

5 The market for cross-Channel travel services

Contents

	<i>Page</i>
Background	92
Previous MMC inquiries	93
Developments since 1989	94
Developments in prospect	94
Demand for cross-Channel travel services	95
Fluctuations in demand	96
Value of the market	96
Supply of cross-Channel travel services	97
Fast craft	101
Retailing	102
Routes operated by P&O and Stena and their competitors	102
Market definition	104
Passenger and passenger vehicle traffic	104
Eurostar	107
Peripheral routes	107
Freight traffic	107
Bulk freight	109
Through-freight	110
Withdrawal of freight services	110
Freight excluded from the Tunnel	110
Unaccompanied freight	110
Special categories of freight	111
Market shares	112
Capacity	112
The joint venture's capacity at peak periods	120
Economies of scale	120
Competition in the supply of cross-Channel travel services	122
Passenger fares	122
Freight fares	123
Non-price competition	123
Entry and exit conditions	124
Entry to the passenger market	124
Entry to the freight market	125
Exit barriers	126
Competition in other markets in which P&O and Stena operate	126
The North Sea routes	126
The Western Channel	126
The Irish Sea	126

Background

Previous MMC inquiries

5.1. Cross-Channel travel services have been the subject of a number of previous inquiries by regulatory authorities into proposed mergers and possible competition concerns. In their 1974 report on the supply of cross-Channel car ferry services¹ the Monopolies Commission concluded that agreements between cross-Channel ferry operators to pool services or to charge fares at not less than a common minimum rate operated against the public interest. The Commission recommended that fares should be supervised unless, and until, there was a substantial change in the competitive situation, such as might result from the coming into operation of the Channel Tunnel, which justified the discontinuation of such supervision. They also recommended that ferry operators should be required not to participate in any collective agreement on fares, not to extend existing pooling agreements and not to enter into any further pooling agreements without the Government's approval.

5.2. The Commission's recommendations were accepted and became the basis of a series of undertakings which the ferry operators gave to the Secretary of State in 1979. In summary, they undertook:

- (a) not to participate in agreements relating to rates or fares except under existing pooling arrangements;
- (b) not, except in the context of existing pooling arrangements, to enter into any discussions relating to rates or fares without submitting a record of those discussions to the DGFT;
- (c) not to extend existing pooling arrangements or to enter into new ones without the Secretary of State's approval;
- (d) to notify the DGFT of any proposed increases, or other changes, in rates or fares; and
- (e) to submit to the DGFT annual accounts relating to relevant ferry services and containing such information as he should require.

5.3. In 1980 the ferry operators requested that they be released from the undertakings relating to agreements on fares, but this was not agreed by the DGFT except in relation to the undertakings summarized at (d) and (e) above. The Secretary of State referred to the MMC in 1981 a proposal by European Ferries Limited to acquire Sealink in order to reduce capacity and costs. The MMC concluded that the proposed merger would result in a reduction in competition leading to higher prices; that it would increase the existing power of the two companies to influence access to ports; and that it would add still further to the economic difficulties facing potential new entrants to the market. The merger was not allowed and European Ferries Limited entered into an undertaking in 1982 that it would not do anything which would result in a merger of any part of its business with any part of Sealink.

5.4. The MMC's most recent inquiry into cross-Channel car ferries was completed in 1989. Sealink and P&O, which by then had acquired European Ferries, approached the DGFT in 1989 with a proposal to integrate their Short French Sea services through joint or co-ordinated operations. The matter was referred to the MMC who concluded in their report² that the proposals would have effects adverse to the public interest. They took the view that competition and choice would be reduced in the period before the Channel Tunnel opened and that it was still too early to judge whether these adverse effects would continue or would cease after the Tunnel came into operation. The MMC's findings were accepted by the Secretary of State and the 1979 undertakings concerning price and pooling agreements and the 1982 undertaking relating to mergers remained in force.

5.5. The ferry companies subject to the undertakings (P&O, Stena and Hoverspeed) were released from them by the Secretary of State in July 1996, some two years after the opening of the Tunnel. However, in announcing his decision, the Secretary of State emphasized that it was without prejudice to the normal application of competition law to any future transactions in the cross-Channel ferry market.

¹See footnote 1 to paragraph 2.17.

²See footnote 2 to paragraph 2.17.

Developments since 1989

5.6. As these investigations by the competition authorities suggest, there have been concerns since the 1970s about uncompetitive practices and potential market dominance. At the time of the MMC's 1989 inquiry, P&O and Sealink and their associate companies and pooling partners held a joint share of 92 per cent of ferry services for passenger vehicles on the Short French Sea routes. At that time there were only three competing operators or groups of operators on these routes, namely P&O European Ferries, a grouping comprising Sealink and Hoverspeed, (both then owned by Sea Containers) and Sealink's pooling partner SNCF, and Sally Line. Shares of passenger vehicles carried in 1990 are set out in Table 5.1, together with shares of the Anglo-Continental freight market.

TABLE 5.1 Shares of cross-Channel ferry markets, 1990

<i>Ferry operator</i>	<i>Shares of Short French Sea passenger market % of vehicles</i>	<i>Shares of Anglo- Continental freight market % of freight units</i>
P&O*	46	31
North Sea Ferries#	-	7
Sealink-SNCF and Hoverspeed	46	14
Sally Line	8	5
Brittany Ferries	-	4
Maersk	-	6
Others	-	33

Source: P&O/Stena.

*Data for P&O include Ferrymasters which forms part of the P&O European Transport Services division.

#In 1990 P&O owned 50 per cent of North Sea Ferries, then in a joint venture with Royal Nedlloyd. P&O has since purchased the remaining 50 per cent.

5.7. In contrast there are now five independent operators of cross-Channel ferry services, namely P&O, Hoverspeed, Stena, SeaFrance and Holyman Sally (a joint venture between Sally Line and Holyman). Since the MMC inquiry of 1989 a number of significant factors have altered the nature of competition for both passenger and freight traffic. The single most important of these has been the opening of the Channel Tunnel in 1994. We have described the services, operation and financing of the Tunnel in Chapter 4.

5.8. Services through the Tunnel were interrupted by a fire on 18 November 1996. Repairs to the damaged section of the Tunnel have yet to be completed and Le Shuttle-Freight services are suspended pending the outcome of the inquiries referred to in paragraphs 4.20 and 4.21. This has benefited the ferries as they have transported the freight traffic which previously travelled on Le Shuttle-Freight.

5.9. As we show in Tables 5.3, 5.11 and 5.13, the market in the last three years has also been characterized by significant rises in capacity and demand, and falling prices.

5.10. Of the various changes which ferry companies have made to their operations since 1989, two are of particular significance. At the end of 1995 a long-standing pooling arrangement on the Dover-Calais route between Stena Line and SNAT, a subsidiary of the French Government-owned SNCF, came to an end. Subsequently both Stena Line and SNAT launched separate ferry services on the Dover-Calais route.

5.11. On 1 March 1997 a pooling arrangement between Sally Line and the Belgian state-owned RMT came to an end. Sally Line has entered a joint venture (Holyman Sally) with the Australian fast ferry operator, Holyman, and has introduced fast craft operating from the port of Ramsgate to Dunkirk and Ostend.

Developments in prospect

5.12. As for the future, there are two developments which may significantly affect cross-Channel travel services. First, services catering for passenger and passenger vehicle traffic will be affected by the proposed abolition of duty-free sales on 30 June 1999. The cessation of duty-free sales was originally planned for the end of 1992; however, the EC Council of Finance Ministers agreed in 1991 to allow an additional six and a half years for companies to make adjustments to their businesses. This decision was reinforced in November 1996

when the Council of Finance Ministers considered and rejected a suggestion that the matter should be subject to further study.

5.13. The second development concerns new safety requirements. Since the *Herald of Free Enterprise* and *Estonia* disasters safety standards have been raised by progressive introduction of stringent international requirements for ro/ro ferries, arising from the SOLAS convention and the Stockholm agreement. The latter agreement sets a specific survivability standard, considerably higher than that applying elsewhere in the world, for ro/ro ferries operating on seagoing international routes to and from ports in north-west European waters and the Baltic Sea, including all UK ports. The agreement requires ferries to meet the higher standard in accordance with a phased five and a half year timetable ending on 1 October 2002.

5.14. P&O estimated that the cost of ensuring that its current fleet of vessels complied with the new regulations was around £5.5 million for improvements to vessel stability and £6.5 million for on-board safety equipment and crew training. Stena estimated its costs at £18.2 million for vessel stability (of which £[*] million was attributable to a single vessel) and approximately £7 million in other safety improvements. The formation of the joint venture would reduce this expense as the Stena vessel requiring substantial modification would be sold as part of the rationalization of capacity.

Demand for cross-Channel travel services

5.15. The total demand for cross-Channel travel services consists of two distinct flows of traffic. The first comprises passengers and passenger vehicle traffic, including tourist and business passengers, cars and coaches. The volume of this traffic is broadly determined by seasonal factors, holiday periods, opportunities for day trips and the wish to take advantage of duty-free and VAT-free sales or to exploit taxation differentials between France and the UK. The ferry operators believed that low-priced promotional fares have generated increases in overall demand (see paragraph 7.65).

5.16. The recent growth in demand for passenger vehicle transport across the Channel is partly the result of changing holiday patterns but particularly of discounted fares. The wide availability of discounts in part reflects the fact that ferry operators are able to make profits from the sale of duty-free goods. The abolition of the duty-free concession is likely to effect a reduction in the volume of the demand for passenger vehicle transport, partly because consumers' opportunities to buy goods at reduced prices will be diminished and partly because ferry companies are likely to raise ticket prices, to the extent the market will allow, to compensate for the loss of revenue from retail sales.

5.17. The second flow of traffic is for the carriage of freight. The volume of freight traffic is determined by the level of cross-Channel trade in goods, which is by nature far less seasonal than passenger traffic. Demand for freight transport is primarily driven by the growth in trade between the UK and the Continent and is therefore determined by economic growth in the UK and among its trading partners. Total demand cannot be increased by promotional activity and is little influenced by the availability of duty-free and duty-paid goods.

5.18. Demand for cross-Channel travel services by passengers originates predominantly in the UK. According to data provided by P&O the origin of its passenger traffic in 1996 was 66 per cent UK, 15 per cent France and 10 per cent Germany. This pattern has remained broadly unchanged since 1994.

5.19. The parties do not maintain records of the origin or destination of freight traffic carried. However, a survey of the number plates of freight vehicles leaving Dover for Calais in the first three quarters of 1996 is of some relevance. The survey showed approximately 58 per cent as being UK-registered and 14 per cent as French-registered. A similar survey of freight vehicles leaving Dover for Zeebrugge in the first three quarters of 1996 showed around 52 per cent as being UK-registered with Belgian- and German-registered traffic accounting for between 6 and 7 per cent each.

5.20. Tourist and business travellers wish to spend as much of their available time as possible in their country of destination. Frequency of service and speed of crossing are important to them as well as the level of fares. Demand peaks in the holiday periods but, in recent years, the ferries and Le Shuttle-Tourist have been

*Figure omitted. See note on page iv.

successful in generating demand at other times from passengers wishing to take advantage of duty-free concessions and relatively cheap tax-paid goods available in continental Europe.

5.21. A freight transporter's choice of cross-Channel service involves balancing a number of factors including the proximity of the port to the freight shipper's base or to the final destination; overall length of the journey; the urgency of delivery; the speed of crossing; and the need for a driver's rest period. However, we have been told that the key factor is the overall cost of the journey from the point of origin to the final destination.

5.22. The choice of route and service, particularly by tourist and business travellers, may also be affected to a limited extent by preferences for a particular mode (such as the Tunnel rather than ferries). A survey on customer attitudes and preferences completed by Eurotunnel in January 1997 showed that 28 per cent of people surveyed said that they 'would never dream of using the Channel Tunnel'. P&O and Stena told us that there are also some travellers who see the Tunnel as much more attractive than the ferries. As providers of cross-Channel travel services are not able to identify passengers who would be prepared to pay more to travel on their particular mode, they are unable to exploit these preferences.

Fluctuations in demand

5.23. Demand for ferry capacity fluctuates substantially both by time of day and according to the season of the year. The peak periods of passenger vehicle demand are the summer months of June, July, August and September (and within that period demand is highest during the six weeks of the UK school summer holidays) as well as the holiday periods of Christmas and Easter. Data provided by DHB for the Short French Sea routes (passenger vehicle market) show that in 1996 the demand in January was approximately 32 per cent of the peak demand in August. By comparison, freight demand fluctuates relatively less throughout the year. For the ferries, the lowest-volume month for freight (August) represented approximately 75 per cent of the peak-volume month (September) in 1996; and Eurotunnel told us that the peak month for Le Shuttle-Freight was in fact November.

5.24. Throughout an individual day and week the peaks and troughs of passenger vehicle and freight traffic are to some extent complementary. Peak passenger vehicle traffic occurs during daylight hours (concentrated on the sailings between 8.00 am and 11.00 am leaving Dover and 4.00 pm to 7.00 pm leaving Calais) and is particularly heavy at the weekends while peak freight traffic occurs between 3.00 pm and 8.00 pm in both directions and is heaviest mid-week.

Value of the market

5.25. The size of the market (measured in value terms) for the carriage of freight from the UK to the Continent (including through the Tunnel) has been estimated by P&O and Stena over the period from 1993 to 1996 as follows:

<i>£ million</i>			
<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>
590	570	575	550*

Source: P&O and Stena.

*Annualized estimate.

The above estimates were calculated at 1996 prices by multiplying P&O's and Stena's volumes on each sector by their respective average freight rates and estimating the revenues of their competitors on the routes concerned. These data include all routes from ports in the UK to ports on the Continent.

5.26. The value of the market for cross-Channel passenger services on the Short French Sea routes is estimated as follows:

<i>£ million</i>			
<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>
440	426	492	490*

Source: P&O and Stena.

*Annualized estimate.

The above estimates were calculated at 1996 prices by adding P&O's and Stena's revenue from passenger and passenger vehicle tickets and from on-board spend and estimating the revenues of their competitors on the routes concerned. This includes only routes on the Short French Sea (see paragraph 5.29).

5.27. As we show in Tables 5.8 and 5.10, there has been substantial growth in the passenger market in volume terms. The fall in the estimated value of the market from 1995 to 1996 reflects a fall in prices rather than any reduction in demand.

Supply of cross-Channel travel services

5.28. Figures 5.1, 5.2 and 5.3 show cross-Channel services operating on routes from the UK to the Continent.

5.29. These routes can be broadly classified into five maritime sectors: the Short French Sea; Belgian Straits; Western Channel; North Sea; and Irish Sea. The Western Channel and North Sea routes are much longer than those of the Short French Sea and this has implications for the type of service offered to passengers. Some of the routes on the Belgian Straits are closer to the routes on the North Sea than to the Short French Sea in terms of duration and distance. However, the introduction of fast craft services on the more southern of these routes gives them a crossing time similar to that of the Short French Sea routes, and given their proximity to the Short French Sea routes makes them attractive to some of the same passengers.

5.30. The term Short French Sea comprises routes from the ports of Dover, Folkestone, Newhaven and Ramsgate in the UK to the ports of Dunkirk, Calais, Boulogne and Dieppe in France. The term Short Sea includes the routes operated from the ports of Dover and Ramsgate to Ostend and Zeebrugge as well as the routes included in the Short French Sea definition.

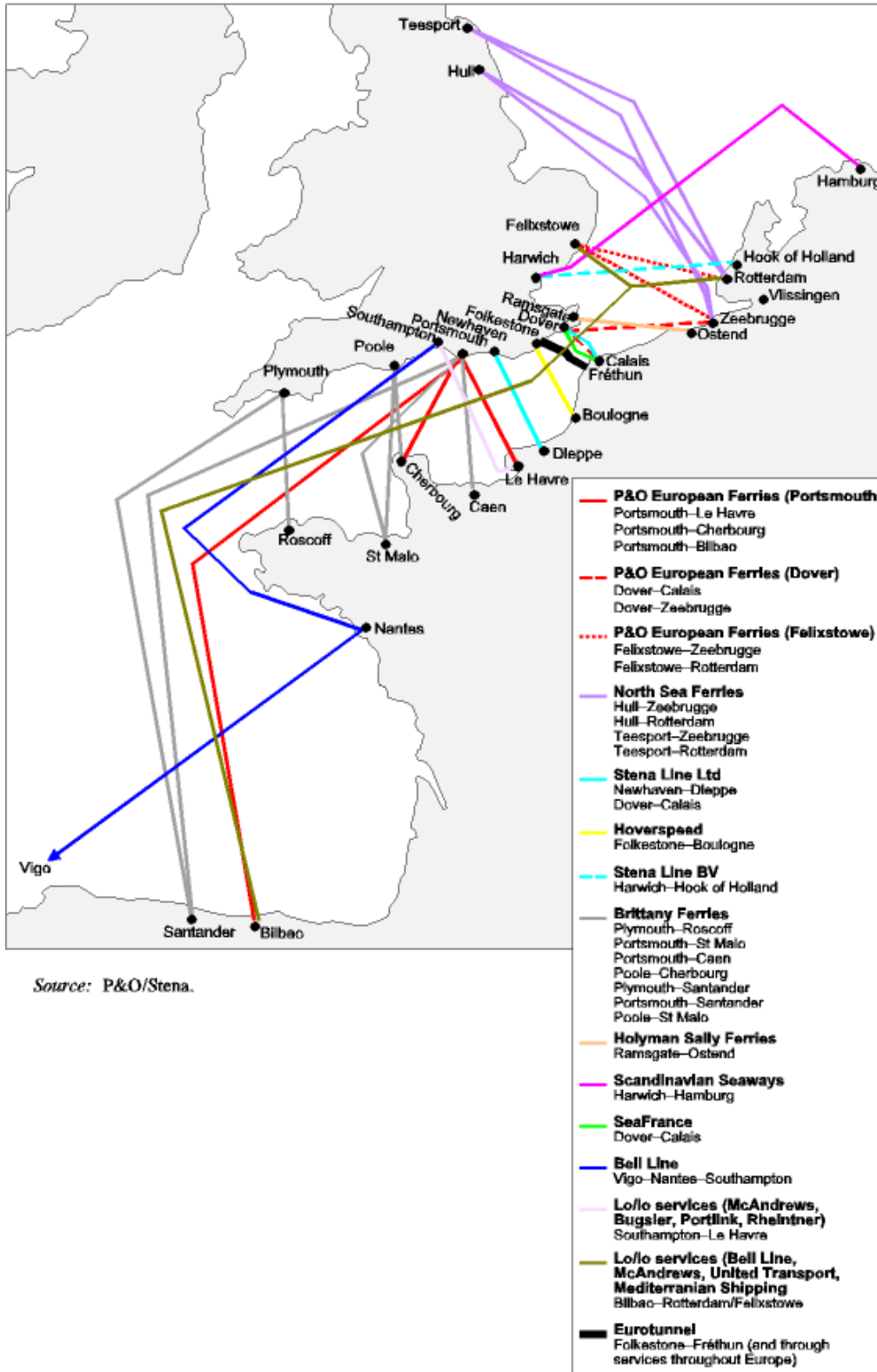
5.31. For the purposes of our inquiry we have taken the supply of cross-Channel travel services to include the movement of passengers, passenger vehicles and unitized freight (including lorries, pallets, containers and lift tanks) although we have also given separate consideration to the carriage of freight in bulk (see paragraph 5.68).

5.32. The cross-Channel services available are:

- sea crossings on multi-purpose ro/ro ferries capable of carrying passengers, cars and most forms of freight, including both driver-accompanied and unaccompanied trailers;
- sea crossings on passenger vehicle vessels capable of carrying passengers and their vehicles;
- sea crossings on freight-only vessels, including lo/lo vessels, capable of carrying a wider range of freight including most hazardous freight;
- Channel Tunnel crossings on Le Shuttle-Tourist and Le Shuttle-Freight capable of carrying, respectively, passengers who accompany cars or other vehicles such as coaches or minibuses and accompanied freight (with some exceptions which we identify in paragraphs 5.72 to 5.76);
- rail crossings via the Tunnel carrying passengers only; and
- rail crossings via the Tunnel carrying freight (termed 'through-freight' from here on).

FIGURE 5.1

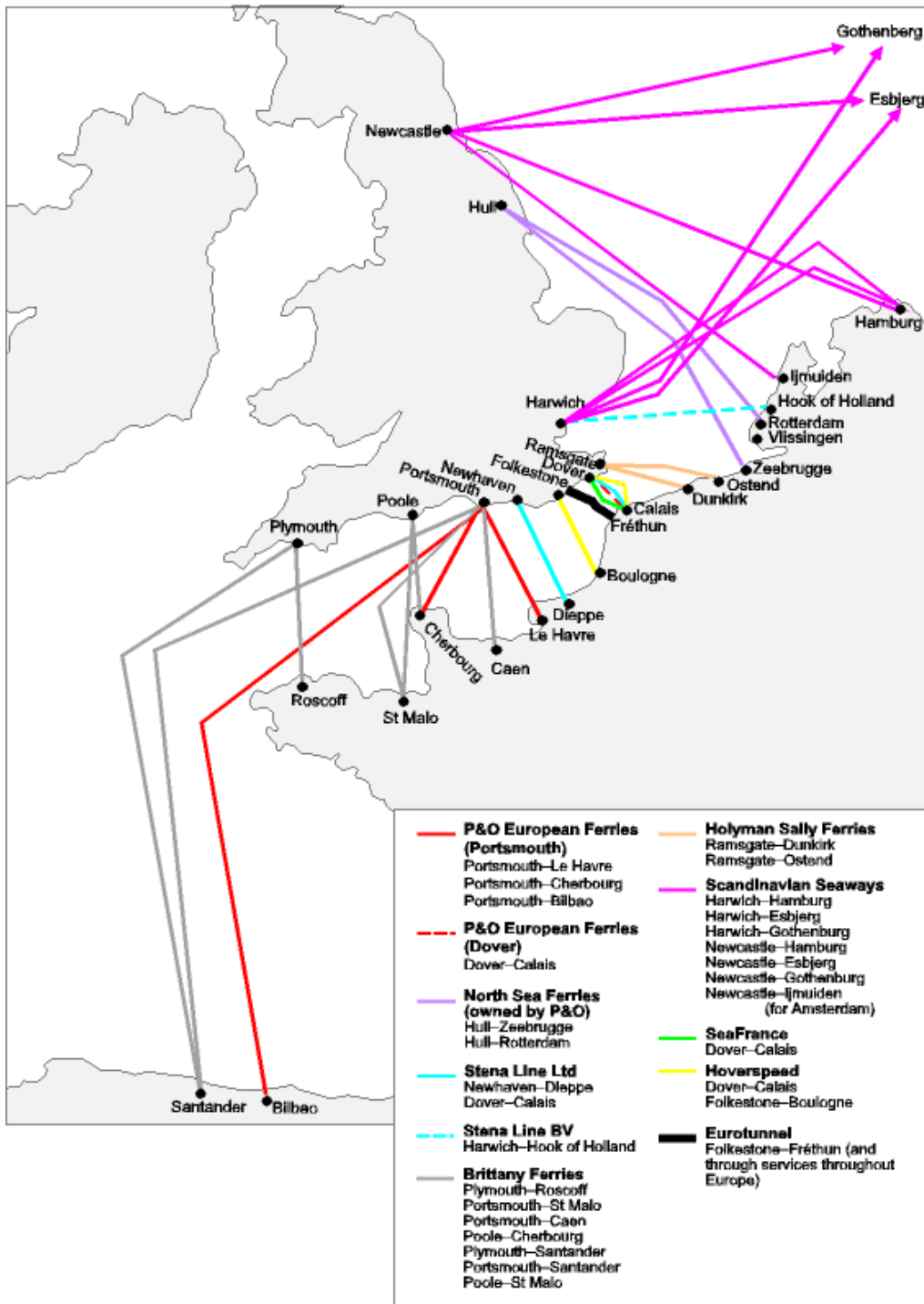
Anglo-Continental freight routes



Source: P&O/Stena.

FIGURE 5.2

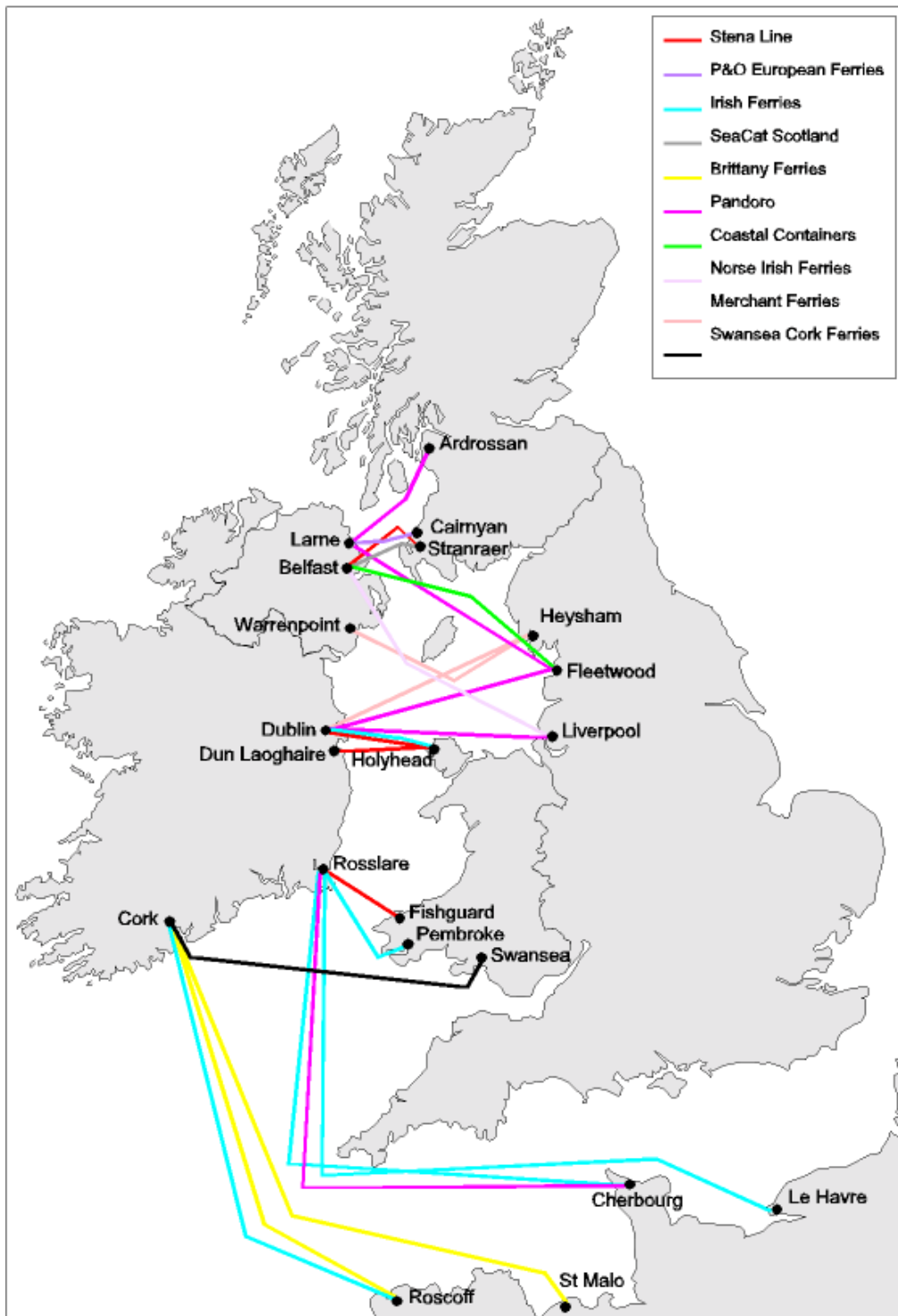
Anglo-Continental tourist routes



Source: P&O/Stena.

FIGURE 5.3

Irish Sea and Ireland/France freight and tourist routes



Source: Irish Ferries, P&O and Stena.

5.33. Currently P&O operates five multi-purpose vessels on the Dover-Calais route providing 50 crossings a day and three freight-only vessels on the Dover-Zeebrugge route providing 12 crossings a day. Stena operates three multi-purpose vessels and one fast craft on the Dover-Calais route providing 38 crossings a day and one multi-purpose vessel and one fast craft on the Newhaven-Dieppe route providing 12 crossings a day. P&O's Dover-Calais operation is capable of increasing the frequency of its vessels to six round trips per vessel which would increase its total crossings to 60 per day. If the joint venture were to go ahead, total crossings on the Dover-Calais route would be reduced from 88 (on a stand-alone basis) to 60.

5.34. The crossing times and distances of the routes operated by Stena and P&O from ports in the UK to ports on the Continent for the three sectors (Short Sea, Western Channel and North Sea) are listed below.

TABLE 5.2 **Anglo-Continental ferry routes**

<i>Route</i>	<i>Distance Nautical miles</i>	<i>Crossing time hrs</i>
<i>Short Sea</i>		
Dover-Calais	21	0.75-1.5
Newhaven-Dieppe	64	1.5-4.5
Dover-Zeebrugge	76	4.25
<i>Western Channel</i>		
Portsmouth-Le Havre	101	5.5-8
Portsmouth-Cherbourg	77	5-8.25
Southampton-Cherbourg (not operating)	93	5-9
Portsmouth-Bilbao	576	27-37.5
<i>North Sea</i>		
Harwich-Zeebrugge	84	7-8
Harwich-Hook of Holland	112	6.5-8.5
Felixstowe-Zeebrugge	85	8
Felixstowe-Rotterdam	109	7.5
Middlesbrough-Zeebrugge	256	14.5-15.5
Middlesbrough-Rotterdam	237	15-19
Middlesbrough-Gothenberg	489	27-28
Hull-Rotterdam	197	12.5-14.5
Hull-Zeebrugge	204	13.25-14.45

Source: P&O/Stena.

5.35. The modes of cross-Channel travel (described in paragraph 5.32) offer varying levels of service and convenience in terms of frequency of departures, time taken to complete the journey, point of origin and destination and level of on-board service.

5.36. The ferry operators have sought to differentiate their services from those offered by Le Shuttle through marketing and promotion of the standard of on-board service offered by their operations. The trend in ferry operations has also been to increase the quality of service through improved port handling, sales distribution, on-board amenities, training and frequency and regularity of service. This has essentially been a competitive response to the turn-up-and-go system offered by Le Shuttle.

Fast craft

5.37. An important development in the supply of cross-Channel services is the increasing use of fast craft. Hovercraft have been used on the Dover-Calais route for approximately 30 years offering passengers a short crossing time. More recently fast catamarans have been used on the Dover-Calais, Folkestone-Boulogne and Newhaven-Dieppe routes and jetfoils on the Ramsgate-Ostend and Dover-Ostend routes. The fast craft have evolved into larger designs of catamarans and also monohull vessels offering expanded opportunities for on-board retailing and with increased car-carrying capacity. Improved designs have resulted in better rough weather performance with fewer disrupted sailings. Hoverspeed told us that approximately 2 per cent of its scheduled sailings with the current fleet of two SeaCats were lost because of weather conditions each year.

5.38. The rapid crossing time offered by fast craft allows more frequent departures to be provided on routes where they are used. The schedule offered by a conventional ferry can therefore be maintained with a smaller

fleet of vessels. It should be noted that fast craft have a smaller capacity than traditional multi-purpose vessels and cost more to operate per unit of capacity. However, depending on size, they may be cheaper to purchase or lease and therefore require a lower capital outlay (fast craft range in price from £20 million to £25 million, with the larger High Speed Sea-Service (HSS) fast craft costing £65 million, compared with conventional multi-purpose ferries which cost in the order of £70 million to £80 million).

5.39. Fast craft are still a developing technology. Historically they have been more limited in terms of the weather conditions in which they can operate as well as the types of routes on which it is economic for them to operate. The industry is uncertain about the role which fast craft will play in the future. It is, for example, possible that fast craft will widely replace conventional ferries in a market which develops with a greater emphasis on shorter crossing times and less on-board retailing.

5.40. Fast craft are used for the transport of passenger vehicles and coaches rather than for the transport of freight. In particular, their weight-bearing capability, vehicle deck size and fuel consumption make them unsuited for freight services. These considerations do not, however, apply to the same extent to the new HSS class of fast craft.

Retailing

5.41. Retailing is a significant feature of this industry, particularly in the competition for recreational or tourist travellers as well as business travellers. Eurotunnel offers these services at its terminals so that they are available to customers while they wait for their cars to be loaded. P&O and Stena commented that the ticket price was not only for the cost of transportation but also for entry into the ferries' on-board and Eurotunnel's on-shore retailing facilities. Ferry operators have developed and invested heavily in their on-board retailing of not only duty-free and VAT-free goods but also other goods. Large amounts of space in ferries, on the Short Sea routes in particular, are set aside for retail outlets and recreation. The operators will be seeking to develop these services further in the future. Eurotunnel has also invested in retail facilities at its terminals. A high proportion of passenger vehicle revenue comes from duty-free and other on-board sales (see Appendices 3.1, 3.3 and 4.1 for further details of the significance to P&O, Stena and Eurotunnel of duty-free sales and other retail sales relative to other revenues).

Routes operated by P&O and Stena and their competitors

5.42. The routes currently operated by P&O and Stena from ports in Great Britain to ports on the Continent and Ireland are listed below and are shown in Figures 5.1, 5.2 and 5.3. MP denotes routes served, at least in part, by multi-purpose ferries capable of carrying both passenger and freight vehicles; TO denotes a capability to carry only passengers and their accompanied vehicles; and FO denotes routes served by freight-only vessels.

P&O Ferries and its subsidiaries

- Short French Sea and Belgian Straits: Dover-Calais (MP); Dover-Zeebrugge (FO)
- Western Channel: Portsmouth-Le Havre (MP); Portsmouth-Cherbourg (MP); Portsmouth-Bilbao (MP)
- North Sea: Felixstowe-Rotterdam (FO); Middlesbrough-Zeebrugge (FO); Middlesbrough-Rotterdam (FO); Hull-Rotterdam (MP); Hull-Zeebrugge (MP); Felixstowe-Zeebrugge (FO)
- Irish Sea: Cairnryan-Larne (MP); Pandoro, part of P&O's European Transport services division, also operates the following services on the Irish Sea to Northern Ireland, the Irish Republic and direct to France: Ardrossan-Larne (FO); Fleetwood-Larne (FO); Dublin-Fleetwood (FO); Dublin-Liverpool (FO); and Rosslare-Cherbourg (FO)

Stena Line

- Short French Sea and Belgian Straits: Dover-Calais (MP); Newhaven-Dieppe (MP)
- North Sea: Harwich-Hook of Holland (MP)

- Irish Sea: Stranraer-Belfast (MP); Holyhead-Dublin (MP-largely freight only); Holyhead-Dun Laoghaire (MP); Fishguard-Rosslare (MP).

5.43. In the passenger market the proposed joint venture would have a number of competitors on the Short Sea routes. These competitors are:

- Holyman Sally, which has replaced the services previously operated by Sally Line in a pool with the Belgian state-owned RMT, commenced a new service from 1 March 1997 which will involve the operation of fast craft from Ramsgate to Ostend and Dunkirk;
- Hoverspeed, which currently operates two fast craft and two hovercraft from Dover to Calais and Folkestone to Boulogne. Hoverspeed is owned by Sea Containers which has had significant experience operating in this market, in particular through the ownership of Sealink;
- SeaFrance, owned by the French state-owned company SNCF, operates multi-purpose ferries from Dover to Calais. It is a recent entrant in name but with substantial experience through operating in partnership with Stena in the Sealink pooling arrangement. SeaFrance has demonstrated a degree of commitment to this market through its investment in marketing and establishing brand awareness. SeaFrance has access to the Sealink brand name only in continental Europe where it has significant brand recognition; and
- Le Shuttle, owned and operated by Eurotunnel (discussed in detail in Chapter 4).

5.44. A degree of competition is also provided by the Eurostar passenger rail service which we describe in paragraphs 5.54 to 5.57.

5.45. In the freight market, the proposed joint venture would not only face competitors operating on the Short Sea but also those operating on the Western Channel and the North Sea. We discuss the relationship between these sectors in paragraphs 5.62 to 5.64. The competing services would, in particular, include:

- Holyman Sally, as described in paragraph 5.43, which is maintaining a freight service to Ostend;
- Hoverspeed, a new entrant to the freight market. Hoverspeed currently operates a single-vessel Folkestone-Boulogne service but has plans to deploy a second vessel;
- SeaFrance, as described in paragraph 5.43, has been successful in gaining new freight business on the Dover-Calais route following the break-up of the Stena/SNAT pool. It has been aided by the temporary suspension of Le Shuttle-Freight services;
- Brittany Ferries, a competitor in the Western Channel. According to articles in the French press, Brittany Ferries may be in receipt of financial assistance from the French Government and the ports from which it operates may be in receipt of cross-subsidies from other ports;
- ro/ro operators such as Dart Line, Maersk, Cobelfret, Tor Line and UTL/IFF and lo/lo operators such as Bell Line and Geest North Sea Line, offering freight-only services on North Sea routes;
- P&O's operations outside the joint venture which would operate three services on the Western Channel and six on the North Sea (including four routes operated by North Sea Ferries, which has been a wholly-owned P&O subsidiary since September 1996); and
- Le Shuttle-Freight, as described in paragraphs 4.19 and 4.20.

5.46. A further element of competition is provided by rail services through the Tunnel. These are provided currently by Railfreight Distribution Ltd for, among others, the operators of intermodal transport services such as Allied Continental Intermodal Services, Combined Transport Services, Unilog and RoadRailer.

Market definition

Passenger and passenger vehicle traffic

5.47. The passenger market, broadly defined, comprises tourist and business travellers, on foot or accompanying vehicles. Passenger vehicles are taken to include cars, caravans, campervans and coaches. The demand for cross-Channel transport services from coach operators is determined by broadly the same factors as demand from those using private vehicles.

5.48. We were told by P&O and Stena that the routes across the Short French Sea have a number of characteristics which distinguish them from those of the Western Channel and North Sea (see paragraphs 7.19 to 7.22). The Short French Sea offers a frequency of sailings which is not matched elsewhere in the UK. In addition, customers can choose between a traditional ferry service offering high-quality on-board facilities, fast craft crossings or Le Shuttle services operating through the Tunnel.

5.49. The Short French Sea offers highly-developed motorway access, particularly to Eurotunnel's terminals and the ports of Dover and Calais, and a shorter crossing time than Western Channel or North Sea routes. There has also been a trend in recent years towards a turn-up-and-go capability on the shorter routes, particularly the Dover-Calais route. This has been fuelled by the frequency of ferry services, the growing tendency of travellers not to pre-book and/or to travel on an alternative sailing to the one booked, and the turn-up-and-go facility offered by Le Shuttle. According to P&O and Stena, 70 per cent of all passenger traffic in 1995 between the UK and the Continent travelled via Short French Sea routes.

5.50. When compared with freight traffic, passenger vehicle traffic is, by nature, relatively time-sensitive. This is primarily due to the fact that day trippers and holiday-makers wish to allow the maximum possible time in the country of destination. Travel time is also important for business traffic. Day-tripper traffic is particularly concentrated on Dover-Calais for which scheduled crossing times on all ferries range between 35 and 90 minutes.

5.51. As well as customers who undertake a crossing for recreational or business purposes there are those engaged in travel primarily to take advantage of sales of duty-free and VAT-free goods on board the ferries or at Le Shuttle terminals. These customers also travel in order to take advantage of the differences between UK and French excise rates on alcohol and tobacco.

5.52. Table 5.3 details price indices data for 1994 to 1996 on the basis of rates, in current prices, achieved by P&O and Stena on five routes covering the Western Channel and Short Sea and one route on the North Sea which operated only until September 1995. The table shows that, while there were seasonal fluctuations, both Stena and P&O experienced significant price reductions on the Dover-Calais route. The price indices for each quarter show a fluctuation through the year due to seasonal variations in demand. Prices are seen to peak in the June and September quarters and fall in the December and March quarters.

5.53. Stena has experienced a particularly marked reduction in prices on the Newhaven-Dieppe route. By contrast, prices on the Western Channel routes do not exhibit a significant downward trend although, as on other routes, there are seasonal variations. This suggests that the Newhaven-Dieppe route has a closer connection with Dover-Calais than with the Western Channel routes.

TABLE 5.3 Price indices data for freight-Western Channel, North Sea and Short Sea

	<i>Portsmouth- Cherbourg</i>	<i>Portsmouth- Le Havre</i>	<i>Felixstowe- Rotterdam</i>	<i>Felixstowe- Zeebrugge</i>	<i>Dover- Calais (Stena)</i>	<i>Dover- Calais (P&O)</i>	<i>Newhaven- Dieppe</i>	<i>Dover- Zeebrugge</i>
<i>1994</i>								
January	100	100	100	100	100	100	100	100
March	100	100	101	102	-	97	-	97
April	-	-	-	-	118	-	90	-
June	97	99	98	98	-	93	-	94
July	-	-	-	-	105	-	103	-
September	96	100	96	98	-	93	-	92
October	-	-	-	-	96	-	93	-
December	96	99	96	97	-	90	-	94
<i>1995</i>								
January	-	-	-	-	99	-	95	-
March	90	98	97	101	-	86	-	88
April	-	-	-	-	99	-	84	-
June	88	97	90	96	-	82	-	86
July	-	-	-	-	93	-	91	-
September	81	92	91	92	-	78	-	83
October	-	-	-	-	84	-	90	-
December	83	93	91	86	-	77	-	83
<i>1996</i>								
January	-	-	-	-	89	-	89	-
March	80	92	90	87	-	72	-	76
April	-	-	-	-	84	-	87	-
June	80	90	85	85	-	68	-	74
July	-	-	-	-	79	-	82	-
September	77	91	86	80	-	64	-	71
October	-	-	-	-	77	-	79	-
December	78	86	86	82	-	63	-	71

Price indices data for passenger vehicles-Western Channel, North Sea and Short Sea

	<i>Portsmouth- Cherbourg</i>	<i>Portsmouth- Le Havre</i>	<i>Felixstowe- Zeebrugge</i>	<i>Dover- Calais (P&O)</i>	<i>Dover- Calais (Stena)</i>	<i>Newhaven- Dieppe</i>
<i>1994</i>						
January	100	100	100	100	100	100
March	84	87	99	66	-	-
April	-	-	-	-	141	128
June	155	127	143	109	-	-
July	-	-	-	-	181	95
September	162	157	154	141	-	-
October	-	-	-	-	131	71
December	70	79	151	90	-	-
<i>1995</i>						
January	-	-	-	-	64	35
March	73	75	87	60	-	-
April	-	-	-	-	87	45
June	141	116	140	110	-	-
July	-	-	-	-	112	63
September	144	121	157	124	-	-
October	-	-	-	-	81	47
December	70	76	-	67	-	-
<i>1996</i>						
January	-	-	-	-	49	29
March	81	69	-	50	-	-
April	-	-	-	-	61	47
June	148	124	-	75	-	-
July	-	-	-	-	83	59
September	140	114	-	71	-	-
October	-	-	-	-	39	30
December	64	71	-	48	-	-

Source: P&O/Stena.

Note: These price indices are based on rates in then current prices, achieved by P&O and Stena. P&O Dover-Calais data represents car only indices, all other routes include all tourist vehicles.

Eurostar

5.54. Eurostar is a three-way joint operation between Eurostar (UK) Ltd, SNCF and SNCB (respectively the French and Belgian state-owned rail operators). Eurostar currently offers a London (Waterloo) and Ashford service to Calais (Fréthun), Lille, Paris and Brussels, offering a short journey time, for foot passengers only. As Eurostar does not carry vehicles, it competes most directly with the airlines as it offers a fast transit with a high frequency of departures. However, Eurostar (UK) Ltd has told us that surveys suggest that 20 per cent of its passengers starting from UK stations would otherwise have used the ferries. It regards itself as a direct competitor of Le Shuttle-Tourist and the ferries in attracting passengers who would have travelled by coach and ferry or by coach through the tunnel. It also offers an alternative for those considering driving to continental destinations, as Eurostar services offer a reasonable connection with both continental and UK rail services.

5.55. While at the present time competition between Eurostar and operators on the Short French Sea may be limited, Eurostar told us that it intends to market its services to those who may otherwise choose coach travel to the Continent and also to those who could be dissuaded from driving and making a ferry or Tunnel crossing by the offer of a Eurostar/car hire package.

5.56. As Eurostar implements its intention to market its rail-drive packages to those who would otherwise drive to the Continent, the level of substitutability between itself and the ferries and Le Shuttle-Tourist might be expected to increase.

5.57. For the full calendar year 1996 Eurostar carried 4,866,566 passengers with an average capacity utilization of 46 per cent. For the year to 11 November 1996 Le Shuttle-Tourist carried a total number of car and coach passengers of 7,493,423. These figures are for individual crossings; a return journey is recorded as two crossings.

Peripheral routes

5.58. The introduction of a fast craft on the Newhaven-Dieppe route has resulted in a reduction in journey time from 4 to 2 hours. While this is a longer crossing time than the Dover-Calais route the location of the port of Dieppe provides access to southern France and Paris and therefore makes it a realistic and economic alternative route for a segment of the traffic on the Dover-Calais route.

5.59. Holyman Sally's fast craft services from Ramsgate to Ostend, together with its fast craft operation from Ramsgate to Dunkirk (due to commence from mid-May 1997), will serve customers travelling to the Low Countries, Germany and northern France with a crossing of 90 to 100 minutes, broadly comparable to Dover-Calais. Road access to the port of Ramsgate is in the process of being upgraded.

Freight traffic

5.60. Ferry operators on the North Sea, Short French Sea and Western Channel together with Eurotunnel have experienced significant growth over the last three years in the overall volume of freight traffic which they are carrying. Within this overall growth, however, there has been a significant trend towards use of the Short French Sea for the transport of freight to the Continent.

5.61. Table 5.4 shows the actual volumes of freight traffic which have been carried in each of the three geographic sectors. Volumes on the Western Channel continued to grow between 1990 and 1995 but this growth slowed between 1993 and 1995 and volumes were estimated by P&O to have declined in 1996. The most likely explanation of this decline is a shift of traffic to the Short French Sea routes where freight rates have been falling. This price competition has attracted to the Short French Sea most of the growth in traffic across the three sectors since the Tunnel opened. In 1995 freight traffic on the Short French Sea routes grew by 20.6 per cent compared with 3.4 per cent on the Western Channel and 0.2 per cent on the North Sea. P&O provided us with copies of correspondence with its current and potential clients which showed that freight business was indeed being shifted to the Short French Sea and that such a shift was a result of price differentials between the Short French Sea and routes on the Western Channel and North Sea sectors.

TABLE 5.4 **Anglo-Continental ro/ro freight ferry traffic: sectoral changes, 1990 to 1995**

<i>Freight units</i>	<i>per cent</i>								
	<i>1990</i>	<i>1991</i>	<i>1992</i>	<i>1993</i>	<i>1994</i>	<i>1995</i>	<i>Ten months to October 1996</i>	<i>Full year 1996</i>	<i>1996 to 1990 difference</i>
Total all routes	2,850,853	2,744,784	2,881,193	2,872,930	3,112,929	3,348,007	3,227,000	3,542,170	+ 24.2
Annual change	-3.7	+ 5.0	-0.3	+ 8.4	+ 7.6	+ 3.7%	+ 5.8%		
Total Short French Sea	775,766	784,219	837,531	907,489	1,057,353	1,275,473	1,229,000	1,401,690	+ 80.7
	+ 1.1	+ 6.8	+ 8.4	+ 16.5	+ 20.6	+ 12.6%	+ 9.9%		
Total Western Channel	286,887	297,948	307,450	360,461	393,578	406,784	289,000	393,380	+ 37.1
	+ 3.9	+ 3.2	+ 17.2	+ 9.2	+ 3.4	-4.9%	-3.3%		
Total North Sea	1,788,200	1,662,617	1,736,212	1,604,980	1,661,998	1,665,750	1,709,000	1,747,100	-2.3
	-7.0	+ 4.4	-7.6	+ 3.6	+ 0.2	-0.4%	+ 4.9%		

Source: P&O/Stena.

Note: Figures for 1996 are recorded both on a ten months to October basis and for the full year. The data for the ten months to October exclude the effect of the Tunnel fire.

5.62. As set out in Table 5.3, price indices data based on rates, in current prices, achieved by P&O and Stena show a gradual decline in freight rates in the period from 1994 to 1996 for Western Channel routes of between 9 and 23 per cent. This price reduction has enabled freight volumes to be broadly maintained on the Western Channel together with levels of capacity utilization.

5.63. On the North Sea, price indices data for P&O European Ferries' services show a price reduction (in current price terms) of between 13.5 and 20 per cent in the period from January 1994 to December 1996. These price reductions are for the Felixstowe-Rotterdam and Felixstowe-Zeebrugge routes which are closest in proximity to the Short French Sea routes and offer shorter sailing times than routes from Hull and Middlesbrough.

5.64. Price reductions for freight on the Short French Sea routes over this period have been relatively larger with a nominal reduction of 36 per cent for P&O in the period from January 1994 to December 1996 and 23 per cent for Stena on the Dover-Calais route. Prices have fallen by 29 per cent on the Dover-Zeebrugge route over the same period and 21 per cent on the Newhaven-Dieppe route. The Short French Sea price reductions, which have been larger than those on the Western Channel and the North Sea, have attracted greater volumes. This supports the proposition that the Short French Sea routes offer a substantial degree of substitutability for both Western Channel and North Sea routes and that all these sectors could be regarded as part of the same market.

5.65. The opening of the Tunnel in 1994 introduced a substantial amount of new capacity to the freight market through the Le Shuttle-Freight service. This service was accompanied by the introduction of through-freight services (that is, freight trains utilizing the Tunnel, described further in paragraph 5.69).

5.66. As noted in paragraph 5.21, the choice of route by freight operators is dependent on a number of factors, but particularly on the overall cost of the journey from origin to destination. Evidence provided by the FTA and other freight operators confirmed that significant changes in price differentials between routes would affect the flow of freight traffic. They told us that the decision on route and operator was dependent upon the most cost-effective service, taking into account the destination, the price charged for getting the vehicle across, the frequency of the service and the availability of the service at times that fitted in with customers' requirements.

5.67. The compulsory rest periods for drivers of road haulage vehicles are also a factor in determining the choice of route. Longer crossing times can be, in some instances, more attractive if they allow a driver to complete a required rest break while on board a ferry which offers a longer crossing time but reduces the time of the onward journey. As the minimum rest period is never less than 9 hours, the Short French Sea crossings (which are all shorter than 9 hours) do not offer any advantage over the Western Channel and North Sea routes. There is a derogation from the minimum continuous daily rest requirement where a vehicle is transported by ferry or train. It is of importance for routes of around 4 hours' duration. Where a vehicle is so transported, the daily rest period may be interrupted not more than once by part being taken on land and part on the ferry or train, provided (among other things) that the period between the two portions is as short as possible and does not exceed 1 hour before or after embarkation. Where the rest period is interrupted in this way, it has to be increased by 2 hours. This is of importance where a driver can move from a ferry to a freight parking area and continue the rest break.

Bulk freight

5.68. Most freight traffic carried across the Channel is in a 'unitized' form (see glossary) but a minority is carried in bulk. This has traditionally been transported either by rail ferry (a ferry capable of carrying rail wagons) or on dedicated cross-Channel vessels. The rail ferry deployed through the Stena/SNAT pool on the Dover-Dunkirk route has now ceased operation and bulk rail freight can use the Tunnel. Approximately 24 per cent of through-freight using the Tunnel (see paragraph 5.69) in 1996 was classified as bulk. Approximately 30,000 tonnes of the freight previously transported on the rail ferry is unable to pass through the Tunnel as it is classified as hazardous (discussed further in paragraphs 5.74 to 5.77). This freight is now likely to travel on freight-only ro/ro or lo/lo cross-Channel ferries. However, in general, differences in the requirements for carrying freight in bulk and unitized freight on land or sea journeys coupled with the need

to break some freight down into units to facilitate distribution to a range of customers limits considerably the degree of substitutability between bulk and unitized methods of shipment.

Through-freight

5.69. As mentioned in paragraph 5.46, through-freight operators offer rail transportation from points within Great Britain to various destinations on the Continent and hence use the Tunnel. As through-freight operators can carry, or have the potential to carry, some of the unitized freight which is transported on ro/ro ferries, they are also considered to offer competition to the freight services of the joint venture.

Withdrawal of freight services

5.70. As a result, among other things, of the price competition on the Short French Sea, and the subsequent drop in freight rates on the Western Channel and North Sea routes, ferry operators have withdrawn services on a number of routes on the Western Channel and North Sea since the Tunnel opened. The operators and routes are:

- Southampton-Cherbourg (Stena);
- Ramsgate-Dunkirk (Sally-from 1 March 1997);
- Sheerness-Flushing (Eurolink);
- Dover-Dunkirk (Stena/SNAT);
- Great Yarmouth-Ijmuiden (Mannin Line);
- Folkestone-Boulogne (Meridian);
- Ipswich-Rotterdam (North Sea Ferries);
- Sheerness-Flushing (Olau);
- Ramsgate-Ostend (RMT); and
- Ramsgate-Dunkirk (RMT, from 14 April 1997).

Appendix 5.1 sets out a full list of routes where there has been either entry or exit since 1991.

5.71. The significant shifts in the distribution of freight traffic in response to price reductions and the availability of additional capacity on the Short French Sea underline the degree of substitution between these routes and those of the Western Channel and North Sea (see Table 5.4 for the distribution of freight traffic over the Short French Sea, Western Channel and North Sea sectors and Table 5.3 for the changes to freight rates in each of the three sectors).

Freight excluded from the Tunnel

Unaccompanied freight

5.72. Unlike the ferries, Le Shuttle does not at present carry unaccompanied freight trailers. Unitized freight is transported across the Channel unaccompanied where this is more cost-effective than transporting drivers and tractor units with them. While Le Shuttle-Freight does not at present provide direct competition for unaccompanied freight, any attempt by the joint venture to raise unaccompanied freight rates would be

likely to result in a reduction in the benefits of sending freight unaccompanied and in a shift toward accompanied freight for which Le Shuttle-Freight competes directly.

5.73. Table 5.5 outlines the volume of accompanied and unaccompanied freight units transported by P&O and Stena on the routes which will be included in the joint venture (Dover-Calais, Dover-Zeebrugge and Newhaven-Dieppe). Data for the ten months to October 1996 (that is, before the Tunnel fire) show that unaccompanied freight accounted for 15.7 per cent of P&O freight and 6.8 per cent of Stena freight on those routes.

TABLE 5.5 Volume of freight traffic carried (accompanied and unaccompanied)

	<i>Dover-Calais</i>			<i>Newhaven-Dieppe</i>		
	<i>1994</i>	<i>1995</i>	<i>1996 to Oct</i>	<i>1994</i>	<i>1995</i>	<i>1996 to Oct</i>
<i>Stena</i>						
Accompanied ro/ro units	177,500	167,100	185,100	37,800	32,600	30,300
Unaccompanied ro/ro units	<u>4,400</u>	<u>3,600</u>	<u>6,000</u>	<u>12,700</u>	<u>11,100</u>	<u>9,700</u>
Total	<u>181,900</u>	<u>170,700</u>	<u>191,100</u>	<u>50,500</u>	<u>43,700</u>	<u>40,000</u>
	<i>Dover-Calais</i>			<i>Dover-Zeebrugge</i>		
	<i>1994</i>	<i>1995</i>	<i>1996 to Oct</i>	<i>1994</i>	<i>1995</i>	<i>1996 to Oct</i>
<i>P&O</i>						
Accompanied ro/ro units	462,451	382,196	305,544	202,653	182,972	142,911
Unaccompanied ro/ro units	<u>20,845</u>	<u>30,201</u>	<u>25,551</u>	<u>48,539</u>	<u>61,146</u>	<u>57,948</u>
Total	<u>483,296</u>	<u>412,397</u>	<u>331,095</u>	<u>251,192</u>	<u>244,118</u>	<u>200,859</u>

Source: P&O/Stena.

Note: The data for the ten months to October 1996 exclude the effect of the Tunnel fire.

Special categories of freight

5.74. There are restrictions on the types of hazardous goods which can be transported through the Tunnel. Eurotunnel has published a list of goods that are prohibited.³ The list was approved by the IGC before the Tunnel Operating Certificate was granted and cannot be altered without its approval. Direct comparison between freight which can be carried through the Tunnel and on the ferries is difficult because a different classification system applies to each mode of transport.

5.75. Broadly, the goods prohibited by the published list fall into the cargo-only and on-deck-only classifications which apply to goods carried by the ferries under the International Maritime Dangerous Goods Code. P&O estimated that it carried, in the ten months to October 1996, 1,300 units of cargo-only hazardous freight and 63,800 units of on-deck-only hazardous freight. Stena estimated that in the same period, it carried 5,800 units of on-deck-only hazardous freight and no cargo-only freight. P&O and Stena estimated that this accounted for approximately 12 per cent of P&O total freight and 3 per cent of Stena freight on the Dover-Calais, Dover-Zeebrugge and Newhaven-Dieppe routes.

5.76. Eurotunnel also does not permit the carriage of livestock on through-freight trains or Le Shuttle and exceptionally wide loads cannot be transported through the Tunnel. P&O and Stena estimated that the carriage of livestock (mainly horses) accounted for about 3,000 units in the ten months to October 1996 for P&O and 1,220 units for Stena. P&O carried 5,000 units of exceptionally wide freight and Stena carried 105 units. In total P&O and Stena estimated that the three categories (hazardous goods, exceptionally wide loads and livestock) accounted for 80,225 units for the ten months to October 1996 on the Short Sea.

¹The prohibitions are given legal effect by the Channel Tunnel byelaws 1994.

5.77. Stena itself is currently unable to carry cargo-only hazardous freight as it does not operate any freight-only vessels on the Short French Sea and it carried only modest volumes of the various other categories of freight identified above. Stena does not therefore currently offer significant competition to the operations of P&O in respect of these categories of freight.

Market shares

5.78. Table 5.6 details the volumes carried by each of the freight operators and their respective shares of total freight traffic carried on Anglo-Continental routes for the period 1991 to 1996. The table shows that P&O European Ferries' freight market share dropped during this period from 32 to 27 per cent (excluding the shares of Ferrymasters and North Sea Ferries, both of which are now wholly-owned P&O subsidiaries). Stena's share rose from 10 to 11 per cent and Eurotunnel's rose from 0 to 13 per cent. All current P&O and Stena operations (including Ferrymasters and North Sea Ferries) together had a 46 per cent share of the Anglo-Continental freight market in the first ten months of 1996.

5.79. Tables 5.7, 5.8, 5.9 and 5.10 detail the volumes and percentage market shares of all providers of passenger vehicle transportation on the Short French Sea for the period 1985 to 1996. Table 5.7 shows that, for passenger vehicles, P&O's market share fell in the period 1991 to 1996 from 45.8 to 27.5 per cent; Stena's share rose from 17.5 to 20.5 per cent; and Eurotunnel's share grew from 0 to 36.9 per cent.

5.80. Tables 5.7 and 5.9 show a material increase in Stena's market share in 1996. This principally reflects Stena's success in attracting former pool business following the break-up of the Stena/SNAT pooling arrangement. This rate of increase may not therefore continue beyond 1996. The 1995 data for Hoverspeed reflect the fact that it ceased operation for three months; its market share increase in 1996 reflects a return to a full 12-month operation.

Capacity

5.81. The measurement of capacity on the Short French Sea routes has to address a number of factors. First, the capacity offered by operators in this market varies fundamentally in nature. Ferry operators can use multi-purpose, passenger-vehicle-only and freight-only vessels, the first of which can be used for either unitized freight or passenger vehicle traffic. The provision of additional freight-only vessels can be used to release additional passenger vehicle capacity on the multi-purpose ferries. However, Le Shuttle uses trains designed for passenger vehicles only and trains for freight only which are not capable of substituting freight for passenger traffic and vice versa. Total capacity is measured in terms of PCUs where a car equals 1 PCU, a coach approximates to 4 PCUs and a freight vehicle to 5 PCUs.

5.82. Table 5.11 represents total actual and forecast capacity offered on the Short French Sea. The table includes the Newhaven-Dieppe, Folkestone-Boulogne, Dover-Calais and Ramsgate-Dunkirk routes (the Ramsgate-Ostend route is only included in the forecasts as the service is considered substitutable for the Short French Sea route from the commencement of the Holyman Sally fast craft operations in March 1997).

5.83. A further difficulty in measuring the capacity offered by each of the cross-Channel operators is the differing opportunities which Le Shuttle and the ferries have to increase or decrease their capacity. The operation of Le Shuttle allows for an increase in capacity to be made in relatively small increments primarily due to its ability to schedule an additional train (a shuttle has between one-fifth and one-third of the PCU capacity of a multi-purpose ferry). Similarly in periods of low demand, capacity can be reduced by the removal of a train, resulting in only a slight reduction to the frequency of departures. Ferry operators in contrast must offer their full capacity in order to maintain the maximum frequency of sailings (there is some reduction of capacity at off-peak times although not of the order of the reduction made by Le Shuttle). The effect of this difference is that ferry operators offer a significant amount of capacity which will not be used in order to maintain their desired sailing frequency.

TABLE 5.6 **Anglo-Continental freight traffic**

Operator	1991		1992		1993		1994		1995		1996* (Jan-Oct)		1996 (full year)	
	Vol#	%	Vol#	%	Vol#	%	Vol#	%	Vol#	%	Vol#	%	Vol#	%
P&O European Ferries (Felixstowe)	195	7	200	7	201	6	224	6	253	7	229	7	276	7
P&O European Ferries (Dover)~	578	21	578	20	619	19	733	20	655	17	532	16	657	16
P&O European Ferries (Portsmouth)	111	4	108	4	128	4	141	4	169	4	137	4	163	4
North Sea Ferries	210	7	223	8	245	7	315	9	309	8	274	8	371	9
Stena~	189	7	231	8	259	8	276	8	254	7	272	8	304	8
Stena BV	83	3	88	3	88	3	99	3	115	3	86	3	103	3
Ferrymasters	77	3	78	3	74	2	62	2	15	0	0	0	0	-
Sub-total P&O/Stena	1,443	51	1,506	52	1,614	49	1,850	51	1,770	46	1,530	46	1,874	47
SeaFrance	187	7	193	7	199	6	212	6	197	5	124	4	164	4
Brittany Ferries	145	5	161	6	173	5	188	5	180	5	139	4	167	4
Sally	176	6	201	7	212	6	165	5	156	4	113D	3	136	3
Ostend Line	94	3	95	3	82	2	71	2	82	2	72D	2	86	2
Olau/Eurolink	74	3	73	3	62	2	14	0	16	0	33	1	35	1
Eurotunnel	00	0	0	0	0	65	2	391	10	486	15	519	13	
Cobelfret	N/A	0	N/A	0	311	9	333	9	372	10	312D	9	375	9
Bell Line	97	3	88	3	94	3	109	3	120	3	91D	3	109	3
Geest North Sea line	68	2	83	3	50	2	60	2	60	2	50	1	60	1
UTL/IFF	110	4	105	3	74	2	80	2	78	2	66	2	80	2
DFDS/Torline	66	2	58	2	60	2	60	2	67	2	61D	2	73	2
Other operators δ	350	12	340	12	380	11	400	11	360	9	262	8	345	9
Total	2,810	100	2,903	100	3,311	100	3,607	100	2,079	100	3,339	100	4,023	100

Source: MMC survey.

*Data shown for the period January to October 1996 excludes the effect of the Tunnel fire.

#Represented in '000 units.

~ P&O and Stena operations which would form the joint venture.

D Calculation pro-rated for ten months of the 1996 total.

δ Estimate for other operators (data not available) includes Argo, Comar, Currie Line, Dart Line, Elbe Humber, Exxtor, GNSL, Mannin Line, Meridian and RFD where appropriate.

TABLE 5.7 Short French Sea market shares, 1985 to 1996: passenger vehicles

	<i>per cent</i>												
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 (Jan-Oct)	1996 full year
<i>P&O European Ferries</i>													
Dover-Calais	37.6	39.6	37.4	25.9	35.6	38.6	39.5	40.7	45.4	49.3	35.7	26.6	27.5
Dover-Boulogne	<u>6.8</u>	<u>9.4</u>	<u>8.1</u>	<u>2.4</u>	<u>5.6</u>	<u>7.7</u>	<u>6.4</u>	<u>5.2</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total P&O European Ferries	44.4	49.0	45.5	28.3	41.2	46.3	45.8	45.4	45.5	49.3	35.7	26.6	27.5
<i>Stena Sealink</i>													
Dover-Calais	10.9	10.8	11.9	16.3	13.5	11.8	11.8	13.5	14.4	15.2	11.6	16.5	17.7
Dover-Dunkirk	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dover-Boulogne	0.3	0.1	0.0	0.1	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Folkestone-Boulogne	4.1	4.2	4.5	5.9	5.1	5.8	5.6	0.0	0.0	0.0	0.0	0.0	0.0
Newhaven-Dieppe	<u>3.2</u>	<u>2.6</u>	<u>2.4</u>	<u>3.0</u>	<u>2.8</u>	<u>2.8</u>	<u>0.0</u>	<u>4.0</u>	<u>6.0</u>	<u>4.5</u>	<u>3.4</u>	<u>3.0</u>	<u>2.8</u>
Total Stena	18.7	17.6	18.9	25.3	21.7	21.0	17.5	17.5	20.4	19.7	15.0	19.5	20.5
<i>SeaFrance</i>													
Dover-Calais	10.9	10.8	11.9	16.3	13.5	11.8	11.8	13.5	14.4	15.2	11.6	5.5	6.1
Dover-Dunkirk	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Newhaven-Dieppe	<u>3.2</u>	<u>2.6</u>	<u>2.4</u>	<u>3.0</u>	<u>2.8</u>	<u>2.8</u>	<u>4.6</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total SNAT	14.2	13.4	14.4	19.2	16.3	14.6	16.4	13.5	14.4	15.2	11.6	5.5	6.1
<i>Sally</i>													
Ramsgate-Dunkirk	8.4	7.5	7.5	11.0	8.2	7.4	8.6	9.4	7.9	6.3	5.3	3.2	3.0
<i>Hoverspeed</i>													
Dover-Calais	11.3	10.3	11.3	12.8	10.1	8.9	9.2	10.0	8.1	6.1	4.3	3.8	3.9
Dover-Boulogne	2.9	2.2	2.5	3.3	2.4	1.9	2.5	1.2	0.0	0.0	0.0	0.0	0.0
Folkestone-Boulogne	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>2.5</u>	<u>3.6</u>	<u>3.5</u>	<u>2.2</u>	<u>2.1</u>	<u>2.1</u>
Total Hoverspeed	14.2	12.5	13.7	16.1	12.5	10.8	11.7	13.6	11.8	9.5	6.5	5.9	6.0
<i>Eurotunnel</i>													
Folkestone-Calais	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.9	39.3	36.9
Total Short French Sea	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: MMC survey.

TABLE 5.8 Short French Sea volumes, 1985 to 1996: passenger vehicles

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 (Jan-Oct)	1996	per cent 1996/1995 diff %
<i>P&O European Ferries</i>														
Dover-Calais	600	759	735	481	822	930	1,055	1,172	1,580	1,947	1,718	1,282	1,589	-7.5
Dover-Boulogne	<u>108</u>	<u>180</u>	<u>159</u>	<u>43</u>	<u>129</u>	<u>184</u>	<u>170</u>	<u>149</u>	<u>107</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Total P&O European Ferries	708	939	894	524	951	1,114	1,225	1,321	1,687	1,947	1,718	1,282	1,589	-7.5
<i>Stena Sealink</i>														
Dover-Calais	173	206	234	302	311	283	316	388	501	600	557	798	1,023	+ 83.7
Dover-Dunkirk	3	0	0	0	0	0	0	0	11	0	0	0	0	-
Dover-Boulogne	5	1	1	2	5	14	0	0	0	0	0	0	0	-
Folkestone-Boulogne	65	80	87	110	118	138	150	0	0	0	0	0	0	-
Newhaven-Dieppe	<u>50</u>	<u>50</u>	<u>47</u>	<u>54</u>	<u>65</u>	<u>68</u>	<u>0</u>	<u>116</u>	<u>207</u>	<u>178</u>	<u>163</u>	<u>143</u>	<u>159</u>	-2.5
Total Stena	296	337	369	468	499	503	466	504	719	778	720	941	1,182	+ 64.2
<i>SeaFrance</i>														
Dover-Calais	173	206	234	302	311	283	316	388	501	600	557	264	353	-36.6
Dover-Dunkirk	3	0	0	0	0	0	0	0	0	0	0	0	0	-
Folkestone-Calais	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Newhaven-Dieppe	<u>50</u>	<u>50</u>	<u>47</u>	<u>54</u>	<u>65</u>	<u>68</u>	<u>121</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	-
Total SNAT	226	256	281	356	376	351	437	388	501	600	557	264	353	-36.6
<i>Sally</i>														
Ramsgate-Dunkirk	134	143	147	205	190	178	229	270	276	249	256	156	176	-31.3
<i>Hoverspeed</i>														
Dover-Calais	180	197	221	238	233	214	245	287	282	239	206	186	225	+ 9.2
Dover-Boulogne	45	42	48	62	54	46	68	33	0	0	0	0	0	-
Folkestone-Boulogne	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>72</u>	<u>126</u>	<u>136</u>	<u>107</u>	<u>103</u>	<u>121</u>	+ 13.1
Total Hoverspeed	225	239	269	300	287	260	313	392	408	375	313	289	346	+ 10.5
<i>Eurotunnel</i>														
Folkestone-Calais	0	0	0	0	0	0	0	0	0	0	1,246	1,900	2,130	+ 70.9
Total Short French Sea	1,589	1,914	1,960	1,853	2,303	2,406	2,670	2,875	3,591	3,949	4,810	4,832	5,776	+ 20.1
Annual change	20.5	2.4	-5.4	24.1	4.5	11.0	7.6	24.9	9.9	21.8	N/A	20.1		

Source: MMC survey.

TABLE 5.9 Short French Sea market share, 1985 to 1996: passengers

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 (Jan-Oct)	1996 full year
													<i>per cent</i>
<i>P&O European Ferries</i>													
Dover-Calais	28.8	32.0	32.4	24.9	33.2	35.7	37.1	40.2	43.9	46.7	37.5	29.5	30.0
Dover-Boulogne	<u>8.2</u>	<u>9.1</u>	<u>8.2</u>	<u>2.3</u>	<u>6.2</u>	<u>7.3</u>	<u>6.4</u>	<u>5.7</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total P&O European Ferries	37.0	41.1	40.6	27.2	39.4	43.0	43.5	45.9	43.9	46.7	37.5	29.5	30.0
<i>Stena Sealink</i>													
Dover-Calais	12.5	12.6	13.1	17.5	13.6	12.1	12.4	14.7	14.8	15.3	12.7	17.2	18.6
Dover-Dunkirk	0.8	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.2	0.1	0.1	-	0.0
Dover-Boulogne	0.8	0.2	0.0	0.1	0.3	0.7	0.0	0.0	0.0	0.0	0.0	-	0.0
Folkestone-Boulogne	9.6	8.0	7.0	8.0	6.8	7.2	7.5	0.0	0.0	0.0	0.0	-	0.0
Newhaven-Dieppe	<u>3.2</u>	<u>3.2</u>	<u>2.9</u>	<u>3.3</u>	<u>2.9</u>	<u>2.6</u>	<u>0.0</u>	<u>3.4</u>	<u>6.0</u>	<u>5.2</u>	<u>3.8</u>	<u>2.9</u>	<u>2.8</u>
Total Stena	26.9	24.1	23.1	29.0	23.8	22.7	20.0	18.3	21.0	20.6	16.6	20.1	21.4
<i>SeaFrance</i>													
Dover-Calais	12.5	12.6	13.1	17.5	13.6	12.1	12.4	14.7	14.8	15.3	12.7	6.0	7.0
Dover-Dunkirk	0.8	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.2	0.1	0.1	0.0	0.0
Newhaven-Dieppe	<u>3.2</u>	<u>3.2</u>	<u>2.9</u>	<u>3.3</u>	<u>2.9</u>	<u>2.6</u>	<u>4.3</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total SNAT	16.5	15.9	16.1	20.9	16.7	14.8	16.8	15.0	15.0	15.4	12.8	6.0	7.0
<i>Sally</i>													
Ramsgate-Dunkirk	7.5	8.2	8.7	11.5	9.3	9.3	10.2	10.1	9.8	7.7	6.3	4.3	4.0
<i>Hoverspeed</i>													
Dover-Calais	7.9	7.2	7.6	9.0	7.3	6.9	7.0	6.7	6.5	5.6	5.3	5.8	5.8
Dover-Boulogne	4.3	3.5	3.8	4.3	3.6	3.4	2.6	1.2	0.0	0.0	0.0	0	
Folkestone-Boulogne	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>2.9</u>	<u>3.8</u>	<u>3.9</u>	<u>2.8</u>	<u>3.2</u>	<u>3.0</u>
Total Hoverspeed	12.2	10.7	11.4	13.3	10.9	10.3	9.6	10.8	10.3	9.5	8.1	9.0	8.8
<i>Eurotunnel</i>													
Folkestone-Calais	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.8	31.0	28.8
Total Short French Sea	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: MMC survey.

TABLE 5.10 Short French Sea volumes, 1985 to 1996: passengers

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 (Jan-Oct)	1996	per cent 1996/1995 diff %
<i>P&O European Ferries</i>														
Dover-Calais	3,843	4,604	4,526	2,999	5,246	5,792	6,297	7,411	8,903	10,556	9,640	7,464	9,071	-5.9
Dover-Boulogne	<u>1,092</u>	<u>1,308</u>	<u>1,142</u>	<u>303</u>	<u>980</u>	<u>1,182</u>	<u>1,081</u>	<u>1,055</u>	<u>5</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	-
Total P&O European Ferries	4,935	5,912	5,668	3,302	6,226	6,974	7,378	8,467	8,908	10,556	9,640	7,464	9,071	-5.9
<i>Stena Sealink</i>														
Dover-Calais	1,668	1,809	1,832	2,301	2,143	1,967	2,103	2,704	2,995	3,460	3,256	4,338	5,608	+ 72.2
Dover-Dunkirk	109	14	19	19	25	22	24	47	45	28	21	0	0	-
Dover-Boulogne	109	22	3	15	41	108	0	0	0	0	0	0	0	-
Folkestone-Boulogne	1,279	1,146	981	1,046	1,078	1,163	1,275	0	0	0	0	0	0	-
Newhaven-Dieppe	<u>428</u>	<u>465</u>	<u>408</u>	<u>430</u>	<u>461</u>	<u>416</u>	<u>0</u>	<u>631</u>	<u>1,221</u>	<u>1,170</u>	<u>978</u>	<u>742</u>	<u>834</u>	-14.7
Total Stena	3,593	3,456	3,243	3,811	3,748	3,676	3,402	3,382	4,261	4,658	4,255	5,080	6,442	+ 51.4
<i>SeaFrance</i>														
Dover-Calais	1,668	1,809	1,832	2,301	2,143	1,967	2,103	2,704	2,995	3,460	3,256	1,527	2,122	-34.8
Dover-Dunkirk	109	14	19	19	25	22	24	47	45	28	21	0	0	-100
Newhaven-Dieppe	<u>428</u>	<u>465</u>	<u>408</u>	<u>430</u>	<u>461</u>	<u>416</u>	<u>723</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	-
Total SNAT	2,205	2,288	2,259	2,750	2,629	2,405	2,850	2,751	3,040	3,488	3,277	1,527	2,122	-35.2
<i>Sally</i>														
Ramsgate-Dunkirk	1,000	1,175	1,217	1,513	1,476	1,508	1,730	1,859	1,980	1,742	1,628	1,100	1,220	-25.1
<i>Hoverspeed</i>														
Dover-Calais	1,053	1,040	1,061	1,179	1,147	1,126	1,183	1,230	1,328	1,264	1,358	1,473	1,741	+ 28.2
Dover-Boulogne	572	499	525	559	568	545	439	218	0	0	0	0	0	-
Folkestone-Boulogne	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>535</u>	<u>770</u>	<u>885</u>	<u>730</u>	<u>801</u>	<u>915</u>	+ 25.3
Total Hoverspeed	1,625	1,539	1,586	1,738	1,715	1,671	1,622	1,983	2,098	2,149	2,088	2,274	2,656	+ 27.2
<i>Eurotunnel</i>														
Folkestone-Calais	0	0	0	0	0	0	0	0	0	0	4,831	7,848	8,695	+ 79.2
Total Short French Sea	13,358	14,370	13,973	13,114	15,794	16,234	16,982	18,441	20,287	22,593	25,719	25,293	30,206	17.45
Annual change	8.6	7.6	2.7	-6.1	20.4	2.8	4.6	8.6	10.0	11.4	13.8	N/A	17.45	

Source: MMC survey.

TABLE 5.11 Capacity on the Short French Sea: routes from Dover, Newhaven, Folkestone, and Ramsgate to Dunkirk, Boulogne and Calais (number of individual crossings)

Operator	PCUs (5 PCUs = 1 freight unit)						
	1993	1994	1995	1996	1997	1998	1999
P&O	8,200,000	9,400,000	9,200,000	9,200,000	8,050,000	8,050,000	8,050,000
Stena	4,800,000	5,000,000	5,000,000	7,200,000	5,600,000	5,600,000	5,600,000
P&O/Stena JV	N/A	N/A	N/A	N/A	13,000,000	13,000,000	13,000,000
Hoverspeed	652,470	516,725	527,895	679,485	730,000	730,000	730,000
SeaFrance	3,749,290	3,817,550	3,899,230	4,053,460	4,551,900	3,953,000	3,953,000
Sally	<u>1,306,500</u>	<u>1,308,500</u>	<u>1,459,380</u>	<u>1,391,260</u>	<u>2,583,340</u>	<u>804,000</u>	<u>804,000</u>
Combined ferries (without JV)	18,708,260	20,042,775	20,086,505	22,524,205	21,515,240	19,137,000	19,137,000
Eurotunnel:							
Tourist (PCUs)	0	N/A	5,123,904	6,920,640	6,916,200	7,222,200	7,271,600
Freight	0	N/A	836,164	903,392	1,073,200	1,144,000	1,327,800
Total (PCUs)	<u>0</u>	<u>0</u>	<u>9,304,724</u>	<u>11,437,600</u>	<u>12,282,200</u>	<u>12,942,200</u>	<u>13,910,600</u>
Total	18,708,260	20,042,775	29,391,229	33,961,805	33,797,440	32,079,200	33,047,600
Total (JV)	N/A	N/A	N/A	N/A	34,067,440	31,429,200	32,397,600

Source: MMC survey.

Notes:

1. The capacity of through-freight is not included in the table as it is determined by a number of factors including the potential availability of suitable rolling stock and the potential availability of Tunnel paths. For this reason no data are recorded here.
2. Eurostar does not carry vehicles or freight and is not therefore included in the table. However, Eurostar does offer a service which is an alternative to a proportion of Short Sea traffic, in particular coach traffic.
3. Forecast capacity for the Ramsgate-Ostend route is included as it is considered substitutable for the Short French Sea routes from the commencement of fast craft operations.
4. Data for the period up to and including 1995 include the Dover-Boulogne and Dover-Dunkirk routes.

5.84. A significant factor not reflected in Table 5.11 is the limitation to the level of capacity utilization which can be practically achieved by Le Shuttle. We have considered this further in paragraphs 4.28 to 4.30.

5.85. Table 5.12 illustrates the degree to which Le Shuttle-Tourist and Le Shuttle-Freight will be constrained in terms of their ability to attain market share under certain assumptions. It is assumed that Le Shuttle can achieve a loading of either 51 or 67 per cent of its estimated 1999 tourist shuttle capacity. This capacity is compared with the estimated 1999 passenger vehicle demand on the Short French Sea. The 51 per cent factor is the target currently adopted by Le Shuttle for the loading of its tourist shuttles (see paragraph 4.30).

5.86. Eurotunnel said that its freight shuttle can also achieve a maximum average loading of 67 per cent of total capacity during peak periods. This is again based on a combination of loading constraints and some fluctuation in demand between services.

TABLE 5.12 **Estimated potential of Le Shuttle's capacity to meet market demand**

	<i>% utilization</i>	<i>Shuttle capacity 1999 %</i>	<i>Estimated demand 1999 %</i>	<i>Proportion of Short French Sea passenger traffic</i>	<i>Proportion of Anglo-Continental freight traffic</i>
Passenger vehicle traffic (PCUs)	51	3,708,516	6,123,115*	61	
	67	4,871,972	6,123,115*	80	
Freight traffic (Freight units)	67	889,000	4,758,996*		19

Source: Eurotunnel/MMC.

*Forecast based on 1996 actual demand and an annual growth rate provided by Eurotunnel for passenger vehicles in 1997 and 1998 of 5 per cent and a fall in 1999 of 4 per cent. Forecasts provided by Eurotunnel estimate a growth in the freight market of 5 per cent a year over the period 1997 to 1999.

5.87. Le Shuttle indicated to us that the current constraint on its freight operations will continue until the delivery of new rolling stock in 1999. This is the only planned structural increase to Le Shuttle capacity although increased scheduling of existing tourist and freight shuttles may increase capacity.

5.88. Increases to the capacity of the Tunnel itself are possible with additional investment although, for the reasons outlined in paragraphs 4.24 to 4.27, these are not currently considered necessary and are not included in Eurotunnel's three-year forecasts.

5.89. Each of the three main ferry competitors to the proposed joint venture has identified a need to adjust its current levels of capacity. Hoverspeed has purchased two new Super SeaCats to replace the existing two SeaCats and has taken an option on the delivery of four more. These new vessels are each capable of carrying 180 cars (compared with 80 for the existing SeaCats and 55 for Hovercraft) and 800 people.

5.90. Sally Line and the Belgian state-owned operator RMT ceased operation of multi-purpose ferries from Ramsgate to Ostend in March 1997. This will result in a decrease in capacity from 1997 (with a part-year effect) as Holyman Sally phases out conventional ferries on routes from Ramsgate to Ostend and Dunkirk and replaces them with smaller fast craft. The new vessels operating to Ostend will each be capable of carrying 180 cars and 650 passengers and making the crossing in 100 minutes. The vessels operating to Dunkirk will be capable of carrying 78 passenger vehicles and will make the crossing in 75 minutes. This is a significant reduction in crossing time from the multi-purpose vessels which took 4½ hours to Ostend and 2½ to 3 hours to Dunkirk. A freight-only service will be continued by Holyman Sally from Ramsgate to Ostend.

5.91. SeaFrance currently operates three multi-purpose vessels and a freight-only vessel. The freight-only vessel is expected to be withdrawn once Le Shuttle-Freight recommences operations. SeaFrance has taken delivery of another vessel previously on charter to Stena which it has refitted and deployed on the Dover-Calais route while withdrawing its existing oldest vessel, which has been returned to its owner. SeaFrance's replacement vessel is slightly larger than the vessel it withdrew and represents a minor increase to its capacity.

5.92. The nature of the problem of excess ferry capacity on the Short French Sea can be illustrated by reference to the impact on capacity of the operation of a single medium-scale service employing three multi-purpose vessels, similar to that currently offered by SeaFrance. Three large vessels (650 PCUs) operated for 30 crossings a day for 335 days of the year would provide 6,532,500 PCUs of capacity. This would equate to 102 per cent of all passenger vehicles transported on the Short French Sea routes in 1996 or 50 per cent of total Short French Sea passenger vehicle and freight demand in that year (see Table 5.13). A three-vessel service of this sort would have to operate with a capacity utilization of something less than 100 per cent, but it is clear that, since a three-ship schedule is regarded by most ferry operators as a minimum for a credible conventional passenger ferry service, the number of operators competing in the market has substantial and inevitable consequences for capacity. Table 5.14 details the levels of capacity utilization actually achieved on the Short Sea for the period from 1993 to 1996.

The joint venture's capacity at peak periods

5.93. P&O and Stena provided us with an analysis of the proposed joint venture's capacity to handle passenger and freight traffic at peak times.

5.94. The peak holiday week commencing 11 August 1996 was chosen as a basis for the study. For each cluster of sailings which achieved a load factor of more than 50 per cent during that week, P&O and Stena estimated the likely level of demand for equivalent sailings in 1997. In general the level of demand was assumed to be [*] per cent lower in 1997 than 1996, reflecting the two companies' belief that the joint venture would attract less traffic, initially at least, than their independent operations. Estimated demand for the chosen clusters of sailings was then compared with the estimated level of capacity which the joint venture would be likely to offer during the periods concerned. The results indicated load factors ranging from 50 to 78 per cent on services from Dover and 46 to 79 per cent on services from Calais. Even allowing for the possibility that demand would not decline as P&O and Stena predicted, these results suggest that the joint venture is most unlikely to encounter capacity constraints in typical periods of peak season demand.

Economies of scale

5.95. Economies of scale for ferry operators are derived from two sources. Primarily scale economies exist in relation to the size of vessels operated. This is demonstrated by the use of larger vessels on the Dover-Calais route which are capable of transporting large volumes of freight and passenger vehicle traffic while allowing significant variety and scope for on-board retailing facilities and services. However, achieving scale economies through the operation of large vessels relies upon sufficient demand, and therefore sufficient capacity utilization, to achieve a low unit cost. The current state of capacity utilization on the Short French Sea has afforded ferry operators only limited economies of scale from vessel size.

5.96. Economies of scale are also achieved through the operation of a number of vessels. P&O and Stena have identified that the economies of scale associated with operating several vessels can in particular be achieved in the areas of port handling, marketing and administration. Whilst not directly linked to the number of vessels operated, percentage rebates of port charges can be attained at the port of Calais where charges relate to volumes carried.

*Figure omitted. See note on page iv.

TABLE 5.13 Actual and forecast volumes carried on the Short French Sea: routes from Dover, Newhaven, Folkestone, and Ramsgate to Dunkirk, Boulogne and Calais

Operator	PCUs (5 PCUs = 1 freight unit)						
	1993	1994	1995	1996	1997	1998	1999*
P&O	3,780,000	4,652,000	4,075,000	3,930,000			
Stena	1,933,865	2,084,496	1,920,995	2,782,614			
Hoverspeed	411,621	377,176	312,398	340,531			
SeaFrance	1,660,046	1,696,499	1,572,466	1,274,384			
Sally	<u>937,213</u>	<u>744,216</u>	<u>689,330</u>	<u>535,848</u>			
Combined ferries	8,722,745	9,554,387	8,570,189	8,863,377			
Eurotunnel:							
Tourist (PCUs)	0	82,000	1,339,628	2,366,764			
Freight (PCUs)	0	325,000	1,954,875	2,595,000			
Total (PCUs)	<u>0</u>	<u>407,000</u>	<u>3,294,503</u>	<u>4,961,764</u>			
Total market	<u>8,722,745</u>	<u>9,961,387</u>	<u>11,864,692</u>	<u>13,825,141</u>	<u>14,516,398</u>	<u>15,242,217</u>	<u>15,441,001</u>
Passenger vehicle traffic	3,591,000	3,949,000	4,810,000	5,776,000	6,064,800	6,368,040	6,123,115
Freight traffic	5,131,745	6,012,387	7,054,692	8,049,141	8,451,598	8,874,177	9,317,886

Source: MMC survey.

*1997 to 1999 market forecasts are based on Eurotunnel estimates of growth in passenger vehicle traffic of 5 per cent in 1997 and 1998 and a reduction in traffic in 1999 of 4 per cent. Forecasts provided by Eurotunnel for freight traffic are for a growth of 5 per cent a year over the period 1997 to 1999.

TABLE 5.14 Capacity utilization on the Short French Sea: routes from Dover, Newhaven, Folkestone, and Ramsgate to Dunkirk, Boulogne, Dieppe and Calais

Operator	<i>per cent</i>			
	1993	1994	1995	1996
P&O utilization	46.10	46.49	44.29	42.72
Stena utilization	40.29	41.69	38.42	38.65
Hoverspeed utilization	63.09	72.99	59.18	50.11
SeaFrance utilization	44.28	44.44	40.33	31.44
Sally	71.73	56.88	47.23	38.51
Combined ferries utilization	46.63	47.67	42.67	39.35
Le Shuttle utilization	N/A	N/A	35.41	43.38
Total utilization	46.63	49.70	40.37	40.07

Source: MMC survey.

Competition in the supply of cross-Channel travel services

Passenger fares

5.97. Ferry operators issue brochures setting out fares which vary according to the following factors:

- *Time of year.* Fares in the peak summer period are up to twice the off-peak fares for the winter months of January, February and March. Fares in the 'shoulder' periods of early spring and late autumn are likely to be less than the peak summer rate.
- *Time of day.* Fares are reduced for evening, night and early morning sailings.
- *Length of stay.* Fares for day return and five- or eight-day return are substantially reduced over a standard economy return which does not limit the length of stay.
- *Type of accompanied vehicle and number of passengers.* There may be an additional charge for larger vehicles or additional passengers.

5.98. We shall focus now on fares for passengers accompanying vehicles, as these form the main part of the market. Each of the cross-Channel operators has a tariff structure based upon a price for a car and a number of passengers. Whether the price charged is per vehicle, inclusive of a set number of passengers, or for each passenger accompanying the car, is dependent both on the operator and on the particular tariff or promotions on offer.

5.99. Le Shuttle-Tourist offers a simplified tariff structure in line with its turn-up-and-go strategy. It offers only an economy fare (no restrictions), a Mini Break fare (return in up to five days) and a day-trip fare. It also offers a night rate (a discount offered for travel during the off-peak night period) and a peak weekend rate. Two fares aimed at business travellers are also offered, the Club Class (standard-no restrictions) and the Club Break (return in up to five days).

5.100. The demand for day trips is an important element in the market. For Stena, 28 per cent in the peak season and up to 60 per cent at other times of all its passengers on the Dover-Calais route travel on day-trip tickets. It is the importance of duty-free and VAT-free sales as well as excise differentials between the UK and France that encourages people to travel and to a large extent drives the demand for day-trip tickets.

5.101. The proportion of passengers paying the full brochure fares is declining in the current environment of strong price competition. In 1996 only approximately 25 per cent of fares in the peak summer months (as opposed to an average of 11.4 per cent of all tickets sold by P&O over the ten months to the

end of October 1996) were sold at the issued brochure rate. The significance of non-brochure fares has increased substantially since the MMC's 1989 inquiry into cross-Channel car ferries. As a response to the increasing imbalance between capacity and demand and the need to ensure a contribution to costs, operators have sought to expand demand through the use of promotional pricing particularly in the winter and 'shoulder' periods either side of the summer peaks (that is, periods of low demand and therefore excess capacity).

5.102. Promotional offers are often undertaken in conjunction with daily newspapers which seek to increase circulation by offering discounted or free travel, or even an actual payment to travel as recently offered by Hoverspeed, if tokens from a series of daily issues are collected. The benefit for the ferry operator or Le Shuttle-Tourist is primarily the marketing offered by the newspaper and the retail sales which are associated with additional passengers. These promotions are built around the demand for day trips and excursions to the Continent and are therefore limited to the shorter cross-Channel routes.

5.103. The significance of on-board sales (both from the sale of duty-free goods and other products such as refreshments) is one of the main determinants of promotional pricing by ferry operators. P&O and Stena estimate that approximately £[*] of on-board sales are made on average to each person travelling on their Short French Sea ferries and double that on a return journey; the figure for day-trip traffic is slightly higher. The significant profit margins on these on-board sales allow the ferry operators to discount their ticket prices below the variable costs of carrying a passenger. In contrast Le Shuttle is limited in its ability to raise non-ticket revenue from customers because it is not able to offer such services on the train, although a growing level of sales is obtained at Le Shuttle terminals.

5.104. Pricing strategy by some of the cross-Channel operators has recently focused on the pricing of duty-free goods. Le Shuttle initiated a policy of reducing prices on duty-free goods and using this to market Le Shuttle's service.

Freight fares

5.105. The structure of freight rates is markedly different to passenger vehicle fares. Substantially all freight prices are negotiated between the cross-Channel operator and the freight haulier with substantial discounts offered to the larger hauliers on the basis of volume. Whilst each cross-Channel operator will have a standard freight tariff, few customers will pay the full rate. The full freight tariff serves primarily as a bench-mark from which to negotiate discount rates with freight hauliers. Freight rates do not vary directly according to the time of day that the travel occurs and there is therefore no premium charged (or discount given) for use of peak (or off-peak) capacity. Le Shuttle-Freight also follows this practice of individually negotiating freight rates and does not directly vary rates according to the time of day that travel occurs.

5.106. All ferry operators and Le Shuttle identified the existence of substantial buyer power in the freight market. The range of current operators combined with the substitutability of freight routes provides freight hauliers with a number of operators with which to negotiate. Ferry operators and Le Shuttle described the freight market as without loyalty to any particular cross-Channel operator and prone to substitution between operators on the basis of price differentials.

5.107. The discounts offered to freight hauliers vary significantly with the volume of business offered to the company. P&O and Eurotunnel both said that in practice there was a substantial difference between rates negotiated with large and small hauliers (up to 40 per cent in the case of Le Shuttle).

Non-price competition

5.108. The speed of crossing, together with the time taken to negotiate port facilities at either end of the journey, is important for some customers. An increased frequency and regularity of departure can also raise the attractiveness of the service since it offers travellers the maximum flexibility in selecting crossing times, with this benefit being enhanced where there is sufficient capacity for a customer to have

*Figure omitted. See note on page iv.

confidence that no pre-booking will be required. Frequency is of particular importance where customers seek to alter their sailing time.

5.109. The consumer may also choose a service because of the quality of the crossing. Factors taken into account include an attractive catering service, accommodation and seating and overall standard of customer care. Of particular importance in the current market is the pricing of duty-free goods as discussed in paragraphs 5.103 and 5.104.

Entry and exit conditions

Entry to the passenger market

5.110. While the Short French Sea market has experienced significant investment in vessels, standards of service and capacity, the incidence of new entry to the passenger market by ferry operators since 1991 has been limited. The Holyman Sally joint venture represents a different kind of new entry as new technology and capacity will be employed in place of existing services on existing routes. Similarly, following the Stena/SNAT pool break-up SeaFrance established a new marketing organization and brand identity in the UK but was not a new operator. However, the entry of Eurotunnel to the market is likely to have been a substantial factor in the minds of potential new entrants to the ferry sector of the market.

5.111. The method and cost of investment in vessels by a new entrant will vary substantially depending on the basis on which vessels are procured and on the operator's existing activities. A minimum of three multi-purpose vessels, or alternatively two fast craft, is generally considered necessary in order to offer a frequency and flexibility of sailing times which will be attractive to passenger vehicle traffic. The options for a new entrant are summarized below:

- (a) A new entrant that operates services in another sector may be able to switch vessels. In such a case, the cost of refurbishing/altering vessels currently used on other routes will depend, among other things, upon the age, condition and suitability of the vessel. The use of vessels on the Short French Sea, and particularly the Dover-Calais route, which formerly operated on longer routes will typically involve the conversion of a proportion of the cabin space into retailing space.
- (b) A 'bare boat' charter of a vessel (where the operator would have to provide its own crew) would cost in the region of £5 million to £10 million a year for a multi-purpose ferry and £3.5 million to £4 million a year for a fast craft.
- (c) The cost of purchasing second-hand ferries will vary considerably depending upon the age, condition and specification of the vessel.
- (d) The cost of purchasing a new ferry would amount to approximately £70 million to £80 million, although a fast craft could be purchased for £20 million to £25 million with the larger HSS fast craft costing in the order of £65 million.

5.112. Since the cessation of the Stena/Sealink pooling agreement at the end of 1995 there has been an increase in the number and frequency of services operating from Dover. These changes have taken up most of the capacity of Dover harbour and are creating some conflict over berth allocation at peak times. According to DHB the proposed merger would allow the release of a multi-purpose ferry berth (currently occupied for most of the time by Stena) and the fast craft berth (also occupied by a Stena vessel). This would enable DHB to improve the berthing allocation of SeaFrance which would then be accommodated in a single berth rather than having to use three different berths, as is currently the case. One ferry berth and one fast craft berth would then be available as back-ups or for the accommodation of a new entrant.

5.113. There are two other UK ports on the Short Sea which new entrants may find suitable, each of which possesses spare berthing capacity. As a result of the Holyman Sally joint venture, multi-purpose as well as fast craft ferry berths will be available at the port of Ramsgate from early to mid-1997. The port of Folkestone, from which Hoverspeed operates, also has spare berthing facilities. However, Newhaven

is constrained in its capacity and the joint venture would not result in the availability of additional berthing facilities at this port.

5.114. DHB told us that a difficulty for a new entrant on the Dover-Calais route, and to a lesser extent the Dover-Zeebrugge route, is the modification required in order to adapt a vessel for the loading systems and facilities at the port. The arrangements at Dover and Calais require operators to load and unload quickly, necessitating the use, for each berth, of two double-lane vehicular access linkspans. Berthing at Dover also requires vessels that are highly manoeuvrable without the need to use tugs for berthing which could cause delays for all vessels using the port. The cost of such necessary modifications to a vessel is dependent on the type of vessel used by any new operator.

5.115. P&O and Stena point out, however, that double-lane vehicular access linkspans are also used at Portsmouth and Felixstowe in the UK and are necessary to facilitate fast loading and therefore fast vessel turn-around times which can increase the frequency of service. They do not see the costs of such modifications as a barrier to entry to the Dover-Calais route.

5.116. Among the more significant costs of entry to the Short Sea market are the marketing costs of establishing a brand name and developing suitable arrangements with travel agents. The difficulty in establishing a brand awareness is demonstrated by the case of SeaFrance which commenced trading under that name at the beginning of 1996 and incurred marketing and promotion expenses of £4.7 million in that year.

5.117. SeaFrance told us that it had encountered a number of problems in the promotion of its services through the travel trade and with newspapers. Other operators told us that they had met significant difficulties in establishing suitable arrangements with travel agents. One significant cause of the problem appears to be the relatively low prices of ferry services (as compared with other products such as holidays or cruises). Low fares generate a low level of commission for travel agents who, as a result, are less willing to use their limited racking space to display ferry brochures. The racking of brochures is important for an operator as a means of raising awareness in the market even though a booking may not be made through a travel agent. As a result of such difficulties, operators have increasingly sought to rely upon their own direct sales channels. The racking of brochures is one of several means by which operators promote awareness of their services. Direct advertising, mail shots and newspaper promotions are becoming more important. It should be noted, however, that even where a ferry operator's brochures are not racked, its services can still be sold by the travel agent in question.

5.118. The costs of marketing and negotiating arrangements with travel agents are significantly reduced for any well-established operator of ferry services in the UK. This is due to the likely existence of brand awareness and existing marketing networks although new arrangements with the travel trade may be needed if operations are started in a different geographical area.

5.119. Excess capacity can also act as a barrier to entry in that it signifies that incumbent firms have the ability to compete aggressively with a new entrant in order to maintain their market share. At the present time only 40 per cent (see Table 5.14) of all capacity provided on the Short French Sea is used.

Entry to the freight market

5.120. Obtaining entry to the freight market is easier than to the passenger market. One reason is that the number of potential ports is much greater. There are 12 UK freight ports currently being used by ro/ro ferries with several other ports that are capable of being used for the transportation of unitized freight. A further factor is the need only for vessels which load and unload from a single linkspan. This reduces the modification costs for vessels which were not built specifically for the ports with double linkspans. In addition, freight-only vessels are generally cheaper to purchase or to lease provided that substantial cabin space is not required. As regards the problems of marketing, it seems likely that operators entering the freight market will not face the same degree of difficulty as in the case of the passenger market.

5.121. The incidence of entry to, and exit from, individual routes in the freight market for the period since 1991 has been significant. A list of new services over this period both on existing and new routes,

is set out in Appendix 5.1. A list of exits from routes in the freight market over the same period is also shown in the appendix.

Exit barriers

5.122. Exit barriers exist for at least some of the incumbent ferry operators. Whilst vessels can be deployed on alternative routes or sold, substantial redundancy payments may be required for permanent staff and will typically constitute the principal cost of market exit. It should be noted, however, that a significant proportion of crews are employed on a part-time basis, thus reducing some operators' overall exposure to redundancy payments, and this is likely to vary between operators.

5.123. A further exit barrier is the substantial investment in infrastructure made by some ferry operators. For example, Stena and Sally Line have invested in shore facilities at the ports of Ramsgate and Ostend (Sally) and Dieppe (Stena). Such investment may affect the exit decisions of these operators on their respective routes.

Competition in other markets in which P&O and Stena operate

The North Sea routes

5.124. As we note in paragraph 5.64, these routes are closely related to the Short French Sea routes in relation to freight traffic. As far as passenger traffic is concerned Stena offers a combined passenger and freight vehicle service on a Harwich-Hook of Holland route. North Sea Ferries (now a wholly-owned subsidiary of P&O) operates multi-purpose ferries from Hull to ports in Belgium and Holland. To the extent that there is substitutability between these services Stena's and P&O's subsidiaries are in competition on these routes. However, the facts that the Harwich-Hook of Holland service is to use large fast craft, that the routes from Hull which are in any event longer are served by conventional ferries and that the distance between the two points of departure in the UK is significant, may have a bearing on the degree of substitutability between the two routes as far as passengers are concerned.

The Western Channel

5.125. Since Stena ceased operation of the Portsmouth-Cherbourg route at the end of 1996 it has not been in direct competition with P&O on the Western Channel routes. As can be seen from Figures 5.1 and 5.2, P&O's principle competitor on these routes is Brittany Ferries.

The Irish Sea

5.126. Routes on the Irish Sea are shown in Figure 5.3. They can be broadly separated into three sectors: the Northern Corridor (connecting ports on the coast of Great Britain from Ardrossan down to Liverpool with those from Larne in Northern Ireland down to Warrenpoint); the Central Corridor (connecting Holyhead and Liverpool with Dun Laoghaire and Dublin); and the Southern Corridor (connecting ports in Wales and north-west France with Rosslare and Cork).

5.127. P&O and Stena also compete directly on the Northern Corridor routes on the Irish Sea. As can be seen from Table 5.15, P&O and Stena had a combined share of 65 per cent of freight traffic and 79 per cent of passenger vehicle traffic on these routes in 1995.

TABLE 5.15 **Passenger vehicle and freight traffic shares for the Irish Sea: Northern Corridor, 1995**

per cent

<i>Operator</i>	<i>Passenger vehicles</i>	<i>Freight</i>
P&O	26	41
Stena	53	24
SeaCat Scotland	19	-
Norse Irish	2	13
BFF	-	12
Merchant	<u>0</u>	<u>10</u>
Total	100	100

Source: Irish Ferries.

Note: Data do not include volumes carried by Coastal Containers.

5.128. The Irish Sea routes belong to a separate market from those connecting Great Britain with the Continent. However, passengers with vehicles travelling between Ireland and the Continent will need to use both. The same is true for surface freight between these destinations. In this context operators on the Short French Sea, Western Channel and North Sea may choose to establish landbridge arrangements. These arrangements combine freight or passenger vehicle transportation on the Irish Sea with the Channel or North Sea using Great Britain as a landbridge.

5.129. P&O and Irish Ferries have such an arrangement as both operators use each other's services in order to offer passenger vehicle transportation from Ireland to the Continent and vice versa. Irish Ferries has a similar arrangement with North Sea Ferries (a P&O subsidiary). According to Irish Ferries, 8.9 per cent of all traffic to and from the island of Ireland continues to the Continent, using Great Britain as a landbridge. This would equate to between 2 and 3 per cent of all Short French Sea passenger crossings. However, not all of these passengers will actually use the Short French Sea for their continuing journey. Data provided by P&O and Stena for the Irish Sea show that landbridge traffic accounted for, at most, 0.8 per cent of passenger vehicles carried and 1.5 per cent of freight units carried. For the Short French Sea landbridge traffic accounted for, at most, 0.8 per cent of passenger vehicles and 3.7 per cent of freight units carried.

5.130. Landbridge arrangements have a further significance for competition between ferry operators in that they may include marketing in the partner's brochure. This is currently the case with Irish Ferries where P&O markets Irish Ferries' services to P&O passengers.