Steam turbine

* Heavy lift cargo liners.

Sources:- ISSD, 1969, p10;

RS various editions;

Blake, 1956(1), pp190-204.

11,121/65) of B&C. Such ships matched the best foreign cargo liners, the latest vessels of the Ben and Glen lines were of comparable quality to the very advanced American Challenger (US 13,532/62) class (MSWB, 1963, pp10-12).

The majority of British cargo liners were not of such a high standard. As late as 1970 the best Palm Line vessels were of 12,200dwt and capable of 16 knots while most of the company's ships were of 9,000dwt or less and could manage only 14 knots. While outwardly this might appear to indicate a lack of innovation (Elder Dempster's similar ships were criticised on these grounds) it partly reflected operational factors in the company's trade. The short distance to West Africa meant that expensive high speed ships did not bring a significant reduction in voyage times and there was little perishable cargo which would have necessitated rapid transit times. Furthermore the highly inefficient West African ports would have taken too long to unload larger vessels. The ships had various types of special equipment including deep tanks for palm oil, heavy derricks for logs and limited refrigerated capacity (Kohn, 1970, pp43-45, 78). Similarly British India's largest cargo liners in 1969 were the 10,000 dwt 17 knot 'N' class. Their size was restricted by the 27' draft of the Hooghly river leading to Calcutta (a major node in the company's complex route network) and the notorious sloth of cargo handling in Indian ports (Blake, 1956 (2), 206-210). Unlike the Ben Line and similar companies which operated on long, high volume routes with good ports which could unload large ships, companies like the Palm Line and British India on shorter, smaller volume routes did not carry sufficient cargo to fill large fast vessels. Their foreign counterparts like Hoegh on the West African run and the Indian lines also felt similar constraints and operated comparable vessels. Further even small British lines like the Head Line improved their designs considerably in the post-war years.

An 8,500dwt vessel built in 1937 was capable of 12 knots compared to the 17 knot motorship Inishowen Head (Br 10,300/65) of 1965 (DSSME, 1954, p232; ISSD, 1969, p48). Even Ellermans, whose cargo liners of 1949-51 were criticised as 'ultraconservative', developed much improved ships in the 1950s and 1960s (Taylor, 1976, pp149-151).

Throughout the 1950s and 1960s liner operators were under pressure from rising operating and capital costs. Since some 60 percent of a cargo liner's life was spent in port on the New Zealand route (the proportion would be even higher on short routes with inefficient ports as in the West African trade) some companies began to improve the cargo handling characteristics of their fleet to increase efficiency. The P&O and B&C groups began to separate their cargo and passenger operations in the 1950s. The cargo ships were designed to speed cargo handling with flush tween decks to enable fork lifts to be used, better cranes and larger hatches for improved access to holds. The hatches themselves were equipped with rapid moving mechanical covers since making unmechanised hatches ready for cargo handling and scaling was a particularly severe time consumer (MSWB, 1957, pp6-7). The Port Line for example traditionally plugged each hatch with a layer of sawdust. the refrigerated cargo being held in position by wooden dunnage erected laboriously and at considerable expense by teams of carpenters. However once the ships reached Britain it had to be torn out to enable the return cargo to be stowed. It was not until 1968 that reuseable metal dunnage was introduced. Before this the Port Line adopted an American innovation, the hydraulic hinged hatch cover, and fitted insulated versions to its vessels (Russell, 1985, pp18-19).

An earlier improvement was the compaction of ship superstructures into a high narrow block. Most pre-war British vessels had long low superstructures which covered the central holds, resulting in small

hatches with difficult access. This new design feature was rapidly adopted by most companies. P&O's last ships with the traditional superstructure were the 'S' class of the late 1940s. However Houlders and Shaw Savill continued to build old style vessels through the 1950s (de Kerbrech, 1986, pp162-17). For example, Houlder's Royston Grange (Br 10,385/59) whose elongated superstructure covered much of the hull. In addition the accommodation block was moved aft so holds could be placed amidships in the most capacious part of the ship, traditionally the position of the superstructure. The Clan McIver (Br 9,780/58) class of the late 1950s were the first Clan Line ships to adopt this improvement (Clansman 11.78).

While bringing useful improvements in efficiency these measures were overshadowed by efforts to amalgamate breakbulk cargo into large homogenous units for easy handling - unitisation. In the 1950s Scandinavian operators pioneered the use of standard pallets on which the cargo was secured and moved by fork lift trucks. Svenske Lloyd, building on its experience of palletisation, received the superstructure aft Italia (Swe 4,600/61) in 1961. This vessel had hatches running the full width of the holds allowing pallets to be rapidly handled by the ship's cranes. Fred Olsen introduced ships in the mid-1960s which handled pallets with elevator and conveyor systems connected to the dock (MSWB, 1962, pp96-97). By the mid-1960s British companies including Ellerman, Furness Withy and Cunard were receiving vessels designed for carrying pallets. The latter's Samaria (Br 7,500/65) class had large hatches and unobstructed holds enabling the easy use of forklifts (MSWB, 1966, p26, 110, 142). In the late 1960s the Palm Line adapted six of its cargo liners for palletised cargo. The holds were unobstructed, enabling easy movement and stacking of pallets by forklifts, while the sides of the holds were squared off rather than following the lines of the hull (Kohn, 1970, 62-70). Palletising

brought considerable improvements in efficiency, and cargo handling rates in ports rose from 1.7 tons per man hour on a conventional cargo liner to 4.5 tons per man hour on a pallet friendly vessel (Johnson and Garnett, 1971, p79).

Despite its considerable advantages palletisation was overtaken by the even greater efficiency of carrying breakbulk cargo in large standard containers. These were of two main types; the twenty ton capacity twenty foot containers (TEU) and the thirty ton forty foot container (FEU). Not only did they have far greater cargo capacity than the one to two ton pallets but the tough totally enclosed boxes protected the cargo from damage and pilferage and this massively reduced insurance costs. In contrast the traditional breakbulk methods were prone to such problems though their intensity varied, Nigerian ports being renowned for their endemic theft, for instance (Lane, 1986, pp84-87). In an ideal situation the container ship was able to dock rapidly at an easily accessible terminal where special gantry cranes raised or lowered the containers from cells in the hold through full width mechanised hatches. The containers could then be loaded directly onto lorries or trains and taken directly to the recipient. Apart from the ease of transfer, port productivity was greatly increased from 1.7 tons per man hour for a cargo liner to 30 tons per man hour. Thus the ACT 1 (Br 24,699/69), a large early British container ship, could load at a rate of 12,000 tons a day compared to 400-1,000 for the cargo liners it replaced. The proportion of the ship's life spent at sea rose from 40 to 80 per cent making increases in speed more significant (Cmd 4337, 1970, pp103-106). Such rapid cargo handling removed a major constraint on vessel size with Ben line's new container ships like the Benalder (Br 58,283/72) being triple the size of the old cargo liners. Thus fewer crews were needed: on the Australia run only nine British container ships had to be manned, compared to 50 cargo

liners. Capital costs also fell since daily fixed costs for a 23,400dwt 1,200 TEU container ship were \$14,207 compared to \$5,454 for each of the five 11,000dwt cargo liners it replaced (Gilman, 1977, p43). However, few operators had sufficient trade volumes to support an independent service of sufficient frequency if they were to use the largest possible vessels to gain such economies of scale. This was one rationale for British owners' tendency to unite with each other and some foreign companies in joint services with very large cargo volumes.

The first deepsea container ships were put into service by the American entrepreneur Malcolm McClean in 1956. By 1964 he was running three container services in the US internal trade while Matson's had been running a fourth since 1958 (Van den Burg, 1975, pp111-121). One British line (probably the Pacific SN Co.) had begun using standard refrigerated containers in the mid-1950s while others, like Manchester Liners and Geest, had started to use eight foot containers in the late 1950s (MSWB, 1955, p7; Stoker, 1985, p32; Stemman, 1985, pp186-197). Despite this and an awareness of the container concept among the liner groups there was no attempt to outflank competitors by taking advantage of the technical efficiency of container ships. The decision to enter full scale container operation was only taken when it became obvious that the Americans were about to begin international services. Sealand opened a route to Europe in July 1966 while the threat of a Farrell Lines service between America and the Antipodes galvanised the British lines into setting up the PACE container ship operation (Russell, 1985, p102). This reactive rather than innovative attitude was also typical of most established foreign lines who containerised in concert with the British. There were some exceptions, for instance on the North Atlantic where Manchester Liners containerised enthusiastically while Cunard (and CGT of France) did not join the ACL consortium until 1967, when its first vessels were already entering

service (Van den Burg, 1975, pp197-198). The Japanese were just as loath as the British to containerise. Several lines including MOL refused overtures from Matson Line for a joint service as they were satisfied with the profitability of existing technology. It was not until NYK broke ranks and decided to build container ships that others followed (Tatsuki and Yamamoto, 1985, pp168-169). For some small British lines like Donaldsons the challenge of containerisation was too great and they went into liquidation, while the Anchor Line closed its North Atlantic service (Stoker, 1985, p51; Anchor Line 1856-1976).

Pallets and containers were not the only forms of unitisation considered in the 1950s and 1960s. Deepsea roll on-roll off (RO-RO) ships cut port times by using large trailers which were driven on and off the vehicle decks via ramps. Like containers this was a very effective intermodel system since the trailer when attached to a lorry could drive straight on to the road system. This outweighed its inefficient use of the internal space of ship as trailers could use only 40 percent of bale capacity (the theoretical maximum of a breakbulk cargo liner) compared to 72.25 percent for a container ship (IYT, 1965, p44). Again this type was developed outside Britain, the USMC producing a highly innovative design for a 200 trailer RO-RO in the mid-1950s (MSWB, 156, pp88-89). The main proponents of the deepsea RO-RO were Scandinavian companies and the British users were usually in consortia with a strong Scandinavian element such as PAD, a joint venture between ACT, the Swedish company Transatlantic and the Australian National Line (JFC, 1984, pp357-358).

A further type of unitised transport was the lighter carrier in its various forms. These loaded the cargo (including containers) into barges of 400-800 tons capacity which were then lifted or floated into the ship's huge internal dock. This design was well suited to routes with unmodernised ports since the vessel could simply offload the barges and

pick up pre-filled return barges without using the port facilities. Further the lighters were of sufficient size to carry bulk cargo if general cargo was unavailable for the return voyage. The barge and lighter carriers were mainly favoured by American companies hoping to steal a technological march on the competition. Unfortunately they were very complex and expensive, as well as having lower cargo capacity than container ships. Thus "the view that 'any operator seriously thinking of using Lash ships on a route in competition with containerships needs his head examined' seems justified" (Van den Burg, 1975, p241). Even the Americans became disillusioned and switched to more efficient types. Waterman Steamship replacing their LASH vessels with RO-RO container ships in 1984 (JMSR, 1984, p88; JFC, 1984, p394). British operators sensibly avoided these ships, preferring the more efficient forms of unit load vessel.

An obvious implication of unitisation was that the existing fleets of cargo liners would become redundant. One course was to cease to build new vessels until container ships were introduced. The Palm Line followed this pattern and did not acquire any new cargo liners between 1961 and 1974 (Kohn, 1970, p79; Moody, 1978, p150). However owners on other routes with strong technological competition between lines felt that if they did not build new cargo liners they would lose out in the period before any planned containerisation was actually implemented. While this was four years (1965-69) in the Australian trade it was still far less than the 25 year life of an expensive cargo liner. Another complication was the unpredictable amount of time it would take for shippers to switch to the container system. Thus many lines continued to build cargo liners into the late 1960s. While some continued to operate reduced services until shippers had switched to containers this employment was shortlived, lasting from 1968-1972 for the Europe-Australia route. The large groups

were able to transfer vessels to other routes where containerisation had yet to begin. Several modern Cunard cargo liners were transferred to its subsidiary Brocklebanks for example. Selling the vessels was not an attractive proposition since it was difficult to get a good price for technically obsolete ships. However some companies like the Ben Line and Harrison Line took advantage of this by buying modern second hand tonnage (Moody, 1971, p28, 57; Harrison Line 1853-1977).

The use of cargo liners on uncontainerised routes frequently proved unsatisfactory as their container capacity was very limited, 40 TEU on the 1960s vintage Palm Line ship for instance. Hence they were at a competitive disadvantage to modern foreign vessels with a significant container capacity as shippers began to use containers faster than anticipated. Ellermans were among the first British companies to see this problem and built the three 232 TEU City of London (Br 13,565/70) cargo liners in response. Other lines like P&O, Lamport & Holt, Swires and Furness Withy took delivery of SD-14 cargo liners from 1975. However these ships, which were not designed for containers, were less than successful and were sold after only four to six years (Lingwood, 1976, pp22,43-61). A more sophisticated type was the combo or combi ship capable of carrying large numbers of containers as well as breakbulk cargo. Palm Line first acquired such ships in 1974 while P&O and OTT received several apiece in the late 1970s. The latter two companies swiftly found vessels like the six 368 TEU Stratheden (Br 16,641/77) combos could not compete with full container ships. P&O stated in 1982 that "Demand for container capacity in the USA-Middle East increased at the expense of breakbulk cargo. This led to unsatisfactory trading results on the combi ships and it was decided to withdraw from the service" (P&O AR 1982). The six P&O ships remained in service for less than four years on average and other operators such as OTT found the combos rapidly became

difficult to run successfully against low cost foreign companies (RS 1985-86).

The semi-container ships were not the only type to suffer from competition with more efficient ships. By the mid-1980s many of the older cellular container ships were being hit by the introduction of very large ships which benefitted not only from economies of scale but also lower fuel and crew costs (Chapter 4a and b). American President Lines took delivery of six 24 knot container ships from 1988 with a capacity of 4,340 TEU compared to 2,500 on their predecessors (SM 8.88; JFC 1984, pp265-266). Another American operator (USL) introduced 12 4,380 TEU ships in 1984-85. The economy of these ships meant they could break even at 50 per cent load factors compared to 60 per cent for their competitors and that they could ship cargo previously thought to be too low in value for containerisation. However in practice they proved that maximising economies of scale was not a guarantee of success as the company went bankrupt. The vessels' low speed (18 knots) and very long one way route round the world deterred shippers due to long transit times. However the ships were taken over by Nedlloyd, Sealand and OCL for use on the short high volume North Atlantic route where speed was less significant and economy was a very valuable competitive weapon. Cunard also introduced a large new G3 RO-RO container ship in 1984 with more than double the container capacity of its predecessors (Table 2.4). As with cargo liners successive designs included incremental improvements. The upper size limit for heavy cargo almost doubled while car capacity was cut, probably reflecting competition from single purpose car carriers. The G3 class also introduced above deck container guides enabling cargo to be handled more rapidly and for the tiers to be heavier (JMSR, 1985, pp66-73; THI AR 1987).

Specialised ships like refrigerated cargo liners have long been used

Table 2.4 Characteristics of ACL Container Ships.

<u>Class</u>	G1	G2	G3	G3*
<u>Date</u>	1967	1969	1984	1987
<u>Dwt</u>	21,900	18,500	51,300	
<u>Grt</u>	15,000	15,300	58,400	
<u>Speed (Knots)</u>	20	24	17.5	17.5
<u>TEU</u>	1,024	845	2,180	2,780
<u>Car Capacity</u>	890	990	614	614
<u>Hvy Cargo (Tons)</u>	220	380	420	420

* Rebuilt 1984 vintage ships.

Source:- compiled from JFC various issues;

RS various issues;

JMSR, 1985, pp66-73.

for particular trades. British companies had a long established dominance in this sector due in part to their innovativeness in developing and improving cost effective refrigerated ships from the late 1870s (Critchell and Raymond, 1912, pp18-46; 126-45). Though many post-war cargo liners had a limited refrigerating capability the fully refrigerated types usually had several decks in their insulated holds. The advantage of high speed for perishable cargo meant many of Britain's finest cargo liners were reefers, for instance the New Zealand Shipping Co.'s 'H' class of 14,000dwt and 16 knots built in the late 1940s. However on trades with smaller volumes the ships like Fyffe's Matina (Br 7,583/46) were often smaller. The characteristics of the refrigerating equipment also often reflected the requirements of particular cargoes. Fyffe's ships were designed for banana carrying while Blue Star and others carried a more varied range of meat, dairy products and fruit (DSSME, 1954, pp164-166, 357-359).

The move to unitisation saw some cargo being carried in insulated containers, the refrigerating equipment being powered by plug-in electrical connections. The British ACT 3 (Br 27,93/71) can have up to 43 percent of its 1,294 TEU comprised of refrigerated containers for instance (JFC 1984, pp268-269). However the seasonal nature of many reefer trades has led to a continuing need for tramp reefers. Thus many British operators of largely refrigerated cargo liners continued to operate them after containerisation. The rapid development of reefer technology in the 1970s and 1980s has meant these vessels are at a competitive disadvantage, especially in poor markets. Typical modern reefers like the quartet built for Blue Star in 1985-86 have four internal decks designed for palletised cargo (pallets being more popular than containers). Further unlike many old cargo liners they are designed to carry the full range of refrigerated cargo and have sophisticated computer controlled monitoring and

temperature control systems (SM 8.85; JMSR, 1985, pp42-45). Few British operators have followed Geest's example in continuing to build new ships to keep up with modern technology and thus have suffered through running obsolescent ships.

Some British companies began to cater in the inter-war years to cargoes like railway locomotives which required heavy lift derricks and strengthened decks. Sir August Cayzer of the Clan Line asserted in 1929 that "no other fleet is so well equipped to deal with such cargo" (Clansman 11.78) though other British companies (like the Strick and Harrison lines) and foreign lines (for instance Maersk and Hansa) specialised in carrying heavy items. A Norwegian company, Christian Smith, went further and built special heavy lift ships such as the Beljeanne (No 10,070/26) after the Great War. The main superstructure and engine were right aft with a small bridge forward. This allowed the three 100 ton derricks unrestricted access to three large single deck holds (SWW, 1937, p270). It was not until after 1945 that British companies like Harrisons and Elder Dempster acquired equivalent ships, including the latter's Onitsha (Br 6,927/52) which had a 150 ton derrick (SMEB 3.52). Many other British lines also bought increasingly powerful equipment into service like the 60 ton derricks on some Port Line ships (Russell, 1985, p116). British companies like the Ben, Strick and Harrison lines continued to equal the most capable foreign ships through the 1960s and early 1970s. Blue Star's Australian Star (Br 11,650/65) was built with the world's most powerful crane - a 300 ton Stulcken derrick while Harrisons' Craftsman (Br 13,036/72) could handle 500 ton items (MSWB, 1966, p27; Harrison line 1853-1977).

The 1970s saw the introduction of RO-RO project carriers onto which outsize and very heavy loads could be driven. Though James Fisher had operated two short sea RO-ROs capable of handling 700 ton items since

1966, British deepsea companies persisted with heavy lift cargo liners like P&O's Stratheden (Br 16,641/77) with 300 ton derricks (James Fisher brochure, 1986). Not only could they not compete as general cargo carriers with container ships but they were outclassed by Dutch, Norwegian, German and Japanese heavy lift ships. The vessels of the Germano-Dutch Mammoet Shipping can lift items of 1,000 tons and take drive on loads of 2,500 tons (Mammoet brochure, 1988). The semi-submersible ships like Norway's Sibig Venture (No 44,144/72) can float on enormous loads, up to 44,000 tons in this case (JMSR, 1985, pp55-63). Only Blue Star acquired a modern RO-RO heavy lift ship: the Starman Anglia (Br 1,970/78).

The expansion of the international car trade also prompted attempts to improve vehicle transport. In the late 1950s Manchester Liners avoided wasting space in high holds by packing cars into collapsible wooden containers which could be stacked four high (Stoker, 1985, p38). The Ben Line fitted the Benledi (Br 13,785/65) class cargo liners with side doors and 2-5 ton capacity Carrion vehicle loading platforms, while Palm Line installed decks for 30-40 cars in six cargo liners in the 1960s (MSWB, 1966, p36 ; Kohn, 1970, p67). A more effective solution was developed by Scandinavian companies like Wallenius and adopted by Uglund, Hoegh and various Japanese operators from the late 1960s - a RO-RO ship with many low height decks. Elder Dempster used a small RO-RO the Clearway (Br 1,054/70) as a car carrier from 1971. Bibby and Harrison (Clyde) acquired larger dual purpose car-bulkers during the 1970s. These 1,800 car ships proved unsatisfactory as the retractable car decks were slow to operate and prone to damage and the car carrying equipment was later removed (Paget-Tomlinson, 1982, pp38-45). The trade came to be dominated by large, efficient single purpose RO-RO car carriers, only one of which was British owned - the Helenus (Br 26,200/73), converted from a bulker for

OTT in 1978, which could carry 4,000 cars (OTT AR 1980).

British post-war cargo liner designs continued to show incremental improvements and were on average at least as good as their foreign counterparts. However the introduction of radically different cargo handling techniques saw British companies following rather than initiating these developments. Though they did not take full advantage of the opportunities offered by unitisation (Chapter 3c and f ii) most operators containerised, with competitors like Japan and the Netherlands following a similar pattern. Containerisation also had important implications for the structure of the British shipping industry via consolidation of ownership and spurring diversification (Chapter 6b and e). Since containers were not suited to some important cargo liner cargoes containerisation stimulated the introduction of specialist general cargo ships. British operators' interest concentrated on those of long standing importance, such as reefers and heavy lift cargoes, while ships catering to cargoes of minor import in the cargo liner era like car and livestock carriers received little attention, in contrast to Norwegian and Japanese owners. Further the rapid pace of technological advance and the swift obsolescence of ships meant British owners who did not invest in new tonnage were at a competitive disadvantage, a problem linked to their unusual attitude to investment in shipping in the 1980s (Chapter 4c and 6g).

2d) Deepsea Passenger Vessels.

In addition to tankers, tramps and cargo liners a fourth type, the passenger vessel, formed an important part of the world fleet in 1945. These (with some special exceptions such as emigrant and troop ships) operated on a liner basis and in almost all cases ran in conjunction with substantial fleets of cargo liners. Indeed most such vessels had considerable cargo capacity and could be delineated into groups on this

basis.

At the top end were the ships concerned largely with passenger traffic such as Cunard's Queen Mary (Br 81,237/36) whose deadweight was only a fifth of its gross tonnage. Many of the larger passenger-cargo liners had a rather more cargo capacity. For instance the New Zealand Shipping Co's 17 knot Rangitoto (Br 21,809grt/49) had a deadweight of no less than 15,000 tons, largely for refrigerated cargoes which required, like passengers, fast transit. Other examples included Cunard's quartet of 22,000grt vessels built in 1954-57, and Elder Dempster's Accra (Br 11,600grt/47) which could carry 800 passengers (DSSME, 1954, p164; ISSD, 1969, pp26-27). There were also 'intermediate' cargo-passenger ships such as Elders & Fyffes Ariguani (Br 6,763grt/26) which could carry 67 passengers and Ellerman's four 107 passenger City of Port Elizabeth (Br 13,363grt/52) class ships. In these cases deadweight and gross tonnage were roughly equal (DSSME, 1954, pp165-167). Lastly many ordinary cargo liners could carry up to twelve passengers (higher capacity would force compliance with stringent and expensive regulations). In practice these categories tended to overlap; for instance the Glen Line's cargo liners usually carried more than 12 passengers (DSSME, 1954, p208).

Passenger vessels were generally designed for service on a particular route and like the cargo liner their characteristics were determined by the need to maintain service frequencies over a route of a certain length and volume. Thus the high volume of passenger transport on the relatively short North Atlantic route allowed Cunard to deploy large vessels such as the Queen Elizabeth (Br 83,673/40) which could carry up to 2,260 passengers at high speed (28.5 knots). The trade requirements could produce some highly specialised vessels. OTT used a pair of small motorships on its Singapore-Indonesia-West Australia route which were specially designed to carry livestock in addition to 46 passenger. They

also had flat bottoms so they could sit safely on the floors of shallow island harbours at low tide, a problem which also necessitated auxiliary machinery since the main engines could not be used to provide power (Maber, 1967, pp233-235; SM 3.87).

As with the cargo liner, companies introduced incremental improvements with each new generation of vessels. The pair of OTT vessels mentioned above were replaced in 1963 with a considerably faster (20 as compared with 14 knots) ship, the Centaur (Br 8,262grt/63), which was larger and could carry far more passengers (190 compared to 80 for the previous class). This resulted in lower crew and capital costs as only one vessel and hence one crew was needed (SM 3.85). Similarly P&O's Australia passenger services were maintained by fewer vessels of increasing passenger capacity and speed, producing increased economies of scale (Table 2.5).

By the early 1950s reconciling the needs of passenger and cargo transport in one hull was recognised in some quarters as a severe problem. For passenger transport higher speed and thus shorter voyage times not only meant fewer vessels were needed to maintain a service but also conferred a competitive advantage as passengers preferred shorter sea times. However cargo handling in port was far more time-consuming than loading or discharging passengers and their luggage. One estimate showed port time comprised only 37 per cent of the life of a passenger liner compared to 60 percent for a cargo liner (Cmd 4337, 1970, p172). Hence the carriage and handling of cargo prevented optimum performance in the field of passenger transport. This prompted Shaw Savill to order a highly innovative design in the early 1950s with no cargo capacity, thus separating cargo and passenger trade to allow better performance in the latter area. The new vessel, the Southern Cross (Br 20,204grt/55) was able to make four round voyages a year rather than three for a passenger-

Table 2.5 UK-Australia Mailships of P&O.

<u>Name</u>	<u>Year</u>	<u>grt</u>	<u>Knots</u>	<u>Passengers</u>
<u>Moldavia</u>	1903	9,500	18	510
<u>Moldavia</u>	1923	16,556	16	400
<u>Strathnever</u>	1931	22,270	20	1,188
<u>Strathmore</u>	1937	23,580	20	1,110
<u>Himalaya</u>	1949	27,955	22	1,159
<u>Arcadia</u>	1953	29,734	22	1,414
<u>Canberra</u>	1961	45,270	27	2,252

Source:- Compiled from Maber, 1967, pp1-41.

cargo ship of equal speed. Further the removal of cargo holds meant the layout of the passenger spaces was no longer restricted by the need for access to cargo holds, an advantage increased by moving the propulsion machinery aft which also reduced irritating vibration in passenger cabins. Other novel features included one class cabins, full air conditioning and the use of stabilisers to prevent pitching. The design was highly successful and a larger and more capacious (1,412 passengers compared to 1,160 on the earlier ship) consort was delivered in 1962 (Maber, 1967, pp150-151; de Kerbrech, 1986, pp7-42, 80-84).

While some other British operators produced similar designs which separated, to a great extent, passengers and cargo services (for instance the two 40,000grt liners built for P & O/Orient in 1960-61) not all British companies were so innovative. Royal Mail, despite being part of the same group as Shaw Savill (Furness Withy), took delivery of three strikingly unsuccessful vessels as late as 1960. These were the 'A' class reefer passenger-cargo ships capable of only 17.5 knots and carrying 464 passengers. Though carefully tailored to their trade they were financial failures, being removed from their original route after only nine years (passenger liners usually having an expected life of 25-30 years). In addition to being passenger-cargo ships they were also designed for three classes of passenger, which while being a common feature of vessels on the South American trades made them very difficult to operate on other liner routes, let alone as cruise ships. They did not compare well with the pair of 14,500grt vessels delivered to Ybarra of Spain in 1957-59 which were capable of carrying 823 passengers in two classes at 21 knots. An even stronger contrast was with Costa Line's Federico C (It 20,416grt/58), a 22 knot vessel of strikingly modern appearance carrying 1,148 passengers (Bonsor, 1983, p19, 32-33, 134-141, 443-447, 476-481).

Further comparison with the vessels of foreign operators gives a

mixed picture of the quality of British companies' designs. The three British transatlantic passenger operators, Cunard, Furness Warren and Donaldson all received pairs of cargo-passenger liners in 1947-48 which soon proved difficult to operate profitably. However this type was also popular abroad in the mid-1950s. CMB received two 16.5 knot vessels and Hamburg America the Hamburg (Frg 9,440grt/55) class (which carried 86 passengers at 17 knots). Indeed another Dutch operator, Oranje Line, made an even worse error of judgement than Royal Mail by taking delivery of two 8,550grt 115 passenger cargo-passenger ships in 1959-61. The second ship was delivered in the same year that Cunard and Furness Warren ceased to operate vessels of this type on the same route, and the Dutch company was forced to cease transatlantic operations only two years later.

The North Atlantic was also the route for which Cunard built four 22,000grt 20 knot passenger ships in 1954-57. While these were an improvement on the four old 14.5-16 knot vessels they replaced they were less than successful. F.E. Hyde described them as "the wrong ships" for their potential trades (Hyde, 1975, p294). Canadian Pacific received two very similar ships at the same time. The Empress of Britain (Br 25,516grt/56) had 380,000 cubic feet of cargo space compared to 300,000 on the smaller Cunarders and was equally unsuccessful, being withdrawn in 1964. In marked contrast, some foreign companies such as Holland America and Norwegian America produced single ships at short intervals whose secondary role was cruising rather than cargo carrying. The ships were far more successful than the Cunarders, as were the similarly sized vessels of Swedish America such as the Kungsholm (Swe 21,100grt/53). This company had a deliberate policy not only of producing innovative vessels but also of keeping a modern fleet by replacing its ships every 12 years, the oldest vessels then being sold off (Gibbs, 1970, p174). This was an excellent solution to a problem that bedevilled Cunard: the operation of

outdated liners such as the Britannic (Br 27,666grt/30) and the Mauretania (Br 35,677/39) against younger and more advanced competitors. The Italia Line for instance produced a pair of splendid modern liners in 1953-54 of roughly comparable type (29,000grt and 23 knots) followed by a further improved ship the Leonardo da Vinci (It 33,400grt/60). Similarly Cunard's two giant 29.5 knot express liners dated from 1936 and 1940 and had to compete with newer ships like the exceptionally fast United States (US 50,925grt/52), capable of 35 knots and tailored in part to military requirements, and CGT's France (Fr 66,348grt/61).

These questions of the relative merits of passenger liner design were rendered increasingly academic from the mid-1950s by the incursion of a non-marine method of long distance passenger transport - the passenger aircraft. The advantages of the aeroplane included the ability to take passengers directly between inland terminals whilst sea passengers had to transfer to land transport systems if they wished to journey beyond the passenger liner's destination port. Secondly, aircraft were far quicker, an advantage which increased as fast jets were introduced. A transatlantic express liner took four days or more to travel the distance covered by a Boeing 747 in six hours. Such speed rendered most of the expensive hotel equipment and staff unnecessary. While the Southern Cross (Br 20,203grt/55) carried a maximum of three passengers for every crewman a 747 jet could carry up to 20 passengers for every crew member.

The potential of air travel was not fully recognised in the early post-war years as both air and sea passengers increased simultaneously on the North Atlantic. Cunard believed that the two were complementary as some passengers preferred a more leisurely crossing than that provided by the 'jet lag' inducing aircraft (Hyde, 1975, p296). In fact, since long distance aircraft took time to become operational in significant numbers, in an expanding passenger market such as the North Atlantic both sea and

air transport could for a while expand simultaneously, in this case until 1958 when air travel exceeded sea passages for the first time. The date of the overtaking of marine travel varied from route to route. While aircraft achieved supremacy as early as 1955 on the UK-India route this did not occur on the South Africa run until 1963 and until 1972 in the Antipodes trade (Cmd 4337, 1970, pp88-93; AAS, 1974, p251). Though the airliner's superior speed best emphasised its competitive advantages on the longest routes the delay in bringing satisfactory very long range aircraft into service, together with the necessary infrastructure, resulted in the apparent anomaly of the longest sea routes being the last to succumb to aerial competition.

Passenger liners' ability to compete with aircraft was very limited. The slow overall voyage times of cargo carrying vessels emphasised the advantages of the single role passenger carrier over passenger-cargo liners. For instance Ellerman's cargo-passenger vessels were withdrawn from the South Africa route in 1971 while the 23 knot passenger mailships of Union-Castle remained in service until 1977. This also showed that though vessels with considerable cargo capacity were the first to be rendered redundant by air travel, the advantages of the aircraft were so great even the fastest all-passenger vessels were rendered obsolete. Consideration was given by the Dutch shipbuilders Verolme to a 100,000grt express liner. This project and a similar one for an 8,000 passenger liner hoped to compete by offering very cheap passages at high speed. However displacement vessels could not be operated at speeds over 40 knots, and then only at great cost and these projects were never put into practice since they could not overcome the economic and technical advantages of aircraft (Maritime Transport, 1959, p19; MSWB, 1960, p7; Schonknecht, 1983, pp76-77).

Their inability to compete directly with aircraft the use of deepsea

passenger vessels as a means of transport became restricted to routes with insufficient trade volumes to support an air link. The sole British example is St. Helena Shipping which has operated since 1977 and ordered a 126 passenger vessel in late 1987. Though dual purpose cargo and passenger vessels are inefficient, the trade is so small that it cannot support separate cargo and passenger vessels and hence the two functions are combined (SM, 12.87, 1.88; Mitchell and Sawyer, 1984, pp155-156).

Given the airliner's technical advantages the extent to which British shipowners attempted to comply with the technological trend is important. All the major groups operating large passenger liners attempted to become aircraft operators in the post-war period. Some of the companies with which they were involved are shown in Table 2.6. A number of tramp operators also attempted to become involved in air transport: Hunting in Hunting Clan and Lyles and Hogarths via Caledonia Airways for instance (MN 7.79; Hunting, 1968, pp68-76). However this proved very difficult. First the technical redundancy of the passenger liner resulted in financial losses which made the acquisition of large, expensive jet aircraft very difficult. Cunard's failure to maintain its involvement in BOAC is a classic example of this problem (Hyde, 1973, pp296-302). Secondly, the aviation markets were frequently unprofitable, compounding the earlier problem, a characteristic which resulted in OTT's abandonment of air transport (OSSCo. ARs, 1967-70). Thirdly liner, as opposed to charter, aircraft needed licences usually negotiated at government level. This not only restricted access but, since the British government had already created BOAC to operate on British licensed routes, it also prevented shipping companies using aircraft for liner operations.

While deepsea passenger vessels became redundant as a form of transport an alternative market already existed (Chapter 3d). Leisure cruising had long been used for the off-season employment of passenger

Table 2.6 Involvement of British Liner Shipowners in Aircraft Operation.

<u>Shipowner</u>	<u>Date</u>	<u>Airline</u>
Blue Star	1944-46	British Latin American Airlines
Lampport & Holt		
Booth SS Co.		
Royal Mail/PSNC		
P&O	1956	Silver City Airways (cross Channel) Britavia (Trooping and charter) Aquila Airways (Mediterranean flying boats)
OTT	1967-70	Transglobe Airways Bahamas Airways
B&C		Hunting Clan Airholdings Air Anglia British Air Ferries
Cunard	1959-62	Eagle Airways
	1962-66	BOAC-Cunard (London-New York)
John Swire		Cathy Pacific
Donaldson		Caledonian Airways
Ben Line	c. 1956	Atlantis Air

Sources:- Annual reports of the companies.

liners but some operators recognised that cruise operations were best served by specially designed vessels. Furness Withy for example built dual purpose cruise-liners from the late 1920s. Cargo capacity was largely unnecessary, as were high speeds, since the passenger was taking a holiday rather than wishing to reach his destination as quickly as possible. In addition a universally high standard of accommodation and passenger facilities was required for reasons explained later. Thus the Ocean Monarch (Br 13,650grt/51) had little cargo capacity, operated at an economical 18 knots and carried 414 passengers - all first class (Gibbs, 1963, pp318-321; Braynard and Miller, 1985, pp166-168).

Furness Withy's Bermuda line was not the only British operator to design vessels for cruising. Shaw Savill (an associate of the same group) used liners such as the Southern Cross (Br 20,204grt/55) with similar characteristics from 1955 and P&O/Orient's Canberra (Br 45,270grt/61) and Oriana (Br 41,923grt/60) were also built with an eye to cruise operations. Cunard's first cruise liner was less successful. The Caronia (Br 34,172grt/48) while offering all first class accommodation lacked facilities such as full air conditioning. Worse she was poorly designed from the viewpoint of economic operation, for despite her size she carried only 600 passengers who were outnumbered by the crew. This vessel should have been the best equipped in Cunard's fleet to survive the impact of air transport, but was ironically the first to become unprofitable due to its uneconomic design (Braynard and Miller, 1985, pp191-193; Hyde, 1973, p284, 313).

Smaller operators such as Blue Star used ships with high cargo capacities due to the small volumes of passenger traffic. In consequence they lacked the wide range of facilities available on large passenger vessels. These ships were therefore unsuitable for cruise operation which entailed either radical rebuilding of existing vessels or the acquisition

of new tonnage. Both British and foreign owners of such vessels rarely attempted to acquire cruise ships, a feature due in part to the losses resulting from liner passenger operations. Only OTT in the early 1980s and Royal Mail from 1960 attempted to run single role cruise ships. For the operators of '12' cargo liners the situation was similar but the passenger accommodation was sufficiently limited to make the vessels' viable as single role cargo ships.

The potential British cruise ship operators were thus reduced to companies operating large passenger liners. Several companies chose to operate minimally converted large passenger liners. B&C used the redundant liner Reina del Mar (Br 20,234grt/55) from 1965 and bought her outright in 1973, Furness Withy attempted cruising operations in the 1970s with the former liners Northern Star (Br 24,733grt/62) and Ocean Monarch (Br 24,467grt/57). However these ageing vessels, designed for a different trade, proved unsuccessful and were withdrawn in 1975. Another member of the Furness Withy group had a similar experience with the elderly liner Andes (Br 22,608grt/39) which was used as a cruise ship from 1960. While these British operators used unsuitable vessels this was also true of some foreign former passenger liner operators such as CGM of France.

The more successful foreign operators of former passenger liners radically redesigned their ships. Even when British companies did attempt this they were frequently unsuccessful. Cunard spent £2m on rebuilding two 22,000grt passenger-cargo ships as cruise liners. However this did not prevent their withdrawal only eight years later when it became apparent an even more radical renovation was needed. In contrast a new company, Sitmar, acquired two unmodernised sisterships which were completely rebuilt from the machinery spaces up in 1971. Unlike the Cunard conversions economical operation was emphasised. While both had 450 crewmen the maximum capacity of the Sitmar vessels was 925 passengers

compared to 600 on the Cunard ships and had the added advantage of low cost crews (SM 1.85, 2.85). Though Cunard was encumbered with the losses of passenger liner operations the situation could only be exacerbated by expenditure on poor conversions.

While most British owners ceased deepsea passenger operations some foreign operators such as NCL (Kloster group) and RCCL (Gotaas Larsen and I.M. Skaugen) rather than seeing the decline of the passenger liner as a barrier produced the first of a breed of purpose built cruise ships. These expanded on the design features of the best cruise liners like Home Lines Oceanic (Pa 39,241grt/65) which combined high class accommodation and modern public rooms with an aft propulsion plant. All were under 20,000grt, a limitation considered necessary for visiting remote shallow draft ports and also influenced by the anticipated size of the market. Speeds were an economical 20 knots and other cost reducing devices were used. The best possible use was made of internal spaces and most cabins were given outside views, another feature taken from a successful cruise liner - the Kungsholm (Swe 21,141grt/53). In contrast to these radical innovations to suit the changing market from the late 1950s the remaining British operators ceased to order new passenger vessels and thus condemned themselves to operating old, often ill-adapted ships in competition with better foreign vessels. Only P&O with its Spirit of London (Br 17,320grt/72) and Cunard, which received a pair of 14,000grt vessels, acquired modern cruise ships and it is notable that they were the only British companies to successfully accomplish the transition from liner to large scale cruise operations.

As with other types of ship, cruise ship design did not stand still. NCL's successful conversion of a former transatlantic express liner to the large cruise ship Norway (Ba 70,202grt/60) in 1980 for \$80m prompted a wave of designs over the 20,000grt limit and the smallest cruise ships

were already proving difficult to operate economically. Cunard for instance replaced its small cruise ships with a pair of 17,000grt 927 passenger vessels in 1976-77 (THI ARs, 1975-77). Ship sizes have increased drastically to gain economies of scale (Table 2.7), a trend whose current zenith is the Sovereign of the Seas (Li 74,000grt/87) capable of carrying 2,282 passengers, though the far larger 'Phoenix' design has been seriously contemplated [The giant cruise liner Queen Elizabeth II (Br 66,541grt/68) was seen as a unique exception with a special market in her earlier years]. Draft problems with the large cruise ships are countered by designing for minimum draft and installing manoeuvrability enhancing devices such as bow thrusters though grounding accidents are common. The newest cruise ships are also designed to maximise deck space, with a high superstructure running almost the full length of the hull. Only one new large cruise ship has been ordered by British operators - P&O's Royal Princess (Br 44,384grt/84). The reason lies in part with the different markets catered to by British companies, large new ships usually being intended for the high volume sectors. Smaller cruise ships like the Princess Mahsuri (Frg 7,813grt/80) have been built for smaller markets, in this case Singapore based cruising. The operation of cruise ships in such markets distant from the passenger's country of origin has been aided by the use of air transport (fly cruising).

Another market factor (Chapter 3d) has given a new lease of life to the carriage of passengers on cargo vessels. For instance Britain's ACT has refitted several container ships with cabins for ten passengers, crew reductions having made space for paying rather than paid passengers (MNP 3.12.87). The most ambitious project is the Norwegian Ivaran Line's 1,120 TEU ship with space for between 88 and 110 passengers, the large complement allowing the inclusion of amenities unavailable on most cargo vessels (SM, 8.87, 12.87).

Table 2.7 Growth in Maximum Sizes of Cruise Ships.

<u>Name</u>	<u>Year</u>	<u>grt</u>	<u>Knots</u>	<u>Passengers</u>
<u>Starward</u>	1968	12,949	21	928
<u>Skyward</u>	1969	16,254	21	920
<u>Nordic Prince</u>	1971	18,436	21	1,194
<u>Royal Viking Sun</u>	1972	21,847	21.5	812
<u>Vistafjord</u>	1973	24,292	20	670
<u>Tropicale</u>	1981	36,674		1,442
<u>Holiday</u>	1985	46,052		
<u>Sovereign of the Seas</u>	1988	74,000		2,282
<u>Phoenix</u>	*	210,000		5,000

* This ship is currently only a paper project.

Sources:- RS various issues.

British companies' record of innovation in passenger liner design displayed wide disparities. Even within a single liner group one line might display an impressive grasp of technical trends and produce vessels equal or better than those of foreign competitors while another member could build costly new ships of outdated or inefficient design. This mixed record is also evident among foreign passenger liner operators so where a poor British innovator was matched against better foreign ships the company would suffer as a result, though the reverse was true in other cases. The challenge of aerial transport prompted some but by no means all British passenger lines to make gallant, but largely fruitless, efforts to adopt the airliner. Though viable competition with aircraft proved impossible passenger ships had the alternative of the cruise market. However British and foreign liner operators predilection for using unsuitable former liners for cruising was a vital factor in their failure to survive in the new market. The companies which succeeded did so by emulating the innovative foreign new entrants who recognised the need for a distinct design of vessel for cruising.

2e) The Organisation and Effectiveness of Technical Research.

In exploring the role played by Britain in producing the post-war technical innovations the obvious starting point is the work of the professional marine research organisations. In the inter-war years research was concentrated at the ship division of the National Physics Laboratory, founded in 1910, and at a few shipbuilders such as Denny's. Research focussed on improved hull forms and similar relatively minor technical improvements and was subsequently criticised by the Rochdale Inquiry as lacking sufficient funding, staff and equipment with the result that "the contribution to technical progress of the planned programmes of R and D was small" (Cmnd 4337, 1970, p180; Pyatt, 1983, pp114-118). This

argument is supported by the government's decision to set up the British Shipbuilding Research Association (BSRA) in 1944. BSRA and the NPL were joined by a wide array of organisations including government departments, commercial companies, classification societies, international organisations such as the International Maritime Consultative Organisation (IMCO) and groups concerned with particular aspects of the marine industries, for instance the Shipowners Refrigerated Cargo Research Association. The number and diverse purposes of these bodies and others in other industries which impinged upon the field of marine technology [for example the British Iron & Steel Research Association's ore carrier designs of the early 1950s (BISF AR 1951)] resulted in poor co-ordination and duplication of research work. The Rochdale Report stated that "the existing fragmentation of government R and D work on shipping and shipbuilding is a disincentive to the effective placing and executing of work (Cmnd 4337, 1970, p209).

Rochdale's solution was to unify the government supported research organisations to improve co-ordination, following the organisational format of the highly regarded Japanese (JAMRI) and American (US Maritime Administration (USMA)) research efforts. However this recommendation was not put into effect, even inside the NPL. It was not until 1976 that the Ship Division and the Maritime Science Division were merged to form the National Maritime Institute, while this body and BSRA were amalgamated to form the British Maritime Institute (now the private company British Maritime Technology) only in the mid-1980s (Pyatt, 1983, pp202-205; FT 2.4.85). This merger produced a single organisation with 500 staff and some excellent equipment (for example the world's most advanced oiling and ship design wavepool). But the concentration of British research efforts had taken an unconscionably long time to achieve in comparison with other developed states. Further, this improved structure was achieved at a time

when the dearth of new ship orders meant BMT experienced great difficulty in attracting work (ST 15.3.87).

A second problem area was the lack of shipowner involvement in marine research. The main commercial involvement came from the shipbuilding and marine engineering industries, as indicated in BSRA's name. This was not a post-war phenomenon. Shipbuilders had a long history of aiding research, for instance Sir Alfred Yarrow's financing of the NPL testing tank at the same establishment in 1937 (Pyatt, 1983, pp114-118). Government concern at shipowners apparent disinterest led to schemes in 1955 and 1964 which aimed at increasing shipowner's participation in marine research, but these achieved limited success. While research for shipowners rose from five to 26 per cent of BSRA's budget in 1964-67 it fell the following year to a mere nine per cent. This fall was attributed by the Chamber of Shipping to its members carrying out their own research, also a possible reason for shipowners' low involvement in earlier years (Cmnd 4337, 1970, p184). Though technical or engineering departments were a standard feature of shipowners organisations these were mainly concerned with maintenance and operations rather than research. However some larger companies (mainly the liner groups) did work closely with shipbuilders, with whom they often had a close and long established relationship, in designing their vessels, for instance Cunard and John Brown. Even so it was not until 1958 that B&C became the first British shipowner to set up an internal organisation concerned purely with technical research. Its example was emulated by some but not all shipowners. In 1970 the Rochdale Report noted critically that some large groups had yet to follow suit, though British shipowners claimed to be spending some £3,596,000 on research (including non-technical work) compared to £1,300,000 by BSRA in 1968-69. Further for small shipowners the maintenance of indigenous research staff would be uneconomic given the small numerical strength of

their fleets and hence the paucity of work on new vessels. This could be circumvented by attracting outside work which, together with internal contracts, would allow the retention of a technical research and design team as at Harrisons (Clyde) [Harrisons (Clyde) brochure].

The small tramp shipowners' difficulties were reinforced by the method of awarding shipbuilding contracts, whereby the shipowner determined the basic characteristics of the vessel. Given their tendency to be out of touch with technical developments new vessels frequently represented slight improvements on earlier ships, such as being somewhat larger or faster, rather than radical technical advances. This was unfortunate since a greater input by the shipbuilder might well have resulted in more innovative designs. Certainly British shipbuilders did build advanced vessels for foreign owners - for instance Vickers-Armstrong's pair of 47,000dwt tankers for Niarchos of 1956 or the 31,000dwt ore-oil carriers built by Furness and Swan Hunter (MSWB, 1956, pp60-61; MSWB, 1957, p65). By the late 1960s the situation improved with the move to the 'design contract' system of awarding shipbuilding orders which Rochdale stated "Should afford a better opportunity for investigating possible new technological developments and incorporating them into improved ship design" (Cmd 4337, 1970, p196).

The shipbuilders could have offered another solution by using their greater technical research experience to formulate advanced standard ship designs. This had occurred in the past - for instance Doxford's standard tramp of the 1930s. However such designs were rarely forthcoming from British shipbuilders in the 1950s while Dutch shipyards offered advanced designs such as the Universal Bulk Carrier which were used by some foreign shipowners (Wyt's Digest, 1961, p15). British shipowners by their persistent reliance on British shipbuilders were not directly offered these designs. Indeed they arguably reduced the incentive to British

shipbuilders to devise advanced designs since the latter were assured of orders due to the close relationship common between individual shipbuilders and shipowners. It is notable that when British shipowners began to turn to foreign yards in the 1960s this not only coincided with their adoption of new vessel types but also with British yards' development of successful standard designs such as the SD-14.

The absence of British shipowners from the technical research field in the 1950s also had a vital impact on Britain's role in developing the new vessel types which have been the salient feature of post-war marine technology. The most of these designs originated with shipowners who perceived requirements for novel designs, with the basic concept then being moulded into a workable design by naval architects and marine researchers. For example the development of the OBO by the Naess group or the large gas carrier developed by American industrial carrier interests (Table 2.8). Thus British shipowners' isolation from technical research was influential in the foreign origin of the major new concepts. This was a marked contrast to the nineteenth century when British shipowners and shipbuilders played the leading role in technological innovation.

The importance of being the developer of a new ship type is limited since it has not been possible to prevent foreign competitors from adopting it, as shown by British lines' conversion to unit transport in the early 1960s (section 2c). It was fortunate for British shipping that this was the case, for as C.H. Whitehurst said "It is hard to imagine the pre-eminent place US Liner shipping might have today if the container ship concept could have been protected by a twenty-five year patent" (Whitehurst, 1983, p145). Nevertheless the development of a successful new concept could confer significant advantages on the developer. Sealand, the originator of the container ship, was able to build its operations from very small beginnings in the mid-1950s to become the world's leading

Table 2.8 Origin of New Vessel Types.

<u>Type</u>	<u>Developer</u>	<u>In Service</u>
Container ship	M. McClean founder of Sealand (USA)	1958 (1)
LASH ship	USMA and US shipowners	1969 (2)
Bulk carrier	E.D. Naess, Norwegian shipowner	1956 (3)
Large tanker	Shipowners including Onassis, Niarchos and D.K. Ludwig.	1950s (4)
OBO	E.D. Naess, Norwegian shipowner	1965 (5)
LNG tanker	US industrial interests	1962 (6)
Module carrier	MOL and NYK of Japan and Japanese plant manufacturers.	1984 (7)
OSV	US Gulf oil producers.	1956 (8)

Sources:- 1) Van den Burg, 1969, pp151-154.

2) Whitehurst, 1983, p45.

3) Naess, 1977, pp137-138.

4) MSWB, various issues.

5) Naess, 1977, pp144-151.

6) Whitehurst, 1983, p145.

7) Tatsuki and Yamamoto, 1985, pp198-199.

8) SM 9.87.

liner operator with a fleet of at least 59 owned and chartered vessels in 1984 (JFC 1984, pp369-371). Similarly the innovative policies of operators such as Naess, Niarchos, Onassis and more recently Jepsens have been a major factor in their rapid expansion. The advantage of technological leadership can also be seen in the more dynamic approach of nineteenth century British shipowners who developed the refrigerated cargo ship. This, coupled with rapid adoption, laid the foundation for Britain's long domination of the reefer trades, in which the Merchant Navy possessed the world's largest fleet as late as 1983 (GCBS, 1986, p84). Thus British owners by not producing the numerous post-war technological advances have forgone very considerable potential advantages.

While British shipowners' non-involvement in developing major technical advances can be linked to their general low level of interest in research this obviously cannot be applied to the marine research organisations themselves. One problem was their tendency to pursue pure research rather than work immediately useful to shipowners, an obvious rationale for the latter's development of their own research organisations and limited interest in the scientists' programmes. A good example was the international scientific emphasis from the 1940s on developing nuclear ship propulsion. Such programmes became technological virility symbols, despite the fact that their colossal capital cost made them economically unviable. This problem induced the persistent refusal of government and shipowners to contemplate such a programme in Britain, to the chagrin of researchers whose views were typified by the New Scientist editorial 'Need Britain lag' (NS 9.7.59).

In the late 1970s and the 1980s developed states including Holland, Japan, Germany, Norway and France again pursued parallel high profile research projects like Britain's Efficient Ship Programme. Unlike the nuclear power projects they had a strong economic basis since they

intended to reduce operational costs, for example through low manning. These programmes' value partly came from co-ordinating, and thus improving the overall effect of, numerous individually minor strands of earlier research. These included the testing of designs to reduce their air and water resistance or improving propeller cavitation qualities, work begun after the Great War and continued thereafter (Chapter 4a and b).

British researchers concentrated on these small projects rather than emulating the more ambitious Japanese and US projects which could have produced commensurately important results. In America USMA developed its own advanced designs which it then pressed upon shipowners, whose readiness to adopt them was enhanced by their need for financial aid from USMA for shipbuilding. In 1955 for instance USMA produced four advanced cargo liner designs as well as innovative blueprints for a 20,000dwt all aft bulker and a 4,400dwt RO-RO vessel (MSWB, 1956, pp88-91). Similarly in the 1960s the USMA produced the LASH method for carrying unitised cargo. But this project was more attractive from a research point of view than from an economic one. While very advanced technically it is also more expensive and complex and has less container capacity than the container ship.

Britain's post-war marine research effort can thus be seen to have expanded considerably until the late 1970s, though its organisation left much to be desired. Much of the work, though valuable, did not compare in potential with some of the more ambitious efforts of foreign researchers and shipowners. The nature of the shipowner-shipbuilder-researcher relationship in Britain tended to both limit the scope of research and to prevent the Merchant Navy capitalising on it. This latter point can be linked to the shipowners' comprehension of and receptiveness to technical advance (Chapter 6f) The importance of a strong research effort should be seen in the context of many shipowners from undeveloped states which lack

research programmes yet operate successfully. They swiftly adopt other states' research, aided by the marketing of up-to-date designs by shipbuilders and also have operating cost advantages which make technical advance less vital than for British owners (Chapter 4a). While research can confer great advantage it is the adoption of new technology which is the fundamental need. Nevertheless for a shipowner to acquire the most modern and economical vessels he must be aware of technical trends. In the British case there was an apparent lack of such awareness, reflected in poor designs, particularly among smaller companies in the early post-war years.

CHAPTER THREE

The Markets for Shipping

Up to 1939 the main shipping markets were similar to those of 1890. The growing independent tanker sector was still small, with bulk dry cargo remaining dominant in the tramp trades. The passenger and cargo liner sector had not altered greatly, although individual liner routes had changed. As in the technical field, the post-war years saw radical developments. The crude oil trade expanded massively and the dry bulk and general cargo sectors which had previously overlapped due to the use of similar vessels became separated. In the passenger field the old liner market virtually disappeared and was replaced by the rapid growth of the hitherto minor subsidiary trade in leisure cruising. Other previously minor parts of the old markets, such as log carrying and heavy cargo in the general cargo trades, were hived off as specialist trades in their own right. There was also the evolution of totally new non-liner trades like the carriage of liquified gases. British operators were often accused of being slow to adapt to these changes. Though this could also be applied to competitors like Germany and the Netherlands, these had always concentrated on the liner sectors while Britain (like Norway) had operated in the full spectrum of trades since the nineteenth century.

The four main market sectors (tanker, dry bulk, general/liner cargo and passenger) are considered in the first four sections, their relative importance in terms of capital employed being given in Table 3.1. This parallels the initial four sections of Chapter 2, reflecting the close relationship between markets and technology. These sections show the markets' great volatility, particularly in the bulk trades, despite their strong growth on a pattern not seen since 1914. Reconciling this with profitable operation made market prediction (section 3e) of vital

Table 3.1 Capital Employed in the Sectors of the Shipping Industry.

<u>Sector</u>	<u>1958(%)</u>	<u>1963(%)</u>	<u>1969(%)</u>
Tanker	5.0	8.8	8.7
Dry bulk	17.0	18.2	22.3
Cargo liner	54.6	49.2	54.1
Passenger	23.6	23.8	14.8

Source:- calculated from Cmnd 4337, 1970, pp458-475.

importance. However, the difficulty and limitations of this made insulation against market fluctuations very useful to shipowners, while shippers had an interest in ensuring the long term availability of suitable ships at reasonable cost. The scope for long period charters or other forms of cover, which had been very limited in the inter-war years, rose considerably in the tramp trades. By contrast in the liner trades market insulation via the conference system had been well established since the early 1900s. Like the methods used in the tramp trades it had its limitations. Sturmev, for example, saw conferences as positively detrimental in some respects, not just in exciting shippers ire, but also in its effect on the dynamism of the conference members themselves (Sturmev, 1962, pp350-358).

3a) The Tanker Markets.

In 1945-73 demand for the transportation of mineral oil was affected by a variety of strong positive factors. First, the partial substitution of oil for coal as an energy source. Second, the expansion of the industrial uses of petroleum, for instance for the production of petrochemicals and plastics. Third, the general economic expansion of the post-war years acted to increase both industrial and energy requirements for oil. Fourth, the decline of oil production in or near important consuming areas. The most important example was the change in the position of the USA from an exporter to a net importer of oil, a shortfall not covered by South American production. Thus remote producing areas such as the Middle East filled the gap with consequent increases in sea transport needs. Fifth, refining was switched from producer to consumer states due to the risk of losing valuable plant in the political instability which followed decolonialisation. This led to the substitution of crude oil for oil products on long haul routes, the volume

of the former being greater than the latter. Finally, the increasing efficiency of the tanker (Chapter 2a) lowered transport costs and hence the price of oil, which acted to increase demand.

The cumulative effect of these factors can be seen in Table 3.2, which, though it covers all tanker cargoes, is a reasonable approximation of oil transportation requirements due to the latter's dominance of the sector. Between 1937 and 1973 this market expanded by a factor of eighteen in tonnage terms. Further, the stability of the growth rate, as indicated by the smooth rise in oil cargoes, shows an apparently ideal market without problematic fluctuations in growth. These conditions provided the basis for D.H. Aldcroft's criticism that "one of the fastest growing sectors was the shipment of oil yet ship-owners in this country neglected the tanker market for most of the period" (Aldcroft, 1975, p246).

From 1973, however, the demand for oil transport was hit by negative factors such as production quotas and hikes in the price of crude oil. This produced not just a reduction in the growth of the market but an 11 percent fall in absolute terms in 1973-75 in the tonnage of oil carried. There then ensued a shortlived return to rising demand, though demand did not exceed the peak of 1973. From 1980 there was a second round of oil price rises which were combined with a worldwide economic recession. New consumer-located oilfields in Alaska, in North America and in the North Sea in Europe also began to be exploited. These factors led to a massive 31 percent decline in the world oil trade in 1979-83 (GCBS, 1986, p89).

In addition to these long term trends in the demand for crude oil, there were important short term factors. Other things being equal, the demand for oil transport tends to be low during the Northern summer due to reduced energy consumption. Similarly stockpiling such as that carried out by Japan in the early 1980s for strategic reasons or by oil traders in

Table 3.2 World Trade by Volume 1929-75.

Year	Dry Cargo		Tanker Cargo		Total	
	<u>m tons</u>	<u>index</u>	<u>m tons</u>	<u>index</u>	<u>m tons</u>	<u>index</u>
1929	390	104	65	62	455	95
1937	375	100	105	100	480	100
1950	299	80	225	214	254	109
1955	440	117	350	333	790	165
1960	540	144	540	514	1,080	225
1965	775	207	862	821	1,637	341
1970	1,123	299	1,440	1,371	2,563	534
1975	1,389	370	1,644	1,566	3,033	632

Source:- Calculated from BSS various issues.

anticipation of future oil price rises tends to raise demand temporarily, only to depress it when the stockpiling is completed or stocks are later run down. The market for crude oil is also divided into separate trades: for instance from the Persian Gulf there are major routes to Japan, the Mediterranean, Northern Europe and North America which may exhibit different levels of demand at any given time. Thus a shipowner needs to have a 'feel' for the market by, for example, having his vessel available for charter in the Gulf when one of these short term factors causes a peak in demand.

These factors relate to the tonnage of oil transported but a full picture of the oil transport market can only be gained by including two other elements. First, the total demand for oil transport involves not just the tonnage of oil but also the distance it is carried. Thus the closure of the Suez canal in 1956-57 increased the length of the Gulf-Northern Europe route from 11,500 to 21,000 kilometres with a consequent rise in the demand for vessels. Second, there is the supply side of the equation, comprising the capacity of the tankers available. The state of the whole market is reflected in freight rates which bring together the effects of trends in both demand and supply.

Before the Great War the tanker trades were small. Most tankers were controlled by Standard Oil of the USA, though the Anglo-Dutch Shell group also had a large fleet, the oil companies controlling 90 percent of world tonnage. American interests placed a large proportion of their tankers under the Red Ensign which flew over 56 percent of the world tanker fleet in 1900 (Ratcliffe, 1985, pp41-42). This foreign ownership of much of the British fleet continued to be a salient feature throughout the inter-war years, though Shell was joined by another major British industrial carrier operator Anglo-Persian (later BP) and by smaller companies such as Burmah. There were few British independent operators in 1940 (J.I.

Jacobs, Gow Harrison, Hunting, Bowring, H.E. Moss, Stanhope and Hadley Shipping) and their fleets were small (Talbot-Booth, 1940, p441). In contrast, Norwegian independent shipowners like Laboremus built up a tanker fleet of over 2mdwt by 1939 (Sturmey, 1962, p80; Laboremus AR 1988).

British independent owners' low involvement in tankers put them at a disadvantage in exploiting the strong market of the early post-war years as the demand for oil, stimulated by the war, expanded while the world tanker fleet had been depleted by war losses. Many Greek and Scandinavian operators such as the Bergen Line bought tankers for the first time and benefited from the greater strength of the market when compared to the dry bulk trades (section 3b) (Kielhau, 1953, pp300-302). In contrast E.T. Radcliffe which acquired tankers from 1947 was exceptional among British operators (Jenkins, 1982, p70). Most used their restricted financial resources to rebuild their dry cargo fleets and did not begin to buy tankers until the mid-1950s. Hopemount Shipping acquired its first tanker, the Hopemount (Br 19,010/53) in 1953, while Hogarth's had only one tanker among a fleet of 22 vessels in 1954 (DSSME, 1954, p240, 248). Britain was not alone in this, Wyts Digest stated that Dutch "owners have only moved into the tanker field with considerable caution" though their tramp sector had long been far weaker than in Britain (Wyts Digest, 1961, p34). The small scale of tanker acquisitions can be linked to financial factors and also to the relatively depressed conditions of 1954-55, though tanker operators benefited from the massive but shortlived boom caused by the closure of Suez in 1956.

The reopening of the canal in 1957 drastically reduced demand while the supply of vessels remained inelastic, resulting in a severe depression. Vessels ordered during the boom continued to be delivered over the ensuing years. In 1959 world tanker launchings were still double

the level of 1956 and the size of the world fleet did not level off until 1962 when it totalled 45.4mgt. The scale of excess tonnage is indicated by laid up tonnage which peaked in 1959-60 at ten percent of the world fleet (BSS 1968-69, p19, 45). The actual level was even higher due to underutilisation of operating ships. Coping with overtonnaging and the subsequent poor freight rates was extremely difficult since individual owners could do little to combat these problems after their onset (section 3f i).

The effect of the depression on British companies was worsened by their belated entry into tanker ownership, since they were hit by the prolonged poor market after only two or three years of the earlier stronger markets. While the effects would have been countered in some cases by time charters agreed in the preceding strong markets, the length of the depression (from 1957 to 1966) meant that ships would have in many cases come off charter during the depression. The small size of most of British independents' ships meant they lacked the economies of scale which enabled larger ships to operate profitably in poor markets. This small size also made them less attractive to charterers who could choose larger vessels, which were often available at lower freight rates. Thus the depression not only produced poor financial results from existing tankers but also deterred owners from building tankers and discouraged others from becoming tanker owners. So by 1968 only nine percent of the British tanker fleet was owned by tramp companies and, even when tonnage owned by liner groups was added, three-quarters of the fleet was owned by oil companies. The large British industrial carriers BP and Shell reduced their rate of expansion after the delivery of tonnage ordered before 1957 when oil transport costs were high. Thereafter their interest lay in taking advantage of cheap independent tonnage rather than committing their resources to owned tonnage.

The British flag fleet continued to grow until 1962 when at 7.5mgt it was two and a half times its pre-war size, markedly less growth than in the world fleet which had quadrupled. From 1962 to 1967 British tanker tonnage remained static as did its share of capital employed in the industry (Tables 3.1, 3.3). However, despite the generally poor market some national tanker fleets did expand. Norwegian tanker tonnage, having trebled in 1939-62 despite the absence of large oil company fleets, grew from 6.7mgt to 10.1mgt between 1962 and 1967. Danish tonnage grew by 36 percent and Italian by 46 percent while the Japanese fleet nearly trebled to 6.5mgt (BSS 1968-69, p19).

The continued growth of an already overtonnaged tanker fleet meant that despite the rising demand for oil transport the market only improved gradually. Though from mid-1963 tankers laid up never exceeded 1mgt, rates remained depressed. It was not until Suez closed in 1967 that the market took off again. Intascale rates for the Persian Gulf-UK run rose from -65 percent to +70 percent, though the major oil companies tried under OECD auspices to hold down rates and their transport costs. The majors failed despite owning 35 percent of the world fleet in 1970, providing most of the independent shipowners cargoes and co-operating together to create a world-wide oil transport system (Ratcliffe, 1985, p119).

Generally after 1967 strong markets persisted despite the rapid expansion of the world tanker fleet which had been prompted by good freight rates. In 1967-77 when the the orders engendered by the boom conditions were completed total tonnage rose from 67.3mgt to 180.5mgt (343mdwt) (BSS 1979-80, pp20-21. Within this very strong general picture there were fluctuations. 1969 rates were considerably below those of 1967-68 though above the pre-1967 level. After a major boom in 1970 rates slumped in late 1971 and 1972 only to rise to unprecedented heights in

Table 3.3 Composition of the British Tanker Fleet (mdwt).

<u>Year</u>	<u>Combos</u>	<u>Oil Tankers</u>	<u>Gas Carriers</u>	<u>Chemical Tankers</u>
1939		4.5		
1950		6.3		
1956		7.8		
1962		11.1		
1968	0.2	13.7		
1971	1.2	21.5	0.1	0.1
1974	4.4	27.2	0.5	0.2
1976	5.4	29.0	0.8	0.3
1979	3.8	21.8	1.1	0.3
1982	1.8	16.9	1.0	0.2

Sources:- BSS various issues.

1973 in the uncertainty caused by the Arab-Israeli war. At its peak VLCCs commanded rates of Worldscale 410 only to fall within weeks to Worldscale 60 (GCBS, 1986, p89). Tanker owners' potential profits were enormous under such conditions with a VLCC's total costs estimated at Worldscale 30 (Ratcliffe, 1985, p156).

The British flag tanker fleet doubled in 1965-75 from 13.2dwt (8.5mgrt) to 30.8mdwt (17mgrt). Even so its share of the world fleet fell from 14 to 11 percent (BSS 1979-80, pp20-21). This relative decline was enhanced by the foreign ownership of many British tankers, both by oil companies and independents like Fred Olsen (ISSD, 1969, p12). The British owned fleet was dominated by Shell and BP which in 1976 owned 14.4mdwt and 5.7mdwt respectively, though not all were British flagged. Two smaller companies also built up large fleets. Ultramar owned at least eight tankers totalling 300,000dwt in 1972 with five more aggregating 430,000dwt on order, mainly under foreign flags (Ultramar, 1985, pp230-234). Burmah's programme was even more ambitious with 50 owned and chartered vessels acquired under a plan for a complete transport package from the Gulf to the USA with a transshipment terminal in the Bahamas (Burmah ARs 1971-73).

British independents were less involved, particularly in crude oil where very large vessels had become the norm. Of the tramp companies only Court Line, LOF and John Hudson owned VLCCs, though a number of OBOs were built by the Seabridge consortium. The liner groups P&O and OTT also acquired large crude carriers (Chapter 2a). Many companies, like B&C and Ropner which bought tankers in the mid-1950s, or even tanker specialists such as J.I.Jacobs, did not take advantage of the booming crude oil market. Though Cunard and Cory planned a major VLCC fleet in 1971 it had taken several good years to convince them (IC 27.8.71)¹. This caution contrasted sharply with Norwegian, Greek and Hong Kong Chinese owners who

had begun to build their considerable fleets in the late 1960s and reaped the profits. Rochdale's hope that shipowners would form "one or two groups for the operation of fleets of very large tankers" went unfulfilled (Cmnd 4337, 1970, p167).

At the beginning of 1973 oil prices were already rising from their \$3 a barrel level, a process accelerated by the Middle East War, and by January 1974 reached \$11 a barrel. In addition OAPEC banned oil exports to the USA, which in 1973 had imported over 300m tons. This resulted in a massive reduction in demand while the world tanker fleet was growing rapidly. Further, it was difficult and expensive to cancel orders and many owners probably hoped that conditions would improve and so continued with their orders. Thus overtonnaging continued to increase as vessels were delivered. It was not until 1975 that substantial quantities of tankers were laid up, with up to 12 percent of the world fleet out of operation between the second half of 1975 and June 1978 (BSS 1979-80, p81). Even this was not a full expression of the excess capacity. Most vessels ran at slow speeds to conserve fuel and the disintegration of the majors' world-wide transport network meant that there was no longer optimum utilisation of tankers. Many of the 49.1mdwt of combination carriers switched from oil to dry cargo.

From late 1978 the improving oil markets led to vessel reactivation. In the eighteen months to December 1979 the tonnage of laid up tankers was reduced by four-fifths. However, new oil price rises and a world recession began to reduce demand, producing a 32 per cent drop in the world oil trade in 1979-83 (GCBS, 1986, p89). The appalling 40 percent

¹ This consortium with NYK of Japan was not activated as both British partners were taken over by other shipping companies, one of which (OTT which acquired Cory) was already involved in the VLCC market.

overcapacity in the mid-1980s led to heavy scrapping of tankers, which from 1980 outweighed newbuildings. But the gap between demand and supply was so wide that freight rates did not begin to rise significantly until 1988. The poor markets affected different classes of vessel to varying degrees. Excess capacity was worst for VLCCs whose numbers fell from 700 to 500 though in 1985 the market could only support 300 (FT 30.4.85). In contrast the 100-150,000dwt tankers tended to be old and few in number. The requirements for such vessels to transport small quantities of crude oil or to service areas such as West Africa where VLCCs cannot trade has led to some new orders: for instance Gotaas Larsen's contracts for four 145,000dwt tankers placed in October 1986 (Gotaas Larsen AR 1986).

The UK flag tanker fleet declined slowly in 1976-79 as British and foreign owners retained vessels in the hope of better future conditions. But the end of the 1978-79 boom prompted many disposals, the fleet being halved in 1979-82 to 13.7mdwt. By 1986 the UK mainland registered fleet had halved again and even including foreign registered but British owned ships it amounted to only 94 vessels totalling 9.4mdwt compared to 577 vessels (31.4mdwt) only a decade before (GCBS, 1986, pp88-90). The severity of the decline was strongly linked to the dominating role played by oil companies which sold many tankers since the prolonged depression not only produced heavy financial losses but also made the owning of vessels as an insurance against a future boom unworthwhile. Thus BP and Shell have radically reduced their fleets, while Burmah has sold its entire fleet, with the exception of two ULCCs, having lost £162.5m in 1974-78 alone (Burmah ARs 1974-86). Ultramar restructured its fleet in the early 1980s by selling off the old vessels and building six 76,000dwt OBOs, a programme the company has since seen as a major error (Ultramar, 1985, pp227-243; Ultramar ARs 1979-86).

The few British independent owners have also mainly withdrawn from

the large tanker sector. Hudsons and Court Line have ceased to exist altogether while LOF's fleet was reduced to two 62,000dwt tankers in 1987. OTT sold its three vessels by 1984 and the members of the Seabridge disposed of their large combination carriers (OTT ARs 1979-84). Even P&O has reduced its once massive fleet to three vessels aggregating 451,000dwt (P&O ARs 1974-86). Thus the Merchant Navy has not reflected the switch from oil company to independent ownership, the latter's share of the world tanker fleet rising from 60 to 75 percent in 1975-86 (GCBS, 1986, p90). In contrast some foreign owners, particularly the Norwegian independents, were able to grasp opportunities even in the depressed early 1980s. For instance, the Gulf War of the 1980s saw good rates available for shipowners who were willing to risk losing their vessels. In early 1985 freight rates for VLCCs using Kharg Island were double the general market level (FT 26.2.85). Norwegian companies such as Reksten and Bergesen became heavily involved in these dangerous trades. A fifth of vessels in the Gulf were Norwegian owned, with others under Norwegian management. The National Iranian Tanker Co.'s Susangird (Ir 218,467/73) was managed by Reksten until it was sunk with the loss of 21 lives in December 1987 (DT 24.3.88; FT 15.12.88).

The market described above covered the whole of the oil trades until the 1950s with similar tankers being used for both crude and refined oils, but during the 1950s and 1960s the two trades became divorced (Chapter 2a). The products market followed similar trends to those of crude oil, though the switch to specialised vessels meant demand for these was stronger than for ordinary tankers in the 1960s. This sector was more popular among British owners than the crude trades, with the liner groups B&C, Furness Withy, Cunard, OTT and P&O operating product carriers in the 1970s in addition to the oil companies BP and Shell. However, tramp operators were mainly confined to operating the small 1950s vintage

general purpose tankers. This sector became overtonnaged after 1973 due to the switching of some smaller tankers from crude to products trading and reduced demand. This was compounded by owners, desperate for a strong market, ordering large product carriers in anticipation of a switch from consumer to producer located refining. In the event many of these projects, intended to build up OPEC countries' industrial bases by constructing oil refineries, never came to fruition. The resulting weak market of the late 1970s and early 1980s prompted the departure of several British operators: P&O sold its last product carriers in 1983 to be followed by OTT and B&C in 1985 (P&O ARs 1979-83; B&C ARs 1979-85; OTT ARs 1979-85).

While operators like Palm Line and the Athel Line had carried liquid vegetable products for many years, large markets for specialised parcel and chemical tankers were really established in the 1960s. The trade attracted both industrial carriers, such as Tate & Lyle and BP (which had a 50 percent stake in the Stolt-Nielsen parcel tanker group until 1986), and independent operators such as P&O and OTT [which set up Panocean Storage & Transport to operate chemical carriers and the Panocean Anco parcel tanker operation in conjunction with Tate & Lyle and Swires (Chapter 8)]. These markets also turned sour in the 1970s and 1980s as demand fell and too many new vessels were built. The result was another exodus of British owners including BP, P&O, OTT and Tate & Lyle and smaller operators like Common Bros. and Turnbull Scott (BPARs 1976-86; P&O ARs 1974-85).

The last major tanker market differs from the other tanker trades in that the requirement for highly specialised vessels means there is almost no overlap with other trades. The liquid gas market is divided into two sections both of which developed in the 1960s. The liquid petroleum gas (LPG) trades tend to follow the oil trades since the commodity is a by-

product of oil production. Thus falling oil production in 1973 and the early 1980s reduced demand for LPG tankers. These fluctuations undermined the market which was also affected by the building of too many vessels. The field became popular in the 1970s with both liner groups such as Furness Withy and P&O and tramp companies like Common Bros., Runciman and Bibby (Chapter 2a). In 1982 the British flag gas tanker fleet was the world's second largest totalling 40 ships of 1mdwt (GCBS, 1986, p88, 90). The poor market forced some companies to pull out, including Common Bros. and P&O. The latter group was particularly important with a fleet of nine vessels, plus another seven jointly owned under the Mundogas name in 1982 (P&O AR 1982). Bibby and Runciman have persisted since the vessels were massive investments and the market is less severely overtonnaged than the ordinary tanker trades. However, the Norwegian company Laboremus, though losing money from 1977-86, not only maintained a presence in the market but at the end of the depression, unlike British companies, took the risk of enlarging its fleet at the prevailing low ship prices. Such policies have enabled Laboremus and the other Norwegian operators Kvaerner and Bergesen to establish themselves by 1989 as world leaders in the sub-markets for 3-16,000m³, 20-50,000m³ and 50-80,000m³ LPG tankers respectively (Laboremus AR 1988).

The second gas carrier market has a markedly different character. The vast cost of the liquid natural gas (LNG) carriers and their highly specialised design has meant that most have been built for specific long term contracts rather than operating in a general market. Even so problems have arisen, with some projects failing to come on stream. Further, the general market for which P&O's Pollenger (Br 50,746/74) was built did not materialise. Its absence meant there was very little chance of employment by other shippers and the vessel was inactive, apart from a year long charter on the Alaska-Japan route in 1981, until its sale in 1987 (P&O ARs

1981-86).

It can be seen that British independent owners were slow, compared with some of their foreign counterparts, to cater to the growing oil trades. The relative decline caused by this absence from a major market did not begin to be corrected until the mid-1950s. But the onset shortly afterwards of a prolonged depression deterred further involvement in many cases while the continued expansion of foreign fleets induced further relative decline. This was reinforced by the reduced pace of the British oil companies (which formed the backbone of the British tanker fleet) building programmes. Though these accelerated once more from 1967 the independents, particularly tramp operators, did not seek to enter or re-enter the crude oil market. Though this reduced the potential growth of the tanker fleet the dire conditions of the years after 1973 provide some basis for their caution. The persistence and depth of this depression is undoubtedly a basic factor in the decline of the tanker fleet which at its peak in 1976 comprised three-fifths of British flag tonnage. The other tanker trades were also affected by depressed conditions in the 1970s and 1980s. Previously there had been considerable interest in these trades including many liner and tramp companies which had eschewed the volatile crude oil market. These conditions reversed the expansion of the British product, chemical and gas tanker fleets with many operators withdrawing altogether. While the depression afflicted foreign operators as well, many showed greater willingness to persist in depressed markets than British shipowners, albeit often on a reduced scale. This can be linked in turn to factors such as lower operating costs (Chapter 4), and greater stamina and differing commercial practices (Chapter 6g and f).

3b) The Markets for Dry Bulk Cargo.

Unlike the bulk liquid trades, the dry bulk market has not been dominated by a single commodity in the post-war years. The OECD based its 1973 examination of dry bulk shipping on five major commodities: iron ore, coal, grain, phosphate rock and bauxite/alumina (Tables 3.4a and b). Even these are not necessarily homogeneous. Coals for instance are divided into a variety of grades ranging from soft brown coals like lignite to hard energy-rich anthracite. There were also smaller volume bulk commodities including sugar, softwood timber, scrap iron and steel, manganese ore and cement which totalled 130m tons (MT 1974, pp31-41). In, for instance, the iron ore trade alone there were in 1970 no less than 16 separate regions which were important ore exporters, ranging from Scandinavia to Peru (MT 1970, p41). Unlike the tanker sector, where one dominant commodity was largely controlled by a small group of co-operating shippers, there were a multitude of cargoes and shippers making for a near perfect market.

The state of the dry bulk trade was thus an amalgam of the trends in the markets for the various commodities. The depression of the 1930s reduced the availability of dry bulk cargoes (Table 3.2) and produced a very poor market. Demand even in 1950 was only four-fifths of the 1937 level. This reflected the absence of demand from economies like Japan which had been devastated by the war and the substitution of oil for coal as an energy and fuel source. From 1950 there was renewed expansion, though there were considerable fluctuations in growth rates (indeed in 1952 and 1958 there were actually small falls in the absolute level of the dry cargo trades). This resulted from the re-industrialisation of Germany and Japan and the renewed expansion of the the international coal trade (Tables 3.4a and b). Second, there was a period of prolonged worldwide economic expansion. Third, the introduction of more efficient

Table 3.4a Ton Mile Indices for the Five Main Dry Bulk Cargoes.

<u>Year</u>	<u>Iron ore</u>	<u>Coal</u>	<u>Grain</u>	<u>Phosphate</u>	<u>Bauxite</u>
1960	100	100	100	100	100
1965	200	149	156	155	135
1970	414	332	159	211	290
1975	558	429	246	231	242
1980	611	657	364	311	284

Table 3.4b Tonnage Transported of the Five Main Bulk Cargoes.

<u>Commodity</u>	<u>Iron ore</u>	<u>Coal</u>	<u>Grain</u>	<u>Phosphate</u>	<u>Bauxite</u>
<u>Tons (m)1960</u>	101	46	46	17	18
<u>Tons (m)1970</u>	247	101	73	33	34
<u>Tons (m)1980</u>	314	188	198	48	48

Source:- compiled from MT, 1970,1981.

Table 3.5 British Coal Exports 1890-1960 (m tons).

<u>Year</u>	<u>Coal</u>	<u>Bunkers</u>
1890	28.7	
1913	73.4	
1919	35.3	
1929	60.3	
1938	35.9	10.5
1946	4.5	4.7
1949	13.9	5.0
1955	12.2	2.1
1960	5.1	0.3

Sources:- Kirby, 1977, p4, 67, 115, 139;

AAS 1952, 1956, 1961.

vessels served to lower transport costs (Chapter 2b). Fourthly, there was a switch in raw material extraction from the indigenous resources of the industrial countries to the cheap, easily extractable produce of more remote states such as Chile, West Africa and Australia. This led to a considerable increase in average transport distances for some commodities, with those for coal, iron ore and bauxite rising by no less than 80 percent in 1960-73 alone (Table 3.4a and b). However, on an annual basis there were seasonal fluctuations in demand, particularly for grain cargoes.

In contrast to the oil trades, dry bulk cargo was the traditional mainstay of many British independent operators. But British tramp operators had lost their staple outbound cargo from the UK. Coal exports did not recover fully from the Great Depression and were further reduced in the post-war years. The post-war peak of coal exports in 1949 was less than two-fifths of the 1938 level and fell even further by 1960 (Table 3.5). While BISC (Ore) was importing 11m tons of ore a year by 1960, it made up only half the shortfall and did not develop until the late 1950s. As it used mainly purpose built vessels little ore was available to ordinary tramp ships and comprised only incoming cargoes (BISF AR 1960). British tramp owners were often slow to rebuild their fleets in the 1940s. In 1952 the British general purpose tramp fleet at 5.1m dwt was 14 percent smaller than in 1939 and declined to only 4.3m dwt by 1958 (Table 3.6). Many owners maintained reduced fleets until the mid-1950s: the Court Line for instance built only one new vessel by 1954 (DSSME, 1954, p159). This probably reflected their caution about post-war prospects, which appeared to be borne out by the low rate levels in 1949 and early 1950. However, their attenuated fleets reduced their ability to take advantage of the Korean War boom. In the mid-1950s some began to build up again, the Stanhope SS Co. for example increased its tramp fleet

from five to eight in 1954-59. Even among the stronger companies this was not universal. Common Bros and Bolton preferred to expand their tanker and ore carrier interests rather than buy more tramps.

The reopening of the Suez canal in 1957 and the continually expanding supply of vessels (the world dry cargo fleet increased by a fifth in 1958-62) led to a crash in freight rates. The level of overcapacity was worsened by the switching of many small tankers to the grain trades due to the even worse conditions in the tanker market. By late 1959 eight percent of the world fleet was laid up. The slump halted the belated expansion of British tramp owners' fleets. Orders were cancelled and inefficient ships were sold. Reardon Smith took delivery of only two of the six tramps it had intended to buy in 1957 while Chapman & Willan's fleet was cut from 14 to nine in 1959-61 (Heaton, 1984, p73). Thus they were hit more severely by the slump than some foreign operators, being caught in the contracting portion of the market as general cargo increasingly went to liner operators while bulkers took the bulk cargo. These difficult circumstances influenced the closure of companies like the Mountain SS Co. which was wound up in 1968 having ceased to trade several years earlier (MN 1.68). Others such as Reardon Smith and R.S. Dalgliesh switched to bulkers though much of the benefit of the bulkers' efficiency went to shippers in a buyers' market. Bulkers accounted for the 16 percent increase in the British tramp fleet in 1958-66 (far less than the world fleet) as the deadweight tonnage of British general tramps fell by 33 percent (Table 3.6).

From the mid-1960s conditions in the bulk trades improved aided by the closure of Suez in 1967. 1969-70 saw a major boom with freight rates doubling only to fall back to a level not seen since 1963. This was rapidly succeeded by a second boom which carried through to 1974, despite the rapid increase in the world dry cargo fleet which having expanded by

Table 3.6 Composition of the British Bulk Dry Cargo Fleet (mdwt).

<u>Year</u>	<u>Combos</u>	<u>Bulkers</u>	<u>GP Tramps</u>	<u>Total</u>
1939		1.3	5.9	7.2
1948		0.7	6.7	7.4
1952		0.7	5.1	5.8
1958		1.5	4.3	5.8
1962		2.5	3.7	6.2
1966		3.8	2.9	6.7
1968	0.2	5.1	2.3	7.6
1971	1.2	5.0	1.9	8.1
1974	4.4	7.7	1.9	14.0
1977	5.3	8.7	1.7	15.7
1979	3.8	6.4	1.4	11.6
1982	1.8	4.7	1.1	7.6

Source:- BSS various issues.

31 percent in 1965-70 increased by a further 61.1mdwt (34 percent) between 1970 and 1974 (BSS 1979-80, pp18-19). This period also saw the sharpening division of the market into sectors defined by vessel sizes. These comprised the 'handy sized' bulkers of 20-40,000dwt, vessels of up to 80,000dwt (Panamax bulkers) and large bulkers of 100,000dwt and over. The fragmented nature of the bulk trades and the consequent availability of small parcels of cargo meant small vessels continued to be important, as indicated by the large numbers of 'handy sized' vessels which comprised a third of bulker tonnage on order in 1974 (MT 1974, p126).

Thereafter a combination of a short term decline in grain and ore cargoes, substantial new deliveries and the switching of combination carriers to dry cargo depressed rates within a year to only a quarter of the level of early 1974. The various sectors were affected differently. The influx of combination carriers hit mainly the larger bulkers. Thus the time charter rates for 16,000dwt vessels rose by seven percent in the year from late 1973 while the rates for vessels of over 40,000dwt were halved (MT 1974, p80). It was not until 1979 that the market regained its strength, as growth in the bulk trades outstripped the rise in the supply of ships. While the latter expanded by 23 percent in 1976-81, the former rose by 27 percent, almost entirely from 1979 (GCBS, 1986, p92). As a result in 1979-81 the GCBS tramp trip index was on average more than double the 1976 level.

In the period 1966-68 UK bulker tonnage rose by 40 percent and doubled in 1968-74 to a total of 7.7mdwt (Cmd 4337, 1970, p142; BSS 1979-80, p24). In addition to the expansion of the dry bulk fleets of many tramp owners like the Silver Line, liner companies such as T. & J. Harrison and B&C also entered the dry bulk trades. However, operators who continued to trade in both bulk and general cargo markets with tramps found that bulkers and containerisation respectively further reduced their

market. The onset of depression hit them particularly hard, for instance Larrinaga sold out to foreign interests in November 1974 (MN 2.75). The British pure bulker owners generally held out for better conditions though the fleet fell by 17 percent from its 1977 peak in the following two years. The return of better rates in 1979 temporarily fulfilled their hopes, Graig's bulkers for example turning from a loss of £1,436,000 in 1978-79 to a profit of £470,000 in 1979-80 (Graig ARs 1979, 1980).

The improved conditions induced a wave of new construction by owners desperate to capitalise on a strong market. The world fleet expanded by a fifth in 1981-85 with the GCBS in 1986 railing at "an absurd number of new ships either recently delivered or waiting to go on to the market" (GCBS, 1986, pp91-92). In 1983-84 the world bulk fleet rose from 180mdwt to 191m dwt despite the scrapping of 5mdwt tons of bulkers, with no less than 578 bulkers still on order in early 1985 (FT 30.4.85). Thus while the dry bulk trades recovered from the low of 1983 they did not expand fast enough to catch up with the growth in supply until 1988. This slump affected the entire bulker market, with the small bulkers which had been least hit in the depression of 1975-79 suffering worst (no less than 452 vessels of 25-50,000dwt being on order in 1985).

The dire market lay behind the reduction of the British bulker fleet from 7.1dwt to 4.9dwt in 1982-86 (GCBS, 1986, p91). OTT, B&C, Runciman and Hogarth withdrew completely. James Fisher which had only entered the sector in 1983, via the acquisition of Hunting-Stag, was forced in 1985 to "eliminate the Group's exposure to the fluctuations of the deepsea market by disengaging from this sector" (James Fisher AR 1985). One of the few survivors was Graig which, unlike the bankrupted small bulker specialists Lyle and Reardon Smith, switched to the less difficult large bulker sector. Thus, though it still made losses in three years in 1981-87, it hung on until conditions improved, a policy similar to that of Norwegian

companies like Einar Rasmussen (Graig ARs 1979-88). The Norwegian controlled Common Bros. group withdrew from the sector but re-entered it in 1989 with the formation of Fraser Common. Genuine British shipowners, in contrast, have not shown any interest in returning to their former markets

The largest specialised bulker market was for the multi-purpose types which could switch between oil and dry bulk to get the best rates. In 1970 relatively strong dry bulk rates saw the percentage of OBOs in this sector rise from 25 to 43 between January and June (MT 1970, p27). For consortia like Seabridge which had both wet and dry bulk contracts the OBO's flexibility was very useful. Thus in 1967-77 world combination carrier tonnage rose by a factor of nine to 47.8mdwt accounting for 38 percent of the dry bulk fleet (MT 1970, pp58-59; BSS 1979-80, p24). However, the movement of such vessels could affect the markets themselves. During the 1973 oil boom 85 percent of OBOs were in the oil trades and many switched to dry bulk when this sector collapsed which pulled down rate levels for bulkers too (MT 1974, pp53-55).

British ownership of combination carriers was strong, accounting in 1973 for an eighth of the world fleet. But as both oil and dry bulk markets turned sour their flexibility was less valuable and their high costs put them at a competitive disadvantage. Within four years of its 1976 peak (5.4mdwt) the British fleet had declined by a quarter, while the world fleet had expanded slightly. This trend continued through the unremunerative markets of the 1980s with OTT, Turnbull Scott and Seabridge all disposing of their OBOs while P&O's 1.5mdwt OBO fleet of 1978 was completely eliminated by 1986 (P&O ARs 1978-86).

The markets for other specialised dry bulkers did not prove popular among British companies. This partly reflected the high level of involvement by industrial carriers which excluded independent British

shipowners. Woodchips, a major Japanese import, are usually carried in Japanese woodchip carriers or by the Hong Kong shipowners who are closely associated with Japan. Secondly British shipowners concentrated on their old basic cargoes rather than picking up the expanding trades in previously minor commodities. While lumber and heavy logs had frequently been carried by British tramps and cargo liners, the special bulkers built for Scandinavian and Japanese operators did not figure in the British fleet. Again close links with industrial shippers were important in securing cargo for these specialised ships: for instance the links between the Swedish forestry concern MoDo and Scandinavian shipowners. Even these specialised markets became overtonnaged in the 1980s. James Fisher sold the forest products carrier Thamesfield (Br 50,000/77) in 1986 "as there were no obvious prospects of recovery in market conditions for specialist bulk carriers" (James Fisher AR 1985).

Though the tramp trades were the traditional market of many British companies, they failed to recover their pre-war position, unlike both foreign tramp companies and the British liner operators. This was despite a generally stronger market than in the inter-war years. When many companies belatedly increased their fleets in the mid-1950s, the growth was reversed by the onset of depressed conditions from 1957. The weakness of the British operators in this sector was countered from the mid-1960s as liner companies, buoyed by improving conditions, moved into the dry bulk shipping, though the markets for specialised commodities were left largely to others. However, the serious trading problems prevailing from the mid-1970s underlaid the massive withdrawal of British companies from these trades. In contrast, many foreign competitors, while being forced to reduce their fleets, did try to maintain a presence in the dry bulk trades to enable them to take advantage of an upturn in the market.

3c) The Breakbulk Dry Cargo Trades.

The general cargo markets are far more complex than those for bulk cargoes. Rather than a few dominant commodities there is a multiplicity of commodities ranging from mail to machinery and from books to bananas. Second, instead of a world market there are numerous individual routes varying in size from massive trades like those from Europe to the Far East or North America to minor routes such as the South African-South American. Third, the cargoes carried vary not only from route to route but also on the inbound and outbound voyages and in some cases on a seasonal basis. Fourth, the volume of inbound and outbound cargoes may differ considerably. In a sample of 36 trades between OECD and non-OECD states, five were sufficiently unbalanced for the volume of the smaller leg of the trade to be less than half that of the larger (MT 1972, p87).

The sheer complexity of the general cargo market has led to a dearth of statistical information. However in 1968 the OECD quantified it approximately by subtracting the tonnage of the ten largest dry bulk commodities and 19 lesser bulk cargoes from the total for world seaborne dry cargo movements. The remainder totalled 92m tons, 11.5 percent of the total, to which some 60m tons of bulk commodities carried on the same vessels had to be added. While this accounted for only 18 percent of dry cargo movements by volume, it accounted for no less than two-thirds of the total monetary value (MT 1968, pp68-69, 77).

Until the 1960s a further complication was the use of particular vessel types for different break bulk dry cargoes. The passenger-cargo liners carried high value cargo such as mail or refrigerated goods which required rapid transit. Like cargo liners they commonly sailed under the auspices of a shipowner's cartel or 'conference'. Both sailed to a pre-announced schedule rather than waiting until they were fully laden. Thus any cargo which provided revenue in excess of the operating costs incurred

would be carried in the surplus space. This factor lay behind the large volume of bulk cargo which was carried by cargo liner operators. Lastly general purpose tramps, while usually engaged in the bulk trades, would carry general cargo if it was available. In particular tendering for general cargo at low rates in order to generate income on the repositioning voyage was an attractive proposition as they often lacked backhaul cargoes.

The Second World War had seen many states develop indigenous industries as they were cut off from former suppliers, while others had been devastated by military action. But the consequent demand reductions were more than offset by the need to rebuild some badly damaged economies and the decrease in the world general cargo fleet caused by war losses and by poor utilisation of vessels. The general economic expansion after 1945 also helped sustain a strong market. Nevertheless, conditions on individual routes varied considerably. The Silver Line for instance was very badly hit by the collapse in profitability of its Pacific routes in 1949 due to the strong dollar (Economist 5.8.50).

British liner operators rapidly rebuilt their fleets, surpassing the pre-war level by 1952 (Table 3.7). Competition from German and Japanese lines did not reappear until the mid-1950s when the French fleet also regained its pre-war size. However, British lines did not use this opportunity to build up their existing trades or to move into new ones. The routes operated by British liner companies in the 1950s were generally similar to those of the 1930s. While a few small lines were established, for instance Watts & Watts' North Atlantic route, these were unusual especially among the established British liner operators. This lack of expansion was strongly related to their adherence to the conference system (section 3f ii). Some foreign operators found the void left by the withdrawal of services allowed them to expand. Lykes for instance opened

Table 3.7 Composition of the British Breakbulk Dry Cargo Fleet (mdwt).

<u>Year</u>	<u>Cellular Con.</u>	<u>Cargo Liner</u>	<u>GP Tramp</u>
1939		8.0	5.9
1948		6.1	6.7
1952		8.1	5.1
1958		8.4	4.3
1962		7.8	3.7
1966		7.3	2.9
1968		6.8	2.3
1971	0.6	6.3	1.9
1974	1.3	4.4	1.9
1977	1.4	3.8	1.7
1979	1.6	2.8	1.4
1982	1.6	1.8	
1986	1.5	1.1	

Sources:- Compiled from Cmd 4337, 1970, p140;

BSS 1975, pp56-57;

BSS 1979-80, pp30-31;

GCBS, 1986, p79.

new routes from the US Gulf to South and East Africa in 1941 and the West coast of South America in 1945 (The Story of Lykes).

From 1956 liner operators' position worsened. The closure of the Suez Canal did not boost freight rates which remained stable due to the conference system. Thus rather than getting the boom profits available to tramp shipowners those companies using the canal found their schedules were severely disrupted. Second, as always it proved difficult to raise freight rates to cover rising operating costs since this angered shippers who wished to contain their transport costs. Third, while rates did not fall as sharply as in the tramp trades after 1957 (Table 3.11), liner companies' revenue declined as the cheap rates available from tramp owners took away cargo and reduced utilisation of liner vessels' capacity. This problem increased as the introduction of the more efficient bulkers resulted in the loss of bulkable cargoes. This is shown by the lower growth rate of general dry cargo in comparison to bulk dry cargo. In 1967 the Board of Trade estimations of future annual growth rates based on past experience were 2.5 percent by volume for general cargo compared to six percent for bulk cargo (Cmd 4337, 1970, p101). The result was generally poor profitability in the liner trades in the late 1950s and 1960s (MT, 1968, p23). In Britain returns on capital employed for cargo liners averaged only 3.1 percent in 1959-68 (Table 6.3).

The cargo liner tonnage of the Merchant Navy peaked in 1958, having risen five percent above its pre-war total. In the ten ensuing years it fell by nearly a fifth. This reflected the external factors described above. On many routes decolonialisation also produced fluctuations or falls in trade and competition from national lines (Chapter 5c and d). For British lines this was a major problem as a very high proportion of their earnings came from former imperial routes. In addition Britain's declining share of world trade was an important factor, since two-thirds

of deepsea cargo liner earnings came from trades based in the UK while half of the remaining cross trade earnings involved trades which touched UK ports (Cmnd 4337, 1970, p100).

Some foreign competitors proved more adept at fighting adversity. Dutch liner shipping, which accounted for 82 percent of the country's dry cargo fleet in 1962, grew by 45 percent in 1939-62 and fell by only 11 percent between 1962 and 1968. The Netherlands, like Britain, was declining as a world trading nation and had problems on the former colonial routes upon which much of its liner trade was based. Dutch lines were more enterprising in establishing new routes. In 1956 alone services were set up from the USA and the Caribbean to the South Atlantic, from the Mediteranean to the Great Lakes and from Europe to India. In 1960 the Dutch were dealt a shattering blow by the loss of the Indonesian trades. However, these were rapidly replaced by new trades or the intensifying of services on existing ones. Royal InterOcean, which in 1956 had 13 lines, 12 of them based in Indonesia, was still running 11 lines in 1962. In part the Dutch were aided by the generous reorientation allowed them by the Far East Freight Conference. This British-dominated body, rather than perceiving an opportunity to dispose of a competitor, handed over part of its own business with a generosity which surprised the Dutch (Wyts Digest, 1956, p9; 1962, pp8-9). Similarly Norwegian lines, whose importance had they been based on national trade would have been insignificant, continued to expand or at least replace lost trades. For example the Bergen Line opened a new trade to West Africa by 1953 and expanded its South American services (Keilhau, 1953, p300).

The state of individual British lines in the 1950s and 1960s depended heavily on the strength of their particular routes. Elder Dempster's fleet declined from 37 vessels to 31 in 1954-69 with the trade from Southern Africa to North America being terminated. The Latin American

routes saw a similar decline in the strength and freight earnings of British companies. Furness Withy's South American fleet fell from 585,200dwt to 268,714dwt in 1954-69 (DSSME, 1954; ISSD, 1969). In both these cases there was strong competition from growing national fleets and third party intruders. A similar decline took place in the Indian Ocean trades. The Brocklebank Line's freight income fell from 1959 and it produced an average loss on turnover of 0.9 percent in 1956-70. In contrast the Far Eastern trades expanded, enabling dynamic lines such as Ben Line to increase their operations, with similar strength evident in the Antipodes trades where the Port Line's fleet remained stable with 27 vessels in 1954 and 28 in 1969 and earned an average of 6.5 percent on turnover in 1956-70. On the North Atlantic poor markets meant financial difficulties for Cunard, Donaldsons and the Anchor Line. The notoriously severe competition on the route led to violent fluctuations in income with Cunard producing an average loss on turnover of 7.3 percent in 1956-70 (DSSME, 1954, pp164-165, 399-400, 448; ISSD, 1969, pp53-54, 58, 65-66,; Cmd 4337, 1970, p100; Cunard ARs 1965-70).

From the mid-1960s the general cargo traders also faced increased competition from airlines. This was evident not in tonnage terms (in 1966 the IATA foresaw air cargo equalling only one percent of liner cargo by 1980 despite a forecast of growth at 16 percent a year) but in the loss of very high value cargoes such as mail, with air cargo revenue totalling \$1,000m in 1966 (MT 1967, p38). This squeezing of the general cargo trades between efficient bulkers and air transport was countered by the introduction of highly efficient unit transport vessels (Chapter 2d). These enabled liner shipowners to break out of the low profitability trap made by the difficulty of raising liner freight rates, though there were short term costs from the dislocation of trades as containerisation was implemented and shippers learnt to accept the new system. The late 1960s

also saw some trades being dislocated by the second closure of the Suez canal. The stronger conferences countered this by surcharges: the USA/Europe-Red Sea conference imposed a 50 percent surcharge for instance (MT 1967, p24). Similarly 25 percent surcharges were imposed in 1973-74 to counter rising fuel costs (MT 1973, p86).

The major British lines adopted unitisation rapidly. Indeed their recognition of this would account at least in part for the decline of the British cargo liner fleet (which declined 13 percent in 1962-68) as old vessels were sold without full replacement. The British liner industry preserved its position well in the early years of containerisation, owning 23 percent of the world container fleet in 1973 compared to 24 percent of the cargo liner fleet in 1969 (BSS 1979/80, p24; Cmnd 4337, 1970, p98). Some small companies such as Donaldsons and the Head Line did leave liner trading altogether, and the wholesale revision of operations gave those conference operators (particularly the national lines) who believed they should have a greater share of the trade, an opportunity to press their views. On the North West Europe-South Africa route, traditionally a mainstay of lines like Ellerman, Harrison and B&C, four of the nine container ships were allocated to the RSA's Safmarine and only two to British lines (JFC, 1984, p379). Containerisation also saw the Japanese increase their involvement in liner cargo shipping from 11 percent of the cargo liner fleet in 1969 to 16 percent of the 1973 world container fleet, aided by the increasing importance of Japan to world trade.

Once again the British lines' attachment to the conference system caused problems as foreign operators pushed to raise their trade shares. British lines were also conspicuous by their absence in taking the opportunity offered by containerisation to break into new trades. In fact some smaller trades were abandoned: for instance Elder Dempster's India-West Africa route (ISSD, 1969, p53). By contrast, companies such as

Evergreen of Taiwan built up their operations by aggressive marketing in small trades (JMSR, 1985, p166).

Britain's share of the world container fleet declined rapidly from 23 to 18 percent in 1973-79. Though the fleet increased by a quarter in 1973-79 it remained stable until the early 1980s and has declined somewhat since then (Table 3.7). The world fleet has risen throughout this period as some foreign lines, particularly the Taiwanese, South Koreans and Hong Kong Chinese, have expanded. Some new entrants, like CAST on the North Atlantic, have battered British lines such as Cunard and Furness Withy. Many routes have been badly hit by the economic recession of the 1980s such those to West and South Africa, although this also affects foreign competitors. The Japanese Showa and Yamashita Shinnon lines have curtailed their liner services, as has Germany's Hapag Lloyd, on transpacific routes (FT 1.2.88; 13.11.87). In Britain OTT has sold its liner operations and the Bank Line shut its USA-South Africa route in 1986. But the two major British container groups, P&OCL and ACT have shown some signs of expansion in the mid-1980s. Chartered vessels which do not show up in national statistics are often used. ACT has recently chartered three container ships for its expanding South Pacific-North American West Coast trade and bought the four ships and rights of the New Zealand Line (LSI 23.11.87).

While the liner general cargo market is heavily subdivided, a world-wide market has developed for chartered general cargo vessels used by the lines to supplement their own fleets. This has enabled lines to cover extra demand in boom periods and reduce capacity to maintain utilisation of their own vessels in depressions. This provided considerable business for tramp operators. In 1966 500,000grt of British tramps were employed in this manner (Cmd 4337, 1970, p98). Some lines also had tramp subsidiaries acquired with this trade in mind such as B&C's King Line.

However the Henderson Line's 11 new cargo liners of the 1950s marked a departure from normal practice in that employment as supplementary cargo liners for other lines became the company's main business. Containerisation expanded this market in the mid-1960s as lines preferred to charter rather than build new tonnage. However, when containerisation was introduced, the lines' surplus cargo liners were sold off, and so depressed the market.

Despite this, some owners saw an opportunity to provide small container ships for charter to operating lines whose resources were already stretched, for use on minor routes and as feeder vessels. The American shipowner James Sherwood set up Sea Containers to cater to this market in 1965 and was joined by many foreign owners, particularly from Germany and Holland (DT 1.5.88). In contrast in Britain only Manchester Liners [which acquired two 12,577 grt and two 17,385grt vessels in 1975 and 1977 respectively (Stoker, 1985, pp100-101)] and H. Clarkson which took delivery of a pair of 6,596dwt reefer container ships in 1977-78 entered the market (H. Clarkson listing particulars, 1986). While other lines have chartered out vessels, for instance Unilever in 1985-86, this was only a temporary expedient to employ surplus vessels. The early 1980s saw severe overtonnaging in this sector as charterers failed to renew contracts when the recession cut their requirements for vessels and some operating lines collapsed, while new tonnage poured on to the market. Clarksons for instance had their vessels returned when the charterer (Salen of Sweden) collapsed in 1984, while Sea Containers' fleet was severely reduced. However, most German operators rode out the slump and comprised a tenth of the world container fleet with many large individual operators in 1986 (Containerisation International 9.86).

Refrigerated cargo was a traditional stronghold of British owners who concentrated on liner operations. Numerous companies were involved

including Blue Star, the Clan Line and Union-Castle (B&C), Port Line (Cunard), Geest and P&O's New Zealand Shipping and Federal SN Co. subsidiaries. But there was little involvement in the separate tramp reefer market which appeared around 1960. This market attracted Scandinavian operators such as Lauritzens, with Norwegian reefer tonnage rising 120 percent in 1953-58 compared to four percent for Britain, (though the Norwegians started from a very low base figure) (Sturmey, 1962, p165). Unitisation saw only part of British reefer capacity switched to container ships with many lines moving into tramp reefers, initially with their old refrigerated cargo liners but later with purpose built vessels. B&C ran four such vessels from 1974 and replaced them with three new reefers in 1981. Similarly Cunard acquired six modern reefers in the mid-1970s from the bankrupt Israeli operator Maritime Fruit Carriers. P&O ran no less than 17 tramp reefers in 1979 with Blue Star and Furness Withy also owning substantial fleets (P&O AR 1979; THI AR 1976). Overtonnaging and depressed markets hit this sector in the early 1980s. While Britain's reefer fleet remained the world's largest in 1983, many companies have since left completely, including B&C, Cunard and P&O, the latter company stating in 1982 that "the refrigerated tramp ship market suffered a severe downturn necessitating withdrawal" (P&O AR 1982). While some foreign companies such as Saleninvest, the world's largest reefer operator in the early 1980s (DT 21.12.84), have collapsed or withdrawn, it is notable that, in this as in other market sectors, many foreign operators have maintained their strength including P&O's and B&C's former partners Lauritzen and Safmarine.

Technological change sponsored the growth of specialist trades notably in cars and heavy cargoes (Chapter 2c). The former developed in the 1960s, especially among Japanese shipowners whose car making compatriots provided much of the world trade in vehicles. But some

shipowners from states without a major car export industry, like Hoegh of Norway, also found substantial opportunities in this market. Wallenius of Sweden identified and developed the trade from the 1950s and in 1985 owned 15 car carriers (SM 11.85). British involvement remained low (Chapter 2c). In the 1980s car transport like so many other sectors became overtonnaged, while demand fell as Japanese exporters switched to market production to evade complaints over unbalanced trading. Nissan for instance which sold 36,000 cars in Europe in 1987 has set up a plant in Sunderland to produce 200,000 cars a year by 1993 (FT 2.6.88). As a result, Japanese companies have sold some vessels while others such as Norway's Fearnley & Eger have engaged in severe cost cutting (MNP 19.9.87). OTT, Britain's sole large car carrier operator, withdrew from the trade in 1983, while Bibby had either sold or converted its vessels by 1980, partly because of better markets elsewhere (OTT AR 1983; Paget-Tomlinson, 1982, pp38-45).

A similar picture can be seen in the heavy lift market with substantial Japanese involvement due to the country's considerable exports of heavy plant, but with Scandinavian and Dutch shipowners also entering the trade. For British shipowners the heavy lift trade reflected demand changes on liner routes. Blue Star first acquired a heavy lift ship in 1962 due to demand on its Antipodes route for heavy plant (Kinghorn, 1985, pp103-120). Unlike the Scandinavians and Dutch British shipowners regarded it as an offshoot of the liner trade rather than a separate market, which helps account for the disappearance of British operators. Their heavy lift cargo liners could not handle such cargo as efficiently specialist tonnage foreign operators built for the market. While this expanded until the 1980s, the recession severely reduced demand for outsize components for industrial plant while shipowners continued to order extra vessels. The consequent depression forced foreign companies

like Sloman Neptun, Project Carriers and Mammoet to merge and reduce their fleets while Blue Star sold its vessels (Port of London 1.85; DT 21.12.84).

The general cargo sector saw a smaller decline in UK participation relative to other states than the bulk trades in the 1940s and 1950s. While British lines did rebuild and in some cases expand their fleets, it is also apparent that they did not take up as many opportunities for new trades as some foreign merchant marines. This was partly a negative side effect of the conference system, the close adherence to which was reflective of a conservative and co-operative pattern of management action. From the late 1950s a period of decline in absolute terms set in as new operators and lines, few of them British, were set up. In contrast the period of containerisation saw a more enterprising approach from the larger operators to this considerable challenge. But once again the lines did not take the opportunities this offered for expansion (including as in the bulk trades new sub-markets) resulting in a relative decline from the mid-1970s. The ensuing years have seen a mixed pattern of reduction in involvement linked to market problems together with some attempts to expand into new areas from the mid-1980s. This expansion can be connected to the more dynamic management of some companies which having produced strong results from an often weak market (particularly in comparison to many similar foreign operators) have seen the liner trades as worthy of expansion.

3d) The Markets for Deepsea Passenger Vessels.

In the inter-war years the passenger trades were hit by general economic problems resulting in the underuse of passenger liner capacity and poor rates. In contrast the post-war combination of capacity reduced by superannuation and war losses and buoyant passenger carryings produced generally strong markets (Table 3.8). On the North Atlantic passenger figures rose consistently until 1958, having surpassed their pre-war level by 1950. However, this was partly countered by the seasonal fluctuations which occurred on most routes and by trade imbalances. No general market existed to an even greater extent than in the cargo liner trades. Rather, passenger carriage was divided into individual routes, which often exhibited different characteristics. UK-South Africa passenger volumes, whilst justifying the continued employment of large passenger vessels, declined continually from the early 1950s, though with short-lived rises in demand in 1963-64 and 1966-68. Passages to and from Australia and New Zealand were depressed compared to earlier post-war levels in 1953 and 1957-58 but then rose until 1968.

Within each regional trade there was further subdivision into different classes in terms of passage fares, with each class having separate accommodation and public rooms. On the North Atlantic for example the classes were in descending order: First, Cabin/Second and Tourist (though rates for the same class varied from ship to ship) and were co-ordinated by a conference of shipowners. While all routes exhibited these characteristics, the proportions of the trade catered to by each class (and class definitions varied) differed in accordance with the income distribution of the passengers. The wide range of incomes and the importance of low income passengers on the South American routes was reflected in the tendency of shipowners to use three-class vessels with a high proportion of third class berths (343 out of 766 on the Reina del Mar

Table 3.8 UK non-European Passenger Trade (000s of passengers).

<u>Year</u>	<u>Sea</u>		<u>Air</u>	
	<u>Inward</u>	<u>Outward</u>	<u>Inward</u>	<u>Outward</u>
1938	244	264		
1946	116	214		
1950	269	333	125	130
1955	342	375	221	220
1960	323	309	577	560
1965*	232	262	1,052	1,104
1970	135	150	2,334	2,381
1975	37	57	3,563	3,647
1980	25	21	6,007	6,160

* From 1961 the basis of the series was altered, to include the Middle East and other trades.

Source:- compiled from AAS covering the years 1938-87.

(Br 20,234grt/56)) (Bonsor, 1983, p165). This could cause problems since, as the classes affected the internal arrangement of the ship, changes in the balance between the various classes or in routes could necessitate partial rebuilding of the vessel.

In addition to the ordinary liner trades there were other markets. Old or partly reconditioned war damaged vessels were used to offer cheap passages to emigrants. Cunard's Aquitania (Br 49,650grt/14) and P&O's Chitral (Br 15,346grt/25) were used as one class emigrant ships until 1949 on the Canadian run and 1953 on the Australia route respectively (Gibbs, 1970, p28; Maber, 1967, p40). British India, P&O and Bibby operated troopships such as the latter's Oxfordshire (Br 20,000grt/57) which carried first, second and third class passengers in addition to 1,000 soldiers. The Mogul Line (part of P&O) ran pilgrim vessels from India to Arabia carrying vast numbers of native deck passengers as well as 100 richer first class clients.

In the passenger trades Britain was pre-eminent, providing a full spectrum of services in most trades from Europe and some cross trades and, via the 'twelve' cargo liners, on many small volume routes. While most companies recreated pre-war services some British operators developed new routes, for instance P&O's transpacific service in 1958 or Shaw Savill's round-the-world trade begun in 1955 (Maber, 1967, p29, 150). The British passenger fleet decreased sharply from its pre-war level of 3.5mgmt with 1.5mgmt being lost in the war while other vessels became antiquated. Between 1945 and 1962 1.5mgmt of new ships were commissioned with the fleet reaching a post-war peak of 2.7mgmt in 1956, the lower figure being accounted for in part by the rationalisation of services within the large liner groups (Table 3.9). Shaw Savill absorbed Aberdeen & Commonwealth for instance. The Anchor Line was exceptional in not re-establishing its transatlantic service as it believed the profits were unlikely to justify

Table 3.9 The British Deepsea Passenger Fleet.

<u>Year</u>	<u>Size (mgt)</u>
1939	3.5
1958	2.5
1963	2.1
1965	1.9
1968	1.2
1971	1.0
1974	0.6
1979	0.3
1989	0.5

Sources:- BSS various issues;

RS 1989-90.

the investment (it lost four out of five ships in the war) (McLellan, 1956, p130). Some German and Japanese operators such as NDL did not reopen passenger services after the war, probably because when they considered this in the 1950s the adverse impact of aerial competition was clearer². In 1958 Britain owned 31 percent of the world passenger fleet (a figure which since it included ferries is probably an underestimate) compared to nine percent for its nearest rival, Italy. However, this dominance was in a market being obliterated by technological advance (Chapter 2d). By 1968 Britain still had 21 percent of the world fleet with 1.1mgrt of large passenger ships offering 40,000 berths, but ten years later the British passenger liner fleet, like that of its competitors, had almost vanished.

Though the liner market for deepsea passenger vessels was in decline, an alternative existed - leisure cruising. British operators like the Orient Line, which ran the first Norwegian cruises in 1889, were pioneers in this field. In the inter-war years not only did P&O and others offer cruises to employ their liners in the off-season, but Royal Mail, Lamport & Holt and Blue Star ran some vessels exclusively for cruising (Maber, 1967, p26; Gibbs, 1963, p108). Both British and foreign liner operators paid further attention to this field in the early post-war years by introducing dual role cruise liners (Chapter 2d). However, in 1963-70 only one major passenger British vessel, the Queen Elizabeth II (Br 67,000grt/68) was delivered.

British and foreign liner operators usually attempted to cater to the cruise trade with their surplus passenger liners. In contrast to this conservatism innovative new operators, particularly the Norwegians,

² German and Japanese shipowners were prevented from rebuilding their fleets until the 1950s by the victors of the Second World War.

recognised that the potential cruise market could best be catered for and indeed stimulated by means other than old passenger liners. They also realised the importance of the American clientele and successfully wooed them with ships of a higher standard. The cabins were of a high quality with in-built toilet facilities and full air conditioning, while public facilities included necessities of modern American life such as lidos, casinos, boutiques, beauty parlours and cafes. Great effort was put into continual decorative upgrading and the addition of new features to attract passengers and their money. In contrast the old liners with their out-dated decor offered unpopular multi-berth cabins and public rooms designed to suit the class-divided British society rather than egalitarian Americans, including such Victorian relics as smoking rooms. FOC operators who offered similar old tonnage not only made better attempts to cater to modern tastes but did so at low prices. Thus British operators were caught in a trap of their own making, offering an unsuitable product at a higher price than the convenience operators.

The decision of B&C and Furness Withy to withdraw from cruising occurred during a depression which naturally deterred investment in new ships. Cunard for instance stated in 1976 that "if present conditions continue these (the pair of 17,000grt cruiseships on order) are likely to be the last two comparable passenger ships to be built anywhere in the world" (THI AR 1976).

New operators have been the main beneficiaries of the expansion of cruising, which with their innovative approach and aggressive marketing they have done much to stimulate. One estimate of the growth of the trade is that some 2.4m passengers took cruises from Miami (by far the largest cruise market) in 1983 plus another 400,000 from Los Angeles (SM 10.86). This compares to a world-wide cruise passenger total of 250,000 in 1968 (Cmdnd 4337, 1970, p93). Such volumes supported some 200 cruise ships in

1985, though many were very small or laid up. The market's strength has attracted a considerable new tonnage. In 1980-85 eleven new vessels for 12,000 passengers were delivered with another seven with 9,200 berths on definite order, plus other less certain acquisitions (SM 12.85). While the new ships prompted fears of oversupply, the rapid expansion of the market from the early 1980s has so far prevented this. Indeed proponents of more vessels point out that in 1987 only five percent of Americans, who comprise 80 percent of passengers, had ever taken a cruise. The preponderance of US passengers also suggests that substantial markets remain to be fully developed in other industrialised regions like Europe, Japan and Australia. The age of the numerous converted passenger liners [in 1986 38 of a sample of 87 vessels were 24 or more years old (Thomas Cook brochure, 1985)] also provides substantial scope for replacement vessels.

Despite this strong market and British operators' wide expertise in passenger carrying, the transition from liner voyages to cruises left only two major companies: P&O (six major vessels totalling 174,730grt plus two small chartered ships) and Cunard (five large and two small vessels totalling 160,000grt) by 1987. The Swire group also ran the small cruise ship Coral Princess (Br 9,639/62). Though OTT showed interest in cruising in the early 1980s, it is notable that Common Bros. (the only large British operator in the lower end of the market and the only large new entrant) which ran three vessels under the Bermuda Star Line in 1988, became interested in cruising only after being taken over by the Norwegian Kristian Siem (Common Bros. AR 1986). In contrast Norwegian tramp operators such as I.M. Skaugen, Gotaas Larsen and Klosters have entered the cruise market on a massive scale while British liner operators, let alone tramp operators, have not done so. An even greater lack of involvement was also evident in some other countries which once had major

passenger liner interests. By the late 1980s France and Holland had no cruise ships, while Germany and Japan had one and two small ships respectively.

P&O and Cunard have followed cautious policies in the 1980s, catering to the high income groups with longer and higher cost voyages. Princess Cruises (P&O) concentrates on trips lasting two weeks, as do Cunard's two 17,000grt vessels. This is a smaller market than that for three/four day and seven day cruises offered by foreign companies like NCL and Admiral Cruises, though NCL's parent Kloster also owns the high class Royal Viking Line. Thus P&O and Cunard have concentrated on a more limited market and shown less organic growth than some of their competitors. Carnival Cruise Line (CCL) has expanded from three converted passenger liners of 3,990 berths in the early 1980s and plans to have a fleet of nine ships with 12,000 berths by 1991. This operator concentrates on the mass market for short Caribbean cruises, having raised its passenger lists by 40 percent in 1985-86 to 443,060 with the addition of new tonnage and anticipated carrying 545,000 passengers in 1987 (SM 4.87). However P&O did expand into this market via its 1988 acquisition of Sitmar which owned five ships with three more on order.

In addition to their high income clientele, the two British companies have built up a niche market by giving their ships distinct identities to encourage passenger interest and loyalty, both of which are advantageous as forms of market insulation (section 3f). Thus the Queen Elizabeth II (Br 67,000grt/68) trades on her image as the last North Atlantic express liner, running transatlantic cruises for part of the year. Both P&O and Cunard have also moved into small specialised markets. The former runs the Swan Hellenic operation founded independently in 1954 by the Swan family, calling at unusual ports with passengers receiving lectures from experts, while Cunard acquired the two small luxury cruise ships of Norske

Cruise in 1987 which charged up to £486 per day compared to £185 on an 'ordinary' luxury cruiseship such as Cunard's Vistafjord (Br 24,300grt/73). This tendency to take over good concepts rather than producing them has useful parallels with British liner companies' failure to develop the American cruise market they pioneered. A similar missing of opportunities is evident in P&O's and Cunard's recent decisions to revitalise their efforts in the market for British passengers. Despite this being an obvious direction, the British market has long been both small and stagnant at around 100,000 passengers, many of them opting for foreign vessels, particularly Russian cruise ships.

The potential demand for unusual cruises has seen a number of British operators of deepsea liner cargo vessels renew their efforts to attract paying passengers for their ordinary routes, a tendency also common among foreign companies in the mid and late 1980s. While Geest Line and St. Helena Shipping have carried passengers for a long time, other British companies such as ACT, Blue Star (on three routes) and the Eastern & Australian SS Co. (P&O) have only recently returned to this market (SM 8.87).

The Merchant Navy has been heavily hit by the post-war extinction of the deepsea liner passenger transport trade in which it had a dominant presence. Though an alternative market in which many British operators had substantial experience existed they failed to capitalise on this and the cruise market has been developed mainly by foreign companies, particularly newcomers from Norway and Greece. The result has been the decline of the British deepsea passenger fleet to a fifth of its peak post-war level with only two major operators now involved. This is particularly important given the strong market for leisure cruising from the late 1970s when other sectors of the shipping market have been in

severe depression. Though the two major operators have renewed and expanded their fleets, this pales in comparison to the expansion by both existing and new foreign companies.

3e) The Role and Utility of Market Analysis and Forecasting.

In the early post-war years both British and foreign shipowners attempted to assess future market developments via the traditional method of their 'feel' for the market. In this process shipowners' experience in the industry and their perspectives on past events were combined with intuition and hunches to reach decisions. Accurate anticipation of the future was particularly important for tramp operators due to their volatile markets (Chapter 3a and b). The lines were less interested in forecasting as their routes and scales of operation were long established, but this also made them less likely to recognise new opportunities.

In deciding whether to invest in new tonnage immediately in 1945 tramp companies were heavily influenced by their knowledge of the similar situation after the Great War. The 1919-20 boom had created an influx of new tramp shipowners, many of whom collapsed along with the market, though some experienced tramp operators like Tatems and Walter Runciman took the opportunity to sell vessels at inflated prices. However, the bankruptcies and the weak inter-war markets induced a general attitude of pessimism and caution in 1945. The directors of Morels for example were loath to order new vessels (Gibbs, 1982, p130). Even Denholms, which did order or acquire new ships, felt its policy to be very risky, a view echoed by other firms who "thought we were fools". Denholms returned half the shareholders' funds so they would not lose everything in the event of failure and stated "the decision to go ahead and chance it was probably the most difficult one to make in the firm's history" (Denholms, 1966, p37).

Ultimately Denholm's did very well, having vessels available for the generally strong markets of the late 1940s and early 1950s. Morels which did not receive new ships until 1953 missed out like many of their British compatriots. In contrast, Greek and Norwegian tramp shipowners, being optimistic about post-war prospects, bought many ships and reaped the rewards. Nevertheless, their single minded concentration on shipping meant they were virtually certain to order new tonnage. Thus their success was as much due to luck as accurate foresight. The strong markets were greatly aided by unpredictable political events such as the Marshall Plan for rebuilding Europe. By 1949 the tramp market was beginning to decline but was saved by another unforeseeable event: the Korean War. British liner companies fared rather better than the British tramp operators since immediate rebuilding of their fleets was generally automatic, though this attitude was not universal. For example, the Silver Line was worried by "the many difficulties and uncertainties inherent in present circumstances" and had only a limited replacement programme (SMEB 11.45).

Assessing markets by 'feel' gave great influence to the personalities of the individuals involved and naturally tended to be subjective. Secondly, the directors of small British tramp companies tended to be absorbed in the day to day business of their companies and thus lacked the time and detachment to assess the merits of company operations properly (Times 28.4.58). Third, the emphasis on past experience may have caused the increasing potential of other fields, such as tanker operating, to pass unnoticed. While similar deficiencies affected many foreign operators, others like the Norwegians E.D. Naess and Leif Hoegh had been trained as economists and were thus able to make a more accurate assessment of future trends. Both men were highly successful in expanding their fleets after 1945. While high level academic training at this level

was probably unusual in the inter-war years, many young Scandinavians were seconded to shipping related businesses. This gave them a wider view of the industry and brought to their attention possibilities which the junior members of British shipping families trained within the family business did not notice. The shipbrokers H. Clarkson for instance employed no less than 90 temporary volunteers or clerks from Norway in 1900-1952 together with 17 Finns, 14 Danes and 14 Swedes (Clarkson, 1955, pp109-110). Many like Sigurd Sverdrup (trained in 1942) and Halfdan Kuhnle (1949) went on to become major shipowners (ISSD, 1969, pp244-245, 256).

Scientific market research was developed in the USA in the inter-war years, but it was not until 1958 that the innovative Cayzers set up the first full scale economic research department in a British shipping company. It comprised an economic intelligence section collecting information from outside the group while a second section gathered in-house data, the material being collated by an operational research section. While liner companies had tended to ignore market prediction, by the mid-1950s they were increasingly affected by problems like protectionism, which aroused their interest in the likely direction of future developments (Times 8.4.58). B&C also entered the tanker trades, where proper analytical market assessment was very important, in the early 1950s: for example in determining the most advantageous time to fix a vessel on a long charter. Shell and BP were also conducting scientific market research to determine the size and deployment of their tanker fleets (British Petroleum, 1958, pp193-195, 402).

The use of market research and prediction only expanded slowly in the 1960s. In 1968 British shipowners spent only £794,000 on commercial and operational research. Further stimulus did come from the need to understand the effects of massive market and technological changes such as containerisation. By the early 1970s the large public liner groups had

all established internal research organisations. Research papers on various aspects of the shipping market were also published by H.P. Dewry, H. Clarkson and Gibson (part of the Hunting group) from the early 1970s. Thus even small tramp companies had access to high quality market research work. In addition, feasibility studies for specific projects could be commissioned from companies like Denholms (Denholm brochure, 1987).

However even scientific forecasting has severe limitations. First, each market is determined by a complex system of interrelated variables which have to be properly weighted in the market equation. The crude carrier trades for instance are affected by many factors including the levels of crude oil production and consumption, distances to markets, vessel speeds, the supply of ships in different parts of the trade and their ability to deploy into other trades. Second, the information on which forecasts are based may be inadequate. Basic information on the volume of commodity trades was often absent in the 1950s and even in 1970 statistical material was weak in many areas (Cmnd 4337, 1970, pp394-408). While information quality has improved, there are still considerable shortcomings in the late 1980s. For example, the potential supply of vessels includes many which are laid up, including a significant but unknown number which are incapable of further service. Third, the markets can be strongly affected by unpredictable events like the massive oil price rise triggered by the Yom Kippur War of 1973. Nor do these always have the anticipated effect. Most commentators would have expected a prolonged war between major oil producers to improve the tanker market but the effect of the Iran-Iraq war was very limited. Fourth, since these unpredictable events usually provide the major turning points, prevailing market conditions tend to be reflected in forecasts. The pre-1973 boom saw increasingly optimistic assessments of the demand for tankers. Finally, vessels last 15 years or more and it is virtually impossible to

predict markets over such a long period given the aforementioned problems. As Ratcliffe noted, the longer term economic cycles are impossible to predict exactly, while the very existence of the Kondratieff economic cycle of 50-60 years is disputed (Ratcliffe, 1985, pp169-175).

The problems showed up in Professor Schonknecht's examination of a large number of forecasts published in 1965-76. The variations between different contemporary forecasts were so large that shipowners' policies could be very different depending on which report they read. Even when extreme forecasts were excluded, Schonknecht concluded that the differences between predicted and actual increases in trade "clearly shows the questionable nature of forecasts of this type" (Schonknecht et al, 1983, pp48-50). While these conclusions came from East German analysts who did not believe in the viability of free market economics anyway, assessments of future shipping markets have frequently been incorrect. Shipowners like Ultramar stated that in 1979-80 the experts were virtually unanimous in believing that the dry bulk trade would expand massively (Ultramar, 1985, p238). In 1979 H.P. Drewry suggested that the sector would recover by 1981 with a possible rise in dry bulk cargoes from 900m to 1,400m tons in 1977-85 (Drewry H.P., 1979). Though most researchers cautiously emphasised that there were many unpredictable factors shipowners placed orders on a scale which would probably have led to overtonnaging in any case. But the predicted rise in demand never materialised and this resulted in a devastating depression.

Shipowners' use of 'feel' to assess market trends was undoubtedly prone to error. British tramp owners' 'feel' betrayed them in 1945 and they missed good freight markets. More scientific methods of market assessment played an important role in facilitating the switch to new types of ship in the 1960s and 1970s. However, while they were an

improvement on earlier methods, the reports of even the best research groups had manifest problems and have themselves adversely influenced markets on occasion. Thus British and foreign shipowners have had to deal with very volatile markets, especially in the tramp trades (Chapter 3 a-d) without really reliable knowledge of future prospects. This made insulation against market fluctuations all the more useful.

3f) Market Insulation.

3f i) Market Insulation in the Tramp Trades.

In the inter-war years the scope for non-liner operators to insulate themselves against volatile and often poor dry cargo freight markets was extremely limited. The number of charters available from liner operators was small and the lower quality of British tramps in comparison to Scandinavian vessels made them unattractive and so they could not avoid lay ups during depressions. In contrast, in the tanker sector some long and profitable time charters were available. In 1926 Anglo-Saxon (Shell) offered 37 tankers for sale with ten year charters. Only two of these consistently profitable ships went to a British operator: Hadley Shipping, which was owned by the Warwick and Esplen families (shareholders and managers in the Furness Withy group) (Middlemas, 1989, pp151-153). Most were bought by Scandinavian companies, while A.J. Morland of Norway built two new ships for five year Anglo-Saxon charters (Dannevig, 1966, pp19-21). These opportunities, which British operators declined, laid the basis of many Nordic tanker fleets.

From 1945 the oil companies made concerted efforts to interest independent operators in tankers and offered long charters as an incentive. Many of these went to major foreign entrepreneurs such as Onassis and E.D. Naess, who used them as security for the loans which allowed their rapid expansion. Though in the depressed markets of the

early 1960s there were few good charters, they were still available for advanced ships. The small Norwegian company A.J. Morland was able to get a 10 year charter for the large tanker A.J. Morland (No 58,200/64) for instance (Dannevig, 1966, p26). Cyril Warwick "had been asked in the mid-1950s by the Shell company to encourage British shipowners to take an interest in tanker ownership with the added inducement of long term charters" (Lang and Lang, 1974, p228). But even when the oil companies ordered vessels themselves in the hope of persuading British independent owners to take them over their success was limited. Warwick had great difficulty in persuading Turnbull Scott to acquire two 18,000dwt tankers in 1955 and 1957, though his own Furness Withy group took over a pair of 50,000dwt vessels in 1960 under these circumstances (SM 8.87; Moss and Hume, 1986, p557).

The early 1950s also saw BISC (Ore) chartering specially built ore carriers for 10 to 15 years. These were more popular with British owners who traditionally concentrated on bulk dry cargo, though Lyle's chairman James Shearer initially considered it beneath him to ship ore (Orbell, 1978, pp122-125). Despite BISC (Ore)'s preference for British shipowners, some of the lucrative contracts went to foreign operators, who provided 15 of the 71 (968,000dwt) ore carriers planned in 1957. Foreign participation would have been even higher had not some operators, such as N.J. Goulandris who was to build twelve vessels, dropped out (BISF ARs 1951-57).

Alternatively, tramp operators could take advantage of the increased chartering in by liner operators. Lyles for instance chartered vessels to the Port Line, Palm Line, Pacific SN Co., Shaw Savill and New Zealand Shipping in the 1950s (Orbell, 1978, pp119-126). However, in 1960 only 40-45 percent of British tramps were time chartered compared to 55 percent in Norway where tramps formed a larger part of the dry cargo fleet.

Further, many charters were short and fixed at low post-1957 rates.

British reluctance to accept long term cover stemmed in part from a feeling that it was a lazy way to operate - the true shipowner should heroically ride the often stormy seas of the spot market. Shipowners may also have been deterred by the inability of time chartered vessels to take advantage of freight booms. But booms were shortlived and time charters could be much more profitable than spot trading. In 1958-69 (a period which spanned a major freight slump), the average profitability of British ore carriers chartered to BISC (Ore) was more than double that of any other type of shipping (Cmnd 4337, 1970, pp335-37). However, British tramp owners often preferred to pursue the mirage of occasional high spot market rates.

The depression of 1957-66 reduced the availability of good charters since shippers preferred low transport costs from spot charters. Thus the optimum policy for shipowners was to fix time charters at the peak of the freight boom to cover the ensuing depression, a difficult task given the markets' unpredictability (section 3e). Examination of post-1957 time charter rates deterred some British companies, which concluded the risk of losses was too great. In particular oil companies tended to offer five year charters covering cost rises. But the rapid pace of technical advance could make tankers obsolete and thus difficult to recharter profitably five years in the future. However, British shipowners' traditional fields also had a poor record of profitability. An investigation of pre-1966 charters showed that given the right vessel and efficient management a reasonable profit of eight percent a year was possible. Thus British shipowners appear to have been overly pessimistic about the potential results of long period chartered tankers. This reflected in part British concentration on smaller less efficient vessels which were less attractive to charterers (Cmnd 4337, 1970, pp160-161) (Chapter 2a).

Once the depression had arrived it was generally too late to get remunerative charter cover. One alternative solution was for shipowners to co-operate in laying up their oldest and most inefficient ships to reduce supply and increase freight rates. This concept had been tried with some success via the Schierwater tanker freight rate stabilisation scheme in the depression of the early 1930s (Economist 22.4.33, 26.1.35). British shipowners had prepared such a scheme for dry cargo tramps when rates were falling in early 1950. It was put into practice, as depression bit, in 1959 at the suggestion of Greek operators but failed to get sufficient support (GCBS, 1960, p19). In 1963 a similar international programme was introduced into the tanker trades by Intertanko (the international tanker owners association). Unlike the dry cargo trades there was a dominant group of co-operating shippers - the international oil companies - who preferred low market rates which reduced their transport costs. Hence they withheld their support, a factor rendered even more significant by their possession of very large fleets of their own. Though 1.1mgrt of tankers were laid up under the scheme by mid-1964 it was suspended in 1965 due to insufficient support. Too many independent owners tried to be 'free riders' on any freight rate rise it produced without laying up their ships or giving part of their income to owners whose tankers were laid up under the auspices of the scheme (MT 1963, p39).

While many British tramp owners had not taken up period charters in the 1950s they often had important regular clients who gave consistent employment to some vessels - for instance Lyle's and Hogarth's carriage of cargoes for the British Phosphate Commission (SM 4.88.). Some of these associations became formalised into period charters such as Lyle's three year contract to carry British car exports to the North Pacific (Orbell, 1978, p127). From the 1960s many such shipments were carried under

contracts of affreightment whereby the shipowner undertook to carry the cargo but not in a specific vessel (so in theory in a depression he could sell his vessels and charter in cheaper ships). Such contracts guaranteed employment for the vessels but were often too large for individual shipowners (Graig Shipping when looking for a 500,000 ton per year contract in the late 1970s was only offered one for 20m tons a year (Williams, 1988, p42)). This, combined with a desire for a portfolio of contracts, so the loss of one would not leave the entire fleet unemployed, resulted in many operators combining to form consortia (Table 3.10). Some like Seabridge, whose six members owned 19 large vessels in 1974, were very large. Consortia often tried to build up a strong presence in a particular niche market. For instance, Scottish Ship Management at its peak operated 24 small bulkers while Scanscot (which included three British vessels in 1970) specialised in forest products.

By 1966 British tramp owners' recognition and reliance upon long term cover had increased. Five percent of the fleet was on charter to UK liner companies, 20 percent to BISC (Ore) and 30 percent to foreign charterers - a total of 55 percent (Cmnd 4337, 1970, p143). The availability of long term contracts was expanding with the dry bulk shippers increasingly copying the oil companies which had traditionally covered a third of their requirements by long chartered tonnage (the remainder being divided equally between owned and spot/short period chartered tonnage). The tanker boom of 1970 saw a massive increase in period tanker chartering from 25.6m dwt years in 1969 to 175.6m in 1970, as charterers attempted to reduce their potential long term transport costs. Similarly Japanese ore and coal shippers sought long term contracts. Most British independents missed out on long term oil charters due to their lack of interest in large tankers (section 3a). 1971 and 1972 saw sharply reduced oil time charter rates which encouraged charterers to take on cheap long term

Table 3.10 British Involvement in Tramp Consortia.

<u>Ship Type</u>	<u>Consortium</u>	<u>Members</u>	<u>Set up</u>
Small bulkers	Scottish Ship Management	Lyles, Hogarth, Lambert	1965
Large bulkers and tankers.	Seabridge	Bowring, Hunting, Clarkson, Bibby, Silver Line, Furness Withy, Britain SS Co.	1965
Bulkers	Ocean Bulkers	Ropner, B&C, Buries Markes	1965*
Large bulkers	Nordic Bulk Carriers	Ropner and Norwegians	1971
Forest products carriers	Scanscot	Denholm, OTT and Scandinavians	
Bulkers	Maritime Bulk Carriers	Runciman, Reardon-Smith, Sheaf SS Co.	*
Small bulkers	Celtic Bulk Carriers	Reardon-Smith, Irish Shipping	1973
Parcel tankers	Panocean-Anco	OTT, P&O, Swires, Tate & Lyle	1968
Tankers/bulkers	Anglo-Nordic	P&O	
Gas carriers	Mundogas	P&O	
Bulkers	Associated Bulk Carriers	P&O	
Special bulkers	Star Shipping	Runciman (1970-75), France Fenwick (1968), Harrison (Clyde), R.S. Dalgliesh.	
Small bulkers	Atlantic Bulkers	T. & J. Harrison, Bowring, Denholm, OTT.	

<u>Ship Type</u>	<u>Consortium</u>	<u>Members</u>	<u>Set up</u>
VLCC/OBOs		Cory, Cunard, MOL(Japan)	1971*
VLCC/OBOs	Osprey Bulk Transport	OTT, NYK (Japan)	
Small bulkers	HSB	Dene and Norwegians.	
Small bulkers	Bulk Handling Group	Cunard.	

* These consortia were never activated.

Sources:- Annual reports of the companies.

tonnage. In January 1971 eight 260,000dwt tankers were fixed for 15 years in a single deal. 1973 saw long charter volumes rise again, with 65.7mdwt of tankers fixed for an average of three years at rates which had risen from Worldscale 52-58 for a five year VLCC charter in 1972 to Worldscale 100 in 1973 (MT, 1970-73).

The subsequent collapse of the spot market should have confirmed the advantage of long term cover for shipowners. Certainly Norwegian companies caught in dismal mid-1970s spot markets were only saved by government intervention and some like Reksten still collapsed. However, many shipowners with long period charters suffered from the cost escalation which had once deterred British independents and incurred severe losses. Burmah Oil received seven large LNG tankers in 1977-79 which were chartered to Pertamina of Indonesia for 20 years. Burmah's charters covered inflation in operating costs but not variable overhead costs, a problem apparently not realised by the company. Thus Burmah was enmeshed in a long term commitment of declining profitability, with profit margins in 1986 described as "inadequate in relation to the financial commitments Burmah has undertaken" (Burmah ARs 1978-86).

Burmah was also hit by the cancellation of the project for which the LNG Aquarius (US 72,622/77) was delivered in 1977, with new employment on the Pertamina trade not beginning until 1981. Burmah was unlucky since long term contracts for large LNG tankers could be extremely profitable. The international company Gotaas Larsen has had five LNG carriers on highly profitable life charters since the late 1970s, enabling it to support loss-making bulker, tanker and chemical carrier operations (Gotaas Larsen ARs 1979-86).

The extreme length of the post-1973 shipping depression has meant many vessels have found themselves on a very weak spot market as long period charters expired. Hunting built the Thamesfield (Br 50,000/77) for

an eight year charter to carry packaged timber for Macmillan Bloedal of Canada but sold the vessel to James Fisher, which initially found it made "a valuable contribution to operating profits". However, the charterer declined to extend the charter when it expired in August 1985, preferring to take advantage of vessels available at very low rates in the spot market. Fishers were then severely hit by a loss of £20.4m on the sale of this and another bulker (James Fisher ARs 1983-85; Hunting Group Review Autumn 1977).

Foreign companies have encountered similar problems. The Hong Kong shipowners expanded on the basis of long charters from Japan (the Shikumisen system). However, the giant C.Y. Tung and Wah Kwong concerns nearly went bankrupt in the mid-1980s due to the depression and the expiry of profitable pre-1973 tanker charters. Even the apparently solid Y.K. Pao group was shaken when its main charterer - Japan Line - almost went bankrupt in 1977. Y.K. Pao was forced to sell many vessels on profitable charter to the Japanese charterers who wished to end their losses. 1985 saw the mass expiry of charters on 22 of its 38 remaining VLCCs, though the company survived, aided by low costs and an improving tanker market. The enterprising Y.K. Pao, rather than being caught out by the terms of the contract like Burmah, turned them to his advantage by a clause forcing the charterer to pay money, ostensibly to return the vessel to a specified condition, on the expiry of the charter, providing a cash profit of H.K. \$1-2m in addition to scrap value (FEER 29.1.82).

Contracts of affreightment could also be problematic. Depressions mean new contracts, even if they could be found, were not as remunerative as their predecessors. Scottish Ship Management suffered both from the reduced availability of freight contracts and the unprofitable freights on those which remained and collapsed in 1986, while Seabridge closed in the late 1970s. P&O has maintained a large portfolio of freight contracts

covered by in-chartered vessels to take advantage of low rates, its own ships being sold.

Despite the reduced availability and profitability of long term cover, some foreign operators have obtained such contracts. Bergesen's close relationship with the German ore importer Rohstoffhandel helped secure a ten year charter (with an optional six year extension) on the world's largest bulker, Berge Stahl (Li 364,467/86). Similarly forest product specialist Gorthon Line of Sweden took delivery in 1988 of a pair of 11,000dwt vessels on 15 year charters to the Swedish forestry company MoDo (SM 2.88). However, the returns may be low, as the Bergesen vessel is Liberian registered (most Bergesen ships are Norwegian registered) to minimise costs. A third of Bergesen's tankers and a fifth of the bulkers were laid up in 1983-84 and by 1988 many had only short term employment despite its close relationship with major customers. Thus this renowned company could not keep its fleet profitable or even occupied through the post-1973 depression (Bergesen introduction document, 1988).

British shipowners undoubtedly missed or even turned down opportunities which were vital in enabling more receptive foreign companies' to expand rapidly after 1945. While British attitudes improved in the mid-1950s few such opportunities were available after 1957. When good long term cover was on offer from 1967, the large tanker contracts were not taken up by British independents, though in the dry bulk trades the record was rather better. After 1973 the poor profitability of operators unprotected against poor markets was compounded by the expiry of or problems with charters for the more careful shipowners. Had more operators been able or willing to emulate Ropners' successful market insulation policies (Chapter 7c) the British tramp fleet would probably not have contracted so dramatically.

3f ii) Liner Shipping and Conferences.

In both the passenger and cargo liner trades the objective of market insulation was approached by the formation of cartels known as conferences within which independent lines co-operated to limit competition. The basic form required adherence to agreed schedules of minimum freight rates. In addition, service agreements were sometimes established allotting berth rights at particular ports and setting down the sailing frequencies for each member's services. Some conferences went a stage further by pooling their revenue for division among the members on the basis of predetermined shares. This was sometimes combined with operational rationalisation in the form of a joint service involving some or all of the conference members.

The conferences also sought to limit external competition. One approach was to establish an 'open' conference which any operator conducting a genuine liner service could join. However newcomers were usually unwilling to charge conference rates as they initially needed to attract shippers by lower prices. In practice most conferences were 'closed', entry being restricted, and attempts were often made to drive off newcomers. This required the maintenance of shippers' loyalty so that outsiders were unable to garner sufficient cargo. First, the conference lines could provide a service of high quality, efficiency, regularity and speed. Second, rebates of 5 to 15 percent might be offered to shippers carrying all their cargo on conference vessels. Under the 'dual rebate' rates were reduced immediately in return for assurances of future loyalty. Alternatively the rebate could be deferred until the shipper had continued to use the conference lines for a further six months. In 1970 approximately two-thirds of conferences operated some type of rebate (Cmd 4337, 1970, p118). Conferences might also attack an intruder directly by

cutting rates until the incursor's losses become unbearable, and by placing 'fighting ships' which sailed concurrently with his vessels and offered very low rates. Ultimately persistent new operators could be brought into the conference with the lowest trade share they would accept, in order to return rates to normal levels.

British companies are usually credited with founding the conference system which by 1914 covered nearly all liner trades (Cameron and Farndon, 1984, pp173-175; Kirkaldy, 1919, pp187-188). By 1945 virtually all British lines operated within conferences as did most continental operators. The Far Eastern Freight Conference (FEFC) had six British members in 1945 plus Messageries Maritimes and Chargeurs Reunis of France, Lloyd Triestino of Italy, the Danish East Asiatic Co. and Wilhelmsens (Norway). However, the Nordic and American lines frequently ran non-conference services. Isbrandtsen and Seatrain eschewed conferences and usually offered lower tariffs while the non-conference Robin Line mirrored conference rates. The Stevenson Line and States Marine ran a mixture of conference and outsider services while the Japanese were generally willing to be loyal conference members: for instance NYK and OSK in the FEFC (Brooks, 1985, p87; Marx, 1969, pp186-187).

The effectiveness of conferences varied considerably. Even FEFC, one of the most powerful conferences, could not always fight off interlopers. After the rejection of an application to join FEFC, Mitsui fought the conference for 39 months from March 1953. Among fellow Japanese shipowners, conference loyalties superceded national feeling as NYK and OSK spearheaded FEFC's onslaught on Mitsui. Mitsui's financial resources matched those of the conference, its losses being made good by its strong tramp division. Ultimately Mitsui was allowed to join FEFC but on a very restricted basis until 1961 (Tatsuki and Yamamoto 1985, pp135-139). FEFC's success should be seen not only in the light of successes and

failures in fighting incursors but also in the likelihood that it deterred many potential interlopers. Certainly as late as 1966 it had no non-conference competitors and only three lines had joined the conference since 1945 (Brooks, 1985, pp85-88).

As British lines were staunch conference supporters their belief in the system was unsurprising, but some academic analysts also supported conferences. F.E. Hyde saw conferences as a necessary tool in assuring reasonable trading conditions, as did D. Marx who stated that "by and large conferences appear to provide a reasonable degree of stability" which was vital to liner shipowners as "unrestricted competition is generally unworkable in liner shipping" (Marx 1969, pp291-292; Hyde, 1967, pp63-97). Even S.G. Sturmev, a ferocious opponent of conferences, admitted that "if liner shipping is to survive it is obvious that some restriction on price competition must occur" (Sturmev, 1975, p13). Certainly where conferences were weak, trading could be very difficult. On the North Atlantic, American legislation prohibiting closed conferences and deferred rebates produced weak conferences, a major factor in the frequent rate wars and very low load factors, with cargo liners up to two-thirds empty on average (Cmnd 4337, 1970, pp125-126).

Shipowners claimed the conference system maintained stable freight rates, a proposition supported by D.L. McLachlan who stated that "it is clear at the outset that the conferences' claim to provide a high degree of rate stability is borne out by our index" (Table 3.11) (McLachlan, 1958, p58). However, stability did not necessarily confer good profitability, lines' profits being low in the post-war years (Chapter 6g). While conferences maintained rate levels in slumps, operators were hit by low load factors which cut revenue. Furthermore, shippers naturally tended to resist rate rises, pointing to the conferences' predilection for extreme secrecy as concealing monopoly profits. Though

Table 3.11 Freight Indices.

<u>Year</u>	<u>Liner</u>		<u>Tramp</u>
	(1)	(2)	
1946		53	
1947		53	
1948		53	
1949		55	
1950		57	
1951		67	
1952		72	
1953		71	
1954	70	70	
1955	75		
1956	81		
1957	93		88
1958	86		
1959	85		
1960			
1961			
1962	92		
1963	94		
1964	97		
1965	100		101
1966	104		88
1967	107		94
1968	107		92
1969	109		85
1970	114		119

<u>Year</u>	<u>Liner</u>	<u>Tramp</u>
1971	126	81
1972	132	74
1973	140	162
1974	186	218
1975	204	142
1976	215	134
1977	229	133
1978	241	140
1979	267	179
1980	286	213
1981	315	196
1982	321	159
1983	320	170
1984	423	173
1985	446	167
1986	372	158
1987	337	174

Sources:- (1) Compiled and calculated from MT 1959-88, German liner rates index.

(2) Compiled and calculated from McLachlan, 1958, pp50-62, UK liner rates index with 1954 rates taken as equal.

there is no definite evidence of such profits, as the Economist of 11.4.64 stated, "the more the shipping conferences fight for secrecy the stronger the suspicion they really have something to hide". Since the British lines remained pre-eminent in many major conferences [FEFC did not have a non-British chairman until 1976 (Brooks, 1985, p85)], they bore considerable responsibility for the secrecy which harmed their own interests. This also prompted government interference to support shippers and prevent the conferences exercising their supposed monopoly powers. The South African government had forced the local conference to negotiate freight rates with it since 1911, leading to the 1955 Ocean Freight Agreement which allowed an average return on capital of only five percent (Berridge, 1987, p59). Similarly from 1955 the Antipodean governments' contracts included a set average return on capital (Cmnd 4337, 1970, pp126-127).

The conference system was also accused of de-emphasising the profit motive. S.G. Sturmeý stated that "conferences are evidently not operating or not even trying to operate in order to maximise the profits of the shipowners. What they may be doing is to maximise sales of space" (Sturmeý, 1975, p37). Liner shipowners in defending conferences emphasise the supposed benefits to shippers in terms of regular, fast and efficient services. This argument for outside consumption could reinforce liner operators' tendency to stress the service rather than the profit motive (Chapter 6g). The complexity of conference operations and regulations also absorbed a great deal of management attention which could have been better used in other areas such as improving efficiency. Sturmeý argued that the conference system tended to divert competition into wasteful areas. He pointed to the emphasis on high speed cargo liners [though Sturmeý himself saw this as an important competitive factor in other works (Chapter 2c)] and the large number of calls at minor ports

offering little cargo and thus little return (Sturmev, 1975, p38). However, though such calls may not have been economic in themselves, cutting them out could create opportunities for new competitors, as illustrated by the success of Mitsui's calls at Le Havre, a destination ignored by the conference in its battle with the FEFC (Tatsuki and Yamamoto, 1985, p137).

In their heyday prior to the Great War, British conference lines were often prepared to break into the trades of other conferences: for instance R.P. Houston's successful incursion into the South African trade in 1902-04 (Porter, 1986, p51; Taylor, 1976, p38). By 1945, however, British lines' history of co-operation with fellow conference members had led to a community spirit and respect for the system. Thus they were very reluctant to act against conferences in other trades. This was reinforced by the establishment of large groups with interests in many trades, which militated against breaking into a trade covered by a member line. By attacking another conference they could face retaliation in their original trade from a group which was already in both conferences. It is notable that the only British lines which fought conferences in the inter-war years were new lines such as the Palm Line, and the Cambrian and Blue Star lines which attempted to enter the South African trades. This problem was reinforced by the lack of new British lines after 1945 (Chapter 6b). While long established foreign lines also had a gentlemanly respect for the niceties of the conference system, this was by no means universal. Elder Dempster found its West African trade invaded by SWAL and Hoegh in 1945 and 1949 respectively, taking advantage of the shortage of tonnage. Inside the conferences British lines were rarely as persistent in pushing their own interests as some foreign lines. Ploys such as the Dutch lines' temporary departure from the Indian conferences in 1949 to strengthen their negotiating position were not emulated by the British (Times 3.5.49,

6.5.49). Prolonged adherence to the conference system could also bring a rigidity to British lines' operations, reinforcing their unwillingness to establish new trades even where there was no conference, in contrast to Japanese and Scandinavian companies.

The new states established from the 1940s were often suspicious of the secretive cartels of former colonial lines which controlled their vital trade links. The belief that the conferences were not necessarily acting in their best interests prompted actions like the establishment of government-backed national marketing boards to increase the power of shippers in negotiations with the conferences. The conferences, which were intended to deal with other commercial interests, had little ability to fight governments which controlled their access to cargoes. Thus they were unable to prevent new national lines joining the conferences (Chapter 5c and 5d). However, ready admission of national lines to the conferences did not always lead to harmonious relations. For instance "the Indians were considered by the Conference lines to be recalcitrant and failed to conform to the orthodox version of conference behaviour". Ultimately the Indian lines' malpractices were only ended by giving them a greater trade share (Taylor, 1976, p134). Since these increased trade shares were allocated within the conference trade, the British liner industry was hit particularly hard due to its attachment to conferences. This was not a new problem. British lines, as they were usually the oldest conference members, found their share of the conference trade continually squeezed as new lines were admitted. For instance, Elder Dempster's share of the West Africa conference trade fell from 57 to 30 percent between 1948-49 and 1964 (Davies, 1973, p371).

From the late 1960s the conference system changed radically as the passenger conferences disappeared due to the demise of the passenger liner and containerisation affected the cargo conferences³. British and foreign

conference lines formed large efficient consortia leading the Rochdale Inquiry to believe that "the cost of mounting a container service is so high that once an existing service has become well established it will become more difficult to mount a competing service" (Cmnd 4337, 1970, p29). The British lines also hoped for a major improvement in profitability. On the South African route the Pretoria government agreed to raising the return on capital employed to 12-15 percent in 1974 (Berridge, 1974, p175).

The wholesale reconstruction of liner operations under containerisation offered great opportunities to break into new trades. In 1967 the Port Line, Blue Star and Ellerman applied to join the Australia-Japan conference and when rejected began the Atlas Line anyway, sparking a freight war. Ultimately they gave in, partly on the promise of a share in the container trade but also because they wished to end the conference line OCL's hostility to their own ACT consortium (Taylor, 1976, p162; Russell, 1985, pp62-6). This predatory action was highly unusual among British lines. In contrast, many foreign conference lines put their own interests first. In the South Africa-Europe trade Safmarine took four of the planned ten large container ships. The continental lines then argued that they should have four of the remaining six ships and after protracted wrangling the British lines capitulated (Berridge, 1987, p112). Moreover, foreign conference lines sometimes containerised independently to avoid being swallowed by a large joint service as three Scandinavian companies did on the Europe-Australia run (Cmnd 4337, 1970, p112).

³ Conferences have not developed in the cruise trades, possibly because the persistent strength of the market reduced the incentive. Also many cruises are run from the USA, whose government has a strong antipathy to the conference system.

Despite conferences' greater openness and improved relations with shippers after the 1960s, the conference system was weakened rather than strengthened by containerisation. In the South African trade the highly efficient SAECS consortium of conference lines did force out the outsiders ECL and CTM, while Hellenic joined the conference. However new outsiders continued to appear and by 1984 were carrying 20 percent of containers and 40 percent of breakbulk cargo (Berridge, 1987, p208, 215). Even so this conference fared comparatively well. The Transpacific Freight Conference collapsed in 1978 and though reconstituted in 1983 its share of the trade had fallen from 77 to 54 percent with 11 conference lines and 20 outsiders in 1984. Even the mighty FEFC was badly hit with 31 percent of containers travelling on non-conference lines in 1982 and FEFC members being fined for offering rule breaking rebates. However, more recently it was instrumental in bankrupting the powerful outsider USL, while Evergreen agreed to limit its carryings. This accommodation was stimulated by the potential loss of cargo when Maersk threatened to leave the conference, a defection which the reduction in competition following the Evergreen agreement has prevented. Though conference membership remained virtually universal among British lines, conference shares had on average fallen from 95 to 60 percent in 1974-84 (Croner's World Directory of Freight Conferences 1989 ppl-259). While the former figure is possibly an overestimate the conferences have undoubtedly become weaker leading to more volatile liner rates with consequent problems for liner companies (Table 3.11) (FEER, 10.2.83, 16.2.84; Cameron and Farndon, 1985, p177).

The conference system, and in particular the way it was perceived by British lines, acted to restrict their scope for expansion and was hence an important factor in the lack of post-war growth in this central sect.

of the British shipping industry. In contrast some foreign lines pursued more adventurous policies, if necessary at the expense of good conference relations, and their expansion induced relative decline in the less combative British industry. The secrecy of the conferences increased the new states' suspicions of them and stimulated the establishment of national lines to reduce any effects of alleged conference malpractices (Chapter 5c and d). The implementation of containerisation saw new (and some existing) foreign operators expand, often at the expense of the more staid British, European and Japanese conference lines. Containerisation also unexpectedly undermined the conference system, although the subsequent rate wars provided evidence of strong conferences' value as a method of insulation against the debilitating effects of severe competition.

CHAPTER FOUR

Shipowners' Costs

This chapter will examine British shipowners' costs in order to identify differences with foreign operators which would help explain the former's poor growth performance (Table 4.1 provides breakdowns of shipowners cost structures). In particular, British companies' poor profitability (Chapter 6g) meant the gap between costs and revenue might be narrower than for foreign competitors. Therefore any cost increases which would not immediately be passed on to customers would drastically affect profits. Certainly complaints at the incidence of cost inflation feature widely in British owners' own explanations of their difficulties.

Throughout the post-war years British shipowners have complained at the disparity between the wages they pay and those of some competitors and at the problem of wage inflation. However British companies may also have derived countervailing benefits from low cost labour. Secondly, labour costs were affected by the achievement of economies of scale (Chapter 2) and by manning levels. Examination of the latter is important not only in relation to foreign competition but also in assessing the advantages of cheap ratings.

The world-wide uniformity of fuel prices would appear to deny foreigners any advantage. However narrow British profit margins meant fuel price escalation might have relatively more deleterious effects. The degree to which British companies used motorships introduced a variable factor, since they used cheaper fuel and needed less manpower than steamers. Though slower speeds meant greater economy, it might also put them at a competitive disadvantage. Furthermore, cutting finance costs by using old ships, which were less advanced technically, had the disadvantage that they needed more fuel and labour than modern tonnage.

Table 4.1a Proportions of Individual Cost Items (%).

<u>Cost Category</u>	<u>20 Knot India cargo</u>	<u>16 knot India Cargo</u>	<u>(2)16 knot Cargo</u>
	<u>liner (557,000*)(1)</u>	<u>liner (475,000*)(1)</u>	<u>Liner (12,500dwt)</u>
Capital	36.4	30.5	21.2
Maintenance	15.0	12.6	8.9
Insurance	6.7	5.6	3.9
Crew	16.6	22.8	12.3
Stores	0.8	1.1	2.1
Sundries	0.4	0.6	0.8
Fuel	4.8	4.9	5.4
Cargo handling	7.8	8.1	26.5
Port dues	7.5	8.5	9.7
Brokerage	0.7	0.7	5.3
Administration	<u>3.3</u>	<u>4.6</u>	<u>3.9</u>
	100.0	100.0	100.0

* Cargo capacity measured in cubic feet.

Sources:-(1) Saggar,1970, p53;

(2) Goss, 1967, p76.

Table 4.1b Cost Structures on FOC and North European Ships (%).

<u>Cost</u>	<u>1970</u>		<u>1981</u>	
	<u>FOC VLCC</u>	<u>N. Europe VLCC</u>	<u>FOC VLCC</u>	<u>N. Europe VLCC</u>
Stores	0.8	1.4	1.4	1.5
Repairs	3.2	4.0	3.3	3.9
Insurance	11.9	11.2	1.6	1.9
Administration	1.7	2.1	1.0	1.5
Manning	5.4	8.7	5.1	7.2
Fuel	16.3	15.4	46.9	45.0
Capital	53.4	50.4	37.0	35.5
Port charges	7.1	3.6	6.7	3.5

<u>Cost</u>	<u>1970 (30,000dwt tanker)</u>		<u>1981 (30,000dwt tanker)</u>	
	<u>FOC</u>	<u>N. Europe</u>	<u>FOC</u>	<u>N. Europe</u>
Stores	2.4	3.4	4.7	2.8
Repairs	3.0	6.7	4.3	5.2
Insurance	3.7	5.5	2.0	2.9
Administration	2.4	3.2	2.6	1.8
Manning	13.3	19.1	11.9	16.6
Fuel	12.6	10.9	31.4	30.8
Capital	49.9	42.6	35.0	34.3
Port charges	13.0	11.2	5.7	5.6

Source:- compiled and calculated from Tanker Operating Cost Trends (1983).

In the area of finance, S.G. Sturmev criticised British companies' conservatism for using traditional resources which restricted their ability to expand. The shipowners themselves pointed to severe escalation in shipbuilding prices and their own finite resources, together with other problems like poor performance on contracts and the long delays between order and delivery. These they also saw as external factors, though S.G. Sturmev believed it was within their power to reduce these finance costs, as some competitors did.

The final section deals with port costs, another source of irritation to shipowners the world over. High costs were combined with poor labour relations leading to industrial disruption and opposition to technical advance. Although this might appear to affect all shipowners equally, if British ports were particularly troublesome this would have a disproportionate effect on British owners' by hitting their natural base market. The concentration of national merchant marines on different vessel types was another variable. Many Greek operators concentrated on tankers which used modern, efficient company ports where there was little industrial strife. The problems were concentrated at the old established ports, with their often outmoded facilities, which could prevent the use of new vessel types and the achievement of other operating economies.

4a) The Cost of Marine Labour.

4a i) Wage Costs and Industrial Relations.

In assessing employment costs of seafarers, not only wages but also social security benefits and cost of victualling should be taken into account. This complexity makes it difficult to obtain full comparative figures and creates considerable potential for error. Despite these difficulties Basil Mogridge succeeded in obtaining a considerable number of comparative statistics for the years up to 1960. These show that

British crew costs were somewhat lower than those of European competitors such as Norway, Denmark, Holland and Italy in the late 1940s and 1950s (Table 4.2). In comparison with France the UK's advantage, while small in the 1940s, was by 1953 of considerable magnitude. UK labour costs were only a third to a quarter of the American level and the American government granted operational subsidies to make up the difference. The Canadian flag deepsea fleet, which did not receive subsidies to counter a cost problem of similar size, virtually disappeared in the 1950s. The main traditional maritime state with a cost advantage over British shipowners was Japan, though the gap had narrowed considerably from the mid-1930s when Japanese labour costs were only half the British level (Sturmev, 1962, pp314-315).

While British shipowners rarely complained about crew costs in comparison to their European counterparts, the flag of convenience (FOC) operators were seen as having a considerable advantage. Here Mogridge's evidence from US sources surprisingly recorded that Panamanian vessels had costs 50-60 percent above UK levels in 1949. Mogridge himself produced the less startling conclusion that "for the last decade or more Panhonlib ships have probably on the whole had crew costs in the same range as ships sailing under the major Western European flags" (Sturmev, 1962, pp317-318). He also stated that FOC labour costs varied greatly depending on the seafarers' nationality. While German, British, Norwegian, Dutch and Italian crews had to be attracted by high wages in the absence of social security benefits, Indian and Chinese crewmen were far cheaper.

The use of cheap labour was not confined to FOC operators, but was also widespread in the Merchant Navy, accounting for about a quarter of the labour force up to 1960 (Table 4.3). Liner companies tended to use ratings from their colonial destinations. Ellermans, P&O, Bibby, Brocklebanks and the Bank Line used Indian seamen, Blue Funnel and the Ben

Table 4.2 Comparitive British and Foreign Wage Costs

<u>Year</u>	<u>Britain</u>	<u>Norway</u>	<u>Holland</u>	<u>France</u>	<u>Denmark</u>	<u>Japan</u>	<u>Italy</u>
1949	100	110	114	109			
1953	100	110	111	145	121	86	107
1953	100	125	126	164	131	97	122
1960	100	104-111	100-108		120-130		
1964	100	97				85	80
1968	100	141				105	142

Sources:- Sturmev, 1962, pp314-315:

McConville, 1977, p45.

Table 4.3 Number and Nationality of Seamen on British Ships.

<u>Year</u>	<u>British (%)</u>	<u>Aliens (%)</u>	<u>Lascars (%)</u>	<u>Total Number</u>
1911	65.6	13.8	20.6	208,214
1938	67.2	4.4	28.4	159,313
1951	68.8	3.7	27.5	152,707
1961	67.1	2.6	30.4	142,462
1971	61.1	4.6	32.7	89,156
1976*	78.3		21.7	94,459
1982	86.9		13.1	57,262
1986	90.9		9.1	32,921

Sources:- McConville, 1977, p37;

GCBS, 1987, annex 2.

Note:- Mogridge gives a lower percentage of Lascar labour (23 percent in 1960) though his total labour force was larger at 184,000 in 1960 (Sturmev, 1962, p296).

* Figures from 1976 are calculated on a different basis. The number of non-UK seafarers is an underestimate as it is the number actually at sea, whereas for British seafarers the figure given is the number available for work.

Line men from Hong Kong and Singapore, Elder Dempster West Africans and Harrison Barbadians (Lane, 1987, p17, 182; Taylor, 1976, pp144-145).

Some tramp companies also used foreign labour: LOF and Morels for instance both used Lascar rating¹. British companies were discreet about the financial advantages of foreign seafarers. Morels stated that "a Lascar crew maintained the ship to a very high standard and remained on board in British ports. The cost of such a crew was was not very different from that of a British crew as considerably more Lascar sailors were employed" (Gibbs, 1982, pp134-136). In addition to accepting stricter discipline than British ratings, Lascars were also far cheaper than Morels claimed. Even in 1973, after a prolonged campaign to reduce the differential between foreigners' and Britons' wages by the National Union of Seamen (NUS), the former's wages were only half the British level (McConville, 1977, pp38-40). This suggests an even greater differential between British and Lascar seafarers in the 1950s and 1960s. While Lascar manning levels were higher the difference was not so large as to eliminate their cost advantage, though this varied with the design of individual ships. Thus, while the 'twelve' cargo liner Silverbriar (Br 10,750/49) was manned by 54 Asian ratings and the similar Port Brisbane (Br 11,424/49) had 49 British ratings, Furness Withy's Pacific Unity (Br 11,424/49) was manned by only 39 British seamen (SMEB, 3.49, 6.49, 1.49).

Mogridge's estimates of a 10-15 percent cost advantage for Lascars crews would thus seem to be on the low side. Such cost reduction was not available to, or was not used by, some foreign competitors. Only one to three percent of Norwegian shipowners' seafarers were Asians and, while

¹ Lascar was the popular name for seamen recruited from the Indian sub-continent, though in practice it was often applied to any non-Caucasian seafarer.

12-15 percent of the labour force comprised other foreigners, they were paid at Norwegian rates (though savings could be made on social security provisions) (Sturmey, 1962, p297). By 1967 however the foreign element had increased. 7.8 percent of Norwegian deepsea crews were of Asian origin, while another 8.3 percent were from low wage European states like Spain and Portugal (MFAN 1988-89). Dutch shipowners, on the other hand, often used cheap labour from former colonies (Table 4.4).

Foreign labour was also valuable as full employment in the 1940s and 1950s made recruiting British seafarers difficult. The problems of casual labour were overcome by the Established Service Scheme of 1947. This put seamen not employed by specific companies into a general labour pool used by shipowners and also paid them benefits between voyages or when they were sick or undertaking training ashore (Cmnd 4337, 1970, pp447-449). But potential seamen could be deterred, and existing seafarers frequently left the industry, due to the often militaristic discipline and prolonged isolation from family and friends. Although crewmen on liners calling at the UK got regular leave, men on other deepsea vessels could be away for many months. Lyles' tramps, for instance, commonly spent up to two years trading in the Pacific (SM 4.88). Seamen's pay was below the average level for all workers throughout the 1940s and 1950s (Table 4.5). But their accommodation and food were free and since there was little to spend money on aboard ship they had a high disposable income when ashore. The officers generally composed a third or more of the crew and were paid higher wages than the ratings, with considerable variations depending upon rank. Overall wage costs for a British crew were comparable with shore industries.

British shipowners were fortunate in combining competitive wages with a great degree of industrial peace. This was largely due to the National Maritime Board (NMB) system within which employers and Unions negotiated,

Table 4.4 Use of Non-National Seafarers (Percentages of Total Workforce).

<u>Year</u>	<u>Britain</u>		<u>Norway</u>		<u>Netherlands</u>		<u>Germany</u>	
	<u>Aliens</u>	<u>Lascars</u>	<u>OECD</u>	<u>Non-OECD</u>	<u>OECD</u>	<u>Non-OECD</u>	<u>OECD</u>	<u>Non-OECD</u>
1938	4.6	32.7						
1951	3.7	27.5						
1961	2.6	30.4						
1968			13.4	11.1	12.7	22.1	8.8	4.7
1971	4.6	32.7	11.7	10.6	17.4	25.8	15.4	9.8
1975	N/A	21.2	7.9	7.0	16.9	29.2	13.5	9.0
1980			8.3	9.4	18.8	19.3	12.4	10.3
1985		9.4	9.6	11.0		26.6		20.5
1987		20.0		14.5		27.4		20.3

Sources:- MT, 1969, 1974, 1981, 1986, 1988;

McConville, 1977, p37.

Table 4.5 Comparison of Monthly Wage Rates of British Seafarers and Industrial Workers.

<u>Year</u>	<u>AB Seaman (£)</u>	<u>AB Index</u>	<u>All Workers Index</u>
1938	9.63		
1947	20.00		
1951	22.00		
1956	29.50	69	100
1960	35.75	90	122
1965	40.68	102	145
1970	67.25	169	195
1972	86.10	216	250
1973	94.20	236	287

Sources:- BSS 1975-76;

Annual Abstract of Statistics, various issues.

discussion being divided between six panels: ship masters; deck officers; engineer officers; radio officers; sailors and firemen and caterers (Cmnd 4337, 1970, p311). The NMB emphasised harmonious negotiation and co-operation, and industrial disputes were uncommon. Where they did occur the NUS's "paramount concern was to fulfil its responsibility to the NMB and bring its members back into line" as occurred in the localized disputes of 1947 and 1955 (McConville, 1977, p72). The argument that still better labour costs could have been obtained by a stronger stance by employers is difficult to sustain. Although wages were not reduced in shipping depressions, as happened in the 1920s when the NSFU agreed to wage cuts from £14 to £9 in two years, it is hard to imagine this happening in the post-war economic and political climate. Further, the NMB was formed due to the damage both shipowners and seamen suffered in the highly combative industrial relations before the Great War (Course, 1963, pp252-276). Thus shipowners found the harmony of the NMB system preferable to continual struggles with seamen.

The 1960s saw a gradual increase in industrial relations problems with the grass roots of the NUS. McConville identified in both the 1947 and 1955 strikes an underlying dissatisfaction among the NUS rank and file with a leadership apparently more concerned with harmonious relations with the shipowners than supporting members engaged in industrial disputes. This feeling achieved concrete expression in the 1960 dispute with the formation of the National Seaman's Reform Movement which, unlike the NUS leadership, would not compromise on its demands. The officers' unions in contrast remained on good terms with the employers, a reflection of their members' managerial function. Indeed the strict discipline imposed, by liner officers in particular, was a factor in the ratings' increasing militancy. The strike of 1960 was sparked by a minor disciplinary incident while that of 1947 started due to the imposition of a new

disciplinary code alongside the Established Service Scheme (McConville, 1977, p72). The reform movement rapidly became influential in the NUS executive, as evidenced by the executive's rejection of an offer accepted by the union negotiating committee in 1964. However, the first official industrial action for half a century was averted by government intervention which gave the NUS better pay and shorter hours (TUC AR 1964, p120).

The NUS now began to push for a 40 hour week at sea and in port with improved wages. One of the ensuing problems, according to McConville, was the shipowners' use of a clause allowing a 56 hour week for essential work to impose a standard 56 hour week, again a policy needing the connivance of the officers. Some masters, for instance, were accused of deliberately 'manufacturing' work. In 1966 the NUS called for seaman's (AB) wage of £60 a week (a rise of 50 percent) and the rapid imposition of the 40 hour week. The shipowners countered with proposals for meeting the latter claim over three years but with partial compensation via leave reductions, while their wages offer fell far short.

This wide disparity led the NUS to call a national strike from 16th of May, 1966. The strike rapidly lost TUC support (though other unions already had a 40 hour week) and was attacked by the government which was trying to impose a national prices and incomes policy. Ultimately an agreement was reached, giving a 40 hour working week after one year, under the auspices of Lord Pearson who had already produced a report during the strike on the validity of the NUS demands. The effect on deepsea shipowners varied considerably with 822 vessels and 26,500 men halting operations (including short sea shipping) (TUC AR 1966, p123-129, pp388-389; McConville, 1977, pp75-80). The liner operators who used British ports were worst affected. Cunard's fleet was immobilised within a fortnight (the strike lasted 45 days) and it lost £3.4m as a result. This

worsened the already dire commercial position of the company which made an overall loss for the year of £6,704,000. Similarly, B&C lost £1m (compared to a profit for 1966 of £4,759,000) though the Palm Line lost only £100,000 (Cunard AR 1966; B&C AR 1966; Marr, 1973, pp148-49; Kohn, 1970, p38). In contrast non-liner ships were often able to avoid the strike by staying away from Britain (strikes were only allowed legally in UK ports). The oil companies simply re-routed British tankers so they did not touch the UK and replaced them with foreign tankers. The severe effect of the strike on liner companies, which were frequently in a weak position due to low profitability resulting from market and other problems, showed the considerable advantages of good industrial relations.

Prior to the 1966 strike, seamen's wages were increasing at a rate similar to that for other workers (Table 4.5). However, according to O'Loughlin, British manning costs had changed from being lower than those of competitors such as Norway, Germany and Italy to a level exceeding them, with Japan retaining its cost advantage over Britain. In the wake of the seamen's strikes ABs' wages increased considerably faster than for workers as a whole, so that by 1970 pay equalled 86 percent of the average national wage, with seamen continuing to get free food and accommodation while at work which raised their overall remuneration still further. The early 1970's saw further rises in absolute wage rates (40 percent in 1970-73) which, like other cost increases, squeezed shipowners' profits.

The depressed conditions after 1973 saw continued rises in labour costs, while profits were reduced by poor markets. This was despite the ending, due to the disposal of many unprofitable vessels, of the persistent shortage of seafarers which had previously weakened the employers' bargaining position. British shipowners' competitive position had improved from the level of the mid-1960's with the 1968 labour costs pattern being maintained in a 1973 survey against Finnish, German and



Swedish costs. However, the late 1970s and 1980s saw a major cost advantage for British shipowners being lost as the employment of cheap foreign seafarers fell dramatically, accounting for only nine percent of crews on British ships in 1986 compared to 22 percent in 1975 (GCBS, 1986, p5).

This stemmed from the shipowners' recognition (via the NMB) in 1969 that jobs on British ships were the property of British seafarers. In the early 1970s shipowners conceded pay rises to foreign crewmen which reduced the differential between them and British seafarers. The NUS's aim by this policy was not to improve Lascars' wages but to replace them with British seamen. In 1976 the new Race Relations Act resulted in Government pressure to bring foreign ratings' wages into line with those of British seafarers, though the Act specifically exempted foreign seafarers. Shipowners' consent to this was "was given much less readily and finally withheld altogether" as the markets continued to deteriorate (GCBS, 1986, pp22-23). Pressure was again intensified in 1985 when the Commission for Racial Equality proposed that the exemption in the 1976 Act should be abolished. In contrast the foreign element on Norwegian vessels rose from 25 to 32 percent between 1967 and 1986, though they may have still been paid at Norwegian levels (MFAN 1988-89). By the mid-1980s labour costs for British crews were lower than those prevailing in Norway, France, Finland, West Germany and Belgium but were above Dutch, Swedish and Danish levels. This still represented a major burden in dire trading conditions which FOC operators were better able to control as were Far Eastern operators from Hong Kong and Taiwan (Japanese shipowners' wage levels were far above European levels due to the appreciation of the yen) (GCBS, 1986, p20).

One avenue used to attack the problem of high wage levels was to introduce agency manning, whereby company men were made redundant and then

re-employed via a manning agency, with economies being made by cutting out fringe benefits such as pension payments or liability for future redundancy. P&O attempted to introduce such a scheme for stewards aboard five cruise ships in mid-1985. But the company undermined its own efforts by producing the proposal without warning or consultation, which angered the seamen whose subsequent opposition defeated the proposal. A second, better thought out, effort in April 1986 saw the company conduct its own ballot which produced a two to one vote in favour of redundancy with severance payments of between £8,500 and £30,000. Re-employment via an agency was available at wage rates reduced from £718 a month to £300 a month, with stewards being able to make up part of the difference with tips. The tendency of seamen to stay at sea for only a few years undoubtedly played into P&O's hands as the men saw an opportunity to resign with a considerable bonus. The NUS's vehement opposition failed despite the expulsion of many stewards from the union (FT, 28.6.85, 2.7.85, 18.4.86, 24.4.86).

Among the problems affecting high labour costs were the extra payments and fringe benefits given by many companies over and above NMB levels in the 1970s. The Palm Line, for example, paid its officers salaries 25 percent above NMB levels and maintained a 35 percent manning surplus to allow generous leave (with a cash alternative) (Kohn, 1970, pp46-47). This made the reduction of labour costs an even larger task. However, even when costs for British crews were reduced to agency levels, there was still a massive gap between these and the remuneration of Far Eastern and East European seafarers, GCBS figures for 1986 show costs for crews of four nationalities ranging from 54 to 37 percent of British costs (Table 4.6). Since such crews were widely used by Far Eastern and FOC operators, British companies using British labour, even at agency levels, were at a substantial disadvantage.

Table 4.6 Comparative Crew Costs 1986.

<u>Flag</u>	<u>Crew Nationality</u>	<u>Index</u>
UK	British	100
Liberia	Korean	54
Bermuda	Philippino	53
Hong Kong	Hong Kong	44
FOC	Polish	37

Figures for a 30,000dwt bulker or comparable tanker.

Source:- GCBS, 1986, pp21-22.

The logical course for British companies was to use such cheap labour (which makes the decreased use of Lascar seafarers nonsensical from a business viewpoint, though the companies were under outside pressure). The early 1980s saw the first efforts by British shipowners to get rid of their British crews: Bibby made their British crews redundant in 1982 and replaced them with Chinese seamen. By 1987, Ben Line was manning one vessel with Indians and Philipinos though six others remained largely British crewed (Ben Bulletin 4.87). A more subtle method of replacing British ratings came via the introduction of agency manning, since many men who took redundancy did not sign on with the agency. Despite comments such as "there was regret in head office that some of the former BP personnel did not take the agency option" the disappointment was doubtless assuaged by employing foreign ratings at low cost (BPSR 1.87). Another method was to sell British crewed ships and replace them with chartered tonnage available at low cost due to the depressed shipping markets and cheap foreign labour. The Bank Line for instance announced the sale of six vessels incapable of profitable operation under the British flag in July 1987, replacing them with cheap tonnage such as the three Cypriot registered combos chartered in early 1988 (DT 4.7.87; SM 4.88, 7.88).

The mid-1980s also saw employers question the utility of the NMB negotiating system. Several small companies including Graig Shipping, Rix, Nor Brit and Weston left the GCBS, and thus the NMB, and similar moves were under consideration in early 1987 by Albright & Wilson and possibly James Fisher (LSM 3.87). Even so most shipowners remained committed to the NMB, although noting that "cost reductions have been less than hoped for and only achieved after considerable opposition from employees and their unions" (GCBS, 1986, p21). However, the 1988 NUS strike at P&O European Ferries saw shipowners take a tougher line, particularly those hit by secondary action. P&O and the Isle of Man Steam

Packet both attempted to get their seamen to agree to leave the MNE as part of cost cutting measures. This was overshadowed in June 1988 by the GCBS itself threatening to withdraw from the NMB unless Dover ferry strikers agreed to accept any offers of employment elsewhere. This marked a reversal of the policy of co-operation with the unions and the acceptance of the NMB as the medium for industrial relations (a policy which has endured for more than seventy years) with employers taking a more forceful role in determining their labour costs.

4a ii) Manning Levels.

The level of total crew costs depends not only upon the cost per head of employing seafarers but also upon crew sizes, which varied considerably in the early post-war years on different vessel types. Passenger vessels had the highest manning cost levels in order to serve their passengers although this was partially offset by high fuel and capital costs. Tramps' high crew costs relative to cargo liners reflected lower capital and fuel costs. However, such statistics should be viewed with considerable caution since manning levels on similar vessels often showed great disparities (see below).

The first determinants of British crewing levels were the legal requirements imposed by the Merchant Shipping Act of 1894: a master, two certificated mates and two engineers with the addition, in later years, of a radio officer and a cook. The Act also prescribed that the Board of Trade should set down levels for deck manning. For vessels under 5,500grt a bosun and seven ABs had to be carried with nine ABs on larger ships. Thus for a 5,500grt vessel a crew of 17 was legally required with engineering ratings in addition (Cmd 4337, 1970, pp215-217, 441-443). In practice these levels were vastly exceeded in the early post-war years. Five cargo liner designs built for British owners in 1947-49 showed crews

ranging from 81 on Houlder's Hornby Grange (Br 11,820/47) to 59 on Furness's Pacific Unity (Br 11,424/49) (SMEB, 1948-49).

These wide variations show that many companies were failing to design their vessels with a view to minimizing labour costs. This is even more apparent when the British ships are compared with two contemporary Scandinavian designs for advanced 'twelve' cargo liners. The Swedish Johnson Line's Seattle (Swe 9,985/48) class had a crew of only 43 while Fearnley & Eger's (Norway) Fernland (No 9,050/48) was manned by only 39 seafarers. Though all categories of seafarer were smaller numerically in the Scandinavian vessels the disparity was particularly evident in the catering department. No less than 19 of the 73 strong crew of the Port Brisbane (Br 11,950/48) were caterers and even the Saint Esseylt (Br 9,640/48) had 12 staff in this department (from a crew of 52) compared to only seven on the Swedish vessel and a mere four on the Fernland (No 9,050/48) (SMEB, 1948-49). This contradicts the evidence used by Mogridge which showed Norwegian (and Dutch) manning to be heavier than British, while Greek and FOC crews were smaller. However, the latter sample referred to crewing on three types of standard wartime dry cargo vessels while the earlier sample concerns designs with a differing emphasis on manning levels (Sturmey, 1962, pp312-315).

The wide variations in the manning of British vessels and their larger crews relative to some advanced foreign designs were reflected in the apparent lack of interest in minimising labour costs. The authoritative journal Shipbuilder and Marine Engine Builder while giving very detailed information on most aspects of designs very rarely gave any indication of crew sizes. This was in itself indicative of a lack of interest in labour costs in the British shipowning and shipbuilding industries. Considerable emphasis was placed by British shipowners on improving quality of seafarers' accommodation and facilities. There were

good grounds for this, given the poor conditions aboard some vessels, particularly tramps such as W.J. Tatem's cockroach-infested Winkleigh (Br 10,000/40) (Lane, 1987, p50). The persistent shortages of seafarers until the mid-1970s made good conditions vital in attracting and retaining seafarers. Such improvements imposed considerable capital costs though the possible loss of cargo capacity as more of ships' space was given over to accommodation was countered by more compact superstructures (Chapter 2c).

By contrast some foreign shipowners made considerable efforts in the 1940s and 1950s to combine improved conditions with reduced manning. In Sweden, for instance, high crew costs, strict safety regulations and a lack of subsidies forced "Swedish shipping interests to take advantage of existing technology in order to cut costs" (Gleerup and Rubenowitz, 1977, p5). Similar considerations were also important not only to innovative Norwegians such as Leif Hoegh and E.D. Naess with a good understanding of the theoretical economics of ship operating but also to Greek and Japanese shipowners. The latter were by 1959 engaging in major research programmes into ship automation and were both aided and directed in this by the government. These efforts were swiftly put into practice aboard the cargo liner Kinkasan Maru (Ja 9,800/61) which incorporated a large number of automating devices, particularly in the engine-room, to allow a reduction from the 47 strong crew of an unautomated ship initially to 40 and later to 34 men. This vessel was "the pattern for the majority of vessels to be constructed in later years" (Sasaki, 1976, p10; Tatsuki and Yamamoto, 1985, pp152-154).

Compared to foreign automated designs such as the world's first vessel capable of fully automated piloting built in Denmark in 1964, British progress was often slow. Brocklebanks' cargo liner Mahout (Br 10,640/63) had a crew of 90, large even by the standards of companies

using cheap foreign ratings, though Elder Dempster's 'F' Class cargo liners had a more economical 62 men. British shipowners continued to believe that foreign ratings necessitated larger crews though Far Eastern shipowners did not follow this practice and operated just as effectively. Some British companies did reduce manning, B&C's Clan MacGillivray (Br 11,930/62) had a partially automated engine room enabling the engineering department to be reduced by more than a fifth. British shipbuilders went further: Swan Hunter's advanced cargo liners of 1962 had a crew of only 44 which further automation could reduce to a mere 34. However, such small crews continued to be unusual among British shipowners, Cunard's Media (Br 7,500/63) class vessels with their crews of 38-40 being exceptional. Not all foreign shipowners achieved the small crews of some Scandinavian companies. Holland America's Grotedyk (Ne 10,200/62) class cargo liners had crews of 57 men. British tramps such as Clarkson's Clarkforth (Br 13,775/62) and France Fenwick's Chatwood (Br 13,100/63) were comparable with many new foreign vessels. Four contemporary foreign ships had crews ranging in size from 54 to 40 while the British ships had crews of 46 and 50 respectively (SMEB, 1962-63).

From the 1950's the introduction of more efficient vessel types enabled considerable operating cost reductions. A large container ship could halve costs in comparison to new cargo liners with the advantage being even more marked against older, less efficient cargo liners. Furthermore, the fast turn around times of the new ships meant fewer vessels and hence fewer crews were needed to achieve a given ton mileage of cargo. But the benefits of these technical achievements were offset, at least in part, by the rise in wages. Crew costs for a 9,000dwt cargo liner rose from 25.3 to 45 percent of total operating costs in 1958-71 (Sturmey, 1962, pp276-278; McConville, 1977, p44).

The slow adoption by British companies of these new vessels (Chapter

2) until the mid-1960s meant they did not benefit from their lower manning costs. There is also evidence that some British companies lost part of the potential advantage by using larger crews for vessels of a given size than more innovative foreign operators. BP's British Venture (Br 38,040/63) had a crew of 67 whilst Yamashita's slightly smaller Yamatomi Maru (Ja 34,097/61) had a crew of only 45. Similarly the Merlin Tanker Co.'s Sinclair Venezuela (Li 52,120/63) had a crew of 46-49 despite having 40 percent more cargo capacity than the British tanker. Some other early 1960s British tankers also had large crews: 65 men on a 44,500dwt vessel and 52 on an 18,300dwt product tanker. On the other hand Lyle's first bulker, the Cape Rodney (Br 17,250/65) had a crew of 36 compared with crews of 50 or more on Simon Astrup's Mylla (No 22,600/61) and Schulte & Bruns Johann Schulte (Frg 22,836/63) (Orbell, 1978, p147; SMEB, 1962-63).

The new ship types also called into question the traditional division of the crew into deck, engineering and catering departments. Instead ratings could work in other departments as required and the Board of Trade amended its manning rules to facilitate this. By 1970 twelve British based companies had introduced such general purpose manning. This was agreed with the NUS, reflecting good employer-union relations, in sharp contrast to ports where attempts to introduce new technology aroused vehement and damaging opposition (section 4d). The degree of integration varied with only four companies: Container Fleets, Cory Maritime, Silver Line and Esso (the last foreign controlled) implementing full integration with the ending of the departmental structure. The other companies integrated only the deck and engineering departments fully, while further operators concluded agreements retaining the departmental structure but with ratings available for some work in other departments (Blue Star/Port Line, Head Line, and the New Zealand Shipping Co.). While by 1970 the record of British companies was improving some countries were considerably

more advanced. For instance, a number of states were training officers who combined navigational and engineering skills, a possibility which had only just begun to be considered in Britain (Cmd 4337, 1970, pp218-219, 444-445).

The early 1970's saw continuing British efforts to reduce manning levels on new vessels. The Palm Line, for instance, began to introduce combos to replace its cargo liners in 1974, with a reduction in manning from 44 to 25 men. The increased size, efficiency and speed of the new ships meant that only seven were needed to maintain the service compared to 14 in 1970, thus halving the number of crews. Overall the number of seafarers was only 28 percent of the requirements of the cargo liner fleet (Unilever Magazine, 1983, No.2). Similarly, Lyles (which had a limited general purpose manning agreement) was able to reduce the crews on its new bulkers from 36 in 1965 to 26 in the early 1970s (Cmd 4337, 1970, p445; Orbell, 1978, p417). Other countries were making even more determined efforts to cut crews. Japan, for example, had 186 M-Zero vessels with radically reduced operating crews in service in 1973 (the non-operating crew was fixed by law). While a 1970 VLCC design with a crew of only nine was not actually built a number of vessels incorporated some of its technical innovations. Mitsui OSK for instance after beginning crew cost reductions in 1969 on both existing and new ships went even further with the tanker Mitsuminesan Maru (Ja 224,157/70) which had a fully automated engine room and cargo machinery (Sasaki, 1976, p10-11; Tatsuki and Yamamoto, 1985, p180).

The shipping depression after 1974 (Chapter 3) narrowed the gap between revenues and costs, making the latter's reduction even more important. Many British companies found the heavily manned older vessels difficult, if not impossible, to operate profitably. B&C, for example, attributed the disposal of its passenger ships to rises in crew and fuel

costs which could not be recovered from increased fares (B&C AR 1975). Furthermore, many operators attempted to reduce manning on existing vessels. There was substantial scope for this, for example, in reducing or eliminating the number of trainee seafarers. These factors saw the number of seafarers fall from 95,000 to 33,000 in 1975-86 (GCBS, 1986, p5). While the reduced need for seafarers meant there was a labour surplus in the late 1970s and early 1980s, by the mid-1980s the high turnover of seafarers meant many British companies were short of officers. In 1987 there were only 450 officer cadets (who took 4-5 years to train) compared to 4,000 in 1980.

Despite these efforts to reduce manning costs, the mid-1980s saw further economies. In 1983-84, many British companies including Bibby, BP, Esso, Blue Star, Bolton, Ellerman and Ropner concluded agreements with the NUS for further manning cuts and head office staff were also frequently reduced (FT 30.1.85). This affected existing ships, showing that operators had been very slow to cut costs, as depressed markets had persisted for a decade. For example Graig Shipping cut its payroll from 132 in 1979 to 60 seafarers plus seven administrative personnel in 1987 though the fleet had increased from two to three vessels (Graig ARs, 1979, 1987).

As well as reducing crews on existing vessels, shipowners attempted to cut manning on new vessels, which gave greater scope for automation. Japanese shipowners were again to the fore, Mitsui OSK and the shipbuilder MHI began research in 1975 aiming at a 'super-economical' container vessel. The result was the Canberra Maru (Ja 29,888/79) whose 18 strong crew compared to 36 men on British Ben Line vessels (Tatsuki and Yamamoto, 1985, pp190-191; Ben Bulletin 4.87). By mid-1987 no less than 214 Japanese vessels had crews of 14-18 and one ship with a crew of only 11 was operating. An even more advanced project concerns groups of four or

five unmanned vessels being navigated by satellite from a manned mother ship. However Japanese shipowners have not gained the full benefits of their swift implementation of new technology due to their extreme reluctance to make employees redundant. Such policies, which reflect the Japanese tradition of close lifelong links between employer and employee, resulted in 1987 with 23,000 seafarers being employed of whom only 10,000 were needed (New Scientist 11.10.84; MNP 6.8.87, 19.9.87; LSM 4.87).

In Europe the early 1980s saw France, West Germany, Norway and Britain establish programmes to develop highly efficient automated vessels. The results of Germany's 'Ship of the Future' project were swiftly implemented on Jacob's reefer Blumenthal (Frg 11,806/84) and four Norasia container ships. The latter initially had a crew of 19 which was to be reduced to 16 and then to 12. In comparison, Blue Star's New Zealand Star (Br 16,114/79) had 30 crewmen. Newer British vessels have used advanced technology to reduce crew sizes. Furness Withy's Andes (Br 37,042/84), with its crew of 23, is comparable to its foreign contemporaries. Hoegh's quartet of 1,620 TEU vessels built in 1984 and Oldendorff's (Germany) Dietrich Oldendorff (Br 22,800/86) have crews of 21 and 24 respectively. The latter, like most lightly crewed vessels, can carry a maintenance team of up to 14 men as the small complements cannot always cope with major maintenance or repairs. Similarly, Blue Star reduced the complements on its four 13,000dwt reefers to 21 compared with 32 on earlier vessels while BSC's large bulker Ironbridge (Br 172,810/87) has a crew of 25. In comparison, a pair of Dutch reefers built in 1985 had crews of 23 while modern bulk carriers are manned by 20-30 men depending on sophistication and size.

By the late 1980s the proportion of new ships in British fleets was small when compared to many Japanese, German, Dutch and Scandinavian operators. Thus the latter benefited from lower average crew sizes due

to the predominance of more modern vessels. This was reinforced as some foreign companies cut the already low complements of modern vessels. For instance the crew of the Swedish Companion Express (Swe 36,500/84) was cut from 17 to nine, one of five experimental 40 percent reductions in crews aiming at a 20 percent reduction in labour costs. British shipowners lack of modern vessels meant most could not equal these labour savings (SM 4.84, 11.84, 1.85, 8.85, 4.86, 8.87, 10.87; JMSR, 1985, pp92-95, 135-139).

In the 1950s British shipowners were better placed than many of their competitors from developed countries in terms of lower wage costs of British seafarers and their access to cheap foreign ratings. While this was combined with good industrial relations, British companies were not in the forefront of attempts to reduce manning levels and the widespread lack of emphasis on this offset, at least in part, the lower wages. The 1960s saw improvements in manning levels due to both the reduced size of crews and the switch to new and more efficient vessel types. However, some policies, particularly the maintenance of wages above NMB levels and generous manning levels, continued to make their costs rather higher than was necessary. This became more important in the depressed markets after 1973. While British seafarers' costs have maintained a position equivalent and often better than those of other developed states, they have been far higher than those of many foreign operators using cheap labour. British shipowners actually reduced their use of such labour despite the increased importance of minimising costs. Further, their conversion to reduced manning and wage costs, if necessary at the expense of harmonious labour relations, took a long time to come about. Lastly, while manning levels have been reduced, the scope of such cuts and their implementation has paled in comparison to some other high cost operators, reflecting the low level of orders for British vessels.

4b) Engines and Economy in Fuel Costs.

Britain's development and adoption of marine steam propulsion played a major role in the eclipsing of American shipowners (who persisted with sailing vessels) and the Merchant Navy's consequent dominance of international shipping. This was reinforced by the continuing pioneering role of British marine engine builders and shipowners in improving the steam engine: British engineers developed the triple and quadruple expansion engines which replaced compound powerplants and the former were in turn upstaged by Parsons' steam turbine in the early 1900s. But in 1912 this leading role passed to foreign shipowners when the Danish East Asiatic Co. deployed the first internal combustion deepsea vessel powered by the German (and Danish) developed diesel engine (Rowland, 1970, pp153-210). Such motorships became increasingly popular in some states in the inter-war years. In 1939 46 percent of Dutch, 47 percent of Swedish, 52 percent of Danish and 62 percent of Norwegian tonnage was powered by diesel engines. However, their use in the Merchant Navy was considerably less widespread, accounting for only 26 percent of tonnage, a similar proportion to that in the Japanese and German fleets (Sturmey, 1962, pp82-85).

Post-war British shipping, due to its inability to acquire new tonnage during the war, used engines similar to the pre-war fleet. Among the companies using large passenger liners former members of the Kylsant group were the main users of diesel engines, though others like Bibby and the New Zealand Shipping Co. used motor passenger-cargo liners. However, some motor passenger ships like the Union SS Co.'s Aorangi (Br 17,500grt/25) suffered constant engine breakdowns (Gibbs, 1963, p518). On others like the two Asturias (Br 22,100grt/26) class vessels of Royal Mail the noise and vibration of diesel engines irritated passengers. These two ships also suffered from the power limitations of diesels. The need for

more speed, together with other problems, led to their re-engining with geared steam turbines in 1934-35 (Gibbs, 1963, p344). The use of diesels in cargo liners did not suffer from the same constraint as their smaller size and generally lower speeds meant the power requirements were achievable.

By 1945 the cargo liner fleets of the New Zealand Shipping Co., the Bank Line, Port Line, Silver Line and the Bibby Line had switched almost entirely to diesel propulsion. Others like Blue Star and British India had begun a general move to motorships. Like the latter, Ellermans conducted successful experiments with diesel ships in the 1920s but stayed loyal to steam. Harrisons and the Booth Line also remained unconvinced of the motorship's advantages. These could be substantial: the Bank Line's converted coal burning steamer Solafric (Br 7,100/09) reduced fuel consumption from 28 tons of coal to eight tons of oil fuel per day. The reduced need for bunker space and the more compact design of diesels enabled the vessel to carry an extra 600-800 tons of cargo (Bank Line, 1956, pp114-128).

The British lines believed high speeds meant uneconomically high fuel consumption and kept their own pre-war vessels to only 14.5 knots. But from the late 1920s Japanese operators, stimulated ironically by the competitive advantage enjoyed by the British Prince and Silver lines' 13.5 knot motorships, introduced fast motorships like the 18 knot Kinai Maru (Ja 8,360grt/30). Although they were subsidised, the ships were very profitable, attracting high value cargoes from shippers impressed by short transit times (Furuta, 1967, pp124-126; Tatsaki and Yamamoto, 1985, pp60-67; DSSME, 1954, p439). While Japanese competition had disappeared in 1945, British lines still faced fast Scandinavian motor cargo liners whose machinery, like the Japanese, was designed with great emphasis on efficiency and economy. Before the war even normally partisan British

sources admitted that Wilhelmsen's 17 knot Australia cargo liners "find great favour with shippers" (SWW, 1936, p796, 835).

In 1939 British tanker operators commonly used 12 knot motor tankers but Sturmeý believed the typical British tramp was a slow nine knot coal burning steamer. F.C. Bowen found it "surprising that the diesel engine with its admitted economy in fuel and space, has not found greater favour" (SWW, 1936, p588). In practice there was considerable variation between companies, with some like the Moor Line, Morels and and Common Bros. having switched to 10-11 knot motor tramps from the 1920s. Many others like Hogarth's, Hall Bros. and Bolton ran ships varying from 9.5 to 11 knots in speed, while the latter company, like the Stag Line, used oil-fired rather than coal steamships. Thus ships like Crosby, Son & Co.'s nine knot coalfired Hartbridge (Br 9,093/27) could more accurately be described as the worst type of British tramp rather than the average (DSSME, 1954, p68, 128, 139, 222, 240, 336, 337). However high quality ships like Stephen Sutton's 12 knot motor ship Radley (Br 9,780/32) were far less common in Britain than in Scandinavia. British tramp owners were probably influenced by their strong links with the coal industry which fought against the use of motorships. This bears out Sturmeý's point that by using low quality vessels despite being high cost operators, British shipowners were at a competitive disadvantage not only to the good Norwegian vessels but also against the low quality, low cost Greek companies (Sturmeý, 1962, pp94-95).

British tramp owners post-war replacement ships included many wartime standard vessels, which formed the fleets of owners such as Larringa SS Co. into the mid-1950s. Capable of 10-11 knots they were were only marginally faster than pre-war tramps though being mainly oil fired they did massively reduce the coal steamship element in the Merchant Navy. The standard intermediate tramps were even less advanced including many nine

knot coal fired ships. Such vessels were also widely used by Greek operators like M.E. Lentakis. Thus British tramp owners lost any technical edge while the latter had the advantage of lower labour costs. Liner operators were also forced to use the 'Liberty' and 'Ocean' designs which represented a substantial reduction in speed and, for diesel users, in economy. In 1954 Furness Withy was still using three such vessels and they comprised 30 percent of the Ellerman & Bucknall fleet. American shipowners such as Farrell Lines and USL had a substantial advantage through using 16 knot standard cargo steamships. While the US government undoubtedly gave their own shipowners first option on these better ships, some European owners also acquired large numbers. The United Netherlands Navigation Co. had 10 such ships (in addition to eleven Liberty ships) and they were also used by CMB, Van Nievelt, Goudriann & Co. and A.P. Moller. In contrast Furness Withy and P&O obtained only one and two respectively and were thus at some disadvantage (DSSME, 1954, pp148, 183, 199-120, 291, 393, 438, 509).

Most British cargo liners built immediately after the war were similar to pre-war tonnage. Brocklebanks, for example, continued to order 15 knot steamships. The Clan Line ordered a mixture of motor and steamships of 15-17 knots. An unusual aspect of its fleet was the large number of warbuilt steamers which used either coal or oil, taking advantage of the reversal of price differentials for oil and coal in different areas (DSSME, 1954, pp91,119-120; Clansman 11.78). Many steamer lines began to switch to motorships, as Harrisons did from 1948 apart from two 12 knot steamers delivered in 1951-52. This aberration reflected the builders' (Readheads) preference for equipping vessels with their own steam engines. Similar practices which imposed some disadvantage on shipowners existed at William Gray's, aided by the sellers market of the early post-war years.

The move to motor cargo liners continued through the 1950s and 1960s. While Ellerman's switched to diesels from 1952 Cunard did not acquire its first motorships until 1963 (Taylor, 1976, p129). This was despite its Port Line subsidiary's use of motor ships since the 1920s. However, the continued use of steamships did not always indicate an uninnovative company. Ben Line Steamers lived up to its name until 1962 but built some of Britain's best and fastest cargo liners in the 1950s (Chapter 2c). The average speed of new British cargo liners rose substantially from 15.6 knots before 1948 to 19 knots in 1964-68 (BSS 1968-69, p38). British lines had recognised that fuel cost economies of slow ships were not as commercially advantageous as offering competitive transit times.

The average speed of new British tramps also increased from 11 knots in 1948 to 14.5 knots in 1963-68 with a gradual move to motorships (BSS 1968-69, p38). Graig Shipping sold its last steamships in 1958 since unlike the motorships bought after 1952 their higher fuel costs made them unprofitable in the shipping depression (LCI 12.59, p316; Williams, 1983, p19). Metcalfe, Son & Co. acquired its first motorship only in 1965 and while steam tramps comprised only 3.6 percent of the British fleet in 1968 owners who had persisted with such uneconomical ships were more likely to have closed. Though tramp operators were usually less technically progressive than the lines Bolton did produce the very innovative Rembrandt (Br 12,940/60). This vessel was powered by an AEI gas turbine which (like the two gas turbine cargo liners built for Geest) needed very little hull space and required little maintenance. However, they did not benefit from their innovativeness. Gas turbines were noisy, consumed 40-50 percent more fuel than a diesel engine and required expensive high quality fuels. Ultimately they proved uneconomical and the Geest vessels were re-engined (Stemman, 1985, p191; Schonknecht, 1982, pp85-86; MSWB, 1961, p128). The improved diesel engines which could use

residual or heavy fuel oil [which from the early 1950s cost 30-43 percent less than diesel oil (Table 4.7)] were more successful. H. Robert's North Cornwall (Br 10,121/54) could use the cheaper fuel hitherto restricted to steamers (MSWB, 1955, p72). Thus the Ben Line's Benvalla (Br 13,040/62) was able to continue to use cheap fuel while gaining the economy of diesel propulsion, fuel consumption falling from 80 to 50 tons a day at 20 knots compared to earlier steamers (MSWB, 1963, pp11-12).

Tanker and bulker owners also saw the potential economies of diesel engines in the 1950s and 1960s. The speeds of new tankers increased from 12 knots in 1939 to 15-16 in the 1950s (roughly the maximum for the economical running of full bodied ships). This, combined with the rise in tanker sizes (Chapter 2a), meant that power requirements exceeded those considered to be obtainable with motorships. Thus Hunting's 16,000dwt tankers and Shell's 18,000dwt and 28,000dwt classes of the 1950s were powered by steam turbines. While the power of diesels increased, the growth in power requirements for large tankers continued to outstrip it. Although Shell's 70,000dwt 'D' class tankers of the mid-1960s were motorships, the vast majority of VLCC's used steam turbines. Indeed, in 1974 the demand for the latter meant that, for the first time since 1945, the tonnage of new steamers exceeded that of motorships (MT 1974). However, the slower growth in bulker sizes and the continual utility of smaller units meant that motorships were common. The Seabridge consortium's 70,000dwt bulkers of the late 1960s and 170,000dwt bulkers in the mid-1970s all had diesel engines (Moody, 1974, p189). The eleven handy sized 16 knot bulkers ordered by SSM in the late 1960s were also motorships. This innovative group was badly hit by the frequent breakdowns of the new Ruston & Hornsby diesel engines that they used. Despite an expensive re-engining programme in 1973-74, only token compensation was received, the episode being dubbed as "probably the

Table 4.7 Diesel and Fuel Oil Prices 1948-77.

<u>Year</u>	<u>Diesel (index)</u>	<u>Fuel Oil (index)</u>	<u>FO Price as % of Diesel</u>
1948	100	100	80
1952	157	137	69
1954	141	111	63
1957	182	164	71
1959	153	130	68
1963	130	95	58
1967	146	115	63
1968	170	132	62
1970	185	152	65
1972	196	162	66
1973	310	212	54
1974	689	555	64
1977	794	684	69

Source:- calculated from BSS 1979-80.

biggest blow the company has ever sustained" - an indication of the potential problems which could stem from a poor or unlucky choice of engines (Orbell, 1978, pp154-155).

Passenger liners' combination of high speed and large size favoured steam turbines which were used in 77 percent of British passenger ships in 1968 (BSS 1968-69, p25). Their economy varied. P&O's Arcadia (Br 29,871grt/54) attracted attention for being "designed primarily for economic and efficient operation" (MSWB, 1955, p46). This was doubtless a major factor in her retention until 1979 having outlived not only contemporary vessels of the Orient and Cunard Lines but also advanced ships like the Northern Star (Br 24,750grt/62). The switch to cruise ships of moderate size and speeds of only 20 knots led to a general switch to the more economical diesel. In the general cargo trades, however, a contrary trend was established. Containerisation led to the use of large vessels and, since port times were drastically reduced, the effect of high speeds increased (Chapter 2c). ACT's 25,000grt 23 knot container ships of 1969-72 required high power and hence a return to steam turbines. The price paid for such speeds was high, their 35,000 BHP powerplants exceeding the 32,000 BHP of the 16 knot VLCC Texaco Ireland (Pa 290,980/72) (RS 1985-86). British container ships were comparable with their foreign counterparts, not least because the international consortia required vessels of similar characteristics. There were few exceptions, the most notable being Sealand's SL-7 class of 33 knot steam turbine container ships.

Fuel prices had long been volatile, but 1972-73 saw a 60 percent rise in diesel prices and a 30 percent increase for fuel oil. The following year fuel prices doubled with further increases in later years (Table 4.7) while poor bulk markets made operating economies even more important. Shipowners could not easily adjust to these large and unpredictable cost

(Table 4.1b) increases since their vessels' characteristics were fixed when built and they had long lives. Thus companies using low fuel consumption motorships were suddenly placed in a much stronger position than competing steam turbine vessels. Bergesen, the world's leading exponent of large motor tankers, "had a substantial operating advantage during the years of the shipping recession" (Bergesen introduction document, 1988). While steam tanker operators cut costs by reducing speeds, liner operators' need to keep to fixed schedules meant they could not easily follow suit. Progressive lines which had introduced fast vessels to gain a competitive edge were worst hit. Sealand was forced to sell its SL-7 class and Seatrain withdrew a class of gas turbine container ships after only a few years service. Another more expensive option was re-engining with modern fuel efficient powerplants. Tanker owners were unlikely to be able to afford the cost, particularly since markets were so bad that this alone could not return them to profitability. For the financially stronger lines re-engining was a viable proposition. Ben Line replaced the 88,000 BHP steam turbines on its Benalder (Br 49,593/72) class container ships with MAN diesels developing 51,000 BHP in 1981-82. The power reduction reflected the drop in speed from 26.5 to 22 knots (RS 1985-86). For many old cargo and passenger liners such steps were not considered worthwhile. Furness Withy's Northern Star (Br 23,983grt/62) was sold in 1975 as, despite record carryings, fuel and manning costs escalation made it impossible to run profitably (de Kerbrech, 1986, p148; FW ARs 1974-75).

Fuel prices continued to rise with a sharp jump in 1980, peaking at \$180 for a ton of fuel oil in 1984 compared to \$30 in 1973 and \$97 in 1977 (Table 4.7). This prompted tremendous technical efforts to cut propulsion costs. P&O applied self-polishing paints to the hulls of its cruise ships in 1980 to reduce fouling and hence water resistance and

fitted new propellers and boiler equipment to two old vessels (P&O AR 1980). Such exercises are not always trouble-free. For instance the Queen Elizabeth II (Br 67,000grt/68) was re-engined in 1987, halving its fuel costs. The new diesel electric engines suffered mechanical failures and caused vibration and noise problems avoided with the old steam turbine engines (SM 11.87). The various improvements were most effective when incorporated in new ships and the results could be dramatic. USL's 57,000grt container ships built in 1984-85 required 23,620 BHP compared to 20,000 SHP for two 22,000grt steam turbine container ships built in 1973. Despite having triple the tonnage and four times the container capacity, the former used only 72.5 tons of fuel a day compared to 137 tons on the 1973 vessels. However, economy had to be carefully judged against commercial needs. In this case the 18 knot speed was too low when compared to competitors and was a factor in USL's collapse (RS 1985-86).

The pace of technical advance in fuel economy was very fast in the 1980s. The 13.5 knot bulker British Steel (Br 173,000/83) used only 45 tons of fuel a day, the same as a bulker a third the size needed in 1980. Its sister ship delivered in 1987 is even more economical with a further 10 percent reduction in fuel consumption (SM, 10.87, 4.85). Thus ships only five years old found themselves competing against new ships which had a considerable edge in operating costs. The sale value of older ships was reduced resulting in book losses on sales which made competitive new tonnage difficult to finance, and also deterred such orders given the possibility of similar problems in the future. The British fleet faced a severe problem here due to the absence of orders since 1983 and the resulting high age of the ships - 11.7 years in 1987 (GCBS, 1987, p7). This may have been reduced by the sharp fall in fuel oil prices to around \$75 in 1987 (Nedlloyd AR 1987).

In the fleets remaining to British owners in 1945, low speeds and the

large proportion of steamers, particularly the coal fired type, placed them at a competitive disadvantage. Though many companies had begun to use motorships, their use was not as widespread as in some foreign fleets whose owners had not been deterred by the technical problems of the early motorships. The standard ships used immediately after the war further weakened Britain's competitive position since the technical edge over low cost operators was lost while some foreign companies had access to better vessels than their British counterparts. However, this was counterbalanced by strong markets. The state of British propulsion economy and competitiveness caught up with foreign owners with successive new buildings in the 1960s. Those owners who did not improve their fleets doubtless found this influential in their eventual disappearance. From 1970 successive fuel price rises played an important role in the worsening of British (and foreign operators') cost structures, and from 1973 British owners in poor markets found themselves squeezed between rising costs and falling revenue. While these problems prompted great technical advance, the investment required for their implementation was high. The lack of new British orders after in the 1980s meant a loss of technical competitiveness with other high cost operators and placed them in a similar technical position to those FOC shipowners who had the advantage of lower labour costs.

4c) Shipping Finance.

In the 1939-45 war some 13,539,000grt of British flag vessels were lost, equivalent to three-quarters of pre-war tonnage. While new ships had been built during the war, these were mainly government owned so that the shipping companies' fleets contracted dramatically. Denholms lost nine ships leaving a fleet of only two in 1945 while another tramp operator, E.T. Radcliffe, was reduced from 15 to five vessels (Denholm,

1966, p36; Jenkins, 1982, p51, 68-69). Similarly the liner company Harrisons lost 29 of the 45 strong fleet of 1939 while British India's war losses accounted for 51 of its 105 ships (Harrison Line 1853-1977, 1977, p6; Blake, 1956 (2), p156). Furthermore, many surviving vessels needed expensive repairs and refits or were so old that they had to be rapidly replaced. For instance, of the seven ships remaining to Donaldsons in 1945 six were over 20 years old (Dunnett, 1960, pp75-83).

Thus in 1945 British shipowners needed to acquire or construct new tonnage on a massive scale if their fleets were to be rebuilt. The finance for new ships usually came from reserves built up from accumulated profits, supplemented if necessary by the sale of investments. But such methods were suited to a steady replacement programme rather than the block replacement in a short period of half or more of a company's fleet. Secondly, the poor markets of the inter-war years and government restrictions on wartime freight rates had prevented the accumulation of large reserves on the pattern of the Great War. While there were in addition insurance payments on lost ships this only "provided for replacing each vessel with another of the same type, size and age" (Sturmeay, 1962, p148). Not only were new ships more costly than the insurance values of old tonnage but also shipbuilding prices had risen. Two 5,000grt tramps cost E.T. Radcliffe £80,000 each in 1936-37 while two slightly smaller vessels cost Lyle's £107,000 and £112,000 in 1940. But in 1946 a pair of 7,000grt tramps cost the latter £240,000 each (Jenkins, 1982, p45; Orbell, 1978, pp209-210).

The reactions of British shipowners to these problems varied considerably. The liner and industrial carrier operators needed to replace their losses quickly in order to restart full services. In recognition of this the government permitted them to build some vessels in 1944-45. Harland & Wolff for instance launched two cargo liners for

Lamport & Holt and Union-Castle and one tanker apiece for BP and Shell in 1945 (SMEB, 1946). Full scale building programmes were begun as soon as practicable. The Ben Line, in addition to the Benlawers (Br 11,500/44), took delivery of seven more newbuildings in 1946-49. Standard wartime ships were also bought, avoiding the delay between order and delivery of new ships. Though seen as having a limited life they enabled the cost of new tonnage to be spread over a longer period. The Ben Line acquired 12 such ships while Donaldsons bought seven to add to their two new cargo liners (Blake, 1956 (1), pp129-175; Dunnett, 1960, pp75-83).

The lines' large reserves helped them bridge the gap between insurance payments and high replacement costs. Hence most mirrored the Donaldson and Ben lines which rapidly regained their pre-war size despite the high unit cost of their ships (Tables 4.8 and 4.9). But tramp operators had rarely been allowed even limited new construction during the war and had far less reserve finance, a reflection of the worse state of the inter-war tramp market in comparison to the liner trades. Also many tramp operators waited vainly for shipbuilding prices to fall. This reflected their experience after the Great War when companies which bought new tonnage at high prices in the 1919-21 boom found their value declined dramatically when the boom collapsed and they could not meet their shipbuilding debts. In 1945 some operators took advantage of high second hand prices and left shipowning altogether. The Brynmoor SS Co. sold its two 10,000dwt tramps and went into voluntary liquidation in 1946 while Constantines disposed of their remaining deepsea tramps in 1945-46 (Brynmoor SS Co. AR 1945; Appleyard, 1983, p9).

The companies which waited for shipbuilding prices to fall were disappointed, as the cost of a tramp ship rose 56 percent in 1945-50 and their lack of tonnage limited their ability to build up reserves in the strong markets (Table 4.10a). Caution also characterised those who did

Table 4.8 Cost per Ton of Ships as Percentage of Passenger Liner.

<u>Type</u>	<u>Cost per Ton</u>
Passenger liner	100
Cargo liner	40-50
Tramp	30-35
Tanker/bulker	25-30

Source:- Sturmev, 1962, p249.

Table 4.9 Effect of the World Wars on the Donaldson and Ben Line Fleets
(in percentages of grt).

	<u>Donaldsons</u>		<u>Ben Line</u>	
	<u>WW 1</u>	<u>WW 2</u>	<u>WW 2</u>	<u>WW 2</u>
Pre-war fleet	100	100	100	100
Post-war fleet		35	87	29
War losses	63	65	29	71
Immediate sales	14	14	19	13
Replacements	76	48	62	

Note:- Post-war fleet plus war losses and immediate sales may total more than 100 percent due wartime purchases.

Sources:- calculated from fleet lists in Blake, 1956 (1), pp190-207;

Dunnett, 1960, pp88-101.

Table 4.10a Shipbuilding Price Inflation Indices.

<u>Year</u>	<u>Cargo Liner/Tramp</u>		<u>Tanker</u>
1945		100	100
1946		115	102
1950		156	137
1955		229	198
1959		297	242
1962	300	288	249
1964	247	262	217
1967	271	268	

Source:-calculated from BSS 1968-69, p86.

Table 4.10b Prices of New and Second hand Ships 1978-82 (\$m).

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
New 210,000dwt VLCC	38	45	57	68	48
New 30,000dwt product tanker	16	23	26	25	17
New 120,000dwt bulker	26	33	44	42	26
1974 150,000dwt crude carrier	14	22	19	12	8
1974 30,000dwt product tanker	10	19	17	10	8
1974 120,000dwt bulker	11	23	25	15	6

Source:- BSS 1982.

rebuild their fleets at the lower prices prevailing immediately post-war. Denholms, which ordered three new ships and bought three second hand in 1945-47, felt the programme to be so risky they repaid shareholders half the value of their equity. Sir John Denholm later said that "the decision to go ahead and chance it was probably the most difficult one in the firm's history". It also proved a major financial success, Sir John stated: "by 1951 we had seven ships, all of them built or bought at prices we could never have hoped for if we had waited" (Denholms, 1966, p37).

Even so Denholms did not attain its pre-war size, a feature of most tramp operators. In 1946 the fleets of seven Cardiff tramp operators totalled 38 ships compared to 69 in 1936 and by 1956 they owned only 31 vessels (Gibbs, 1982, p158). While many foreign companies also had conservative financial policies, the Greeks and others rebuilt more quickly from a lower base. This was linked to their swift placing of orders after 1945 and to their purchasing of many warbuilt ships. The latter were far cheaper than new vessels, Lyles paying £115,000 in 1946 for the Cape Corso (Br 10,260/42), less than half the price of a newbuilding delivered the previous year (Orbell, 1978, pp210-212). Heavier British taxation on funds which could have been reinvested was also a factor, particularly before the increase in government aid in 1954 (Chapter 5a).

The dependence on internal finance thus restricted the ability of tramp companies to rebuild their fleets. Even the financially stronger liner groups did not expand into new trades like tanker operating, a policy in which shortage of funds would obviously be influential. Such moves needed external finance, for instance the issuing of new share capital. This practice had been widespread in the Merchant Navy's heyday before 1914. The Eastern SS Co. established in 1871 paid for its first four ships by a stock flotation (Haworth, 1968, pp6-68). Shipowners

usually divided the ownership of each vessel into 64 shares which were sold to business associates or friends, with the entrepreneur often having only a minority shareholding. This system gradually fell into disuse and by the early post-war years the issue of shares to raise finance was extremely unusual, possibly because it forced existing shareholders either to dilute their stakes and hence control of the business or to engage in considerable expenditure. Also shipping's poor profitability was likely to result in disinterest among investors making it difficult to raise finance in this fashion. S.G. Sturmev stated that in 1945-60 no listed liner companies raised new share capital (Sturmev, 1962, p249). However some tramp concerns did spread the burden by setting up jointly owned companies. In the 1950s BISC (Ore) took stakes in, among others, Vallum Shipping and Ore Carriers with Houlder Bros., and St Denis Shipping with William Cory. Similarly, BP set up joint companies with Common Bros., while Denholms established Norscot Shipping in the early 1950s, the precursor of several similar deals with other independent shipowners.

A second potential source of external finance was loans from financial institutions. British companies' conservative financial policies were not unique. Lykes (USA) for instance was proud of its ability to fund shipbuilding contracts internally even in the 1960s and rejected many offers of loans (The Story of Lykes). However, some foreign shipowners used loans to expand at a rate unparalleled in the Merchant Navy. This was accomplished in early cases despite considerable opposition, a mark of the entrepreneurial drive of such shipowners. For instance Onassis persistently approached US bankers for loans in the late 1940s, despite their antipathy for shipping loans since their heavy losses when the boom after the Great War collapsed. Onassis also had to contend with the disadvantage of being a foreigner and worse a Greek, "which was no recommendation at the best of times" (Frischauer, 1968, p95). While he

was eventually given loans for \$8m to buy wartime standard tramps the terms were extremely stringent. Only half the total sum was advanced and this had to be repaid within 12 months to the National City Bank. In 1946 another hard won deal saw the initially reluctant Metropolitan Life Insurance group provide \$40m of loans for six tankers with five year charters from Mobil. Such secure employment was a standard condition of finance deals (Frischauer, 1968, pp94-101, 106-107). Loans totalling \$2bn were agreed in America following this deal by Niarchos, E.D. Naess and others.

British shipowners remained loyal to internal financing despite the trebling of general cargo ship prices in 1945-60, while tanker prices rose 144 percent. The use of loans and debentures grew little from the very low 1950 levels by 1960 and was well below the meagre British industrial average. This was despite shipping's unusually heavy finance requirements, indicated by the high proportion of total assets accounted for by fixed assets (Table 4.11). Sturmeay stated that even in 1960 the loans and debentures of a group of liner companies were less than half the sum of 1939. Moreover while short term borrowings quadrupled between 1939 and 1960 they were still far outweighed by monies owed to the lines (Sturmeay, 1962, p249). Some tramp companies also used their overdrafts as unofficial loans. Lyles for instance had a heavy £2.8m overdraft in 1964 (Orbell, 1978, p138). But Denholms' use of bank finance covered by long charters from 1950 remained highly unusual (Denholms, 1966, p37).

Antipathy to external finance had not always characterised British shipowners. A.W. Kirkaldy noted that while the Victorian shipowner's expansion owed much to his entrepreneurial drive "he has however been greatly assisted in this by the banker" (Kirkaldy, 1914, pp319-320). Specifically he attributed British owners' dominance of the Far Eastern trades to the larger borrowable reserves available to them. Loans enabled

Table 4.11 Financial Characteristics of the Shipping Industry.

	<u>1950</u>		<u>1960</u>	
	<u>Shipping</u>	<u>All Ind.</u>	<u>Shipping</u>	<u>All Ind.</u>
Fixed assets as % of total assets	51.3	39.3	74.8	47.0
Loans as % total assets	0.3	2.6	2.0	3.5
Debentures % of total assets	1.6	6.5	3.9	6.6
Taxes as % total income	29.1	39.3	11.0	33.2

Source:-calculated from the Economist various issues 1950-51, 1960-61.

both liner and tramp owners to expand rapidly in a manner reminiscent of Onassis. John Ruthen in the two years from 1898 acquired six tramps for around £200,000, the vessels being mortgaged to shipbuilders like William Gray and financiers such as the Northern Trust for £128,875 (Taylor, 1968, p269). But after the collapse of the 1919-21 boom the surviving shipowners became disenamoured with loan finance. This was reinforced by the demise of the Kylsant group in 1931 in which its heavy debts were a major factor (Green and Moss, 1982, p214).

British shipowners thus missed out on the considerable potential of external finance which they were in a good position to obtain. Rather than the Greeks' bad reputation which Onassis had to contend with, the major lines were respected members of the City community, which should have given them easy access to the vast sums available in the world financial centre in London. Though they would have had to overcome British financiers' notorious post-war reluctance to furnish industrial finance Onassis had overcome worse opposition. M.J. Wiener pointed to the City's preoccupation with safety rather than risky growth maximisation and the consequent "aloofness of the twentieth century City from the needs of British industry" (Wiener, 1981, pp128-129). However, even if finance had been available the tramp companies were less likely to obtain it than the prestigious lines. Their poor profitability in the inter-war years would have cast doubt on their ability to service loans. They had also historically depended on small local banks rather than the financial institutions of the great cities which might have been more likely to provide funds. Certainly the Bergen Line of Norway which found its internal resources fell 40 percent short of its post-war financial needs filled the gap with loans from major banks including Hambros and Guinness, Mahon of Britain (Keilhau, 1953, pp296-297).

Shortcomings were also evident in British shipowners' choice of

shipbuilders. Many companies patronised particular shipbuilders. Nourse Line ships were usually products of the Glaswegian Connell and Barclay yards, while Harland & Wolff supplied no less than 86 ships to the Bank Line in 1918-67 (DSSME, 1954, p142, 369; Moss and Hume, 1986, p560). Since the shipbuilder did not genuinely compete with other yards he had little incentive to minimise his price. Nearly all orders went to British yards, a legacy of British shipbuilding's past supremacy. While many foreign yards were out of action after the war, by the late 1950s foreign prices and delivery times were often better than British yards'. Thus their sloth in using world-wide tenders meant British shipowners were often paying over the odds for ships. The picture could however be mixed. B&C to its surprise found the lowest bid for a three ship order in 1960 was from Swan Hunter, which beat British, German and Dutch yards (MSWB, 1960, p34). But Japanese yards which might have undercut the others were not, apparently, invited to tender. Price was not the only factor, the Benwyvis' (Br 13,485/66) builders Connells, while competitive with the Japanese in price, delivered the ship seven months late (MSWB, 1967, p81; ISSD, 1969, p10).

By the mid-1960s the potential of foreign shipbuilders was being recognised. In 1963 a quarter of the tonnage delivered to British owners was built abroad and in 1967 the latter exceeded British built tonnage for the first time. 1968 saw foreign construction account for 77 percent of the total and though relative levels fluctuated in 1973 only 17 percent of new tonnage was British built (BSS 1968-69, p42; BSS 1979-80, p76). As few British yards could build large tankers their operators led the use of foreign yards while tramps continued to come on a fifty-fifty basis from domestic and overseas yards.

From 1961-62 British shipbuilding prices had fallen by 18, 11 and 13 percent for cargo liners, tramps and tankers respectively. More efficient

foreign yards probably cut their prices even more though the devaluation of sterling acted to offset this. Together with increased government aid this helped revive previously stagnant fixed capital expenditure which in 1968 was two and a half times the 1966 level (Table 4.12), though part of this represented the replacement of technically redundant ship types rather than genuine expansion. Finding internal finance became even more difficult. The chairman of Graig Shipping refused to sanction a new bulker in the early 1960s due to its high unit cost in comparison to a tramp (Williams, 1988, pp19-20). Though two junior directors persuaded him to a more enlightened decision, in other companies, like the Albyn Line, the high costs deterred orders (Chapter 7a).

It was not until the late 1960s that the straitjacket of traditional financial policies dissipated, though even in 1969 loans comprised only 16 percent of total capital and equity finance was rare. In contrast Scandinavian shipowners had benefited from loan finance even before 1939 and had strong links with particular financial institutions like the Christiania Bank and Hambros. The latter had arranged loans totalling £150m on 155 ships in 1964-66 alone, particularly for "our Scandinavian friends" (Hambros AR 1966). The Rochdale Inquiry stated in 1970 "that until two or three years ago U.K. shipping companies generally did not buy their ships on credit terms; they are increasingly doing so for the major expansion of the fleet which is now taking place" (Cmnd 4337, 1970, p338). Of five liner groups only Cunard had large loans in 1966, a reflection of its dire financial position (Table 4.13). By 1971 all had considerable loan commitments which expanded further to £539m by 1977. This was fundamental to the expansion of the Merchant Navy's capital expenditure to around £800m in 1973 and 1974. OTT raised its level of new investment from a fifth of the value of the existing fleet to over 50 percent in 1971 (OTT AR 1971). Between 1968 and 1975 the tonnage of the British fleet

Table 4.12 Fixed Capital Expenditure in the British Shipping Industry.

<u>Year</u>	<u>1970 Prices (£m)</u>	
1960	192	(1)
1961	153	
1962	129	
1963	106	
1964	158	
1965	126	
1966	120	
1967	170	
1968	290	
1969	233	
1970	364	
1971	384	
1972	482	
1973	498	
1974	415	
1975	340	
1976	202	
1977	245	290 (2)
1978	161	282
1979	91	205
1980	137	124
1981	72	118
1982		158
1983		122
1984		149
1985		79
1986		72

Sources:-(1) BSS 1975-82;

(2) GCBS, 1987, annex E.

Table 4.13 Shipbuilding Loans of the Public Liner Groups (£m).

<u>Company</u>	<u>1966</u>	<u>1971</u>	<u>1977</u>
Furness Withy		28.2	83.3
OTT	0.0	36.0	117.6
Cunard/THI	20.7	30.9	106.8
P&O		128.7*	172.1
B&C#	9.9	38.4	59.1

* This is for 1973, the 1971 figure was considerably lower.

These figures include non-shipping loans.

Note:- OTT also had finance leases totalling £50.8m in 1977.

Sources:- Annual reports of the companies.

nearly doubled to 30.4mgrt.

Shipowners could also increase their fleets by chartering vessels as the lines had done with high class tramps. During the late 1960s an increasing number of ships were leased from financial institutions which actually owned them. An early example was the Pacific SN Co.'s Orcoma (Br 14,186/66) which was owned by the Nile SS Co., a subsidiary of Industrial & Commercial Finance, with some funding from Ship Mortgage Finance (MSWB, 1967, p112). This method of acquiring new tonnage became increasingly common in the 1970s and 1980s. The four Blue Star reefers built in the mid-1980s were actually owned by Lombards and Investors in Industry, the latter having a long tradition of marine and industrial finance (RS 1987-88). Financiers preferred this method as should a company collapse in the poor markets they had a specific asset they could sell to recover at least part of their investment, rather than having to share a liquidated company's assets with other creditors.

In the post-1973 depression such considerations have become extremely important to financiers and shipowners. One of the principle factors behind the crash was the excessive number of new ships, made possible in part by the easy availability of external finance. M. Ratcliffe made a savage attack on financiers' understanding of the industry, claiming they often did not recognise the volatility of shipping markets. Shipowners also bore some responsibility as many acquired loan financed vessels without long term cover. This was facilitated by bankers' dropping their former strong preference for definite long term employment on many of the ships they financed. Also the shipbuilders themselves often provided credit on attractive terms to secure orders. This practice was begun in the 1950s by Japanese yards, and their European counterparts were forced to follow suit, frequently with government backing (Ratcliffe, 1985, pp156-158). These accusations mirrored those of

Erling Naess who had used loans to aid his own rapid expansion after the 1945 (Naess, 1977, p218).

The onset of the slump brought home to shipowners the disadvantage of external finance as they still had to service their debts though their income had fallen dramatically. The amounts involved were enormous. In "the mid-1970s it was estimated that the outstanding debts on world tankers added up to some \$35 billion of which only \$25 billion was covered by second hand value, if they could all be sold" (Ratcliffe, 1985, p158). However, the disastrous and largely externally financed boom in building bulkers in the early 1980s indicated that the lesson had not sunk in. A major factor here was governments' need to keep shipyards open to avoid unemployment, thus providing an incentive for more loans to bring in orders.

The result was the acquisition world-wide of ships that could not be traded profitably, with devastating results for many shipowners. By 1985 the world shipping industry had debts of \$30-35 billion most of which bankers expected to lose (FT 11.1.85, 18.1.86; DT 2.1.85). The financiers were in a very difficult position since to foreclose on the debts and liquidate the shipowners meant losing most of their money as ship values plummeted due to lack of demand. Thus they could be left with vessels they could neither operate nor sell profitably. This was a considerable incentive to give further loan support, or at least grant moratoria on debt repayments in the hope that the shipowners would return to profitability. Given the length of the depression this rarely provided a satisfactory solution. The next step was for the creditors to take control of a shipping company and force it to restructure its affairs in return for reducing debts. Restructuring measures included exchanging debt for equity in the hopefully revitalised company. This has affected many very large companies including Wah Kwong which was restructured in

1987 after prolonged wrangling between its creditors. Chase Manhattan for instance arrested the Eastern Ranger (Li 55,000/81) in the hope of getting \$16m of the \$30m owed. However, as elsewhere, the other creditors forced the troublemaker to accept the restructuring deal, which covered debts of \$820m with 25 ships being sold and a core fleet of 37 remaining (FT 17.9.86; MNP 3.4.87). Similar deals were worked out at another Hong Kong shipowner C.H. Tung whose debts were estimated at \$2.6 billion, though Grand Marine was liquidated after the failure of a 15 month restructuring programme with liabilities of \$247.5 m (DT 17.1.85).

Most British companies coped with financing problems without being taken over by creditors. This often involved heavy losses in writing down vessels to their market value before selling them. P&O for instance made no overall profits on its numerous ship sales from 1978 and in 1984 made a £79m writedown, mainly on the gas carrier fleet which was subsequently sold (P&O ARs 1978-86). However, there have been some loan linked failures among tramp operators. One of Court Line's fatal problems in 1974 was its inability to service heavy debts in shipping and other businesses. While Common Bros. has been successfully restructured, being released from loans of £4m in exchange for a 33 percent equity stake for the creditors and the installation of Norwegian managers, Reardon Smith was liquidated in June 1985. The latter company (which relied heavily on loans) still had bad debts of £6.5m even after restructuring. Reardon Smith was also a good example of the knock-on effect of corporate failures and restructurings, having been hit by the closure of its Celtic Bulk Carriers joint venture with debts of £15m in November 1984 (FT 1.6.85). This resulted in the return of six vessels to Wah Kwong, which together with the return of other vessels from Sanko of Japan and the liquidated Karlanda Kangaroo Line triggered its own forced restructuring (FT 31.8.86). Scottish Ship Management (SSM), a joint venture between

Hogarth's and Lyles, was also involved. By early 1985 Lyles had net debts of £94m having just received a pair of 42,000dwt bulkers which were trading in a dire market. Though a debt moratorium on £13m of repayments was negotiated when losses continued into 1987 the company was forced into receivership by foreign creditors (Continental Illinois and the Bank of Brazil). This was after the rejection of proposals for the provision of long term working capital despite the support of the Royal Bank of Scotland (FT, 3.4.86, 16.5.87). The liquidation was indicative of the danger for shipowners of being in debt to foreign creditors from whom they are unlikely to get the same support as from bankers they have done business with for many years.

While shipping depressions could cause fatal problems for heavily geared shipowners they could also offer considerable financial opportunities. Both British and foreign shipowners had long attempted to follow the policy described by Furness Withy chairman James Steel: "It is imprudent to wait for a boom before ordering new ships or to rely upon buying second-hand ships at that time when they will fetch exorbitant prices. Shipowners need courage and foresight to place orders at favourable prices at the bottom of a slump so as to have a balanced fleet available to exploit the full potential of the boom when it comes." (FW AR 1975). There was however a negative side to such policies. If the boom did not materialise the shipowner was likely have had financing commitments he could not meet. Moreover on a broader scale it encouraged more orders which served to increase overtonnaging and lengthen depressions. It was notable that as shipping markets began to turn up in the late 1980s Norwegian shipowners in particular bought new tonnage at low slump prices. In contrast British shipowners like Stephenson Clarke were not prepared to buy until the market was strong, by which time prices had risen, and hence have not mirrored the Norwegians rapid re-expansion

(Powell Duffryn ARs 1986-88).

Ship trading, whereby shipowners bought vessels in the hope that their value would rapidly appreciate, allowing them to be sold at a profit, could also be an important activity. This has long been a major commercial activity for Greek shipowners and is a factor in their survival through shipping depressions despite operating losses from their fleets. The London based Pegasus Ocean Services for instance usually bought and sold a dozen or more large tankers or bulkers a year during the 1980s. A typical transaction was the purchase of two VLCCs from Neste Oy, the Finnish state oil company, for £6m each in August 1987 (DT 10.8.87). Similarly the Financial Times of 23.6.86 reported the sale of two VLCCs to Norwegian interests for \$17m with the prospect of their immediate resale for a profit of \$2m. In contrast British shipowners, particularly the liner companies have traditionally built new vessels with the intention of trading them for their full lives. While the wholesale disposal of technically redundant ships was a feature of the 1960s and 1970s followed in later years by the by the disposal of unprofitable vessels, any profits made were regarded as extraordinary surpluses rather than part of normal trading activities. One unusual contrary example was the Court Line. In 1975 the company sold four vessels under construction for a profit of £2,215,000. The Department of Trade inquiry into the group's collapse believed this to be a good policy in a rising market and a potentially disastrous one in a falling market. But even in depressions firms which were careful to drive hard bargains found such activity financially remunerative (DOT, 1978, p51).

The years of depression in the British shipping industry saw a gradual fall in capital expenditure though in real terms there were considerable fluctuations (Table 4.12). For instance after a low point in 1981 expenditure on new ships rose though by 1984 it was still only half

the level of 1978. Thereafter expenditure fell dramatically in 1985-86, a trend linked to the abolition of government investment grants in 1984 (Chapter 5a). An important feature of the years up to 1978 was the extremely low expenditure on second-hand vessels, an area which offered great opportunities. Since 1979 however second-hand ships have on average accounted for 30 percent of expenditure on vessels, indicating the recognition of the opportunity to acquire modern tonnage at very low prices (Table 4.10b). For example Graig Shipping bought its three bulkers second-hand in the mid-1980s (Graig ARs 1983-87). The lowering of investment levels also resulted in a rise in the average age of the British fleet. Between 1976 and 1986 this increased from 6.3 to 11.4 years (BSS 1976-77, p55; GCBS, 1987, p7).

A final area where finance has had an important impact is the lack of new British companies entering the deepsea trades. The period of Victorian expansion was characterised by men of very little means entering deepsea shipowning. It is hard to imagine in the post-war period the chief clerk of a shipping agency like Charles Cayzer getting the finance to become a deepsea shipowner (Muir and Davies, 1978, p44). This was particularly true of the liner trades where even a small line like Geest's required four ships. By Sturmeys' figures this would require five times the expenditure required to start a tramp company with a single vessel (Table 4.8). Even if chartered tonnage were to be used the finance would be beyond most 'would be' entrepreneurs. Further evidence for this can be seen in the character of many new post-war shipping companies which were extensions of existing businesses already able to call upon substantial financial resources. The coastal trades where much smaller initial investment has been needed have seen far more new entrants. Four of the five shipping companies set up under the Business Expansion Scheme in the mid-1980s were short sea operators.

Until the late 1960s lack of finance played a major role in the slow growth of the Merchant Navy. While their financial needs had grown for reasons beyond shipowners' control, such as heavier taxation and rising prices, British shipowners restricted the resources at their disposal by adhering to internal financing. This policy was just one aspect of the more general problem of conservative management. In contrast many foreign competitors gained a considerable advantage from their large scale use of external finance. The 1960s and 1970s saw a change to the use of additional external sources of finance including loans and government aid (Chapter 5a). This helped the rapid expansion of the British fleet in the strong contemporary shipping markets. However, after 1973 the use of external finance for vessels not covered against poor markets had a negative influence on the Merchant Navy. First, the need to cover loan repayments and interest with the reduced revenue could result in financial overextension and even some terminal problems. Second, on the world scale it worsened the external problem of poor markets by facilitating overtonnaging, especially when vessels were built with the aim of providing work for shipyards rather than catering to any need for additional tonnage.

4d) Ports and Port Labour.

In 1945 British shipowners almost invariably used facilities based in Britain's traditional ports. However, these terminals were afflicted with various problems, the most publicised of which concerned port labour. The effects on shipowners varied considerably depending upon their sector of operation. For example, tankers could pump their cargo ashore within a day and hence incurred relatively low port costs whilst the loading, stowage and unloading of breakbulk cargo was a laborious, expensive and complex business. In addition to the risk of damaging sensitive

commodities such as tea or eggs, there was a considerable amount of accidental damage and pilferage. Thus cargo liners were severely affected while bulk liquid and dry cargoes, due to their uniformity and greater durability, lent themselves to quicker handling (Table 4.1a and b). Moreover, there were numerous restrictive practices which constrained the effective handling of vessels. Shipowners claimed they often had to resort to illegal payments and malpractices to obtain the movement of essential cargo and the turn around of ships (Wilson, 1972, p156). Again, liner operators were the most vulnerable as they needed to keep to tight predetermined schedules. The port industry was also known for its proclivity for industrial unrest. The editors of the Warwick Studies in Industrial Relations stated in 1972 that "the docks, and above all the London docks, have been a trouble spot in British industrial relations for nearly a century" (Mellish, 1972, foreword). The liner operators were again the worst hit since they had to use specific ports at short intervals, while tramp operators, if they received warning, could attempt to obtain cargoes to trouble-free ports or try to divert loaded vessels to working docks.

One of the basic problems of the British port industry was the prevalence of casual employment, which was combined with an oversupply of manpower and sharp fluctuations in the availability of work. Thus the docker's life was at best precarious and at worst poverty stricken. This, and the need to bargain with employers over each item of work, resulted in an atmosphere conducive to industrial strife. The success of a wartime scheme to make more efficient use of dock labour prompted the government to impose the National Dock Labour Scheme (NDLS) after the employers failed to produce their own decasualisation plan. Its provisions restricted the supply of labour by a registration scheme and introduced a guaranteed minimum wage. However, while dockers' wages were above the

national average from 1947, shipowners continued to suffer from a very high incidence of dock strikes throughout the 1950s (Wilson, 1972, p226; Mellish, 1972, p41). This was linked to the NDLS' failure to reduce the dominance of casual labour which, after falling from 88 to 78 percent of the labour force in 1947-57, remained roughly stable thereafter (Wilson, 1972, pp111-112).

While dock problems at first sight appear to be an area outside shipowners' control, in fact some companies had considerable involvement in the port industry both in Britain and abroad. Many liner companies had stevedoring subsidiaries and were thus port employers. The Port Line, for instance, participated in various stevedoring companies in New Zealand and Australia as well as maintaining dock offices for administrative staff, while Donaldson's owned the Clyde Stevedoring Co. (Russell, 1985, pp28-55; Dunnett, 1960, p104). Industrial carriers also frequently maintained their own dock operations (Chapter 8b). However, the tramp companies' small fleets and lack of concentration on particular trades made in-house stevedoring unnecessary. Further, Rochdale's inquiry into British ports stated that "there is normally a substantial and sometimes a majority representation of the payers of rates and charges" on the controlling boards of port authorities (Cmnd 1824, 1962, p37). The influence of shipowners is also indicated by the leading roles played by Andrew Crichton and David Lloyd on behalf of the port employers in the 1960s when they were directors of P&O and Ellermans respectively (Cmnd 1824, 1962, pp262-264; Wilson, 1972, p156). This gives some credence to the view that shipowners were partly responsible for the port problems and had the potential to take action themselves. However, in practice their power did not amount to control. Local and national government controlled the municipal and nationalised ports and were heavily represented on the boards of the major trust ports. The government's important role was

also illustrated by the publication in 1951-62 alone of eight government reports on dock labour problems (Cmnd 1824, 1962, pp36-41, 134).

British shipowners continued to press for an increased role in port decision making through the 1960s, spurred on by the increasing difficulties they were experiencing. A striking example was the reduction in efficiency represented by the increase in 1965-66 of the average time spent in ports by B&C's cargo liners from 55 to 58 percent of the year (B&C AR 1966). This contrasted with the potential for improved efficiency seen by the 1962 Inquiry which stated that "we are confident that a steady increase in the speed of the turn-around of ships could be made possible" (Cmnd 1824, 1962, p21). Poor use of manpower and facilities were even more serious problems than industrial action and "dock strikes are at least as much a symptom as a cause of the malfunctioning of the port industry" (Cmnd 1824, 1962, p128). The report called for the installations of more and better cranes (especially heavy lift gear) and for improved road and rail access. The condition of quays and sheds were often criticized by shipowners and shippers [Sir Leslie Bowes of Royal Mail described British ports in the 1960s as "a complete anachronism" (Times 5.5.88)] and the report noted that "congestion of quays is a serious difficulty at some ports, notably Liverpool" (Cmnd 1824, 1962, p93-106, 116-123).

Costs incurred in port formed a major element of total costs, especially for the owners of traditional general cargo vessels who had yet to benefit from highly efficient methods such as those used in the bulk trades. One study found that in 1964 cargo handling accounted for a quarter of the total costs of a 16 knot cargo liner, though in states where dock labour was cheap like India the cost could be much lower. The study also found that nearly a third of total costs came from the operating and overhead costs of the ship whilst it was in port (Though the

importance of cost items varied greatly). A further 10 percent were accounted for by port dues and pilotage charges (Table 4.1a). For the Palm Line, which used troublesome Liverpool and inefficient West African ports, stevedoring costs were more than a third of total costs (Kohn, 1970, p69).

In this respect British liners were at a disadvantage compared with their foreign counterparts since they naturally based many routes in their home country. British port charges had long been higher than those in continental ports (as discovered by the Royal Commission on Transport in 1930). In 1962 a survey found the cheapest British port to be twice as expensive as the cheapest continental docks, whilst some British ports had charges three and a half times the level of the latter. While only part of port dues were incurred in Britain, there was still an extra cost which British owners might find difficult to pass on to shippers for fear of losing cargo or breaking conference price agreements. This is reinforced when it is realized that continental stevedoring charges were lower and major ports such as Hamburg, Antwerp and Rotterdam were more efficient. According to the 1962 inquiry this, among other factors, "enabled shipowners in many cases to quote freight rates substantially lower than those quoted for similar cargoes to U.K. ports" (Cmd 1824, 1962, p23).

The best method of overcoming high port costs was to switch to more efficient methods. The tanker owners already had the advantage of using the deepwater refinery terminals built by the major oil companies from the 1950s, replacing far less efficient terminals based in the major traditional ports (British Petroleum, 1958, pp201-202). As greenfield sites some, like Milford Haven, were excluded from the NDLS allowing the oil companies to use their own men and benefit from the lack of constraints on the efficient use of labour. Indeed, most industrial carriers' ports fell outside the remit of the NDLS, one of whose criteria

concerned providing dockwork as a service rather than an in-house function by manufacturers. BSC attempted to use its own men in a new deep water ore carrier terminal for Port Talbot in the 1960s. After a prolonged legal battle the Appeal Court turned down an attempt to give the work to registered dockers (Wilson, 1972, pp141-142). By the mid-1960s general cargo operators were preparing to increase the efficiency of their operations, including stevedoring costs and turn around times, via containerisation. This offered great potential for cutting dockers numbers, the benefits of which could be passed on to shipowners in the form of lower charges. HAL in the Netherlands considered that containerisation would reduce the number of dockers required by four-fifths, and even if they were given extra work such as container stuffing there was still a potential two-thirds reduction (Van den Burg, 1975, p157).

The move to containerisation of Britain's ports coincided with the decasualisation of dock labour in the late 1960s in the wake of the Devlin report. Such a drastic change in employment methods, given the already fractious state of industrial relations, provided a further stimulus to industrial disputes. There were also numerous inter-union disputes: for instance the series of one, two and three day stoppages between the TGWU and the 'blue union' (Stoker, 1985, pp66-67). This was particularly serious since the failure to modernize the docks had seen the registered labour force persist at a high level, having fallen by only 8,000 from its 1947 level of 73,000 by 1965. These problems contrasted with the situation in major continental ports such as Amsterdam and Rotterdam where decasualisation had been achieved in 1945. The consequent improvement in industrial relations combined with labour shortages meant the ports were able to modernize with workers' co-operation. This existing trend of continual improvements made containerisation more acceptable to the

dockers, aided by the expansion of Rotterdam which provided other job opportunities for surplus labour (Wyts Digest, 1956, 1961, 1962).

While foreign users of continental ports benefited from the easy introduction of containerisation, in Britain the process was very difficult. At Tilbury a dispute over manning levels led to dockers closing the new terminal. British operators such as ACT and OCL were forced to use Antwerp and Rotterdam, with cargo being trans-shipped from Britain at an extra cost of £18-20,000 per voyage leg. Not only did the shipowners have to absorb this cost to stay competitive but the feeder service became overstretched. This led to delays and late sailings which made foreign competitors more attractive to shippers (Russell, 1985, pp101-102). It was not until 22nd of May 1970, nearly 15 months late, that the first vessel sailed from Tilbury. This worsened the losses anticipated on the introduction of the new service after massive capital expenditure and was influential in slowing the rate of containerisation by British companies in the 1970s.

R.B. Stoker saw OCL/ACT's problems stemming partly from their own actions, the strike being sparked by their unintentional disclosures that they intended to carry out as much work as possible outside the docks and the NDLS whilst containerisation reduced labour requirements from hundreds to a mere 40 men for the Australia trade (Cmd 4337, 1970, p174; Stoker, 1985, p49). His own company (Manchester Liners) made every effort to smooth the process of containerisation by re-employing as many former breakbulk cargo workers as possible. For instance, a container repair depot was set up within the Manchester docks. This conciliatory approach did not prevent Manchester Liners from suffering from numerous port disputes in the early 1970s. The inter-union disputes of 1970-71 lost many continental shippers - whose freight Manchester liners had garnered at great effort - and few returned after the strikes. A further deterrent

to these shippers was the nine week Montreal dock strike followed by a four weeks national dock strike in the UK. This was a vital factor in the company's loss of £516,000 in 1972 compared to profits of £645,000 and £6.1m in the two following years of industrial peace (Stoker, 1985, pp66-67).

Such losses were widespread in the notorious disruption of the late 1960s and early 1970s (Table 4.14). The Geest Line suffered seven strikes at Liverpool in the year from June 1968 alone and lost a cargo of bananas worth £120,000 in the last of these. However, British lines were not alone in being hit by strife in the ports during containerisation. The American Grace Line, for instance, had to give up its planned container service to Venezuela due to the adamant opposition of the dockers at La Guaira (Van den Burg, 1968, p75). In the Indian trades, the British lines' share was further reduced by local dockers' refusal to accept containerisation, forcing continued use of cargo liners which were difficult for the British to operate profitably.

One possible option to reduce port cost and disruption was for British owners to switch to cheaper trouble-free ports. Geest, for example, increasingly concentrated upon Barry. Although this was an NDLS port, Geest's status as the main user enabled a good relationship to be established with the labour force. The dockers doubtless realized that if Geest left it would be the end of the port [Rochdale had recommended its closure in 1962 (Cmd 1824, 1962, p188)]. This was illustrated by the dockers' decision to stay at work in the national dock strike of 1984 (Stemman, 1985, pp192-201). However, the main alternative port developed at Felixstowe was controlled by European Ferries from 1976 and P&O from 1987. The small size of the original port had resulted in its exclusion from the NDLS and it was thus able to be developed from scratch for the most efficient operation. Its successful development corresponded closely

Table 4.14 Man days Lost due to Stoppages in British Ports.

<u>Year</u>	<u>Man days Lost (000s)</u>	<u>No. of Employees (000s)</u>
1965	105	129
1966	134	
1967	660	
1968	113	
1969	422	113
1970	720	102
1971	172	100
1972	760	85
1973	124	72
1974	321	71
1975	42	67
1976	116	65
1977	97	65
1978	95	63
1979		61
1980		58
1981	134	54
1982	106	47
1983	103	42
1984		39
1985	13	36
1986	7	35

Source:- Annual Digest of Port Statistics, 1966-86.

with S.G. Sturmeys prescient suggestion that containerisation should be developed at new ports unconstrained by cities, poor access and a history of labour strife (Sturmeys, 1975, p216). The innovative owners opened England's first container terminal at Felixtowe in 1967 (Port of Felixstowe, 1987, p145). By 1982 it was Britain's largest container port handling 427,780 TEU compared to 51,000 at Liverpool (108,000 in 1980), 324,920 in London (PLA) and 274,851 TEU at Southampton. While outshone by Rotterdam (949,150 TEU in 1982) it has continued to expand handling 757,655 TEU in 1987 (BPF Review 8.88; JFC 1984, p112, 176, 184, 185, 187).

While Harrison's West Indian interests and Ellermans' Mediterranean service have moved to Felixstowe, most of the international consortia which include British lines have stayed at traditional ports. However, the threat of moving has been used to improve conditions at the old ports. When Southampton suffered a major strike in early 1986 over plans to make 700 of 2,300 dockers redundant, SAECs and TRIO (which have major British partners) temporarily switched to Felixtowe and only returned when a reduction in rates per TEU from £105 to £80 was offered (DT, 23.1.85, 9.2.85; FT 7.2.85; Times 25.1.85).

Though the new efficient non-NDLS ports like Felixtowe and Sea Containers' Parkeston Quay cut British port charges there was still a substantial gap. The Port Employers state in 1987 that charges at Rotterdam and Antwerp averaged £2.50-3.50 per ton compared to £7-15 per ton in British NDLS ports. (NAPE Parliamentary Briefing, 1987). While this partly reflects the greater importance of cheap bulk cargo rates, on the Continent the DOT estimated British port charges were on average 60 percent above Northern European levels. This led to freight rates from Britain being an average of 10 percent higher for the North Atlantic and 13 percent higher for West Africa.

In addition to continuing efforts to get the government to end the

NDLS, shipowners also campaigned for the abolition of light dues. In most other European countries these are paid by the government, while in Britain merchant ships bear the full cost. Thus a large British container ship picking up cargo from its home market at Southampton has to pay £14,000 which it would not be liable for in France. The GCBS also claimed that Trinity House was extremely inefficient, employing three men for two navigational aids compared to one man for every four aids in Sweden. While the government did agree to withdraw the 10 percent of aids which were no longer needed, it also raised light dues by 14 percent in 1987, only to admit that the increase was excessive and cut fees by a tenth in 1988. The GCBS also stated that 400 of the 1,400 pilots were surplus to requirements and pilotage fees should be reduced. Again the results were mixed, for although a redundancy scheme was indeed introduced, the government handed over pilotage responsibility to the ports who proved unwilling to cut fees. (GCBS ARs 1986-88; FT 35.3.86; GCBS, 1986, pp26-27, 40-41).

Port costs undoubtedly formed a large element of shipowners operating costs. Though liner companies in particular had considerable direct involvement in the port industry the power of other agencies such as the government and the intractably difficult relationship with port labour prevented them from shaping the industry to their requirements. The external nature of this problem was even more apparent in relation to foreign ports. However independent shipowners' concentration on their traditional markets and vessel types meant they used few tankers and bulkers whose efficient design greatly reduced the level of port costs, and for tankers their susceptibility to industrial action. The natural tendency for British lines, and to a lesser extent tramps, to use home ports heavily meant they suffered from higher port charges than continental competitors, a problem that has persisted into the 1980s.

This was despite the general switch to more efficient bulkers and container ships from the 1960s which greatly reduced port times and costs as it did other operating costs.

CHAPTER FIVE

The Role of the State

The first section deals with the impact of the British government upon the Merchant Navy. One potential negative aspect was the imposition of controls on British shipping operations which could place British companies at a competitive disadvantage. They certainly complained at the incidence of taxation which reduced the funds they could reinvest and at the impact of inheritance tax on private family companies which could undermine their existence. On the other hand, there were also positive factors such as tax breaks or direct grants, though these were also received by many foreign competitors. While the actions of foreign governments were external factors, British owners did have some ability to influence their own government and so to correct or alleviate problems.

Enterprising (or less scrupulous) foreign owners who found their natural government's policies an unbearable liability began in the inter-war years to use other flags. Such FOCs could circumvent government interference and reduce labour costs (Chapter 4a). By using companies based in tax havens taxation could be partly or wholly evaded. Thus in section 5b British companies' readiness and ability to take such measures is considered, together with the advantages of doing so and their record is compared with that of foreign competitors.

Such measures were aimed at the policies of shipowners' own governments. Different problems could be encountered due to foreign governments' discrimination in favour of their own ships or against those flying other flags. As British discrimination was insignificant in the post-war years we are concerned with the impact of other governments' actions on different types of British shipowner. This question is strongly linked to the establishment of foreign state-owned fleets and the

competition from them, often seen by the British as 'unfair'. Soviet shipping, since it has received particular attention, merits separate consideration.

a) British Government Policies and Assistance to Shipping.

In 1945 the British government exerted a very considerable degree of control over the Merchant Navy. Not only did the Ministry of War Transport allot cargoes and determine the deployment and freight rates of British vessels but it also owned large numbers of ships built to government account during the war. This high existing level of state involvement could have facilitated nationalisation, a spectre raised by the unexpected victory of the Labour Party in the July 1945 election. The basis for nationalisation of the road haulage and rail industries ["our policy is intended to bring transport services essential to national wellbeing under public ownership and control" (Chester, 1975, p30)] could also have been applied to shipping. Ultimately however the Minister of Transport concluded in October 1945 that he "could not himself recommend nationalisation of shipping in the present circumstances and it would have a steadying effect if he could make a declaration to that effect" (Chester, 1975, p107). Rather than maintain direct control, the government merely issued a vague call for shipowners to heed the national interest. As implied in the ministerial statement, the main practical effect of the nationalisation debate was to create further uncertainty in the minds of shipowners making vital decisions on post-war company policy. It would have acted to delay the placing of orders for tonnage for a few months (particularly among the many hesitant tramp operators) resulting in increased building costs and the loss of early delivery dates (Chapter 4c).

The decision against nationalisation led to the government embarking

on a rapid reduction of its direct involvement in shipping. Most state-owned vessels were sold off during the late 1940s, though some specialised types were retained into the 1950s. The old passenger liner Empire Brent (Br 13,595grt/25) was acquired in 1946 and carried emigrants to Australia and New Zealand until the end of the 1950s. Management of such vessels was tendered out to commercial companies, in this case the ship's former operators Donaldson Bros. & Black (Dunnett, 1960, pp96-97). This followed the wartime system whereby shipowners managed government vessels. According to S.G. Sturmev "most tramp ships were placed by the government under the management of liner companies" since the latter had more comprehensive expertise. This was believed to have sapped the will and enterprise of the tramp shipowners and been an important factor in their poor post-war performance (Sturmev, 1962, p143). But most of the large tramp operators such as Hunting and Salvesens appear to have retained management of their own vessels supplemented by contracts for government owned vessels. Only small companies, mainly involved in the coastal trade appear to have been affected in this way: for instance R. Williams whose three coasters were handed over to Constantine's management in 1939 (Appleyard, 1985, p7, 47-48). In addition to Ministry of Transport vessels the government had other shipping interests via the nationalised industries. Though most like, the CEEB and British Rail were in coastal trades, there were also deepsea vessels such as Post Office and Cable & Wireless cablesips, BISC (Ore)'s stakes in ore carrier companies in the 1950s and the tanker fleet of BP which had been partly government owned since 1914.

During the war freight rate controls deliberately restricted profit margins to only five percent. In practice the profits of liner companies in 1940-43 were even lower (Sturmev, 1962, pp143, 148). Thus the government prevented the market compensating shipowners with high wartime

profits for their war losses and high post-war shipbuilding costs, in contrast to the situation in the Great War (Chapter 7a). The government's control of tramp and liner rates was ended fairly quickly in 1946 but tanker rates were not deregulated until 1948-49 (GCBS, 1960, p17). This would have reinforced British independent shipowners lack of interest in the buoyant tanker market in the late 1940s as their traditional tramp and liner vessels could get higher rates.

Nevertheless, even in 1950 the Ministry of Transport continued to direct the industry in various ways. There were restrictions on hard currency expenditure (mainly dollars) while attempts were made to ensure dollar earning cross trades had sufficient shipping space available. Similarly, the Ministry aimed to make certain that the oil companies had enough tankers, though chartering of US tankers was kept to a minimum to conserve dollar reserves (MOT, 1950, pp40-47).

Though such practices gradually disappeared the shipping industry, while regaining its freedom of action, was being hit concurrently in another area due to rises in taxation. This was not a new phenomenon. Between 1929 and 1939 corporation tax rates had risen from 11 to 19 percent (Table 5.1). During the war the basic rate doubled to be maintained through the late 1940s. From 1951 corporation taxes rose to 52 percent (Krzyzaniak, 1963, pp28-29). Thus shipowners, in common with British industry generally, were faced with a dramatically increased tax burden. At the same time individual shareholders were under pressure due to the ever increasing cost of dying. Estate duty on the assets of Tom Morel, who died in 1935, was 32 percent and for Clement Morel, who died in 1940 was 26 percent amounting to £151,000 and £51,000 respectively. By the early 1950s the remaining Morel shareholders were becoming extremely anxious that high tax assessments on shares in a private company (shares whose value was difficult to establish) would force them into the heavy

Table 5.1 British Corporate Taxation 1929-87.

<u>Year</u>	<u>Rate (%)</u>
1929	11
1939	19
1940	24
1941	31 plus 30 percent excess profits tax
1942-45	40 plus 40 percent excess profits tax
1946-48	39
1950	42
1951	51 plus 17 percent excess profits tax
1952-53	52 plus 18 percent excess profits tax
1953-59	52
1965	56 (Income and company profit taxes)
1965	40 (corporation tax replacing the above)*
1970	45
1979	52
1984	52
1987	35

* Due to the different basis in calculation the reduced rate does not indicate a reduction in corporate taxation.

Sources:-Krzyzaniak, 1963, pp28-29:

Cmd 4337, 1970, p361:

Hansard vol. 56, sixth series, p159.

expense of buying the shares to pay the dead member's tax. This was a vital factor in the decision to close the company. Indeed when John Morel died in 1971 an 85 percent duty was incurred on his large estate (Gibbs, 1982, pp123, 126, 136). When Sir Arthur Sutherland died in 1953 his estate of £2,013,000 incurred duties of £1.5m the payment of which forced the liquidation of his company (Middlemas, 1989, p44). The Lyles were faced with similar potential problems in the late 1940s and early 1950s and were already chastened by death duties of over £1,000,000 after the death of Sir Archibald Lyle and two of his sons. They chose to turn Lyle Shipping into a public company, thus preserving the business (if not their personal wealth) in the event of a bereavement (a course of action which was anathema to the autocratic John Morel) (Orbell, 1978, pp113-114).

An alternative possible course was tax evasion, which the Morels attempted in the early 1930s. The principal shareholders set up personal companies in Prince Edward Island, Canada, for precisely this purpose. However the Treasury closed this loophole in the 1936 Finance Act negating the Morels' efforts (Gibbs, 1982, p122). The Vestseys were more successful in their epic tax evasion measures which ran from the Great War to the early 1980s (Perren, 1986, pp618-621). Sir Edmund Vestey, who controlled a business empire worth £52m, incurred estate duties of only £95,000 on his death in 1953 (Knightly, 1981, pp100-102). But for the vast majority of shipowners who could not count on tacit official connivance there was little option but to shoulder the ever increasing burden of taxation.

The decline in the Ministry of Transport's direct involvement paralleled the department's reduced interest in shipping. Its efforts concentrated on the massive task of attempting to rebuild Britain's nationalised land transport industries and aiding the state-owned airlines. Financial aid to shipping in 1944-54 was limited to fluctuating

depreciation allowances (Table 5.2). These counted against corporation tax but being based on a ship's original value, rather than its replacement cost, in a period of inflating shipbuilding prices provided only limited assistance. The lack of government help should be seen in the light of the state's reputed long established policy of not interfering with an industry which prided itself on overcoming its problems by its own efforts. In fact government aid to shipowners had a long history. Some of the great lines were recipients of large subsidies to carry the Royal Mail from the mid-nineteenth century. In the early twentieth century owners were paid to include military features in some passenger liners (armed merchant cruisers). In 1902 and again in the 1930s Cunard was provided with subsidies to build express passenger liners (Green and Moss, 1982, p18), while the government was intimately involved in the rescue of the Kylsant companies. Their collapse had been triggered by the shipping depression of the 1930s. The depression also sponsored a £10m scrap and build programme for tramp shipping introduced in 1935, together with annual operating subsidies of £2m (Hansard 4.12.34). This was succeeded in March 1939 by a government aid package totalling £38.25m over five years to build up the Merchant Navy in preparation for war (Hansard 28.3.39; Economist 22.7.39). In 1954 the earlier ineffective assistance was replaced by investment allowances in line with aid to industry generally. However in 1957 shipping became a special case as assistance was increased while industry as a whole lost investment allowances in 1956-59.

One reason for the lack of government interest in shipping and subsequent tardiness in providing aid was the lack of effective pressure from shipowners. In their heyday, many individual shipowners had had great political influence. Sir Alfred Jones (1845-1909) had ready access to colonial secretary Joseph Chamberlain and many of his cabinet colleagues.

Table 5.2 Government Financial Aid to British Shipping.

<u>Date</u>	<u>Type</u>	<u>Level</u>
1944-54	a) Initial depreciation allowance on original capital expenditure.	20 percent, 40 percent and nil at various times.
	b) Annual writing down allowance limited to 100 percent of ships cost.	6.5 percent p.a. on tankers 5 percent p.a. on dry cargo ships on a straight line basis.
1954-66	a) Replaced by an investment allowance.	20 percent in 1954-57 40 percent in 1957-66
	b) Annual allowance continued.	As above to 1962, 6.25 percent for all ships in 11.1962-1965. 1965 on 'free depreciation'.
	c) Total of initial and annual allowances raised to 120 percent and later 140 percent of ship's cost.	
1966-70	a) Replaced by investment grant.	20 percent in 1966. 25 percent in 1967-68.
1970-84	a) Replaced by 100 percent depreciation allowances on gross capital expenditure.	On free depreciation basis.
1984-89	a) To be eliminated by 31.3.86. and replaced by annual allowances on machinery expenditure.	25 percent on a reducing basis.

Sources:- Cmnd 4337, 1970, pp362-363;

GCBS, 1986, p17;

Hansard sixth series, Vol 56, p159.

The Earl of Inchcape wielded enormous political influence during and after the Great War, while Lord Runciman was a leading Liberal MP and President of the Board of Trade (the government department responsible for shipping) in 1931. Before the Great War many shipowners had also been MPs. This pattern persisted into the inter-war years when the Shipowners' Parliamentary Committee, chaired by Sir William Raeburn, in conjunction with the Chamber of Shipping co-ordinated efforts to influence bills affecting the industry. In 1921 these included not only adjustments to the Merchant Shipping Acts but also bills on the coal industry, British nationality, employment hours and the government of Ireland (CSUK AR 1921-22). But later reports gave ever decreasing prominence to shipowners' attempts to influence the government and from 1945 the shipowning MP was virtually extinct. Even in the Lords powerful protagonists for the industry were decreasing. Lord Essendon, for instance, died in 1945 and the Chamber of Shipping increasingly placed its hopes on MPs having an interest in shipping.

Sturmey suggested that the industry's own submissions were usually of poor quality, a comment borne out by examination of the GCBS' 1960 survey (Sturmey, 1962, pp390-391; GCBS, 1960). The shipowners' attitude appeared to be that simply calling for action was enough, whereas in practice more significant pressure was needed to induce political action. For instance it was not until Sir William Currie threatened to embarrass the government by flagging out the vessels of P&O, Britain's most prestigious shipping group, that investment allowances were raised in 1957 (HC 94 1986-87, p165). A second problem was that while shipping had weak profitability (Chapter 6g), it was not such a financially disastrous condition that government aid was vital to prevent the collapse of the industry, as in the airline sector. Where companies did go into liquidation, the continuing existence of other businesses (unlike the highly concentrated

air industry) meant the impact was minimal in terms of politics and publicity.

By comparison with FOC operators, government aid up to 1954 was less advantageous than the former's freedom from taxation and from constricting regulations such as those pertaining to the use of hard currency. British shipowners also stated that their susceptibility to taxation by reducing their financial resources also made it more difficult for them to obtain loan finance (GCBS, 1960, p16). The system in place after 1954 improved UK companies' relative position though FOC companies were still at an advantage. From 1956 the increased investment allowance offset against tax combined with low profits in the depression from 1957 gave British shipowners effective freedom from taxation on their profits (Cmnd 4337, 1970, pp362-364). Yet it was of little comfort to Cunard and other operators who were making insufficient profits on which to write off the taxes (Hyde, 1975, p295). Comparisons with taxation in other major maritime countries have largely "proved impossible to make" though there was rough equality with Norwegian shipping (Sturmey, 1962, p389; GCBS, 1960, p16). The Norwegians were also subjected to a ban on foreign orders in 1948-50 similar to restrictions in force in Britain from 1946-51 (Sturmey, 1962, pp172-175). Though British owners had access to considerable domestic shipbuilding capacity, they were subject to delayed deliveries and rising prices, the ban may have influenced their non-use of cheaper foreign yards in later years.

In terms of government assistance, some shipowners, like those of Sweden, received little aid despite high operating costs, while Sturmey concluded that "Norwegian shipping expanded in spite of, not because of, the actions of the Government" (Sturmey, 1962, p176). However the Norwegian government was generally supportive of its shipping industry while in Britain the government was mainly concerned with its regulatory

function (GCBS, 1960, p17, 23). The French and Italian governments gave considerable aid to their shipowners though in the latter case this was combined with a high level of government control (Sturmey, 1962, p190). The US government provided subsidies to compensate US flag shipowners for high operating and building costs. But budgetary limitations highlighted a disadvantage of heavy subsidies in that money was unavailable to sponsor expansion by shipowners who had come to rely on aid. In the USA state influence extended to ship designs (Chapter 2e) and to determination of the structure of the merchant marine since subsidies were aimed at liner shipowners.

The Japanese government provided its industry with subsidised loans and instituted its own shipbuilding programme. This aid [which was of considerably more importance after 1951 than Sturmey's dismissive comments suggest (Sturmey, 1962, p190)] was drastically reduced in 1957 due to the freight boom. However, by the late 1950s Japanese shipowners were in serious trouble due to poor profits and their inability to depreciate their fleets and repay interest and principle on government and commercial loans. The government again intervened in 1963 to force the restructuring of the industry in return for deferments on debt repayments and other aid. The reorganisation also provided incentives to build tankers and other specialised carriers for which a larger government loan was obtainable than the 70 percent for liners and tramps (Furuta and Hirai, 1967, p146-163; Tatsuki and Yamamoto, 1985, pp122-159).

From the 1950s the British government chartered a number of vessels as naval auxiliaries on generous long term charters. In 1960 six tankers and five passenger ships had such contracts. John I. Jacobs shipowning arm was successfully established by the highly profitable Pearleaf (Br 18,797/60) (J.I. Jacobs AR 1985). But during the 1960s declining military commitments reduced this source of income for shipowners. In 1962 Bibby's

valuable contracts for the troopships Devonshire (Br 11,275grt/39) and Oxfordshire (Br 20,586grt/57) were terminated, albeit with compensation (Paget-Tomlinson, 1982, p30).

A measure of much wider impact was the replacement of investment allowances by 20 percent investment grants in 1966 (the grants were also available to manufacturing industry generally) in addition to the free depreciation which was discounted against tax liability. The Rochdale Inquiry assessed these as making investment in a British company more attractive than FOC operating, concluding that they had been a major factor in the ordering boom of the late 1960s (Cmnd 4337, 1970, pp363-364). Orbell described the grants as a valuable inducement to shipowners after policies in the previous decade which had stifled shipping. But Lyle Shipping had already engaged on its bulker programme before the grants were introduced. The switch to bulkers by other owners also predated the grants in many cases as did liner shipowners' decision to containerise (Chapter 2). Thus the grants encouraged an existing process rather than initiating a new dynamism. The grants did give Lyles extra money equivalent to the cost of two bulkers (£5.6m in 1966-76) and thus can be seen to have allowed the creation of a larger fleet than would otherwise have been the case (Orbell, 1978, p139, 144-146). A more important galvanising effect stemmed from the British government's highly successful offer of shipbuilding loans to British shipowners in 1963 (a measure intended to help the shipbuilding rather than the shipping industry), though loans were already available from foreign governments. The original £30m package was oversubscribed within two months and the total was then raised to £60m (Cmnd 2937, 1966, p27). Such aid was by no means novel as in 1921 government loans were offered to stimulate shipbuilding orders, and were taken up by a minority of British owners including the Kylsant group, Blue Star, the Bank Line, the Silver Line and

Henderson Bros. (Sturmev, 1962, p106).

The 1970 Rochdale Report produced strong criticisms of the investment grant system. First, it noted that a third of the £385m dispersed in grants had gone to UK companies controlled by foreign interests, though a strong foreign element had long been a feature of the Merchant Navy (Chapter 6). Second, there were cases of foreign shipowners giving UK companies finance for vessels which they then chartered. Indeed given the ready availability of loans for the 80 percent of vessel prices not covered by grants, companies needed to provide little money themselves. The inquiry not surprisingly regarded this as unhealthy, as it removed much of the incentive for companies to analyse properly the validity of investment decisions. The shipowners predictably came to different conclusions, calling for investment grants to be increased, tax free replacement reserves and for companies to be able to set up overseas subsidiaries which would still be eligible for aid (these companies could evade tax themselves anyway with the aid being offset against the parent's liabilities) (Cmnd 4337, 1970, pp365-370). The shipowners' pleas proved ineffective and, as advised by Rochdale, investment grants were withdrawn for all contracts placed after October 1970. They were replaced with 100 percent first year allowances which the GCBS later assessed as "a major help to British shipowners", the level of aid being broadly equivalent to that available to their major competitors (GCBS, 1986, pp17-18). This indicates that in 1966-70 British shipowners operated in a more favourable fiscal climate than their competitors.

1970 saw the appearance of a potentially important Government influence in the form of the Rochdale Report of the Committee of Inquiry into Shipping. The Rochdale Inquiry was intended to "recommend what action should be taken by shipowners, seafarers and Government to bring about changes which would improve the position of the industry" (Cmnd

4337, 1970, p xv). Unlike the Beeching Report on the rail industry (produced by British Rail Board) or the Geddes Report (Cmnd 2937, 1966) on the shipbuilding industry, its impact was less than dramatic. Its specific recommendations were mainly minor: for instance the composition of manning notices and shipping statistics. The only body which was likely to take close notice was the government, and unlike the rail and air industries its influence was limited. The industry did not exhibit the chronic problems of the shipbuilders which induced government interference. Rochdale's wider conclusions, for instance on industrial structure, tended to be framed as suggestions (and were disregarded by shipowners) and some vital questions such as the reputed lack of dynamism and entrepreneurial spirit among shipowners were almost totally ignored (Cmnd 4337, 1970, pp415-423). The Report was ultimately ineffective and had little effect even on government policy.

The 1960s and 1970s saw continuing rises in company taxation with corporation tax, which had replaced the previous system in 1965, rising from 40 percent to 52 percent by 1979 (Table 5.1). However the availability of tax relief meant that this had little impact. Of greater importance were the rises in the top rates of income tax to 85 percent, which naturally undermined the motivation of shipowners and would-be entrepreneurs. Private companies continued to be plagued by high estate duties. The chairman of Ellermans persuaded Sir John Ellerman to convert the two trusts (via which he controlled the group) into a charitable trust to avoid estate duties. Ellermans was thus saved from being "truncated or even ruined" when the owner promptly died (Taylor, 1976, p174).

The situation changed dramatically in 1984 when the chancellor announced that the 100 percent first year allowance available to selected industries, including shipping, would be phased out by March 1986. The measure was revenue neutral to the Treasury since it was paralleled by a

cut from 52 to 35 percent in corporation tax. One of the reasons for the policy switch was that subsidies distorted investment decisions by encouraging investment in assets which only looked profitable because of the aid. The government deliberately aimed to switch investment away from areas with a low return - a description which fitted shipping in depressed markets (Chapter 6g) (Hansard 13.3.84, pp295-301). The basic premise of the previous bi-partisan post-war policies had changed with the Department of Transport stating that "assistance to the shipping industry... has no compelling economic basis" (Interim Report of the Select Committee on Transport, 1987, p55). Though shipowners suggested Britain could suffer from foreign operators exerting monopoly powers, this and balance of payments considerations were no longer considered sufficiently important to warrant subsidies. It could be argued that this decision and the subsequent failure of shipowners to force more than minor alterations was due to the industry's failure to lobby effectively. Certainly the shipping brief had, as the NUS stated, become a parliamentary backwater. However while one commentator described pressure groups like the BMC and the Nautical Institute as "achieving no good at all", the quality of the GCBS submission to a select committee was good (HC 1986-87 94, p271; GCBS, 1986). The baseline was that the government's commitment to remove market distortions like tax allowances was too strong to be altered.

The GCBS held that the immediate impact of the 1985 budget was to virtually end the placing of new orders which totalled 363,000dwt in 1983 while for over a year from August 1986 no orders were placed (GCBS, 1987, p6). This was disputed by the DOT which claimed the disappearance of orders pre-dated the 1984 budget. Given the time lag between orders and payments, there is some justification for this. The DOT also held that there was no proof investment incentives worked, a view backed by the

independent finance expert Mr P. Marlow. He believed the real reason the GCBS wanted to maintain aid was to reduce the cost of orders they would place anyway when markets improved (HC 94 1986-87, p25, 159). However in the short term at least the loss of aid was bound to further deter investment in types of low profitability like bulkers or large tankers, though it was hoped that investment would be redirected to more profitable sectors. But there would naturally be a time lag before owners adjusted to the radically changed fiscal climate. It was not until 1988 that orders for container vessels (one of the strongest sectors) began to reappear. A second problem was that diversified groups which found a strong incentive to retain shipping divisions to discount tax allowances against other businesses lost this rationale. One aim of the new policy was, by forcing owners to survive by their own efforts, to stimulate a renewed entrepreneurial spirit aided by the reductions in corporation tax and in the top rates of income tax (from 85 to 40 percent in 1979-88). One possible sign of this was British owners' eventual conversion to reducing operating costs by flagging out. However the industry found that schemes intended to help the new spirit were often unworkable. The Business Expansion Scheme (BES) for instance contains restrictions on charter and voyage patterns which make it unsuitable for deepsea owners. Only one deepsea company, Edinburgh Tankers, has been set up under the scheme (GCBS, 1986, p39; HC 94 1986-87, p276). While minor measures on training and repatriation costs were forthcoming, Treasury attempts in 1989 to bring seafarers back into the tax system threatened many benefits of flagging out.

Few states followed Britain in reducing assistance at a time of depression. One exception was the Reagan administration in the USA, which refused to enter any new construction or operating subsidy contracts and aided USL's expansion only on the condition that no further subsidies

would be given (GCBS, 1987, annex F). Most countries maintained or increased aid as among the traditionally non-interventionist Scandinavian governments. In 1976 Norway set up the Norwegian Guarantee Institute to enable financially stricken owners to refinance their operations. This was vital to the survival of many companies and even after its closure in 1982 Norway continued to offer credits or subsidies for shipbuilding as well as tax free replacement reserves and other measures (Ratcliffe, 1985, p159). Even Sweden offered loans and tax free reserves and the government was prepared to save the troubled Saleninvest group (though the deal fell through when the company insisted on an even better aid package) (DT 21.12.84; GCBS, 1987, annex F). In traditionally interventionist Japan Sanko was rescued by the shadowy combination of industrial, financial and government co-operation nicknamed 'Japan Inc.' (FT 17.5.85; Economist 9.2.88). The wide spread of state assistance among both traditional and new maritime states (for instance Korea) has left British owners at a considerable disadvantage since 1984. One quantification of aid measures placed Britain far behind Germany in 1984 and slightly below France and Holland. After the changes the effect of British aid was more than halved to a level below that of Norway and the USA (Table 5.3). The government intended to work within the EEC for the abolition of all subsidies, but the EEC's massive legislative programme and the controversial subject forestalled action.

Until 1954 state aid to British shipping was at a low level and countered by high and rising taxation and some restrictions on operations, though owners were doubtless glad to escape nationalisation. From 1954 government support was provided on a more generous scale with bi-partisan political support which continued for three decades. It was unfortunate that such assistance was not available from 1945 when it could have helped shipowners overcome the problems of fleet replacement and might have

Table 5.3 Relative Values of State Aid to European Shipowners in 1986.

<u>State</u>	<u>NPV* (£) per £1 invested</u>
West Germany (new investment)	0.26
West Germany (replacement investment)	0.23
Netherlands	0.18
France	0.17
Britain (before the 1984 budget)	0.16
Britain (after the 1984 budget)	0.07

* Net Present Value of the aid including the effect of taxation.

Source:- HC 1986-87 94, p171.

stimulated tramp shipowners to more expansive policies. By 1954 however most firms had already established their policies and aid served to keep British owners in a similar position to many of their foreign counterparts. The strongest state assistance came in 1966-70 and was sufficiently good to attract some foreign operators. Thereafter aid levels were comparable with many foreign competitors, a position radically altered in 1984. The new legislation put shipowners in a markedly worse position than many overseas competitors who in contrast received increased assistance in response to depressed markets, even in some traditionally non-interventionist countries. The change in the context within which investment decisions were made was bound to deter new orders until owners adjusted to the new situation and to influence owners against operation of marginal viability. There is also some slender evidence that the changes helped stimulate self-assistance and the redirection of investment to profitable sectors.

b) Flags of Convenience.

The basic concept of a flag of convenience (FOC) involves the registration of a shipowner's vessel under a flag other than his own national flag in order to improve his trading position. FOC operations are popularly associated with registries such as Liberia and Panama. The latter's origin as a FOC can be dated back to 1922 when some US passenger liners were transferred to Panamanian registry. The immediate cause was the evasion of government impediments to profitable trading, in this instance the prohibition of alcoholic beverages in the USA, which deterred many potential passengers. By the late 1930s the Panamanian registry had been swelled by tankers owned by US oil companies seeking to reduce the high labour costs induced by legislation on US flag vessels. However, even in 1939 the Panamanian flag fleet accounted for only one percent of

world tonnage. In addition to this commonly recognised FOC registry, the flags of some traditional maritime states were also used by foreign shipowners. American companies such as United Fruit, Esso and Texaco had large British fleets taking advantage of the 20 percent cost advantage (in 1939) of the Red Ensign in comparison to the US flag (Ratcliffe, 1985, p69). Some Greek shipowners also used the British flag in the inter-war years, attracted by good credit facilities, clear legislation particularly on marine labour and Britain's political stability in comparison with Greece (Metaxas, 1971, p160).

The early post-war years saw a dramatic expansion of the use of FOC registries by two main groups of shipowners (Table 5.4). American industrial carriers found Panama, and to a lesser extent Honduras, even more attractive than in the inter-war years as US flag labour costs became even more uncompetitive, rising from one and a half to three times British levels between the late 1930s and 1949 (Sturmey, 1962, p314). Their cost advantage also sponsored increased use of British flag ships. Second, entrepreneurs like Onassis, Niarchos, E.D. Naess and D.K. Ludwig used FOCs for their expanding fleets (Table 5.5). Onassis first used a FOC in the early 1930s when a Greek flag vessel was prevented from sailing until a Greek national could be found to replace a sick crewman in compliance with Greek law. To avoid further delay the vessel was reflagged overnight in Panama. In 1947 Onassis was instrumental in the creation of a new FOC in Liberia, suggesting that "Liberia should emulate Panama and provide facilities for shipowners to register their ships under the most favourable conditions" (Frischauer, 1968, pp69-70, 106). The main provisions were freedom to operate and man vessels with minimal government interference. There was also a considerable fiscal incentive provided by freedom from taxation except for small registration fees. Thus profits otherwise forgone in tax paid for new vessels, which Onassis found a major

Table 5.4 Size of the Principal FOC Fleets (mgt).

<u>Year</u>	<u>Panama (1)</u>	<u>Liberia (2)</u>	<u>1 and 2 as % World Fleet</u>
1939	0.7		1
1950	3.1	0.3	4
1955	3.9	4.5	9
1960	4.1	11.6	12
1965	4.3	18.4	14
1970	5.6	33.2	18
1975	13.3	65.8	24
1982	31.6	70.6	
1987	42.2	51.2	

Sources:- GCBS, 1987, annex C; BSS various issues.

Table 5.5 Association of Convenience Registries with National Shipping Industries.

<u>FOC</u>	<u>Nationality of Users</u>
Antilles	Netherlands
Bahamas	British
Bermuda	British
Cyprus	Greece
Honduras	USA/general
Hong Kong	British, Japanese
Lebanon	Greek.
Liberia	Greek, USA/general
Panama	Greek, USA,/general
Singapore	German/general
Somalia	General
Sudan	General
United Kingdom	Canada, USA

Source:-Maritime Transport, various issues.

aid in expanding his shipping interests. Such incentives saw Panamanian and Liberian registries expand from one to four percent of the world fleet in 1939-50 and to 14 percent by 1959 (BSS, 1968, 1977).

In contrast to this rapid expansion, the Merchant Navy grew only by 11 percent in 1950-57. British shipowners were handicapped by profit and income taxes which by the end of the 1950s had risen to 51.25 percent while the tax free FOC operators could reinvest far more in new ships. The Rochdale Inquiry concluded that in 1945-54 "the UK shipping company was generally at a disadvantage as compared to a company operating under a FOC and paying no local taxes" (Cmnd 4337, 1970, p362). After the introduction of investment allowances for British shipowners in 1954, this disadvantage was substantially reduced but not eliminated. However, FOC operators' heavy investment was also influenced by their heavy use of loans which were eschewed by the more cautious British operators (Chapter 4c). The progressive policies of many FOC companies, such as catering to the expanding tanker trades with advanced vessels, also served to swell their coffers. After 1957 the advantage of their tax free status decreased if their profits fell in poor markets, which depended on their insulation against market fluctuations and their cost levels.

FOC owners' lower costs meant they could remain profitable at freight rate levels which meant losses for UK companies. Comparisons in labour costs are difficult to make since the major FOC operators were extremely reticent about any advantage they might possess. Metaxas stated that during the early post-war years FOC shipowners took on at low wage rates seafarers who had been made unemployed due to the destruction of their nation's fleets in the Second World War (Metaxas, 1970, p170). By the early 1950s FOC operators were believed to offer higher wages than many West European shipowners, though there were considerable variations from company to company. Gulf Oil employed Italian crews, the cheapest of West

European seafarers, while Texaco, Esso and the independent owner D.K. Ludwig paid better wages than those prevailing in West Europe (Metaxas, 1970, pp158-159; Sturmey, 1962, pp219-220). But the independent FOC owners saved considerable sums by not giving benefits such as paid leave or pensions and by not maintaining extra manpower to cover those on leave. British owners' extra benefits to seafarers formed a significant part of their labour costs (Chapter 4a).

British operators could have achieved cost economies by employing cheap labour and using large efficient vessels with lower overall manning, like the leading FOC operators. Thus in some areas British owners' higher costs reflected their failure to make the most of cost reducing measures attainable under the British flag rather than any peculiar advantage of the FOC operators. FOC operators did have a definite edge over British and other traditional shipowners in their ability to adjust their costs. In response to the shipping depression after 1957 some Greek operators cut their wages by a fifth, a feat which would have been impossible in Britain (Chapter 4a). When FOC vessels were laid up the crews could be made redundant without compensation. Another measure was to replace existing seafarers with cheaper labour. E.D. Naess for instance replaced his Norwegian officers with less expensive Italians. Manning levels could also be reduced, an unusual policy on British vessels. Many FOC operators cut crews on Liberty vessels from 32 to 26 in the depth of the depression in 1960-62 while similar British ships maintained crews of 35 or more (Metaxas, 1971, p169).

In the good trade conditions prevailing up to 1957 British companies largely ignored the FOC registries and their rapidly expanding users. However from 1957, in the context of deteriorating markets, they began to display considerable animosity to Onassis and his ilk. Established Norwegian operators took a similar view of Naess while Dutch shipowners

attacked FOCs as "practices which hit owners commercially but to which there is scarcely a commercial reply" (Wyts Digest, 1956, p17). This perception of FOCs as allowing unfair competition led to attempts by British and other shipowners flying established flags to require that a vessel had a 'genuine link' with its registry. Thus FOC operators would be forced to return to their national flags, and lose some tax, cost and regulatory advantages. This proposal ultimately went before the International Court where US based non-liner companies pointed out that a return to the US flag would make their operations unviable, since operating subsidies were available only to liner operators. They described FOCs as 'flags of necessity' and, like Niarchos, felt they were being penalised for being more innovative and dynamic than traditional shipowners (Times 1.4.58). The court's ruling in 1963 went in favour of FOC operators, partly because of the implications for states' sovereignty of their abolition.

This campaign, and an attempted boycott in 1958 by the International Transport Workers Federation (ITWF) of the 90 percent of FOC operators with whom it did not have agreements, were factors in the 10 percent drop in Liberian and Panamanian tonnage in 1959-61 (Naess, 1977, pp154-165). The much smaller Costa Rican open registry was closed to foreign owned vessels in 1958. The temporary decline of open registries also reflected the Greek government's success in attracting Greek shipowners back to the national flag.

One of the basic tenets of British shipowners' opposition was that they could not use FOCs themselves. Lord Geddes (P&O) and others based this proposition on Section 468 of the 1952 Income Tax Act, which necessitated Treasury approval for the transfer of businesses overseas (Times 11.4.58; Cmnd 4337, 1970, p363). While this was undoubtedly a serious impediment, as S.G. Sturmeay suggested it could have been

circumvented had British shipowners been sufficiently determined. Indeed, as Naess pointed out, British operators had access to the Bermudan registry which had no corporation tax. Sir Robert Ropner claimed in reply that such opportunities were strictly limited and subject to tight Treasury control (Times, 12.4.58; 3.4.58). The confusion in this area is reinforced by Sir Donald Anderson's statement that the Bermudan registry could not be used to extend an existing business. Thus P&O could build tankers (a new trade for the company) but not liner vessels for Bermudan ownership (Naess, 1977, p175). However, as can be seen from Table 5.6 most Bermudan ships were used in existing trades, for instance the Vestey group's cargo liners owned by Salient Shipping. This indicates either that P&O did not investigate the potential of Bermudan registry competently or that the government interpretation of the rules varied which, while frustrating for the honest shipowner, offered the dynamic operator an opportunity to twist the rules to his advantage.

The truth of this is hard to discern; certainly the mass migration to Bermuda threatened by British shipowners in 1956 did not occur (Sturmeay, 1962, p231). A number of British operators did set up Bermudan subsidiaries from 1954 to acquire or build ships (Table 5.6). In comparison to shipowners' main British based companies their fleets were small, the largest user being Shell whose Bermudan owned fleet was about a third the size of its British fleet. Most British companies stayed on the British register which could indicate a lack of dynamism. Another possible factor is that British shipowners' great pride in their British registry, evident in Sir Robert Ropner's Times correspondence, before commercial advantage (Times 3.4.58). However while there is value in these propositions the basic reason was the increase in government aid in 1957 (section 5a).

In addition to British vessels owned in Bermuda, a number of

Table 5.6 Bermudan Subsidiaries of British Shipowners in the 1950s.

<u>Parent</u>	<u>Subsidiary</u>	<u>Fleets</u>	
		<u>Parent</u>	<u>Subsidiary</u>
Blue Star	Salient S.	35 cargo liners	5 cargo liners
Booth SS Co.	" "	11 " "	2 " "
Chapman & Willan	Somerston S.	9 tramps	2 tramps
Clan Line	Neptune S.	52 cargo liners	1 cargo liner
Dene S. and	Silver Isle S.	11 tramps	1 tramp
J.I. Jacobs		7 tankers	
Elders & Fyffe	Surrey S.	17 reefers	2 reefers
France Fenwick	Overseas Tramp S.	12 tramps	*
Guinea Gulf	Red Rose N.	6 cargo liners	1 cargo liner
T. & J. Harrison	Ruthin SS	41 " "	2 cargo liners
LOF	LOT	15 tankers	4 tankers
LOBC	As above		1 tanker, 1 bulker
P&O	Charter S.	33 liners	1 tanker
E.T. Radcliffe	Hamilton S.	2 tanker, 1 tramp	1 tanker
Ropner	Ropner (Bermuda)	16 tramps, 2 tankers	1 tanker*
Shell	Shell (Bermuda)	110 tankers	40 tankers
Stanhope SS Co.	---	8 tramps, 3 tankers	1 tanker*

* These companies were not activated.

Source:- compiled from LCI 12.59.

companies had substantial fleets benefiting from low operating costs in other colonies. Trading houses such as Swires (China Navigation Co.), Jardine Matheson (Indo-China SN Co.), Mullion & Co., John Manners and Wallem had Hong Kong based fleets. Similarly, OTT had a major shipowning subsidiary, Straits Steamship, based in Singapore. While it might be argued that these were old established operations with a genuine link to their base, Blue Star was able to set up a Singapore based shipowning and operating company (Austasia Line) in the early 1950s. There was also a small amount of British owned shipping (156,000 tons) under the main FOCs Liberia and Panama in 1960 (Sturmev, 1962, pp214-215, 228). The Booth American SS Co. which was linked to the Booth Line, owned two small Panamanian flag ships in 1957 (LCI 12.57, p54). This indicates that, despite the government's explicit statement in 1956 that "A company which is qualified to own a British ship cannot lawfully own a ship trading under a foreign flag", the government restrictions could be circumvented (Hansard 1.2.56, p913). Similarly, in 1965 LOF transferred four British tankers to a Liberian subsidiary to cut operating costs (Chapter 7b).

After their shortlived decline prior to 1961 the Liberian and Panamanian flag fleets expanded rapidly. Between 1960 and 1970 their tonnage increased by a factor of 2.6 and their share of the world fleet rose from 14 to 21 percent, 87 percent (59mdwt) of which was under the Liberian flag. Attempts were made to establish new FOCs, with Cyprus being the most successful, particularly in attracting Greek operators. FOC usage continued to be dominated by Greeks (16.3mgrt) and Americans (9.5mgrt). Hong Kong Chinese operators were expanding rapidly, owning 2mgrt of FOC vessels in 1970. The traditional maritime states continued to use their own flags with Holland, Germany, Britain and Japan having virtually no FOC tonnage, though a very small number of FOC vessels were owned in Sweden, Denmark and Norway. The only exceptions were Italian

owners who had 1,980,000grt under FOC registry compared to 8,138,500grt under the national flag (MT 1971, p93). In Britain there had been no further moves to Bermudan registry which accounted in 1970 for eight percent of the British fleet. Of this only 400,000grt was owned by British companies plus 500,000grt under Shell ownership, the remaining 750,000grt being foreign owned. This was related to the combination of investment grants and free depreciation which the Rochdale Inquiry believed made a UK base more advantageous than Bermuda or FOC registries, at least for tax purposes (Cmd 4337, 1970, pp363-364). However FOC owners continued to have the advantage of greater freedom of operation due to the registry states' lack of interest in and inability to regulate shipping under their flags.

The fuel price rises of 1971 began to shake the resolve of some shipowners to remain under their national flags. This, combined with the collapse of the 1970 freight boom, led some Dutch and Japanese companies to contemplate building vessels for FOC registration. German shipowners put this into practice: Bieschen & Co. switched two new SD-14s to Singapore registry in 1972, Oldendorff moved two similar vessels to the same flag in 1973, with ownership via a Liberian subsidiary while K.G. Vineta moved two more, one to Cypriot ownership and registry, the other to the Liberian flag, with the second vessel being sold on to Schulte for Cypriot registry (Lingwood, 1976, pp44-46). The deep and prolonged depression after 1973 increased the incentive for shipowners to seek the freedom and lower costs of FOC registry. Between 1979 and 1982 the Liberian and Panamanian registries expanded by 160 percent to 102mgt. Some smaller FOCs also expanded: Singapore tonnage rose from 580,000grt to 7,167,000grt in the same period. British use of foreign registration remained extremely low in 1975 and even in 1982 only 14 percent of the UK owned fleet was not on the main UK registry (British Shipping Review

1987). Such reluctance was also a feature of the policies of Swedish shipowners who traditionally tried to remain competitive by emphasising technology rather than using FOCs (Rubenowitz and Gleerup, 1977, pp22-23). Japanese owners too were slow to move to FOCs due to union opposition, though they increased the use of the Shimukisen system of chartering in FOC vessels owned in Hong Kong (Sasaki, 1976, p5, 37).

Prolonged depression had by the mid-1980s severely weakened many British operators' attachment to the British flag and this was reinforced by the reduction of government aid in 1984. This prompted a wave of transferrals to registries in the British Dependent Territories (BDTs) such as Bermuda, Gibraltar and Hong Kong. Many owners chose to move to a new sub-registry of the main British registry set up in the Isle of Man (IOM) in 1985. Its advantages included the opportunity to lower costs by introducing agency manning outside the auspices of the NMB. Shell estimated savings of £12.5m a year from switching 27 tankers to the IOM, having lost £84m in the previous two years on its tanker operations. The unions reluctantly co-operated with the transfers of the Shell fleet and OTT's remaining seven vessels in 1987 to preserve at least some jobs (FT 6.5.87). The owners claimed to gain no advantage in tax terms as they remained based in Britain and subject to the UK tax regime (GCBS, 1986, p28). But their subsidiaries could retain profits for reinvestment and so there was some potential advantage. Similarly, there was claimed to be no compromising on safety but this did not preclude measures like reduced manning. The level of re-registration was very significant. By the end of 1986 only 43 percent (7.1mdwt) of the British fleet remained on the UK mainland register, a total which continues to decline. Of the remainder 3mdwt (18 percent) was registered in the IOM, 4.1mdwt (25 percent) in the BDTs and 2.5mdwt (15 percent) under foreign flags (BSR 1987).

The alternative to flagging out was often the sale of vessels. The

Bank Line (citing the impossibility of profitable British flag operation) sold five cargo liners in 1987 (DT 9.8.87). Like the Booth SS Co., which sold its last two vessels in 1986, the Bank Line chartered in cheap foreign flag replacements (DT 7.8.88). OCL in contrast kept its vessels on the British registry due to its strong profitability though it would have improved this by flagging out.

Some owners were restricted in their ability to flag out. Bibby moved four gas carriers to Hong Kong registry but two others and a tanker had to remain British registered in order to comply with charter terms (LSM 1.87). Few British operators had ships under the main FOCs in the 1980s. Ultramar's Liberian fleet was long established and reflects the American character of the company. Two shipowners, James Fisher and P&O, acquired foreign companies which owned FOC vessels but neither company attempted to reflag British registered vessels.

Similar trends are evident among other traditional maritime states. In 1986 45 percent of Norwegian vessels were foreign flagged with (as in Britain) substantial variations from company to company. The bulk of the German Oldendorff fleet was Singapore registered in 1987, though there were also two Panamanian vessels, while the German Horn Line had Cypriot and Liberian flag ships as did Ahrenkiel and Wesch. Hapag Lloyd and Sloman remained loyal to the German flag, possibly because of the terms of government shipbuilding aid which requires vessels to remain registered in Germany for eight years. In 1988 one company circumvented this with a dual German-Polish registry agreement allowing it to use cheap Polish seafarers (MNP 13.8.88) Norwegian operators also used many different flags. Nosac's 13 strong fleet had Panamanian or Liberian registry, while of 24 vessels owned by Hoegh 12 had Panamanian registry, six Bahamian, four British and two Norwegian (LSI 23.11.87). A large proportion of Finnish ships were also flagged out: for instance EFFOA's move to the

Bahamian registry in 1987.

As in Britain, foreign shipowners frequently urged the establishment of sub-registries offering tax and operating advantages like the IOM (Table 5.7). France set up a registry in the Kerguelen Islands while Norway opened an international register in mid-1987, despite vehement opposition from seafarers and reluctance on the part of the minority Labour government. In comparison with Britain the Norwegian government eventually played a more supportive role, publicising its open registry and attempting to attract marine related business (Norwegian International Ship Register brochure). However other governments refused to set up second registries: for instance, Denmark, Germany and the Netherlands, though in the latter case the government offered partial compensation via lower manning levels. This induced other countries to offer low cost registration, for instance Luxembourg, and caused considerable competition between FOC states to attract re-registering ships. Both Panama and Liberia cut registration fees and the former country introduced compulsory officers' exams in an attempt to improve its image. The Bahamian, Cypriot and Panamanian flags expanded particularly fast, partly at the expense of Liberia (GCBS, 1987, annex c). Some operators were influenced by reasons other than cost. The Kuwaiti operator KOTC re-registered some vessels in Gibraltar to get Royal Navy protection in the Gulf War. This was followed in 1988 by Bergesen's proposals to reflag 15 vessels in Bermuda for the same reason, after the Norwegian government refused to provide naval protection, with two other Norwegian companies considering similar action for a further 10 ships (DT 23.3.88).

A major factor in their non-use of FOCs in the early post-war years was undoubtedly the considerable difficulties in access for existing British companies. While this was also true of most traditional maritime states, it was indicative of the underlying weaknesses in the Merchant

Table 5.7 New Registries of the 1980s and their State Associations.

<u>Registry</u>	<u>User</u>	<u>Notes</u>
Canary Islands	Spain	Proposal
Danish International	Denmark	Shipowners proposal, foreign crews
FRG International	FRG	Activated 1989
Gibraltar	British	
Isle of Man	British	Substantial use 1986
Kerguelen Islands	France	Tankers excluded, foreign crewing
Luxembourg	General	Proposal
Norwegian International	Norway	Foreign ratings, coasters excluded
Portugal International	Portugal	Proposal

Sources:- Financial Times, various issues.

Navy that companies' attitudes were very negative and that there were no Britons among the new breed of entrepreneurs who built up fleets under FOC registration. However British owners did successfully use the threat of setting up Bermudan subsidiaries to extract concessions from their government which offset many of the advantages of FOC operations. Additional improvements in government aid in the 1960s further reduced the attractions of FOCs. Very few British shipowners flagged out until the mid-1980s saw a belated move among European shipowners to low cost registries of which British companies were leading exponents (though German shipowners had pioneered this path a decade earlier). While this showed a more dynamic attitude, it occurred only after years of depression and the decimation of the Merchant Navy which an earlier shift to FOCs might have reduced.

c) Protectionism and Flag Discrimination.

Protectionist measures have varied greatly in character. S.G. Sturmev divided them into four groups, the most common being the trade treaty allocating all or part of the trade between two states to their own vessels. The wider reservation of a proportion of a state's entire trade to its national flag was less common, being practiced by only ten of the thirty protectionist states identified by Sturmev in 1960. The other two types were exchange controls, usually intended to reduce expenditure of hard currency, and tax and harbour concessions.

The 1940s and 1950s saw a gradual spreading of protectionism, especially in South America, where Brazil, Argentina, Chile and Peru had introduced such measures in the inter-war years and had by 1960 been joined by Colombia, Ecuador and Venezuela. The rolling back of imperial domains saw some new states, such as Burma, Pakistan, India and the Philippines introduce protectionist measures intended in part to foster

their infant merchant marines (Sturmey, 1962, pp102-103, 143-148). One problem with assessing the effects of these acts and, of preferences in general, was that their implementation did not always match the paper provisions. Egypt for instance reserved 30 percent of its imports and exports to Egyptian vessels in 1951, but it is unlikely that the small merchant marine could carry this trade (Omond 4337, 1970, p439).

Sturmey estimated that by 1957 at worst only six percent of world trade was subject to protectionism (Sturmey, 1962, p204). In fact, as he stated, the real total was far lower as the entire liner trades (to which preferences were largely confined) accounted for only nine percent of world trade (MT 1968). In practice protectionism was concentrated in particular regions, affecting, for example, companies such as Royal Mail, PSNC and Blue Star and its subsidiaries in the South American trades and Ellermans, BISN and the Anchor Line on Indian routes. Britain, with a large liner sector in its merchant marine, was more vulnerable than Greece whose shipowners concentrated on the unrestricted bulk trades. It is also possible that countries with strong cultural links with South America such as Italy, Spain and Portugal may have received more sympathetic treatment. The Netherlands in contrast was hit far worse than Britain, due to its concentration on liner trading and the great importance to Dutch lines of Indonesia which closed its waters to them in 1959 (Wyts Digest, 1961, pp8-9).

The British government traditionally opposed protectionism, claiming the moral high ground on account of its avoidance of preferences since the abolition of the Navigation Acts in 1849. Some foreign detractors saw this as a policy intended to ensure access for British traders and shipowners backed by the economic and political muscle of the empire. In 1932 the Imperial Preference system was established at the Ottawa conference of the Empire and Commonwealth which the Japanese saw as

"shutting the door on other countries" with serious effects on their shipping (Furuta and Hirai, 1967, pp123-124). In the 1940s and early 1950s there was also British discrimination against foreign shipowners who had to be paid in dollars (MOT, 1950, pp40-7).

The British government, with the agreement of British shipowners, opposed retaliatory protectionism as ineffective and providing a stimulus to further foreign protectionism. One possibility was to combine with other developed nations and take joint action. But two of the most important states, America and France, operated cargo preference schemes of their own. This not only provided an example for the new protectionists but caused friction among developing states: the USA for instance refused to join discussions which referred to its own discrimination. The American government did use its own preference system to force other states, for instance Argentina and Brazil, to drop their own measures in the 1950s (Sturmey, 1962, pp199).

One reason for the rise in protectionism was the effect on states' economies of the withdrawal of British ships in the Second World War and subsequent difficulties in restoring full services. Sturmey also believed that British owners' conferences were influential, stating that "there is sufficient evidence to make it clear that conference discrimination or apparent discrimination has provoked retaliation" (Sturmey, 1975, p193). One example he gave was the re-introduction of deferred rebates against Lloyd Brasileiro in 1959 by the local conference (Sturmey, 1962, pp198-199; Times 4.12.59). But this was in turn a response to the Brazilian government's imposition of preferences to preserve foreign exchange. This case showed that in a battle between governments and shipowners the latter would probably lose. However the owners were in a difficult position since if unopposed the new states were liable to take most of the trade. Thus they had to walk a tightrope between negotiating away the new flag's

more extreme claims and provoking retaliation.

Sturmev suggested one way around preferences was to set up a subsidiary under the new national flag (Sturmev, 1962, p200). The reaction of a government to this kind of unsubtle circumvention was unlikely to be favourable, a conclusion borne out by the reaction to the transfer of Bullard King's operations to the South African flag Springbok Line by B&C (the example Sturmev gave!). The head of Safmarine, the national line, was "incensed by this Cayzer action" (Berridge, 1987, pp77-78). Certainly no other liner operators followed this path.

The 1960s saw successive issues of the OECD's Maritime Transport bemoaning the continuing rise in protectionism. This was given impetus by the declaration by UNCTAD (the UN Conference on Trade and Development) of support for the expansion of the fleets of developing states on 'sound economic criteria' in June 1964 (MT 1964). While for most of the 1960s preferences increased gradually, 1969 saw several South American states introduce strict legislation. Brazil and Colombia aimed to keep half their liner trade for domestic vessels while Peru reserved 20 percent of cargoes and Chile and Argentina all government cargo (MT 1969). States in other regions took similar action. Morocco reserved 40 percent of imports and 30 percent of exports of some commodities. A less blatant policy was Ghana's attachment of clauses to import licences directing cargo to the state line (Cmnd 4337, 1970, pp438-439). The Rochdale Report attributed some form of flag discrimination to 30 non-communist states by 1970 but such provisions covered only eight percent of liner cargoes by volume. However, there continued to be sharp regional concentrations. British operators' share of the UK-Uruguay trade halved in 1962-67 and that to Brazil fell by a quarter in 1958-67. On the India-USA route, which had been an important pre-war cross trade, only one British operator survived by 1970 (Cmnd 4337, 1970, pp42-46).

The Rochdale Report stated that the British government had developed a more forceful policy to support British interests, partly in co-operation with its OECD partners (Cmnd 4337, 1970, pp376-378). Some minor victories were achieved; for instance the cancellation of discriminatory light and buoy charges by Colombia in 1967 (MT 1967). In 1964 the Hague Club extracted an assurance from the Brazilian government that it would solve its flag discrimination problems and similar statements came from Argentina and Brazil the following year (MT 1964, 1965). But in the light of the developments outlined above their worth was at best shortlived. The OECD used mass pressure and publicity as its main weapons. Ultimately discriminators could disregard these since they were not backed by actions which could hurt them. The USA was alone in imposing equalising discriminatory measures against Uruguayan shipping at the end of 1964 (MT 1964). America's more forceful policy reflected its enormous political and economic power and a willingness to exercise it.

Shipowners criticised the government for not defending their interests more strongly and for not retaliating or taking sufficient account of shipowners' problems. Rochdale pointed to shipowners' weak liaison with the government and opposed unilateral action as counterproductive. One problem shipowners attempted to address (as in the past) was shippers' tendency to allow foreign contracts to include cost insurance freight (CIF) clauses on exports and free on board (FOB) clauses on imports. This gave foreign interests the power to designate the carrier of the cargo - their own vessels. This practice was widespread and a favourite tactic in Eastern Europe in the absence of bilateral treaties with Britain (due to the British government's refusal to exert direct control on trade) allocating specific cargo shares. Ironically British owners had benefited from similar practices before the Great War. During the inter-war years British shippers' attitude changed to being

unsympathetic and generally reluctant to include such unofficial discrimination in shipping contracts (Sturmev, 1962, pp98-99). The post-war years were characterised by a similar reluctance but for a different reason. British shippers were understandably loath to press nationalist foreign interests to use British carriers since this meant they could lose their own contracts. Shipowners were not in a position to force the issue and while the OECD urged shippers to resist the introduction of discriminatory clauses in contracts it did not provide more concrete backing (MT 1963). Had shipowners attempted to take positive action on their own it would probably have angered shippers and thus further worsened the situation.

The number of countries imposing some form of flag discrimination on their trade continued to expand through the 1970s and 1980s. One factor in this was the promulgation of the UN liner code in 1974. Its basic provision was for the division of a state's liner trade on the basis of 40 percent to its own vessels and 40 percent to the recipient state while the remaining 20 percent was open to third party carriers. By 1986 the code had been ratified by the majority of developing states (GCBS, 1986, pp53-66). 1974 also saw the Latin American Free Trade Area Water Transport Agreement (set up in 1966) come into force. It provided for the division of the vast bulk of intra-regional South American trade among the signatory states and in addition acted as a medium to enhance co-operation in external trades (MT 1966, MT 1974). The Central American states were beginning to follow suit: for instance the Honduran cargo reservation decree of 1970. By 1986 at least six states in the area had some form of protectionism. In Asia Sri Lanka adopted import/export regulations in 1972 while Thailand was planning an import licensing system (MT 1972). In 1986 various forms of protectionism were widespread with the most ferocious being Burma's reservation of all cargo to its own vessels. In

Africa Zaire had passed the equally draconian Law 74-014 in 1974 giving the national line a monopoly on both imports and exports with lesser measures adopted by many other states. This increased discrimination should be seen in the context of the GCBS estimate that only 10 percent of world trade by value was hampered in 1986. Sharp regional disparities are still a feature, with Central America traders like Harrisons and the Booker Line being hit together with lines to Africa such as EHCL, Palm Line and Elder Dempster. Similarly the COBRA consortium (including P&O and Harrisons) was having increasing problems getting Sri Lankan cargo in 1986 due to preferential allocations by the Ceylon Freight Bureau to the state owned Ceylon Shipping Corporation (GCBS, 1986, p65; Hornsby, 1986, p48).

Such problems did not affect all British lines: P&OCL's and Ben Line Containers' Europe-Far East route was largely unrestricted as were the trades to North America and Australia. In addition not all preference legislation was effective. The Zairean law of 1974 fell into disuse, being supplanted by the provisions of the UN liner code. Similarly, the collapse of their joint national line in 1980 has given foreign vessels free access to the trade of Uganda, Kenya and Tanzania, while the legislation of Guatemala, Jamaica, Honduras and the Dominican Republic was ineffective in 1986. However, some states have begun to extend cargo preferences into the bulk trades, a group which included Bolivia, Brazil, Colombia, Mexico, Nicaragua and Uruguay in Latin America together with Guinea, Nigeria and Morocco by 1986. The impact of this was minimal as poor markets made bulk shipping unattractive. Saudi Arabia for instance reserved five percent of oil cargoes to its own flag in 1975 with a 50 percent share being aimed at by 1980. While the poor tanker markets deterred such expansion it might be resurrected should conditions improve (GCBS, 1986; pp53-66). Second, many protectionist states were by the mid-

1980s beginning to place restrictions on non-conference liner operators (The UN code applied to conference shares). Since most British lines operate within the conference system the main impact is likely to be on foreign companies such as Ivaran of Norway which had hitherto managed to maintain its Latin American route far better than its British counterparts (ISSD, 1969, p241; SM 6.88). One exception was the Bank Line's non-conference South Africa-West Coast of South American service which ended due to Latin American protectionism in 1981 (GCBS, 1986, pp81-82).

Despite increasing protectionism shipowners continued to oppose the imposition of blanket British protectionism. This attitude reflected not only their moral position on the matter and the likelihood of angering another OECD state but also the eminently practical consideration that this would mean "a much smaller, more parochial role for British shipping" (GCBS, 1986, p24). Unilateral government action against protectionist states continued to be of limited use, diplomatic action being largely confined to developed states which might actually take some notice. One success was Israel's withdrawal of restrictions affecting British lines in 1986-87 (GCBS AR 1986-87). In 1985 Britain acceded to the UN liner code which by 1987 applied to eight European states. The intention was to enable EEC shipowners to regain some of the shares of conference trades from states which exceeded the terms of the code. These countries (mainly in Latin America) proved so obdurate that the GCBS declared in 1987 that any hope of such benefits "has so far proved illusory" (GCBS AR 1986-87). Similar problems have arisen with the maritime transport provisions of the Lome conventions of 1975 and 1979. These agreements between the EEC and 58 developing states in Africa, the Caribbean and the Pacific supposedly made for free trade relations between the two groups. However, while the developing states took full advantage of access to EEC markets, they frequently refused EEC shipowners their reciprocal rights (Europa Yearbook

1981, vol 1, p191-192; GCBS, 1987, p20).

An inability to instigate retaliatory measures has long been a problem for British shipowners, but from 1985 a European shipping policy provided for counteraction as a last resort to safeguard access to trade and to combat 'unfair' pricing practices. The advantage of co-ordinated EEC action was that the twelve states' great economic power was more likely to intimidate developing states into amending their practices. In addition, it greatly reduced the scope for circumventing retaliatory action by transshipping cargo in neighbouring states. The first action was the imposition of a 25 percent punitive duty on Hyundai Merchant Marine of South Korea in 1988. This was in response to the company's alleged dumping freight rates on the Europe-Australia container trade. Hyundai denied the allegations and claimed the action was really intended as a warning to the South Korean government. The latter point may well be important since South Korea is one of the most ferociously protectionist states with a theoretical policy of 100 percent reservation of all cargoes. After this success the EEC began to focus its attention on the notoriously protectionist Eastern bloc (FT, 6.6.88, 1.8.88, 21.6.88).

Some other developed states were probably pleased at Hyundai's punishment - Australia, for example, whose ANL line was forced to lay up one ship due to the former's competition. However, there was also potential for disputes between the EEC and other developed states. Australia reserved all its coastal trade (a sizeable potential market for foreign deepsea vessels) and had agreed with New Zealand to reserve all trade between the two states to their own vessels. The greatest danger was of a cycle of retaliation and counteraction between the EEC and the USA over the latter's protectionist measures. In 1974 for instance the President vetoed a bill reserving part of the external oil trade of the USA (MT 1974). Even within the EEC the acceptance of the European

Shipping Policy has been delayed due to the refusal of France and other states to allow their partners access to their coastal trades (cabotage) and to annul deepsea cargo reservation laws and bilateral treaties (GCBS, 1986, pp53-72).

The post-war years have seen a continuing process of the spreading and strengthening of flag discrimination. Its effect was mainly confined to liner operators in particular regions, initially South America and South Asia. From the mid-1960s such measures have increasingly affected trades to the developing states of Africa, Asia and the Middle East. British owners were particularly vulnerable since the preferences were usually based on the conference system in which they were loyal participants. This and their group structure (Chapter 3f ii) also made compensatory moves into other trades difficult. It was not until the late 1980s that a potentially effective system of countermeasures became available to British owners. This too has its problems, in particular the barriers to co-operation caused by developed states' own preference measures and continuation of the consequent wrangling which has characterised the post-war years.

5d) Competition from State Owned Shipping.

i) National Lines.

Competition from state owned shipping was not a post-war phenomenon. The governments of Australia, Canada and the USA set up shipping lines after the Great War while in Britain Lord Inchcape organised the sale of state owned vessels to avert the spectre of a government controlled competitor. However, these three grossly unprofitable foreign state owned lines closed in the 1920s and, apart from the old established French companies Messageries Maritimes and CGT, state competition did not revive until after 1945 (Baker White, 1946, p11-15).

The early post-war years saw the Argentinian, Chilean and Colombian governments form their own shipping companies. Similar developments occurred in states shaking off colonial ties such as Israel (Zim Line), India (Shipping Corporation of India) and South Africa (Safmarine). The establishment of national fleets was often closely associated with cargo discrimination or preference systems (Chapter 5c).

One possible reason for the rise of this new source of competition for British and other established operators was a failure to provide an adequate service. The establishment of Scandinavian cross trading lines often took advantage of such gaps in the services of existing operators. However, even the UN, despite its propensity for supporting the views of developing countries, concluded that occurrences of this nature were "alleged to be widespread but are difficult to find" (UNCTAD, 1968, pp10-11). The UN pointed out that such problems could result from differing assessments of the value of a new service. While a British operator would require a good prospect of profitability, for the government of a developing country possible losses might be outweighed by the opening of a new market for its produce, allowing the expansion of other industries or saving foreign exchange.

There were also important factors beyond the control of British shipowners. The withdrawal of British and other vessels for war service in 1939-45 had a major adverse impact on some states' economies. Argentina's trade declined by 60 percent in 1939-43 while Chile was severely hit by the withdrawal of foreign tankers (UNCTAD, 1968, p7). This continued in the early post-war years due to the slow release of British vessels to the companies by the British government and the difficulty of replacing lost vessels. Thus the states had a considerable incentive to set up their own fleets to avoid similar problems in the future. Second, shipping operations often formed an integral part of

state plans to develop their national economies. Third, the supporting role of British shipping for colonial governments became a major disadvantage after independence as they were seen as a source of neo-colonial control over the new state. Fourth, the unpopularity of some states such as Israel and South Africa resulted in their governments building up indigenous fleets in case traditional shipowners were pressured into abandoning their services.

The effect on British shipping was mainly confined to liner operators since the liner trades from their own countries were usually the chosen sector of operation of the new state companies. For example Grancolumbiana operated eight routes from Columbia in 1954 (UN, 1957, p358). Lines such as Royal Mail and Blue Star on South American routes were hit as were P&O, Anchor Line and Brocklebanks in the South Asian trades. In the latter case Indian lines such as Scindia were out for revenge on P&O and BISN for their "cruel and calculated destruction of Indian shipping and shipbuilding....which forms a sordid chapter of the 200 year old British connection with India". Indeed Indian government protectionism should be seen in the light of Indian shipowners' outrage that the measures were not harsher (Jog, 1969, pp9-16, 141)

British shipowners' adherence to the conference system made them vulnerable as new lines usually joined the conferences running to their state. Unlike independent competitors they were generally readily admitted. British shipowners such as Elder Dempster and the Palm Line saw the new lines, at least publicly, as a natural development. Indeed the Nigerian National Shipping Line (NNSL) was set up with the aid of the two British companies, the Palm Line citing it as an example of the way it had "always tried to help the new nation in any way that it can" (Kohn, 1970, p34). A more honest appraisal was that the entry of Black Star (Ghana) and NNSL to the Europe-West Africa trade in 1958 and 1959 respectively

could hardly be resisted since the new governments could prevent British vessels from carrying cargoes had they tried to destroy the national lines. Sturmev claimed that the conferences did attempt to prevent entry of national lines into the Indian and South American trades, citing the initial restriction of NNSL to 2.5 percent of Nigerian exports as an example (Sturmev, 1962, p195). In fact this was a temporary limit until NNSL had obtained sufficient vessels to cover a large proportion of the trade.

Certainly both West African national lines were able to expand within the conference having a combined share of 17.1 percent by 1964. In contrast Elder Dempster's share fell from 57 to 30 percent between 1948 and 1964. The company hoped that trade growth would allow it to maintain or increase its carryings in absolute terms despite its reduced share of sailings. The national lines were not the only source of increased competition. The Scandinavian West African line (SWAL) joined the conference in the 1950s and had a nine percent share by 1964. Hoegh and Uniafrica had also begun non-conference services in the 1950s (Davies, 1973, p383).

The 1960s and 1970s saw countries ranging from Malaysia and Madagascar to Nepal and Australia establish new state lines. Like their predecessors they concentrated on liner trades based on their own state. Lloyd Brasileiro for instance by 1969 was running services from Brazil to the USA, North Europe and the Mediterranean (ISSD, 1969, pp88-89). Existing national lines continued to expand. The Bibby Line's and Henderson's trades to Ceylon and Burma were extinguished by the Ceylonese national line and Burma's Five Star Line in the early 1970s (Paget-Tomlinson, 1982, p38). Some states also began to make moves into the non-liner trades: for instance the Australian National Line (ANL) with its expanding bulker fleet. Similarly, several Arab oil producers began to

build up tanker fleets in the 1970s as part of their programme for expanding their economies by increasing downstream participation in the oil industry. However, the growth of operators such as KOTC of Kuwait was stifled by the collapse of the tanker market in 1973. Even so by 1978 KOTC had a fleet of seven VLCCs and two smaller tankers. Had the tanker market not slumped this and similar companies like the National Iranian Tanker Co. might have made a major impact on the tramp trades.

One indication of unfair competition for British shipowners was state companies' ability to expand, despite poor financial returns and inefficient management, in markets which forced efficient private enterprise companies to curtail or close their operations. The NNSL did not make a profit until 1976-77, nearly twenty years after its inception. This novel event coincided with government agreement for a massive \$271m order for 19 new combos and cargo liners to expand the fleet to 28 ships. A statement of the company's objectives at the time made no mention of profitability, concentrating on its role as a preserver of foreign exchange and the carrier of an increased proportion of Nigerian trade in national flag vessels (Nigerline 10.77). The company itself admitted that the expansion was undermined by inefficiency, low productivity and a severe shortage of good quality managerial and sea staff (in 1980 at least 12 of the 22 strong fleet still had foreign masters). By 1986 only three-quarters of planned sailings actually took place and vessels were frequently arrested due to non-payment of bills and drug trafficking by crew members. As a result the military government ordered a radical restructuring aiming at profitable operation. The ability of the badly run NNSL to continue trading must have been a source of considerable chagrin to Palm Line and Elder Dempster which were radically reduced in size and ultimately sold off (Nigerline, 4.80, 1.86, 6.86).

NNSL was not the only state line which survived due to government

support despite being a commercial failure. For example the Portuguese government's two state lines CCN and CNN, having been undermined by the loss of their colonial trades, collapsed in the 1980s but were rapidly replaced by the new Port Line. However, as many independent operators have been rescued by financial restructuring survival in conditions which would normally lead to bankruptcy was not a peculiar advantage of the state-backed operator (Chapter 4c).

Some state companies did operate on commercial lines. Singapore set up Neptune Orient Lines (NOL) in 1968 which grew to become a major international container operator as well as having substantial tanker and bulker fleets. This was combined with strong profitability, five years of high profits allowing it to become listed on the local Stock Exchange in 1981, a period in which many British operators had encountered severe financial problems (Brooks, 1985, pp26-28). Another government company, the Malaysian International Shipping Corporation (MISC) also operated profitably until the early 1980s. The subsequent poor results resulted not in state support to continue operations but in a severe rationalisation programme with the closure of lines to Kuwait, the cargo liner service to Europe and its transpacific container service, with commercial management consultants being called in (Brooks, 1985, pp44-55). Other countries have closed state lines: for instance the East African National Shipping line (owned by Kenya, Uganda and Tanzania) which went bankrupt in 1980 or WISCO, the co-operative venture by Caribbean governments, which collapsed in 1987 (MN 6.80; FT 3.6.87). Similarly, the two New Zealand state operators Union SS Co. and NZL were by mid-1988 faced with radical restructuring, the latter being sold to Britain's ACT (FT 7.7.88).

State ownership could also pose severe problems rather than the advantages seen by British competitors. MISC, for example, found

government funds for grandiose expansion programmes, like the 1980 plan to add 46 ships giving a total fleet of 2.5mdwt by 1985, did not materialise. This followed previous experience when only 79 percent of the planned transport expenditure for 1971-75 was actually spent with an even lower proportion (63.7 percent) being forthcoming in 1976-80 (Second Malaysian National Plan, 1971, pp179, 189, 195; Fourth MNP, 1981, p329, 334).

After 1973 the shipping depression reduced the growth in competition from state lines though falling trade volumes prompted strong efforts by developing states through protectionism to maintain their own carryings. The main exception to this was the PRC fleet which expanded rapidly from the late 1970s. In 1984 it was estimated that the fleet would double from 10mdwt to 20mdwt by 1990 with expansion in both China-based trades and cross trading, not only in the liner trades but also in dry bulk carrying (FEER 16.2.84).

Both British and foreign shipowners continued to find it difficult to fight such competition. Mitsui-OSK followed the example of British companies by setting up joint ventures with the governments of developing states. Other measures including acting as agents for the new lines, training their staff and even carrying their cargo while paying commission until the new companies had vessels available. Such measures, as Elder Dempster and Palm Line had found in earlier years, proved to be only a temporary solution as the state lines rapidly took over full responsibility for their own affairs (Tatsuki and Yamamoto, 1985, pp187-188).

The effect on British shipowners of the growth of national lines (which was closely linked with protectionism) has been almost wholly confined to liner operators. Within this sector there were considerable regional variations with lines trading to West Africa, South Asia and South America being severely hit. Countering the new lines was

extremely difficult and British owners' non-movement into new liner trades meant they did not replace the lost trade (Chapter 3c). However where state shipping organisations have been inefficient and they restricted the inroads of more effective private competitors such as those of Hong Kong, Taiwan or Korea they may have actually reduced the competition faced by established British operators.

5d ii) Eastern European Competition.

The merchant fleet was a low priority in the rebuilding of the Soviet economy after the Second World War, in 1950 possessing only 84 percent of the tonnage of the small pre-war fleet (1.154mgt in 1939). Most vessels were employed in the internal trades of the Eastern bloc, a pattern which persisted through the 1950s and resulted in their attracting little attention from Western shipowners. Most of the satellite fleets had equally low profiles and ran old and inefficient ships: Sovrom Transport's (Rumania) fleet had an average age of 33 years in 1954. The main exception was Polish Ocean Lines (POL) which by 1954 had a considerable fleet of general cargo ships though they were mainly of pre-war origin. These were supplemented in the late 1950s by warbuilt vessels like the Huta Baildon (Po 10,000/45) discarded by Western shipowners. From the late 1950s, POL began entering liner trades such as the transatlantic route and in 1958 the West Africa trade. In 1961 it was joined in the latter operation by DSR of East Germany (Davies, 1973, p383). This set the pattern for future expansion by Eastern bloc fleets which concentrated on running liner services at rates substantially below those of the conferences (Ireland, 1981, p51; DSSME, 1954, pp395-397, 451).

By 1960 the Soviet fleet had expanded to 2,771,000grt though with little impact on international trades. In 1961-62 a period of rapid expansion began, with the fleet more than trebling in size to form 4.1

percent of the world fleet in 1970. This was combined with entry into several liner trades including by 1969 those to East and West Africa (in the latter case in conjunction with POL and DSR), the Near East, South and South East Asia, the Far East and South America (ISSD, 1969, pp338-339). The effect of this competition on British shipowners was limited by the inefficiencies and rigidity of the 'command economy' method of centralised decision making. This problem was not reduced until the introduction of the decentralised 'reform system' in the late 1960s. A further limitation on the effectiveness of Soviet competition was the tendency to build long series of small standard cargo liners which were obsolescent in comparison with the fast modern cargo liners used by many British companies. British cargo liners built in 1968 averaged 13,500dwt and 20 knots against 9,700dwt and 17 knots for Russian ships (MSWB, 1969). In 1970 the Rochdale Inquiry did not find Soviet liner operations to be a serious threat and noted their willingness to co-operate with and even join conferences, as on the Europe-Australia run (Cmd 4337, 1970, pp54-56). In addition the lack of modern Soviet tankers and bulkers made the USSR a substantial market for Western tramp vessels.

The opposition to Eastern bloc shipping stemmed from British shipowners' belief that the backing from the vast resources of the USSR gave Soviet companies an unfair advantage in freight wars. Some even hinted at a concerted effort to drive Western shipowners out of business for political/strategic reasons (Swayne et al, 1982, p7). Rochdale, while noting the potential of unfair state-supported competition, saw no indication that this was actually being practiced. While it is difficult due to lack of information to establish a definitive answer, the available evidence points to Soviet marine activities being directed by economic motives. The 1971-75 Five Year Plan called for a rise in net profit from 17.1 percent to 18.7 percent between those years. Though this indicates

the importance of the profit motive, Soviet shipping companies profits are established on a different and easier basis than for Western operators. There is a considerable element of subsidy via budget payments. Second, finance payments (if they are made at all) are taken after profits have been calculated and there are believed to be no interest charges. Third, fuel costs were very low in comparison with the fuel costs of Western shipowners, particularly after 1973. Finally, low living standards and the high social wage component (for instance state provision of housing and transport) resulted in Soviet shipping companies having very low wage costs (Swayne et al, 1982, p2, 14-15, 22).

There was also an additional economic motive to which British companies were not subject - the acquisition of hard currency and the minimisation of foreign currency expenditure. Thus Soviet lines could run an unprofitable service if this was counterbalanced by valuable foreign currency earnings. P.N. Davies also suggested a further unusual economic motive resulting from the tendency to see increased shipbuilding output as an end in itself. As a result, he argued, Soviet companies had to expand their operations to use all the vessels available to them (Davies, 1973, p382).

The early 1970s saw further ambitious expansion plans, the 1971-75 plan calling for a 125 percent increase in freighter tonnage to 7mdwt and a corresponding 94 percent increase in tankers to 2.7mdwt. Efficiency was also to be improved by better vessel utilisation and the introduction by Morflot of a computerised control system. But the expansion of the cargo liner fleet was outflanked by British shipowners' introduction of large container ships (Chapter 2c). These more efficient vessels took the bulk of the general cargo, thus rendering many new Soviet ships obsolete and restricting their ability to compete with British operators. This tendency to lag behind in technological terms was not new. In 1966 for

instance a transatlantic passenger service was begun at a time when most Western companies found such operations being superceded by air travel (Emmons, 1972, p138) (Chapter 2d). However, Soviet vessels did undercut those British operators who attempted to carry the reduced amount of uncontainerised cargo. Another problem for Soviet operators was the need to use vessels on services established for political rather than economic reasons such as the routes to Mozambique and Ethiopia in the late 1970s. These did have an impact on Western companies as the absence of northbound cargo led to 25 percent rate cuts in order to attract cargo from other ports (Swayne et al, 1982, p4). This brought Soviet lines into conflict with the conferences which, since many included national lines, again tended to restrict the Russians' ability to compete. Furthermore, if the political motive ceased the Soviet line tended to withdraw, making shippers wary of placing long term reliance on Soviet vessels.

By the late 1970s Soviet shipping continued to concentrate on the liner trades, and was improving its competitive position against Western operators by introducing large numbers of container carrying cargo liners. But even by the mid-1980s there were few full container ships and these were small in comparison to Western vessels, the largest having a capacity of only 800 TEU. Soviet lines also suffered severe disruption from 1980 as the US longshoremen refused to handle Soviet cargo in the wake of the invasion of Afghanistan. FESCO was forced to close down several lines and curtail others. While this removed some competition against British lines on routes to the USA, others faced increased competition as the ships were placed on other routes. The Baltic SS Co. switched its RO-RO ships to the Europe-Australia run and FESCO expanded its Japan-Australia service. However, instead of starting a rate war the Soviet companies co-operated with the conference as tolerated outsiders. This limitation of competition was undermined by allegations that Soviet ships carried a far

larger proportion of non-Soviet cargo than originally agreed and severely reduced volumes for Western operators with ANL claiming it was forced to lay up one container ship as a result (Swayne et al, 1982, pp24-29).

Opinions on Soviet competition in the 1980s vary considerably with writers such as R.A. Streater and A.J. Ambrose believing that "Soviet merchant tonnage has had a dramatic effect on many of the liner routes, forcing Western companies to pull out" (JMSR, 1984, p123; Jane's Merchant Ships, p11). Similarly the GCBS in 1986 alleged the 'dumping rates' of Soviet, East German and Polish companies were destroying the rate structure on the Far East, Australian, South Pacific, Caribbean and Central American routes (GCBS, 1986, p82). In contrast P&OCL director Mr. A. Bott, while agreeing that Eastern bloc companies did sometimes practice predatory pricing, stated that in most trades they had come to terms with British companies. He concluded that "by far and away the biggest menace before us is not so much the Eastern bloc it is the Asian flags, the Taiwanese and the Koreans" (HC 1986-87 94, p298). This was borne out by the Soviet fleet's total capacity of 41,000 TEU in 1984. In comparison Evergreen of Taiwan alone had a total capacity of 96,000 TEU after its massive expansion programme in the mid-1980s (JFC, 1984, pp273-332; JMSR, 1985, p168).

Soviet operators often operated in markets ignored by Western companies such as serving small, low technology ports. Similarly, the Soviet hold on the British cruise market in the early and mid-1980s reflected in part the failure of British companies to cater to their home market. The USSR also continued to be a major employer of Western non-liner vessels. In August 1988 for instance Soviet freight agencies took on six Panamax bulkers simultaneously and placed enquiries for further vessels for one year charters, raising market rates from \$10,000 to \$11,500 in two days (FT 5.9.88).

From the mid-1950s Eastern bloc shipping was a source of new competition for British liner operators. While the intensity and scope of this competition continually increased, its effect was limited, partly due to the lower efficiency of Soviet vessels, with expanding independent shipowners providing a much greater threat to British shipowners. The slow adoption of containerisation by the Soviet fleet served to reduce the impact of their competition, though it hastened the demise of the residual cargo liner services of British companies. From the late 1970s the introduction of more modern vessels and the tighter markets in many liner trades increased the impact of Soviet lines. This varied between routes and while their clashes with British conference operators have undoubtedly caused problems the impact of aggressive free world companies continues to be of greater significance for the Merchant Navy.

CHAPTER SIX

The Structure of the Industry and the Character of Management

The first four sections of this chapter cover the four main structural sectors of the Merchant Navy. In 1945 the tramp sector was composed of numerous small independent companies whose number declined throughout the post-war years, continuing a trend begun in the early 1920s. Furthermore there was a lack of new companies, again a feature established before 1945. An absence of new entrants was also evident in the liner sector. However old companies, rather than disappearing, were usually amalgamated into one of the great groups of lines which had first appeared in the early 1900s and increasingly dominated the sector. This structure did not alter until the advent of containerisation from the late 1960s brought a radical consolidation of operations and ownership among the lines. The 1960s saw new impetus being given to a trend begun in the 1950s when some liner groups began to move across the hitherto rigid divide between liner and tramp operations. This did not occur among the last two sectors, the industrial carriers and merchant lines, as they had different functions and aims from the independent shipowners. Rather than being profit centres they were intended to support the main non-marine businesses of their parent companies. The industrial carrier sector was the only one to see a significant number of new entrants. In contrast the merchant lines' original motivation was becoming less valid, leading to decline in some and a more independent role elsewhere.

Section 6e deals with the move by many shipowners from the 1960s into other industries. While other interests were an old feature of many companies these had usually been investments rather than operating businesses. Originally diversification was seen as beneficial to the shipping interests, providing support in slumps. It could also have

provided an influx of new entrants from other parts of the economy. But the few companies that followed this route tended to acquire existing shipping companies rather than setting up wholly new operations. From the mid-1970s the impact of poor trading conditions in many markets saw diversification provide an alternative rather than an addition to shipping and facilitated many operators departure from the industry.

The character of the leaders of commercial concerns (section 6f) has attracted criticism both specifically to the shipping industry and to British business in general. The management and ownership of the Merchant Navy continued to be dominated by the descendants of the companies' founding entrepreneurs until the late 1960s. Thereafter in many cases they were replaced by the professional managers who had long led some large organisations like BP. Though the family management system often had serious failings, in the depressed 1970s and 1980s it showed some advantages from the viewpoint of maintaining a presence in shipping over the new style directors.

A possible reason for the greater stamina of family companies in the face of depression and more attractive prospects in other industries was that they might have operated to different success criteria. Profitability bought together the effects of several other factors such as poor markets, cost control and the implementation of new technology. The 1957-66 period in particular illustrated British shipping's poor performance relative to other industries which was likely to disenamour shareholders with the industry. This was not a new phenomenon as low financial returns had characterised the industry after the onset of a depression in 1920. In the post-war years shipowners were slow to recognise the financial markets' increasing emphasis on criteria such as consistent profit growth and the rapid correction or elimination of problem areas. When this did occur from the late

1970s it proved very difficult for the public companies to both comply with the expectations of the financial markets and to remain in shipping. If the former were not satisfied the shipowners became liable to takeover. One rationale for foreign owners' retention of larger fleets was that they may both have been more profitable and had to comply with less stringent expectations.

6a) Independent Tramp Shipowners.

In the tramp sector the ownership of vessels in the early post-war years was widely dispersed - a sharp contrast to the dominance of the liner sector by large groups. The reason for this was that the main assets of a tramp company were its vessels whereas individual lines possessed goodwill, conference rights and specialist knowledge of particular trades which were best maintained by their continuation as independent entities. Thus if one tramp company took over another it simply incorporated the ships into its own fleet and operated them via its own managing company. Most tramp operators retained the traditional organisation of a management company which ran the vessels of shipowning companies with which it often had no direct financial connection. For example G. Nisbet & Co. of Glasgow managed the fleets of the Clydesdale Navigation Co., the Northern Navigation Co. and Nisbet Shipping (DSSME, 1954, p361).

A further reason for the absence of a group structure was that British tramp companies' fleets were small, so that a single managing company could run all the vessels. While the constituent companies of the liner groups often ran twenty or more vessels, few tramp companies approached this scale of operations. In 1954 the largest British dry cargo tramp operator was H. Hogarth, which operated 21 ships. Only five other companies had more than ten vessels: Reardon Smith (19), Ropner

(17), Hunting (14), Chapman & Willan (14) and Lyle (13). There were a number of smaller companies including Common Bros., Denholms, Silver Line and LOF, all of which had nine ships in 1954, while Headlam ran a fleet of seven and J.I. Jacobs, Joseph Robinson and J.A. Billmeir had six vessels apiece. The majority of British tramp operators had less than four ships in 1954, like the North Shipping Co. which had three ships while Mungo Campbell had only a single managed vessel (DSSME, 1954).

The majority of tramp owners had far smaller fleets numerically than in the past, an indication of the weakness of the tramp sector. J.M. Gibbs gives a sample of seven Cardiff tramp companies whose fleets at their peak totalled 148 vessels compared with 31 in 1956 (Gibbs, 1982, p158). While foreign merchant marines also had many small companies, others such as A.F. Klaveness (22 ships in 1961) Fearnley & Eger (36), Westfal-Larsen (33) and Sigurd Herlofson of Norway (22) built up far larger fleets [Le Fleming, 1961 (1)]. Indeed the smaller British companies must have found it difficult to support the necessary shore organisation, whose employees were often overstretched as costs were pared to the minimum. Morels, which ran three vessels in the mid-1950s, had seven managers or executive directors plus clerical staff. J.M. Gibbs paints a grim picture of little reward or prospect of expansion for employees and directors alike (Gibbs, 1982, pp132-139).

S.G. Sturmeay stated that 15 percent of British tramps were owned by companies formed since 1945. But this apparent influx of new British tramp companies was qualified by the high level of control by non-British interests (Sturmeay, 1962, p363). In fact virtually no British-owned new entrants existed, the new companies being subsidiaries of existing British operators, for instance North Yorkshire Shipping was formed in 1956 as a subsidiary of Bolton (a company established in 1897), or like LOF were restructured pre-war companies (Chapter 7b) (LCI 12.59, pp23-24). The

majority of British tramp companies were founded before the Great War. The last wave of new British entrants into the tramp trades occurred in 1919-20 but few of these companies survived the collapse of the freight boom in 1920, Graig Shipping and the Aviation & Shipping Co. being exceptions. This lack of new operators meant the tramp sector was liable to contract as existing companies aged and lost their initial entrepreneurial drive or closed altogether. In 1938 there were 138 British owned independent deepsea operators but by 1954 30 percent of them had disappeared while a further 6.5 percent had either been taken over by foreign interests or were confined to the shortsea trades (LCI 12.38; DSSME, 1954) This attrition continued, as indicated by Huntings' acquisition of Mungo Campbell in 1959 (LCI 12.59, p50).

In contrast foreign merchant marines were buoyed by relatively young and dynamic shipowners such as Onassis, who bought his first ship in 1930 (Frischauer, 1968, pp63-65). It is notable that one of the strongest British tramp owners was J.A. Billmeir who set up his business as late as 1931. While other British tramp fleets declined, his fleet expanded from seven to 14 ships in 1954-59 (DSSME, 1954, p455; LCI 12.59, pp20-21, 274-275). Scandinavian shipping also benefited from strong companies such as Jebsens, Wallenius and Gotaas Larsen established in 1933, 1934 and 1946 respectively (Jebsens brochure, 1987; SM 11.85; Gotaas Larsen AR 1979). In 1957 only 23 percent of British tramp concerns had been established after 1920, compared to 51 and 54 percent respectively of Norwegian and Swedish operators, showing a relative dearth of young vigorous companies (Table 6.1).

The liner operators adhered rigidly to their own sector in the early post-war years. While P&O owned two tramp companies, the Hain SS Co. and the Nourse Line, these provided supplementary cargo liners for main lines rather than acting as a springboard for entry into tramp shipping. Union-

Table 6.1 Age Comparison of British, Norwegian and Swedish
Shipping Companies (%).

<u>Founded</u>	<u>Br. Lines</u>	<u>Br. Tramps</u>	<u>All British</u>	<u>Norwegian</u>	<u>Swedish</u>
Pre-1850	14	1	7	--	--
1850-59	8	--	3	1	--
1860-69	12	5	9	--	--
1870-79	17	13	14	1	5
1880-89	19	16	17	2	--
1890-99	20	15	17	10	16
1900-13	7	21	15	11	5
1914-20	--	7	4	23	19
1921-29	2	13	8	18	27
1930-39	--	5	3	20	8
1940-45	--	--	--	1	5
1946-57	2	5	3	12	14

Notes: sample sizes: British lines 59
British tramps 86
All British 145
Norwegian 137
Swedish 37

The ages are the dates when the original company was formally registered. Many British shipowners were actually operating before this.

Sources:- compiled and calculated from LCI British companies 12.59.

LCI Foreign companies 12.57.

Castle's acquisition of the King Line in 1947 stemmed from similar motives (Murray, 1953, p347). It was not until the mid-1950s that some liner groups began entering tramp trades, particularly tanker operations: P&O from 1959, Furness Withy from 1958 and B&C in 1956. This field had suffered from British tramp owners' reluctance (with a few exceptions such as Hunting, J.I. Jacobs and LOF) to move outside their own traditional areas of operation. While many Scandinavian operators concentrated on one field of operations, it was common for companies to build up both tramp and tanker fleets as well as liner trades. Examples include A.P. Moller, Leif Hoegh and Jepsens. Strong adherence to sectoral divisions and the resulting weakness in the merchant fleet as a whole (as operators did not take compensating action by entering weaker sectors) was not a feature of the Merchant Navy alone. In France, Holland and Germany the liner sectors had long been far stronger than the tramp trades, and liner operators were slow to fill the gap in the post-war years. In America the numerous lines concentrated almost entirely on their traditional operations post-war, influenced by the absence of operating subsidies for the non-liner trades which were covered by FOC operators.

In the 1960s the attrition of tramp operators continued. In 1964 the Billmeir family sold their shipping interests and W.H. Seager of Cardiff was sold to the Pascoe group and its shipowning activities closed (MN, 6.84, 8.64). 1966 saw Swan Hunter's tramp company Hopemount Shipping absorbed by Common Bros and its former managers Stott, Mann closed while Ensign Shipping sold its last vessels in 1968 (MN, 7.66, 4.68). A few new entrants came as coastal shipping companies like France Fenwick, Hudson SS Co., Corys and the Currie Line moved into deepsea tramps.

The mid and late 1960s also saw many of the remaining liner groups overcome their inhibitions about entering the non-liner trades including OTT, Bibby, T. & J. Harrison and the Ben Line. One incentive for this was

the diminution of their liner interests by containerisation (section 6b). But the Weir, Vestey and Ellerman private liner groups eschewed such marine diversification, a conservative attitude also seen in some private companies' policies on non-shipping diversification (section 6e). The specialisation of vessel types saw individual companies frequently owning several types in the hope that operating in several disparate sectors would protect them against poor markets in one trade. Furness Withy for instance stated that "our fleet is designed to cover a broad spread of the market - high and low risk activities, liners and tramps, conventional and containerised cargo ships, dry bulk carriers and tankers, offshore oil and other marine business" (FW AR 1977).

As in the liner sector, the Rochdale report suggested that the pattern of companies operating either individually or in consortia was not in the best interests of the Merchant Navy. Its preference was for the consolidation of the tramp industry into a few large units (Cmd 4337, 1970, p152, 167). As this recommendation was ignored it could be seen as a factor in the decline of the British tramp fleet. Yet the most successful foreign shipowners in Norway, Greece and Hong Kong were able to provide sufficient funds individually to service the larger freight contracts which Rochdale saw as encompassing much of the tramp trades. Some deployed enormous fleets - for instance Sanko in Japan, C.Y. Tung, Y.K. Pao and Wah Kwong in Hong Kong and Onassis and Niarchos in Greece. The numerous smaller operators could still find sufficient business to support their operations, in many cases through consortia. Indeed the giant British Seabridge consortium was broken up in 1977-78 as the partners such as Bibby felt "members could best organize their own charters" (Paget-Tomlinson, 1982, p42-43). In addition, an industry composed of numerous companies rather than a few giants would not be devastated by the collapse or takeover by foreign interests of a single

unit.

In the late 1960s and early 1970s the expansion of the remaining tramp operators and the moves into the sector by other shipowners had tended to hide the underlying structural weaknesses of the industry caused by the attrition of existing companies. This problem was likely to increase due to the age of the remaining operators and the lack of completely new companies (as opposed to the old companies which had moved into the tramp sector from other parts of the shipping industry). In the poor markets after 1973 no such veil was cast over the structural problems of an industry suffering a continual haemorrhage of total closures or diversification out of shipping (section 6e). Larrinaga was taken over by the Greek Vergottis group in 1974 and was followed by Bolton, while Chapman & Willan was sold to the Canadian Federal Commerce group in 1974 (Lingwood, 1976, p44, MN, 4.74, 2.75). The Stag Line and Hunting tramp operations were sold off by 1983. Two of the strongest post-war British tramp companies, Reardon Smith and Lyles closed down completely in 1985-87.

While foreign merchant marines also lost some of their member companies, the toll in Norway, Greece and Hong Kong was less severe. In 1988 Norway still had 77 independent deepsea shipping groups compared to only 27 in Britain (Lloyds Maritime Directory 1989). The resilience of some foreign shipowners was shown by families such as the Rekstens in Norway and the Salens of Sweden who set up new companies after their old businesses collapsed. Similarly, in the more optimistic climate of the late 1980s few British shipowners have followed P&O's example in rebuilding its bulk shipping fleet, one of a number of tramp enterprises reduced or closed by the group in the 1970s and early 1980s. Among foreign tramp operators such re-expansion has been quite common. Gotaas Larsen for example, having reduced its crude carrier fleet from 28 to 3

ships in 1974-81, began to expand again in 1986, buying two tankers and ordering four more (GL ARs 1981, 1986). Similarly, Smedvigs having ended its crude carrier operations in 1978 re-opened them a decade later with the acquisition of a substantial fleet.

The principal structural problems of the British tramp industry in the post-war years were the age of existing companies and the failure of wholly new tramp operators to materialise. Thus as old, tired companies disappeared they were not replaced, whereas the younger Scandinavian, Greek and Far Eastern companies were less liable to attrition due to age and were still being joined by newcomers. From the mid-1950s the diminished ranks of the British tramp owners were supplemented by the entry of some coaster and liner operators which had overcome their inhibitions over operating outside their traditional sector. While this served to counter the continued attrition of the old tramp shipowners, it was reversed after 1973. This period saw the disappearance of many of the remaining tramp companies together with the closure of the non-liner trades of most of the new entrants of earlier years. Thus there were few operators left to take up the opportunities offered by the cyclical upswing in the fortunes of the industry in the late 1980s while many potential shipowners were deterred by the knowledge of shipping's previous experiences.

6b) The Independent Liner Sector.

The component companies of the British liner industry were in many cases extremely old. The Bibby Line for instance could trace its shipowning activities back to 1805, while the Bristol City Line ran deepsea ships in the early 1700s (Paget-Tomlinson, 1982, p1, 52). The majority of lines came into being with the switch to mechanical

propulsion, one of the earliest being Cunard, set up in 1837, with 89 percent of British lines being started before 1900 (Table 6.1). Concurrently with this cessation of the establishment of new independent lines some competing lines began to amalgamate to form single operating entities. For instance the merger of the Union SS Co. and the Castle Mail Packet Co. in 1900 to form Union-Castle.

Instances of the complete absorption of weaker lines continued into the 1920s: for example Brocklebanks consumed the Well Line in 1916 and the Shire Line merged with the Glen Line after being taken over in 1911. In addition to this trend shipowner-financiers like Sir John Ellerman began to acquire independent lines which continued to operate as individual entities while being under common financial control. By 1939 these large liner groups comprised the public companies P&O, Cunard and Furness Withy plus the privately owned Weir (Bank Line), Ellerman, Ocean and Cayzer organisations. There were also a number of large independent lines, the most notable being T. & J. Harrison, the Ben Line and Union-Castle. The latter company had formerly been owned by the Kylsant (Royal Mail) group which collapsed in 1932. Finally, there were smaller independent lines such as Donaldsons and the South American Saint Line. These usually comprised a shipowning company with a separate managing company. The Head & Lord Line for example used ships owned by the Ulster SS Co. managed by G. Heyn & Sons. Even within the groups this pattern of organisation often persisted with each operating line having its own management company which was responsible for most decisions. The Cayzer-controlled Clan Line, Scottish Shire Line and British & South American SN Co. were run by Cayzer Irvine, Turnbull Martin and the Houston Line respectively.

Up to the mid-1960s pre-war trends continued. There were few attempts to set up new operating lines and as in the tramp trades there was, in contrast to Scandinavia, a distinct lack of young dynamic companies, 96

percent of British lines having been established before 1914 (Table 6.1). It is significant that the Silver Line, which was noted for its progressive policies such as its early interest in tankers (around 1950), was set up only in 1925. The tramp companies Common Bros., Watts & Watts and Ropner did set up new lines, but these were very small in comparison to the liner groups and the last named failed in the early 1950s (Chapter 7c). Similarly new ventures by existing lines like the Vestey's Austasia Line were insignificant in magnitude when compared to existing operations. The consolidation of the industry into large groups continued with the independent line Hendersons being taken over by Elder Dempster in 1952 (the latter itself being owned by OTT) while the Orient SN Co. lost its independence to P&O in 1960. Two new groups were established with the Vestey family acquiring the independent Lamport & Holt and Booth lines in 1944 and 1946 respectively while Union-Castle merged with the Cayzer's lines to form B&C in 1956.

F.E. Hyde saw the formation of these large groups as beneficial since the groups' "capital resources enabled them to maintain the efficiency of their fleets despite a virtual doubling of shipbuilding costs". In contrast smaller companies "whose funds were not adequate to provide cover against an increase in competition from foreign lines and a general rise in operational costs" performed less well in the 1950s (Hyde, 1971, p193). Nonetheless great size also meant a proportionate increase in calls upon a group's resources. Furthermore, the Rochdale Inquiry found no evidence "that the profit performance of companies in recent years has borne any particular relationship to their size" (Cmnd 4337, 1970, p313).

S.G. Sturmev, in contrast to Hyde, believed that the creation of the groups increased the size of the business beyond optimal size for efficient management, which he suggested was 500,000grt or 750,000grt at the outside. Six of the eight groups exceeded these levels, in two cases

by a great margin: P&O (2,369,000grt), Furness Withy (1,420,000grt), OTT (971,000grt), Cunard (947,000grt), B&C (872,000grt) and Ellerman (631,000grt). But he also suggested that the existence of separate management organisations within a group, such as Elder Dempster within the OTT group, could reduce the task of management to acceptable proportions (Sturmev, 1962, pp381-382). It could be argued from this qualification that the widespread existence of separate management units within the groups countered the problem of excessive size. Thus only exceptionally large and complex subsidiaries such as P&O's British India, which in 1954 ran no less than 64 vessels on 40 lines, were oversized (DSSME, 1954, pp81-84). Certainly this company was not renowned for its dynamism.

While a group might comprise several management units, in some cases the individual boards duplicated each other and the individual managing directors might be overburdened as a result. Ellermans, one of the most staid groups, had the same personnel (A.F. Hull, D.F. Martin-Jenkins and L.S. Lloyd) on the board of each constituent line in 1954 with an additional managing director, such as J.A.L. Keir at the City Line, to oversee day-to-day operations (DSSME, 1954, p117, 166-171, 222). A further potential problem linked to common management throughout the group was that control by a cautious, undynamic individual or board would affect all the constituent lines.

Second, when a liner company did expand the usual method was to acquire other lines rather than build up new routes from scratch. The lines taken over were almost invariably British, so the acquisition of foreign lines which would have genuinely enlarged the Merchant Navy did not occur. Thus the expansion of the Cayzer's liner interests did not increase the size of the British liner fleet but merely changed the ultimate ownership of sections of it. The policy of individual groups in using the less risky approach of acquiring an existing conference

operator, while a genuine expansion for the group, did nothing to increase the size of the Merchant Navy. The reluctance to build up wholly new operations can also be linked to the group structure since any group was liable to conflict with one or more of the others (Chapter 3f).

By contrast the Norwegian industry was composed of numerous independent operators rather than large groups, which Sturmeay saw as one reason for Norway's better post-war growth (Sturmeay, 1962, p382). Unlike Britain, Norway had not lacked new entrants since the nineteenth century. The Ivaran Line founded in 1925 operated liner services as did Leif Hoegh which was set up in the 1927 (SM 6.88; Naess, 1977, p32). However, some other merchant marines were also dominated by large groups. In France, for instance, Messageries Maritimes and CGT dominated the liner sector.

The mid-1960s saw the beginning of a radical change in the structure of the British liner industry in response to containerisation. Some groups operated several lines on similar routes: for instance B&C's Clan Line and Union-Castle both ran to South Africa. Such parallel services were bound to be consolidated with a substantial reduction in the number of operating British lines. But the process of amalgamation went beyond this as the groups themselves banded together in two organisations. These were OCL which was to take over the liner operations of P&O, OTT, Furness Withy and B&C, while the Cunard, Ellerman and Vestey groups together with the large independents T. & J. Harrison and Ben Line formed consortia on individual routes such as ACT in the Australian trades.

The groups justified this consolidation of liner interests as being necessary due to the limited resources available to them (Taylor, 1976, p161). The Rochdale Inquiry supported this by stating that "UK shipowners have acted wisely both in forming national consortia and in joining international consortia". Indeed the report went further in calling for the evolution of the consortia into independent companies and for the

merger of all UK liner interests on each route into one consortium (Cmd 4337, 1970, p11-113, 316-317). Scandinavian operators in contrast did not find the financial requirements so large as to prevent them from containerising individually. Nor did they find their existing operations too small to allow them to containerise independently. Indeed containerisation gave them an opportunity to expand rather than rationalise their liner interests. A.P. Moller of Denmark had 42 cargo liners in 1969, a smaller fleet than any British liner group. Yet by 1988 the company possessed a fleet of 29 container ships compared with 30 vessels operated by P&OCL - the remnant of the vast fleets of four giant British groups (ISSD, 1969, p105; P&O AR 1987; The Maersk Fleet 1988). Similarly the American lines, which tended to containerise individually, also fared better than their British counterparts.

The British liner industry also lost many of its small lines during containerisation including the Anchor Line (Atlantic service), Bibby Line and Head Line. These operators believed they were too small to make participation in a consortium worthwhile. Only Manchester Liners recognised the potential for expansion offered by containerisation (Chapter 3c). Nor were new entrants attracted into the liner industry in contrast to Germany where small liner companies have either expanded or been set up while Taiwanese and Korean lines have been established and expanded dramatically. However, some foreign merchant marines have displayed a consolidation of interests similar to that in Britain. In Holland almost the entire liner industry was amalgamated into Nedlloyd after the its acquisition of KNSM in 1981 (MN 2.82). In France Messageries Maritimes combined with CGT to form CGM which took over smaller operators like Chargeurs Reunis.

One risk with the domination of the sector by one or two large entities is that they may sell out to foreign interests or be taken over.

Nedlloyd of Holland and CMB of Belgium were both threatened by foreign takeovers in 1987, the former by Norwegian-led interests and the latter via the bid by de Beneditti of Italy to take over the giant Belgian holding company Societe Generale Belge. Similar fears have been expressed in Germany about Hapag-Lloyd, the product of the merger of Norddeutscher Lloyd and Hamburg America, the two main pre-containerisation operators. Such a possibility would be more feasible in Britain due to the less stringent Government controls on foreign takeovers, illustrated by the takeover in 1980 of the Furness Withy group by C.Y. Tung of Hong Kong. This risk has been increased by the continuing consolidation of the British liner industry. In 1986 P&O took over the entire OCL consortium. Similarly Cunard acquired the Ellerman Group in 1987 giving it a majority share in the ACT and EHCL consortia (THI AR 1987). Cunard's owner THI made an unsuccessful bid for P&O in 1983, followed four years later by an unsuccessful bid from the opposite direction. Had either succeeded, well over half the UK liner industry would have been owned by one company.

Like the tramp sector, the British liner industry continued to suffer in the post-war period from a lack of new entrants. This had implications for the quality of management discussed in section 6f. While the group structure prevented most independent lines from being closed down, it promoted a damaging tendency to expand by acquisition within the Merchant Navy rather than by organic growth. However, this tendency to maintain existing operations was reversed by the industry's structural response to containerisation from the mid-1960s. Rather than being seen as providing an opportunity for expansion, it prompted a massive programme of consolidation and rationalisation of the British liner industry. This process ultimately saw the bulk of the industry compressed into two groups. In contrast some American, Scandinavian and particularly Far

Eastern shipowners not only retained their independence but expanded. This industrial concentration has considerable potential for further contraction of the industry given a Furness Withy style foreign takeover or the should the groups become disenchanted with shipping.

6c) Industrial Carrier Shipowners.

In the nineteenth century the oil companies had difficulty in obtaining tankers and thus built their own fleets. Oil companies preferred being fully integrated businesses with activities ranging from exploration to retailing and including shipping. Indeed Standard Oil (USA) displayed monopolistic intentions on a world scale until its enforced dismemberment in 1911. In Britain, where existing independent shipowners or would-be entrepreneurs showed little interest in tankers until the mid-1950s, a number of integrated British oil companies filled the gap. One of the seven 'major' oil companies (BP) was British owned and a second, Shell, was of Anglo-Dutch character: both had large and long-established tanker fleets. There were other smaller tanker owning oil companies such as Burmah and British Mexican. The latter, in which the Weir family (owners of the Bank Line) had a major stake, was taken over by Esso in 1925 (SM 7.84). There was also the Athel Line whose tankers carried its parent's molasses cargoes (Chapter 8a).

The strong early post-war markets encouraged British industrial carrier tanker owners to expand their fleets¹. This kept freight revenue within the group and guarded against the dislocating effects of occasional shortages of tonnage. Similar motives prompted several large dry cargo shippers to enter shipowning including Tate & Lyle, BISC (Ore) and Bowater. Hitherto dry cargo industrial carriers had been limited to the British Phosphates Commissioners' small fleet established in 1922 (LCI 12.59, p37). These companies brought a much needed infusion of new blood

into the tramp sector. They also introduced the advanced bulker design into the Merchant Navy, just as the large oil companies built larger tankers than British independent owners.

The 1960s saw the arrival of another newcomer to the ranks of British shipowners. Ultramar, an oil company operating mainly in North America, began in 1967 to build up a large tanker fleet. Again the motives were the development as a vertically integrated company and insurance against damaging freight booms (Ultramar, 1985, pp227-243). The Burmah group began a massive expansion of its tanker fleet in the 1970s which in 1959 had comprised four small ships (LCI 12.59, p47) although this programme was essentially a move into independent shipowning as Burmah intended to set up a comprehensive transport system from the Persian Gulf to the USA with a transshipment terminal in the Bahamas (Burmah ARs 1970-73).

The industrial carriers were severely hit by the prolonged recession after 1973, albeit for reasons different from independent shipowners. Not only did they make losses but their transport needs could be met more cheaply by chartering independent vessels as the level of overtonnaging made a future shortage of vessels unlikely (Chapter 3a and b). As a result the two British 'majors' drastically reduced their fleets as did Burmah and Ultramar. Indeed had the latter not misread the market in 1979-80 it might have withdrawn altogether from shipping, and Burmah and even BP no longer see their shipping as indispensable (Ultramar, 1985,

¹ There were also large foreign owned industrial carriers which had large British flag fleets. In 1954 British subsidiaries of American oil companies owned tankers aggregating at least 608,467dwt, rising to 2,303,305dwt by 1969 (DSSME, 1954; ISSD, 1969). There were also large trading houses like Louis Dreyfus (Burmes Markes), Bunge & Co. and Van Ommeren which had substantial British dry cargo fleets.

p238; BP ARs 1984-85; BPSR 1986-87). For some of the dry cargo industrial carriers the situation was insupportable and companies such as Tate & Lyle, Bowater and the British Phosphate Commissioners have sold their fleets. Very few new entrants were established. The mining company Burnett & Hallamshire owned at least one bulker in the mid-1980s (which proved to be a major liability) while the paper and packaging company Reed began to show an interest in shipping with its charter of the newsprint carrier Reed Voyager (Ja 15,912/82) (Burnett & Hallamshire ARs 1982-87). BSC also took an increasingly direct role in shipping with two very large ore carriers delivered from Harland and Wolff in the 1980s, and an order for two self-unloading ore carriers placed in Japan in mid-1989. Overall, however, a large industrial carrier element in the Merchant Navy can be a weakness as corporate problems or restructuring are likely to lead to the disposal of peripheral interests.

One problem for industrial carriers has been that by their very nature they are confined to a particular trade: for instance the British Phosphate Commissioners and their specialised bulkers. They are thus very exposed to difficulties in their particular niche. One exception is the large oil companies which can operate in many sectors due to their range of businesses. BP for example has had interests in bulkers and chemical, product and crude tankers, OSVs and drillships. However, the early 1980s depression hit all these diverse types. Against this trend, two other British industrial carriers are continuing to build up their specialised fleets which are already the world's largest. Cable & Wireless has a fleet of seven cable laying and repair ships with an eighth on order (CW AR 1986). The second, BNFL, owns seven spent nuclear fuel carriers built from the late 1970s to replace vessels chartered from James Fisher (BNFL brochure, 1986; BNFL AR 1985-86).

Britain was fortunate in possessing a large heavily industrialised economy, some of whose companies expanded in or moved into shipping. They were the only major source of wholly new post-war shipowners and compensated in part for the diminution of the independent tramp sector. However since the mid-1970s poor markets and the consequent availability of cheap independent tonnage led to several closures as corporate problems or restructuring lead to the disposal of peripheral shipping interests. Having suffered once from the vagaries of the markets and other problems, future re-entry into shipowning would be very unlikely. Even so the numerical decline of British independent shipowners to only 27 groups has meant the ten industrial carriers still form a major part of the Merchant Navy.

6d) The Merchant Lines.

The majority of British lines provided shipping services to third parties as independent shipowners. In the nineteenth century, however, it was commonplace for merchants to own deepsea vessels to carry their own goods. The Lyles for instance originally ran ships to support the family cooperage and sugar refining businesses (Orbell, 1978, p8). Though most merchant shipowners left shipping, partly due to the introduction of expensive steamships in the nineteenth century, groups of merchants who believed the existing independent shipowners provided an inadequate or excessively expensive service did on occasion set up their own lines. Lever Bros. entered shipowning via the Bromport SS Co. of 1916 to prevent the deterioration of their West African produce awaiting shipment, a problem caused by the shortage and expense of shipping in the Great War.

By 1945 some merchant lines found their own merchanting activities too small to support a viable liner shipping operation. John Holt which transported only in-house cargo and passengers in the inter-war years,

began carrying third parties' cargo after 1945 (Holt John & Co., c.1950, pp67-80). Decolonialisation in West Africa reduced in-house cargo still further and Holt's Guinea Gulf Line had difficulty in trading successfully due to its small size. The investment in shipping was felt to be disproportionate to its worth to the group and it was sold in 1965. Other general merchanting groups such as the UAC (Unilever) increasingly redirected their marine subsidiaries into the role of an independent line carrying mainly non-house cargo. Given the decline of the colonially-associated merchant companies such changes were essential for their survival.

This re-orientation as general trading lines led to problems in the poor markets after 1973. In a parallel to the marine activities of independent shipowners who had diversified into other fields, the former merchant lines had to measure up to the profitability of other sections of the business. Those that did not, including Palm Line (Unilever), the Booker Line and the shipping arm of Jardine Matheson, were closed down or sold in the early 1980s (Booker ARs 1980-84; Unilever AR 1985; OTT AR 1986; FT 30.3.85). One problem for such companies which originally supported merchanting activities based in a single region was they were wholly dependent on the level of trade to that area. Thus severe drops in the volume of trade, as occurred with Nigeria and the Caribbean region in the early 1980s, had catastrophic effects. Unlike the liner groups' wide geographical spread of trades, they had no other routes to compensate for the effects of regional trade depressions.

The second group of merchant lines were those involved in refrigerated transport: Blue Star in the South American and Antipodean trades, Yeowards in the Canaries and Kaye, Son & Co. and Elders & Fyffes in the banana trade to the Caribbean. The last-named had since 1913 been owned by the United Fruit Co. of the USA. Yeowards, like John Holt, found the shipping

side too great a strain on investment resources in comparison to the produce side of the business and ceased to own vessels after the pre-war Alca (Br 4,300/27) was sold in 1955, preferring to charter small reefers (Chandler, 1960, p184; SM 3.88). The Kaye, Son & Co. fleet also withered away in the 1960s. Blue Star however expanded post-war though changing in character as its already large independent carrier business came to comprise virtually all its cargo, though other Vestey family businesses such as the Dewhurst butchers chain continued to require refrigerated produce.

The sole exception to this trend of closure or moving into independent trading by British merchant lines was the Geest Line. It was set up by the Dutch Geest family in the early 1950s after they became involved in the production, shipping and marketing of Windward Island bananas from 1954. Initially chartered Swedish vessels were used but problems with their refrigerating systems combined with the need for better control and flexibility persuaded the Geests to build their own ships - the first coming into service in 1960. Since then the shipping arm's basic function has remained the carriage of Geest's own goods. However, the need to fill vessels returning from the UK meant the line also traded as an independent general cargo and passenger operator (Stemman, 1986, pp12-14, 183, 205; Sea Breezes 5.81).

The merchant lines like the tramp shipowners, proved to be a weak sector of the Merchant Navy. The merchant lines carrying general cargo were products of an age and trading patterns that were rapidly disappearing. To survive they had to become essentially independent operators which conflicted with their original purpose. Should they absorb too much finance or lose money they were thus liable to closure.

6e) The Effect of Diversification.

In 1945 most British independent shipowners were basically occupied with the management and ownership of their vessels. These activities required auxiliary services such as shipbroking or marine insurance. While outside agencies could provide these services, some shipowners undertook them themselves. This was particularly common among the larger lines, the scale of whose operations made such subsidiary activities viable. Their business also required networks of agents to solicit cargo while passenger lines sometimes owned hotels to provide their passengers with onshore accommodaton. In addition, most shipowners managed investment reserves.

Such a wholehearted concentration on shipowning had not always been the pattern. In the nineteenth century many entrepreneurs had graduated to shipowning from other fields. For instance, the Tyser family, founders of one of the four lines amalgamated in 1914 to form the Port Line, were originally engaged mainly in freight broking, insurance and underwriting (Russell, 1985, p3). A minority of British shipowners still operated in other fields in 1945. Bowring's main business was insurance, Salvesens were involved in whaling and other industries and J.I. Jacobs in shipbroking. The Hunting Group, which in addition to tankers had long-established interests in oil broking, moved into oil production and retailing and aircraft servicing in the inter-war years (Hunting, 1968, pp47-53, 59). After the Second World War several of these multi-activity groups decided the investment necessary to rebuild their fleets could be better used elsewhere. Thus Smith Hogg & Co. chose in 1947 to end shipowning and to concentrate on their agency and brokerage business, while the Constantine family sold its remaining tramps and expanded in agency, shipbroking and freight forwarding (MN 10.78; Appleyard, 1923, pp8-9). Similarly, the Alfred Booth Group sold the Booth Line to the

Vesteys in 1946 to put its capital into its leather trading and building activities (John, 1959, p157-159). These were important pointers to the potential effect of diversification outside shipowning on the Merchant Navy. However, in the 1940s and 1950s the majority of independent shipowners remained loyal to their traditional activity.

By the early 1960s many independent shipowners were beginning to look at direct (rather than investment) involvement in other industries. This followed a general trend in the British economy as companies pursued the commercial fashion of diversifying to avoid relying on the vagaries of one industrial sector for their wellbeing. Such considerations were particularly relevant to the strongly cyclical shipping industry which had been depressed since 1957 (Chapter 3a-d). Even where conditions were good, the profitability of shipping in comparison to industry generally was very poor (section 6g). Furthermore, some companies' traditional activities were likely to decline, particularly for liner operators whose cargo interests were beginning to be containerised and whose passenger routes were being closed (section 6a and Chapter 3).

One path to diversification was to build upon the existing auxiliary activities of the shipowning side. Thus B&C used its experience of marine insurance, investment and finance to move into financial services, while Ropner moved into general insurance broking from 1957 initially to make up for reduced in-house business as the strength of the fleet was reduced (Dear, 1985, pp112-113; B&C ARs, 1968-86). Other areas of transport were another natural route of development. Many companies attempted to enter the aviation field (Chapter 2d). The port industry in which many shipowners were already involved also proved attractive with James Fisher, P&O, Sea Containers and OTT retaining such interests in 1987. Many became involved in land storage and transport including P&O, Salvesens, Runciman, OTT and Ellerman. Moving into shipping related industries was also common

among diversified foreign shipowners. Maersk, Onassis and Nedlloyd moved into airlines for instance.

The choice of new industries was often extremely important. Activities with a strong direct link to shipping may be affected by its problems and thus compound a company's difficulties rather than providing some relief. The classic example is British and foreign shipowners' widespread interest in shipbuilding. While shipowners had considerable knowledge of shipbuilding, it was subject to the same highly cyclical fortunes as shipping. Thus while it might have allowed investment in vessels to be kept within a group and enabled vessels to be ordered more readily in boom periods, in a shipping depression it was likely to further burden a shipowner. THI's (the owner of Cunard-Ellerman) acquisition of Scott Lithgow in March 1984 proved a disastrous investment with the yard being mothballed in 1988 (THI ARs 1985-87). Similarly, the Greek Niarchos group strived to sell off its Hellenic shipbuilding subsidiary since the mid-1980s (FT 6.5.85).

To avoid such problems many shipowners diversified into wholly new activities - for instance P&O's acquisition of the building and civil engineering company Bovis in 1974. However, rapid diversification could cause severe problems. The tramp shipowner Court Line, for instance, moved swiftly into a variety of new businesses after the appointment of a dynamic new managing director, John Young, in 1963. The Pallion shipyard was acquired followed by the Autair airline in 1965, hotels (1968-69) and the Clarkson holiday group in the early 1970s. In 1974 this group, perhaps the swiftest diversifier in the British shipping industry, collapsed. An inquiry found that the overall management was inadequate and the group lacked the internal financial control necessary for success. Thus Court Line's expansion had exceeded its ability to control its subsidiaries and the inquiry concluded it would have collapsed with any

major problem in one division. In fact three areas turned sour simultaneously: the aviation/holiday division and the strongly linked shipbuilding and shipping divisions. The cash which could have shored them up had been put into further expansion in the Caribbean (DOT, 1978, pp5-11, 188).

Diversification was originally seen as providing additional activities to cushion the effects of shipping depressions. But establishing or acquiring new subsidiaries required finance. Thus funds were diverted from the shipping side which in consequence grew more slowly. But by 1970 the level of diversification into non-shipping activities was still low. Between 1958 and 1969 capital applied to non-shipping activities had only risen from £117m to £141m and averaged 15 percent of capital employed (Omond 4337, 1970, pp334-335).

Even in 1970 the six percent average return on non-marine activities was rather better than shipping profits (Section 6f). Few companies followed the example of W.J. Tatem which left shipping altogether to become a successful family investment company in 1972-73 (Jenkins, 1986, p36). The rate of diversification varied from company to company. By 1972 only B&C among the four public liner groups had diversified substantially. That year OTT acquired the large fuel and distribution group Cory while P&O acquired Bovis and Twentieth Century Banking in 1974. By 1977, except at Furness Withy, shipowning was no longer the dominant source of turnover. Unfortunately, many companies encountered problems with their new activities. For instance P&O and OTT derived a disproportionately high amount of their operating profits from shipping despite depressed shipping markets, indicating that the new activities were even less profitable (Table 6.2). Thus most companies, while continuing to diversify, maintained investment in new vessels (Chapter 4c), a sign of their long term commitment to shipping, albeit at a reduced

Table 6.2 Diversification into Non-shipping Activities by Liner Groups:

Shipping Activities as a Percentage of Totals

<u>Year</u>	<u>1972</u>		<u>1977</u>		<u>1986</u>	
	<u>% of T</u>	<u>% of P</u>	<u>% of T</u>	<u>% of P</u>	<u>% of T</u>	<u>% of P</u>
Furness Withy	83	85	83	79	-	-
P&O	54	80	47	70	40	30
OTT	100	100	33	70	8	5
B&C	43	41	27	15	3	7

T denotes turnover, P denotes profits.

Note:- The activities included in the category of 'shipping' vary somewhat between the companies.

Sources: Annual reports of the companies for the above years.

level.

The collapse of the 1979-80 freight boom and the spreading of the depression to most sectors of the industry weakened shipowners' resistance to withdrawal from shipping. This was reinforced by a modification of attitudes to diversification in industry generally. Diversified groups had found it difficult to control operations in many unrelated industries. Such underlying weaknesses often went undiscovered until they reached crisis proportions and the difficulties of control made remedial action difficult. The new commercial orthodoxy preferred concentration on three or four core businesses and the disposal of peripheral activities. The shipping divisions of British groups, being characterised by poor long term profitability, tended to fall in the second category. Even where shipping was retained it was usually the subject of savage cutbacks to concentrate on the sectors with the best potential. Thus for British shipowners ranging from the West Hartlepool SN Co. to B&C the new activities into which they had diversified had changed from being a support for the shipping side to an alternative. For those shipowners who had not left shipping altogether by the mid-1980s, other activities often accounted for the bulk of their business.

Diversification outside or even complete withdrawal from shipping was not confined to British companies. In France Navigation Mixte had by 1987 moved into insurance and financial services, French Kier into construction and property, Louis Dreyfus into banking while Chargeurs sold its shipping interests for a nominal sum to concentrate on its media, trading and airline activities (FT 19.6.86). Some Nordic shipowners also diversified including Kvaerner (engineering, shipbuilding and oil production), Lauritzen (shipbuilding and food processing) and East Asiatic (food processing and others) (FT, 9.7.86, 7.10.86, 12.6.86, 19.9.86). However, unlike their British counterparts they have given no indication that they

consider shipping anything other than a long term component of their operations. Many Norwegian shipping companies have, like Leif Hoegh, Jebsens and Bergesen, remained substantially undiversified. This characteristic, which also holds true for most Greek and Hong Kong operators, means that they have opted to make the best of their shipping activities rather than using the escape route of non-marine business to move to greener pastures.

There is however a parallel to this greater attachment to shipping among a minority of British shipowners, mainly private companies. Groups such as T. & J. Harrison, Bibby, Ben Line, Harrisons (Clyde) and the Weir group kept shipping as their main business in the 1980s. The multi-industry Vestey group, like its Scandinavian counterparts, continued to maintain its shipping interests. Some of these companies diversified within shipping. One of the most successful was J. & J. Denholm which having operated vessels owned in conjunction with companies such as H. Clarkson, BISC (Ore) and the shipbuilders Connells and Lithgows in the 1950s made ship management its main business. The company became a world leader in this field operating 72 ships in the mid-1980s. This was at the expense of the shipowning interests, some of its six remaining vessels having since been sold. Though diversification was good for the company and helped maintain Britain's status as an international maritime centre, it did not increase the size of the Merchant Navy. Indeed Hill Samuel, which owns another successful management company (Wallem), has withdrawn from shipowning, with the vessels of its Lambert Bros. subsidiary being sold in 1976-77 (Times 1.6.77). However, for some British shipowners managing others' ships has enabled them to continue shipping activities which the contraction of their own fleets had made unviable. Indeed the market for ship management has grown in the depression, including many vessels which were taken over by the financiers of liquidated shipping

companies.

In addition to moves into non-shipowning activities by shipowners the diversification in British industry also offered the possibility of companies from other sectors of the economy becoming shipowners. This could have brought an influx of the new entrants so badly needed by the Merchant Navy. But such moves into independent shipowning were rare, companies perhaps being deterred by the industry's poor profitability record (section 6g). Rather than setting up new companies, they usually acquired existing British shipowners. Consolidated Goldfields acquired Comben Longstaff in the 1960s and W.H. Seager and the Stanhope SS Co. were bought by Pascoes and George Nott Industries respectively in 1964 (MN, 6.64, 8.64). Stephenson Clarke was acquired by Powell Duffryn, but the largest takeover of a shipping company was THI's 1971 acquisition of the Cunard group. However, such moves (like the expansion of the liner groups) merely represented shifts of ownership for the Merchant Navy rather than expansion. George Wimpey which set up its OSV operation from scratch in the 1970s was very much the exception.

These new entrants were however frequently undermined by the depressed markets after 1973. Consgold's and Lonhro's shipping operations were closed, the latter in 1978, while George Nott and Pascoe are also no longer engaged in deepsea shipowning. These bad experiences reinforced shipping's poor image among British companies, which acted to deter non-shipowners from entering the industry. But in the late 1980s there was some renewed interest in shipping by Mountleigh which took over the Bolton SS Co.. Lonhro took a 50 percent stake in the 3,000,000dwt fleet of the ailing Krupp group in 1988 while Hays was sold off by the Kuwait Investment Office.

Though some British shipowners had interests in other industries in

earlier years, the main wave of diversification among British shipowners began in the mid-1960s. Initially the resources available to the shipping activities were reduced, resulting in smaller fleets than might otherwise have been the case. From the mid-1970s and particularly the early 1980s there was a gradual change in attitudes, especially among public companies. The non-marine activities instead of being additional to shipowning became an alternative. The best interests of the company were no longer perceived as obtaining the best possible results from shipowning. While this was a good policy for the individual company it naturally had a seriously deleterious effect on the size of the Merchant Navy. Nor was this shortfall made up by moves into shipping by companies from other industries. These mainly represented changes in the control of existing companies, several of which were subsequently closed. Though a small number of genuine additions to the British owned fleet did occur in the late 1980s, they paled in comparison with the diminution of the Merchant Navy's tonnage and number of operators. Greek, Norwegian and Far Eastern shipowners often did not diversify or did not use it to leave shipping and hence far more remained as shipowners in 1989.

6f) The Character of Management.

The salient feature of the British shipping community in 1945 was that most companies were led by descendants of the founders of the businesses. In many cases one or more families owned a company and provided the directors who ran it. The Ben and Bibby Lines, for instance, were owned and operated by the Thomson and Bibby families respectively. But at Ellermans the son of the founder, while owning the lines, left their management to paid employees (Taylor, 1976, p97, 137). Among the public companies the families who managed the business did not always have a controlling shareholding, for example the Bates and Brocklebanks at

Cunard. The Albyn Line provided a further refinement of the system of family domination, being owned by the Joiceys but managed by members of the Allan and Black families (Chapter 7a).

For S.G. Sturmeay and D.H. Aldcroft family control was a vital factor in British shipping's poor performance. They believed most families pursued conservative and unenterprising policies (Sturmeay, 1962, pp397-401; Aldcroft, 1975, pp251-255). However, the Norwegian and Hong Kong shipping communities with which the Merchant Navy compared so unfavourably were also comprised mainly of family companies. Similarly, almost all Greek tonnage was owned by around 140 families with a long tradition of shipowning (Frischauer, 1973, p12).

The above problem might indicate some debilitating factor afflicting British shipping families which did not affect their foreign counterparts. D.C. Coleman and M.J. Wiener pointed to British industrialists' penchant for adopting the trappings and values of the aristocracy and landed gentry with their distaste for the sordid business of money making (Coleman, 1973, pp92-116; Wiener, 1981, pp157-170). Certainly the great British shipowners of the nineteenth and early twentieth century displayed a considerable propensity for attracting titles: Andrew Weir (Lord Inverforth), Christopher Furness (Lord Grantley), James Lyle Mackay (the Earl of Inchcape) and Viscount Runciman being a few of the most prominent. Indeed some like William Vestey (who was unlikely to be honoured through normal channels due to his successful efforts at tax evasion) went to the length of buying a title (Perren, 1986, pp618-621). Most successful shipowners acquired large country houses like Sir Charles Cayzer's business home, Relston House near Glasgow, supplemented by a country retreat at Loch Long. Sir Charles Cayzer also exemplified another common feature: involvement in national politics, being MP for Barrow from 1892 to 1906 (Muir and Davies, 1978, pp138-152, 240-246). Similarly, Walter

Runciman succeeded Sir Stephen Furness as MP for West Hartlpool upon the latter's death in 1914 (Rowe, 1985, pp978-981; Boyce, 1984, pp443-448). Many shipowners also engaged in public works and received illustrious honorary positions. Sir John Ropner (1860-1936), for instance, became High Sheriff of Durham and honorary colonel of his local regiment (Who Was Who, 1929-40, p1168).

Such activities did not usually lessen the enthusiasm of these extraordinarily vigorous Victorian entrepreneurs for profitable shipowning. Most contemporary commentators produced eulogistic assessments of the character of these businessmen. A.W. Kirkaldy declared that "whilst mainly Teutonic he (the Briton) has absorbed many of the best elements of other races and as a result there is a combination of progressiveness mingled with caution, which for commercial purposes is the guarantee of success" (Kirkaldy, 1914, p317).

Wiener and Coleman saw the main problem arising as the industrialists bestowed upon their progeny an upbringing and education which imbued them with the anti-commercial values of the upper classes. Certainly the educations of the sons of shipowning entrepreneurs usually fitted this pattern. Sir Heath Harrison (1857-1934), son of James Harrison of the Harrison Line, was an Oxford graduate (WWW 1929-40, p600). Frederick Bates (1884-1957), scion of one of the controlling families of the Brocklebank Line and ultimately chairman of Cunard, after schooling at Winchester went up to Cambridge (WWW 1951-60, p75). For the less academically gifted such as William Vestey's grandsons S.G.A. and M.W. Vestey, Eton was followed by service in the Scots Guards (Debretts, 1976, pp1149-1450).

Though they tended to be less socially illustrious than their counterparts in the liner industry, tramp shipowning families often followed the same pattern. The second Viscount Runciman (born in 1900)

went to Eton and Cambridge, while his son Gary Runciman (born 1934) went on to become a Cambridge Fellow (Debretts, 1976, pp990-991). Sir Thomas Morel's grandsons followed a public school education by university, Cambridge in the case of Ted Morel, while the female children went to Roedean or Heathfield, followed by a finishing school in Paris and presentation at court (Gibbs, 1982, p118).

Successive generations of these increasingly aristocratised families frequently displayed a decreasing attachment to the family business. Attempts to encourage Michael Morel (great grandson of the founder of Morels) to enter the family business in the early 1950s failed. He preferred instead to pursue a career as a solicitor. The lack of new family directors was a major factor in the tramp company's liquidation in 1956 (Gibbs, 1982, pp136-137). Such problems were by no means new. After the death of Sir Donald Currie in 1909, his son-in-law Percy Molteno and other successors were swiftly discouraged by their inability to settle satisfactorily their conference disputes with the South African government and sold Union-Castle to the Kysant group in 1911 (Porter, 1986, p256). Similarly, the third generation of the Wilson family (owners of the Wilson Line of Hull) lacked the commitment to shipping of their forebears and hence were willing to sell out when a high price was obtainable from Sir John Ellerman in 1916 (Taylor, 1976, pp255-256; Jackson, 1986, p846-849). Ellerman's own family proved even less business minded. His son, who owned the business until his death in 1976, ultimately showed little more than a benign interest in its affairs. Rather, he acquired a reputation as a philanthropist and "his life in South Africa was one of travel, zoology and music" (Taylor, 1976, p125).

The detection of similar processes (or their absence) among foreign family shipowners is rendered extremely difficult due to the scarcity of information. In particular, information tends only to be available on

those companies which have survived, thus giving a potentially misleading impression of success. Certainly some Greek shipowning families have maintained a very close attachment to shipping. All five sons of John Goulandris entered the shipping business as did five grandsons. Like their British counterparts, the latter usually had the best upbringing and education money could buy. John N. Goulandris, after a lavish upbringing, studied at Lausanne. Many Greek shipowners ostentatiously embraced the good life, owning large motor yachts, (four among the Goulandris clan alone in the early 1970s) and building large island residences. Indeed both Niarchos and Onassis bought themselves small islands (Spetsopoula and Skorprios). The Goulandrises, like many other Greek shipowners, had a love of expensive leisure interests including collecting works of art, owning racehorses and gambling (Frischauer, 1973, p61, 146-159). Some family members did discover more pressing interests than shipowning. One third generation Kululundis became a playwright while a second was a writer. B.N. Metaxas, whose father and grandfather were small Greek shipowners who captained their own vessels, became a maritime economist (Frischauer, 1973, pp126-127, 178-90). However, many Greek shipowners' children have not been deflected from the family business by good educations and high living standards.

A major factor in this may have been the dedication of Greek shipowning families to their traditional business, an attitude they attempted to instill in their children: "hard headed, practical Greek shipowners hate to lose their offspring to any pursuit outside their traditional sphere" (Frischauer, 1973, p127). In addition, opportunities for shipping entrepreneurs or their progeny to move into other industries were restricted by the small size and backwardness of the Greek economy. The former aspect might also be applicable to Norwegian shipowners. Shipowning was attractive to Hong Kong entrepreneurs as an insurance

against potential political problems. Entrepreneurs such as Y.K. Pao were profoundly influenced by their flight from the communist takeover of China in 1949, ships being assets which could be retained simply by physically keeping them away from Hong Kong in the event of a takeover (FEER 29.1.82). These factors produced a greater attachment to shipping than that of British shipowners who had other avenues for their efforts in a larger, politically stable economy.

British families' tendency to become disenchanted with commerce was countered in part by the special position of the shipping industry. In the early post-war years shipping was still held in high popular regard and was thus sufficiently prestigious (as indicated by the title 'Merchant Navy') to be seen as a fitting activity for the gentrified families. Indeed Sir Eric Bowater was influenced by the prestige of becoming a shipowner in his decision to set up the Bowater SS Co. in 1954. After his death in 1962 Bowater's management felt the economic justification for the fleet was weak and it was gradually sold (Reader, 1981, p248, 318). An important feature of the prestige of shipping was the differentiation between the glories of the great lines like Royal Mail, P&O and Cunard and the tramp companies with their image of dirty and worn-out ships. For the tramp shipowner such as Ted Morel the business was dull and tiring and brought little pleasure but a great burden of responsibility. Though the senior family director John Morel was "keenly aware that he had lost his status and role as a shipowner", it did not prevent him from supporting Morels' liquidation in 1956 (Gibbs, 1982, pp136-139).

The prestige orientated attachment to shipping was often combined with a great respect for history, tradition and the ideal of service. The history of British India spoke of the need to maintain the high standards of the past and rather pompously explained how "a soundly established British shipping line is one of the finest expressions of the genius of an

island people" and of the directors' "determination to uphold in the future the great tradition of the B.I. company" (Blake, 1956 (2), p1).

Some shipowners apparently needed to justify their existence on grounds other than mere money making. The Donaldson Line history speaks of the merchant adventurer's "fitting task which is to serve his generation and his flag and to bring home the cargoes which will enrich not only himself but all mankind" (Dunnett, 1960, pp83-84). Such de-emphasising of profits contrasts with the attitude of most successful foreign shipowners. Aristotle Onassis viewed the Second World War with a prosaic satisfaction that "his American vessels had been busy earning him the handsome profits which were the successful shipowner's (almost) automatic reward" (Frischauer, 1968, p90). In contrast British India saw itself heroically serving the country against the "King's enemies" (Blake, 1956 (2), pp178-198). Not all British companies followed this pattern: the Cayzer family for instance were in the 1950s "single minded about the pursuit of profit. They were not romantic about ships, nor were they haunted by the ghosts of the British empire" (Berridge, 1987, p67).

Respect for the values of service and tradition was paralleled by the traditional systems of recruitment, training and management. While it was usual for the sons of shipowners to go to university, even in 1970 there was a shortage of business orientated degrees among these graduates and also a shortage of men with "high technological qualifications" (Cmd 4337, 1970, p322). Sir John Hobhouse for instance qualified as a botanist while the second John Ellerman, like many shipowners, read law (DNB 1961-70, p522; Taylor, 1976, p96). In contrast some leading Scandinavian shipowners such as Leif Hoegh and E.D. Naess were trained economists (Naess, 1977, p32). After graduation, the scions of British shipping families joined the business at a low level to gain experience but were swiftly elevated to the board thereafter. Derek Bibby for instance joined

the Bibby Line in 1946 and became a director in 1950 at the age of 28, while John and Robert Denholm became directors of their family company in 1951, both being aged 24 (Paget-Tomlinson, 1982, p32, 49; Denholm, 1966, p38). Sir Frederick Bolton advanced even faster, becoming chairman of the Bolton group in 1953 at the age of 32 (Who's who 1988, p173). This at first glance clashes with the Rochdale Report's complaint that even in 1970 able young men rarely got top level management opportunities in their thirties or forties in many British shipping companies (Cmnd 4337, 1970, p321). However, the attractions of non-marine careers and the attrition of the families meant the total number of such young family directors was small.

The lack of opportunity for able young managers in fact applied mainly to non-family employees, the professional managers. These men usually joined a company straight from school and remained with it for their entire working life. Elevation to the board came only after long service. The least time served by a non-family director of Donaldsons before his appointment was 23 years, the average was 33 years and Daniel Muir having joined the company in 1905 took 46 years to become a director! Thus directorships tended to be rewards for long service [the Ben line spoke of 'honouring' its long standing engineering superintendent A.C. Hill with a directorship in 1947 (Blake, 1956 (1), p143, 180)] rather than efforts to bring in dynamic new men. Furthermore, in companies where the family was still numerous, the leading positions were nearly always out of reach of the company servant. The three main companies of the Donaldson group had all been chaired by members of the Donaldson family since 1914 at least (Dunnett, 1960, pp102-119). The Morels reluctantly appointed two non-family directors in 1948 but "were uneasy at having other than family members on the board" and gave them little power, the only real change being an increase in their salary (Gibbs, 1982, p132). As the Rochdale

Report pointed out in 1970, such policies did not enable companies to make the most of their staff and deterred ambitious and able men from joining the business (Cmnd 4337, 1970, p321-322).

The lot of the able company employee had not always been so difficult. Lord Essendon's career began when Christopher Furness gave him a job as an office boy as a favour to his dying father - the first step to his chairmanship of Furness Withy. He in turn took on Sir Ernest Murrant as an office boy of 13 who in 1944 succeeded Essendon as group chairman (Boyce, 1985, pp761-763; Greenhill, 1985 (2), pp393-396). Many great Victorian entrepreneurs such as Henry Radcliffe worked in minor positions in existing shipping firms before leaving to set up as shipowners themselves (Craig, 1985, pp796-799). Sir Charles Cayzer set up the Clan Line after he, perhaps immodestly, suggested to the head of British India, William Mackinnon, that he should be made a partner in one of the line's agencies and resigned when this was refused (Muir and Davies, 1978, pp42-44). However, since the end of the freight boom after the Great War the ranks of the employees of British shipping companies have rarely produced men such as Idwal Williams who in 1919, at the age of 25, left Furness Withy to set up Graig Shipping (Williams, 1988, pp1-4). Some liner groups bereft of family directors did allow their employees to rise to important stations, for instance, Sir Leslie Bowes who ended his career as chairman of Royal Mail and the Pacific SN Co. in 1960-65 (DT 5.5.88).

A feature of British management in the early post-war years was the concentration of decision making at the top. Companies were frequently dominated by the personalities of the chairmen, many of whom like Sir Ernest Murrant tended to be autocratic and aloof. While the founding entrepreneurs were often equally domineering, this was combined with dynamism and sometimes an innovative spirit. However, the post-war family or professional manager tended to be conservative. This reflected the

'steady state' of British shipping in the inter-war years with companies continuing their long established trading patterns. After 1945 such leaders found it difficult to accept and adjust to the rapid technological and market changes and their autocratic characters made them difficult to advise. A good example is Sir Vernon Thomson who rescued Union-Castle from the collapse of the Kysant group in the 1930s. The typically eulogistic company history portrayed him as the heroic rescuer of a great company (Murray, 1953, pp350-351). The other side to his character was inflexibility and notoriously autocratic methods of running the business. Such mannerisms caused problems; his elegant hauteur rankled with the increasingly strident Afrikaner leaders of South Africa who already disliked the British. Secondly, his death in 1953 caused a crisis in the company which had lost its driving force of nearly two decades. His chosen successor, Sir George Christopher, felt himself unsuited by his age. He also had a poor grasp of the fundamentals of the business and was insular. Under this weak leadership, lacking in energy and imagination, the company's independence (cherished by Sir Vernon Thomson) was lost to the successful Cayzer family (Berridge, 1987, pp8, 42, 46-47, 54-56).

While the lines were liable to takeover, the loss of the driving personality at a tramp company was frequently fatal. When A.M. Sutherland died in 1953 his company, B.J. Sutherland, which he had controlled since the death of his brother in 1909, did not survive him (he also illustrated the problem of over-age company managers, dying in harness aged 86 (Times 30.3.53)). Similarly the young directors of Graig Shipping had great difficulty persuading the 80 year old founder to invest in bulkers in the early 1960s (Williams, 1988, pp1, 20).

Conservative family management was not confined to British shipping. Andreas Lemos describes how the majority of pre-war Greek shipowners had very limited expertise and had to leave the chartering and procurement of

cargoes to shipping agents. While their better-educated sons provided a badly needed injection of dynamism in the early post-war years, there were still many companies with only a few over-age vessels. The early post-war years saw the emergence of successful entrepreneurs such as Onassis and Niarchos. Not only did their expansion make up for the relatively poor performance of many traditional shipowners but they also provided an example for the less dynamic majority to follow. For its part, the British shipowning community lacked dynamic entrepreneurs who could stimulate the herd instinct of the others. The tendency to wait until others moved in the same direction can be seen in the widespread adoption of tankers in the mid-1950s by British owners and in the switch to bulkers in the mid-1960s. Another illustration of the vital role played by a few dynamic men are the foreign shipowners who left existing firms to set up on their own. For instance, Sigval Bergesen left the family business in 1935, while John N. Goulandris, dissatisfied with the conservatism of his elders, left to establish J.N. Goulandris in the early 1950s (Frischauer, 1973, p155-156; Bergesen introduction document, 1988).

The early 1960s saw some British shipowners begin to adopt modern management techniques and structures. B&C took such measures in the late 1950s while Denholms made major management innovations in the early 1960s to deal with their expanding ship management business. These included training staff in conjunction with the University of Strathclyde, including senior sea staff who were rarely involved in the running of shipping companies (Denholm, 1966, pp40-41). The latter problem reflected a retrogression from the Victorian era when the ship's captain, by necessity of the slowness of communications, played a vital role in procuring cargoes and as a perk was frequently allowed to carry merchandise on his own account. But such measures were slow to take hold and in 1970 the Rochdale Report concluded "there remains... much to be

done" (Cmnd 4337, 1970, p21).

As the managing families suffered from attrition due to death and disinterest, replacement managers had to be found. While some came from inside companies, highly capable men could be brought in from other industries. Although this was becoming commonplace in British industry generally, shipowners often believed that the unique character of the industry militated against bringing in outsiders. The Rochdale Inquiry disagreed, stating that "the basic principles and techniques of good management are no different in shipping from those in industry in general" (Cmnd, 4337, 1970, p313). One of the earliest of these mobile professional managers was Sir Basil Smallpiece who in 1965 became chairman of the struggling Cunard group. An accountant who joined BOAC as financial comptroller in 1950, he became involved in Cunard as managing director of BOAC-Cunard in 1962-63 (Who's Who 1981, p2400). The disappearance of Lyle's venerable family directors James Shearer in 1958, aged 78, and Colonel MacFarlane in 1965, aged 87, saw control pass to non-family men. W. Nicholson, a longstanding company servant became managing director in 1958, while Dr J.P. Agnew (an accountant) joined the company as a director in 1962, becoming chairman in 1965 (Orbell, 1978, p113, 134, 186). For companies which did not substitute employees or outsiders for faltering family managers, extinction or sale was likely. The Dalgleish Line closed in the early 1970s due to the death of Peter Dalgleish and his son (Stoker, 1985, p51).

The introduction of new management techniques and professional managers had its drawbacks. John Young, responsible for the massive expansion of Court Line in the 1960s and early 1970s, failed to spot and remedy weaknesses in his policies which led to the group's collapse in 1974 (section 6e). Generally the new men and new policies were of considerable benefit to the industry in the early 1970s, aiding the

expansion of the Merchant Navy in this period. However, in the post-1973 depression they often saw shipping as just one of a number of activities and one of poor profitability. Professional managers like Menzies Wilson at OTT were more likely than family directors to reduce shipping activities (Chapter 8). One exception was P&O where a severe decline in profits to £18.3m in 1978 prompted the Earl of Inchcape (whose family had a long association with the group) to attempt to turn the company around. Though initially successful, a second period of decline set in after 1980 and Inchcape's plan for family shipowner J.F. Denholm to replace him was thwarted by the appointment of Sir Jeffery Sterling in 1983. The latter's pedigree included education at Reigate Grammar School followed by a career in stockbroking and investment. Sterling was highly successful, quadrupling P&O's profits in 1983-87 to £274.7m. However, like other professional managers he savagely cut unprofitable shipping investments but fortunately had profitable interests in ferries, cruise ships and container vessels (P&O ARs, 1978-87; Who's Who 1988, pp901, 2323).

The attitude of family management to shipping was often very different from that of the new breed of professional managers. Sir Percy Hunting exemplified such thinking when discussing how the post-war investment in new vessels had been less profitable than the properties sold to finance them. He concluded "money, however, is not everything and we are shipowners" (Hunting, 1968, p109). Not all shipping families maintained this sentimental attachment to shipping in the bad years after 1973. Indeed the Huntings excised their shipowning interests in 1984. Others took similar action including the Cayzers, who had long been prosaic pursuers of profits, and the Salvesens, for whom shipping had never been an exclusive occupation. However, many British family shipowners have stayed with the industry, particularly private companies which were not pressurized by outsiders or public companies like Graig

Shipping still majority-owned by the family. These include the Harrisons [Harrisons (Clyde)], Bibbys (Bibby Line), Vesteys (Blue Star), Weirs (Bank Line), Denholms (Denholm Ship Management) and van Geests (Geest Line). Thus since the mid-1970s the disappearance of the founding families at companies such as OTT probably speeded their withdrawal from shipping.

The six major foreign companies which the Rochdale Committee studied were already run with modern techniques but only the most innovative British operators had taken comparable steps (Cmd 4337, 1970, p321). While American companies like Sealand have professional managers, many Scandinavian operators have combined modern management techniques with the advantages of continued family involvement. Both Bergesen's executive directors are grandsons of the founder while the three non-executive directors comprise a professional manager, a marine lawyer and Bjorn Stokke, a former shipbroker and director of a property company. They are supplemented by three highly experienced managers (Bergesen introduction document 1988). Maersk and Jepsens are both headed by family directors (Maersk McKinny Moller and Alte Jepsen) supported by teams of professional managers (Jepsens brochure, 1987; Maersk ARs 1987). Their continued presence has not deterred able non-family men, possibly because their expansion and dynamism are attractive. Not all Scandinavian companies fit this pattern; while Dan Brostrom was still a director of Brostroms in 1987, this struggling company (founded in 1865) was run by professional managers (Brostrom AR 1987).

One factor in the post-war success of some Scandinavian companies was the relative youth and vigour of their controlling families. For instance, A.P. Moller, the driving force in Maersk's initial expansion died only in the early 1960s (Maersk Post 10.76). Other great foreign shipping magnates such as Sir Yue Kong Pao are still alive, as are Stavros Niarchos and Malcolm McClean (Sealand and USL). In contrast, even in 1945

the founding entrepreneurs of most British family companies were long dead. Some families did continue to display considerable ability: for example at the Bibby and Ben lines which have expanded considerably in the post-war years. These concerns are currently headed by Derek Bibby and Sir David Thomson who are respectively sixth and fifth generation family shipowners (Paget-Tomlinson, 1982, pp48-49; Blake, 1956 (1), pp212-213; Ben Bulletin 4.87).

Nonetheless, many more shipping families have been eroded over time. The Cayzers who were among the best post-war British shipowners had by the mid-1980s reduced their business interests to the family investment company Caledonia Investments. Britain has not produced entrepreneurs to replace them. There has been a lack of men like J.A. Billmeir who built up his business as a gun runner in the Spanish Civil War, let alone tycoons like Minos Colocotronis who in only eight years from 1965 built up the fourth largest Greek shipping concern (Frischauer, 1973, pp196-209). An interesting exception is the Barclay brothers who graduated from the London property market of the 1960s to a successful \$670m bid for the large international shipping company Gotaas Larsen in 1988. Their business empire was largely based upon their skill as financiers, though they did have experience of shipping, ironically through their acquisition of the group built up by another financier-shipowner, John Ellerman. Whether Gotaas Larsen will be kept is open to question since Ellermans was resold in 1984, a policy common among many modern financiers whose aim is often to resell their acquisitions at a profit.

Throughout the post-war years the Merchant Navy, unlike some foreign merchant marines, suffered from a lack of the new entrepreneur shipowners who were invaluable not only for building up their own fleets but also for galvanising others. The family character of most independent firms,

though important for providing a means of succession, frequently had negative effects. These included conservatism and the denial of leading positions to non-family men who could have provided much needed dynamism. This was reflected in the slow adoption of new management techniques and recruitment of men of proven ability from outside the company. Unfortunately these belated innovations began only shortly before or even after the onset of depressed markets in 1973-74. In this situation the new managers frequently pulled out of shipping which, while beneficial for the individual companies' shareholders, acted to the detriment of the Merchant Navy. Thus a large part of British independent shipping is dependent upon the vitality of a dwindling band of family companies which have demonstrated a very strong commitment to the industry.

6g) Profitability and the Criteria of Success.

The best starting point in considering this subject is profitability, which relates the absolute profit figures for a company or industry to the resources which produced them. There was only one systematic financial examination of the individual sectors of the Merchant Navy which covered the years 1957-68 (Table 6.3). However, knowledge of the experiences of individual companies and trading and other factors allows extrapolation of likely profitability trends in other years.

In the liner passenger trades the results in the strong markets after the decontrol of freight rates in 1946 were probably at least equal to the 5.6 and 5.4 percent average return on capital achieved by passenger and passenger-cargo ships in 1957-60. From 1961-68 their technical redundancy was reflected in the average returns of -2.1 and 0.6 percent. Their results thereafter, in an era of rapid cost escalation, were unlikely to be any better. Even the returns on cruise ships were low though the purpose built vessels used from the late 1970s produced better

Table 6.3 Pretax Return (%) on Capital by Sectors for British Shipping.

<u>Year</u>	<u>Liners</u>			<u>Non-liner</u>			
	<u>Passenger</u>	<u>Pass-Cargo</u>	<u>Cargo</u>	<u>Tramps</u>	<u>Ore carriers</u>	<u>Bulkers</u>	<u>Tankers</u>
1957	4.6	9.7	15.0	15.7	9.5	16.7	7.1
1958	7.2	4.7	5.8	3.3	4.3	0.0	2.8
1959	6.7	3.2	2.9	-0.6	5.0	-1.2	2.1
1960	3.7	4.0	4.2	0.1	4.3	-1.1	3.5
1961	-2.7	-0.3	1.4	-0.4	7.2	-3.2	4.8
1962	-3.8	-1.9	0.8	-2.6	9.4	0.0	6.3
1963	-2.6	0.2	2.3	-1.5	10.7	0.0	4.5
1964	0.2	2.3	4.0	0.9	12.2	5.0	5.1
1965	0.1	0.2	3.3	2.3	13.9	4.8	4.5
1966	-6.9	-4.1	1.8	2.5	12.3	4.2	4.0
1967	-1.5	0.0	1.9	2.5	15.7	6.2	2.1
<u>1968</u>	<u>0.3</u>	<u>8.0</u>	<u>5.2</u>	<u>4.8</u>	<u>18.7</u>	<u>8.7</u>	<u>3.0</u>
Average	0.4	2.2	4.1	2.3	10.3	3.3	4.2

Notes:- a) Excludes oil company vessels.

b) Years to 31st March of following year. i.e. 1957 covers the period 1.4.57 to 31.3.58.

c) Deepsea vessels only.

Source:- Cmnd 4337, 1970, p355.

returns. The liner cargo sector would also have been strongly profitable when free market rates were obtainable from 1946 with returns averaging 15 percent in the boom year 1957. While returns dipped sharply to only 0.8 percent in 1962, they averaged 4.1 percent in 1957-68. This sector remained strong in the 1970s. Though the changeover to unitised shipping in the early and mid-1970s depressed returns, OCL earned 16.6 percent on turnover in 1975-80. Thereafter the sector dipped as recession cut trade levels with large container concerns like OCL, whose returns averaged 10 percent in 1981-85, faring better than the smaller operators like Andrew Weir which achieved only 4.8 percent (Times 1000 1974-86).

In the tanker trades until government control of rates ended in 1948-49 the return on capital was at most 5 percent (Sturmey, 1962, p143). Thereafter profitability was reasonable: 7.1 percent in 1957 for instance. In 1958-66 returns averaged 4.2 percent, reflecting the high levels of timecharter cover though vessels trading on the spot market made heavy losses. Given the boom conditions, the fall in profitability to only 2.6 percent in 1967-68 is surprising. It probably reflects the preponderance of small obsolescent tankers in the British fleet and cost inflation. In the early 1970s the substitution of modern specialised tonnage raised profits but the onset of depression brought atrocious results for uncovered tanker operators. Burmah averaged a 60 percent loss on turnover in 1974-78. While the rising rates of 1979-80 enabled a modest 3.2 percent return on turnover, the return of the depression saw the spot tanker trader LOF losing 15.6 percent on turnover in 1984-85 (Burmah ARs 1974-86; LOF AR 1985).

For tramp dry cargo ships the years from deregulation in 1946-47 were good with tramps and bulkers averaging a return of 16.2 percent on capital in the boom of 1957. Thereafter their results were poor, averaging 0.4 and 0.9 percent in 1959-66 for tramps and bulkers

respectively. In 1958-61 tramps' returns at 0.6 percent were better than the -1.4 percent for bulkers, a surprising result as companies with both types like Ropners and LOF found bulkers easier to trade (Chapter 7b and c). From 1962 the bulkers' greater efficiency was evident in their 4.1 percent return compared to the 1.3 percent for tramps. Both types benefitted as markets improved, bulkers producing a return of 7.4 percent in 1967-68. Up to 1975 good returns prevailed but then fell off dramatically, Graig for instance producing a 32 percent loss on turnover in 1978. Spot trading bulkers again suffered heavy losses after 1980, Graig incurring an average loss on turnover of 6.4 percent in 1981-86. Companies insulated against poor markets could fare much better. Ropner's profits averaged 14.3 percent in the same period, mirroring the 10.3 percent return on capital made by long chartered ore carriers in 1957-68.

Though S.G. Sturmeay stated that "It is not possible to say anything very useful about the profits of British shipping in the period 1948 to 1960" (Sturmeay, 1962, p181), there was in fact a statistical series compiled by the Economist which covered the years 1950-70.² In the period 1949-57 these showed an average return on capital for public British shipping companies of 10.1 percent (Table 6.4). This was only three-fifths of the Economist's average for all UK industries, despite being accurately described as "the prosperous Age" for shipping (Sturmeay, 1962, p160). However it was an improvement over the five percent return allowed under wartime rate controls from 1940. In the depression years of 1958-66 the average for all industries was five times shipping's 2.8 percent. Even in 1967-68 the relative percentages were 12.7 and 3.8

² Prior to change in company law in 1947 the the information in the published accounts of British companies was insufficient for the Economist to assess their returns on capital employed.

Table 6.4 Pretax Profits as Percentages of Capital Employed 1949-68.

<u>Year</u>	<u>Shipping (1)</u>	<u>Shipping (2)</u>	<u>All Industry (2)</u>
1949		9.1	16.4
1950		10.6	17.0
1951		12.7	17.0
1952		14.7	16.6
1953		9.3	17.8
1954		7.2	17.9
1955		8.1	17.8
<u>1956</u>		<u>10.7</u>	<u>17.3</u>
Average		10.3	17.2
1957	12.3	8.7	16.1
1958	5.4	6.5	18.1
1959	3.2	4.1	14.8
1960	3.6	4.3	15.0
1961	1.1	2.0	12.7
1962	0.6	-0.4	11.5
1963	1.7	1.9	12.1
1964	3.6	2.3	13.0
1965	3.3	3.0	12.7
1966	1.3	1.6	11.8
1967	2.1	2.4	12.4
<u>1968</u>	<u>4.8</u>	<u>5.1</u>	<u>12.9</u>
Average	3.6	3.5	13.6

Note;- Cmnd 4337, 1970, (1); Economist (2).

Note:- Years to 31st March. i.e. 1957 figures are for 1.4.57 to 31.3.58.

Source:- Cmnd 4337, 1970, p334.

percent on capital. Unfortunately the statistical series was closed in 1970 without replacement which makes systematic comparisons for later years impossible³. However some useful indications can be derived from the returns on turnover for the shipping activities of British companies (Table 6.5), though these are not directly comparable with returns on capital. In the very strong markets of 1973-74 earnings on turnover averaged 14.8 percent but in the four following depressed years this fell to a loss of 1.4 percent. While the average return rose, as might be expected given better market conditions, to 8.3 percent on turnover in 1979-80, it then fell off again to 1.7 percent over the next five years. The situation would have been even worse had figures been available from heavy lossmakers like Reardon Smith and Lyles which went bankrupt. Their disappearance, the gradual uplift of the markets, shipowners reduction of costs and elimination of poorly performing marine operations combined to produce much improved returns averaging 10.8 percent in 1986-88.

The profitability of the entire shipping industry is important in that it enables comparisons to be made with other industries. In fact not only was the profitability of shipping well below average even in 1949-57 but it was with one exception the worst performer of the 23 industrial sectors examined by the Economist. As its profitability fell after 1957 this disparity became even more marked. Unfortunately no figures are available for the returns on turnover for industry as a whole, but 10 percent was generally reckoned to be a reasonable level. In the 16 years covered in Table 6.5 only 1973-74 and 1988 surpassed this figure with the average return from British shipping in 1975-87 being a mere 2.6 percent.

³ The closure of the Economist's series was due in part to the diversification of many British companies which made it very difficult to allocate the results of parent companies to particular industries.

Table 6.5 Average Returns on Turnover for British Shipping
Companies 1973-88.

<u>Year</u>	<u>Number of Companies in Sample</u>	<u>Profits as % of Turnover</u>
1973	9	16.6
1974	11	13.0
1975	11	0.1
1976	12	2.4
1977	11	-2.9
1978	10	-5.3
1979	7	7.5
1980	8	9.1
1981	11	0.9
1982	13	-1.4
1983	14	4.8
1984	16	3.0
1985	16	1.4
1986	15	5.1
1987	13	8.5
1988	9	18.9

Notes:- a) A company's results are included in the year in which most of the business took place. Thus if the accounting period ended on 31.3.78. the figures would be applied to the 1977 average.

b) Each company's percentage return on turnover is included on an equal basis in the average. This is because the degree of concentration in the industry would otherwise mean the profitability of Cunard/THI and P&O would dominate the results.

Sources:- a) Company reports and accounts of the public companies.

b) Times 1000 1973-89.

Such poor relative profitability handicapped British shipowners in competing for the affections of investors against other UK industries. This was not helped by the low dividends to shareholders, which was not a novel feature. The GCBS admitted in 1960 that "Judged by distributed profits, shipping is by far the least remunerative of all the 23 industries" (GCBS, 1960, p21). Assessments of the relative merits of shipping were also important in deciding whether financiers considered loans would be repaid and bring a decent return. Furthermore low profitability deterred entrepreneurs or diversifying companies from becoming shipowners as they would perceive that better returns were obtainable in other industries. In the early post-war years large British lines like Royal Mail, P&O, B&C and Cunard retained their traditional position as 'blue chip' equities but gradually fell from favour, particularly in the 1960s, while in the 1970s and 1980s shipping was viewed with considerable disfavour. Low profits also restricted the funds available to support British shipowners' traditional internal financing.

While shipping was handicapped by its poor profitability record, in the context of the other great industries of the nineteenth century it performed rather better. The only industry in the Economist survey to perform worse than shipping in the late 1950s was the textile sector. Similarly the water and power utility industries were reckoned to have produced only a three percent return on capital in the post-war period. While returns from shipbuilding and iron and steel were much better in the late 1950s from the 1960s they became notorious for their chronically poor financial results. For instance P.J. Hilditch described "The poor performance of the UK shipbuilders" (Hilditch, 1986, pp11-12). Among the other transport industries the railways were also persistently heavy lossmakers while D.H. Aldcroft wrote that the airlines' "rate of return on capital was often negligible" (Aldcroft, 1975, pp200-232), a state of

affairs which persisted in the volatile aircraft markets of the 1970s and 1980s.

Shipowners also complained that the methods of assessing relative profitability put them at a disadvantage. The use of returns on capital as a yardstick gave low capital industries like retailing a considerable advantage over the capital intensive shipping industry. Their high capital needs also meant, according to shipowners, that they they had to invest heavily in new ships, reducing the sums available for distribution to shareholders. However their need to do this reflected shipowners' persistence with conservative internal financing policies.

There were also contrary factors acting in shipowners' favour. First, the various allowances and grants against their liability for company taxation meant that "A post-tax comparison would not show such a wide disparity in profitability. It would still be substantial" (Cmnd 4337, 1970, p334). But the main measurement used by the financial markets was pretax profits, probably precisely because it gave a better indication of a company's record from its own efforts rather than the vagaries of the tax system. Though tax concessions were available up to 1984, thereafter the position of shipping was similar to other industries. Second, under the 1948 Companies Act shipowners could secretly alter their published profits by undeclared transfers to and from reserves. This provision, which was intended to prevent foreign competitors obtaining commercially sensitive information, was available to 250 shipping companies in 1962. From 1967 the strictures of the Jenkins and Rochdale reports led to its gradual abolition (Cmnd 1749, 1962, pp161-162; Cmnd 4337, 1970, pp332-333).

One possible explanation for the relatively poor performance of the shipping industry was that its criteria of success were different from those used by the financial community in judging the worth of the

industry. Most shipowners continued to emphasise the dividends to shareholders into the 1970s, though as noted earlier their dividends were not high. For instance the annual reports of OTT and B&C in the mid-1960s comprised a simple statement of profits and dividend payments (B&C ARs 1965-66; OSSCo. ARs 1964-65). However most financial commentators and institutional investors began in the 1960s to concentrate increasingly on profits growth. While acquisitive, well managed, conglomerates like Hanson Trust and Lonhro did well by producing continual profits growth [in the latter case raising profits by a factor of 1,000 in the 27 years from its foundation in 1961 (Lonhro AR 1987)], the poor shipping markets from 1974 made it very difficult for shipowners to produce a similar record. Thus by emphasising the wrong criteria and performing badly against the generally accepted one shipowners helped get themselves and their industry a bad financial market reputation.

A second possible criterion was growth in the size of the company and Sturmev and Aldcroft assessed the failure of the British shipping industry in terms of its poor growth record. Japanese industry, for instance, was noted for the high regard it placed on growth, though profits were important too. Many private foreign operators like the Greeks and Hong Kong Chinese also emphasised the expansion of their concerns, for example the rivalry between Onassis and Niarchos to own the largest fleets. A related problem for British shipowners after 1973 was that even if they managed to obtain reasonable returns from their marine operations it would be difficult to expand them and maintain profitability due to poor shipping markets. Hence maintaining profits growth was very difficult as this ultimately required growth in the business.

British shipowners' interest in dividend payments was linked to the family control of most companies. Since they were interested in shipping as a long-term business occupation, rather than an equity holding to be

sold at a quick profit, they were unlikely to sell their shareholdings (in contrast the financial markets, particularly during the 1980s, were geared to quick profits from trading shares). Thus the market value of the shares was of little interest to the families whose income from the company derived from dividend payments. In addition, for the many shipping groups which retained the traditional structure of a separate management company, their income stemmed from management fees. These were usually a percentage of the gross freights earned rather than being profit related. Thus the managers' personal interest in profits was reduced as was their motivation to maximise profitability.

Private family controlled companies, which were not exposed to the strictures of the stock market, could lack motivation to increase profits due to the decreasing utility of additional real income when they already had very high incomes. For instance a family whose company doubled its dividend payments to them from £2-4m would derive little additional benefit. Such considerations would reinforce any tendency to towards the emphasis on service rather than profit, a motive which was apparent among many British shipowners. Sir Percy Hunting declared: "Money, however, is not everything and we are shipowners". Being a shipowner was apparently an end in itself (Hunting, 1968, p109).

The problems of low profitability, its causes and its deleterious effects raises important questions as to whether foreign shipowners were also affected by low profits and, if they were, why in some merchant marines was the impact less damaging. Unfortunately, throughout the post-war years there were manifest problems with international profitability comparisons. Indeed the Rochdale Inquiry, despite the resources at its disposal, concluded that "there was insufficient information available to enable a proper comparison to be made" (Cmnd 4337, 1970, p339). D.H. Aldcroft while agreeing that direct supporting evidence was lacking did

state that "there is enough indirect evidence to suggest that it (the profitability of foreign shipowners) was somewhat better than the returns earned by UK shipowners" (Aldcroft, 1975, p244).

Certainly financial information on foreign companies was difficult to come by. In particular such disclosures on the many private companies usually only occurred if they were in severe financial trouble and so attracted the attention of the financial media. Secondly foreign accounting conventions have varied widely so that the basis of apparently similar financial statistics was often not comparable. Fortunately considerable information was available on some companies and in Japan's case its entire merchant marine.

The Japanese fleet was notable until the late 1970s for its very rapid growth, despite having been virtually annihilated in the Second World War. Its rebuilding began in the early 1950s but by the late 1950s the entire industry's profitability was minimal and most companies were not making proper provision for the depreciation of their fleets. In the early 1960s a Japanese survey concluded that "Ever since the end of World War Two the business performance of the Japanese shipping industry has been generally unfavourable" and noted that the industry produced overall losses of 1,486m yen in 1962 rising to 17,085m yen in 1963 as profitable tanker charters expired (Japanese Industries, 1966). Only government intervention saved the industry from wholesale collapse, a situation which never occurred in Britain. Even in 1966 the six largest companies which had not been amalgamated into the six large groups were still losing money. Though improving trade conditions brought a general return to profits, these were apparently low. MOL, one of the strongest large lines, published returns on turnover averaging only 1.6 percent in the strong markets of 1967-73. However, Japanese accounting procedures may mean the profits included are only those distributed to shareholders.

This would explain the curious fact that MOL's returns fell only slightly to an average of 1 percent in 1974-83, despite the severe depression (Tatsuki and Yamamoto, 1985, pp127-199).

By the early 1980s the whole Japanese merchant marine was again in crisis. The giant tanker owner Sanko having, like Japan Line, narrowly avoided bankruptcy in the late 1970s did collapse in the early 1980s and had to be rescued. By 1986 only NYK among the six main groups was producing even marginal net profits (FT 3.6.87). Smaller companies like Nakamura Steamship had gone bankrupt while others like Nisshio Iwai had sold their ships (MN 4.86; Japan Economic Yearbook 1960-81).

For other individual merchant marines less information is available. Scandinavian shipowners' profitability was probably higher than British companies' in the late 1940s and 1950s due to their greater involvement in the profitable tanker markets and their use of more efficient ships like bulkers and larger tankers. Similar factors benefited the large FOC operators like Naess, Niarchos and Onassis who also had the additional benefits of lower taxes and manning costs. In the depression from 1957 their more efficient ships and low costs still provided an edge in profitability over British owners and the more farsighted like Naess were aided by a considerable degree of market insulation. In 1965 Danish and Dutch shipowners achieved operating profit returns of 8-9 percent, comparable to British shipowners 8.3 percent. When good conditions returned in 1967 FOC shipowners with modern tonnage and lower costs would have reaped greater profits than their British counterparts. However the latter had now caught up with Scandinavian shipowners technologically and had an equivalent cost base which should have brought similar profit levels. Finnish and French shipowners recorded 6-7 percent returns on operating profits in 1970, while Japanese, Dutch and Norwegian companies earned 13-15 percent. Only the German industry was in poor financial

shape, with 3 percent average losses, possibly due to the impact of containerisation (MT 1973, p96-97). In comparison British companies' returns on operating profits were 9.7 percent in 1968 (Cmnd 4337, 1970, pp460-461).

After 1973 the numerous foreign shipowners with no cover against falling markets and rising costs fared badly. Colocotronis and Hellenic of Greece for instance were bankrupted and the large FOC operator Gotaas Larsen suffered heavy losses (GL ARs 1979-81). The Norwegian industry had to be bailed out by the government to avoid further terminal disasters like Rekstens. The more prudent Danish firm Lauritzen produced average returns on turnover of 6.7 percent in 1976-81. However Hapag-Lloyd did less well earning only 2.5 percent, less than its British equivalents like Cunard and P&O (Times 1000 1975-82). From 1982 it performed very poorly while Nedlloyd, after massive losses in 1983, averaged only 1.8 percent in the next five years (Nedlloyd ARs 1987-88). Similar poor profitability afflicted some large Scandinavian shipowners. Brostrom produced losses in four years in 1983-87, while another Swedish giant, Salen, collapsed (Brostrom AR 1987). In Norway Hoegh was unable to pay its debts in the mid-1980s while Bergesen lost money in 1984 (Bergesen introduction document). In Denmark Lauritzens produced a 0.4 percent average loss in 1982-87 though Maersk remained profitable, its British subsidiary's pretax return averaging 7.6 percent in 1985-87. Severe losses were not restricted to Europe in the early 1980s, as evidenced by the chronic financial problems of many Hong Kong Chinese shipowners (Chapter 4c).

Thus foreign operators frequently suffered poor profitability similar to that experienced by British shipowners in the post-1973 depression. This begs the question of why did they not leave the industry in the fashion of British companies. One reason was that their financial markets were more tolerant of long term losses than their British counterparts as

evidenced by the continued support proffered to Japanese shipowners despite their dismal record. In Scandinavia the extensive crossholdings between many companies and supportive institutional shareholders meant they were less susceptible than the British to the opinions of the financial markets. Certainly the UK stock market took an increasingly dim view of the shipping industry in the long depression, an attitude neatly summed up in the 'Questor' column: "The stock market is not used to hearing good news about shipping. Investors have taken the view that companies should get out of the business" (DT 22.7.89).

It was notable that British companies which were either private or majority owned by the founding families (like Graig, Ropner and Runciman) and could hence afford to ignore the financial markets were much more likely to stay in shipping. This also applied to the numerous large foreign private shipping companies which were only liable to outside interference if they could not pay their creditors. Though only fragmentary information is available on private British operators this indicates that their financial record was often poor. The Andrew Weir group for instance produced returns on turnover averaging only 3.7 percent in 1978-86. Denholms, which was primarily a ship management business, produced similar three percent returns in 1983-84. Bibby however produced a 4.9 percent loss rate while the Vestey's shipping interests earned only 1.7 percent on turnover in 1985-86 (Times 1000 1978-88; Directory of Directors 1989). Such poor results explain their inability to expand as the depression ended in contrast to companies like Bergesen which had maintained strong liquid reserves which they were able to use to acquire vessels at low prices (Bergesen introduction document, 1988).

Profitability figures brought together the effects of shipowners' policies and other factors such as markets. Though the early post-war years were a good period for shipping it was apparent that profitability

was low in comparison both to the more progressive foreign operators and other British industries. In the depressed markets of 1958-66 British shipowners' profits fell still further. This in turn influenced their poor growth record, as the Merchant Navy relied upon internal funds which came from retained profits. It also led to the disenchantment of the financial markets and investors and hence was likely to deter potential entrepreneurs who were badly needed. For foreign shipowners their better performance in earlier years was likely to make shareholders and financial institutions more supportive. Though British shipowners profits rose from the depths of the early 1960s, after 1973 they began to fall again and public companies came under great pressure to either cure their lossmaking habits or abandon an industry which was in increasing disfavour. Though some did manage to produce a return acceptable to the stringent standards of the UK financial markets many others left shipping for more remunerative waters (section 6e). While the private companies, which did not have to contend with these outside pressures, were better able to tolerate the losses [and in some family companies more willing to do so (section 6f)] their profitability was low, one reason for which was the lack of external forces requiring better profits. Thus they were unable to expand at the end of the depression as many foreign companies did. The latter's ability to expand once more reflected the lower costs and more modern fleets of many, resulting in better profits and hence resources for investment, and their willingness to risk additions to their fleets.

CHAPTER SEVEN

Tramp Company Case-studies

In the heyday of British shipping up to 1920s one of its two main elements was the dry cargo tramp fleet. This was made up of numerous independent family concerns, the continued attrition of which after 1945 was a major feature of the decline of the Merchant Navy. This chapter comprises case-studies of three family controlled tramp companies. Each evolved differently, shedding light on different aspects of the reduction of the British merchant fleet. Further, the case-studies enable us to relate the themes of Chapters 2 to 6 to specific operators and show the way they interacted.

The first section covers the Albyn Line of Sunderland up to its liquidation in 1971. In common with many other small concerns, like Mungo Campbell and John Cory & Sons, it never fully recovered from the debilitating effect of the Second World War and eventually faded away. Their failure to respond successfully to the changing technology and markets of the post-war years, areas in which the Albyn Line tried harder than many, contributed much to the decline of British tramp shipowners.

The history of London & Overseas Freighters (LOF) studied in section 7b differed radically from that of the Albyn Line. It was the most expansive British independent tramp operator in the 1950s and was also innovative in both technology and markets. Behind these dynamic policies lay a vigorous management. Uniquely control lay in the hands of a British national of Greek origin, which provides an insight into the ability of the Greek shipowners to grow so much more rapidly than their British counterparts. However, LOF also shows the dangers attendant upon such vigorous companies. Its difficulties in 1958-66 paled in comparison to the near bankruptcy of the 1980s. But this period also revealed the

managers' determination to stick with their traditional industry, a major factor in the Greeks' maintenance of a far stronger presence in shipping by the late 1980s than the Merchant Navy.

The last case-study (section 7c) examines Ropners, one of a number of larger British tramp operators similar to Reardon Smith and the Stanhope SS Co. Though it did not regain its pre-war size in the 1950s it was, like LOF, a user of advanced ship types and tried new market sectors. Its experiences of the slump from the late 1950s showed that even these policies were not guarantors of long term success. This instigated successful responses in terms of both market insulation and diversification, the lack of which among other British shipowners contributed to their demise after 1973.

7a) The Albyn Line 1945-66.

i) Technology.

The Albyn Line's original tramps of 1902 were, at 4,000grt and nine knots, large and fast for the time. However the Thistleford (Br 4,898grt/40) built 38 years later was only marginally larger. Though the two ships delivered in 1942 were also only capable of 10.5 knots they had substantially more capacity at 7,250grt (10,200dwt). Another improvement was provision for heavy cargoes with one 40 and one 50 ton derrick while one hold had a collapsible bulkhead to accommodate outsize items and the steel hatchcovers could support heavy deck cargo (RS 1956-57). Such specialised equipment could bring considerable competitive advantages and featured on some advanced post-war tramps like the Derrycunihy (Br 10,200/44) (SMEB 1.45).

The post-war newbuildings had a different specialisation as supplementary cargo liners. Instead of heavy derricks ten smaller ones of seven to ten tons were fitted though other operators believed heavy lift

gear could be attractive to charterers. The King Line's King Charles (Br 9,570/57) for instance had a 50 ton derrick. However, a more serious problem by the late 1950s was their 13.5 knot speed which, though a substantial improvement over their predecessors, was still less than that of older competitors like Watts & Watts' Wanstead (Br 8,590/49) which ran at 15 knots. Despite this, the Thistleroy (Br 11,784/60) of 1960 still had the same low speed and retained the central hatch surrounded by superstructure which made access for cargo handling difficult. Thus by 1963, though the fleet was modern with an average age of seven years, more advanced tonnage was needed, though a decision was rendered problematic by the possibility of containerisation and the encroachment of bulkers in the dry bulk trades.

ii) Markets.

When government rate controls were relaxed the high market rates were reflected in average trading profits of £95,000 in 1946-50. However, the war had negated the Albyn Line's efforts to expand since four of the seven vessels on order or operating in 1939 were lost. The small fleet and the lack of new additions restricted the benefit that could be gained from high rates. This was also true of the Korean War boom which saw profits jump to £291,000 in 1951. Unfortunately, immediately before the war the 22 year old steamer Thistleford (Br 4,809grt/28) was sold as it was difficult to trade profitably at the low rates of early 1950 (DMB 2 2.2.50, 12.4.50). Though a sound decision at the time, had the ship been retained it could have been highly profitable or sold at an inflated price. The trading pattern changed by 1953, with grain as the most important cargo together with phosphates and sugar, while the pre-war staple, coal, was now an occasional cargo on a par with sulphur and ore. The two tramps with heavy gear found that this attracted business such as

the transport of tanks to Korea (Burrell, 1987, p31; National Maritime Museum Archives Directory).

The shortage of tonnage also brought charters from lines like Mitsui and OSK which had not yet replaced their wartime losses. The Thistlemuir (Br 10,200/42) also obtained a 29 month timecharter in Australia to May 1954 and a second for 32 months from August 1957, the latter being aided by the ship's heavy lift capability, a field in which the charterer (the Strick Line) specialised. The advantage of stable and profitable income from the charters certainly influenced the decision to concentrate on such work, the first new ship obtaining a six year charter from 1955. However, its speed caused problems as the charterer, Port Line, used 15-17 knot ships and specified that the Thistledowne (Br 10,200/53) should run at 14 knots. This meant it had to run flat out and be drydocked twice a year to keep the hull clean (Burrell, 1987, p37). Indeed the Albyn ship was slower than the six other tramps with similar charters, all being capable of at least 15 knots (Russell, 1985, pp134-146). A likely explanation for this anomaly was that the Port line's chairman was related to the Albyn Line's owners and hence favoured a family ship. The relationship with the Port Line may also have brought contact with another Australian trade line, the Avenue Shipping Co., which chartered the Thistledhu (Br 11,522/55) from 1957-60. As its vessels were slower at 13-14.5 knots, the Albyn ship was well suited to their fleet (Le Fleming, 1961 (1), p6).

By 1954 trading profits were halved from the £214,000 of 1952 due to the end of the Korea boom but picked up again rising to £573,000 in 1956 and £406,000 in 1957. However, the depressed tramp trades reduced profits to £157,000 in 1960 and as the two charters ended results slumped to a mere £22,000 in 1962. The reduction in liner cargoes made replacement charters few in number with charterers preferring competitors' faster

vessels. In 1960-66 the new Thistleroy (Br 11,784/60) obtained only three single voyage charters to lines and carried mainly traditional tramp cargoes like phosphates and grain (Burrell, 1987, pp64-66). Rates on these had increasingly to equal those of the more efficient bulkers which in poor markets meant losses for the Albyn Line. Thus the profit recovery to £103,000 in 1965 was likely to be only a temporary reprieve.

iii) Operating Costs and Finance.

The crews of the post-war newbuildings had increased from the 30 of the Thistlemor (Br 4,008grt/06), the Thistledowne (Br 10,200/53) having accommodation for a crew of 40 (Burrell, 1987, pp14,32-33,40). However, this was a low figure for a post-war vessel particularly as it included two boys and four apprentices. Even so paying and feeding the crew accounted for a fifth of operating costs (Table 7.1). This economy reflected in part the use of diesel engines requiring only three greasers compared to the eight to ten firemen on coal fired steamers. The main increases were in the expensive officers, from seven on pre-1914 tramps to nine plus a radio operator. The catering staff had also increased from three to eight (a fifth of the crew!), an indication of the cost of improving seafarers' conditions on post-war ships. The shortage of the British seamen used by the company was also influential in improved accommodation with all but the apprentices having single cabins.

The Albyn Line did experiment with diesel propulsion in 1925 but though technically successful the Thistleros (Br 4,615grt/25) was sold in 1928, apparently due to difficulties in getting motorship engineers (Burrell, 1987, p19). Thereafter the company reverted to the less economical steamship until, in line with the general recognition of the advantages of diesels for moderately powered ships, Doxford engines were chosen for the three post-war newbuildings. Despite their economy fuel

Table 7.1 Operating Costs of Thistledowne on Five Return

Voyages in 1953-54.

<u>Cost category</u>	<u>Cost (£)</u>	<u>Cost (%)</u>
Management	1,145	1.2
Insurance	11,926	12.4
Stores	3,861	5.7
Wages/provisions	19,118	19.9
Fuel	26,306	27.4
Stevedoring	14,181	14.9
Port charges	12,434	13.0
<u>Agency/commissions</u>	<u>5,227</u>	<u>5.5</u>
Total	95,854	100.0

Source:- compiled and calculated from Albyn Line Voyage books.

was still the largest single operating cost. But it was closely followed by charges and stevedoring fees incurred in port to which a proportion of the manning and insurance costs had to be added (Table 7.1).

The company's first ships were paid for by the issue of ordinary shares and mortgage debentures (DMB 18.7.01-1.7.10; SMB 10.9.01). Thereafter internal finance was used as profits accumulated, but while this was a viable and low risk policy before the war it did not cover the increase in building costs. The Thistledowne (Br 10,200/53) cost £420,000 in 1953 compared to £115,000 for the pre-war Thistlegorm (Br 4,898grt/40). The problem was worsened by the repetition of the policy successfully pursued after the Great War of waiting until prices had fallen when £78,500 apiece was paid for two steamers, while Graig Shipping paid £140,000 for one in 1919 (DMB 1, 1.11.27-8.11.28; Graig AR 1979). As prices did not fall, retained profits could cover only part of the cost. Unusually for a British company the shortfall was made up by doubling the share capital to £400,000. The second vessel launched in 1955 was paid for by the more conservative means of retained profits and the sale of investments worth £211,000. Prices continued to escalate, the third tramp costing no less than £900,000 of which only £129,000 was covered by the sale of the two wartime ships.

While in the early 1900s ships from the numerous local builders were keenly priced, all six tramps built after 1929 came from the local J.L. Thompson & Sons group. Though post-war orders were placed after receipt of various tenders in 1950, there was a considerable delay before delivery - nearly four years for the second vessel (DMB 2, 13.7.50-5.1.54). Like other British shipowners, they might have benefited from using foreign yards. However, the directors did attempt to overcome the delivery delays by trying (unsuccessfully) to buy a second hand ship in 1953 (DMB 20.8.51). The conservative policy of relying on internal finance was a

likely factor in the decision to close the company as the new ship types that were needed had a high unit cost and would have required either a massive outlay by the shareholders or the use of loan finance. Further, by selling the tramps in the rising prices of 1966 a premium of 43 percent over their book value was obtained from the buyer, Chapman & Willan, and the shareholders benefited from the distribution of the proceeds.

iv) Government.

While government subsidies had aided the company in the inter-war slump, during the war rate levels were fixed (DMB 1, 31.5.35-2.9.36). In Great War the absence of such rate restrictions had allowed the Albyn Line to make a profit of £213,000 in 1916 compared to £39,500 in the boom of 1912-13. However, Government rates in the Second World War allowed an annual profit of only £12-13,000 in 1940-42 and though the average rose to £37,000 in 1943-45 this was far lower than the £65,000 made in the 1937 boom. Thus government policy prevented the company from accumulating sufficient profits to rebuild its fleet. Further, the burden of corporate taxation rose with taxes and auditors fees reducing profits from £365,487 to £206,588 in 1954 though the position improved as investment allowances were increased (SMB 28.5.54). The shareholders were also affected by the rise in estate duties. Until the late 1940s the duty the Joiceys paid on their Albyn shares was minor compared to that on their massive investments elsewhere though there were still time-consuming disputes with the Inland Revenue over the value of the unlisted shares (Shareholders correspondence 1941, 15.12.52, 6.1.53). By 1960 the possibility of incurring estate duty was more serious as Lord Joicey was 80 and the duty on the shares would be difficult to pay, providing another reason for liquidation.

v) Ownership and Corporate Structure.

When the Albyn Line was established in 1902, 75 percent of the share capital came from the colliery owner Lord Joicey. However, the chairmanship and active control of the company was vested in Sir William Allan whose main business experience was as a marine engine builder. Thus a third junior director, William Black, the head clerk of the shipping company James Westoll, was recruited to provide shipping expertise and as a partner in the independent management company Allan, Black & Co.. Unfortunately Sir William died in 1903 and the chairmanship passed to Lord Joicey. However the amount of attention he devoted to the concern was limited by other commitments including the control of inter-war Europe's largest colliery business, regional newspapers and railway company directorships (Hall, 1985, pp521-522). Thus he did not have Sir William's personal interest in expanding the Albyn Line and the former's son W.B. Allan and the other junior director, William Black, were hardly in a position to disagree with the great coal magnate.

By 1945 the two managers had died and had been succeeded by their sons K.W. Black and W.B. Allan, both aged 38. However, their freedom to develop the business was further restricted by a 1945 agreement whereby all the income of their separate management company accrued to the Albyn Line and the Joiceys had to agree to any contracts covering ships not owned by the Albyn Line. Thus they could not manage ships they might buy themselves or expand their business by getting outside ship management contracts. Apart from running the small Albyn fleet, the only ship management work they undertook was to run the three colliers owned by the Joiceys via the Tanfield SS Co. which were sold in 1953 (DMB 2 3.7.50; RS 1950-51, 1953-54).

The reason for the sale of the colliers was the nationalisation of the Joiceys' colliery empire in 1947. Since 1940 this and the Albyn Line

had been headed by the third Lord Joicey. The latter had, after attending Harrow, become a professional soldier, serving in the Boer War with the 14th Hussars and in the Great War with the Lifeguards, perhaps not the ideal training for the head of a great business empire (Burkes Peerage, 1975, pp1458-1459). His interest in commerce could hardly have been increased by the nationalisation of the family collieries and certainly his contact with the Albyn Line continued to be confined to appearing at the annual general meeting. His son Michael, after the standard family upbringing at Eton, Oxford and the Coldstream Guards, joined the board in 1951 at the age of 26. Unlike his predecessors he played an active part in the management as the bigger companies, which would otherwise have absorbed his attention, had gone (DMB 2).

While the directors and policies were equal to running the company in its traditional path, by the early 1960s major decisions on the future had to be made. Further, W.B. Allan and K.W. Black, upon whom the main burden of management fell, would both be 60 in 1966 and looking to retirement. Apart from Michael Joicey there were no young family directors in a firm that had never had a non-family board member. The directors were sufficiently unsure of the right path to ask the advice of another shipowner (who was also a shareholder) related to the Joiceys (letters 26.10.56, 23.6.62). R.H. Senior, head of the Port Line, was in the usual mould of British shipowners. A twice decorated former brigadier, keen sportsman and racehorse owner he had served the Port Line throughout his working life (DT 4.4.88). Though his reply is not known, it can hardly have been encouraging. When market conditions improved sufficiently for a good price to be obtained for the ships the directors resolved that "it is desirable that the Company should be placed in voluntary liquidation", a process completed in 1971 (DMB 2 15.12.65).

The Albyn Line was a good example of the widespread failure of British tramp operators to rebuild their fleets after the losses of the Second World War. These and problems like their shortage of funds due to poor markets before the war and restricted profits during it were outside their control, as was the massive increase in shipbuilding prices post-war. But their attempts to meet this challenge by their traditional policies were not only inadequate but, by delaying embarkation on rebuilding programmes, actually made matters worse. The unwillingness to investigate new avenues such as loan finance and the use of foreign yards compounded this. The Albyn Line was more innovative than many in exploiting the growing market for charter cargo liners which also offered some protection against the volatile spot market. However, the technical designs proved to have considerable competitive shortcomings as the market slumped from 1957. The continuous buffetings of the inter-war depression, the loss of the rebuilt fleet in the war and the difficulty in trading the ships after 1957 sapped the will of the directors, while the likelihood of heavy death duties worried the shareholders. Like many operators they found no prospective directors in the controlling families and did not bring in outside talent to make up the deficiency. The result, as the existing directors retired, was the end of another of the myriad of small companies which had formed the backbone of the British tramp fleet.

b) London & Overseas Freighters and the British Greek.

i) Technology.

The mainstay of LOF's operations from 1950 was its tanker fleet. The main design feature of the ships delivered from 1950 was the increase in the size of successive classes. The tankers ordered in the late 1940s were of 15,000dwt or 18,000dwt and were followed in the early 1950s by vessels of 24,000dwt and finally a group of 33-36,000dwt with one ship of

40,500dwt [the exception being the Overseas Adventurer (Br 19,770/63) the size of which was determined by the requirements of a specific charter]. Thus LOF showed a greater degree of technical advance than most other British independent operators who concentrated on tankers of up to 20,000dwt. However the company's fleet did not compare with the most progressive foreign operators who were building tankers of up to 100,000dwt (Chapter 2a). Though LOF's moving spirit, Basil Mavroleon, considered building such ships in the mid-1950s, he believed the theoretical operating cost advantage over four 25,000dwt ships was unproven. Further, he was deterred by the limited number of terminals and drydocks which could handle such ships and their supposedly high accident rate, as one mishap could eliminate a large part of the fleet. Thus it was decided not to build tankers larger than the 40,500dwt ship already on order (LOF AR 1956).

By 1965, however, LOF was complaining of the impact of foreign supertankers on freight rates. One answer was to enlarge the 32,000dwt tankers to 50,000dwt. However, LOF realised that the investment would be wasted as the ships would still be too small to compete (LOF AR 1964). A better solution was to order a ship of competitive size - the VLCC London Pride (Br 255,000/71). At the same time, the rapid move to VLCCs had led to a shortage of intermediate tankers which could trade to ports like those in West Africa which were too shallow for VLCCs. So LOF bought three 138,000dwt tankers in the mid-1970s and two of 62,000dwt in 1982. The latter had cargo heating coils for trading to cold ports and an inert gas system to prevent explosions and segregated ballast tanks to reduce pollution. These features, which were retro-fitted to the older ships, offered a competitive advantage over older tankers when more stringent regulations were introduced (RS 1985-86; IC, 4.12.81, 8.7.87).

Before the build-up of the tanker fleet LOF had owned 9,300-11,000dwt

tramps. Though some were standard wartime designs, those built to company account, including the London Banker (Br 10,200/42), had 40 and 50 ton derricks like the contemporary Albyn Line ships (RS 1956-57). Though these were sold in the early 1950s, LOF bought six much improved tramps in 1963-65. Like four similar ships cancelled in 1958, they were larger and faster at 15-16,000dwt and 16 knots. Two had 60 and 40 ton and the other pair 30 ton derricks and they represented the high calibre ships against which the Albyn Line competed in the 1960s. They were excellent ships: all six were still in existence in 1985 (RS 1985-86). However, the SD-14s delivered in 1972-73, lasted only six years in LOF ownership. This partly reflected their less impressive capabilities as they carried only light 5-10ton cranes and a speed of 14 knots. Nor were they suited to carrying containers and hence suffered in comparison to container capable ships

LOF also recognised the advantages of bulkers earlier than most British shipowners. The Overseas Courier (Br 27,814/60) ordered in 1956 was the largest bulker in the Merchant Navy in 1960 and was followed by the ore carrier Welsh Herald (Br 29,127/63) which had the new all aft superstructure (Sedgewick, 1977, p9). The viability of relatively small bulkers prompted LOF to convert its seven 24,000dwt tankers which were too small for the oil trades by the mid-1960s, a policy paralleled by others including Huntings (Hackman, 1969, pp27-28). This gave them a new lease of life until the mid-1970s when they were replaced by four standard 26,000dwt geared bulkers.

ii) Markets.

Though in 1948 LOF's backers' experience was in the dry cargo trades, they were not averse to entering new markets. Thus in 1947 the chairman Basil Mavroleon decided "that I should go into tankers. There was a world shortage" (Frischauer, 1973, p136). This move was made long before most

British tramp companies, and pursued with more verve. Rather than ordering one or two tankers, LOF had 12 on order or in service by 1951 and was sufficiently confident to end its dry cargo operations. The expansion in a strong market produced a rising trend in operating profits, peaking at £3,515,000 in 1957.

The downturn thereafter forced a drastic curtailment of LOF's expansion plans, not only in the tanker trades but also in the bulker and general cargo sectors. Profits fell, with the first overall loss occurring in 1962, a situation which persisted for five years. In the hope of ameliorating its problems, LOF joined the Intertanko Tanker Recovery Scheme in 1962 (LOF ARs 1962, 1963). However, despite this it was not until 1967 that LOF's trading position improved. From 1967 profitability was strong, though with considerable fluctuations, culminating in an operating profit of £5,714,000 in 1974, enabling a return to the rapid expansion of the 1950s.

The 1974 oil crisis ended the tanker boom and by 1975 all but one of LOF's tankers were laid up. The usually optimistic Mavroleon stated "In times of economic depression I have always felt confident that a boom would follow. This time I am not so sure" (LOF AR 1975). His conclusion proved accurate, for although the large tankers were reactivated in 1976 they continued to make heavy losses, the VLCC being laid up again in June 1977 after losing £2.3m. This was offset in 1974 by the strong profits from the dry cargo ships, but in 1975 dry cargo rates were halved. The situation continued through the 1970s. Thus in 1977, for instance, the £3m made by dry cargo trading did not prevent an overall loss of £296,000 (LOF ARs 1975-78). In 1979, however, better markets produced operating profits of £258,000, inducing Mavroleon to comment that "The outlook is one of quiet confidence and restrained optimism" (IC 3.7.79). Unfortunately, tanker and then bulker rates collapsed (the general cargo

fleet had been sold in 1979 due to its poor prospects), resulting in a trading loss of £6.9m in 1983. Though conditions gradually improved, LOF made operating losses for the seven years to 1987, returning to profit only in 1987-88 (LOF ARs 1981-88).

LOF's poor profitability in 1975-86 reflected the absence of the market insulation it had had in the 1950s. Its first 12 tankers had five to seven year timecharters from reliable charterers like Shell. The charters had an innovative format including clauses safeguarding LOF against rising operating costs and any devaluation of sterling, which could turn an initially profitable charter into an inescapable lossmaker (even so LOF's complaints in the mid-1950s indicate these problems were not wholly overcome) (Sedgewick, 1977, p7; LOF ARs 1954-55). LOF also grumbled at its inability to take advantage of rate booms. In 1956 one tanker on a consecutive voyage charter made double the amount a timechartered sistership made in three years (LOF AR 1956). However, in the late 1950s LOF's profits were much better than Ropners' which had little period cover (section 7c). In 1960 operating profits were still £3m compared with £3.5m in the 1957 boom. But the delivery of unfixed ships and the expiry of several good charters in 1962 cut operating profits to £873,000, making a net loss of £322,000 (LOF ARs 1957-62).

As charterers benefited from low spot rates they had little incentive to offer profitable charters, so apart from one ten year tanker charter and a 15 year BISC (Ore) ore carrier charter, LOF obtained no new period cover after 1957. LOF did at least get work for up to ten tankers for three to four years via a 1960 contract with Russia (Sedgewick, 1977, p9). Despite improving conditions from 1967 profits on available charters were low, and so LOF waited for a boom and more remunerative terms. Thus in 1970 the VLCC was fixed on a three BP charter producing profits equal to the ship's cost and was refixed in the 1973 boom for ten years at an

annual profit of £2m. But LOF was unable to fix the three new 140,000dwt tankers before the boom collapsed and in 1975 the VLCC's charterer, Newfoundland Refining, went bankrupt. So instead of profits which could have transformed LOF's trading position heavy losses were incurred. Nor was LOF able to replace expiring charters, so that except for the 1980-83 charters on the bulkers its vessels operated in the dismal spot markets.

iii) Operating Costs and Finance.

LOF had to offer excellent service conditions to attract experienced British tanker officers from the oil companies which were also expanding, though it did employ cheap Indian ratings. Fortunately LOF's own expansion enabled it to offer good promotion prospects. High quality officers were vital in attracting business, especially for the new cargo liners in the early 1960s. Like most British owners, LOF paid little attention to low manning before the 1970s. The bulker London Valour (Br 24,700/56) had no less than 19 officers and 39 ratings for instance. In 1955 14 percent of revenue went on wages, a proportion which rose considerably by 1964 (Table 7.2). This cost escalation was difficult to counter as the high turnover among the 500 officers meant continual expensive wage rises and improvements in conditions were needed to attract new men. However, LOF did keep down shore staff levels. In 1955 93 percent of its 800 employees were seafarers. As the scale of operations contracted in the 1970s considerable redundancy expenses were incurred: \$1,646,000 in 1986 with labour being cut to 14 percent of trading costs in 1987 (LOF ARs 1955, 1986-87).

LOF inherited a mixture of steam and motor tramps in 1948. The coal fired steamers were converted to oil while the new tankers were diesel powered. As larger ships were ordered in the 1950s more powerful steam turbines were used though their fuel costs were greater. Similarly the

Table 7.2 Costs as a Percentage of Revenue for LOF in 1955.

<u>Cost Category</u>	<u>Cost as % of Revenue</u>	<u>Cost as % of Total Costs</u>
Reinvestment	24.6	29.8
Depreciation	18.3	22.2
Wages	11.3	13.7
Fuel	7.0	8.5
Maintenance	5.6	6.8
Repairs	5.1	6.2
Tax	5.0	6.1
Insurance	5.4	<u>6.6</u>
		99.9

Source: -LOF AR 1955.

VLCC had steam turbines, LOF following general practice rather than innovatively using diesels. In 1957 fuel absorbed six percent of revenue, a similar proportion to insurance costs. But in the 1970s fuel cost escalation became a major problem prompting the disposal of the old steam turbine bulkers in 1976.

A massive financial burden of £12.75m was incurred by the 12 tankers LOF had on order in 1950 and the shipbuilders (Furness) refused LOF's London Greek owners credit due to their countrymen's renegeing on orders after the Great War. Since LOF was a new company it lacked the accumulated reserves of established British owners and had to sell its general cargo ships to pay for the tankers. Fortuitously buoyant markets produced good prices, the four ships sold in 1950 realising book profits of £359,914 for example. This was supplemented by insurance from war losses, reinvestment of profits and a £750,000 equity issue in 1949. Also Williams Deacons Bank knew the directors well and had a more enlightened view of their credit worthiness, providing a £2.4m overdraft facility. This was secured on the tankers as their timecharters meant that LOF could assure the financiers it had sufficient revenue to meet its commitments. A further indication of LOF's dynamism in overcoming financing problems was the furnishing of personal guarantees by the directors (Sedgewick, 1977, pp5-6; LOF ARs 1950-52; Frischauer, 1973, p137).

These efforts enabled LOF to expand far faster than most British tramp operators despite the escalation in shipbuilding costs. For instance, the London Loyalty's (Br 17,940/54) price rose from £775,000 to £1,028,000 (compared with £900,000 in continental yards) and took four years from order to delivery. These difficulties led to LOF's innovative switch to Swedish, German and Dutch yards for its 1956 programme of ten ships (253,500dwt) costing £16,760,000, whereas most British companies used domestic shipbuilders until the 1960s. LOF also set up joint

companies to obtain more ships than it could finance itself. For example London & Overseas Tankers was established with Philip Hill, Higginson in 1956 and ordered six tankers (200,000dwt) for £10m. Mortgage debentures for £750,000 were also issued in 1956-57. However, the trustees began to interfere with the directors' decisions, prompting the debentures' redemption in 1969. Thus by 1956 LOT had built up its fleet from nine to 12 much larger vessels with 19 (536,000dwt) more on order. Further, in 1957 Mavroleon made order enquiries for 20 additional tankers totalling 800,000dwt.

The disadvantage of the heavy financial burden was in increased losses in the 1960s depression. For instance, LOF's 1961 operating profit of £143,000 became a loss of £187,000 after interest and depreciation. Severe losses also came from chartering in three Norwegian tankers for five to ten years to provide extra capacity. They were delivered in 1960-61 when it proved impossible to cover the charter fees in poor markets, leading to a deficit in 1964 of £425,000 (LOF ARs 1955, 1964).

LOF's improving financial position in the stronger markets of the late 1960s saw renewed expansion using loans and joint companies. While LOF continued to use very competitively priced Swedish yards, smaller vessels were constructed at its subsidiary, Austin & Pickersgill (A&P) which kept finance payments within the group. The return to depression from 1973 saw the sale of ships with poor prospects, culminating in the disposal of 12 ships at a profit of £5,237,000 in 1977 (LOF AR 1977). Even with £15m compensation for the nationalisation of A&P LOF had to reschedule some loans. Despite this two tankers were ordered from Japan in 1980 for £34m. These rapidly absorbed LOF's considerable resources and the renewed depression meant the loans could not be paid off. Hence, like many other shipowners, LOF's policies and even existence were dictated by its creditors. An attempt to get a two year breathing space via an £8.6m

rights issue failed and eight ships had to be sold to meet finance payments. It was not until its creditors Sumitomo and Sumisho were paid off in the 1988 restructuring that LOF was safe from liquidation.

iv) Government.

In 1951 LOF became a public company to "avoid the difficulties experienced by private companies in raising finance as a result of the law relating to profits' distributions and death duties" (Sedgewick, 1977, p7). LOF also complained at profits tax which rose from negligible levels in 1950-55 to £1,110,000 on profits of £3,515,000 in 1957. However, from 1957 this loss of potential investment finance was cut by the increase in investment allowances so that only £535,000 of the £2,696,000 profits went in tax in 1958. While LOF regarded this as a limited measure, the introduction of investment grants in 1966 reduced the price of the VLCC from £9.5m to £7.5m while free depreciation eliminated LOF's tax bill until the late 1970s.

By the mid-1950s despite the emphasis on LOF's British character two Bermudian subsidiaries (LOT and LOBC) were established, enabling profits to be reinvested without being taxed, a common ploy by British owners. But LOF was unique in transferring four tankers to a Liberian subsidiary under the Greek flag in 1965, allowing their retention for five years due to reduced operating costs (LOF AR 1964). As other British shipowners claimed they were legally unable to follow suit, LOF probably benefited from its unique Anglo-Greek character. It is notable that the ships were managed by the independent Greek family company Mavroleon Bros. (ISSD, 1969, pp48-49). Surprisingly LOF kept its ships on the main British register in the 1980s. This may reflect its 1979 experience of closing Seagroup (Bermuda) due to the Bank of England requirement that payments had to be made via the investment dollar market.

More general government policies also affected LOF. For instance in 1968 the devaluation of sterling raised operating costs and increased annual loan repayments by £200,000 (IC 2.8.68). LOF was also hit by American discrimination when its ships were sent to Cuba by Soviet charterers in the early 1960s. Despite a compromise with the US government LOF continued to suffer from unofficial action by longshoremen (Sedgewick, 1977, p10).

v) Ownership and Corporate Structure.

LOF was established in 1948 by taking over family shipowning companies like the Tower SS Co., though Counties Ship Management still ran the fleet as LOF concentrated on tanker operations. It was both a managing and owning entity though a number of shipowning subsidiaries and associates were established. LOF gradually acquired full control of the latter but all were liquidated in the 1986 restructuring.

In 1957 LOF diversified into shipbuilding by acquiring a half share in A&P to secure building berths. Even so there was still a four year wait for delivery and the yard was an odd choice as it could not build the large tankers LOF wanted without a £3m modernisation programme. The utility of A&P was further undermined by the depression which meant the controllers had to place orders to keep the yard occupied, for instance the five ships built for Mavroleon Bros. in 1961-68. A&P's losses were also a drain on LOF until the late 1960s when it became profitable. Strong profits continued up to 1976 when shipbuilding profits of £3,465,000 offset shipping's £1,544,000 loss. In 1977 the yard was nationalised, but its losses from 1979 showed it to be a dangerous diversification following rather than offsetting shipping depressions. Further, LOF bought A&P's standard designs, which soon became difficult to trade, to stimulate orders. Similarly a preference for using A&P may

account for the small number of large tankers acquired by LOF as A&P was limited to 70,000dwt ships (Hilditch, 1987, pp10, 9-31).

LOF's shipbroking and insurance subsidiaries remained confined to internal business but the group did acquire oil exploration and executive jet interests in the mid-1970s. Unlike Ropner these were treated as sideline investments rather than bases for genuine diversification and were sold in 1981 to support the shipping business (LOF ARs 1976-82; IC, 1.3.75, 25.3.77, 3.7.81).

The loyalty to shipping reflected the longstanding maritime traditions of the Mavroleon and Kulukundis families, similar to the beliefs of old style British shipowners. Both families originated on the Greek island of Kasos. In 1921 Manuel Kulukundis emigrated to London where he set up the shipping company Rethymnis & Kulukundis (R&K), taking on his cousin Basil Mavroleon as an office boy. Mavroleon's ability saw him become a partner in the late 1920s. Unlike other London Greeks he became so enamoured of Britain as to become a naturalised citizen and to set up Counties Ship Management under the Red Ensign in 1936. Sentiment was also influential in the establishment of LOF, a British public company, whereas his compatriots preferred low profile private companies they could run without outside interference.

Initially LOF was controlled by the Mavroleon and Kulukundis families which still had a 60 percent stake in 1960. Basil Mavroleon ran LOF and was joined in 1956 by his son Bluey whom he brought up as an English gentleman. Bluey not only became managing director in 1965 but with his brother Nicholas also established Mavroleon Bros. which by 1969 ran 13 ships. Basil Mavroleon also had other shipping interests including Cambridge (Tankers) and Malcolm Ore Carriers while the Kulukundises ran R&K and Counties (which operated at least 20 ships in 1959), J. Kulukundis having autonomous control of Burmah Oil's enormous tanker fleet in the

early 1970s (Burmah ARs 1970-78; Directory of Directors 1972, 1974).

LOF's family character did not prevent the rise of talented non-family men. In 1976 S. Sedgewick, who had joined LOF in 1948, became managing director in place of Bluey Mavroleon who, unlike his pro-British father, felt "the older I get the more I feel drawn to Greece" (Frischauer, 1973, p144). His appointment reflected the five Kulukundis brothers' increasing age while Basil Mavroleon died in 1979 aged 78. Though M.E. Kulukundis took over as chairman, he was replaced in 1984 by Derek Kimber. The latter though not a family member had been previously associated with LOF as head of A&P. However, given the state of the tanker market, his scope for rehabilitating LOF was limited.

By 1986 the group had shrunk so much that four directors resigned to reduce head office costs, leaving Kimber and two younger Kulukundises [who also ran R&K which still operated two bulkers and five tankers in 1987 (LSI 23.11.87)]. LOF's pretax losses rose from £810,000 to £1,910,000 in 1987-88, forcing a further restructuring of the group by a rights issue to pay off the crippling loans. However, given LOF's record the shares were less than popular and the Kulukundises, who underwrote the issue, ended up with most of the stock. Ultimately this proved fortunate as the improving market and the absence of loan repayments meant a return to profitability, increasing both share and ship values dramatically (LOF AR 1988-89).

The salient feature of LOF was its wholehearted adoption of the tanker market and its massive expansion from 1948. This unique success for a British tramp company reflected its management by an entrepreneurial Greek rather than staid Britons. In contrast to the Albyn Line, challenges such as rising ship prices were innovatively and successfully approached. Like British shipowners before 1921 Mavroleon was prepared to take risks and reaped the benefits. However, LOF also shows the negative

side of such dynamism, particularly in the 1980s when it staggered from crisis to crisis while diversified companies like Ropner survived. While Ropner combined continuing shipping interests with its other businesses, LOF like most Greek, Norwegian or Hong Kong operators was a shipowner rather than a general business. Thus unlike many British operators they lived or died by the fortunes of the shipping industry so that, while some collapsed and most were in severe financial straits, when the markets finally improved they were still shipowners while British shipping companies were defunct or operating in other fields.

c) Shipping and the Ropner Group 1945-89.

i) Technology.

Ropners traditionally concentrated on general purpose tramps, and had been leaders in developing the trunk deck and long bridge designs from 1892 and 1910 respectively. In the inter-war years their new ships, like most British tramps, emphasised simplicity and economy rather than high speed or special equipment. The Seapool (Br 9,283/40) which ran at 10.5 knots was more advanced than the fleet's typical 8,500dwt and 9 knot ships, but like them possessed only light 3 or 5 ton derricks (RS 1955-56; Dear, 1986, pp61-62). After the war these vessels were supplemented by standard ships which at 10,550dwt and 10.5 knots represented some improvement.

It was not until 1956 that Ropners again took delivery of a tramp designed to their own specifications. The Troutpool's (Br 10,212/56) best feature was her high 15.5 knot speed, a considerable margin over the contemporary Albyn Line tramps. 1957 saw the delivery of the even more impressive Rushpool (Br 14,480/57) class. This very large tramp had its engine aft to free the most capacious part of the hull for cargo and had McGregor folding hatch covers and grain feeders to speed cargo handling.

Though capable of only 13.5 knots, the ships were successfully run until 1970 (MSWB, 1957, p46).

Ropners had also recognised the potential of the more efficient bulker, with two 17,000dwt vessels being followed by the Barlby (Br 24,780/62), at its delivery one of the largest bulkers in the Merchant Navy. However, Ropners did acquire one more tween deck tramp, the Willowpool (Br 12,950/60). The reason for the reversion to the less efficient design was the vessel's special features. Originally it had been ordered for other owners especially to carry up to 700 cars on decks which could be removed to carry bulk cargo (MSWB, 1961, p157). Ultimately its lower efficiency in comparison to bulkers forced its sale after only seven years.

In the 1960s and 1970s Ropners, like many British tramp companies, concentrated on larger and hence more economical bulkers. The Stonepool (Br 45,027/6) was followed by a pair of 108,000dwt ships in 1971-72 and two of 117,000dwt in 1977-78. All were ore strengthened and like most large bulkers were gearless, their designs reflecting the requirements of specific charters (as did the two 27,000dwt bulkers bought in 1982). However, the company's latest newbuilding, the Salmonpool (Br 43,108/82), was of a smaller gearless type seen as more suitable for the spot market (RS 1977-78, 1985-86).

Ropners also ran two small general purpose tankers from the 1950s, the Thirlby (Br 20,996/58) being a member of Shell's large 'H' class (SM 11.85). The Thornaby (Br 18,270/55), like many similar British vessels, found it difficult to compete with larger and more efficient tankers and was sold in 1966. There were also cargo liners built for the Ropner Line, the small size of the first pair (7,846dwt) reflecting the trade volume of a minor line on a short route. They had special features including double staterooms for twelve passengers and limited reefer capacity while the

holds had centreline bulkheads to prevent the grain carried on the return trip from shifting. While at 12.5 knots they were an improvement on the standard ships previously used, the second pair delivered in 1954 ran at 16 knots. They were also considerably larger at 9,300dwt but like their predecessors had only light five and ten ton derricks (RS 1975-76; SMEB, 10.50, 3.54). After the line's closure they proved too small to run profitably against larger tramps and bulkers and were sold (Ropner ARs 1960, 1964).

ii) Markets.

At its inception Ropners had concentrated on coal exports, first from the North East and later from Wales, with timber as a return cargo. However, after the war coal exports collapsed and in the early 1950s many ships operated in the Pacific (especially Australia). By 1959 the largest trade was from Europe to Eastern America, with ships also running to the Plate, West Africa and the Far East (Dear, 1985, pp12-13; Ropner AR 1949; LCI 12.59, p242). The generally good profits fluctuated in line with the market, rising from £286,000 in 1950 to £1,617,000 in 1952 but falling again to £311,000 in 1955. Thereafter the Suez boom saw operating profits rise to £1,584,000 in 1957. However, in the ensuing depression the eight remaining wartime standard ships were unable even to cover their operating costs and were laid up in early 1959 (Ropner AR 1958). Several of the smaller post-war ships also found it difficult to cope with the slump and British car exports failed to materialise to support the specialised tramp. Operating profits declined to a mere £163,000 in 1963 while at the net level profits were miniscule in 1960-61 and losses were incurred in 1962-64.

In the 1931 depression Ropner had benefited from the unusual long term contracts of three tramps to Dominion Coal of Canada, an experience

repeated in the post-Suez depression when three long charters sustained profits (Dear, 1985, pp63-64). It was the expiry of two charters in 1960 which caused the move into losses, but their earlier benefits lead to the new policy of concentrating on long term cover in the future (Table 7.3). The first move was the establishment of the Ocean Bulkiers consortium in 1965 with B&C, Buries Markes and Court Line. However, the prevailing low spot rates meant the contracts offered were "unattractive" and the consortium was never activated (Ropner AR 1964). In 1966 a relative of the Ropners introduced them to the Norwegian shipowning family Skaugens who were in the Norwegian Bulk Carriers consortium. The contact led to the delivery of two large bulkers in 1971-72 which were chartered to NBC (Dear, 1985, p138). A third vessel delivered in 1977 was instead chartered to BSC and a second ship was bought for a similar charter. The timecharters proved more successful than the consortium which was hit by the decreasing availability of remunerative freight contracts. This prompted the sale of the Rudby (Br 106,490/71) in 1980, while the second NBC bulker was rechartered to the Australian mining group BHP which was also the charterer of the two 27,000dwt bulkers bought in 1982.

The policy of concentrating on long charters was vital in maintaining the profitability of Ropner's shipping division when LOF and many others were in great difficulty. However, this success was compromised by the policy of keeping one bulker on short charters to reap the benefit of any freight boom. In 1977 for instance the Stonepool (Br 45,000/66) lost money and its successor the Salmonpool (Ba 43,103/82) was laid up shortly after delivery and made heavy losses in 1982-86. The ship accounted for most of the shipping division's profit fluctuations, losing £820,000 in 1983 with divisional profits falling from £1,969,000 to £1,372,000 (Ropner ARs 1981-88).

Market insulation via long charters was also important in the 1950s'

Table 7.3 Long Term Charters on Ropner Ships.

<u>Ship</u>	<u>Date</u>	<u>Charterer</u>
<u>Coalby</u>	1931-	Dominion Coal Co.
<u>Canby</u>	1931-	" " "
<u>Domby</u>	1932-	" " "
<u>Thornaby</u>	1955-60	BP
<u>Romanby</u>	1957-60	Vulcaan (Holland)
<u>Thirlby</u>	1958-81	Shell, extended several times
<u>Rudby</u>	1971-80	Norwegian Bulk Carriers
<u>Iron Somersby</u>	1972-86	" " " , sub-chartered to BHP (Australia)
<u>Lackenby</u>	1977-92	British Steel
<u>Appleby</u>	1978-93	" "
<u>Iron Kestrel</u>	1975-89	BHP, ship acquired in 1982
<u>Iron Kirby</u>	1975-89	" " " " " , charter extended after 1989

Sources:- Ropner ARs 1945-65, 1981-88;

Dear, 1986, pp63-64.

incursion into the tanker market. Both tankers were placed on long charters on delivery but the Thornaby's (Br 18,270/55) expired in 1960 and its subsequent losses were influential in Ropner's loss of interest in the tanker market, though the other tanker's charter to Shell lasted for no less than 23 years (Table 7.3).

Ropner's second new market was the entry into the UK-US Gulf liner trade in 1946. The idea was suggested by a shipbroker friend of Guy Ropner and the family seized it avidly. Unlike many liner routes it offered a good balance of cargoes with commodities like cement and machinery outbound and grain on the return trip. In line with usual British practice Ropners applied for associate membership of the North Atlantic conference and the local conferences from Britain and the Continent to the Gulf of Mexico. Probably due to the shortage of capacity and war losses there was little opposition, an indication of the considerable opportunities, missed by other British companies, to expand in the liner trades without provoking existing operators. Apart from restricting competition, membership allowed Ropners access to conference cargoes like sulphur and cotton. The company also began carrying passengers on an appreciable scale for the first time. This was highly successful in 1952-53 with berths being fully booked. However, as capacity increased and some important cargoes like cotton declined, trading became increasingly difficult. Together with rising competition, which the conferences did not forestall, it led to declining profits and the closure of the Ropner Line in 1956.

iii) Operating Costs and Finance.

Ropners stressed economy in their pre-war ships and stated that they "continued at sea during the depression long after more fanciful vessels were tied up" (Dear, 1985, p62). However, like most British companies

their crew sizes, and hence costs, had risen from 28 on pre-1914 tramps to 45 on those built in the late 1920s. The post-war ships were very economical in manpower, the large Rushpool (Br 14,480/57) had a crew of only 40 while the bulker Wandby (Br 17,170/59) was operated by 41 men and four apprentices, equal to the most economical Scandinavian ships. Cost containment was also evident on the 1950 cargo liners which despite having a crew of only 41 carried 12 passengers. This exceptionally low figure was achieved partly by the use of diesel engines which required only two greasers.

In the inter-war years Ropner's economising was extended to crew conditions which were described in Parliament as "a disgrace to the flag" (Hansard 14.12.34). But the accommodation was vastly improved on the post-war ships, all ratings being given single rooms for instance. Like other British shipowners Ropners followed its traditional practice which meant employing expensive British ratings rather than Lascars. When a Bermudian subsidiary was set up in 1956 Ropners emphasised it would use British crews. It was not until April 1987 that the Salmonpool (Br 43,108/82) was reluctantly recrewed to reduce its heavy losses, Ropners' scope for cutting costs on the long chartered vessels being limited by the requirement to man the ships chartered by BHP with Australians (Ropner ARs 1955, 1987).

Though relations with seafarers were generally good the company was hit by port disputes. The tramps could often avoid strike bound ports though the Bellerby (Br 10,150/44) was stranded in Hull in May and June 1955, incurring a loss of £20,000. But the Ropner Line, being tied to specific ports, was badly hit by the 1955 London dock strike. Port congestion was also a serious problem with two ships taking 23 and 19 days apiece to unload at Liverpool with all four ships losing a round voyage during 1955. This disruption of schedules, which deterred passengers and

shippers, was a vital factor in the line's closure in 1956 (Ropner ARs, 1954, 1955).

In the 1920s Ropners decided to stick with coal fired steamers due to their low capital and maintenance costs plus the wish to provide business for their important colliery customers. They did try various improvements to the coal fired engines but in the mid-1930s finally decided to buy steam turbine and diesel ships. After the war all new buildings were economical motorships and the wartime steamers were converted to oil fuel. The high cost of diesel prompted further economies through the use of cheap high viscosity fuel in the 1950s. However, using new technology was not always without problems. The Barlby (Br 24,000/62) was fitted with the first of a new type of Doxford engine. It proved a source of constant mechanical problems and was out of commission for several months in 1964. This led to the sale after only six years of what should have been a valuable addition to the fleet.

Ropners was particularly badly hit by war losses with only 11 of the 47 strong pre-war fleet surviving. In view of the massive rise in shipbuilding prices and Ropners' traditional policy of buying new ships when prices were low it might have been expected to follow the Albyn Line and wait vainly for lower prices. Instead, like Denholms, the directors foresaw the continuation of high prices and bought 15 wartime standard tramps in 1945-47. However, most of its remaining resources went into the expensive cargo liners. It was not until 1955 that new ships were built for the tramp trades and though three tankers, three bulkers and four tramps were ordered, the numerical strength of the fleet declined from 25 ships in 1950 to only four in 1970. Though Ropners were restricted by their concentration on internal finance, by 1959 they were beginning to exploit other sources including a £1m loan secured on the period chartered Thirlby (Br 20,996/58). The ship was also used as security for £1m of

debentures. These were privately placed to avoid the kind of problems LOF encountered with interfering trustees (IC 5.9.58.). Ropners continued to maintain strong cash reserves which enabled it to pay in part for the Stonepool (Br 45,000/66) at a low depression price. The remainder of the cost was covered by a loan, a method used on all the later ships. In 1982 all five vessels were largely financed via eight or ten year loans totalling £23,672,000 (Ropner AR 1982).

iv) Government.

Like many shipowning families the Ropners had a long history of political involvement with Leonard Ropner being one of the last shipowner MPs, holding Barkton Ash for the Conservatives until he retired in 1964 [his son J.V Ropner unsuccessfully stood for Bishops Auckland in 1964 and 1966 (Craig, 1971, p362)]. However, as a mediocre backbencher his ability to influence government policy was very limited particularly against the rising tide of taxation after 1945. This was particularly deleterious when William Ropner died in 1947 and massive estate duties were incurred. Unlike the Morels who preferred closure the Ropners were prepared to float the company in order to raise sufficient capital to survive. However, the loss of capital probably accounted for the curtailment of Ropner's rebuilding of the tramp fleet after 1947.

In conjunction with other shipowners the Ropners did achieve some success in influencing government policy on lesser issues: for instance the successful campaign against the proposed three percent Suez Canal levy to pay for its clearance after the 1956 war (Dear, 1986, p170). More important were the increased tax allowances granted from 1954, though the company also benefited from policies to aid the shipbuilding industry. £1,020,000 of the £1,680,000 cost of the Stonepool (Br 45,000/66) was met by a low interest loan from the Shipbuilding Credit Scheme, for instance

(IC 7.8.64).

Robert Ropner was also a vociferous campaigner against FOCs in the 1950s. The lack of government action in support of this led to the establishment of Ropner (Bermuda) in 1956 to allow profits otherwise lost in taxes to be reinvested. The wave of such moves by British owners prompted the government to raise financial aid. These were sufficiently attractive to persuade Ropners to own the Thirlby (Br 20,996/58) in Britain rather than Bermuda to get the investment allowance (Ropner ARs 1955, 1956). Ropners may also have been influenced by their sentimental attachment to Britain. It was not until heavy losses had been incurred for five years and government aid withdrawn in 1984 that the Salmonpool (Br 43,108/82) was reluctantly flagged out to the Bahamas in April 1987 (Ropner ARs 1982-87).

v) Ownership and Corporate Structure.

The group was established in 1874 as Robert Ropner & Co. which later became the management company for the limited liability shipowning companies Pool Shipping (1916) and Ropner Shipping (1919) and was restyled Sir Robert Ropner & Co. Ltd. In 1948 the public company Ropner Holdings was established to take over the two shipowning companies though the management company remained private and independent until 1972 when it became part of the main group. The early 1970s also saw the group restructured into a number of operating divisions and was it renamed Ropner PLC in 1982 (SEOYB 1983-84, p591).

Involvement in non-marine industries (Table 7.4) was not new for Ropners which had originally been mainly a coal and ships agency and timber importer. While this side gradually petered out, Ropners from 1888 to 1925 was also a major tramp shipbuilder, filling the yard with its own vessels when prices were low and orders scarce. Renewed interest in other

Table 7.4 Salient Non-shipping Activities of Ropner Group.

<u>Date</u>	<u>Name</u>	<u>Activity</u>
1888-1925	Ropner & Son	Shipbuilding
1945	Shipping Airlines	Aircraft operator (never operational)
1946-50	Chartair	Charter aircraft operator
1947-88	Airtech	Aircraft engineering, later electronics
1947-69	Elton stores	Ships chandlery and general store
1950-66	Eggar Forrester	Shipbroking and chartering
1959-	Hozelock	Garden equipment manufacturer
1960-	Ropner Insurance	Insurance
1963-	Greyland Finance	Hire purchase and later property
1963-	E.R. Wood	Lloyds insurance brokers
1968-	Greytown Property	Property development
1978-	F. Greenwood	Engineering
1983-	Associated Sprayers	Garden equipment

Sources:- Ropner ARs 1945-65, 1981-88:

Dear, 1986, pp24-25, 61, 110-134.

industries came in the 1940s when Ropners, like many British shipowners, attempted to become a charter aircraft operator. Only one of the two efforts to extend its tramping activities to the air, Chartair, became operational. But poor management and the government's concentration of the industry into nationalised airlines led to the cessation of operations in 1950. But its aircraft engineering company, Airtech, continued to expand. The family was also involved in a variety of other ventures including manufacturing garden sprayers, shipbroking and chartering in the 1950s.

As with the Albyn Line, poor shipping results in the early 1960s led to an examination of the group's future options. Though liquidation or remaining an undiversified shipowner were considered, encouraged by the growing profitability of secondary businesses like Hozelock, the group announced in 1961 that it would diversify (Ropner AR 1960; Dear, 1986, pp117-118, 123). This more enterprising stance than that of the Albyn Line led to new areas, partly via organic growth and sometimes by acquisitions. Though some like the hire purchase company Greylands were eventually dropped, by 1981 in addition to the traditional shipping business there were also insurance, property and engineering divisions. The group's activities continued to be modified with the troubled electronics section including Airtech being sold in 1989 while Hozelock grew into a separate garden equipment division in 1983. While diversification led many British companies to drop shipping, the success of Ropner's policy of long term cover saw the shipping division produce a greater share of group profit than turnover in seven of the last nine years (Table 7.5). However, the relative success of shipping also reflected weaknesses in the other divisions, which tended to produce fluctuating rather than steadily growing profits.

While Ropners diversified outside shipping its interests in other

Table 7.5 Financial Results of Shipping and Whole Ropner Group.

<u>Year</u>	<u>Group Profit (£m)*</u>	<u>S. % total Profit</u>	<u>S. % total Turnover</u>
1980	5.0	26.7	19.3
1981	6.2	23.0	15.7
1982	5.3	10.7	15.1
1982#	6.0	10.1	19.5
1983	4.8	23.9	23.3
1984	9.7	16.1	16.8
1985	8.5	24.5	17.5
1986	7.7	17.7	16.7
1987	5.8	32.3	16.6
1988	6.5	32.6	17.3

* Total profit from trading activities, excluding investment income and interest payments.

The first figure is for the year 31.3.82., The second covers the ensuing nine months to 31.12.82..

Source:- calculated from Ropner ARs 1981-89.

marine activities were meagre. Such business usually resulted from accidental contacts, such as the casual meeting between the owner of two small reefers and Jeremy Ropner which led to a contract for their management in 1960-68. In contrast Denholms, which canvassed actively for ship management business, did extremely well. In 1988 Ropners' only outside management contract was for two large bulkers, though given the reduction in its own fleet (particularly with the ships chartered to BHP being Australian manned) they were important in allowing the maintenance of a full shipping department. Operating outsiders' ships may also have brought home the cost advantages of non-British crews, influencing the decision to flag out in 1987 (Dear, 1986, p139, 142).

The group was founded by Robert Ropner (1838-1924), an archetypal hard working Victorian entrepreneur and politician. A German immigrant, he, like Basil Mavroleon, was pre-occupied with being British (Craig and Robson, 1985, pp940-945), an attitude he passed on to his descendants with their strong attachment to the British flag. He was succeeded by his sons who, influenced by his powerful personality, did not alter the group's established direction. They in turn handed over to the four sons of William Ropner who had the gentrified upbringing of many British businessmen, going to Eton or Harrow and thence to Cambridge. They joined the company on graduating and rapidly acceded to senior positions, all becoming main board directors in their mid-20s. Some of their sons followed the same path: W.G.D. Ropner, after Harrow, entered the firm and became one of four members of the fourth generation to become directors in their late 20s. Thus the survival of the business owed much to availability of sufficient young Ropners willing to run the business whereas the descendants of other shipowner entrepreneurs like J.A. Billmeir preferred to sell up.

The Ropners cleverly managed to combine continued management control

with being a public company by dividing the ordinary share capital into voting and non-voting. Since only the former determine control, some 58 percent are controlled by the Ropners and voted by the family directors. The non-voting shares can be issued if additional capital is needed without endangering control or involving the family in heavy expenditure. Currently there are nearly three times as many non-voting as voting shares, of which the family control only 9.6 percent. Thus, unlike the Williams at Graig Shipping, continued family ownership has not restricted the share capital and hence possibly the company's ability to grow (Ropner AR 1988).

The current fourth generation directors are all over 50 and thus if the debilitating effects of having staid and elderly directors are to be avoided in the future new blood is needed. However, so far none of the fifth generation have risen to high positions in the group. Though the founder had employed a non-family general manager in the 1890s (Dear, 1986, p22), the non-family directors appointed in the early 1950s had all been company servants for at least 40 years and the board places were more a reward for faithful service than an attempt to bring in dynamic management. While the next two outsiders, appointed in 1965, also had more than 30 years service, J.C. Barker who became finance director in 1970 marked a turning point. He was a successful accountant who had joined the firm only three years previously and was followed in 1983 and 1988 by former directors of Hambros and Barclays banks. These capable outsiders were brought in partly to improve Ropners dull profit record though company men were also appointed (Ropner ARs 1981-89).

Ropners, like other British tramp owners, had great difficulty in rebuilding its fleet after heavy war losses. Despite a large acquisition programme the fleet did not approach its pre-war strength. Though this

reflected external factors such as rising costs and the impact of death duties these might have been overcome had the family been willing to use outside finance. Nevertheless, considerable enterprise was shown in using new ship types and moving into the liner trades, which few British owners emulated. However the closure of the Ropner Line and the partial failure of the tanker venture showed that even progressive policies did not guarantee success. Though many family tramp companies disappeared, the directors were resourceful enough to diversify and adopt market insulation policies to avoid in the future the problems of the early 1960s. These enabled considerable expansion without undermining the shipping business by poor profitability as happened at LOF and OTT. Continued family control has enabled the company to preserve its independence and pursue long-term policies, in an economy prone to takeovers and which emphasises rapid short term profit growth.

CHAPTER EIGHT

Liner Group and Industrial Carrier Case-studies

The case-studies in this chapter explore the post-war development of two shipping organisations of very different character from the tramp companies studied in Chapter Seven. The first covers a major liner group, one of a number of such organisations whose dominance of the liner sector of the British shipping industry became even more marked after 1945. The second was a major industrial carrier operator, a business which operated under substantially different parameters from the independent shipowners.

In 1945 the Alfred Holt group (later known as OTT) was a private family managed liner concern with a reputation for the high quality of both its ships and its management. Like the other liner combines it tended to expand via acquisitions rather than by organic growth in its traditional trades and in common with the other private liner operators did not move into new sectors either within or outside shipping in the 1950s. However, the diminishing of the role of family management combined with its transformation into a public company in 1965 presaged rapid changes in the direction of the business. Like the other public liner groups it diversified into new marine and landbased industries. These policies, as frequently happened elsewhere, ultimately came to conflict with the retention of its traditional shipping interests.

Tate & Lyle was, unlike OTT, a new entrant rather than a traditional shipowner. In line with several other industrial carriers it was more technically innovative and expansion minded in the 1950s than most British independent shipowners. It also differed from them in the parameters within which it developed. But from the 1960s it gradually changed from being a service department of a large industrial concern to an essentially independent business, foreshadowing similar moves by some oil companies

like BP and Burmah. This change was important in determining the shipping operation's fate when the family run group fell on hard times in the late 1970s.

a) From Blue Funnel to Ocean Transport & Trading.¹

i) Technology.

In 1947 OTT supplemented its surviving 11-14 knot cargo liners with eight standard 'Liberty' ships. By the late 1950s these 11 knot ships were uncompetitively slow and were sold in 1958-62, though the faster 15 knot 'Empire' and 'Victory' ships proved extremely successful, being retained until 1969-71. OTT also produced its own standard Anchises (Br 9,300/47) design in six 'marks' catering to particular requirements. Like their predecessors they often had to handle all their own cargo due to the lack of proper port facilities (Le Fleming, 1961 (2), p17). Hence they had 26 light five or ten ton derricks for loading from small craft, a laborious process responsible for their moderate size and speed (15 knots). Unlike the Ben Line, OTT did not emphasise specialised heavy lift gear: even the 1960s cargo liners had only a 60 ton derrick. Nor did OTT improve on its pre-war 18 knot express cargo liners until the 1960s when competitors like the Ben Line built faster ships (Table 2.3). To vie with them two classes of 21 knot cargo liners were built in 1962-67. By 1965 OTT was again being commended for outclassing rivals like P&O (Economist 20.2.65). The second ('P') class also had 600 tons of reefer capacity, unlike the ordinary 17 knot Menelaus (Br 9,660/57) though

¹ The Ocean SS Co. in addition to its formal name had the popular title of Blue Funnel which also applied to its liner subsidiaries NSMO and China Mutual. The group is referred to by its modern initials, OTT, (Ocean Transport & Trading) throughout to avoid confusion.

the latter had centre-castle space to meet the new trade in uncrated motor cars (SMEB 1.58; RS 1975-76). Other measures were also taken to remain competitive, such as the ten percent reduction in turnaround times achieved in the mid-1960s (Saggar, 1970, p57).

In the 1960s OTT had to reconcile its need for modern cargo liners with their probable redundancy after containerisation. To alleviate this problem the 'P' class could carry 150 TEUs, while the best of the displaced Australia cargo liners replaced old ships on the Far East run. However, from 1972 this trade went to the 27 knot 2,961 TEU container ships of OCL. The remaining trades required ships with more container capacity than even the 'P' class cargo liners which had to be sold after only 12 years service. Their successors were 14 combos of 363-795 TEU but these too were short lived, the trio delivered for BBS in 1980 being sold in 1986. The use of the relatively inefficient combos did not help OTT in the difficult markets of the 1980s. It was notable that Delmas, which took over OTT's West African trade, preferred 1,100 TEU full container ships (SM 12.89). Similarly BBS was forced to replace its combos with large RO-RO container ships like the Barber Hector (Br 43,986/84). These complex ships had hoistable car decks and the capacity for wheeled items of up to 420 tons (RS 1985-86; JMSR, 1985, pp 64-71; OTT ARs 1970-86).

In 1939 OTT also had five cargo-passenger ships built in 1910-13 which it was contemplating replacing with a 20,000grt passenger liner to match rival ships (Haws, 1986, p28). This plan was dropped during the war and the old 14 knot ships were replaced in 1949-51 by two 18.5 knot classes which provided OTT's express service in the 1950s. Their far lower passenger capacity (30 compared to 250) enabled them to survive aerial competition by running as cargo liners from 1966. OTT also operated specialised passenger ships to Singapore (Chapter 2c) and in the pilgrim trade. The latter was covered by six Mark A2 ships of the

Anchises class which had tween decks accommodation. However in 1958 the cargo and passenger businesses were separated to improve efficiency, with the acquisition of the Gunung Djati (Br 18,036grt/36) which carried 2,000 pilgrims, the other vessels becoming single role cargo liners.

Though OTT lost its old trades due to the technological changes of air travel and containerisation, like the other public lines it acquired a variety of new types in the 1970s. These included 26,000dwt geared bulkers, parcel and chemical tankers and three large product tankers. OTT was also one of only four British independents to acquire VLOCs including the Titan (Br 230,099/72), a standard design from its builders Gotaverken. Others like the LNG tanker Nestor (Br 78,400/77) were tailored to specific charters. However, such a complex ship proved very difficult to switch to alternative markets, though it was given an LPG capability in 1978.

ii) Markets.

Like most other British lines OTT's basic routes were long established. It had been engaged in the Europe-Far East trades since 1866 with services to Australia and Indonesia being added in the 1890s. Though some markets, like China after the communist victory in 1949, declined, these were offset by the increase in Japanese and Singapore cargoes. The continuing strength of the Far East trades was fortuitous for OTT since it was more reliant on one area than most liner groups. In 1959 eight ships were fully employed on the cross trades from the Far East to Australia and North America. Another four ran from Europe to Australia with five more also sailing to the Far East. But the bulk of the fleet ran from Europe to the Far East: 32 Blue Funnel ships and 14 Glen Line cargo liners (LCI 12.59, p125, 144-145). The strong trading conditions allowed OTT's good pre-war profitability to continue. In 1959-69 the annual return on capital employed averaged six percent compared to 3.1

percent for British cargo liner operators in general (OTT ARs 1965-71; Cmnd 4337, 1970, p335). However, unlike the Ben Line, its fleet contracted from 724,406 to 700,732dwt between 1954 and 1969.

In 1967 OTT reinforced its position in the Far East by buying a half share in China Navigation, a regional line. This followed the 1965 acquisition of the Burma and Ceylon trade of Elder Dempster. The latter's main interest was in West Africa, trades which were depressed in 1966-67 by the Nigerian civil war. Elder Dempster's improved profits in 1968 accounted for a quarter of the group total. Furthermore it provided a new market for OTT as its traditional Far East and Australia trades were containerised and handed over to OCL in 1969-72. Though OTT set up new services in uncontainerised secondary routes like the RO-RO service to Jeddah this too went to OCL in 1979. OTT was left with the West African trades and the BBS joint service established in the 1950s. Unfortunately both began to suffer from persistent difficulties. The USA-West Africa trade having returned to profit in 1980 after several years of losses slumped again and was shut in 1982. Similarly the Europe-West Africa route did not recover from the 60 percent drop in cargoes of 1981-82 and was sold in 1989. BBS also performed poorly from 1982 and its failure to maintain the marginal profits of 1985 prefaced its sale in 1988.

The failure of the remaining liner trades occurred despite OTT's continuation of its traditional support of the conference system. In the West African trades the conference could not overcome poor markets, though the co-operation of conference members did alleviate the difficulties. Thus conferences, though valuable, were limited in their capabilities. On BBS' transpacific route the near collapse of the conferences in the mid-1980s produced a damaging free-for-all in an already weak market. OTT was unlucky in the weakness of the conferences on its remaining routes, whereas FEFC's strength helped maintain the Far East trade which had been

handed over to OCL. Like other British lines, attachment to conferences had a negative side in restricting its ability to establish new routes. Even the West Africa-Great Lakes service opened in 1971 was based on the revival of dormant conference rights rather than being wholly new (OTT AR 1971).

Until the mid-1960s OTT was, like the other private liner groups, unreceptive to market opportunities outside its traditional liner trades. Its first experience came with the acquisition of Elder Dempster in 1965 which was involved on a small scale in carrying cars and dry bulk cargo. This and the need for new trades to replace the liner operations lost with containerisation led to decisions after 1967 to enter the chemical, dry bulk, oil, oil products and liquid gas markets. However the time lapse before the plans achieved fruition meant the new operations were hardly established before the markets dived, reducing the profitability of existing vessels and halting further expansion. Though OTT joined the bulker consortia Atlantic Bulkers and Scanscot, it found that "the freight contracts while providing employment offered poor remuneration". It was also unlucky with its long charters. Reksten defaulted on a VLCC charter to 1980 in May 1975 as did Rosshavet on two 51,000dwt bulkers in 1977, while the LNG tanker's 20 year charter from 1977 had still not begun in 1989 (OTT ARs 1972-88). Thus the new trades were undermined by exposure to persistently poor markets. Such experiences doubtless deterred OTT from other sectors such as cruising. In earlier years the lack of large passenger vessels meant OTT had no need to find an alternative market for them in cruising, a market which was anyway poorly regarded in the 1970s.

iii) Labour, Fuel and Finance.

Like other Far East traders, OTT traditionally used Chinese engine room ratings who could cope better with conditions in engine rooms in the tropics. Their low pay also brought cost savings, though this was partly offset by large crews. Pre-war '12' cargo liners usually had complements of 70-80, manning levels continued on the Glenogle (Br 11,455/62) class of 1962-63. The lack of attention to reducing labour costs showed in having 15 catering staff and 16 greasers on a motorship. However, the ensuing 'P' class had crews of 43 as OTT belatedly saw the scope for reducing operating costs. Further reductions were made on the combo classes delivered in 1977 and 1980 which had crews of 39 and 36 respectively despite their 20,000dwt. OTT was doubtless prodded by the continuing escalation of seafarers' wages which rose 16 percent in 1971 with further rises including a 35 percent jump in 1974. Despite this and heavy redundancies from the late 1970s industrial relations remained peaceful, though the potential of strikes had been shown in 1966 when £600,000 was lost (compared to an operating profit of £8.6m). In 1986 further attempts were made to reduce costs by switching to agency manning in a last effort to make the shipping division viable (OTT ARs 1968-86).

In contrast to the relations with seamen dock strikes were a constant problem, £1.2m being lost in the 1967 London and Liverpool dispute for example. Further, the settlement raised the £4.5m annual stevedoring costs by a third. These were a major element in escalating cargo costs which absorbed half of revenue in Australia by 1970. Containerisation did bring major efficiency improvements while the new tramp vessels were less exposed to disruption as they could switch ports and use industrial terminals. However labour problems and chronic port congestion continued to bedevil the already troubled West African operations in the 1980s (OTT ARs 1967-86).

After experimenting with steam-diesel and diesel engines in the 1920s, OTT had become a major user of motorships, a policy continued with the Anchises class. But the need for high speed and power meant the cargo-passenger liners had steam turbines. Unfortunately these became too expensive with the rapid inflation of fuel prices in the early 1970s forcing their sale along with the 'Victory' ships. Technological advance enabled the 21 knot cargo liners to have economical diesels despite developing three times the power of the Anchises class. But the fast container ships designed by OTT for OCL required a massive 81,000 SHP powerplant, forcing a reversion to steam turbines. However rising fuel costs necessitated their re-engining in 1980-82, economies coming from using cheap high viscosity fuel and a 37 percent cut in engine power (OTT ARs 1972-82; RS 1975-76, 1985-86).

During the war OTT lost 41 ships and by 1945 also had to replace the 26 of its 37 surviving vessels which were over 20 years old. In response 17 ex-government ships were bought together with three new cargo liners from the troubled Silver Line and 29 new buildings. Fortunately unlike the tramp operators OTT had massive reserves and needed replacements immediately and hence did not wait for the mirage of falling ship prices. Apart from conservative internal financing OTT favoured the shipbuilders Scotts and Caledon and the engine builders J.G. Kincaid. It had considerable equity stakes in the last two and L.D. Holt was a director of all three until 1953. Though this underlay OTT's exclusive use of British yards in 1945-60 it was a reversion from the progressive policy of the late 1930s when Dutch, German and Italian shipbuilders were patronised. While two cargo liners were delivered from Holland in 1962, six more ordered in May 1964 showed OTT's expensive preference for British yards as "the prices quoted from them are not competitive with those from Japan" (MSWB, 1965, p7). After their late delivery, while two sisterships built

in Japan were on time, OTT switched to a policy of genuine world-wide tendering. Another aspect of the improving financial policies was OTT's willingness to buy suitable second hand and standard ships rather than insisting on newbuildings of their own design. The technological and market changes also forced the use of shipbuilding loans which rose from £1m to £36m in 1967-71. However in the stormy 1980s high capital costs tended to undermine shipping. Indeed as ships were readily saleable they were an obvious source of funds for the hard pressed group (Le Fleming, 1961 (2), pp48-54; OTT ARs 1965-84; DSSME, 1954 , p208).

iv) Government.

Taxation affected OTT in the same way as other operators, though as the managers retained control without owning large equity stakes death duties did not pose a major problem for the company. Unusually the 1965 fiscal changes were bitterly attacked due to OTT's relatively good profitability. Thus it benefited from the old allowances against profits tax, whereas most shipowners preferred aid on new investment. In 1968 OTT complained that the exhaustion of accumulated allowances against profits taxes meant its tax charge had doubled to £3,382,000. In fact various other tax reliefs meant only a fifth of this was paid and by 1969 allowances on its heavy investment programme had eliminated OTT's liability for corporate taxation for some years to come (OTT ARs 1966-69).

Like most British shipowners OTT eschewed flagging out to reduce costs, nor did it set up Bermudian shipowning subsidiaries in the 1950s. It was not until 1986 that the remaining ships were re-registered in the Isle of Man. Had such measures been taken earlier the company's difficulties might have been ameliorated by reduced costs. In earlier years OTT had been less hesitant to use other flags, with the Dutch flag subsidiary NSMO being set up in 1894.

This measure was taken to circumvent Dutch flag discrimination in the important Indonesian trades. As a liner company OTT was exposed to possible discrimination. The small Henderson Line subsidiary was severely hit by the establishment of the government Burma Five Star Line in 1961. The newcomer was dissatisfied with its one-third share of the trade and demanded further concessions which were "conceded force majeure". Ultimately the British lines gave up as the "trade was almost entirely handled by government agencies and the direction of cargo into their own ships gave them virtual control" (McCrae, 1961). OTT's main Far East trades were not badly affected. Japanese trade for instance was open while the Philippino and Taiwanese flag lines which began operating in 1968 had little initial impact. However, as these routes went to OCL, the West African trades, where flag discrimination and national lines were major factors, became more important. Further the failure of West African governments' economic policies produced catastrophic falls in trade levels and attempts to divert a larger proportion of cargo to national lines (Chapter 5c and d). OTT also derived some minor benefit from the rise of national lines. Its first major ship management contract of 1974 covered two 86,000dwt tankers of the state owned Libyan General Maritime Transport Co. (OTT AR 1976).

v) Ownership and Corporate Structure.

The Ocean SS Co. was established in 1866 and in the twentieth century followed British lines' usual pattern of expansion by acquisition. Its rival China Mutual was taken over in 1902 as were the Indra and Knight lines during the Great War. The collapse of the Kylsant group enabled the acquisition of the Glen and Shire lines in 1935 together with a 30 percent stake in the Elder Dempster group which was taken over completely in 1965. In addition OTT held stakes in the Straits SS Co. and China Navigation

from 1914 and 1967 respectively. OTT's grip on the West African trades was reinforced by the acquisition of the Guinea Gulf and Palm lines in 1965 and 1985. However, after the establishment of OCL in 1965, in partnership with Furness Withy, P&O and B&C, the old lines gradually disappeared.

Until 1965 OTT's other interests had either been treated like shipbuilding as investments or, like Odyssey Insurance, were intended to service the main business. It was recognised that OTT had to diversify within and outside shipping if it was to be more than an investment company as OCL expanded. However diversification proceeded slowly with some failures, like the airlines businesses, so that in 1970 "the activities of the company and its subsidiaries are still substantially confined to shipowning and its ancillary activities" (OTT AR 1969). In 1972 OTT resorted to the £57m acquisition of the shipowner and bulk distributor William Cory after beating off Court Line and Jessel Securities. Though the contestation of the bid raised the price, OTT badly needed Cory to obtain long term profits growth as its main business was being absorbed by OCL (IC, 10.3.72-12.5.72). This diversification prompted a change in title to Ocean Transport & Trading. Further, the strategy of moving into distribution and enlarging the European and South East Asian activities was announced. To suit this OTT was reorganised into six divisions, two being concerned with liner and bulk shipping and Ocean Fleets with ship design and management. The others covered freight forwarding, South East Asia and fuel storage and distribution, though the latter two had liner, coaster and towage interests of their own (OTT ARs 1965-72).

In 1972 shipping accounted for 55 percent of group turnover and all the profits. Even with the new activities, shipping still provided a disproportionate 70 percent of profits in 1977 from 33 percent of

turnover, the former helping raise pretax profits to a peak of £41.2m in 1976. However, in 1978 shipping produced a loss of £1,790,000, forcing severe cutbacks and its amalgamation into one division. Though marine profitability recovered in 1979-81, losses were made in the three following years. Nor were OTT's other activities doing well, so that shipping's small £4.3m operating profit in 1985 accounted for a quarter of the group total. Thus the other activities could not be used to support shipping which being capital intensive (accounting for 52 percent of capital but only 28 percent of turnover in 1981) absorbed money desperately needed elsewhere. This and deepsea shipowning's poor profits and prospects led to its sale in 1988-89.

OTT was managed as a partnership with young men being brought in to serve for five to ten years before becoming partners, if they were good enough, or leaving. Though a somewhat archaic system it did produce some very able men like Sir Kerry St Johnston, the future head of OCL who became a partner at the age of 31 (Transport 9.89). OTT's senior partner until 1953 was L.D. Holt, a nephew of the founders. He was succeeded by his Eton and Oxford educated cousin John Hobhouse. Both men were formidable managers of the old school but their upbringing against the background of an established business militated against radical changes in its development. Though family men like R.H. Hobhouse and G.P. Holt (deputy chairman in 1969-71) remained on the board in 1957, the chairmanship went to Sir John Nicholson who had joined OTT from Cambridge. His non-family status made him more amenable to OTT's flotation in 1965, ostensibly to facilitate dealing in the widely dispersed shares. However, Elder Dempster's former shareholders doubtless wanted a tradeable stake in what was "widely regarded as the wealthiest and best managed concern in the British shipping industry" (Times 12.2.65; Economist 22.2.65).

OTT's exposure to public scrutiny gave added incentive to

diversification though this did not really take off until Lindsay Alexander took the chair in 1971. Given OTT's difficulties after 1977 it was hardly surprising that he took advantage of a temporary upturn to move to the chairmanship of Lloyds Bank in 1980. Whilst Alexander was a shipping man, his successor William Menzies-Wilson had joined OTT from the steel industry in 1972 to reorganise Cory. His declaration that "I'm not a wildly enthusiastic shipping chap" was borne out by the marine cutbacks (FT 25.4.85). In early 1986 P&O took a 12.7 percent stake in OTT, forcing it to disgorge its 33 percent share of OCL in return for not making a full bid. Thus the best part of the shipping business was lost, undermining the viability of the remainder. In August OTT was subjected to a hostile takeover bid from the New Zealand entrepreneur Ron Brierley. Though OTT's articles had a provision against non-British stakes, the bid only failed due to the loyalty of OTT's shareholders (SEOYB 1985-86, p768). This was helped by the unexpected rise from £31.9m to £37.2m in pretax profits. But in 1988 profits fell back, highlighting the dismal pretax record which had never regained the 1976 peak despite trebled turnover.

OTT's fleet declined somewhat until the late 1960s despite good management and technical progress and strong stable markets. This reflected OTT's eschewing, like other private family run lines, of the expanding bulk trades. However, as the traditionalist management declined OTT's flotation meant it had to comply with outsiders' success criteria. Following the other public lines it diversified, particularly as its own liner interests declined with containerisation. Here OTT started late and made slow progress. Thus the new operations were not fully established before they hit problems for which they were not prepared, while the market insulation measures failed to work. OTT lacked a leader of the calibre of Jeffrey Sterling who rescued P&O from a similar situation in

the 1980s. Thus it could not resist his forcible divesting of its best shipping interests. OTT's non-marine orientated chairman thus laid the ground for the disposal of shipping interests to comply with the pressure for better earnings growth.

b) The Shipping Interests of Tate & Lyle.

i) Technology.

In the late 1940s Tate & Lyle's (T&L) raw sugar imports continued to be shipped and handled by traditional methods. The raw sugar was packed into gunny (jute) bags capable of holding 150 kilograms. It was then loaded into ordinary tramp ships, which, like discharging, was a tortuous process. The bags were manhandled into nets and lifted aboard lighters which took the sugar to upriver refineries, where it was again netted and swung by cranes on to the wharves. After the war American industry, the source of many innovations in marine technology (Chapter 2e), began to experiment with more efficient methods. These were seen by senior T&L staff and the company began similar trials with bulk (unbagged) sugar. The first shipment arrived in July 1949 aboard Hogarth's small tramp Baron Haig (Br 5,795/26) and was followed by four more aboard chartered Hudson ships in 1950 (these were small bulkers whose efficient design stemmed from Hudson's experience of operating colliers). These proved that considerable savings were possible, not only in reduced labour and packaging costs, but also in time (Wilson S. & Sons, 1955, pp72-73)

The positive results prompted a thorough modernisation of T&L's entire transport system. In London the Plaistow refinery was equipped with a new wharf at which ships of up to 5,000dwt could dock, obviating the need for timeconsuming and expensive lighterage. The sugar, due to its sticky nature, could not be unloaded by elevators and so cranes with 7.5 ton capacity grabs were sited ashore. These put the raw sugar on to

conveyor belts, which could carry up to 600 tons an hour, either directly to the refinery or to a 45,000 ton capacity storage silo. Optimum efficiency also required ocean going single deck vessels, few of which were available in the fleets of British independent shipowners, inducing T&L to build its own purpose built tonnage which was preceded by the acquisition of three 9.5 knot 4,500dwt wartime tramps. These enabled experience to be gained in ship operating, but were only stopgaps, being sold in the mid-1950s. They were succeeded by two ships of the Sugar Importer (Br 5,325/55) class, the first of several innovative designs. These were single deck ships and, at 12.5 knots, faster than their predecessors and had both engines and superstructure aft. The main holds had smooth sides and full width McGregor hatchcovers for easy grab access and could load themselves at poorly equipped ports. They were also designed to ship backhaul or off season cargoes ranging from timber to ores while a full cargo of light grains could be carried by loading the wing tanks on either side of the four main holds. These improvements enabled each ship to make the round voyage to the West Indies (12,800 kilometres) every five weeks instead of the seven weeks needed by the tramps (MSWB, 1956, p64; SMEB 5.55, 10.55; Hugill, 1978, pp181-186).

In 1957-58 these ships were supplemented by three similar but slightly larger vessels of 6,500dwt and in 1960 by the still bigger Sugar Carrier (Br 8,510/60). For the other refineries like Greenock Montreal and Toronto where restrictions on draft were less severe larger and hence more efficient bulkers were built. Originally T&L had intended to construct ten ships of 12,000dwt and 16 knots. However, its partner United Molasses, which had long experience of shipowning, preferred a less advanced 10,900dwt bridge amidships design capable of 12-13 knots, ten of which were built in 1955-57. Their holds had similar features to the smaller vessels and could be loaded by the ship's own derricks: 12 of

ten tons capacity and one of 25 tons (MSWB, 1956, p63). They were again upstaged in 1959-60 by three bridge amidships bulkers of 15,000dwt. Ships of this size were becoming increasingly common world-wide and the smaller T&L ships found it difficult to compete with them, particularly in the depression of the early 1960s. The first five vessels were sold in 1962-67 and were followed in the late 1960s by the 10,900dwt class. They were replaced from 1967 by a series of 20,700dwt ore-strengthened 15 knot bulkers, to whose greater efficiency the Sugar Line's 30 percent rise in profits in 1968 was attributed (T&L AR 1968). The next ships showed a further increase in efficiency and size with the Sugar Carrier (Br 28,559/74) and its sister being delivered in 1974 (RS 1977-78). Shortly before, in 1972, the group acquired another ship suitable for sugar cargoes: the OBO Athelcrown (Br 23,526/54). This vessel's liquid cargo capability was also of use to the group since its acquisition of UMC in 1965.

UMC had begun building ships for its own molasses cargoes in the mid-1920s. This commodity is far denser than mineral oil and hence to carry a full cargo a ship needed only to load alternate holds. However, this produced considerable stresses on the hulls which were in consequence of much heavier construction than mineral oil tankers (Meneight, 1977, p21). While some ships were of 10,000dwt these were intended for the shorter routes, and most of the fleet were of 13-15,000dwt while the Athelcrown (Br 18,045/29) was one of the world's largest pre-war tankers. Their size was a major factor in the efficiency and economy of the fleet which was reckoned in 1919 to be better than many competitors (Meneight, 1977, pp32-35, 47, 100-101). However the new buildings of the 1940s and 1950s though faster at 12-13 knots showed no sign of continuing this progressive policy. The new ships comprised groups of 10,000dwt, 12-13,000dwt and 15,000dwt tankers and it was not until 1958 that a tanker of over

18,000dwt again joined the fleet. While this reflected the smaller cargoes available in the molasses trade the ships also had to compete with larger mineral oil tankers against which they were already handicapped by their higher specification and resulting higher capital costs.

One method of dealing with this problem involved the alteration, during their construction in 1955 and 1957, of two 10,000dwt tankers to carry other liquid cargoes such as caustic soda, spirits solvents and lubricants. The conversions (which were also carried out on some existing ships) enabled up to 14 parcels of liquids to be carried, though great care had to be taken with tank cleaning to avoid contamination of other cargoes (Meneight, 1977, p131). By the late 1960s these ships were becoming obsolescent as the range of potential cargoes continued to expand. This problem lay behind the delivery of three 18,000dwt parcel tankers in 1968. Like the six larger parcel tankers delivered in 1971/72 they had special tough and easily cleaned tank coatings and complex and corrosion resistant piping systems. Even so after only five years' service the rapid pace of technical advance meant they were at a competitive disadvantage to even more sophisticated ships (Meneight, 1977, p189).

The need to adopt these more specialised ships in the late 1950s meant a gradual cessation of operations in the mineral oil trades. To avoid this two 59,000dwt crude carriers capable of 15.5 knots were delivered in 1964-65. Thus the UMC became one of the few British independent owners to adjust to the increase in size of oil tankers. Though the T&L group was reluctant to build larger ships in later years the OBO Athel Laadki (In 101,500/72) was chartered in 1974. The group was more willing to accommodate technical advances in another area of the mineral oil shipping sector with two 39,000dwt oil product tankers being delivered in 1977 (RS 1985-86).

ii) Markets.

T&L's base business was sugar refining with approximately 1,750,000 tons of refined sugar being produced in 1939. Of this 350,000 tons was exported rising to an average of 650,000 tons in the 1950s. This required large imports of cane sugar, the UK refineries using 4,000 tons a day in 1949. Thus as a large scale shipper the company suffered a considerable cash outflow due to the strong freight rates of the late 1940s and this combined with the rush to introduce improved shipping and handling methods influenced the move into shipowning.

Though the intention was to operate as an industrial owner in the sugar trades the ships also carried other commodities like iron ore, coal and grain for third parties, not only as backhaul cargo but also as the main cargo in the month when seasonal raw sugar was not available. Even the small bulkers called at American and African ports in the late 1950s in addition to their staple UK/Continent-West Indies trade while the bigger vessels sailed to Africa, Australasia, the Far East and North America on occasion (LCI 12.59). This also meant exposure to the poor markets of 1957-66 which reduced profitability, particularly for the small vessels. This and the low cost of chartered tonnage probably caused the halt in the fleet's expansion in the late 1950s. The renewed strength of freight markets from the mid-1960s resulted in new orders to maintain the fleet. Even so, the 123,000dwt bulker fleet of 1969 could only, given the lack of in-house cargoes in the sugar off-season, have carried less than half of the group's 2m tons requirement. Thus T&L provided a considerable market for suitable independent ships. But as in the tanker trades few shipowners followed the example of Hudsons or France Fenwick which built bulkers of 8-10,000dwt for the sugar trades in the 1950s (Wilson S. & Sons, 1955, pp72-73; France Fenwick, 1954, pp74-77). Chartered ships, though expensive in booms, became increasingly attractive in the prolonged

depression after 1973 while the owned ships produced little profit.

The tanker fleet of the Athel Line had been established in the 1920s to carry at least part of the in-house molasses cargoes as T&L's Sugar Line had been for the sugar trade. The motives were to retain part of freight payments and to avoid the dislocation of operations should outside ships not be available. As the chairman said in 1929: "to be short of tonnage is a risk we cannot afford to take" (Meneight, 1977, p47). The onset of the depression the following year transformed the position with up to three-quarters of the fleet being laid up. In addition, like LOF in the 1950s, three ships had been chartered in at the earlier high rates which caused considerable losses to UMC. The owner was Mowinckel of Norway, another instance of the tendency of Scandinavian rather than British shipowners to take up such lucrative opportunities. By 1932 the unemployed ships were back in operation though at unprofitable rates, many of them being on charter to the oil companies. While the molasses trade recovered in 1933 oil cargoes continued to be carried, a characteristic which persisted in the post-war years, as they were often complementary to molasses trading. In the late 1930s tankers often carried oil from the Western USA to Japan and then proceeded to the East Indies to load molasses (Meneight, 1977, p54, 57-58, 67; LCI 12.38, pp335-336).

By the mid-1950s the small tankers were finding it difficult to compete for these important oil cargoes, a problem which worsened in the depression of 1957-66. Thus the Athel Line began to exploit the markets for other specialist liquid cargoes. The first major business came with a five year contract of 1955 to carry caustic soda for ICI. This was followed by a second agreement to carry special liquids for Socony Vacuum (Mobil). The new trade continued to expand and in 1965 the Athel Line joined the Anco consortium which specialised in such cargoes. The organisation had been established in 1948-49 by the Norwegian operators

Ole Schroder, Iver Bugge and H. Virik (SM 12.89) - an example of Scandinavian operators ability to identify and develop such trades earlier than their British counterparts. As this trade developed in the late 1960s the tankers' carriage of molasses decreased with the very large quantities (3.3m tons a year in the early 1970s) traded by UMC being mainly carried on chartered ships. Despite the move into trading in edible fats and oils by the parent company and its increasing interest in liquid storage (in 1975 the Paktank subsidiary had a total storage capacity of 750,000 tons) the parcel tanker business was by the early 1970s trading in an independent rather than an industrial carrier role (Meneight, 1977, p185). The parcel tankers remained a good source of profits until the mid-1970s when the rates on contracts began to decline. Since 1972 Anco had been a wholly owned operation after the Norwegian partners left due to disagreements. The poor state of trade prompted a merger with the British parcel tanker consortium Panocean (owned by P&O and OTT) in 1975 with a fourth company, Swires, joining in 1979. However, the depressed markets and poor profitability continued, influencing T&L'S decision to sell out from 1979. P&O and OTT also found the returns to be too unsatisfactory to sustain their involvement and sold out in 1983-84 to foreign operators who found the market and its prospects less unattractive (P&O ARs 1980-83; OTT ARs 1980-83; RS 1985-86).

Volatile markets also affected the Athel Line's mineral oils market. In the late 1940s rates began to fall back from the high levels of the preceding years and to avoid further erosion of revenue seven of the larger ships were time chartered for the six years to 1954. This meant the vessels could not take advantage of the Korean War boom. Two other ships were acquired in the late 1950s for long period charters but the remainder of the fleet was fixed on shorter time charters which expired in 1958-59. Thereafter the latter had to cope with the long depression which

also led to consideration of the sale of the pair of 59,000dwt tankers delivered in 1964-65. They were, however, reprieved by the rise in the market after 1967 when they were making annual profits of £1,000,000. The company also managed to obtain good charters for them, which ran until 1976-77, before the market collapsed in 1973. Though the company recognised their unusual size gave them a good prospect of finding work freight rates remained very low. As a result they were sold to foreign operators who were still operating them in 1985 (T&L ARs 1966-77; RS 1985-86).

iii) Labour, Fuel and Finance.

Successive classes of T&L bulkers show continuous improvements in cargo capacity in relation to crew size (Table 8.1). The effect of the process is enhanced when the increases in speed from the 9.5 knots of the tramps to 12.5 and later 15.5 knots were taken into account, since this increased the amount of cargo carried by a ship per year. However, even greater improvements could have been achieved. The 34 strong crew on the 5,400dwt class compared poorly even to the Booth cargo liner Dominic (Br 5,915/45) whose 35 men also had to cope with six passengers yet was described as having "generous manning even by the standards of the day" (Kinghorn, 1983, p50). Though the later ships represented a considerable improvement when manning was related to the size of the ship in terms of deadweight per man, other shipowners like Ropner managed to run similar ships with fewer men (Chapter 7c). Both the Sugar and Athel lines used relatively expensive British ratings but they, like other British owners, benefited from good labour relations. Relations with the dockers could be more problematic as indicated by their attitude to the bulk handling experiments in 1949. Though one objective was to reduce port and hence dock labour costs the men demanded high special rates and when these were

Table 8.1 Manning Levels on T&L Bulklers.

<u>Class</u>	<u>Date</u>	<u>Dwt</u>	<u>Crew</u>	<u>Dwt per man</u>
<u>Sugar Importer</u>	1955	5,400	34	160
<u>Crystal Cube</u>	1955	11,000	44	250
<u>Crystal Sapphire</u>	1960	16,000	50	320
<u>Sugar Transporter</u>	1970	21,000	36	580
<u>Sugar Carrier</u>	1974	28,000	36	790

Note:- Tonnage and tonnage per man figures are rounded.

Source:- compiled and calculated from general arrangement and capacity plans.

refused went on strike. Shortly after this dispute ended T&L was hit by a national dock strike which reduced the supply of raw sugar from 4,000 to 1,000 tons a day (Hugill, 1970, pp165-166). Once the bulk handling methods were introduced T&L was able to reduce its docker and lighterman labour costs; between 1957 and 1967 the number of the latter was reduced from 140 to 19 (Hugill, 1978, p187).

The reduction of labour costs was also important in the choice of engines. The steam tankers bought by the Athel Line in the early 1920s had crews of 75, including 21 stokers to shovel the 75 tons of coal used every day (Meneight, 1977, p15). This prompted the company to switch to motorships which comprised 20 out of 22 ships in the fleet by 1938 (LCI 12.38, pp335-338). The crews on these motor tankers averaged a mere 43-44 men (Lloyds War Losses, 1989). T&L also had all its new buildings completed as motorships. An indication of the resulting operating economy can be seen in the 632 ton fuel capacity of the Sugar Carrier (Br 8,510/60) compared to the 553 tons of the old oil fired steamer Sugar Producer (Br 4,500/45) which was not only far smaller but ran at only 9.5 knots compared to 15.5 for the former (RS 1985-86). Furthermore, as with the other newbuildings of both fleets, cheap high viscosity fuel was used in preference to expensive oil fuel. Athel Line tankers also showed the operating cost advantages of large ships. The two 59,000dwt vessels of 1964-65 used less than twice (63 tons compared to 35 a day) the fuel of the 18,000dwt parcel tankers of the late 1960s, despite being three times the size and having the same speed.

Pre-war UMC had made heavy use of loan capital: at the end of 1925 for instance debts totalled £1,262,000, equal to 60 percent of assets. In the late 1940s, however, the preference was for internal financing, despite shipbuilding price inflation. Since only £6m in reserves, insurance and compensation was available to pay for the 11 ship

replacement programme costing £9.5m, a considerable strain was placed on the UMC (Meneight, 1977, pp30-31, 110). Both the Athel Line and T&L also followed another common policy of building in British yards. But the orders did go to several yards rather than favouring one company: the five ships on order for the Athel Line in 1954 were built by four different shipbuilders (DSSME, 1954, p43). The need to continue to upgrade the fleet necessitated the accumulation of considerable reserves. However, by the mid-1960s UMC was reluctant to invest in tankers in a period of poor returns and rapid technical change. Thus only two large tankers were ordered instead of the six wanted by the shipping managers and £19m of reserves remained unspent. This made the group a very attractive takeover prospect and a successful bid came from T&L with half the £30m cost being recoverable via these liquid assets (IC 1.5.64).

The order for the two larger tankers did mark a policy change in being the first to go to a foreign yard - Uddevalla of Sweden. The builder's ability to deliver on time resulted in their receiving orders for 10 parcel tankers delivered up to 1972. The prices were also very competitive with Uddevalla losing money on the contracts for six 23,000dwt parcel tankers costing £2.9m apiece. Though rising costs increased the book value of T&L's fleet from £16,139,000 to £19,907,000 in 1975 it fell as a proportion of group assets from 19.4 percent in 1965 to 12 percent in 1976. The move to more modern financing policies and the availability of cheap credit saw the accumulation of shipping loans totalling £33,450,000 in 1976, nearly half of the group's debt (T&L ARs 1965-76). These heavy capital requirements for a secondary part of the group caused hesitation among top management, particularly when it was recognised in the mid-1970s that to continue as an independent parcel tanker operator at least four new ships costing £64m would have to be ordered. The delaying of such capital outlay was a major factor in the decision to merge with Panocean

in 1975 (Meneight, 1977, p184).

The collapse in group profits in 1977-78 forced a radical restructuring of the group which required £25m. As in 1975-76 ship sales had realised profits over book values of £5,571,000 further sales were an obvious source of the necessary money. In consequence after an attempt to sell the whole Sugar Line failed its ships and some of the tankers were sold off piecemeal, though the sale profits of £208,000 were minimal due to the fall in ship prices (MN 11.77; T&L ARs 1975-78).

iv) Government.

In the late 1940s and early 1950s UMC's shipping interests were adversely affected by government policies. The introduction of the excess profits levy removed resources which had been earmarked for the shipbuilding programme in the early 1950s and resulted in the cancellation of two of the eight vessels on order (Meneight, 1977, pp118-119). The impact reflected the company's reliance on internal finance and it eschewed the possibility of meeting capital commitments with loans. There were also restrictions on revenue, and hence on profits for reinvestment, resulting from the continuation of low government controlled rates for tankers until mid-1948. Thus Meneight echoed the complaints of many British shipowners whose ships were only released from government rate controls when the market had fallen while their Scandinavian counterparts had the benefit of high free market rates of earlier years. It was not until the mid-1950s that UMC took a more positive view of government policies as a beneficiary of the improved investment grants (Meneight, 1977, p110).

T&L became the object of another government policy when steps were taken to include it in the second round of nationalisations in the late 1940s. In response the company, in conjunction with the free enterprise

pressure group Aims of Industry, mounted a major anti-nationalisation campaign. Ultimately this strong management response was overshadowed by Labour's poor electoral performance in 1950 and 1951 and the subsequent lapsing of the nationalisation plan. However, it did strengthen interest in shipping at T&L as the transport and lighterage businesses, which would not have been nationalised, would have formed the base for the group's rebuilding in new areas (Hugill, 1978, pp134-173). The policies of other governments could also have an impact, as in the early 1960s, when the Athel Line, like LOF, incurred American ire by trading to Cuba (Chapter 7b). Unlike the latter whose position was worsened by its links with Russia, the Athel tankers found threatened reprisals by dockers did not materialise and official restrictions could be circumvented by not declaring Cuba a destination while in US ports (Meneight, 1977, pp142-143).

v) Ownership and Corporate Structure.

The origins of T&L lie in the merger in 1921 of two family sugar refining businesses, Henry Tate & Sons (founded in 1869) and Abram Lyle & Son (which entered the sugar industry in 1865). Though the Lyles had been involved in shipping in the nineteenth century this operation had passed to another branch of the family (Orbell, 1978, pp52-55). It was not until 1938 that interest was renewed in marine industries via the acquisition of two lighterage companies to form Silvertown Services. The objective of this vertical integration, like that of the major oil companies, was to ensure the smooth running of complex operations which was best achieved by direct control rather than relying on the vagaries of outsiders. Similar motivations saw the setting up of the new Kentships subsidiary in the early 1950s to own and manage the smaller bulkers used by the group. The larger vessels were owned by a separate company, the Sugar Line, in which

UMC had a 30 percent stake, the ships being managed by the latter's subsidiary the Athel Line. Considerable professional rivalry existed between the two bulker companies. When in 1965 T&L took over UMC these two companies were amalgamated and UMC's liner subsidiary, the Anchor Line, was sold. However, UMC's Athel Line tanker subsidiary was retained due to its supporting role for the main business, though it was not until 1973 that the logical step of joining it to the bulker operation to form a single shipping division was taken.

Though the shipping interests of both T&L and UMC had developed to support the main businesses their tendency to carry cargoes for third parties resulted in their being seen as independent profit centres. In consequence, like the shipping divisions of diversified shipowners they had to measure up to the performance standards of other group operations. In 1964-66 shipping produced a reasonable return on capital of 5-7 percent despite weak markets, though in the worst years of the late 1950s and early 1960s results would have been less strong. The 1966 profits bore good comparison with the rest of the group providing 10.7 percent of operating profits from only 3.3 percent of group turnover (Table 8.2). The boom conditions from 1967 saw shipping profits account for no less than a quarter of total profits from only five percent of turnover. This star performance was maintained up to 1974 when shipping produced 30 percent of operating profits. Unfortunately, the following year profits fell from £13,300,000 to a mere £400,000 and continued at low levels, much of the marine profits of 1976-77 being accounted for by ship sales rather than profitable voyages (T&L ARs 1965-78).

This coincided with problems in other parts of the group including excess capacity in the starch and glucose industry, poor profits from sugar refining and difficulties with the major expansion programme in the USA. The result was a decline in group pretax profits from £52.5m in 1976

Table 8.2 Operating Profit Performance of T&L Shipping Interests.

<u>Year</u>			S. Profit	S. Turnover
	<u>S. Profits (£m)</u>	<u>S. Turnover (£m)</u>	<u>% of total</u>	<u>% of total</u>
1966	1.0	6.1	10.7	3.3
1967	1.7	8.2	14.6	4.2
1968	3.8	11.7	23.5	5.0
1969	3.0	12.3	27.3	5.3
1970	3.3	11.3	26.5	4.2
1971				
1972				
1973				
1974	13.3	37.3	29.4	5.2
1975	0.4	28.8	0.8	2.2
1976	5.4	21.2	9.6	1.5
1977	6.1	9.8	10.9	0.8
1978	0.8	7.5	1.8	0.7

Source:-Compiled and calculated from T&L ARs 1966-70, 1975-78.

to what the company itself described as the "unacceptably low figure of £24.6m in 1978" (T&L AR 1978). To resurrect the group's fortunes a massive restructuring programme was undertaken. In typical contemporary fashion it was decided to concentrate on a few core activities such as the strongly profitable agriculture division while the poor performance in sugar refining was to be remedied. However, in view of the poor markets, which were likely to persist, it would have been difficult to obtain a similar improvement in shipping profits. Second, the shipping operations, like the engineering companies, were secondary interests with an increasingly tenuous connection to the core activities and hence conflicted with the dislike of conglomerates in business circles. This made the shipping division a prime candidate for cuts though an attenuated tanker operation was retained. However, when the hoped-for improved profitability failed to materialise this too was closed and the group concentrated on the successful expansion of its other interests (RS 1981-81, 1985-86).

UMC had experienced similar problems in the early 1960s which were related to the resignation in 1953 of Michael Kielberg, who had been the dominant force behind the group since 1920. Even before this he had lost much of his drive and his successor G.W. Scott did not fill the gap. The latter eventually became seriously ill, resigning in 1962 and dying the following year, while the managing director, Mr C.G. Allott, was also in ill health. Thus the chairmanship fell to Viscount Runciman, head of the famous shipowning family. His connection to the group stemmed from UMC's takeover of the family managed Anchor Line in 1949 and his main interest lay with his family marine businesses. The shipping depression required considerable attention which might otherwise have been devoted to UMC. It also served to make him amenable to T&L's 1965 takeover bid, particularly since the Runciman family regained full control of the Anchor Line

(Meneight, 1977, pp106-107, 122, 128-129, 144-145).

T&L itself was still a family managed business though the Tate and Lyle families themselves concentrated on the group board rather than directly controlling subsidiaries like shipping. However various other families were also involved including the Kerrs, Martineaus and Walkers, whose family businesses had been amalgamated with T&L. One of these was the sugar refiners, Fairrie & Co., which joined T&L in 1929 and a member of the family, A.J. Fairrie, was managing director of the Sugar line in 1969 and by 1974 his brother James was a director of UMC and the Athel Line [their father Geoffrey Fairrie had played an important role in the move into bulk handling and hence shipowning in the late 1940's (Hugill, 1978, p181)]. By the late 1970s the family managers were under attack due to the group's poor performance and their failure to come to grips with longstanding problems such as the poor returns from sugar refining. Sir Ian Lyle and R.H. Tate resigned from the board along with their relative C.B. Rowan, head of the shipping division since 1973. The erstwhile chairman J.O. Lyle moved to the largely symbolic position of president, being succeeded by the first non-family chairman, the Earl of Jellicoe. The latter's main previous work had been as a director of the merchant bank S.G. Warburg. He oversaw the restructuring as a performance orientated financier without sentimental links to established activities, and hence saw little advantage in retaining an unprofitable secondary business like shipping (Directory of Directors 1972, 1974, 1978; T&L ARs 1965-78; Hugill, 1978, pp33-66.)

T&L's shipping interests included one of the few post-war new entrants to the ranks of the British shipping industry. It was also technically innovative, indeed its establishment reflected the lack of suitable independently owned British ships. However, in the late 1970s

poor results in bad markets undermined shipping's position in the group, a problem reinforced by T&L's poor management and more general difficulties, and the resulting imposition of a recovery plan which ultimately excluded the marine interests. As at other industrial carriers the depression removed the need for in-house tonnage and there was little sentimental attachment to shipping. Though its closure was, in view of the poor markets prevailing in the 1980s, a good move for the T&L group it eliminated two major British shipping companies which in 1969 ran 25 deepsea ships of 470,000dwt (ISSD, 1969, p4, 68). The demise of the Athel Line illustrated the potential disadvantage of the concentration of the industry into fewer units should these decide to leave shipping.

CHAPTER NINE

Conclusion

In order to assess the relative value of the various possible explanations of the Merchant Navy's decline, the three periods outlined in the introduction will be considered in chronological order. This will be followed by appraisal of the causes of the decline in terms of the balance between factors within and outside the control of the shipowners themselves - the internal and external influences.

i) 1945-65.

The initial challenge facing British shipowners in the 1945-65 period was the rebuilding of their fleets which had been devastated by the war. The insurance received did not cover inflating shipbuilding prices which British companies tried to meet from their traditional internal sources of finance. After the Great War, shipowners had accumulated large reserves from the high freight rates before and during the war. However, shipping markets had been poor for most of the 1930s which, together with tight government controls on freight rates during and after the Second World War, prevented the accumulation of reserves. This hit the tramp operators, who had borne the brunt of the 1930s depression, hardest and was important in their failure to regain their pre-war size. The liner operators generally had stronger reserves and fared better. The managers of companies in both sectors proved reluctant to use external capital to meet the shortfall in their resources. In contrast many foreign shipowners pursued more progressive financial policies. External finance, including loans and share issues, was vital to the ability of shipowners like E.D. Naess and Stavros Niarchos not just to rebuild their fleets but to expand rapidly. Similarly, many established Norwegian

operators used loan finance, some of it ironically from British financial institutions (showing that domestic funds were available to British shipowners), to rebuild and expand (Chapter 4c).

The rapid rebuilding of these progressive foreign shipowners' fleets had a self-perpetuating effect, since in the strong early post-war markets the new ships they acquired produced profits which could be invested in more new tonnage. British liner companies also benefited due to their embarking on rebuilding programmes as soon as the war ended, thus paying the lower shipbuilding prices of the late 1940s, and receiving revenue from the new ships. One reason for their immediate reconstruction was that their services required a minimum number of vessels. The tramp companies had no such bottom limit to the scale of their operations. This allowed them to combine continued operations with a gloomy outlook on the markets' immediate prospects. Most anticipated that, as after the Great War, the initial post-war boom would be short-lived and ship prices would fall to more reasonable levels in the ensuing slump. Thus, with a few exceptions like Denholms and Ropner, British tramp owners waited for a slump that did not come and did not order new tonnage, losing out to foreign shipowners as a result (chapters 4c and 3e). The latter's more optimistic stance was indicative of a different, more entrepreneurial, managerial attitude. For Greek and Norwegian shipowners a strong market called for expansion in the fashion of British companies before 1914. By 1945 the drive of many of the latter had been sapped by the tribulations they had suffered since 1921 and by the anti-commercial ethos of British society. Most British companies were older than their Scandinavian counterparts and thus were more likely to have lost their dynamism, particularly as unlike the Greek and Scandinavian fleets there were no successful new British shipowners whose actions could galvanise their peers (Chapter 6).

The early 1950s continued the era of strong markets with many new opportunities appearing: for example, the expansion of the oil trades. One factor here was the continuation of government rate controls on tankers until 1948-49, after other ships had been released, acting as a deterrent to investment in tankers. This reinforced most British shipowners' apparent inability to recognise attractive new business. Most proved immune to the oil companies' efforts to entice them to provide tankers despite offers of very good long term cover. Their lack of interest was partially compensated for by some of the many large industrial concerns in the British economy which, like Tate & Lyle, became industrial carrier shipowners. Others, including the oil companies and Bowater, expanded their existing fleets (Chapters 6a-c and 8b).

It was not until the mid-1950s that significant numbers of British tramp and liner operators began to acquire tankers and ore carriers which had guaranteed secure employment. Thus British shipowners were conservative in their choice of markets, sticking rigidly to their long established liner and dry cargo tramp trades. Though this was also true of German and Dutch operators, they had traditionally concentrated on liner shipping rather than operating in both liner and tramp shipping like the Merchant Navy. Furthermore, Dutch lines displayed a more enterprising attitude to opening new routes. There was undoubtedly a major window of opportunity in the liner trades in the early post-war years, due to the temporary disappearance of German and Italian lines and the diminution of other operators' fleets, which British companies failed to grasp. The vast majority of British lines concentrated on successfully re-establishing their pre-war operations, though there were exceptions like the Dodwell-Castle Line which disappeared during the war and the Silver Line whose markets were untypically poor in the late 1940s.

From 1957 the shipping markets turned sharply down. This ended

British owners' belated expansion into the tanker trades as good charters were no longer readily available. Owners who had no long term cover or whose charters expired during the depression were badly hit and apparently permanently disillusioned with the crude oil trade. Certainly there was little interest in the crude oil sector when it picked up again in 1967 (Chapter 3a). The depression also reduced the effectiveness of the British government's more generous attitude towards aiding the industry from 1954. Previously the increase in corporate taxation from 19 to 52 percent in 1939-53 had reduced the internal funds which British shipowners relied upon for new investment. Furthermore the rise in death duties had a potentially lethal impact on the numerous private companies and again reduced investment funds, as at Ropner (Chapter 7c). Though British shipowners' threat to build up Bermudan subsidiaries was successful in extracting more government aid in 1956, after 1957 the slump decreased its utility since adding new tonnage would merely increase shipowners' trading losses. The improved state aid would have had been more effective had it been available from 1945 when British shipowners were deciding upon their post-war policies. In Japan for instance government support was fundamental to the rebuilding and expansion of its merchant fleet in the 1950s (Chapter 5a).

The underlying problem in the passenger trades was more intractable than the depressions in other sectors: ships as a medium of long distance passenger transport were becoming obsolete. This was unfortunate for the Merchant Navy as it was the sector where it was strongest internationally. Nor did companies successfully adopt the aircraft, though to their credit many tried. This reflected persistent poor profitability in both the declining marine trade and the nascent air lines (which precluded the necessary heavy investment) and government restrictions on airline operations. There were technical challenges in other areas too. In the

tanker trades, the size of crude oil tankers had increased throughout the 1950s while in the dry bulk trades general purpose bulk carriers were becoming increasingly significant from the early 1950s (Chapter 2a and b). The advantages of such vessels became particularly evident in the 1957-66 depression, when charterers usually only offered good cover for the largest and most efficient vessels. These were able to operate profitably at rates which meant severe losses for the British operators of general purpose tramps or small tankers. Indeed their greater efficiency was in itself a depressing factor upon freight rates since to obtain cargoes they were able to quote low rates. British independent shipowners had remained loyal to their traditional, less efficient ship types and suffered as a result. While British cargo liners remained at least as good as their competitors, the designs of many British tramps, like those of the Albyn Line were, not were not sufficiently advanced to compete in a weak market against the faster and better equipped tramps of Salvesens, LOF or many foreign companies (Chapters 2a, 2b, 7a and 7b).

The depression also highlighted the utility of minimising operating costs. Although British shipowners' labour was cheap in comparison to some North European competitors, this was not the result of deliberate policy. The use of cheap Lascar ratings was usually the result of decisions made many years before rather than recent attempts to control costs. British shipowners were also notable for their lack of interest in minimising manning levels both directly and through the use of large ships which conferred economies of scale. There were however considerable variations between companies (even within individual liner groups) with some like Ropner ordering lightly-manned ships while others (particularly some lines like Brocklebanks and to a lesser extent OTT) used inordinately large crews. In the latter two cases this removed at least part of the potential advantage they had through using cheap ratings. Similarly,

British shipping lagged behind its Scandinavian and Japanese competitors in the use of motorships which could bring substantial reductions in fuel costs (Chapter 4a and b). These, and their reliance on ships which used traditional cargo handling methods and ports, meant that even in the good years before 1975 the gap between costs and revenues was smaller than for some foreign shipowners and hence their profitability was lower. In the depression they were liable to incur heavier losses which the directors of many old companies were unwilling to sustain or combat through remedial action (Chapter 6f). Hence the shareholders of companies like the Albyn Line and Stanhope preferred to close them and use the proceeds in less difficult and more financially rewarding ventures.

1945-65 saw the pre-war trend of consolidation of liner ownership continue with the Cayzers and Vestey's buying lines to form two new groups, while Ocean acquired the Elder Dempster group in 1965. Since the constituent lines remained as operating entities, this did not cause a reduction in the British liner fleet through rationalisation. However it did mean that the more entrepreneurial shipowners like the Cayzers expanded by acquisition rather than organic growth. Hence their expansion represented changes of ownership rather than genuine growth in the UK liner sector. The sale of lines often represented the extinction or unwillingness to continue of the owning families. In the tramp sector, similar decisions usually saw the companies disappear as happened with Stanhope after the death of the founder and driving force, J.A. Billmeir. Disenchantment with commerce among controlling families was strongly influenced by the anti-industrial spirit which pervaded British culture. This would not have been so serious had the companies not been older, and hence more prone to this problem, than their Scandinavian counterparts. There was also an absence of new independent entrants to replace defunct companies. One probable reason for this was that the existing operators

were known for their poor profitability, making shipping less attractive to potential entrepreneurs (Chapter 6).

ii) 1966-73.

The most dramatic features of the second period (1966 to 1973) were the radical technological changes which affected the main sectors of the industry. In the passenger trades the terminal decline of liner shipping gathered pace with most routes being closed by 1974. Containerisation took hold with a vengeance from the late 1960s in the general cargo liner trades. In the bulk trades, crude oil tanker sizes continued their meteoric rise and specialist tankers appeared in considerable numbers, while bulkers took over much of the dry bulk sector. Galvanised by further improvements in government support, particularly the 1963 shipbuilding subsidies, many British owners rose to the challenge. Among tramp owners there was a widespread switch to bulkers, with by the 1970s an emphasis on large and efficient ships. Although few shipowners bought VLCCs, the adoption of smaller product, gas, parcel and chemical tankers was more widespread. Similarly, most lines containerised enthusiastically. However, there was a minority of shipowners, like the Aviation & Shipping Co. and the Albyn Line in the tramp trades and Donaldsons in the liner sector, for whom the risk and massive cost of unfamiliar new technology formed a barrier they were unable to surmount (Chapter 2a to d). Thus they closed, contributing to the continuing numerical decline of British shipping companies (Chapter 6a and 6b).

Underlying market problems were also evident. While British lines containerised their main routes, many small trades disappeared. Nor were these trades replaced by entry into new routes, though the massive upheaval caused by containerisation offered considerable opportunities for new entrants, which were taken by many foreign lines. This was due in part

to British shipowners' respect for the conference system and their reluctance to upset conferences by trying to enter new trades. Foreign shipowners were often less scrupulous about their competitors' interests. Even within existing conferences British lines were frequently out-negotiated, as in the Europe-South Africa trade, and their share of the trade fell as a result (Chapter 3f ii). A related external problem was the appearance of state owned liner companies controlled by the many new countries established in the wake of decolonisation. The association of many British lines with colonial rule, which had hitherto benefited them, became a liability as the new states viewed such links with suspicion. Though some national lines were established before the mid-1960s, for instance in South America, their presence began to be felt particularly in this period as containerisation gave them an opportunity to acquire increased trade shares. As they controlled their national trade, the British and other established shipowners could not refuse their demands without risking boycotts of their ships. The extent of the problem varied greatly with little impact on the large trades between developed nations such as the transatlantic and Europe-Far East. But the impact on the West and Southern Africa routes was considerable while the Burma and Ceylon trades of Bibby and Hendersons were lost in their entirety (Chapter 5c and 5d).

In the passenger trades the technical redundancy of the passenger liner meant a substitute market was needed. But while British owners had pioneered and dominated the inter-war cruise trade, it was Greek and Norwegian companies with little previous experience who developed it in the 1960s. British shipowners attempted to meet the trade with unsuitable former liners whose age also made them inefficient. Only P&O and Cunard, which followed foreign examples and acquired new purpose-built ships, survived. Similarly in other sectors, with the notable exception of gas

tankers, British companies tended to concentrate on the lineal descendants of their traditional ship types, for instance container ships in the old cargo liner trades. In doing so they missed new trades which had separated out with the introduction of specialised ships. Thus heavy lift vessels, livestock carriers, woodchip carriers and self unloading bulkers became the property of more imaginative Scandinavian and Japanese shipowners (chapters 2 and 3).

Those British companies which made the transition to new markets and technology also improved in other areas. The designs of their new ships showed much greater awareness of potential economies in operating costs via reduced manning, improved fuel efficiency and economies of scale from the mid-1960s and were comparable to most of their foreign competitors. From the late 1960s there was also a switch from the conservative policy of internal financing to the widespread use of loan finance. Although this may have been prompted by shipowners inability to pay for the complete replacement of their fleets with new, more efficient ships, it also provided funds for new ventures.

The breaking down of the rigid division between liner and tramp operators which had begun in the 1950s in the tanker sector quickened. From the late 1960s many British shipowners entered a wide range of shipping sectors. The public liner groups bought bulkers, specialised tankers and OSVs while several tramp companies acquired gas tankers. But none of the tramp operators attempted to move into the lines' old preserves in the general cargo and passenger trades. And the private Ellerman, Weir and Vestey liner groups continued to ignore the tramp trades.

There was also considerable structural change, particularly in the liner sector where the numerous operating lines began to be amalgamated. In the tramp sector some companies like the Albyn Line closed while others

like Cardigan Shipping came under foreign control. Many shipowners moved into new activities outside the industry, not just as investments as many had done in the past, but as operating businesses. This coincided with the dissolution of the founding families' control in many companies which had fundamental effects in the third period (Chapter 6e and f).

iii) 1974-79.

The third period from 1974 was notable not just for the ending of the boom years but for the emergence of the worst trading conditions since the depression of the 1930s. These spread from the large tanker market to most sectors of the industry during the mid-1970s. British shipowners were hit by these external difficulties but most persisted in the hope of an upturn in the markets, though hopelessly unremunerative ships were sold. However, the failure of the 1979-80 uplift to last in the face of world recession marked the advent of even worse markets which did not improve until 1988-89. As desperate shipowners built new vessels for any market sector they believed might support profitable operations, they worsened the depression which spread to nearly all sectors, including the liner trades and specialist niches like heavy lift vessels and car carrying, while the collapse of oil prices spread depression to OSVs and related types. Only the cruise trades remained sufficiently strong to absorb many new ships (Chapter 3a-d). British public companies in particular found it impossible to justify to stock markets (which were increasingly unwilling to tolerate operations with long term problems), their continued presence in many shipping markets which by the mid-1980s had made little, if any, money in the previous decade and showed no indication of more healthy returns in the foreseeable future (Chapter 6f and 6g).

Most British shipowners had learnt the value of long term cover in

the 1957-66 depression and attempted to insulate themselves from any market downturn. But the severity of the slump was such that many shipowners like OTT, Clarksons, LOF and Burmah found their charterers reneged on the contracts and left them exposed to a dire spot market. The length of the depression also saw many charters expire with no possibility of replacements at profitable rates, as happened to James Fisher. Similarly, the numerous consortia found that as good freight contracts expired they could rarely be replaced and then not at remunerative rates. In the liner trades, the combination of large consortia and conferences which covered nearly all British operators did not, as expected in the early 1970s, bring a new era of high returns (Chapter 3fi and 3fii). New companies, none of them British, continue to break in and on some routes recession-hit national lines became even more truculent in pressing for more of the reduced cargo volumes (Chapter 5c and d).

These market difficulties affected companies which had persisted with the old vessel types particularly hard. Even modern ships like SD-14 tramps or combo cargo liners with heavy lift gear could not compete with the more efficient bulkers and container ships in depressed markets. Hence companies like Larrinaga, Metcalfe and LOF in the tramp trades and P&O and OTT in the liner sector found their expensive new ships difficult to trade or even to sell profitably. The depression also gave renewed fervour to the efforts to reduce operating costs through fuel economy and lower manning. British owners did implement such measures until they ceased to build new tonnage in the mid-1980s. Thereafter they were unable to benefit from the remarkable improvements, which Scandinavian, German and Japanese shipowners incorporated in their new ships (Chapter 4a and b).

Even in the strong markets of the early 1970s British shipowners had been faced by rapidly escalating costs. The collapse of the markets not

only prevented them from passing cost increases on to shippers but was coupled with massive increases in fuel costs. These could best be combatted by introducing new ships or by re-engining existing ones. But the cost was difficult to justify to the British financial markets when a ship was unlikely to trade profitably in any case. In contrast many foreign owners continued to buy new tonnage despite the risk of bankruptcy. Escalating labour costs were theoretically more amenable to remedial action by British shipowners. However, the Labour Government of 1974-79 was pressing for a reduction in the use of cheap foreign labour and so shipowners rather than cutting their costs in this way found them raised as the use of Lascar labour declined. Though flagging out could have circumvented this, the Government would have been unlikely to have allowed such moves. But though the Conservative Government elected in 1979 was seen as more congenial to industrial interests, few ships were reregistered. But in 1984 the government drastically reduced its financial assistance to shipping. Not surprisingly, given the length and severity of the depression this further weakened the resolve of operators to stay in the industry. It was notable that the Swedish and Norwegian governments, which were traditionally less generous with cash aid than Britain, had on the contrary increased their support for indigenous shipowners in the depression. One of the government's aims was to make British shipowners rely on their own efforts. This was mirrored in the large proportion of ships flagged out after 1984 to reduce operating costs, particularly in manning (Chapter 5a and b). However, many vessels were sold as the removal of aid which had previously eliminated the taxes payable on the profits of other businesses of diversified companies reduced the utility of shipping subsidiaries.

A further problem stemmed from the use of loan finance which had aided the expansion and updating of the British fleet in the 1960s and

1970s. On an external level, readily available finance facilitated the rapid growth of the world fleet which compounded the difficulties caused by the markets' decline. Furthermore shipowners now had to service debts in addition to operating costs from their reduced revenue. For highly geared companies like the Court Line this proved one burden too many. The worst impact came after the decision of some owners to update their fleets around 1979. While laudable from the viewpoint of introducing ships with the latest cost reducing equipment, the extra debts incurred proved impossible to pay in the renewed depression. Hence dynamic but heavily geared companies like Reardon Smith and Lyles were ultimately forced into liquidation by their creditors, while LOF was forced to sell much of its fleet at distress prices (chapters 4c and 7b).

The manifest difficulties facing shipowners also affected the policy of diversification embarked upon by many companies. Initially it was both a sign of improved management, in that directors were prepared to make a radical departure from their traditional single industry operations, and beneficial for the shipping interests which would be supported by other interests in the event of trading difficulties. But the depth and great length of the slump and the ensuing poor profitability in many diversified companies' shipping divisions naturally led managers concerned with maximising profits to question the continuation of such a poorly performing activity. Quoted companies were under particular pressure from outside commentators to improve their results. Thus many shipping companies, ranging from small concerns like the West Hartlepool SN Co. to the great liner groups OTT and B&C, left shipping altogether to concentrate on their other businesses.

One factor in this was the breakdown of the family control of most shipping companies which S.G. Sturmeay had seen lying behind many of the poor policies (or lack of policies) pursued in the early post-war years.

This process, which had begun before the 1970s, speeded up with many families like the Cayzers at B&C and the Inchcapes at P&O handing over to non-family men. Sturmev had argued in 1962 that such new men would instil badly needed dynamism into British shipping companies, which would benefit from their pursuit of more enlightened policies. While this was the case as long as shipping offered reasonable returns, in depressed conditions this, combined with diversification, led them to close shipping operations. Thus what Sturmev considered necessary in the 1950s was a vital factor in the drastic decline in the size of the Merchant Navy after 1975-76. In contrast it was private family controlled companies, prepared to wait for the industry to recover due to their traditional affinity to shipowning, which survived the depression with their marine interests least reduced. For instance, the Bibbys, Weirs, Thomsons and Vestey's remain among the much reduced ranks of British shipowners. Among public companies it was those financially controlled by families with long maritime traditions like Runciman, Graig, LOF and Ropner which stayed in shipping (Chapters 6f, 7b and 7c).

The consolidation of ownership was one of the most important trends in the 1970s and 1980s. Although the liner sector had seen continuing consolidation into large groups since the early 1900s, this had had little effect on the size of the Merchant Navy as most of the constituent lines remained as operating entities until the era of containerisation. This saw ownership consolidated not only within individual groups but into two large organisations. These, with comparatively small exceptions such as the West African lines and the Bank Line, absorbed virtually the entire UK liner industry. While a similar pattern was evident among German, Dutch and French lines, the Scandinavian and American lines often containerised individually. This enabled companies like the Johnson, Maersk and Ivaran lines of Scandinavia and Sealand and APL of the USA to maintain their

strength much better after containerisation. The process of consolidation has continued among the British lines in the 1980s with P&O taking full control of OCL in 1986 while Cunard took over Ellermans and is believed to be eyeing the stakes held by Harrisons, the Vesteys and the Ben Line in various consortia. The danger of this trend is that should the giant diversified shipowners become disenchanted with an operation it may be closed or sold to foreign interests (Chapter 6b and 6e). This happened in the West Africa trades where OTT, having consolidated all the British lines under its ownership, sold them to French interests in 1989 (Chapter 8a).

The numerical decline of tramp British owners continued through the 1970s and 1980s. But while the ranks of Scandinavian, Greek and Far Eastern companies have also been thinned there are still far more of them. Furthermore, a larger proportion have remained committed to shipowning unlike the many diversified British companies which have left the industry. Even when British companies were diversifying into shipping in the 1970s they usually acquired existing companies, as Trafalgar House did with Cunard, rather than setting up wholly new operations. Thus there was no increase in the numbers of British shipowners.

British shipping companies have also been lost to companies to foreign ownership, the most famous example being Furness Withy's takeover by the C.Y. Tung group in 1979. Many smaller companies like F. Bolton, Hudson SS Co. and Thornhope have gone down the same road. One reason for this is that British companies are unusually accessible to foreign takeovers, while hostile takeovers of overseas shipowners by British interests are rendered difficult by foreign legislation and the protective attitude of major investors. Furthermore, foreign interests are more interested in shipping than British investors and financiers. A noteworthy indicator of this is the unpopularity of the share issues in

'new' British companies under the government's BES scheme which was intended to foster new companies. Significantly, all the BES shipping companies are either recreations of existing operators or are closely associated with old companies. Hence, rather than remedying the lack of new British shipowners, they are merely extensions of old companies. The government's reduction of the personal and corporate tax burdens, which might have been effective in better times, had little impact in a severe recession and for shipowners was offset by the loss of state aid in 1984.

In terms of the balance between internal and external factors in the decline of the Merchant Navy, the 1945-65 period bears out many of Sturmeys suggested internal factors. Most British shipowners were not very receptive to new ideas either in terms of markets or new technology in the 1940s and early 1950s, unlike many Scandinavian, Greek and Far Eastern companies. This is indicative of relative weaknesses in management. In particular, while they were undoubtedly faced with severe financial difficulties, few were sufficiently entrepreneurial to break out of the straitjacket of conservative financial policies. However, it is also true that rising personal and corporate taxation had a considerable impact and was largely outside their control as were the debilitating restrictions on freight rates in the 1940s. The mid-1950s saw these negative internal factors' impact fall as company policies improved: for instance, the adoption of tankers and the shipowners' successful campaign for improved state aid by threatening to move to Bermuda.

From 1957 they were hit by a major external problem, the shipping depression. However, the effect of this could have been reduced had British shipowners been more receptive to the considerable opportunities for market insulation and for adopting new technology. Many of their competitors from Scandinavia had pursued more enlightened policies while

FOC operators sometimes combined this with their lower operating costs.

1966-73 saw the continuation of the serious internal problem of the attrition of some companies as their controllers lost the will to continue in shipping or followed poor policies. In contrast some foreign merchant marines were buoyed by new entrants or the rapid expansion of existing companies which more than compensated for attrition. Similar vigorous responses also came from many British shipowners galvanised by improving external factors such as government aid and expanding markets. The impact of internal factors such as increased efforts to control costs, the use of external finance and awareness and adoption of new technology also changed for the better. However, some internal problems remained, particularly the slowness in comparison to Scandinavian and Japanese companies in exploiting wholly new markets and the unwillingness to pursue forceful expansion in the liner trades.

In the final period from 1973 shipowners were faced with the devastating external problem of a depression which was both severe and exceptionally prolonged. But this spectre afflicted shipowners the world over and not just the Merchant Navy. While FOC companies lowered their costs, which enabled them to remain profitable in situations where British owners incurred crippling losses or at least to keep losses to a tolerable level. British public companies in particular were constrained by very different expectations. Gone was the public perception of a great industry led by the titans of British commerce which served the nation and the empire and carried the flag across the globe. Instead, British shipping was increasingly expected to measure up to rapid profits growth of the new favoured industries such as financial services and the reinvigorated companies sold off by the state. This it could rarely do and thus prudent management required the excision of shipping interests. In contrast in the Far East, Greece and Scandinavia the industry remained

in better favour in business circles so that with the upturn of the markets at the end of the 1980s shipping companies could expand once more, sometimes by buying vessels and companies which were no longer considered worth retaining in the country which forty years earlier had dominated the world shipping industry.

BIBLIOGRAPHY

- Appleyard H.S., 1983, The Constantine Group, World Ship Society, Kendal.
- Atterbury P. and McKenzie J., 1985,
A Golden Adventure. The First Fifty Years of Ultramar,
Hurtwood Press, London.
- Baker White J., 1946, Nationalisation: Chaos or Cure ?,
Falcon Press, London.
- Bank Line, 1956, Seventy Adventurous Years, Bank Line Ltd., London.
- Berridge G.R., 1987, The Politics of the South Africa Run,
Clarendon Press, Oxford.
- Blake G., 1956 (1), The Ben Line, T. Nelson & Sons, Edinburgh.
- Blake G., 1956 (2), B.I. Centenary, 1856-1956 , Collins, London.
- Bonsor N.R.P., 1983, South Atlantic Seaway,
Brookside Publications, Jersey.
- Boyce G., 1984, 'Christopher Furness' in Dictionary of Business
Biography, vol 2, pp443-446, Butterworth, London.
- Boyce G., 1985, 'Frederick William Lewis' in Dictionary of Business
Biography, vol 3, pp761-763, Butterworth, London.
- Braynard F.O. and Miller W.H., 1987,
Fifty Famous Liners 3, Stephen, Wellingborough.
- British Petroleum Co., The, 1958, Our Industry,
The British Petroleum Co., London.
- Brooks M.R., 1985,
Fleet Development and the Control of Shipping in South East Asia,
Institute of South East Asian Studies, Singapore.
- Burrell D.C.E., 1987, The Thistle Boats, World Ship Society, Kendal.
- Cameron A. and Farndon R., 1984, Scenes from Sea and City:
Lloyds List 1734-1984, Lloyds List, London.

- Chandler G., 1960, Liverpool Shipping. A Short History,
Phoenix House, London.
- Clarkson H. & Co., 1952, The Clarkson Chronicle 1852-1952,
Harley Publishing, London.
- Coleman D.C., 1973, 'Gentlemen and Players',
Economic History Review, vol 26, pp92-116.
- Course A.G., 1963, The Merchant Navy, A Social History,
F. Muller, London.
- Craig F.W.S., 1971, British Parliamentary Election Results 1950-1970,
Political Reference Publications, Chichester.
- Craig R., 1985, 'Henry Radcliffe' in Dictionary of Business Biography,
vol 4, pp796-799, Butterworth, London.
- Craig R. and Robson M., 1985, 'Sir Robert Ropner' in
Dictionary of Business Biography, vol 4, pp940-945, Butterworth, London.
- Critchell J.T. and Raymond J., 1912, A History of the Frozen Meat Trade,
Constable & Co., London.
- Dannevig B., 1966, Arnt J. Morland 1916-1966, Danielson, Arendal.
- Davies P.N., 1973, The Trade Makers. Elder Dempster in West Africa
1852-1972, Allen & Unwin, London.
- Dear I., 1986, The Ropner Story, Hutchinson Benham, London.
- Drewry H.P. Ltd., 1979,
Survey No.19: Trading Prospects for Dry Bulk Carriers,
H.P. Drewry, London.
- Dunnett A.M., 1960, The Donaldson Line: A Century of Shipping 1854-1954,
Jackson, Son & Co., Glasgow.
- Emmons F., 1972, The Atlantic Liners 1925-70,
David & Charles, Newton Abbot.
- Eyres D.J., 1978, Ship Construction, Heinemann, London.

- Fayle C.E., 1927, The War and the Shipping Industry,
Oxford University Press, London.
- France Fenwick & Co., 1954, Wm. France Fenwick & Company Limited,
privately published, London.
- Frischauer W., 1968, Onassis, Book of the Month Club, London.
- Furuta K. and Hirai Y., 1967, A Short History of Japanese Merchant
Shipping, Tokyo News Service, Tokyo.
- Gibbs C.R.V., 1963, British Passenger Liners of the Five Oceans,
Putnam, London.
- Gibbs C.R.V., 1970, The Western Ocean Passenger Lines and Liners, 1934-69,
Brown, Son & Ferguson, Glasgow.
- Gibbs J.M., 1982, Morels of Cardiff: the History of a
Family Shipping Firm, National Museum of Wales, Cardiff.
- Gilman S., 1977, 'Optimal Shipping Technologies for
Routes to Developing Countries'
in The Journal of Transport Economics and Policy, vol xi, pp24-43.
- Goss R.O., 1967, 'Turnaround of Cargo Liners and its Effect upon Costs'
in The Journal of Transport Economics and Policy, vol i, pp75-89.
- Green E. and Moss M., 1982, A Business of National Importance.
The Royal Mail Shipping Group 1902-1937, Methuen, London.
- Greenhill R.G., 1985 (1), 'Sir Robert Paterson Houston' in
Dictionary of Business Biography, vol 3, pp369-372, Butterworth, London.
- Greenhill R.G., 1985 (2), 'Sir Ernest Henry Murrant' in
Dictionary of Business Biography, vol 4, pp393-396, Butterworth, London.
- Hackman R.M.B.H., 1969, The Fleet Past and Present of Hunting & Son Ltd,
World Ship Society, Kendal.
- Hall A.A., 1985, 'James Joicey' in Dictionary of Business Biography,
vol 3, pp521-522, Butterworth, London.

- Haworth R.B., 1968, 'The Eastern Steamship Company Limited' in
Marine News 3.68, pp66-68.
- Haws D., 1986, Merchant Fleets 6: Blue Funnel Line,
 Travel Creatours Publications, Burwash.
- Heaton P.M., 1986, Reardon Smith Line. History of a South Wales
Shipping Venture, Starling Press, Newport.
- Hilditch P.N., 1986,
Management Strategy in the British Shipbuilding Industry 1945-1986,
 unpublished Phd thesis, UKC, Canterbury.
- Holt John & Co., c. 1950, Merchant Adventure, J. Holt & Co., Liverpool.
- Hornsby D., 1986, Ocean Ships, Ian Allan, London.
- Hugill A., 1978, Sugar and All That.... A History of Tate & Lyle,
 Gentry Books, London.
- Hunting Sir Percy, 1968, The Group and I, Hunting Group, London.
- Hurd Sir Archibald, c.1943, Britain's Merchant Navy, Odhams Press, London.
- Hyde F.E., 1967, Shipping Enterprise & Management 1830-1939,
 Liverpool University Press, Liverpool.
- Hyde F.E., 1971, Liverpool and the Mersey, David & Charles, Newton Abbott.
- Hyde F.E., 1975, Cunard and the North Atlantic 1840-1973,
 Macmillan, London.
- Ireland B., 1981, The Busy Channel, Ian Allan, London.
- Jackson, 1986, 'Charles Henry Wilson and Arthur Wilson' in Dictionary of
Business Biography vol 5, pp846-849, Butterworth, London.
- Jenkins D., 1985, Jenkins Brothers of Cardiff: A Ceredigion Family's
Shipping Ventures, National Museum of Wales, Cardiff.
- Jenkins J.G. and Jenkins D., 1986, Cardiff Shipowners,
 National Museum of Wales, Cardiff.
- Jog N.G., 1969, Saga of Scindia, Scindia, Bombay.

- Johnson K.M. and Garnett H.C., 1971, The Economics of Containerisation,
Allen & Unwin, London.
- de Kerbrech R.P., 1986,
Shaw Savill & Albion. The Post-war Fortunes of a Shipping Empire,
Conway, London.
- Kielhau W., 1953, Norway and the Bergen Line, Bergen Line, Bergen.
- Kinghorn A.W., 1983, Before the Box Boats, Kenneth Mason, Emsworth.
- Kirby M.W., 1977, The British Coalmining Industry 1870-1946,
MacMillan, London.
- Kirkaldy, A.W., 1919,
British Shipping: its History, Organisation and Importance,
Kegan Paul, Trench, Trubner, London.
- Knightly P., 1981, The Vestey Affair, MacDonald, London.
- Kohn R., 1970, Palm Line the Coming of Age 1949-1970,
Palm Line, Liverpool.
- Lang A. and Lang R., 1974, A Shipping Venture: Turnbull Scott &
Company 1872-1972, Hutchinson Benham, London.
- Lane T., 1986, Grey Dawn Breaking. British Merchant Seafarers in the Late
Twentieth Century, Manchester University Press, Manchester.
- Le Fleming (1), 1961, Ocean Ships, Ian Allan, London.
- Le Fleming (2), 1961, Ships of the Blue Funnel Line,
Adlard Coles, Southampton.
- Ledwith F., 1974, Ships that go Bump in the Night, Robert Hale, London.
- Lemos A.G., 1976, The Greeks and the Sea, Cassell & Co., London.
- Lindsay J.B., 1965 (original 1874), A History of Merchant Shipping and
Ancient Commerce, AMS Press, New York.
- Lingwood J., 1976, SD-14 the Great British Shipbuilding Success Story,
World Ship Society, Kendal.

- Lloyds War Losses: The Second World War, 1989,
Lloyds of London Press, London.
- Maber J.M., 1976, North Star to Southern Cross,
J. Stephenson & Sons, Prescott.
- Marr G., 1973, The Queens and I, Coles, London.
- Marx D., 1969, International Shipping Cartels. A Study of Self Regulation
by Shipping Conferences, Greenwood Press, New York.
- McConville J., 1977, The Shipping Industry in the United Kingdom,
International Institute of Labour Studies, Geneva.
- McCrae A.G., 1961, addendum to Laird D.,
Paddy Henderson: the Story of P. Henderson & Co. 1854-1961,
G. Outram & Co., Glasgow.
- McLachlan D.L., 1958, 'Index Numbers of Liner Freight Rates in
the United Kingdom Trades'
in Yorkshire Bulletin of Economic and Social Research vol 10, pp50-62.
- McClellan R.S., 1956, Anchor Line 1856-1956, Anchor Line, Glasgow.
- Meneight W.A., 1977, A History of the United Molasses Co. Ltd.,
Seal House Press, London.
- Metaxas B.N., 1971, The Economics of Tramp Shipping,
Athlone Press, London.
- Middlemas N.L., 1989, Twenty Tramp Fleets,
Shield Publications, Newcastle-upon-Tyne.
- Moody B., 1971, Ocean Ships, Ian Allan, London.
- Moody B., 1974, Ocean Ships, Ian Allan, London.
- Moss M. and Hume J.R., 1986,
Shipbuilders to the World. 125 Years of Harland and Wolff,
Belfast 1861-1986, Blackstaff Press, Belfast.
- Muir A. and Davies M., 1978, A Victorian Shipowner: A Portrait of Sir
Charles Cayzer, Baronet of Gartmore, Cayzer, Irvine & Co., London.

- Naess E.D., 1977, Autobiography of a Shipping Man,
Seatrade Publications, London.
- Niven J., 1987, The American President Lines and its Forebears 1848-1987,
Associated University Press, London.
- O'Loughlin C., 1967, The Economics of Sea Transport, Pergamon, Oxford.
- Orbell J., 1978, From Cape to Cape. The History of Lyle Shipping Company,
Paul Harris, Edinburgh.
- Paget-Tomlinson E.W., 1982, Bibby Line: 175 Years of Achievement,
Bibby Line Ltd., Liverpool.
- Perren C., 1986, 'William Vestey and Sir Edmund Hoyle Vestey' in
Dictionary of Business Biography, vol 5, pp618-621, Butterworth, London.
- Porter A., 1986, Victorian Shipping, Business and Imperial Policy: Donald
Currie, the Castle Line and Southern Africa, Boydell Press, Woodbridge.
- Pyatt E., 1983, The National Physics Laboratory: a History,
Adam Hilger, Bristol.
- Ratcliffe M., 1985, The Liquid Gold Ships. A History of the Tanker
1859-1984, Lloyds of London Press, London.
- Reader W.J., 1981, Bowater a History,
Cambridge University Press, Cambridge.
- Rowe D.J., 1985, 'Walter Runciman' in
Dictionary of Business Biography, vol 4, pp978-981, Butterworth, London.
- Rowland K.T., Steam at Sea. A History of Steam Navigation,
David & Charles, Newton Abbot, 1970.
- Rubenowitz S. and Gleerup A., 1977, The Shipping Industry in Sweden,
International Institute for Labour Studies, Geneva.
- Russell A.G., 1985, Port Line, privately printed, London.
- Sawyer L.A. and Mitchell W.H., 1970, The Liberty Ships,
David & Charles, Newton Abbot.
- Sawyer L.A. and Mitchell W.H., 1984, The Cape Run, T. Dalton, London.

- Saggar R.K., 1970, 'Turnaround and Cost of Conventional Cargo Liners' in
Journal of Transport Economics and Policy, vol 4, pp53-65.
- Sasaki H., 1976, The Shipping Industry in Japan,
International Institute for Labour Studies, Geneva.
- Schonknecht R. et al, 1983, Ships and Shipping of Tomorrow,
McGregor Publications, Hounslow.
- Sedgewick S., 1977, London & Overseas Freighters Limited 1949-1977,
World Ship Society, Kendal.
- Seiler O.J., 1988, Hapag Lloyd: 100 Years of Liner Shipping Far East,
Hapag Lloyd, Hamburg/Bremen.
- Sommer G., 1984, From 70 North to 70 South,
Christian Salvesen, Edinburgh.
- Stemman R., 1986, Geest 1935-85, privately printed, Spalding.
- Stoker R.B., 1985, The Saga of Manchester Liners, Kingfish, Douglas.
- Sturmev S.G., 1962, British Shipping and World Competition,
Athlone Press, London.
- Sturmev S.G., 1975, Shipping Economics. Collected Papers,
Macmillan, London.
- Swayne R. et al, c. 1982, The Challenge of Soviet Shipping,
Aims of Industry, London.
- Talbot-Booth E.C., 1940, His Majesty's Merchant Navy,
Sampson Low, Marston & Co., London.
- Tatsuki M. and Yamamoto T., 1985, The First Century of Mitsui OSK
Lines Ltd., Mitsui OSK Lines, Tokyo.
- Taylor E.N., 1968, 'The Field Line (Cardiff) Ltd.',
in Marine News, 10.68, pp269-273.
- Taylor J., 1976, Ellermans. A Wealth of Shipping,
Wilton House Gentry, London.
- Vamplaw W., 1975, Salvesen of Leith, Scottish Academic Press, Edinburgh.

- Van den Burg G., 1975, Containerisation and Other Unit Transport,
Hutchinson Benham, London.
- Whitehurst C.H., 1983, The US Merchant Marine,
Naval Institute Press, Annapolis.
- Wiener M.J., 1981,
English Culture and the Decline of the Industrial Spirit 1850-1980,
Cambridge University Press, Cambridge.
- Williams I., 1988, unpublished history of Graig Shipping,
Graig Shipping, Cardiff.
- Wilson D.F., 1972, Dockers: the Impact of Industrial Change,
Fontana/Collins, London.
- Wilson S. & Sons, 1955,
A Company's History in its Setting: Samuel Wilson & Sons 1855-1955,
S. Wilson & Sons, London.
- Winchester C. (ed.), c. 1936, Shipping Wonders of the World vol 1,
Fleetway House, London.

Yearbooks and Directories

- Burkes Peerage and Baronetage, Burkes Peerage, London, 1976.
- Croner's World Directory of Freight Conferences, Croner Publications,
London.
- British Shipping Statistics, GCBS, London.
- Digest of Port Statistics, National Ports Council, London.
- Dictionary of National Biography, Oxford University Press, Oxford.
- Directory of Directors, Thomas Skinner Directories, Croydon.
- Directory of Shipowners, Shipbuilders and Marine Enginebuilders,
Tothill Press, London.
- The Europa Year Book, Europa Publications, London.

International Shipping and Shipbuilding Directory, Benn Bros., London.
International Yearbook of Transport.
Jane's Freight Containers, Jane's Publishing Co., London.
Jane's Merchant Ships, Jane's Publishing Co., London.
Jane's Merchant Shipping Review, Jane's Publishing Co., London.
Japan Economic Yearbook, The Oriental Economist, Tokyo.
Japanese Industries, The Industrial Bank of Japan Limited, Tokyo.
Liquid Gas Carrier Register, H. Clarkson, London.
Lloyds Confidential Index, Corporation of Lloyds, London.
Lloyds Maritime Directory, Lloyds Register of Shipping, London.
Maritime Transport, OECD, Paris.
Merchant Ships: World Built, Adlard Coles, Southampton.
National Maritime Museum Archive Directory,
National Maritime Museum, London.
Register of Ships, Lloyds Register of Shipping, London.
Stock Exchange Official Yearbook, MacMillan, London.
The Times 1000, Times Books, London.
Who Owns Whom, Dun and Bradstreet International, London.
Who Was Who, Adam and Charles Black, London.
Wyt's Digest of Dutch Shipping and Shipbuilding,
Dagblad Scheepvaart, Rotterdam.

Government Publications and GCBS Reports

Cmnd 1749, 1962, Report of the Company Law Committee, HMSO, London.
Cmnd 1824, 1962, Report of the Committee of Inquiry
into the Major Ports of Great Britain, HMSO, London.
Cmnd 2937, 1966, Shipbuilding Inquiry Committee 1965-66. Report,
HMSO, London.

- Cmnd 4337, 1970, Committee of Inquiry into Shipping. Report,
HMSO, London.
- Department of Trade, 1978, Inspectors Final Report on Court Line Limited,
HMSO, London.
- HC 96 1986-87, Decline in the UK Registered Merchant Fleet,
minutes and interim report of the House of Commons Transport Committee,
HMSO, London.
- Ministry of Transport, 1950, The Ministry of Transport,
Ministry of Transport, London.
- Statutes in Force, vol 111 'Shipping', HMSO, London.
- Annual Abstract of Statistics, Central Statistical Office, HMSO, London.
- Behrens C.B.A., Merchant Shipping and the Demands of War,
HMSO and Longmans, Green & Co., London, 1955.
- Chester Sir Norman, The Nationalisation of British Industry 1945-51,
HMSO, London, 1975.
- GCBS, 1960, Survey of British Shipping with Recommendations as to Policy,
GCBS, London.
- GCBS, 1986, The Decline of the UK Registered Merchant Fleet,
GCBS, London.
- GCBS, 1987, The Future of the British Merchant Fleet:
An Analysis of Policy Options, GCBS, London.
- UNCTAD, 1968, Establishment or Expansion of
Merchant Marines in Developing Countries, UN, New York.
- UN, 1957, The Economic Development of Colombia, UN, Geneva.
- Second Malaysia Plan 1971-1975, Government Press, Kuala Lumpur, 1971.
- Fourth Malaysia Plan 1981-1985,
National Printing Department, Kuala Lumpur, 1981.
- Baybakov N.K., State Five Year Plan for the Development of the USSR
National Economy for the Period 1971-1975,
Joint Publications Research Service, Arlington, 1972.

Mini-Facts About Norway 1988-89, Royal Ministry of Foreign Affairs, Oslo.

The Norwegian International Ship Register,

Royal Norwegian Ministry of Trade and Shipping, Oslo, c. 1988.

Periodicals

Containerisation International

Daily Telegraph

Economist

Fairplay

Far Eastern Economic Review

Financial Times

Guardian

Hansard

Independent

Investors Chronicle

Journal of Transport Economics and Policy

Lloyds List

Lloyds Ship Manager

Lloyds Shipping Index

Marine News

Merchant Navy Programme

New Scientist

Sea Breezes

Seven Seas

Shipbuilder and Marine Engine Builder

Ships Monthly

Sunday Telegraph

Times

Transport

Yorkshire Bulletin of Economic and Social Research

Corporate Sources

Note: where company documents are not listed in alphabetical order the organisations concerned are commercially connected.

Albyn Line archives:

Albyn Line ARs 1901-66

Directors Minute Book One

Directors Minute Book Two

Shareholders Minute Book

Correspondance Files

Voyage books

Altnacraig Shipping PLC. Further Offer for Subscription.

Ben Line Bulletin

Ben Line brochure 3.83

Bergesen A/S Introduction Document, 1988

Booker McConnell ARs 1960-84

Booker Group shipping supplement 1953

C.T. Bowring ARs 1974-79

British Dredging ARs 1984-87

The British Dredging Group

Britannia Marine PLC. Offer for Subscription

British Nuclear Fuels ARs

BP ARs 1965-88

Anglo-Iranian Oil Co. AR 1953

BP Shipping Review

British Ports Association ARs 1985, 1986

British Ports Association Review

British Ports Association Press Releases

British & Commonwealth ARs 1965-86

Clansman

Bromley Shipping PLC. Offer for Subscription

Brostrom AR 1986

Brostrom brochures

Brynmoor SS Co. AR 1946

Burmah ARs 1966-88

Burnett & Hallamshire ARs 1982-87

Cable & Wireless AR 1987

Canadian Pacific ARs 1984-87

Horace Clarkson Introduction Document

Common Bros AR 1986

Cunard ARs 1945-70

Davies & Newman AR 1987

Denholm Ship Management brochures

Edinburgh Tankers PLC. Further Offer for Subscription

Exxon Corporation ARs 1985,

1986 Esso Marine brochure

James Fisher ARs 1983-88

James Fisher brochure

Wm France Fenwick ARs 1945-56.

Geest AR 1986

Geest brochures

General Council of British Shipping ARs 1986-88

Chamber of Shipping of the United Kingdom ARs 1921-39

British Shipping Review

GCBS press releases

Gotaas Larsen ARs 1979-86

Gotaas Larsen brochures

Graig Shipping ARs 1979-88

Hambros ARs 1966-79

Hapag Lloyd brochures

Harrisons (Clyde) brochure

Harrison Line 1853-1977 (brochure)

Hays 1987 Review

Hays Group brochures

Hunting Gibson AR 1986

Hunting Group Review

Hunting group brochure

John I Jacobs ARs 1984-88

Jebsens brochures

Laboremus AR 1988

LOF ARs 1949-65, 1975-79, 1981-89

Lonhro ARs 1974-78, 1987

Maersk ARs 1987

Maersk brochure

Maersk Post

Mammoet brochure 1988

Mobil AR 1986

National Association of Port Employers Parliamentary Briefing, 1987

Nedlloyd ARs 1987, 1988

Nedlloyd brochures

Nigerline

OSS Co. ARs 1965-71

OTT ARs 1971-88

Ocean Wilson (Holdings) AR 1985

P&O ARs 1945-64, 1974-87

P&O brochures

Port of Felixstowe, 1987, The Port of Felixstowe

Port of London

Powell Duffryn ARs 1973-79, 1982-88

Powell Duffryn brochures

Ropner Holdings ARs 1948-65, 1981-88

Ropner Shipping Co. ARs 1945-48

Pool Shipping Co. ARs 1945-48

Walter Runciman ARs 1984-88

Anchor Line 1856-1976 (brochure)

Safmarine ARs 1984-88

Christian Salvesen ARs 1984-87

Christian Salvesen brochures

Seacon brochures

Sealand brochures

CSX ARs 1986, 1987

Shell ARs 1965-83

Shell brochures

Short Sea Europe: Offer for Subscription

Stena AR 1986/87

Stena brochure

John Swire & Sons ARs 1984-88

Texaco ARs 1982-86

Trades Union Congress ARs 1964-87

Trafalgar House Investments ARs 1974-78, 1985-88

Tate & Lyle ARs 1966-70, 1975-78

Cargo loading plans of T&L bulk carriers

Turnbull Scott ARs 1982-89

Ultramar ARs 1979-88

Unilever AR 1985

Unilever Magazine

