



The Performance of Ocean Cruising in Australia and Future Prospects

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Abstract:

Transport researchers can gain important insights into traveller behaviour by examining the cruising phenomenon, and policy makers, especially those concerned with ports and maritime matters, need to be able to evaluate the potential of cruising. This paper describes the state of the cruise industry in Australia against the perspective of international developments, particularly those taking place in North America and in Japan. Policy issues flow from this. Firstly, an assessment is required about the performance of the industry, particularly since one operator dominates sales in the market. An examination is made of growth prospects and the significance of cruising for ports and, then, the Australian Government's cabotage policy is commented upon. Finally, recommendations are made for further research in cruising.

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Introduction

Cruise shipping has not attracted great interest from the transport research community. The literature in the mainstream journals is confined to a handful of articles dealing with fares (Mentzer 1989), optimum scheduling of ocean cruises (Hersh and Ladany 1989) and interactions between cruise and cargo ships in congested ports in developing countries (Wood 1982). Specific reference to passenger shipping in Australia is confined to Trace (1981). Tourism research journals display slightly greater interest in cruising with papers on industry trends (Reichel 1986, Page 1987), cruise passenger profiles (Field et al 1985), and economic impact of cruising (Mecson and Vozikis 1985, Kendall et al 1988).

It is true that cruising is only a small part of the "tourism system", and cruise shipping is difficult to define as a transport activity. These observations might well be advanced as justification for according cruising a low priority in research. Nevertheless, this paper aims to show that the subject is relevant to transport researchers, and that there are possible lessons that extend far beyond cruising's role as a specialised maritime mode.

It is an accepted fact that the demand for transport is derived from some other more basic consumer demand, and it is a challenge for researchers involved in understanding travel behaviour to properly account for this. When, for example, forecasts of international arrivals are required, the task is largely to understand what factors determine the choices of international tourists. Air fares and income levels tend to emerge as key explanatory variables (Federal Airports Corporation 1990), but it is recognised that models based on these factors alone can, at best, yield partial insights into traveller motivation. In cruise shipping, the fare is virtually all-inclusive, and studies of traveller choice in this context could well yield valuable information about the nature of tourism demand (and hence transport demand).

One important extension of this argument is that cruise shipping represents, in a sense, the ultimate in a tourism system; the transport mode has become so closely integrated with the tourism experience that it is difficult to categorise a cruise ship as a transport operation. Other operators with a growing dependence on tourism, especially rail, might be able to learn from the experiences of a dynamic cruise industry continually developing its product in a competitive environment, and with passengers reporting very high satisfaction ratings backed up by repeat bookings.

At the same time, it cannot be overlooked that cruise shipping is a form of transport. Passenger ships compete with, and are sometimes complementary to, other forms of transport, especially air, and issues of industry performance arise. Also, ports have to provide facilities, often according priority to ships that, in the end result, yield a small proportion of port income. Port authorities often consider that they have a role in promoting regional trade in their catchment areas, and tourism is being seen as an important, growing sector requiring their attention. In this context, port managers are seeking to understand the potential for growth in cruising and to comprehend the value of cruise ship visits to their regions.

This paper will address these matters by first developing a perspective on the growth of cruise shipping on a global basis. North America, in particular, has been the focus of activity and there is speculation that Japan is about to develop as a major cruising power. In order to understand the situation in Australia, it is necessary to examine what is occurring elsewhere. The paper then describes the cruising industry in Australia and assesses its performance and growth prospects, an especially important matter since one supplier

controls close to 80 percent of the market. Then the paper considers the importance of cruise shipping to ports and examines some relevant aspects of current maritime policy. The paper concludes with recommendations for further research.

The cruising phenomenon - an international perspective

From liners to cruising

Thomas Cook is attributed as the originator of cruising after chartering a steamer in 1875 to take a party along the Norwegian coastline to experience the midnight sun, and P&O deployed the *Ceylon* as the first full-time cruise ship in 1885. Although cruising continued to grow, liners dominated passenger shipping with trans-Atlantic shipping entering its hey-day in the 1920's. After that, World War II and severe economic conditions took their toll, but it was the introduction of jet aircraft into commercial service, especially wide-bodied jets, that brought about the demise of the liner services within a relatively short space of time. Throughout the 1950's and 1960's passenger shipping faced strong competition from airlines and by the mid-1970's the liners had virtually disappeared.

Ships formerly engaged in the liner trades were then committed to cruising. Bermuda and the Caribbean were particularly popular areas, especially since the trans-Atlantic operators had developed a sound base in the USA market. The Mediterranean was also a popular cruising ground and Greek shipping interests expanded their role as the National Tourist Organisation of Greece heavily promoted their services.

By the mid 1960's and 1970's, however, the Caribbean market was growing and beginning to attract new operators, and 26 new ships were built or ordered in this period. New York had been the dominant port of departure up until that stage, but a shift occurred to Miami and other ports in Florida and Texas. Partly, this occurred because of the natural advantage these ports had in being closer to the cruising grounds of the Caribbean. From a Miami base, attractive cruises lasting only seven days could be developed, thus enabling operators to cater for short holidays common to American workers. In addition, rising incomes boosted cruising demand and a growing retiree base in Florida generated a home market.

Cruises have tended to be more popular with older passengers, especially retirees who are not under time constraints. Also, cruising was promoted as a luxurious holiday and the high fares meant that the market was limited to people with high incomes. However, there was a distinct shift in emphasis by some key operators in the late 1970's which resulted in a broadening of the cruise market. Carnival Cruise Lines has been a key contributor to this. Commencing in 1972 with a single ship, Carnival set out to promote cruising as a "fun" experience for all ages and classes, believing that it could compete with resorts in developing a mass market. Carnival's cruises were short in duration and had around-the-clock activities; their ships were promoted through aggressive advertising on television. The company was renowned for its tight management and expertise in logistical support. It has built some of the largest cruise ships afloat and has reaped economies of

scale as a result, in the process growing to be the largest operator in the world. It has been reported that Carnival has had 30 percent growth, on average, each year between 1980 and 1989, and that it earned \$153 million on sales of \$564 million in 1987 (Rice 1989).

The path to success in modern cruising is to develop a product for a particular niche. Some operators, like Carnival, have specialised in the mass market, competing directly with resorts. Cunard's approach is to provide luxury. The *Queen Elizabeth 2* was built in the 1960's to be the most exclusive cruise ship in the world and is one of the world's larger passenger ships (1,880 passengers). Cunard also has 2 of the smallest cruise ships in *Sea Goddess I* and *II* (100 passengers). These small, yacht-sized ships aim to serve an exclusive market by providing intimate, luxurious conditions whilst the vessel is able to visit exotic and out-of-the-way destinations. Cunard tends to have a high repeat factor and its marketing is very heavily oriented to people who have previously undertaken a cruise.

The boom in cruising

In 1970, the Cruise Lines International Association (CLIA) estimated that there were 500,000 cruise passengers carried out of North American ports. By 1980, the number had grown to 1,431,000 and thereafter averaged 10.5 percent growth each year to 1988 (CLIA 1989) when demand exceeded 3 million. Aggressive marketing and provision of greater capacity were major contributors, although external factors such as airline deregulation in 1978, rising incomes and the "Love Boat" series on television also supported the expansion of cruising. Despite concerns that new orders would lead to situations of over-capacity, the experience during the 1980's was that average load factors of the North American operators actually increased from 48.6 percent in 1981 to 72.2 percent in 1987 (Don Ference and Associates 1990).

The USA generates approximately 75 percent of the world market, and only a handful of key source markets exist outside North America. Furthermore, the sustained growth rates seen in North America have not been the norm in other source markets. In the UK, for example, demand was declining early in the 1980's and capacity was being reduced. Also, the UK passengers tended to have lower incomes than their counterparts from the USA and demanded cheaper cruises. However, the 1980's did see some significant trends, with demand rising as the UK economy strengthened and as cruising became more popular with younger people. The major cruise lines operating from the UK have tended to promote cruising as a means of enhancing social status, appealing to the class consciousness of the UK market (MRC/Hawkedon 1987). Although this factor is diminishing in importance, there has been no cruise operator committed to establishing a broad market competing with other forms of holidays.

The West German market is now larger than the UK's, although a greater proportion of German's fly to join their ship. Indeed, it appears that Germans are much more inclined to travel long distances to join their cruises, and their rate of expenditure can be very high in relative terms. Italy and France generate around 60,000 passengers each per year (MRC/Hawkedon), typically flying to join a cruise in the Caribbean. Scandinavians are

not usually included in official cruise statistics because they travel on ferries, but there is little difference between a well-appointed Baltic ferry on a longer crossing (say, of three days) and a cruise ship on a short itinerary.

Australia ranks almost as highly as the UK as a source of cruise passengers, although the profile of passengers is somewhat different. This matter will be examined in greater depth, but suffice it to say here that the Australian market is large by world standards even though it draws on a much smaller population base. Asia has not been a major source of cruise passengers, or of tourists in general. The spectacular growth of outbound tourism from Japan, and prospects of tourism growth from other Asian countries has led to speculation about an impending boom for an Asian cruise industry.

In 1986, 30,000 Japanese travelled on Japanese cruise ships and another 6,800 Japanese boarded foreign-owned ships (Pepper 1989). NYK Line, Mitsui OSK Line, and Kawasaki 'K' Line are some of the prominent Japanese freight lines moving into cruising. Their interest appears at this stage to be partly based on expectations of growth in the Japanese home market to around 340,000 within a decade (Tsuchiya 1990), and partly the luxury vessels are being aimed at the North American market. Despite the small size of the present Japanese market, surveys indicate that a considerably larger number of people would like to take a cruise in the future (Pepper 1989). Crystal Cruises, which is owned by Nippon Yusen Kaisha, one of the world's largest freight shipping lines, has a stated intention of dominating the luxury end of the world cruise market (Johnson 1990).

Turning now to the regions where the cruising occurs, Table 1 illustrates the importance of the Caribbean. With 42 percent of the market, the Caribbean also has about 40 percent of the world's cruise ship capacity, especially attracting the newer and more luxurious ships. The Mediterranean suffered in the mid to late 1980's after a series of set-backs. Events such as the hijacking of the *Achille Lauro*, the hijacking of a TWA jet, the US bombing of Libya, the terrorist attack on the *City of Poros* in 1988, and the sinking of the *Jupiter* saw a curtailment of demand, especially since the Mediterranean fleet had a major dependence on the USA market. However, by 1989, 24 cruise ships were operating in the Mediterranean, representing approximately one-fifth of the world capacity.

Table 1 Cruise shipping activity by region - 1988

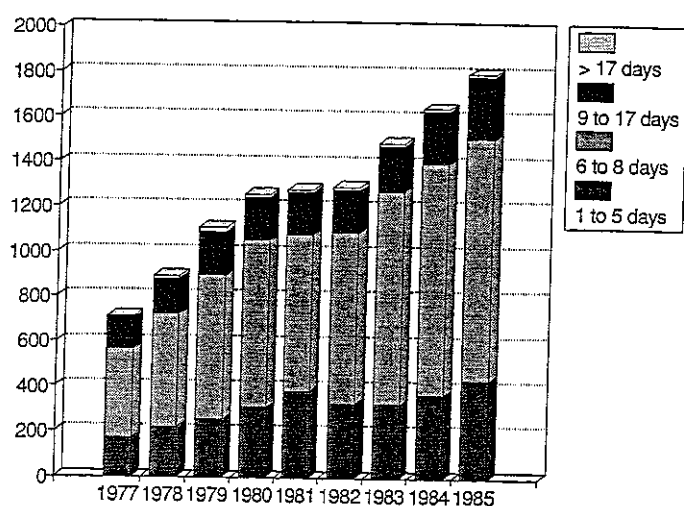
Cruise Region	Share of Passengers %
Caribbean	42.1
Mediterranean	7.4
Alaska	7.1
Bahamas	6.9
Mexico West	6.0
Trans canal	5.6
Mexico East	3.8
Bermuda	3.6
Hawaii	2.6
Europe	2.6
Transatlantic	1.9
South Pacific/Australia	1.4
South America	1.3
World Cruises	1.2
Far East	1.2
Mississippi	1.0
Canada/New England	0.9
Other Destinations	3.3

Source: Cruise Lines International Association (1989).

Figure 1 shows the growth in the North American market in terms of the number of passengers, stratified by length of cruise. In total, the number of passengers increased by more than 150 percent between 1977 and 1985. In 1977, the shorter cruises of less than 8 days had already established a strong demand, representing 79 percent of total passengers. Their share of the total continued to grow so that, by 1985, they accounted for 83 percent of total demand. Furthermore, the number of people on cruises of more than 18 days has been almost static.

Approximately 40 percent of the world cruise ship fleet is owned by 7 of the largest cruise operators. This has been brought about by mergers and acquisitions with developments paralleling the airline industry's trend towards mega carriers. Table 2 shows that some of the larger operators are becoming even larger over the period 1989 to 1993, with Carnival out-stripping the competition. Royal Admiral will have a growth rate similar to Carnival's and will become the second largest operator in North America.

Figure 1 North American cruise demand ('000 passengers) - 1977 to 1985



Source: Lewis and Sarel (1986).

Table 2 Number of berths in world cruise fleet in 1993

Operator	berths 1993	ships	Increase over 1989	Rank in 1989
Carnival	24200	17	48%	1
Royal Admiral	15990	11	49%	4
P&O	14780	12	28%	3
Kloster	12208	12	Nil	2
Costa	9320	9	97%	6
Chandris	7670	8	72%	7
Cunard	5376	7	Nil	5
Total	89544	76	37%	

Source: Peisley (1989).

Cruising into the 21st century

The Cruise Lines International Association has predicted that cruise demand in North America will grow at an average rate of 5.1 percent per annum to the turn of the century. Temple, Barker and Sloane, consultants specialising in the cruise industry, have taken a

less optimistic view that the growth rate will be 4.4 percent compared to an increase in capacity of 3.9 percent per year (Peisley 1989). This growth will depend on the strength of the USA economy since demand is strongly correlated with income, but if these predictions are accurate, the number of North Americans taking cruises in the year 2000 will be approaching 4 million. An optimistic view is that the rest of the world will contribute another one million passengers. The potential for increases in cruising outside North America also depends on economic growth, but it also depends on cruising making an impact in countries that have not hitherto displayed a taste for sea travel, especially Japan. Demographic trends in Europe and Japan are expected to favour cruising.

Growth prospects in the important short cruise markets in North America will depend on success in developing a broader market with facilities that meet a variety of tastes. This will require a shift in emphasis from "romance of the sea" to mainstream lifestyle trends and vacation expectations. Ships will have facilities that are as good as those of resorts and hotels including larger pools, multi-deck lobbies, boutiques, themed restaurants, and cabins with facilities such as VCR's. The bigger cruise ships of 70,000 GRT will be capable of achieving economies of scale to keep costs down and they will be able to provide the forementioned facilities, but they will need to operate in dense markets in order to achieve the necessary loadings.

At the same time, there is considerable interest in yacht-sized vessels with more than 20 on order in 1990. These vessels are expensive to construct and operate, and the emphasis is on luxury so that high fares can be sustained. Windstar Sail Cruises is an example of an operator embracing this concept with sail-cruising vessels designed to cater for water sports and visits to remote islands. Renaissance Cruises had 8 ships on order for delivery in this period, each 3,500 GRT, \$28 million and designed for 100 passengers.

It is expected that there will be a growing emphasis on theme cruising, incentive market, and conventions. Premier Cruise Lines, a subsidiary of Greyhound, has developed a niche in packaging cruises with visits to Disney World, a product which has been especially successful in attracting families. Waldrop (1988) reports that the number of meetings on cruise ships has more than doubled over the previous decade. Incentive sales represent between 7 and 20 percent of total cruise sales and it is claimed that some ships, such as Windstar's vessels, handle an incentive volume as high as 40 percent (Mullenneaux 1989).

Another important trend expected to occur in the industry will be the development of new destinations as repeat customers demand new experiences. At the same time, some destinations have hardened their attitudes to welcoming cruise ships. The argument is that cruise ships divert tourism away from resorts in the host regions and reduce their incomes. Bermuda has taken the step of limiting cruise ship visits, thereby reducing the number of passengers visiting Bermuda by 25 percent. However, the aim is to target those lines catering for passengers with a higher propensity to spend.

The Australian cruise market

Industry structure and capacity

P&O-Sitmar Cruises dominates the industry in Australia and, at present, it is the only ocean cruising operator to have a vessel dedicated to the Australian market for the entire year (CTC's *Belorussiya* is due to return at the end of 1991). Table 3 shows the capacity available on ships visiting Australian ports during the 1990 season and on which berths were advertised for sale in Australia. How much of that capacity of almost 93,000 berths was filled and occupied by Australians is difficult to gauge. However, the *Fairstar* is unlikely to be carrying other than Australians and New Zealanders, and P&O-Sitmar claim an average occupancy rate in excess of 95 percent. The sailings out of Sydney by the *Belorussiya* and the *Achille Lauro*, although probably not achieving *Fairstar*'s load factor, also have been dedicated to the Australian market. It is difficult to be precise, but the number of Australians boarding cruises out of Australian ports each year is likely to lie somewhere in the vicinity of 60,000 to 70,000. As many as 20,000 more purchase cruises departing from foreign countries on fly/cruise packages. Of the total market, P&O-Sitmar Cruises controls around 80 percent.

Table 3 Cruise ship capacity operating from Australian ports - 1990
(Includes only those cruise ships marketed in Australia)

Line	Vessel	Pass per vessel	Number of Cruises	Total Passenger Capacity
P&O-Sitmar	Fairstar	1,653	30	49,590
	Sea Princess	700	21	14,700
	Canberra	1,594	2	3,188
CTC Cruises	Belorussiya	748	16	11,986
	Azerbaydzhan	748	1	748
	Maxim Gorki	728	1	728
Royal Viking	R. V. Sun	762	2	1,524
	R. V. Sea	705	3	2,115
Cunard	Sagafjord	588	5	2,940
	Vistafjord	711	3	2,133
Lauro Line	Achille Lauro	784	4	3,136
Total				92,788

Source: National Centre for Studies in Travel and Tourism 1990.

P&O (Peninsula and Oriental Steam Navigation Company) had its first voyages to Australia in 1852, and its first cruises (as distinct from liner services) commenced in 1932. Since then, P&O has been a dominant carrier, especially strengthened with its purchase of the Orient Line in 1960. P&O had the *Canberra* built especially for the UK-Australia service, and with the former Orient Line's *Oriana*, P&O aimed to halt the decline in liner shipping (Bremer 1989). By the mid-1960's, though, it was clear that this was a lost cause and the success of both of these vessels in cruising turned P&O's attention in that direction. Through the late 1960's and early 1970's, P&O introduced at least 9 other ships to the Australian cruise market, but increasing competition in the 1970's saw the company adopt a strategy of leaving a single ship, the *Arcadia*, dedicated to Australia supplemented by *Oriana* and *Canberra* during the peak summer season. The *Sea Princess* replaced *Arcadia* in 1979, and then in turn was replaced by the *Oriana* in 1982. Four years later, P&O were to withdraw this ship and did not replace it, and in 1988 withdrew from Australian cruising altogether. This left Sitmar as the dominant operator.

Sitmar Cruises (Societa Italiana Trasporti Marittima) entered the Australian market as a migrant carrier in the 1950's, and since it shifted its focus to Asian and Pacific cruising in the early 1970's, its vessels *Fairstar*, and *Fairsky* (the latter ceasing service after striking a reef in Indonesia in 1977) established a strong following through until the present day. In 1988, P&O purchased Sitmar Cruises in one of the many acts of consolidation in the international cruise industry. Now P&O-Sitmar has the *Fairstar* operating out of Sydney on a year-round basis and supplements this with the *Sea Princess* for South Pacific cruises in the summer months. The *Canberra's* visits on round-the-world cruises are also promoted along with fly/cruise products.

CTC (Charter Travel Company) charters vessels from the Baltic Shipping Company with the aim of earning foreign exchange for the Soviet Union. Its first entry to Australia was in 1966 with the *Shota Rustaveli* on a line voyage between Europe and Australia, and it entered cruising in 1969. From then, until 1976, when the Soviet Union's invasion of Afghanistan led to the banning of CTC, at least 8 different ships were introduced to Australia. It gained a reputation for cheap fares, though its service was regarded as being of a lower standard than its competitors. When the ban was lifted in 1983, CTC resumed operations. Its business has suffered fluctuations, with the sinking of the *Mikhail Lermontov* in New Zealand being a major setback. The *Alexandr Pushkin* and the *Belorussia* have made their impacts, and in 1988, the company claims to have carried 14,500 passengers. Since that time, it has withdrawn the *Belorussia* for an extended period and has suffered management problems. However, CTC is now advertising that the *Belorussia* will provide 27 cruises to the South Pacific throughout 1992 along with 4 cruises to other destinations. Also, the *Azerbaydzhan* will supplement this capacity with another 10 cruises.

A newcomer to the market is the Mediterranean Shipping Company, an established freight operator in Europe which has recently purchased three cruise ships. However, the vessel it has devoted to Australian cruising, the *Achille Lauro*, is well known, having been a migrant ship introduced by Flotto Lauro in 1966. However, the impact of jet aircraft rapidly made the line haul services unprofitable and the *Achille Lauro* was dedicated completely to cruising in other parts of the world when Flotto Lauro withdrew from Australia in 1972. Its return as a cruise ship on a seasonal basis has provided a ship of similar size to the *Fairstar*.

Cunard celebrated its 150th anniversary in 1990, and today operates seven ships which are among the most luxurious in the world fleet. The company opened its own sales and management office in Australia and has been aggressively establishing a presence. Visits by its *Vistafjord*, *Sagafford* and *Queen Elizabeth 2* are highly publicised. The company claims that its sales increased by 3000 percent between 1987 and 1988. Its cruise ships, though, are not dedicated to the Australian market and their capacity is also sold to passengers from other source markets travelling on longer itineraries.

Royal Viking Line brought two of its five-star vessels to Australia in 1990, but it does not have a company establishment here. Instead, it relies on a general sales agent (Wiltrans) to promote its products. Society Expeditions is a specialist cruise operator based in North America, and it has offered cruises in Australian waters in recent years with its *Society Explorer* and *World Discoverer*. These are small, luxury vessels designed for "high adventure cruising expeditions". They offer an "intellectually oriented programme" and anthropologists, naturalists and historians accompany passengers. Its cruises in and near Australia have included visits through Darwin to Indonesia and Papua New Guinea, and from Tasmania to New Zealand and Antarctica.

Wilderness Expeditions offers its "Wilderness Tall Ship and Nature Cruises" with the *Soren Larson*, and the *Coral Irekker*. The latter is a square-rigged sailing vessel based in the Whitsundays offering 7 day cruises. In essence, it forms part of the coastal cruising industry in Queensland focused around the Whitsundays and Far North Queensland. The industry consists of small operators (by international standards) providing a range of craft. Some specialise in diving charter work whilst others cater for domestic and international visitors wishing to view the reef and islands from the vantage point of the water. Combined, these operators cater for an estimated 48,000 passengers each year with a total revenue of \$30 million (National Centre for Studies in Travel and Tourism 1990). Capacity will be boosted in mid-1992 with the introduction of a 156-passenger vessel into Cairns in a joint venture involving Qantas and Captain Cook Cruises.

Cruise products and the Australian market

Most of the cruises out of Australia depart from Sydney for voyages to the South Pacific lasting between 8 and 14 nights, although there are some longer cruises available. The *Fairstar* also offers a voyage once a year to South East Asia. CTC's 1992 catalogue includes 6 cruises to or from Asia. Other cruises to Asia and other parts of the world are offered on repositioning voyages by the small number of ships arriving for the peak summer season and on those ships sailing on longer round-the-world voyages.

Given the popularity of cruises lasting fewer than 7 nights in North America, and given that a very high proportion of holidays in Australia are for seven days or less, it is necessary to consider why short cruises haven't been developed for the Australian market. P&O-Sitmar offer 8 night cruises, although it is claimed that sales on these short voyages require heavy promotion and deep discounting. The Mediterranean Shipping Company and CTC are trialling short cruises to nowhere (eg MSC's "Easter Cruise" from Sydney, around Lord Howe Island and back lasting 3 nights).

The challenge is to devise an itinerary which is attractive to the public given the geographical constraints of the South Pacific. The largest source market is Sydney, and there are distinct operational and commercial advantages in using Sydney as the home port. However, the sailing time at 22 knots from Sydney to the nearest South Pacific port, Noumea is 60 hours. Visits from New Caledonia to Vanuatu and Fiji then require overnight stages. For a cruise of even eight nights, there is barely time to include visits to Noumea and two more nearby islands.

In 1988, there was an attempt by South Pacific Cruise Services to establish a new operation in Australia that would offer more luxurious cruises to the South Pacific. The company claimed that its market research had identified that there was a gap in the luxury market created by the withdrawal of the *Oriana* and that there was a significant unmet demand for short cruises. It planned 15 cruises lasting 7 nights from Sydney to Noumea, and a limited number of short fly/cruises were to be offered from Townsville to Papua New Guinea. Some lasting only seven nights out of Townsville with a fly/cruise operation. A roll-on-roll-off freight ship was converted at a cost of \$30 million and renamed the *Dolphin* specifically for the Australian market. After being heavily promoted, the ship failed to achieve required design speeds and the Australian programme was cancelled. In the process, it was claimed that the company lost \$4 million.

Industry performance

Economics of cruising

Ocean cruising tends to be free of the kind of economic regulations that prevail in international aviation. There is no equivalent of the system of bilateral agreements that, at times, have constrained entry, capacity and fares for the airlines. Depending on where a ship is registered, regulations can have an impact on costs through safety and crewing requirements. Also, cruise ships engaged in coastal itineraries come under national shipping regulations. By and large, though, the industry is unregulated from an economic point of view. In recent years, though, the trends in ownership and control in cruising have mirrored those in aviation; large cruise lines have become larger, apparently reaping economies of scale on the production and marketing sides, and computer reservation systems and yield management practices have become commonplace. Given the dominance of one cruise operator in the Australian market it is worth considering whether monopoly power is being exercised.

One point to appreciate is that there are very substantial economies of scale in constructing and operating cruise ships. The largest cruise ships being introduced at the present time are 70,000 GRT or greater and carry up to 2,600 passengers in luxury accommodation. To provide cabins of similar quality on ships carrying only 100 passengers can cost up to ten times more. The per passenger construction cost of a vessel carrying even 500 passengers is 270 percent of the cost per passenger in a vessel carrying 2,000 passengers (Peisley 1989). Cruise shipping is very labour intensive, and again large ships are more economical

than smaller ships. Marketing and management for an operator with a single ship can amount to 50 percent or more of operating expenditure, but can fall below 25 percent when more than one ship is operated (MRC/Hawkedon 1987). Carnival is said to have gained substantial savings by concentrating its operations at its hub in Miami where it carries out its hotel servicing ashore and, in so doing, achieves savings through improved vessel utilisation, bulk purchasing, and laundry operations.

This does not mean that larger ships are always cheaper than small ships, or that small lines cannot survive in competition. The largest ships cannot survive unless the market is dense enough to support them. Very small cruise ships are being constructed because there exists a market niche for luxury adventure travel which only they can serve. The high fares required on these ships can be supported within the confines of this niche. Operators such as Cunard promote individual ships in the luxury market and cannot achieve economies through mass marketing.

In the Australian context, though, there is one large operator with 80 percent of the market, and this operator has the resources of one of the world's largest and most experienced lines to draw upon. The market is relatively small, and a strong brand identity has been established. On-shore support operations ensure that the *Fairstar* is operated economically and that its utilisation rate is high. Marketing has been successful in achieving load factors in excess of 95 percent.

Barriers to entry do exist in some aspects of operations. Firstly, not all cruise ships are equipped to serve the South Pacific out of Australia. Long distances have to be traversed, and conditions require a particular style of vessel. The demise of South Pacific Cruise Services before it could even get started is evidence of this barrier to entry. However, lines that have entered Australian cruising from time to time have included Cogedar, Chandris, Lloyd Triestino, Lauro Line, Asia Pacific (Minghua Cruises), Blue Funnel Cruises, CTC and, more recently, the Mediterranean Shipping Company (MSC). MSC operates on a seasonal basis and aims at capturing a limited (seasonal) share of the market. CTC's return with 2 ships in 1992 offering 41 cruises will provide a substantial increase in capacity and is likely to stimulate vigorous competition. Entry is feasible, and there does not appear to be a shortage of candidates to engage P&O-Sitmar in competition for the budget cruise market. At the luxury end of the market, Cunard has established a presence in Australia, and others are able to promote their products through general sales agents. Although some barriers to entry exist, they do not appear to have deterred competition. In economic parlance, the cruise market in Australia appears to be "contestable".

What then, has been the outcome of competition? A comparison of prices charged on cruises out of Australian ports with average fares charged on a cross-section of 605 cruises from throughout the world is presented in Table 4. The "world fares" have been derived from an analysis relating fares to several key variables reflecting ship and itinerary characteristics (Mentzer 1989). It has been found that 87 percent of the variation in fares can be "explained" by variation in 7 variables:

- * ratio of crew to passengers
- * capacity of dining rooms divided by maximum passenger capacity
- * a dummy variable set to zero when the ship is registered under a flag of convenience

- * year of construction
- * length of a cruise in days
- * ports per day, and
- * the square of ports per day.

Denoting these variables X_1 to X_7 , respectively, Mentzer's equation is:

$$F = -19179 + 2670 X_1 + 980 X_2 + 347 X_3 + 9 X_4 + 201 X_5 - 1183 X_6 + 406 X_7$$

Applying this equation to characteristics of the *Fairstar* and to common cruise itineraries, it is possible to compare the fares published by P&O-Sitmar Cruises with average world fares. Mentzer's formula estimates fares for the 1988 season and are in USA currency and they were calculated on the basis of the lowest pre-paid double occupancy rate. The *Fairstar* has twin cabins which have two lower berths, and it also has two-berth cabins where there is one lower berth and one upper berth. Fares for both types of cabin in 1991, in Australian dollars, are presented in Table 4. Even on a comparison of 1991 Australian fares with 1988 world fares, the prices charged in Australia appear to be comparatively low, especially for the more common cruises of 12 to 14 nights. It is notable that, at the time of writing, travel agents were advertising 10 percent discounts on the *Fairstar's* rates, and prices can be considerably lower than those presented in Table 4 for higher occupancy cabins. On this basis, it must be said that there is little evidence of the dominant market position of P&O-Sitmar being reflected in high fares

Table 4 A comparison of fares - *Fairstar* and average world fares
(\$ Australian)

Cruise Length (nights)	<i>Fairstar</i>		World Fare
	Twin Cabin	Two Berth Cabin	
8 nights, 3 ports	\$1,640	\$1,230	\$1,288
10 nights, 4 ports	\$2,040	\$1,520	\$1,790
12 nights, 5 ports	\$2,280	\$1,710	\$2,292
14 nights, 6 ports	\$2,670	\$1,990	\$2,814

Source: Based on Mentzer (1989) and on P&O-Sitmar's 1991 season catalogue.

The presence of CTC, MSC and Cunard clearly is a source of competition for P&O-Sitmar, and potential competition always has to be considered. The pressures of growth in the North American market means that displaced, older tonnage will find its way into other markets. In any case, the major cruise lines are aware that their repeat business requires the development of new cruise grounds. However, the most potent form

of competition for the *Fairstar* is the resort industry, especially now that the domestic airline industry has been deregulated. Evidence of the pressure on cruise fares is plentiful at the present time (see, for example, *The Weekend Australian* 9-10 February 1991 page 5).

Why hasn't there been a boom in cruising in Australia?

Another dimension of performance is innovation and expansion of the market. The development of short cruise products, it has been noted, is problematic given operating constraints. Where Carnival has been successful in tailoring its product to suit people seeking a holiday experience and then promoting that image through television advertising, it could be said that P&O-Sitmar has performed at a similar level in Australia. The *Fairstar* is promoted as the "Funship" and it is popular with young people and families. The interesting thing is that this has been achieved with a ship that sailed its first voyage in 1957, although it has undergone substantial refitting several times.

There are two matters concerning industry performance that arise when considering P&O-Sitmar's success in achieving annual load factors in excess of 95 percent whilst the overall size of the Australian market has remained relatively static. One is the possibility that the market would have expanded if greater capacity had been available during the 1980's. The second point is that replacement of the *Fairstar* with more modern tonnage and more luxurious fittings might also have resulted in expansion of the market. In brief, this amounts to posing the question whether P&O-Sitmar's dominance has resulted in a shortage of capacity and a lack of innovation.

When P&O withdrew the *Oriana* in 1986, it was claimed that the *Fairstar*'s load factors jumped from 90 percent to 150 percent (Miller 1987)¹. The *Oriana* carried 1,500 passengers, and her departure was bound to have a significant impact. The *Dolphin* was a response to the perception of unmet demand, and the *Achille Lauro* has resulted in extra capacity. However, despite claims that insufficient cruise ship capacity existed in this period, CTC did withdraw the *Belorussiya* for a lengthy period. It is not clear that the capacity provided by the *Oriana* could be supported in a market facing severe competition from resorts in the Pacific and South East Asia as well as at home.

The *Oriana* was popular with older people with greater financial resources and with a preference for longer cruises. Has there been sufficient attention to this market? Firstly, international airline fares have continued a downward spiral throughout the 1970's and 1980's, and this has added to the competitiveness of fly/cruises departing from foreign ports. It is notable that the UK and German markets have experienced growth in fly/cruising and there is no shortage of these products in the Australian market place. Also, there have been numerous attempts to introduce more luxurious ships into the South Pacific and Asian

¹ It is notoriously difficult to measure the capacity of a cruise ship. The mere act of closing in spaces can add to a ship's GRT. Passenger-carrying capacity can be measured in terms of the normal occupancy of cabins, or it can be in terms of maximum possible capacity. Bunks, normally folded against the wall, can be used at times of high demand to increase carrying capacity.

cruising areas. Ships that failed to generate a sustainable market include the *Pacific Princess* (1976-1978), *Sea Princess* (1978-1982), and the *Princess Mahsuri* (1982-1984). Royal Viking Line has brought luxury ships to Australia in recent years, and Cunard's increased efforts in Australia have also aimed at this segment of the market.

There seems to be little evidence that P&O-Sitmar has been able to control capacity available to the market and it has not been able to constrain the range of products available to the consumer, if indeed it has ever attempted to achieve this.

Cruising and maritime policies

Shipping reform

A key aspect of the Federal Government's maritime policy affecting the prospects of cruising is its cabotage regulations. The regulations are designed mainly to deal with freight shipping, but the general position is that Australia's coastal trade is to be carried in Australian controlled and crewed ships whenever possible. Permits will be issued when suitable Australian licensed ships are not available and when it is deemed to be in the public's interest. A foreign flag ship may be licensed if Australian wage rates are paid, the ship is not in receipt of foreign government subsidies and it complies with Australian safety standards, as specified in the Navigation Act.

Permits are either for a single voyage (SVP) or for a continuing situation (CVP). The assessment of the public interest is made each time an application is received in terms of the merits of the case. The former is designed for use when there is a one-off situation when a suitable licensed ship is not available, whereas the CVP facility is designed for situations when there is a lack of suitable Australian ships over an extended period. The public interest is judged in terms of a clear benefit to the public, and that it is in the longer-term interest of the Australian coastal trade because sea-borne trade is being stimulated. A CVP can be issued for 6 months, but will not be issued for continuous trade for a period exceeding three years.

A recent example of the application of cabotage on the Australian coast for was when Westpac chartered Cunard's *Sea Goddess* to operate during the America's Cup festival. In that case, the vessel was required to employ at least 5 Australians. One possibility that could arise in the future which will require thought about the application of this policy to cruising is if Japanese cruise operators apply to bring their ships into coastal operations, catering for Japanese visitors. If this should occur, then it will be necessary to weigh up the advantages of establishing Australia as a favoured cruise region for the Japanese against any possible loss of opportunity for land-based tourism or for cruise operators based in Australia.

Ports and cruise ships

Visits by luxury cruise ships attract a considerable amount of publicity; indeed, the cruise lines regard visits as an opportunity to promote their product. Also, during the 1980's, the "tourism boom" in Australia created many expectations of unbounded growth and wealth from this newly recognised industrial sector. In this context, some port authorities have had to give careful consideration to proposals to upgrade the facilities that they provide to cruise ships. A cruise terminal was built in Cairns, and public calls for a cruise terminal in Brisbane have been frequent. Yet it is reasonable for ports to consider their role in promoting tourism through cruise shipping. Ports have traditionally played an important role in fostering trade for their hinterlands, and the recognition that tourism generates substantial flow-on effects that are widely distributed throughout the economy gives the ports a legitimate concern about the prospects of cruising for their region.

In this context, it is notable that a study of cruise shipping through the Port of Miami concluded that, in 1982, economic benefits totalling \$546 million (US) were generated, and total employment was boosted by 21,672 (Mecson and Vozikis 1985). With approximately one million passengers boarding cruise ships in Miami in that year, there is a substantial difference in scale involved in relating those findings to Sydney, Australia's busiest cruise port. However, even if the benefits to Sydney are a conservative 5 percent of this figure, cruise shipping would be generating over 1,000 jobs in Sydney through direct and indirect effects.

Thus, there is some basis for the assumption that cruise ship visits confer benefits on host regions, but port authorities need to keep the cost side of the equation in mind before embarking on expensive plans to reap the benefits. Wood (1982), admittedly in the context of developing countries (ie the Caribbean), questioned the economic rationale of granting automatic priority to cruise vessels in congested ports and pointed out that this could harm exports and raise the costs of imports. There have also been concerns in the Caribbean that cruising has harmed local tourism because ships have taken away people who would have stayed in island resorts. Bermuda's response, noted above, has been to regulate cruise ship visits in attempt to improve the overall return from tourism. In the current international trade environment, though, attempts to place barriers on trade in services would appear to be a counter-productive step.

Concluding comments

P&O-Sitmar, as the market leader, faces several challenges for the future. One set includes competitive responses to its cruising competitors, especially in the budget market occupied by the *Fairstar*. At some stage, though, it is inevitable that this ship will have to be retired, and difficult choices will have to be made in finding a suitable replacement. It has been argued that this ship has fulfilled the essential requirements of the Australian market, and that the modern cruise ships designed for North American circumstances are not likely to be popular with budget-conscious Australian passengers (Miller 1987). However, Australian tastes and experiences are changing. The domestic tourism product has undergone substantial evolution during the 1980's, and expectations about standards of

accommodation, service and entertainment have been raised. The decision by the Tasmanian Government to replace the *Abel Tasman* with the even more luxurious *Peter Pan* illustrates this. It is inevitable that a more luxurious ship will be introduced into the market if cruising is to survive by the turn of the century.

Serious contenders aiming for a stake in cruising out of Australian ports will have to come to grips with the need to provide a high degree of luxury with resort-type standards, while keeping fares down on relatively short cruises. The economics of cruising will dictate that the largest possible ship supportable by the Australian market will need to be used within an efficient organisation. Fly/cruising strategies might provide more degrees of freedom in designing shorter itineraries, but air fares will have to be extremely competitive in order to support this. Although visits to Australian ports have not been regarded as sufficiently exotic for widespread inclusion in cruise ship itineraries, continued development and marketing of tourism attractions in coastal areas might well change this perception. In that case, opportunities for more coastal cruises, or at least coastal segments in longer cruises could possibly arise.

A recent study of cruise shipping prospects in Queensland recommended that attention be focused in that State on a conventional South Pacific cruise ship based in Brisbane, a luxury cruise vessel of no more than 200 passengers for sailing to the Barrier Reef, and continued expansion of the coastal cruising industry (National Centre for Studies in Travel and Tourism 1990). It was argued that South East Queensland, like Florida, is a popular place of retirement so that the population of retirees that could support a cruise in Brisbane is growing. Furthermore, with airline deregulation leading to reduced air fares, and with Queensland's greater proximity to South Pacific cruising areas, Brisbane offers some natural advantages as a home port. The proposed introduction of a cruise ship into Cairns for short cruises to the reef by Qantas and Captain Cook Cruises exemplifies the style of cruise which the study believed could be a success in coastal waters. This ship will attract international visitors, especially from North America into Australia and will bestow economic benefits on the nation. The study signifies a growing interest in Queensland in promoting itself as a cruising region of international significance.

However, that study recognised that, if the Australian cruise industry is to achieve substantial growth, it will be necessary to develop fly/cruise markets from abroad. The Qantas/Captain Cook venture is a step in the right direction. However, it will be desirable to monitor developments in North America as cruise operators and passengers seek new cruising grounds. It will also be desirable to watch developments in Japan; that country's rapid growth in outbound tourism and the recent investments by Japanese shipping interests in cruising signify a potential for that country to become a major source market for cruise passengers. In that case, it will be of value to consider how Australia can establish itself as a favoured cruising ground for the Japanese. Further, it might be necessary to consider whether it is necessary to adopt a liberal attitude to the granting of continuing voyage permits to allow Japanese (and other) cruise operators flexibility in developing successful itineraries involving Australian ports.

In assessing the value of such a liberal policy, researchers could make a contribution by:

- * Estimating potential cruise demand, particularly from established and newly developing source markets;

- * Evaluating operational strategies that would ensure that Australia was able to attract international visitors on fly/cruise packages; and
- * Assessing whether a liberal policy fostering cruising is likely to generate net benefits to the national and regional economies

Although cruise shipping represents only a small part of transport and tourism, researchers working on these topics will glean more general results with wide applicability because of the characteristic nature of cruising as a complete travel and tourism experience

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