

APPENDIX 1

(referred to in paragraph 7)

**List of bodies and individuals who provided us with views and information**

**A. The following bodies and individuals provided us with views and information:**

1. *Shippers*

British Carpet Manufacturers' Association  
British Ceramic Manufacturers' Federation  
Canada-United Kingdom Chamber of Commerce  
Clyde Port Authority  
Institute of Freight Forwarders Ltd  
Manchester Chamber of Commerce and Industry  
North West Industrial Development Association  
Road Haulage Association Ltd  
Trafford Park Industrial Council  
Eleven companies which either export or import manufactured goods, raw materials or food

2. *Ship-operators*

Six companies which operate ships

3. *Shipbuilders*

One shipbuilding company

4. *The Manchester Ship Canal Company*

5. *Shipping conferences*

Associated North Atlantic Freight Conferences  
Canadian Atlantic Freight Secretariat Ltd

6. *Trades Unions*

Association of Scientific, Technical and Managerial Staffs  
British Seafarers' Joint Council  
Confederation of Shipbuilding and Engineering Unions  
Trades Unions Council (who forwarded the comments of the Transport and General Workers Union to us)  
Morrell Mills Group of Companies, Joint Shop Stewards Committee

7. *Government departments and other official bodies*

Department of Trade  
Department of Industry  
Department of Energy  
Treasury  
Inland Revenue  
Bank of England

**B. The following bodies and individuals said they did not wish to comment on the proposed merger situations:**

Association of British Plywood and Veneer Manufacturers

Confederation of British Industry

National Ports Council (the Council provided information)

Timber Trade Federation of the United Kingdom

The Shipbuilders and Repairers National Association

One shipper

## APPENDIX 2

*(referred to in paragraph 13)*

### **Ownership and registration of ships in Bermuda**

1. Part 1 and certain other parts of the Merchant Shipping Act 1894 apply to ships registered in Bermuda. In addition, by the Bermuda Merchant Shipping Act 1930, Part II of the 1894 Act is declared to apply to 'every British ship registered in, trading with, or being in' Bermuda; the Bermuda Legislature has not availed itself of the provisions of section 735 of the 1894 Act so as to repeal any of the provisions of that Act which apply to ships registered in Bermuda. The Ships and Aircraft (Transfer Restrictions) Act 1939 also extends to ships registered in Bermuda. The effect of this Act is to oblige the owners of ships registered in Bermuda to obtain the approval of the United Kingdom Department of Trade for the sale or mortgaging of such ships; however, the General Sanctions of June 1959 apply to ships registered in Bermuda and, in effect, grant general permission to sell or mortgage Bermuda registered ships except in the cases of certain kinds of ships or sales or mortgages to certain countries.

2. A Bermuda exempted company (see Appendix 5) may be the owner of a British ship provided its principal place of business is in Her Majesty's dominions. The nationality of the individual shareholders of such a company is immaterial. If the head office of an exempted company is in Bermuda and control of its activities is exercised by its board of directors from Bermuda any ship owned by such a company will be deemed a British ship. A Bermuda company is not obliged to register its ships in Bermuda but may register such ships in the United Kingdom or elsewhere in the British dominions. The Bermuda Collector of Customs is the Registrar of Shipping for Bermuda.

3. Section 6 of the Bermuda Act provides that no alien shall act as master, chief officer or chief engineer of a ship registered in Bermuda, except in the case of a ship employed habitually in voyages between ports outside Bermuda. However, the United Kingdom 1894 Act lays down provisions regarding officers of British foreign-going ships and British home-trading ships when going to sea from any place in the United Kingdom.

4. Various United Kingdom Acts governing merchant shipping, such as the Merchant Shipping Act 1964 which gives effect to the International Convention for Safety of Life at Sea 1960, also extend to shipping registered in Bermuda, some by Orders in Council.

APPENDIX 3

(referred to in paragraphs 26, 45, 47, 50, 51, 259)

Container services on the North Atlantic

1 Conference operators

Ship operator	Owners (of operating company)	Ports		Number of Ships	Speed (knots)	Type and capacity (TEU)	Services	Approximate total annual capacity (one way) (TEU)
		Europe	N America					
Atlantic Container Line (ACL) (Hamilton, Bermuda)	Compagnie Generale Transatlantique (Paris) (20%) Cunard Steamship Co Ltd (London) (20%) Intercontinental Transport (ICT) BV (Rotterdam) (20%)	1. Gothenburg Liverpool	Halifax New York	4	19.5	LO/LO 820 RO/RO 164	Each service 1 weekly	135,000
		2. Le Havre Rotterdam Southampton Le Havre	New York Baltimore Portsmouth Baltimore New York	6	23	LO/LO 700		
		3. Antwerp Bremerhaven Greenock Liverpool	Halifax New York Portsmouth VA Baltimore New York					
Swedish American Line (Brostrom Group) (Gothenburg) (10%) Transatlantic Steamship Co Ltd (Gothenburg) (10%) Wallenius Line (Stockholm) (20%)								
Sealand Services Inc (Edison New Jersey)	R T Reynolds Industries Inc (USA)	Rotterdam Bremerhaven	Elizabeth NJ	3	Up to 33	LO/LO 2,200	1 weekly	115,000
		Feeder services throughout Europe and to Felixstowe, Grangemouth and Preston						
Seatrains Lines (Weehawken NJ)	Seatrains Lines Inc (USA)	Le Havre Rotterdam Bremerhaven Greenock	New York Norfolk Baltimore Charleston	4	Up to 25	LO/LO 1,828	1 weekly	92,000
		Feeder services to: Boston, Bridgeport and Gulf Ports						

Conference operators (continued)

Ship operator	Owners (of operating company)	Ports		Number of Ships	Speed (knots)	Type and capacity (TEU)	Services	Approximate total annual capacity (one way) (TEU)
		Europe	N America					
United States Liners Inc (New York)	Walter Kidde & Co (USA)	Rotterdam Bremerhaven Liverpool Greenock Hamburg Felixstowe Le Havre	New York Baltimore Norfolk Philadelphia Charleston Jacksonville Savannah	8	16	LO/LO 1,009	2 services weekly	100,000
110 Dart Containerline Co Ltd (Hamilton, Bermuda)	Compagnie Maritime Belgique	Antwerp	Halifax	3	21 to 23	LO/LO 1,595	1 weekly	80,000
	Bibby Bros & Co C Y Tung Group (Hong Kong)	Southampton Le Havre	New York Norfolk					
Hapag-Lloyd (Hamburg)	Hapag-Lloyd AG	Le Havre Antwerp Rotterdam Hamburg Bremerhaven Greenock	Halifax New York Norfolk Baltimore Philadelphia	4	20	LO/LO 1,114	1 weekly	56,000
American Seaport Lines Inc (New York)	American Seaport Industries Inc (USA)	Bremerhaven Amsterdam Felixstowe Le Havre	New York Baltimore Norfolk Philadelphia Savannah Charleston	3	20	LO/LO 1,070	1 weekly	53,000

Feeder services to:  
Ireland, Spain and Portugal

Manchester Liners Ltd (UK)	Furness, Withy & Co, Ltd (UK)	Manchester Liverpool Greenock Dublin	Montreal Cleveland Detroit Chicago Milwaukee	4	17.5	LO/LO 527	Every 5 to 7 days	30,000
Canadian Pacific Steamships Ltd (UK)	Canadian Pacific Ltd (Canada)	Rotterdam Tilbury Le Havre	Quebec	3	20	LO/LO 779	1 weekly	39,000
Neel Container Line	Transatlantic Container Transport Ltd	Antwerp Felixstowe	New York Boston	3	17.5	LO/LO 496	1 weekly	25,000
Canadian Roll-on Exporters Line (Managed by ACL)	Wallenius Line (Stockholm) Swedish American Line (Gothenburg) Compagnie Federale Maritime (Paris)	} Gothenburg Bremerhaven Rotterdam Le Havre	Montreal Toronto	3	17.5	LO/LO 268 RO/RO 200 cars	Every 10 to 12 days	8,700 and 6,600 cars
2. Non-conference operators								
Cargo Lines Ltd (Chiasso, Switzerland)	G Keller R Hofman J Koch	Bremen Antwerp Felixstowe	New York Seaport (Maine)	4	15-17	LO/LO 296 to 418	weekly	18,000
Europe Canada Lakes Line*	Ernst Russ	Le Havre Antwerp Rotterdam Bremen Hamburg Grangemouth	Montreal Toronto Cleveland Toledo Milwaukee Chicago	4	18	LO/LO 250 plus conventional cargo	Fortnightly but to Montreal only in winter	6,250
Cast Containers Ltd	Eurocanadian Shipholdings Ltd	Antwerp	Montreal†	6†	14-17	LO/LO† 340-464	Every 5 to 7 days	25,000

In addition to the container services listed above a number of shipping companies including those belonging to Eastern Bloc countries operate either conventional liner services or scheduled bulk carrier services between the United Kingdom, the Continent, Canada, and the United States of America. Some of these ships carry a limited number of containers.

\*Europe Canada Lakes Line is a member of the United Kingdom/Canada Westbound conference; as it does not accept traffic for the United Kingdom Eastbound, it is not a member of the Eastbound United Kingdom conference. It is not a member of the Continent/Canada conferences.

†Of these ships, five are bulk carriers which load steel, in addition to containers at Antwerp and discharge it at Montreal. After loading containers at Montreal they load ore or other bulk cargo at Canadian ports for discharge at North European ports.

APPENDIX 4

(referred to in paragraphs 40 and 41)

**Trade with Canada**

**1. United Kingdom exports to Canada**

The main items exported include:

Steel rim sections	Spirits and wine	Engines
Machinery	Glue stock	Sports goods
Canned goods	Brass strip	Antimony oxide
Crockery (incl china)	Cordials	Steel rolls
Glass	Typewriters	Photo film
Carpets	Tea	Toys
Chemicals	Biscuits	Sugar and chocolate
Effects	Dry goods	Confectionery
Cycles	Tools	Wool
Record changers	Wallpaper	Paints/colours
Footwear	Steel tubes	Electric motors
Floor coverings	Cereal foods	
Bric-a-brac	Synthetic fibre	
Grinding media	Chocolate crumb	

The value of United Kingdom exports to Canada during the past five years has been:

	<i>Canadian \$m</i>	<i>Increase over previous year per cent</i>
1972	949	11.3
1973	1,005	5.9
1974	1,127	12.0
1975	1,221	8.4

**2. Ranking by size of market**

Canada's position as a British export market	1974—12th	1975—12th
Britain's position as a supplier to the Canadian market	1974— 4th	1975— 3rd

**3. Canadian imports**

	<i>Total Canadian imports Canadian \$m</i>	<i>Increase over previous year per cent</i>
1972	18,669	19.5
1973	23,323	24.8
1974	31,639	35.7
1975	34,537	9.2

**4. United Kingdom imports from Canada**

The main items imported include:

Aluminium	Ferrosilicon	Paper, board,
Asbestos	Iron and steel	newsprint, printing
Beans	Lumber	Starch—corn
Canned goods	Soyameal	Tobacco
Copper	Nickel	Wood pulp
	Nickel coppermatte	Zinc

The value of imports from Canada during the past five years has been:

	<i>Canadian \$m</i>	<i>Increase over previous year per cent</i>
1972	1,370	2.2
1973	1,588	15.5
1974	1,886	18.8
1975	1,760	6.7

#### 5. Ranking by size of market

Canada's position as a supplier to the British market	1974 6th	1976 9th
---	-------------	-------------

#### 6. Total Canadian exports

	<i>Canadian \$m</i>	<i>Increase over previous year per cent</i>
1972	19,661	13.0
1973	24,837	25.7
1974	31,412	26.5
1975	32,096	2.2

#### 7. Canadian trade with European countries

Canadian exports (in Canadian \$m and percentage increase over previous year) to:

	<i>Belgium</i>		<i>France</i>		<i>West Germany</i>		<i>Netherlands</i>	
	<i>Can \$m</i>	<i>per cent</i>	<i>Can \$m</i>	<i>per cent</i>	<i>Can \$m</i>	<i>per cent</i>	<i>Can \$m</i>	<i>per cent</i>
1972	198	9.9	154	—	313	—	257	10.0
1973	283	42.2	211	36.8	441	40.7	282	9.0
1974	366	29.4	312	47.9	540	22.2	384	36.3
1975	375	2.4	332	6.4	585	8.6	472	22.9

Canadian imports (in Canadian \$m and percentage increase [decrease] over previous year) from:

	<i>Belgium</i>		<i>France</i>		<i>West Germany</i>		<i>Netherlands</i>	
	<i>Can \$m</i>	<i>per cent</i>	<i>Can \$m</i>	<i>per cent</i>	<i>Can \$m</i>	<i>per cent</i>	<i>Can \$m</i>	<i>per cent</i>
1972	90	53.0	251	17.8	513	19.4	92	20.1
1973	104	15.2	327	30.2	606	18.4	118	28.7
1974	173	67.1	395	20.7	767	26.4	163	38.2
1975	142	[17.9]	488	23.7	786	2.4	158	[3.0]

#### Notes:

(1) The source of the figures quoted in this Appendix is Trade Statistics of Canada. The figures have not been adjusted for changes in the value of money.

(2) The implicit price levels in Canada were:

1970	100
1972	108.3
1973	117.3
1974	133.5
1975	146.4

(Source: Main Economic Indicators—OECD).

## APPENDIX 5

*(referred to in paragraphs 64, 68, 69 and 80)*

### **Incorporation of companies in Bermuda**

1. The incorporation of companies in Bermuda is governed by general company statute law of Bermuda; the principal statutes are The Companies Acts of 1923 and 1948, The Exempted Companies Act 1950 and The Companies (Incorporation by Registration) Act 1970. The Law Reform Committee has been asked to review Bermuda's company law. What is described in subsequent paragraphs reflects the current position.

2. The Companies (Incorporation by Registration) Act 1970 provides facilities for the incorporation of both exempted and local companies by registration by the issue of a Certificate of Incorporation, although certain companies requiring unusual powers, such as open-ended investment vehicles, building societies and finance houses, have to petition the Bermuda Legislature as before.

3. A local company trading or doing business in Bermuda must have at least 60 per cent of its shares and voting rights in Bermuda beneficial ownership. There is, however, no restriction on the nationality of shareholders or directors of a company formed in Bermuda but trading or doing business overseas; such a company would be termed an exempted company.

4. Every exempted company is required at all times to maintain an office in Bermuda and keep such records of its acts and financial affairs as will show the business of the company and a true accounting at the end of each financial year. The board of any company incorporated in Bermuda must have at least three Bermudian directors and every exempted company must have sufficient directors, who are ordinarily resident in Bermuda, so that the directors' meetings may be held in Bermuda.

5. The bye-laws of companies must provide for the holding of an annual general meeting each year, an audit of the books of the company once in every year, the transfer of shares and the registration of legal personal representatives of deceased shareholders. The share register is open to inspection by the public at the company's registered office on payment of a nominal fee but there is no requirement to file or publish the accounts. Dividends may be paid out of the profits arising from the business of a company; however, directors have power, before recommending or declaring any dividends, to set aside such reserves to meet contingencies as they may deem necessary.

6. The minimum required share capital of an exempted company is Bermudian Dollars \$2,000·00 or equivalent, and whilst the whole of the capital must be subscribed it need not be fully paid-up.

7. An exempted company may apply for an undertaking exempting it from paying any tax computed on profits or income, or computed on any capital asset, gain or appreciation for a period to March 2006 in accordance with the provisions of the Exempted Undertakings Tax Protection Act 1966. In addition

the undertaking may include an assurance that the aforesaid taxes, and any tax in the nature of estate duty or inheritance tax, shall not be applicable to the shares, debentures or other obligations of such entities.

8. The provisions at paragraphs 3 to 7 inclusive apply to exempted companies generally, whether incorporated by registration or legislation.

9. Bermuda has its own autonomous Foreign Exchange Control which operates under the Exchange Control Act 1972 and regulations made thereunder. An exempted company with funds from a source outside Bermuda can be designated as 'non-resident' by the Foreign Exchange Control with the result that it would be free to convert its assets into any currency of its choosing and would be generally free from all exchange control restrictions. The consent of the Control must, however, be obtained before the transfer or issue of any share, debentures or other security issued takes place.

(referred to in paragraph 69)

## **Canadian National Railways (CNR) and its relations with Cast**

1. CNR is a Crown Corporation which came into being in 1923, when several railways in Canada were likely to go into liquidation. Its main business is in railways and trucking, including owning a number of railroads in the USA, but it also has interests in property, telecommunications, hotels and other fields. Unlike United Kingdom public corporations CNR has both preference and ordinary shares owned by the people of Canada through elected representatives.

2. CNR competes with Canadian Pacific Rail (CPR) for the traffic of the various shipping lines which serve the ports on the Canadian eastern seaboard but it alone serves the port of Halifax. Early in 1975 CNR decided that there were risks that, unless it had links with a shipping line it would ultimately have no traffic through the St Lawrence river ports and the shipping lines serving Halifax would use New York as an alternative. A decision was therefore taken to obtain the approval of the Canadian Transport Commission (CTC) for an investment in the Cast group, such approval being required by section 27 of the National Transportation Act. CNR had also to obtain an Order in Council to make this investment in Cast; the purchase of the Cast shares was put forward as being a sound investment.

3. CPR, the Seamen's International Union, the Canadian Shipowners Association and other organisations and persons objected to the application on policy grounds. The CTC found in favour of CNR and Canadian Cabinet approval for the share purchase was obtained on 24 September 1975. CPR and the union appealed against the decision on a matter of law but this was dismissed by the Federal Court of Appeals in January 1976. CPR has appealed to the Supreme Court of Canada.

4. In 1975 CNR had a gross revenue of Canadian \$2,186.0 million. There was a deficit for the year of Canadian \$168.1 million, after interest charges, compared with a deficit of Canadian \$37.7 million in 1974; this was reduced to Canadian \$16.4 million by a further payment of Canadian \$151.7 million under the Canadian Railway Act.

5. The overall financial result for 1975 is described as being unsatisfactory and unrewarding in the Annual Review; the main reason for the unsatisfactory result being the effect on the railway freight operations of the difficult and unusual economic conditions which prevail throughout the year. Rail traffic volume reversed the pattern of recent years, falling below the 1974 level and significantly short of the modest increase expected while at the same time inflation continued to increase the cost of railway operations (freight loadings fell by 8.7 per cent and import/export container revenues fell by 4.3 per cent).

6. In 1974 preliminary discussions took place between ML and CNR about the possibility that CNR might make an investment in ML. These discussions were inconclusive.

APPENDIX 7

(referred to in paragraphs 92, 110 and 278)

**Furness, Withy group  
Abstract of fleet (17 June 1976)**

**Vessels operated by the group (including associates and 3 vessels owned by FW and operated by OCL)**

	Number of ships and rigs	Number under construction and on order	Tonnage DWT	Trade	Asset spread on market value (incl proportion in association)	
					1976 per cent	1978 per cent
<b>1. Owned and chartered by demise*</b>						
Refrigerated ships	15	-	174,000	Liner	} 32	24
General cargo ships	6	1	72,700	Liner/chartered out		
Multi-purpose ships	8	2	116,300	Liner		
Container ships	13	2	194,000 (9,200 TEU)	Liner/chartered out	29	29
Bulk carriers	11	7	625,000	Chartered out	21	18
Oil tankers	2	-	} 222,000	Chartered out	1	14
Product tankers	-	2				
Gas carriers	5	1	104,000	Chartered out	2	3
Offshore rigs and support vessels	4	1	-	Chartered out	15	12
<b>2. Time chartered in†</b>						
Bulk carriers	11		178,000			
General cargo ships	5		41,000			
Container ships	5		14,000 (750 TEU)			
<b>Total DWT</b>			<b>1,741,000</b>			
<b>Proportion of bulk carriers</b>			<b>46%</b>			

\*The terms of the contract amount to a virtual change of ownership during the period of hire; the charterer provides the crew.

†The hire of the ship for a stated period of time; the shipowner provides the crew.

### 3. List of bulk carriers (DWT)

<i>Owned</i>		<i>Chartered-in</i>		<i>Under construction</i>	
Furness Bridge	167,000	Tithis	5,900	Lynton Grange	26,150
Orenda Bridge	137,000	Santa Trinidad	11,600	Roebuck	9,300
Mount Newman	118,000	Happusan Maru	8,000	Riverina	9,300
Orotava	50,700	Eiryn Maru	32,000	Ravenswood	9,300
Clyde Bridge	42,100	Agioi Vivtores	17,900	Cairn ..	3,150
Oswestry Grange	7,950	Allied Enterprise	8,500	Cairn ..	3,150
Cairn Leader	3,150	Uniluck	22,500	Cairn ..	3,150
Cairn Freighter	3,150	Mareva As	16,800		
Cairn Carrier	3,150	Regent Scorpio	10,000		
Cairn Rover	2,768	Edelweiss	18,000		
Upwey Grange	26,150	Star Castor	27,000		
<hr/>		<hr/>		<hr/>	
Total tonnage	561,000	Total tonnage	178,200	Total tonnage	63,500
<hr/>		<hr/>		<hr/>	
Number of vessels	11	Number of vessels	11	Number of vessels	7

#### Summary

##### *Owned and chartered-in*

Total tonnage 739,000 tons  
 Number of vessels 22

##### *Under construction*

Total tonnage 63,500 tons  
 Number of vessels 7

(referred to in paragraphs 129, 130, 330 and 419)

### **The Manchester Ship Canal Company**

1. The Manchester Ship Canal Company was incorporated by Act of Parliament in 1885; it is not a registered company under the Companies Acts and has no memorandum or articles of association. It draws all its powers from its own private Acts.

2. It not only owns the Manchester ship canal, but various docks and installations along the canal, which together form the Port of Manchester. It differs from other port authorities in the United Kingdom in having the right, which it has always exercised, to provide all the services in the port, and to carry out all loading and discharging operations.

3. The entrance to the canal is on the south side of the River Mersey, at Eastham, opposite Speke. Ships enter the canal through two locks, the largest of which will take ships up to 560 foot in length, 74-75 foot beam and drawing 28 foot 10 inches in sea water. There are two high tides in every 24 hours and in practice ships are allowed to enter the canal 4½ hours either side of high water. The canal is 36 miles in length, the passage up the canal taking approximately ten hours.

4. Three miles from the entrance are the Ellesmere Port Docks which include a container terminal and facilities for the roll-on and roll-off of heavy vehicles. The canal continues parallel to the south bank of the Mersey past the Stanlow Oil Docks to Runcorn and then on to Latchford, south-east of Warrington, where there is another set of locks which can take ships up to 560 foot in length but only 64 foot beam and drawing 26 foot 6 inches in fresh water. From then on up to terminal docks at Manchester there are three further sets of locks. A large number of companies and industrial concerns border the canal throughout its length. A list of these companies is given in paragraph 11.

5. At the Manchester end of the canal there are eight docks known as the Manchester Docks. The container terminal used by ML is situated at Number 9 Dock; the facilities owned by ML, including its dry docks, are also in the Manchester Docks area.

6. From its inception until 1955, the tonnage of ships using the canal rose fairly steadily up to 18·5 million tons. There was then a slight decline to about 15 million tons in the middle 1960s; traffic then increased again, to 17·4 million tons in 1974, but this was followed by a decline of 14·7 per cent in 1975. The ships trading with Europe no longer use the canal, the traffic they carried now being handled by roll-on and roll-off facilities in the South. Most of the canal's traffic now is with the Americas, the Eastern Bloc countries, Africa, India and Pakistan. About 40 per cent of the traffic is tramp business and 67 per cent uses only the first five miles of the canal.

7. In addition to operating the canal, including the provision of the docks, tugs, pilots, and other similar services, the MSCC engages in the following activities:

- (i) Road transport contracting, using a fleet of 50 large articulated vehicles with associated trailers.
- (ii) Mechanical engineering workshops, including a civil engineering section mainly used for maintaining company facilities.
- (iii) A marketing service operating throughout the whole of the United Kingdom, with offices in London, Liverpool and New York as well as in Manchester. It has a number of travelling representatives.

8. MSCC has employees in the following departments or locations:

(i) Accountants' Department	94
(ii) Chief Engineer	512
(iii) Mechanical Engineer	597
(iv) Commercial Manager	37
(v) Docks Manager	1,259 (including 800 dockers)
(vi) Harbour Master	514
(vii) Police	104
(viii) Pilotage	14
(ix) Management and Administration	92
(x) Runcorn Docks	165
(xi) Bowaters Transport Services	106
	3,494
Total	3,494

9. MSCC's nominal issued share capital is £8 million divided equally between preference and ordinary shares, and at 31 December 1975 reserves totalled £24.4 million. Loan capital (described in the accounts as capital debt) was £13.9 million (30 per cent of the total capital employed), £10.3 million being held by the Manchester City Council. The cargo handling revenue as a percentage of total revenue fell from 38 per cent in 1973 to 30 per cent in 1975. Between 1973 and 1975 the operating surplus fell from £3.4 million to £1.2 million, this fall being attributed to the recession in 1975 and to increases in costs. Profit, including investment income, was £4.3 million in 1974 and £2.6 million in 1975 giving a rate of return respectively of 9.0 per cent and 5.3 per cent on total capital employed.

10. In addition to acting as a commercial highway, the canal plays a very important role in the drainage of the surrounding area.

11. Companies, industrial concerns and organisations having premises bordering on the Manchester ship canal include:

- Paktank Storage Co Ltd
- Panocean Shipping and Terminals Ltd
- Bowater UK Pulp & Paper Mills Ltd

British Waterways Board  
Cawoods Containers Ltd  
Ellesmere Port Storage Co Ltd  
Esso Petroleum Co  
Shell UK Ltd  
ICI Ltd (Mond Division)  
North West Water Authority  
Du Pont Co (UK) Ltd  
Thelwall Pumping Station  
British Steel Corporation  
Shell Mex & BP  
Texaco  
Gulf  
Leathers Chemical Co Ltd  
CPC (UK) Ltd  
Procter & Gamble Ltd  
Humko Ltd  
Lancashire Tar Distillers Ltd  
British Oil & Cake Mills Ltd  
United Molasses Co Ltd  
Rank, Hovis McDougall Ltd  
Morrell Mills & Co Ltd (ML subsidiary)  
Spillers-French Ltd  
Trafford Park Industrial Estate  
English & Scottish C.W.S.  
Colgate-Palmolive Ltd  
Spillers Ltd (John Jackson & Son branch)  
Compass Catering Ltd

APPENDIX 9

(referred to in paragraphs 133 and 308)

**Manchester Liners group  
Abstract of fleet (1 May 1976)**

**1. Ships owned and operated**

Name	Where built	Date of delivery	Cost £m*	Capacity (TEU)†	Service speed (knots)	Present employment
Manchester Challenge	Smith's Dock Company Limited Middlesbrough	1968	3.1	527(75)	17.5	Manchester/Liverpool/Montreal
Manchester Courage	"	1969	3.1	527(75)	17.5	"
Frontier	Spain	1972	1.3	164(60)	13.5	Mediterranean

**2. Ships owned and chartered out**

Cargo Vigour	Appledore Shipbuilders Appledore	1973	2.3	296(90)	14	Charter to Cargo Liners Ltd (Chiasso, Switzerland) and employed on North Atlantic
Cargo Zeal	"	1973	2.3	296(90)	14	"
Asian Renown	Smith's Dock Company Limited Middlesbrough	1974	5.0	544(100)	17.5	Chartered out to a company in the Far East through OCL
Asian Reward	"	1974	5.0	593(100)	17.5	"

**3. Ships chartered in (15 years bareboat charter)‡**

Manchester Crusade	Smith's Dock Company Limited Middlesbrough	1971	3.1	527(75)	17.5	Manchester/Liverpool/Montreal
Manchester Concorde	"	1969	3.1	527(75)	17.5	"

**4. Ships chartered in (up to two years time charter)**

Mercurio				106(28)		Great Lakes
Kathleen				152(52)		"
Nautic				130(44)		Mediterranean
Falcon				149(63)		"
Roswitha				176(87)		"

**5. Ships managed and chartered out**

Manchester Concept				495(56)	17	Chartered out to Shippers Traffic Services Inc Pacific
--------------------	--	--	--	---------	----	--

**6. New tonnage**

No. 1336	Smith's Dock Company Limited Middlesbrough	Sept 1977	12.5	936(455)		To be chartered out
----------	--	-----------	------	----------	--	---------------------

**7. New tonnage to be chartered in (from Golden Cross Line)**

No. 1335	Smith's Dock Company Limited Middlesbrough	March 1977		936(455)		To be chartered out
----------	--	------------	--	----------	--	---------------------

\*Including cost of containers.

†Figures in brackets indicate number of containers carried on deck.

‡Bareboat charter. The charterer hires the ship and pays all the expenses during the period of hire.

APPENDIX 10

(referred to in paragraph 151)

**A letter from Sir James Steel to R B Stoker Esq of 9 September 1975**

R B Stoker Esq,  
Manchester Liners Limited,  
POB 189,  
Port of Manchester,  
Manchester M5 2XA.

9th September 1975

Dear Rob,

I believe that the moment is opportune to clarify the relationship between the Boards of Furness Withy and Manchester Liners, and I hope you will find the following both acceptable and helpful.

1. So long as ML have a substantial minority, the Board of ML will continue to have a greater degree of autonomy than applies in wholly owned subsidiaries of FW.

2. It follows that all matters of consequence, to which I refer later in this letter, should be reported to and submitted for decision by the Board of ML as a whole.

I am sure, and I would appreciate your confirmation on this point, that you and your executive colleagues accept that in cases where there are divergent opinions on matters affecting FW the views expressed by the FW nominees should be allowed to prevail. The Board as a whole should, however, have proper regard to minority interests.

3. The present policy of diversification, based on the following four points, should continue:

- (a) Shipping operations on the North Atlantic and to Mediterranean destinations.
- (b) Chartering or leasing out of owned container ships or containers.
- (c) Road haulage and warehousing particularly concerned with shipping and container traffic.
- (d) Engineering concerned with ships and containers.

However, should you have plans for extending your diversification into other areas of operation, these should be submitted to the Furness Withy Board for ratification after full discussion and on the recommendation of the ML Board.

4. You should know that in the existing circumstances FW will not give guarantees in support of future ML borrowings and will not be prepared to consider any capital reconstruction which results in a dilution of their equity.

5. The FW nominees on the ML Board will wish to discuss and agree with you and your colleagues the matters and subjects to be put before the ML

Board from time to time for consideration and/or approval. To give you some idea of our thinking, the attached list\*, which you might care to think of as a discussion document, may be helpful.

Yours sincerely,

James.

\*Matters of consequence to be put before the ML Board to include:

- (a) Operating budgets.
- (b) Capital budgets.
- (c) Requisitions for capital expenditure not included in budget.
- (d) Proposals for raising finance for approved capital expenditure.
- (e) Proposals for entering into any new shipping operations or material change in the operation of any existing liner trade.
- (f) All intended charters out of owned tonnage (having regard to the OCL Agreement).
- (g) Any intended extension of existing non-shipping operation.
- (h) Periodic statements of:
  - (i) trading accounts of all operations for comparison with budgeted profits—monthly.
  - (ii) cash flow for comparison with budgeted cash flow—quarterly.
  - (iii) expenditure of a capital nature for comparison with budgeted capital expenditure—quarterly.
- (i) Terms and conditions of staff employment.

APPENDIX 11

(referred to in paragraph 165)

**A letter from F Narby Esq to Hambros Bank of 29 August 1975**

Hambros Bank Limited  
55 Bishopsgate  
London EC2

29th August 1975

*For the attention of Mr Peter Hill-Wood*

Dear Sirs,

**Furness Withy & Co Ltd**

The following is agreed between Eurocanadian Shipholdings Limited of Bermuda and yourselves:

1. We have purchased from you 2,676,076 ordinary shares of £1 each in Furness Withy & Co Ltd (FW) at a price of 210p per share. This bargain is subject to the Rules and Regulations of The Stock Exchange and a contract in the name of Hambros Bank Ltd account client will be issued to you by Hoare & Co Govett Ltd for settlement on 16th September 1975 on which date you will deliver to them share certificates in respect of 2,676,076 shares against payment.

2. We have further purchased from you 250,000 ordinary shares at 260p per share for settlement on 16th September 1975. This bargain will not be subject to the Rules and Regulations of The Stock Exchange and you will issue a contract to the Royal Bank of Canada Trust Corporation Ltd for our account, who will pay you against delivery of stock on 16th September 1975.

3. We have further purchased from you 2,193,368 ordinary shares of FW at a price of 260p per share for deferred settlement on 9th December 1975 (or such later date as may be agreed between us). These shares are acquired by us free of all liens and charges and entitle us to receive any dividends or other distributions declared or made by FW from this date hereafter. This bargain will not be subject to the Rules and Regulations of The Stock Exchange and you will issue a contract to the Royal Bank of Canada Trust Corporation Ltd for our account.

4. You will prepare and execute transfers in respect of 2,193,368 shares out of the present registered holders names into the name of Roytru Nominees Ltd, 30/32 Ludgate Hill, London, EC4 to be held for your account until 9th December 1975.

5. Until 9th December (or such later date as may be agreed between us) you will exercise any voting powers on the 2,193,368 shares as we shall direct.

6. On 9th December 1975 (or such later date as may be agreed between us) we shall pay you the amount due on the 2,193,368 shares being against release by you of the certificates held by Roytru Nominees Ltd to us or our agent.

7. If by 3 pm on 9th December 1975 (or such later date as may be agreed between us) we shall not have paid or caused to be paid the amount due on 2,193,368 shares you will become the owners of the said shares and we shall forthwith give up all rights attaching to such shares. In such an event Roytru Nominees Ltd will be instructed to hold those shares to your order. Any dividend or other distribution received by ourselves prior to 9th December 1975 will be reimbursed to yourselves.

In this event you will have no claim against us save that we will pay all reasonable expenses so incurred including any stamp duty which might be payable on the transfer of these shares back into such ownership as you shall determine.

8. If FW should make a rights issue between this date and 9th December 1975, we will reimburse you with any proceeds of sale of rights attaching to our holding of 2,193,368 shares or in the event of us subscribing for any rights attaching to this holding we will transfer to you these rights at the issue price paid by us, should the transfer of this holding back to yourselves as outlined in 7 above take place.

We will use our best endeavours to carry out the settlement of the purchase of 2,193,368 shares by 9th December 1975.

Please acknowledge your agreement to these proposals by signing the enclosed duplicate letter.

Yours faithfully,  
For and on behalf of  
**Eurocanadian Shipholdings Ltd, Bermuda**

F Narby  
*Director*

APPENDIX 12

*(referred to in paragraph 168(ii))*

**A letter from J M Clay Esq to Sir James Steel of 1 September 1975**

41 Bishopsgate,  
London EC2P 2AA  
1st September 1975

**PRIVATE AND CONFIDENTIAL**

Dear Sir James,

I very much regret that our shareholding connection with Furness Withy has been severed so suddenly.

I knew and had told Rea Brothers and Furness Withy that I was certain the 10 per cent block would have to be sold and in relation to this block (as I had continuously stressed) we had no option but to take the highest price offered.

What I had not expected was that we would be asked to commit our own shares if the 10 per cent block was to be purchased. For reasons which I need not bother you with, it was decided that we should agree to this commitment.

Eric Spencer's position and my own as Directors of Furness Withy obviously should now be reconsidered, and I am writing to ask you your views. As you know, there is this full day meeting which I, in any case, would not attend, but which Eric (who knew nothing of our actions until after the sale had been made) was proposing to attend. In this respect the matter is somewhat urgent.

On the longer term it is worth mentioning that our own sale does not become effective until December, and it might be that our resignations (or one of ours) might be deferred until then.

Yours sincerely,

John Clay

Sir James Steel, CBE, JP,  
Furness Withy & Co Ltd,  
105 Fenchurch Street,  
London, EC3M 5HH

APPENDIX 13

(referred to in paragraph 168(iii))

**A letter from P J Twiss Esq to Sir James Steel of 10 September 1975**

PRIVATE AND CONFIDENTIAL

Sir James Steel, CBE,  
Chairman,  
Furness Withy & Co Limited,  
105 Fenchurch Street,  
London EC3M 5HH

10th September 1975

Dear Sir James,

In accordance with the provisions of section 33 of the Companies Act 1967, we wish to notify you that on 29th August 1975 Eurocanadian Shipholdings Limited, of Bermuda, acquired a beneficial interest in 4,627,472 Ordinary £1 Stock Units in Furness Withy & Co Limited, which brought its total interest in your company up to 7,003,972 Ordinary £1 Stock Units.

The above interest was further supplemented by the acquisition on 3rd September 1975 of 10,000 Stock Units, thus bringing the total interest of Eurocanadian Shipholdings Limited, as of the close of business on 8th September 1975, up to 7,013,972 Ordinary £1 Stock Units in your company, all of which will shortly be registered in the name of Roytru Nominees Limited.

Additionally, a further 606,972 Ordinary £1 Stock Units in your Company have been acquired by certain designated accounts whose beneficial owners are acting in association with Eurocanadian Shipholdings Limited. Details of these designated accounts will be advised to you in the near future.

Accordingly, the total interest of Eurocanadian Shipholdings Limited and its associates in the Ordinary Share capital of Furness Withy & Co Limited as of the close of business on 8th September 1975 amounted to 7,620,944 Ordinary £1 Stock Units.

Yours faithfully,

For and on behalf of

**Eurocanadian Shipholdings (UK) Limited**

Peter J Twiss  
*Director*

APPENDIX 14

*(referred to in paragraph 168(iv))*

**An announcement by Furness, Withy & Company, Limited to the Press of 10 September 1975**

*Announcement*

The Board of Furness Withy & Co Ltd has today been informed by Euro-canadian Shipholdings Ltd that it and its Associates have acquired a 28·55 per cent holding in the Ordinary Stock of Furness Withy.

Eurocanadian has informed Furness Withy that this holding has been bought as an investment. Discussions will be held between the two companies to determine how best to develop their mutual trading interests.

The above holding comprises £7,043,972 Ordinary Stock owned by Euro-canadian and £606,972 Ordinary Stock owned by its Associates, making a total of £7,650,944 Ordinary Stock equivalent to 28·55 per cent.

10th September 1975

APPENDIX 15

(referred to in paragraph 168(vii))

**A letter from D Ford Esq to J D Pitcairn Esq of 1 December 1975**

PRIVATE AND CONFIDENTIAL

James D Pitcairn Esq, MA, FCIS,  
Secretary,  
Furness Withy & Co Ltd,  
105 Fenchurch Street,  
London EC3M 5HH

1st December 1975

Dear Sir,

Following our letter of the 28th November 1975, in which we advised you that the total interest of Eurocanadian Shipholdings Limited in the Ordinary Share Capital of Furness Withy & Co Limited at that date amounted to 7,725,944 Ordinary £1 Stock Units, we are now writing to inform you that arrangements have since been made to reduce such beneficial interest by the disposal of an interest in 2,193,368 Ordinary £1 Stock Units to third parties who are not associated with Eurocanadian Shipholdings Limited.

Upon the completion of such arrangements, the total beneficial interest of Eurocanadian Shipholdings Limited in the Ordinary Share Capital of Furness Withy & Co, Limited will accordingly be 5,532,576 Ordinary £1 Stock Units (approximately 20.64 per cent of the issued Ordinary Share equity). As previously notified there is no longer any further declarable interest in respect of persons acting in association with Eurocanadian Shipholdings Limited.

We shall advise you in due course of the effective date of the above-mentioned reduction of interest in your Company's Ordinary Share Capital (which date will in any event be within fourteen business days of this letter) so as to comply fully with the provisions of section 33 of the Companies Act, 1967.

Yours faithfully,

For and on behalf of

**Eurocanadian Shipholdings (UK) Limited**

D Ford  
(Secretary)

APPENDIX 16

*(referred to in paragraph 169(ii))*

**A letter from J M Clay Esq to the Secretary of State of 2 December 1975**

The Rt Hon Mrs Shirley Williams MP,  
Secretary of State for Prices and Consumer Protection,  
1 Victoria Street,  
London SW1H 0ET

2nd December 1975

**Furness Withy & Co Ltd**

In view of the announcement by Eurocanadian Shipholdings Ltd we thought we should write and inform you of the position relating to the 2,193,368 shares in Furness Withy.

In August we were approached by Mr Narby of Eurocanadian who informed us that he was interested in purchasing shares in Furness Withy which we had instructions to sell on behalf of a customer. Following on some discussions with Mr Narby, he informed us that he was prepared to buy this customer's shares providing that we were to give his company an option on the holding of 2,193,368 shares held by subsidiaries and associates of the Bank. This we refused to do, but in order to assist our customer we finally agreed that we would agree to sell our own holding in [sic] Eurocanadian for deferred completion on December 9th and with a separate letter under which we would agree not to take any action in law in the event that completion was not to take place on December 9th. Verbally, but not in writing, we were informed that the only circumstances in which completion would not take place would be if he was not able to obtain the necessary funds.

We understood that the negotiations with the Canadian National Railways were the prime hope for him to obtain the funds, but that he did not exclude the possibility of raising the funds even if Canadian National were not to become shareholders in this company.

In the light of this arrangement, we did not feel that Eurocanadian were misrepresenting the position in stating that they had over 29 per cent of the shares, ie including this block, because they were able to assess their ability to obtain the funds and, providing that they could obtain them, then according to our understanding the purchase became firm. Indeed we had heard indirectly that such funds had been arranged.

We were, therefore, somewhat surprised when on Thursday, November 27th, Mr Narby came to see us and informed us that in view of the reference to the Monopolies Commission and the present market price of the shares he had visited his bankers who had told him that they were no longer prepared to lend the sum necessary to complete the bargain. Two alternative propositions were mentioned, neither of them being firm, and we indicated that we considered the position unsatisfactory and were not prepared to discuss the matter further unless he was to come forward with a sensible and definite proposition. We informed Mr Narby's two principal partners of the situation on Friday and agreed to

defer any announcement until Monday. However, we understand that Mr Narby was not prepared to alter his position though it would appear that it was not correct of him to say that the money was not available.

In our view the announcement put out was not accurate in that references to a disposal and a sale are inaccurate, the position being that he has failed to complete a contract which he entered into relying on a legal but not, in our view, a moral exemption available to him. We have, of course, no knowledge of how his holding was described in negotiations with your Department and Sir John Methven. However, we thought it important that you should be aware of the actual position. I should add that, contrary to one statement made, there is no arrangement under which Mr Narby could revert to the original arrangement supposing that the Monopolies Commission was to rule that there was no objection to the Eurocanadian holding.

*(Signed)* J M Clay

*(referred to in paragraph 173)*

## **An announcement by Eurocanadian Shipholdings Limited to the Canadian Press of 10 September 1975**

The following is the text of an announcement which we intend to release to the press in Canada after 7 pm London time today:

The Cast Group is an international shipping organisation based upon two wholly Canadian-owned holding companies, Intercast SA of Fribourg, Switzerland, and Eurocanadian Shipholdings Limited of Hamilton, Bermuda.

Our primary business is the carriage of containerised goods, bulk materials, steel and project cargoes on the North Atlantic. We are also involved in transportation to developing areas including the Persian/Arabian Gulf.

Our principal operating offices are located in Montreal, Antwerp (Belgium) and Fribourg (Switzerland). We have offices in a total of seventeen major European and North American cities.

Canadian National recently announced that they had concluded an agreement with us whereby CN will become an important shareholder in Cast, subject to the approval of the Canadian Government. We believe this arrangement offers serious benefits to all the parties concerned and, above all, to the Canadian shipping public.

Like most Canadians engaged in international transportation in this era of increasing identification of national interests, we are concerned at the relatively small proportion of Canadian trade transported by Canadian-owned companies. We are also concerned to ensure that our customers are given the benefits of maximum efficiency and economy—which means large-scale operations. With these thoughts in mind we acquired late last year a 37·7 per cent shareholding in Manchester Liners Limited. Our objective was to establish a common purpose with that company and to develop joint growth.

The other principal shareholder in Manchester Liners is Furness Withy Limited, one of the major shipping organisations in the United Kingdom. We have recently been given the opportunity to acquire a 28·5 per cent shareholding in Furness Withy Limited, and this acquisition by Canadians has the consent of the Bank of England.

Furness Withy own a large and varied fleet of ships, in excess of 1 million dwt., and are involved in a wide diversity of shipping related activities, bulkcarriers, container services, conventional liners, gas tankers, oil drilling platforms, offshore serving vessels, hotels etc.

Our shareholding in Furness Withy has a current market value in excess of Dls. 40 million and constitutes a major foreign investment by Canadians. We expect it to offer significant returns. We look upon it as a good investment in itself, in a company of considerable financial strength. We believe it will facilitate the harmonisation of interests between Manchester Liners and the Cast Con-

tainer Companies. Finally we are hopeful that the establishment of close links between Canada and a major British Shipping Group will prove beneficial in both directions, both to assist Canadians to re-develop a truly Canadian merchant marine and to bring to Furness Withy new areas of operations.

10th September 1975

*(referred to in paragraph 177)*

**Extracts from a draft letter addressed to the Secretary,  
The Board of Inland Revenue**

1. Eurocanadian Shipholdings Limited ('EC'), a Bermudan Company, announced in September that together with its associates it has acquired a 28·8 per cent equity interest in FW.

2. In 1974 EC acquired 37·6 per cent of the issued Ordinary Share Capital of Manchester Liners Limited ('ML') which is a quoted company. FW own 61·6 per cent of the Ordinary Shares of ML and approximately 85 outside shareholders own the remaining 0·8 per cent of the Ordinary Shares. FW also owns 83 per cent of the Preference Shares of ML with outside shareholders owning the balance.

3. FW and EC wish to arrange a reconstruction of their respective interests so that EC's interest in FW is reduced to 2·7 per cent and FW's interest in ML is eliminated.

This would be achieved in the following manner:

- (a) A new United Kingdom Company is formed, FWH, which, pursuant to a Scheme of Arrangements under S.206 Companies Act, 1948 will, in exchange for the Ordinary Shares in FW, issue, fully paid Ordinary Shares in that Company.
- (b) A new company to be called MLH would be formed by persons not within the FW group. MLH will then acquire the Ordinary and Preference Shares in ML owned by FW in exchange for new shares of MLH ('MLH shares'). At the appropriate time EC would offer to acquire for cash the above mentioned (para 2) outside holdings in ML.
- (c) MLH will sell to FWH its holding of ML shares and FW will sell to FWH the two ships MV Furness Bridge and MV Clyde Bridge (the 'Ships') (the latter having first been acquired from Houlder Brothers & Co Limited, a wholly owned subsidiary of FW); the consideration will be the cash equivalent of the market value of the assets transferred and will be payable on a deferred basis.
- (d) Two new companies are formed, FWH2 (as a United Kingdom company) by directors of FWH, and FWEC by EC. FWEC would be formed either in the United Kingdom or in Bermuda.
- (e) FWH will go into voluntary liquidation and, under S.287 Companies Act 1948, the liquidator will sell the businesses and undertakings of FWH; the Ships and the ML shares to FWEC, the ordinary shares in FW to FWH2; the liquidators of FWH will accept shares in, respectively FWEC and FWH2 as consideration for the sale, the shares in FWEC being issued directly to EC and the shares in FWH2 to the other shareholders in FWH (which will include EC in respect of the holding of 2·7 per cent in FWH2 which EC will hold for a limited period). If necessary,

and to facilitate the liquidators' task, the shares in FWH could be divided into separate classes; those held by the public and EC (as to its continuing interest) and those held by ECS.

The result of the above transactions would be that EC would become the holder of all, or at least 99·2 per cent of ML and the Ships and the remaining shareholders of FW together with EC to the extent representing 2·7 per cent out of its original 28·8 per cent holding in FW, would own, through FWH2 all the other assets, businesses and undertakings of FW.

## APPENDIX 19

*(referred to in paragraphs 230 and 399)*

### **Economies of scale through using large container ships**

1. ECS submitted to us several estimates of the cost advantages of using relatively large container ships rather than small ships on a return voyage between Antwerp and Montreal. These estimates gave the full voyage costs of container ships with capacities of 350 TEU, 500 TEU and 938 TEU<sup>1</sup>.

2. The following assumptions were made by ECS:

- (i) The ships had been ordered all at the same time, delivered at the same time, and paid for on the same financial terms.
- (ii) They were of cellular construction, with a service speed of 19 knots.
- (iii) They were four years old, this being the median point of the financing period.
- (iv) The voyage was performed in the summer.

3. The items of cost used in its original estimate included cargo costs, port costs, bunkering costs, capital costs and operating costs; capital costs were calculated as the sum of the depreciation (calculated over 15 years with a residual value of \$0.8 million)<sup>2</sup>, loan interest and a 6 per cent return on own capital employed. The various costs other than cargo and port costs were converted on to a daily basis and the cost of the round voyage for the different ships was then calculated.

4. ECS estimated that the unit container costs of the 500 TEU ship were 27 per cent higher than those of the 938 TEU ships<sup>3</sup>. ECS later adjusted the original estimates to 'a pure FIO'<sup>4</sup> ocean cost basis by omitting cargo costs. On this basis the smaller ship had about 48 per cent higher unit container costs than the larger ships.

5. ECS said that in the competitive conditions prevailing on the North Atlantic it was necessary to offer a regular service at a frequency better than one service per week. Given its current container traffic to and from Antwerp the smaller ships visualised in its estimates would be full but the larger ships would be under-utilised and their cost advantage could disappear. Similarly, ML's traffic on the North Atlantic would not be sufficient on its own to justify using larger ships. However, ECS believed that the potential volume of the combined traffic of two companies would be sufficient to justify the use of larger ships. ECS provided estimates of the additional costs which would be incurred if

---

<sup>1</sup>The ships currently used by ML have a capacity of 527 TEU and the new ship under construction has a capacity of 938 TEU. ECS has one cellular container ship on charter with a capacity of 350 TEU.

<sup>2</sup>In this Appendix the unit of currency adopted is the US dollar.

<sup>3</sup>ECS later provided some costings (excluding cargo costs) for a 2,000 TEU ship which showed further significant cost savings.

<sup>4</sup>Free in and out. The rate quoted exclusive of the cost of loading and discharge.

larger ships were operated on the triangular service Antwerp/Liverpool/Montreal. These estimates indicated an increase of 11 per cent on unit costs if cargo costs were not included, and of about 5 per cent if they were included.

6. ECS supplied calculations to show that, if load factors were reduced in equal percentage terms, then (if cargo handling costs were excluded) the cost benefit of the larger ship in percentage terms would remain unchanged, but the benefit expressed in money terms would increase.

#### **Liverpool University study**

7. At our request the Marine Transport Centre at Liverpool University provided its estimates of the overall unit costs of a new 560 TEU and a new 1,200 TEU container ship operating between Liverpool and Montreal. The Centre said that most operators on the North Atlantic offered a 'day-of-the-week' service, with a sailing on the same day each week; this was generally thought necessary for both operating and marketing reasons, though the former was less important if the operator had access to his own or a special purpose berth. Because of this general tendency for a day-of-the-week service, the Centre ensured that the different ships in its exercise conformed to this pattern. It emphasised that the particular operating assumptions used in any study must have a critical effect on the results; in particular, given the speed of the ships assumed, the handling rate in port of the 560 TEU ship in its study was lower than would be likely to be achieved in practice.

8. In making its calculations, the Centre built up the overall daily cost at sea, and its overall daily cost in port for both ship sizes. In so doing, it assumed the 560 TEU ship had a service speed of 18·3 knots and the 1,200 TEU ship a service speed of 21 knots. However, both ships were assumed to have an average annual speed of 12 knots for the 300 miles on the St Lawrence to Montreal. The Centre also assumed in its calculations that both ships were fully loaded. The Centre used the following individual cost items for the 560 TEU and 1,200 TEU ships:

- (i) The purchase prices for the two ships, assumed to be delivered this year, were \$18 million and \$29 million. These purchase prices were converted to annual capital costs, using a formula which included a charge for capital on an annuity basis. The annual charge was then put on to a daily basis assuming the ship operated for 350 days in the year. A ship's life of 18 years and a 10 per cent discount rate was assumed and this led to daily capital costs of \$6,270 and \$10,000 respectively.
- (ii) The purchase price of containers was \$3,500 each, 3 containers per ship cell being required. A container life of 9 years and maintenance costs of \$160 per container per year were also assumed, giving daily container costs of \$3,685 and \$7,900 respectively.
- (iii) The maintenance and repair costs of the ship were taken as 1 per cent of the ship's purchase price. This gave daily maintenance and repair costs of \$514 and \$829 respectively.
- (iv) The insurance costs were taken as 1·6 per cent of the ship's purchase price, giving a daily insurance cost of \$823 and \$1,326 respectively.

- (v) A fuel consumption at service speed of 45 tons per day was assumed for the 560 TEU ship and 115 tons per day for the 1,200 TEU ship; using a fuel cost of \$75 per ton this gave daily bunker costs of \$3,375 and \$8,625 respectively; in addition some high grade diesel fuel was required. This was assumed to cost \$300 per day for both ships at sea and \$630 and \$650 respectively in port.
- (vi) Daily bunker costs of \$952 and \$1,615 respectively were assumed for the St Lawrence leg, because it was assumed that fuel costs varied with the cube of the speed.
- (vii) Crew costs were estimated at \$1,250 and \$1,350 respectively.
- (viii) Cargo handling charges of \$50 per TEU were assumed for both ports.

9. For the 1,200 TEU ships a handling rate of 550 TEU's per day was used, and for the 560 TEU ship a handling rate of 340 TEU's per day was used. These handling rates fitted in with the assumed 21 day round voyage time for both ships. These individual costings led to the following build up of daily costs:

<i>560 TEU ship</i>		<i>1,200 TEU ship (Key)</i>	
\$		\$	
6,270	Capital costs	10,100	
3,685	Containers	7,900	
1,250	Crew	1,350	
<hr/>		<hr/>	
11,205		19,350	
514	Maintenance and repair	829	
823	Insurance	1,326	
<hr/>		<hr/>	
12,542		21,505	(a)
630	High grade fuel in port	650	(b)
<hr/>		<hr/>	
13,172	<i>Daily cost in port</i>	22,155	(a)&(b)
<hr/>		<hr/>	
952	Fuel at 12 knots (300 miles of the St Lawrence)	1,615	(c)
300	High grade fuel at sea	300	(d)
<hr/>		<hr/>	
13,794	<i>Daily cost at 12 knots</i>	23,420	(a)&(c)&(d)
<hr/>		<hr/>	
3,375	Fuel at service speed	8,625	(e)
300	High grade fuel at sea	300	(f)
<hr/>		<hr/>	
16,217	<i>Daily cost at service speed</i>	30,430	(a)&(e)&(f)
<hr/>		<hr/>	

These daily costings were then applied to the various voyage legs as appropriate, to give the following round voyage costs for the two ships:

**Costs for the 21 days itinerary, Liverpool to Montreal**

Voyage leg	560 TEU ship			1,200 TEU ship		
	Cost per day \$	Time taken Days	Total cost \$	Cost per day \$	Time taken Days	Total cost \$
Ocean	16,217	12.3	199,469	30,430	10.2	310,386
St Lawrence	13,794	2.1	28,968	23,420	2.1	49,182
In port	13,172	6.6	86,935	22,155	8.7	192,748
Together			315,372			552,316
Cost per TEU			281.6			230.1
Handling charges			100.0			100.0
Together			381.6			330.1

10. From the table above it can be seen that, in this study, the unit costs of the smaller ship are some 15 per cent greater than the unit costs of the larger ship<sup>1</sup>. The Centre pointed out the importance of the load factor in the choice of which size of ship would be most economic. In its calculations it had assumed both ships were fully loaded, but pointed out that even with a load factor as high as 85 per cent the 1,200 TEU ship would have a higher cost per TEU than a fully loaded 560 TEU ship. Similarly, a load factor of 85 per cent in the 560 TEU ship, compared with a full 1,200 TEU ship, meant that the smaller ship had costs per TEU some 30 per cent greater than the larger ship.

11. ML said that it broadly agreed with the estimates presented by Liverpool University, though it provided some detailed comments which did not materially effect the overall order of magnitude involved. ECS, on the other hand, made a number of criticisms. It considered that it was unnecessary to offer a day-of-the-week service, and that this assumption in the Liverpool study operated to the disadvantage of the larger ship<sup>2</sup>. It felt that studies of this type should compare ships with identical service speeds, and that the handling rates in port used by the Centre were unrealistically low. It presented some alternative estimates to those of the Liverpool study, excluding the container and the cargo handling costs, and revising some of the individual cost items. The revisions were made partly because of the changed operating assumptions and partly for other technical reasons. The effect of these alternative estimates was substantially to increase the cost disadvantage of the smaller ship, broadly in line with those shown in ECS's own study.

<sup>1</sup>The Centre suggested that port charges should be excluded from its exercise, since they had little influence on total costs and there could be considerable differences in the port charges levied. If, however, on the figures it put forward, such charges had been included, the percentage difference in unit costs between the two ships would have been narrowed slightly.

<sup>2</sup>We noted, however, that most operators on the North Atlantic did seem to offer a day-of-the-week service.

## APPENDIX 20

*(referred to in paragraph 11)*

### **Abbreviations used in our report**

The full name is given at the first reference with the abbreviation in brackets.

ACT	Associated Container Transportation Ltd
AGM	Annual General Meeting
BSC	British Shippers' Council
BSJC	British Seafarers' Joint Council
CAWA	Canadian Atlantic Working Arrangement
CNR	Canadian National Railways
CP	Canadian Pacific Steamships Ltd
CPR	Canadian Pacific Rail
CTC	Canadian Transport Commission
DWT	Deadweight tonnage
ECS	Eurocanadian Shipholdings Ltd
FAK	Freight of all kinds
FMC	Federal Maritime Commission (USA)
FW	Furness, Withy and Co, Ltd
GCBS	General Council of British Shipping
GRT	Gross registered tonnage
LO/LO	Load on/load off
ML	Manchester Liners Ltd
MSCC	Manchester Ship Canal Company
OCL	Overseas Containers Ltd
PSNC	Pacific Steam Navigation Company
RO/RO	Roll on/roll off
SCNZ	Shipping Corporation of New Zealand
TEU	Twenty foot equivalent unit.

Printed in England for Her Majesty's Stationery Office by Harrison & Sons (London) Ltd.

19245 Dd 163714 K28 9/76