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"Tourism Investment in New Zealand"

Opportunities and Constraints

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NZIER

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TOURISM INVESTMENT IN NEW ZEALAND : OPPORTUNITIES AND CONSTRAINTS

by
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PREFACE

This report is the outcome of an application to the Foundation for Research, Science and Technology by NZIER to investigate certain aspects of tourism investment. The authors gratefully acknowledge the Foundation's assistance.

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New Zealand Institute of Economic Research.

1. INTRODUCTION

1.1 Overview

Over the last decade New Zealand and many other countries have seen the demise of much manufacturing employment, and more recently rationalisation in major service sector industries. In searching for other sources of employment and income growth, considerable store is placed on the potential for growth in tourism and the "tourism industry."[1] Whether this potential is realised will depend not only on the domestic and international economic factors that influence the demand for tourism services, but also on investment decisions and perhaps "investment strategy" adopted. Insufficient or inappropriate investment may act as a constraint on visitor numbers and spending; excessive investment will contribute to unsatisfactory returns and investor disillusion.

Tourism industry growth here is used in the wider sense, encompassing private returns (profits and profitability) and social returns (net national benefits), not simply growth in visitor numbers. New Zealand, like other destinations, has experienced considerable volume growth in international visitors over the last decade, but this has not been accompanied by satisfactory returns to investors. Some market factors contributing to poor returns have been:

- The sustained New Zealand recession (1987 to 1991) with adverse effects on domestic tourism;

1 The tourism industry is ill-defined in an economic sense, as reflected in the paucity of official statistics on tourism activity. In terms of sectoral definitions used in the national accounts, it mainly comprises parts of *transport and communications* and *trade, restaurants and hotels*.

- Intensifying international price competition;

- Changing expenditure patterns of international visitors;

- Seasonality, and

- Excess capacity in tourism infrastructure, both here and in other countries.

These pressures on productivity of existing capital tend to be projected on to expectations for productivity of new capital. Not surprisingly, investment in hotels has tailed off sharply since the late 1980s.

The problems of excess capacity have not been confined to accommodation, with poor returns and rationalisation experienced in the transportation industry locally and internationally, particularly in aviation. Analysis of the constraints on and prospects for investment in air transport and airport facilities is complicated by structural change in aviation internationally, and prospects of a single Trans-Tasman aviation market by November 1994.

This research is against the background of enhanced focus on strategy in tourism - encompassing both offshore marketing and investment. Government funding, through the New Zealand Tourism Board (NZTB), is predominantly devoted to offshore promotion of New Zealand as a destination. The Board and the industry have been exploring the possibilities for increased cooperation in joint destination marketing of the south west Pacific region i.e. in conjunction with Australia and Fiji, Cook Islands, Vanuatu, the Solomons etc. This looks likely to receive increased emphasis, with possible implications for the nature and quantum of New Zealand's infrastructure requirements. The research also coincides with debate about the limits to mass tourism, either driven by concerns with "sustainability" or by interest in achieving higher added value per inbound tourist. Investment is closely bound up with these aspects of marketing strategy, because it can both direct and constrain market outcomes.

Conversely market trends and marketing approaches have implications for investment strategy. There are conflicting views on whether a strategy is required or appropriate. One view is that unless some sort of coordinated strategy is adopted to promote and direct investment, inadequate or inappropriate investment will occur. The counterview is that markets will respond appropriately to demand signals, so that any major capacity and demand mismatch will be shortlived. Any deliberate centralised strategy to stimulate investment carries with it the risk of misjudging trends, leading to misallocation in terms of the amount, type or location of investment. Past experience in New Zealand and Australia, in tourism and other activities (e.g. provision and use of office space), indicates that these unfortunate outcomes are possible with or without any attempt at strategy.

This is an oversimplified dichotomy, but provides an underlying theme which we explore in more detail in this report. The aim of this is to set out a theoretical and empirical framework to provide the basis of a balanced assessment of the alternative perspectives of tourism investment. The intention is that this will prove to be a practical tool for the industry and policymakers, so the emphasis is on the empirical side. However we draw on some of the theory of investment to assist in identifying issues and interpreting observations.

1.2 Executive summary

Following are major findings of the research discussed in more detail in the body of this report.

- Tourism is an industry which has grown rapidly internationally and in our region, and has significant potential to contribute to economic growth and diversity in New Zealand.

- Impressions of industry growth can vary widely according to the yardstick applied. Volume measures such as international visitors and bed-nights tend to be the most rapidly growing. Expenditure data including domestic tourism and in constant price terms grow more sedately. For example, over the 12 years to 1992/93, international visitor numbers grew at an annual rate of 7.4%. Real growth in total

tourism expenditure was about 2.6% per annum, compared with about 1.5% per annum for GDP.

- In general tourism consumers have done well in recent years with costs of accommodation and transport growing little, if at all, in real terms.

- With important exceptions, the corollary has been unsatisfactory returns for suppliers of tourism services. Despite volume growth, capacity utilisation and yields have often been inadequate. In turn, investment has waned.

- Against a background of increased international marketing effort, and in the face of higher tourism volumes and expenditure, this creates a dilemma for the 'industry'. There is a significant risk that capacity constraints in particular services and localities could develop, resulting in diversion of international or local tourists to other markets. Alternatively, a low level of investment is reflected in deteriorating quality.

- A critical issue in an environment of actual or potential physical capacity constraints, is the role of pricing as a rationing device. In price-sensitive segments of the industry, upper limits on yields will be set by international competition. In segments where the investor has some market power (e.g. because of unique locational or other attributes) pressure on capacity should allow prices to be pushed up, allowing satisfactory returns to investors but with lower volumes than otherwise.

- Investment responses to rising demand will reflect past experience of returns, expectations for the future and the risk preference/ aversion of investors. From the mid-1980s tourism numbers accelerated strongly, and capacity grew, but returns to investors were unsatisfactory for much of the ensuing period. This has coloured attitudes to new investment and highlighted the need for investment assessment to encompass not only volume growth, but also capacity utilisation and yields.

• Investment theory and surveys of current investors in tourism suggest that the majority will be cautious about adding new capacity. Theory tells us that sunk costs and uncertainty are important factors contributing to potential for market failure in tourism investment. Internal and external financial constraints require that to an important extent, enhanced returns (on equity or assets) precede additions to capacity, rather than the reverse.

• High levels of uncertainty concerning such factors as market growth, price sensitivity, and yields, make it very difficult to project the investment that should or will occur in the medium term. Accommodation data provides a reasonably solid basis for modelling the quantum and location of hotel investment that could occur under certain assumptions. There is very little basis for estimating the timing or extent of investment in transport, transport infrastructure or tourism attractions.

• Ernst & Young estimates suggest that for hotels, the investment rate could step up strongly from 1997 and into the early years of the 21st century. For the five years to 1995 the value of hotel building work put in place is estimated to total only about $250 million in 1992/93 prices. Based on the assumptions set out in this report, in the five years to 2000 this could grow to about $700 million, increasing to about $1 billion in the subsequent five years.

1.3 Research objectives and report structure

The three primary objectives of the research are as follows:

Objective 1 To construct an integrated database of major tourism capacity parameters to facilitate analysis of current and future investment constraints and opportunities.

Objective 2 To compare past experience of tourism investment in New Zealand with theoretical models as a basis for conclusions on future tourism investment. This is based on analysis of the capital stock as it stands currently - the mix and nature of investment could change radically over time in ways which cannot be predicted.

Objective 3 To determine future constraints on and opportunities for tourism investment as perceived by industry participants. This is to be used to identify major divergence between investment that might be generated by the market, and investment that might emerge from a coordinated strategy.

The sequence of the monograph is as follows:

Section 2 is largely definitional, describing and quantifying the tourism industry and tourism investment.

Section 3 provides an overview of economic theory pertaining to investment in general and draws out possible inferences for tourism investment in New Zealand.

Section 4 reviews some of the institutional influences on tourism investment in the 1980s, and compares forecasts made in the period with actual outcomes.

Section 5 discusses some of the major issues in assessing investment requirements including NZTB targets, price and quantity responses to market growth, the role of foreign investment, and forecasts of visitor numbers and expenditure.

Section 6 considers investment prospects for each of the three main categories of tourism infrastructure - principally for accommodation, but also for transport and tourism attractions. The section includes forecasts of visitor numbers and visitor nights, analysed in greater detail in Appendix 1.

Section 7 draws conclusions on the differences between possible investment outcomes assuming a coordinated strategy on the one hand, and a laissez-faire approach on the other.

2. DEFINING & MEASURING TOURISM INVESTMENT

2.1 Tourists and the tourism industry

In order to discuss tourism investment it is necessary to define *tourism* and point out some of the ambiguities surrounding this definition. The NZTB defines a tourist as anyone spending one or more nights away from home. This is broader than used in some other countries because it encompasses business travellers. Tourists under this definition are divided into three groups

- Domestic private travellers, whose tourism expenditure forms part of private final consumption,

- Domestic business travellers, whose tourism expenditures would principally be recorded as intermediate inputs into the production process,

- Inbound travellers (both private and business) whose expenditure would be reflected in both retail sales and exports, mainly service categories thereof.

Expenditure by outbound travellers would be mainly recorded as imports in the home country and as final demand of other countries.

Tourism expenditure is the aggregate of expenditure on all (priced) goods and services consumed by tourists. Accommodation and transport are major components of such expenditure, but the range of expenditure items is wide.

Tourism consumption includes both expenditure on market sector goods and services, and use of "public" goods and services which are usually not priced. Public goods and services can be further subdivided into those which are publicly provided, and natural amenities. The former include roads, police, parks and gardens, museums etc. The latter include lakes, mountains, rivers, national parks etc.

The tourism industry[2] is defined in terms of tourist expenditure on goods and services. It includes elements of the hotel and catering industries, transport, retailing, entertainment and recreational services. Few, if any, of the firms, individuals or public authorities engaged in such activities will be solely servicing tourists. Most will also be providing for local residents e.g. hotels via food and beverage services and conference facilities.

International tourism expenditure has some distinct characteristics, in contrast to domestic tourism expenditure which is largely indistinguishable from equivalent components of non-tourism expenditure. International tourism also differs in some respects from other exports. As expressed by Copeland (1991)

> "In contrast to commodity exports, tourists must visit the exporting country to purchase and consume tourist goods and services. ... As a result, goods that are normally non-tradeable, such as restaurant meals, become partially tradeable in the presence of tourism. A second distinguishing feature of tourism is that tourists typically consume a bundle of goods and services while on vacation. Hence in making their travel plans, they assess the cost of the implicit vacation package as a whole, rather than the price of just an individual good.

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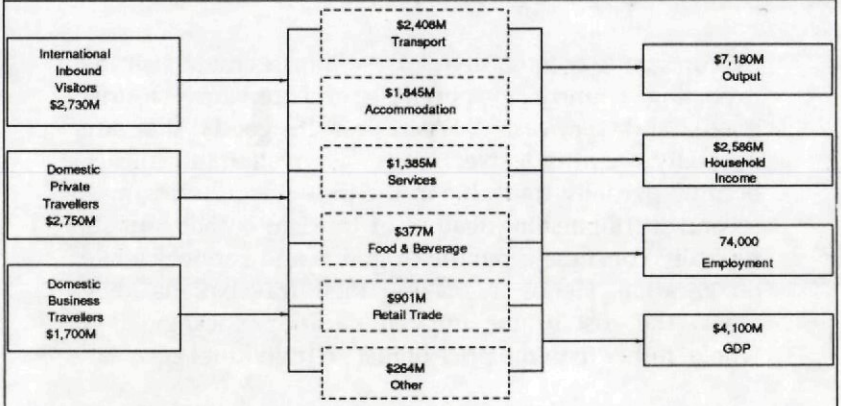
2 A narrower and more precise definition of the tourism industry proposed by Stear et al (1988) is "...the collection of all collaborating firms and organisations which perform specific activities directed at satisfying the particular needs of tourists."

> Finally, an important aspect of tourism is that the bundle of goods and services purchased by a tourist is consumed jointly with unpriced natural amenities, such as climate and scenery. The existence of these amenities within ... boundaries accords a degree of market power, and because supply of such amenities is not perfectly elastic, the potential for economic rents to be earned from tourism."

The following chart provides an estimate of tourism expenditure impacts i.e. the market sector components of the tourism industry in 1991/92. In that year, tourism was estimated to account for about 5% of national expenditure, 5.5% of GDP, and a similar proportion of employment measured in terms of full-time equivalents. International tourism accounted for about 38% of expenditure, and domestic tourism the other 62%.

Figure 2.1: Economic Impact of Tourist Expenditure in New Zealand Year ended March 1992



Source: New Zealand Tourism Board. Refer Duncan, Lim & Clough (1992).

Under these definitions there is no distinction drawn between leisure travel and business travel, i.e. all investment associated with servicing

the needs of people away from home is defined as tourism investment. This is likely to be at odds with business reality in many cases e.g. some hotels are primarily aimed at business travellers, and select their locations, services, and marketing accordingly. Again, the economic forces underlying leisure travel numbers and expenditure could be very different to those driving business travel, and seasonality is likely to be much more marked in the case of leisure travel than for business travel.

Similarly international "tourism" promotion, as undertaken for example by the NZTB, is primarily aimed at the leisure traveller. Equally important are the distinctions between holidays generally and those primarily motivated by visits to friends and relatives - the latter tending to have distinct implications for accommodation use. The Board has also undertaken considerable market research into spending patterns which vary widely as between country source and age group of international visitors.

Given the objectives of this research, these distinction can become critical in forecasting visitor numbers, and analysing implications for capacity. In general the type of infrastructure and services used and geographical patterns followed within New Zealand, will vary widely across the visitor spectrum. Wrong assumptions about the growth rates of the different subsets could lead to costly errors in investment decisions in durable assets.

Stear et al (1988) classify the industry's constituent firms into seven sectors according to the functions they perform. These are: the accommodation sector, the attractions sector, the carrier sector, tour operator sector, promotions and distributions specialist sector, miscellaneous tourist service-and-goods sector, and the coordination sector. The synthesised tourism industry as set out in the earlier figure attempts to capture all these, although data on some individual components is limited.

Investment refers here mainly to changes in the stock of durable assets i.e. design, construction and commissioning of new assets used by the tourism industry. Our main focus is on accommodation and transport.

Alternatively it can also refer to changes of ownership of existing assets. Investment in human capital or research and development, while important issues for the industry, are largely outside the coverage of this research.

2.2 Measuring tourism investment

The empirical part of this research focuses on investment in equipment and structures, as distinct from other forms, for example, investment in training or marketing, although both of the latter are important components of the industry's development.

Fixed investment in tourism falls into three main groupings - accommodation, transport, and tourism attraction plant and facilities, within which are various important sub-divisions. Outside of these is general infrastructure, provided by both private and public sectors, and complementary to the tourism "package". Given the geographical spread and heterogenous nature of investments in each of these components, it is not possible to cover every aspect of tourism infrastructure. However, whatever sample is chosen needs to be broad enough to cover at least some of the major trends in tourism. Thus the focus of the empirical research is principally:

Accommodation - Hotels in major "gateways" (Auckland, Wellington, Christchurch and Dunedin) and resorts (Rotorua, Taupo, Queenstown). Other accommodation types: motels, guest houses, tourist flats, youth hostels, chalets and lodges, backpacker facilities, farmstay, camping grounds, cabins and motor homes, are not considered in any detail.

Transport - Aircraft for domestic and international travel, airport facilities, rental cars, motor homes, coaches, passenger rail.

Tourism Attractions - National parks and other scenic attractions, ski resorts, golf courses, museums and art galleries, gardens, zoos/wildlife parks/aquaria, historic buildings, amusements/theme parks/entertainment complexes, industrial sites/plants.

It can be seen that there are wide variations within and across all these with respect to: average investment values, economic lives, lead times between planning and fruition, requirements for specialist staffing and support services, and market characteristics such as competition (international and domestic), concentration, contestability, growth, and maturity. This implies an absence of meaningful aggregate data in several cases. Hence most of our quantitative emphasis is on the dominant items of the current investment stock - accommodation and transport plant.

The major qualification is discussed under the section "Defining tourism investment" i.e. that the markets being targetted by investment decisions in these three categories may be very specific 'business' markets rather than 'tourist' markets - broadly defined. Hence while for some purposes adoption of the broad definition of tourism is not an issues, some care is needed in the investment context - first because of the distinct characteristics of the leisure and business markets; second because investors may perceive the two classes of investment quite differently.

In recent years considerable research effort has gone into investigation of tourism expenditure impacts, for example Lim (1991) and Duncan et al (1992) but tourism investment has been given less attention. This report is concerned mainly with the dynamics of investment flows in the main categories of tourism investment. However some approaches to measurement of tourism investment are considered, to help put the wider subject matter in context. In later sections we measure physical measures of tourism investment, but the focus here is on values of investment stocks and flows.

There are several conceptual obstacles to estimation of tourism capital stock:

• *Defining tourism investment.* Even using a very wide definition of tourism, to include both business and leisure travellers, some proportion of tourism is being serviced by capacity not specifically aimed at the tourism market. For example, some components of accommodation and tourism attraction may be for the use of patrons

from the immediate locality. Likewise significant portions of transport capacity will be related to freight rather than passengers. Tourists also use retail and other services, but the cases in which outlets are dedicated solely or principally to tourism are in the minority.

• *Aggregation.* There is limited official capital stock information available and those systematic estimates that have been made (discussed below) are at a fairly aggregated level.

• *Valuation.* The main problem in dealing with long-lived assets is one of valuation. This has several components but the main one is the distinction between accounting depreciation and economic depreciation. This is discussed below with reference to the various data sources.

Philpott (1992) sets out capital stock data for the period 1950 to 1990 at the 22 industry level, estimated using the *perpetual inventory model* (PIM). In brief, this involves establishing a starting value for real capital stock; adding each year's real gross investment, then deducting each year some depletion in the real level of capital - which may represent retirement or depreciation.

The commentary refers to two different concepts of capital stock, in turn reflecting alternative approaches to depletion:

> "The concept of Net Capital Stock (or Wealth Stock as it is sometimes called) is akin to that adopted in accounting procedures except that it is measured in real or constant price terms. In this measurement, allowance is made for conventional depreciation rates representing the reduction in the market value of the asset over its lifetime...
>
> For use in analyses of production and productivity ...net capital measures are less appropriate than gross capital measures. The latter assume that the productive capacity of an asset continues undiminished until the end of its normal life at which point it is "retired" or dropped out of

the inventory by a process often described as "sudden death" rather than by the "exponential decay" characteristics of the depreciation approach."

Philpott's assumption for the PIM calculations is that assets begin to be retired at a point in time 20% earlier than their average service lives, and that this retirement concludes at a point 20% later than that date, and that the retirement process is linear. For the two SNA sectors of principal relevance to tourism, the estimated average service lives are:

Transport: Building and construction - 50 years
Plant and equipment - 15 years.

Trade, Restaurants and Hotels:
Building and construction - 46 years
Plant and equipment - 16 years.

An alternative source of data on capital stock is the Annual Enterprise Survey (AES) which includes annual figures for fixed tangible assets. This has the advantage of offering disaggregation into 61 industry groups. The disadvantages are that it is dated, and more importantly based on an aggregation of book values and hence a whole mixture of historical cost accounting and depreciation practices. Comparisons between the two series are thus partly spurious although of interest in benchmarking the two series. For the starting year, 1950, the ratios of assets valued at 1950 prices to values at historical prices were 1.5 for buildings and structures, and 2.0 for plant and equipment. Our calculations for 1988/89 were that the ratio of capital stock (RPEP estimates at current prices) to fixed tangible assets (AES aggregates of relevant industries) was 2.7 for trade etc, and 3.3 for transport.

Whatever is chosen as the basis for the investment flows or capital stock time series, the next step in arriving at some estimate of tourism investment aggregates is some form of weighting. Work by the NZTB in conjunction with the Department of Statistics provides industry weightings (22 sector SNA) for expenditure on tourism. These can

Table 2.1 Tourism Investment Estimates
($ million)

	1980/81	1981/82	1982/83	1983/84
A. INVESTMENT FLOWS				
Tourism gross fixed capital formation (GFCF)	194	308	303	308
of which hotels etc:	42	59	67	61
Total GFCF (92/93 prices)	415	567	499	486
Hotel BWPIP (92/93 prices	90	109	110	96
Tourism depreciation	95	113	134	161
Tourism net fixed capital formation (NFCF)				
- Tourism nominal	99	195	169	147
- All sectors nominal	3095	4701	5545	5814
- Tourism NFCF as % of total NFCF	3.2%	4.2%	3.1%	3.8%
- Tourism real NFCF (92/93 prices)	212	360	279	232
B. INVESTMENT STOCK (92/93 prices)				
Tourism capital stock	6913	7048	7320	7522
All sectors capital stock	249200	254058	260155	266998
All sectors excl. housing and govt	144487	147178	151319	156236
Tourism share excl housing and govt	4.8%	4.8%	4.8%	4.8%

Sources: A.(National accounts; NZIER); B. (Research Programme on Economic Planning; NZIER). Deflator - Capital goods price index.

provide at least a rough basis for assigning capital stock to tourism. Broadly speaking the expenditure weightings assigned to tourism are 30% for *transport* and 12% for *trade, restaurants and hotels* and small proportions of various other service sectors. These weightings have been applied to generate the time series in the table:

1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
445	677	613	725	600	745	717	523	732
70	105	147	199	197	196	127	32	40
642	868	713	809	660	802	754	538	732
101	135	171	222	217	211	134	33	40
189	222	268	314	360	382	419	449	470
256	455	345	412	240	363	298	74	263
6703	8062	7812	8259	7402	8504	8147	5666	6471
3.8%	5.6%	4.4%	5.0%	3.2%	4.3%	3.7%	1.3%	4.1%
369	584	401	459	264	391	314	76	263
7661	7845	8101	8217	8365	8370	8522	8488	8692
273819	280938	288540	294882	301612	307681	315437	320831	326991
161116	166291	171825	176512	181751	183362	189262	192498	196195
4.8%	4.7%	4.7%	4.7%	4.6%	4.5%	4.5%	4.4%	4.4%

• Estimated gross and net investment flows for tourism,[3] with hotel building work put in place shown for comparison. All series rose quite strongly from the mid-1980s but have levelled off or declined

3 Gross fixed capital formation less consumption of fixed capital.

since 1989/90.[4] Note that the hotel data incorporates building work only - not the value of land, plant, furniture and fittings.

• Tourism capital stock in 1992/93 prices. This shows tourism capital stock recently at about NZ$10 billion, fluctuating at around 4.5% of aggregate capital stock, excluding housing and government. Over the 10 years to 1992/93, tourism capital stock in constant price terms is estimated to have grown at an average 1.7% per annum.

It should be emphasised that these figures are indicative only, and that their accuracy and significance is very difficult to gauge. They are intended to provide a broad picture of magnitudes and trends.

4 The measured value of building work put in place tends to be lower than for the equivalent components of non-residential building investment in the national accounts. The differences reflect the inclusion in SNA figures of transfer costs associated with the change of ownership of property acquired for alterations, additions, or development, and valuation of central government building investment based on central government capital expenditure accounts, rather than on permit data.

3. INVESTMENT THEORY - INFERENCES FOR TOURISM

3.1 Overview

Although this report is intended for a non-specialist audience focussing on practical investment issues, some examination of investment theory is essential to identification of the pertinent issues, and also in interpreting the empirical data.

Analysis of investment raises numerous overlapping issues which are not easily crystallised into simple prescriptions. This research focuses on firm and industry level investment issues including coordination and flexibility in response to overcapacity or undercapacity. Some of this is covered under the umbrella of "market failure" and the role of information and uncertainty - including uncertainty about the future characteristics of demand, its cyclical patterns vis-a-vis long term trends, and potential structural change. Industry behaviour will also reflect market characteristics such as regulatory barriers, technical features and economies of scale and scope.

Several perspectives are relevant in considering investment - capital productivity issues; relationships between efficiency of one factor (e.g. capital) and efficiency of other factors used; interdependencies between different forms of infrastructure (e.g. hotels vis-a-vis airports vis-a-vis airline capacity and schedules) all influence investment decisions at the firm level and investment responses at the industry level.

Our simplified dichotomy is that investment in a particular activity can take place under two extreme sets of conditions. One is completely free-market, in which aggregate investment reflects the

sum of decisions made by a large number of independent entrepreneurs. They are assumed to be acting on some common information, for example, on the taxation regime, but reach their own conclusions as to the form of investment most likely to generate favourable returns, the timing of that investment, and its location. There is minimal formal coordination of investment decisions.

At the other extreme, in theory, is an investment regime heavily influenced by government or agency in terms of current and forecast market data, official views on prospects for particular investment types (promotion), and perhaps even specific encouragement of certain investment actions e.g. fiscal incentives (direction).

In practice, the role of coordination in New Zealand tourism has fallen somewhere between these extremes, with government agencies, industry organisations and some major enterprises playing a role in market data dissemination, promotion and directly or indirectly influencing the rate and type of investment.

3.2 Market failure and coordination problems

One aim of the project is to examine the potential for market failure in the tourism investment context. According to Brown and Jackson (1988):

> "Market failure refers to those situations in which the conditions necessary to achieve the market efficient solution fail to exist or are contravened in one way or another. Market failure is an extremely important feature of observed markets. Left to itself, the market system of any economy is unlikely to operate efficiently. There will be a tendency for it to produce too much of some goods, and an insufficient amount of others. In the extreme case of complete market failure the market will fail to exist, so that certain goods will not be produced at all."

Given the presence of market failure, one possible role for government would be to intervene in the allocative function of the market and thus

correct the market failure or introduce policies that would compensate for its effects. Examples of such interventions would be public spending initiatives, or selective subsidies and tax treatments. The government may also influence resource allocation through stabilisation policies (targeting macroeconomic performance variables such as growth or inflation) and through regulation.

The authors state that failure of markets to achieve efficient outcomes can be due to[5]

- The existence of public goods and externalities,

- The presence of decreasing costs/increasing returns to scale as in the case of monopoly and other forms of imperfect competition,

- Incomplete information, and uncertainty.

In most of these the origin of market failure is to be found in the notion of transaction costs, an example of which is the high cost of obtaining forecasts of uncertain future events. The third of the above items would appear to have a particular bearing in the context of tourism investment.

Hirshleifer (1979) divides the literature on uncertainty and information into two distinct branches - *market* uncertainty and *event* uncertainty. *Market uncertainty* covers variables endogenous to the system and postulates market participants operating with uncertainty about the supply and demand offers of other economic agents. This replaces the traditional assumption of costless exchange at market clearing prices with a more realistic "imperfect" paradigm. *Event uncertainty,* is analysed in two broad categories - the economics of uncertainty and the economics of information.

In the economics of uncertainty, it is postulated that the individual chooses actions under uncertainty (about exogenous variables such as

5 The efficiency concept here is that of *allocative efficiency,* the production of the optimal combination of outputs by means of the most efficient combination of inputs.

government policy, or international economic conditions). Actions may be terminal (irreversible) under fixed probability beliefs, or informational - the latter implying deferral of final decisions pending receipt of further information to reduce uncertainty. This in turn leads into issues of risk aversion/preference, insurance markets, portfolio choice and price signals.

Receipt of information will influence beliefs about probability of outcomes, and lead to revision of actions. Hence, emergence of new public information will affect prices. Relative market values will rise for those assets likely to enjoy better returns given exogenous "states" now seen as more likely. Conversely, prices should reflect market expectations, thus providing a basis for inferring the probability of outcomes. However, prices will depend not only on specific elements of uncertainty, but also on many unknown or partially known determinants or parameters.

3.3 Firm and industry influences on investment

Other theories of firm behaviour and market responses are necessary to complement analysis of the role of uncertainty. Savage and Bollard (1990) provides an overview of the issues in the context of disinvestment, equally relevant in examining investment.

Firm specific factors affecting investment and disinvestment behaviour include the nature of assets, managerial objectives and firm structure and ownership. *Industry and market structure influences* include product differentiation, scale economies, product separability, and the nature of price and demand behaviour.

Major issues in investment and barriers to entry and exit, are asset specificity and durability. Four types of specificity may be defined: site specificity (immobile assets like forests, mines, golf courses, natural attractions and associated resorts); physical specificity (hotels are designed for specific purposes, and only convertible to other uses at great cost); human asset specificity; and dedicated assets (i.e. those employed for the benefit of a particular customer).

If assets are non-specific there will exist a reasonably deep market for disposal. A durable specific asset (such as resort or a hotel) is one which the firm cannot dispose of quickly at a price matching the value of the inputs required to produce that asset. In the case of these having to be sold due to cashflow or balance sheet pressures on the entity owning the asset, prices will be well below replacement cost. Put another way, sunk costs are high and investment errors are costly - either involving acceptance of long periods of subnormal returns because the investor is "locked-in" or major capital losses.

Large capital intensive operations are likely to be those which enjoy economies of scale.[6] Break-even output levels are likely to be high, so price cutting is a prominent option in the face of declining demand as has been evident in both accommodation and aviation. More generally, the utilisation of capital (physical or human) which requires regular reinvestment (e.g. maintenance, technological updating, training) will increase the fixed costs firms face. Such costs impose a fairly immediate choice of reinvestment or immediate exit.

Firm structure and ownership has a bearing on investment and disinvestment. In the tourism industry, firms may range from one or two person businesses to large multi-national corporations. Most of the theory focuses on larger firms and may not be applicable to smaller enterprises. Vertical integration and diversification are important characteristics. Vertical integration implies internal purchase of inputs. For example, a single firm may own a travel distribution business which purchases airline seats and hotel rooms from other operations within the same organisation. Failure of one part of the business may put financial pressure on other parts; alternatively internal support may allow a weak part of the business to survive longer than in other cases, as with diversification.

In New Zealand, most firms in the tourism industry operate in a limited range of activities, with few examples of full vertical

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6 Decreasing average unit costs as fixed costs are spread over increasing output.

integration e.g. through distribution, transport, accommodation and retailing.

3.4 Industry and market structure

The structure of the tourism industry, or more accurately its various sub-industries, will affect strategies adopted by firms and the constraints they face. In accommodation there are many participants, but also some features in common with the non-residential property market more generally. They are characterised by imperfections which distinguish them from other asset markets, such as stockmarkets and other financial markets, and in some respect from residential property markets.[7]

• Heterogeneity - within each market i.e. accommodation, retail, office, industrial, there are numerous distinct subdivisions according to property type, location, quality and legal interests attached.

• Lack of detailed information on transactions. Many go unreported, and many are negotiated between operators who have a special relationship, so that prices or leasing terms agreed do not provide evidence of market levels.

• Durability, so that the majority of interests changing hands tend to be in existing, rather than newly developed property. In the short run, the stock of the principal property types is very inelastic due to the time involved in obtaining planning consent and the construction process. The combination of the durability and short run stock inelasticity of buildings means that, at any point in time, existing stock tends to dominate the market and is unable to vary in response to a change in space needs.

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7 Imperfect competition in contrast to the perfectly competitive model, the latter characterised by homogenous products; large numbers of buyers and sellers; free entry and exit. Under perfect competition firms are dynamically and technically efficient and the outcome is allocatively efficent.

• Relatively small number of players. Non-residential property interests are highly priced and normally indivisible. Sums required to develop or invest in property usually require the involvement of financial institutions, or investors with major credit lines or equity access.

The third of these i.e. sunk costs is the key concern in hotels and motels. They represent a high cost investment with specific markets and little alternative uses. In an oversupply situation, as with commercial property, asset prices fall and there is little liquidity. The main distinction between hotels, say, and office space is that the former are providing a partly tradeable service, whereas the latter is essentially non-tradeable. One implication of this is that hotel room rates are significantly influenced by rates for accommodation in competing destinations.

As set out in Section 6, each component of the transport sector has its own market structure, limiting the generalisations that can be made about investment behaviour. The main difference between transport and accommodation is that assets in transport are likely to be less specific than in accommodation, leaving a greater range of options if market trends are miscalculated. Airports, however, are both site and physically specific.

The nature of price and demand behaviour will affect firm investment decisions. Firms which face cyclical conditions of demand may have an established pattern of holding reserve capacity in anticipation of an upturn. The difficulty for investment or disinvestment decisions in tourism is the unpredictability of the cycles - given the large number of potentially significant influences. As discussed below, the theoretical work of Pindyck (1987) shows that when firms are involved in irreversible investments *and* face uncertainty about future demand or prices, then their optimal capacity will be much smaller than if investment were reversible.[8]

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8 Irreversibility i.e. involving high "sunk" or non-recoverable costs.

We have briefly reviewed just some of the issues raised in the investment theory, emphasising market failure and the role of uncertainty and information. A comparison of alternative theories of the *determinants* of investment is set out below, based largely on Grimmond (1989).

3.5 Microeconomic determinants of investment

At the firm level the decision to invest is determined by the expected returns of each specific project. Thus investment levels normally reflect project analysis procedures and parameters. Logically a firm will only decide to proceed with an investment project if the expected returns from the project exceed the expected cost of investment, and the opportunity cost of investing in the particular project.[9] Aggregate costs and revenues over the life of a project are compared in present value terms i.e. using appropriate discount factors.

These discount factors should not only reflect opportunity costs and risk, they also help adjust for uneven spreads of costs and revenues, within and between projects. Typically, the bulk of investment costs are likely to be incurred early in a project's life, while project returns will be received at later stages. There is considerable debate about discount factors e.g the appropriate numbers and their implications. Government stock yields are often used as the risk free rate of return, and an important component of cost of capital calculations. Assuming an appropriate discount factor is selected, and after allowing for uncertainties in projections, a positive net present value suggests that the project is worthwhile. It follows that a firm will continue investing in capital projects, starting with the most profitable, up to the point where the return on the next increment of capital is equivalent to the maximum available risk-free return. It can be concluded from this that all other things equal, a decrease in investment would be expected to accompany an increase in nominal interest rates.

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9 Opportunity cost refers to the expected returns on the most favorable alternative investment. Implicitly, due allowance for risk is necessary in comparing returns on alternatives.

A fault of the above analysis is that it assumes that projects are reversible, whereas many projects are irreversible. Equipment or structures may not be useful for any other purpose, and low salvage prices might make the downside risk very large. Although the decision to build a plant may be irreversible, the decision to defer building is not. This asymmetry suggests that the present value of profits might have to exceed the present value of costs by a substantial amount before the decision to invest is made. This is because the decision to invest now takes away the option of deferring to allow for further information, or of making a different investment. Pindyck (1988) examines marginal investment decisions with irreversibility. As in the reversible case, Pindyck concluded that a firm's capacity choice is optimal when the present value of the expected cashflow from a marginal unit of capacity just equals the total cost of the unit. However the total cost should equal the purchase and installation cost, plus the opportunity cost of exercising the option to buy the unit.

An important conclusion from Pindyck's approach is that in periods of demand uncertainty, there may be an incentive for firms to raise their capacity to allow for increases in operating options. That is, the greater range of operating levels provided by larger capacity encourages expansion in times of uncertain demand. However, this incentive is outweighed by the opportunity cost of irreversibly increasing capacity size to perhaps a sub-optimal level. That is, demand uncertainty increases the value of a firm's option not to invest, by a greater amount than the incentive for holding more capacity.

3.6 Macroeconomic Determinants of Investment

This project is not concerned with investment at its broadest level i.e. all investment in structures and plant and equipment, or the aggregate contribution of investment to total output and value-added. However, it is concerned with aggregate investment in the tourism industry i.e the macro impact of numerous firm level or decisions.

As stated by Grimmond (1989)

"Expansionary or net investment, that is investment net of depreciation, is undertaken when firms want to a to alter their capital stock. This implies that net investment occurs only when firms perceive their production level to be sub-optimal. Net investment, therefore, represents a change in a firm's production from one equilibrium level to another. As such, net investment may be described as a disequilibrium phenomenon. This dynamic nature of investment is arguably one reason for the difficulty economists have had in aggregating investment functions from the micro, individual firm level, to the macro, economy wide level. There has been poor empirical support for a number of investment theories that have plausible microeconomic foundations, and investment functions with empirical support have often lacked a sound theoretical underpinning."

In brief, at the macroeconomic level there are three main models of capital investment:

The *generalised accelerator model,* in which the demand for capital is assumed to be proportional to output;

The *flexible accelerator model,* in which the desired level of capital is determined by long-run considerations. As per Grimmond (1989) "Even if desired capital was responsive to short run changes in output, business uncertainty, time delays in recognition of changes in output and the time requirements of the actual investment process, would also be expected to make capital adjustments slower than suggested by the pure model." In this modified version, capital stock adjusts more slowly over time, and net investment is less variable than a strict accelerator model would imply.

The *securities value (q) model,* associated with James Tobin, attempts to explain financial investment in terms of portfolio balance. In this model investment should be a positive function of q, where q is defined as the ratio of the market value of capital to the replacement cost of capital.

Neoclassical models attempt to overcome the weakness of accelerator type models, which is that they do not account for the price of capital. The neoclassical model is developed from the principle that firms use a combination of capital and labour to produce goods and services, and that the optimal combination of factor inputs should be a function of their relative price. Thus if firms are profit maximising, they must balance the contribution to output from using more capital against the cost of using more capital.

Two arguments have been presented for including a profit or cashflow term in investment models. The first is that changes in profits should convey information about future profitability, expectations of future output and hence desired capital stock levels. Second, internal funds could be less costly than external funds due to financial market imperfections. The latter argument hinges on asymmetric information in capital markets. It notes that cashflow or other financing variables play no direct role in neoclassical or accelerator theories because they assume that any desired project can be financed.

This would be true if there was complete information available to both borrowers and lenders and both parties obtained the same risk evaluation for the project. However, asymmetric information about a loan's quality can lead to credit rationing. Lenders' lack of information, or inadequate resources to properly assess a project may result in them giving a much lower risk/reward rating to proposals than would borrowers. This in turn could lead to some intending borrowers being unable to obtain finance at the prevailing market cost of capital. That is, lenders place a risk premium on certain investment projects, thus raising the cost of a project externally financed to a level greater than its internally financed cost. The opposite can also occur.

3.7 Summary of theory and some inferences

From this brief review of some theoretical treatments of investment generally, we would expect tourism investment to be a negative function of factors that increase the cost or opportunity cost of capital, for example, the real acquisition price of capital goods or nominal

interest rates. A positive relationship would be expected between investment and any factor that appears to reduce uncertainty, for example, increased returns, economic growth, or reduced inflationary pressures. The latter alludes to cost inflation - the prospect of asset inflation will be a motivating factor in some investment decisions.

The perspectives surveyed contribute elements of the qualitative model of tourism investment we wish to present. In particular, investment at the firm level is seen as a staged process based on market information, financial analysis and internal decision making, and then assessment of financing options.

The overriding questions are with respect to market coordination i.e. the ability of investors as a whole to anticipate or respond appropriately to changing tourism demand. Coordination in turn hinges on the role of information and uncertainty. Amongst their other functions, government agencies or industry bodies may have an important role in gathering and disseminating market information and analysis. Whether they have a comparative advantage in foreshadowing market trends, i.e. can in practice reduce investor uncertainty, is another matter.

In Section 6.2 on accommodation investment prospects, a mechanistic demand and capacity utilisation model is applied to project possible new supply levels. The theory discussed suggests that these projections could be modified in many ways - for example according to uncertainty and changing levels of coordination. While such considerations are not explicitly factored into the projections their possible implications should be borne in mind.

4. FACTORS INFLUENCING TOURISM INVESTMENT IN THE 1980s

4.1 Introduction

Although this research is principally forward looking, it is relevant to reexamine the last decade, in order to draw on that experience. Decisions made in the 1980s had an important influence on recent investment trends and the current tourism capital stock. Likewise some tourism trends that emerged in the 1980s are pertinent to prospects now. In particular we discuss

- Tourism forecasts versus outcomes, distinguishing between visitor numbers and expenditure, and domestic and international visitors.

- Major institutional influences on tourism investment, including the government and financial environment.

The first of these is based partly on the historical database covering the period 1980/81 to 1992/93 set out in the attached table. This incorporates three main measures of tourism activity - volumes (visitors and person nights); expenditure (current and constant prices) and growth rates. In the absence of official or other time series for most of the data, much has been estimated or interpolated from domestic and international visitor survey data. Specific assumptions are set out in the notes to the table.

4.2 Forecasts versus outcomes in the 1980s

In the early to mid 1980s detailed research was undertaken into the economic determinants of tourism, the impacts on New Zealand, and

Table 4.1 Historical Tourism Numbers And Values

(NB: Most of the numbers are estimates and should be treated as indicative only)

	1980/81	1981/82	1982/83	1983/84
VISITOR NUMBERS (000)				
1 International visitors to New Zealand	463	473	488	518
- of which Business:	51	56	58	61
2 International visitor person nights	11120	11475	11772	12179
3 Domestic visitor person nights	60400	56900	55300	54800
4 Outbound travel by NZ residents	451	419	373	362
- of which Business	49	51	49	51
- of which Private	402	368	324	311
EXPENDITURE (Current prices, NZ$ mill)				
1 International visitor spending in NZ	440	524	577	635
2 Air New Zealand fares from intl.visits	220	262	288	318
3 Resident spending on dom.priv.travel	845	987	1106	1185
4 Resident spending on dom.bus.travel	574	671	752	806
5 Overseas spending by NZ residents	364	391	458	470
DERIVED DATA				
Average length of stay per int.visitor	24.0	24.3	24.1	23.5
Spending per international visitor ($) (Current prices, excluding airfares)	950	1108	1182	1226
Spending per international visitor ($) (Constant 92/93 prices, excl.airfares)	2584	2610	2596	2530
International visitor spending NZ$M 92/93	1197	1235	1267	1310
Domestic private spend NZ$M 92/93	2298	2324	2429	2445
Domestic business spend NZ$M 92/93	1563	1580	1652	1663
Total travel expenditure in NZ ($M)-				
Current prices	1859	2182	2435	2627
Constant (92/93) prices	5058	5138	5348	5419
Air New Zealand fares NZ$M 92/93	598	617	633	655
Total including airfares NZ$M 92/93	5656	5756	5981	6074
Private travel spending by NZ residents				
Domestic	2298	2324	2429	2445
Overseas	991	921	1005	970
Total	3289	3245	3435	3415

1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
597	689	763	855	868	933	967	1000	1087
68	75	76	88	100	109	104	106	114
13187	15064	17021	18329	18500	19650	20384	19662	21297
54100	53207	46807	45409	42704	41422	40000	41000	41865
382	390	515	658	755	714	738	761	768
59	64	74	92	110	114	114	124	140
323	326	441	566	645	600	624	637	628
764	1022	1309	1612	1525	1672	1720	1821	2062
382	511	610	654	752	879	895	913	1031
1357	1607	1889	2252	2215	2579	2643	2677	2834
923	1093	1285	1531	1560	1625	1665	1700	1785
561	665	734	1062	1365	1470	1353	1412	1515
22.1	21.9	22.3	21.4	21.3	21.1	21.1	19.7	19.6
1280	1484	1716	1885	1757	1792	1779	1821	1897
2377	2353	2400	2372	2053	1967	1836	1856	1897
1419	1621	1832	2028	1782	1835	1776	1856	2062
2519	2549	2643	2834	2588	2830	2729	2729	2834
1713	1733	1797	1927	1823	1783	1719	1733	1785
3044	3722	4483	5395	5300	5876	6028	6198	6681
5651	5903	6272	6789	6192	6448	6224	6318	6681
709	810	853	823	879	965	924	931	1031
6360	6714	7125	7612	7071	7412	7148	7248	7712
2519	2549	2643	2834	2588	2830	2729	2729	2834
1042	1055	1027	1336	1595	1613	1397	1439	1515
3561	3604	3670	4170	4183	4443	4126	4168	4349

Historical Tourism Numbers and Values (continued)

(NB: Most of the numbers are estimates and should be treated as indicative only)

HISTORICAL GROWTH RATES (%)	1981/82	1982/83	1983/84	1984/85
VISITOR NUMBERS				
International visitors to New Zealand	2.2	3.2	6.1	15.3
of which Business:	9.8	3.6	5.2	11.5
International visitor person nights	3.2	2.6	3.5	8.3
Domestic visitor person nights	-5.8	-2.8	-0.9	-1.3
Outbound travel by NZ residents	-7.1	-11.0	-2.9	5.5
of which Business:	4.1	-3.9	4.1	15.7
of which Private:	-8.5	-12.0	-4.0	3.9
CURRENT PRICE EXPENDITURE				
International visitor spending in NZ	19.2	10.0	10.1	20.3
Air New Zealand fares from intl. visits	19.2	10.0	10.1	20.3
Resident spending on dom.priv.travel	16.8	12.1	7.2	14.5
Resident spending on dom.bus.travel	16.8	12.1	7.2	14.5
Overseas spending by NZ residents	7.5	17.0	2.7	19.4
CONSTANT PRICE EXPENDITURE (NZ$ 92/93)				
Spending per international visitor (Excl.airfares)	1.0	-0.6	-2.5	-6.1
International visitor spending NZ$M 92/93	3.2	2.6	3.5	8.3
Domestic private spend NZ$M 92/93	1.1	4.5	0.7	3.0
Domestic business spend NZ$M 92/93	1.1	4.5	0.7	3.0
Total travel expenditure in NZ (NZ$M)				
Current prices	17.4	11.6	7.9	15.9
Constant (92/93) prices	1.6	4.1	1.3	4.3
Total including airfares $M 92/93	1.8	3.9	1.6	4.7
Private travel spending by NZ residents				
Domestic	1.1	4.5	0.7	3.0
Overseas	-7.0	9.1	-3.5	7.5
Total	-1.3	5.8	-0.6	4.3

1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	Change*
15.4	10.7	12.1	1.5	7.5	3.6	3.4	8.7	7.4
10.3	1.3	15.8	13.6	9.0	-4.6	1.9	7.5	6.9
14.2	13.0	7.7	0.9	6.2	3.7	-3.5	8.3	5.6
-1.7	-12.0	-3.0	-6.0	-3.0	-3.4	2.5	2.1	-3.0
2.1	32.1	27.8	14.7	-5.4	3.4	3.1	0.9	4.5
8.5	15.6	24.3	19.6	3.6	0.0	8.8	12.9	9.1
0.9	35.3	28.3	14.0	-7.0	4.0	2.1	-1.4	3.8
33.7	28.1	23.1	-5.4	9.6	2.9	5.9	13.2	13.7
33.7	19.4	7.2	15.0	16.9	1.8	2.0	12.9	13.7
18.5	17.5	19.2	-1.6	16.4	2.5	1.3	5.9	10.6
18.5	17.5	19.2	1.9	4.2	2.5	2.1	5.0	9.9
18.5	10.4	44.7	28.5	7.7	-8.0	4.4	7.3	12.6
-1.0	2.0	-1.2	-13.5	-4.2	-6.6	1.1	2.2	-2.5
14.2	13.0	10.7	-12.2	3.0	-3.2	4.5	11.1	4.6
1.2	3.7	7.2	-8.7	9.4	-3.6	0.0	3.9	1.8
1.2	3.7	7.2	-5.4	-2.2	-3.6	0.8	3.0	1.1
22.3	20.4	20.4	-1.8	10.9	2.6	2.8	7.8	11.3
4.5	6.2	8.2	-8.8	4.1	-3.5	1.5	5.8	2.3
5.6	6.1	6.8	-7.1	4.8	-3.6	1.4	6.4	2.6
1.2	3.7	7.2	-8.7	9.4	-3.6	0.0	3.9	1.8
1.2	-2.6	30.1	19.3	1.1	-13.4	3.0	5.2	3.6
1.2	1.8	13.6	0.3	6.2	-7.1	1.0	4.3	2.4

Historical Tourism Numbers and Values (continued)
(NB: Most of the numbers are estimates and should be treated as indicative only)

	1980/81	1981/82	1982/83	1983/84
MEMO ITEMS				
Growth Rates				
Private final consumption expenditure	NA	16.8	12.1	7.2
Price deflator	NA	15.5	7.2	6.5
Real growth	NA	1.1	4.5	0.7
Nominal index: PFCE	100.0	116.8	131.0	140.3
Private final consumption exp (PFCE) $M	14564	17011	19073	20439
Price deflator 80/81 base	100.0	115.5	123.9	131.9
Price deflator 92/93 base	36.8	42.5	45.5	48.5
Real index: PFCE	100.0	101.1	105.7	106.4
Domestic travel spend % of PFCE	5.8	5.8	5.8	5.8
Private outbound % PFCE	2.5	2.3	2.4	2.3
Total - ests to 85/86	8.3	8.1	8.2	8.1

NOTES:

Visitor Numbers

1 Temporary visitor arrivals (all ages). Source: Department of Statistics

2 Short term visitor arrivals (person nights). Source: Department of Statistics

3 Nights spent away from home by residents (15 years plus) in New Zealand including those spent with friends and relatives as well as paid accommodation. Sources: New Zealand Domestic Travel Survey from 1986/87. From 1980/81 to 1985/86, based on "Determinants of Domestic Travel in New Zealand" NZTP (1989).

4 New Zealand residents departing temporarily. Source: Department of Statistics.

growth prospects. Although the policy environment has changed, the conclusions of some of the analyses bear striking similarities to the current debate, for example BERL (October 1984, p15):

> "The overseas tourism market is a rapidly growing market for New Zealand. That growth, which has been strong in 1983/84 should improve further the rates of return earned in the Tourism Industries.

1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
14.5	18.5	17.5	14.3	9.4	7.7	5.4	1.5	4.0
11.1	17.1	13.3	11.2	7.7	6.5	6.3	1.3	1.9
3.0	1.2	3.7	2.8	1.6	1.2	-0.8	0.2	2.1
160.6	190.3	223.6	255.6	279.7	301.3	317.6	322.4	335.5
23395	27712	32570	37225	40733	43876	46250	46960	48860
146.6	171.6	194.5	216.2	232.9	248.0	263.5	266.9	272.1
53.9	63.1	71.5	79.5	85.6	91.1	96.9	98.1	100.0
109.6	110.9	115.0	118.2	120.1	121.5	120.5	120.8	123.3
5.8	5.8	5.8	6.0	5.4	5.9	5.9	5.7	5.8
2.4	2.4	2.3	2.9	3.4	3.4	2.9	3.0	3.1
8.2	8.2	8.1	8.9	8.8	9.2	8.8	8.7	8.9

Expenditure:

1 Spending by international visitors refer Duncan et al (1992)p14. Estimated for 1980/81 to 1985/86 assumes daily spending in constant prices equals 1986/87 rate.
2 International airfares from Air New Zealand for 1986/87 to 1992/93. Prior years assumes constant ratio to total intnl. visitor spending.
3 Domestic Travel Survey from 1987/88 to 1991/92. For prior years assumes fixed proportion of PFCE.
4 Duncan et al (1992); Lim (1989). Prior to that assumes fixed proportion of total domestic travel expenditure.
5 Household Expenditure and Income Survey from 1986/87. For prior years assumes fixed proportion of PFCE.
* Annual average change % 1980/81 - 1992/93.

Currently, there are signs of shortages of fixed capital for the Tourism industries, especially in Accommodation in some centres. Investment could be more quickly attracted to these sectors if the Tourism Industries were able to enjoy higher rates of return on capital which would be achieved if Tourism were provided with neutral Effective Rates of Assistance, rather than the negative rates currently applying."

International visitor projections e.g. NZ Tourism Council (March 1984) and BERL (August 1984) covered the period to 1988/89 ranged from a *steady* projection of 3.5% per annum growth, a *growth* projection of 6.8% per annum growth, to an *optimistic* figure of about 12% per annum for international visitors. Assumptions as to length of stay and real expenditure per visitor were not always set out. However the BERL (1984) calculations assumed average real expenditure per visitor would be maintained at mid-1984 levels throughout the forecast period. Assumptions about domestic visitor or expenditure growth were not usually explicit, partly because of the paucity of data on that aspect of tourism.

- The early 1980s forecasts for growth in international visitor *numbers* were met or exceeded. The data set out in the table shows that over the period 1983/84 to 1988/89 international visitor numbers grew at an average of 11% per annum. The volatility of growth rates may have been unexpected - growth peaked at 21% in 1985/86 and was lowest in 1988/89 at 1.5%.

- Where outcomes may have fallen short of forecasts were in length of stay and expenditure per visitor. Our estimates are that rather than holding steady at 1984 levels, constant price expenditure per visitor fell by about 18% between 1983/84 and 1988/89, partly reflecting declining average length of stay, and continued to fall in the early 1990s, with some signs of upturn in 1992/93.

- As discussed above, we cannot make any explicit comparisons of outcomes versus projections for domestic tourism numbers and expenditure. However, our guess would be that given the state of the economy post-1984, trends in that component of expenditure between 1983/84 and 1988/89 would have undershot expectations held in the pre-1984 period.

Support for these assessments can be found in other commentaries on the 1980s experience e.g. Bancorp (1990):

> "Changes to the market mix of international tourism have been accompanied by a reduction in average length of

> stay from 24.3 nights in 1982 to 21.3 nights in 1989. International tourism activity has become more focussed on the main tourism axis, as people pass through the country more quickly. In short, the trend has been to more visitors, but each visitor is on average spending fewer nights, and staying in fewer locations."

Average length of stay continued to fall and by 1991/92 was below 20 days. Hence on annual comparisons, bed nights required per visitor are on average nearly 20% down over the decade. (The distribution of these bed-nights between different localities and accommodation types is discussed in the later section on accommodation). Comparisons between specific seasons and the same seasons ten years earlier may show different trends, but the overall picture is of quite a marked trend and with no sign of reversal. This does not necessarily imply a commensurate downward trend in the real level of overall expenditure per visitor (including accommodation, transport, entertainment, food etc) but statistics seem to indicate that has been occurring.

According to Bancorp:

> "Domestic tourism activity peaked in 1977 and was down by about 12% by the mid-1980s. Since then the decline has been more pronounced. Between 1984 and 1988, visitor nights associated with domestic overnight trips are estimated to have fallen by 14%. Domestic tourism activity declined in part because of slow growth in the New Zealand economy, and the slow real growth in disposable incomes. Coinciding with and perhaps reinforcing the domestic slowing has been sharp rise in outbound travel by New Zealanders - mainly reflecting falling real costs of overseas travel."

In 1991/92 domestic travel expenditure is estimated to have accounted for about 60% of total "tourism" expenditure broadly defined in New Zealand. By contrast with most larger developed countries, the domestic share of tourism is low, and conversely New Zealand tourism is relatively highly dependent on international travellers. These comparisons aside, domestic travel expenditure is

still very important insofar as overall infrastructure usage is concerned, and within the aggregate picture, specific market segments that are growing or shrinking, seasonal and geographic patterns of demand. These matters are considered in more detail in the forecasting section.

4.3 Institutional influences on tourism investment

Two prominent influences on tourism investment in the 1980s, specifically accommodation investment, were the "grant in lieu of depreciation scheme" and the Development Finance Corporation, which eventually became DFC Ltd on privatisation in 1988, and subsequently failed in 1989. They are important and relevant enough to the current debate to revisit.

Government support for hotel investment[10] can be traced back to the 1960s, first with the Tourism Accommodation Development Scheme, and then the special first year depreciation scheme, both of these administered by the New Zealand Tourism Department. Under the latter, approved projects were allowed to claim 22% of construction costs in their first year. The 9.5% grant-in-lieu of first year depreciation was first introduced in 1980 to address an accommodation shortage in Auckland. When introduced in 1980, the scheme was subject to review in five years time, to examine whether extension was warranted, but it contained no explicit "sunset" clause. The scheme offered the option of a cash grant (equivalent to 9.5% of audited capital expenditure) to hotels of international standard with a minimum of 200 rooms, eligible for the first year depreciation allowance. The grant was payable in the first year in which the hotel was used, and as the name implied was in lieu of any depreciation claim in the first year. For the purpose of calculating ordinary depreciation in the second and subsequent years, the cost price of the hotel was to be reduced by the amount of the grant.

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10 Refer, for example, to the NZTP study *Factors Affecting Hotel Investment in New Zealand.* (May 1986).

The scheme was extended firstly in the 1984 Budget to hotels in Wellington, Christchurch and Queenstown, and later in April 1986 to all hotels over 100 rooms throughout New Zealand. It was finally terminated from March 1988. By that time 12 hotels with about 2,800 rooms in aggregate, and total capital cost of $670 million, had qualified for grants of $53 million.

The main question in the context of this report is the extent to which this scheme stimulated investment that either would not have happened without it, or investment on a larger scale than would have otherwise occurred? Clearly from the early 1980s there was evidence in tourism growth experience and forecasts of opportunities for hotel building. Indeed over the course of the 1980s, with the assistance of either the special first year depreciation allowance or the grants-in-lieu the number of licensed hotel rooms rose by about 8,000 or about 50%.

The Development Finance Corporation was originally set up in 1973 to provide debt or equity capital to ventures that were perceived to involve a higher degree of risk than traditional funding sources were prepared to accept. It assumed a major role in financing tourism projects and was involved with lending to a large number of hotels and motels. By May 1985 total exposure to tourism projects was $130 million,[11] and it was subsequently involved in the financing of several major international hotels and numerous motels. By 1989, shortly before it went into statutory management, DFC's total loan exposure was more than double the 1985 level. We have no industry breakdown, but it seems a fair assumption that exposure to tourism would also have more than doubled over the period. Other banks and financiers would also have increased their exposure to tourism over that period, but DFC was probably unique in its mandate in this respect.

In summary, government played a significant direct and indirect role in tourism investment in the 1980s via: special depreciation and grant

11 DFC press release, May 6, 1985 and annual reports.

schemes administered by the Tourism Department; a statutory corporation with a strong mandate to fund tourism investment; and in concert with tourism industry bodies, tourism promotion and promulgation of research indicating need or opportunities for tourism investment. Even though only the last of these three interventions now pertains, a number of issues arise which are pertinent to the current situation and prospects in tourism:

• *The macro and micro risks in forecasting demand and capacity requirements in a cyclical activity.* The earlier table shows that some aspects of growth exceeded expectations, but the ultimate outcome was inadequate occupancy rates and poor returns.

• *Potential for "market failure"* e.g. investors not responding to perceived opportunities, or financiers eschewing lending into a 'growth' sector - justifying government intervention.

• *The related question of the impact of special incentives on investment.* To what extent did it increase or advance investment or merely increase the attractiveness of investment that would have in any case occurred? As discussed earlier, the evidence here is mixed, but at least up to the mid-1980s there appeared to be strong enough demand and supply signals to stimulate investment, albeit against a background of unsatisfactory returns e.g. BERL (October 1984, p9). The incentives might have had an impact on the size, location and timing of particular projects. For example, initially the minimum room size was 200 possibly resulting in larger capacity increments than might otherwise have been the case.

• *Were incentives necessary because hotel investment is fundamentally high-risk, or because of the competitive effects of incentives offered in other countries?* The latter was not given a lot of emphasis in the published arguments for incentives in the 1980s, which tended to emphasise high capital costs, interest rate levels, risks and initial low returns.

• *What was the significance of the general impact of financial deregulation on investment relative to the specific impact of incentives?* There seemed to be some parallels with the surge into bricks and mortar generally,

especially office buildings, during the mid- to late 1980s. Growth in hotel and motel building activity during the 1980s was marked, but not as strong as in commercial property. Hotel investment in real terms peaked in 1987/88 at a level 130% higher than in 1983/84. Investment in "commercial" building peaked at 180% of the 1983/84 level.

Some evidence suggests that market fundamentals were forgotten in hotels and office accommodation, with borrowers driven by prospects of capital gains and lenders by efforts to expand assets and increase market share. In the initial years of the building surge i.e. around 1983/84 there were grounds for optimism in both cases - hotel occupancy rates were rising on the back of international and domestic travel growth; office demand was buoyed by rapid growth in service sectors especially in the three main centres. Unfortunately, in both cases supply expansion continued long after initial demand surges had waned. This is reflected in occupancy rates and room rates, for example as tracked by Ernst and Young in their hotel surveys, and documented in more detail in the accommodation section.

In recent years, several commentaries on New Zealand tourism investment have alluded to the role of incentives in attracting international capital. Some have argued that depreciation regimes and other assistance from government, comparable with that provided in some other countries, would tip the scales in favour of investment in New Zealand. While such incentives might enhance the balance of reward against risk for new investors, and thus attract more overseas capital into New Zealand tourism investment, some objections can be raised to this line of argument.

First, the attractiveness of any industry to international investors reflects a wide range of considerations including social, political and macroeconomic "fundamentals". Cross country comparisons of industry specific incentives might not properly reflect all these factors. Second, if getting the country's "fundamentals" moving in the right direction is not sufficient to attract investment, then the problem must lie with returns in the tourism industry either in comparison with tourism in other countries, or in other activities. The question may

then become, is tax the issue, or the perceived risks and rewards attached to tourism versus those in other industries? If so, should tourism receive more favourable tax treatment than other industries in New Zealand, and why? Third, as long as tourism plant is in oversupply, and hotels are selling at well below replacement cost, why should investors be encouraged to establish new plant - unless the quality or location of the existing stock is totally mismatched with prospective demand? Fourth, if incentives were effective in adding to the supply of tourism infrastructure, what would be the impact on average returns to existing investors?

While the arguments on both sides are more complex than indicated here, there are reasons on grounds of past experience, allocative efficiency and equity (as between investors) for questioning the likely efficacy of incentives.

5. CURRENT ISSUES IN TOURISM INVESTMENT

5.1 Overview

Although investment in labour, physical capital and marketing is necessary for growth in the long-term, it does not guarantee it. As per Grimmond (1989) one of the major constraints on New Zealand's economic performance may have been fixed investment which has been poorly targeted rather than demonstrably insufficient. As with any specialised or durable investment, the prime need is to weigh risks against rewards, and at the aggregate level to avoid large scale inefficiencies in investment. This can arise from individual investments which are large or involve high sunk costs but are not financially viable, because of timing or misjudgement of the market.[12] In worst cases, asset values drop to below commencing cost and may continue to decline until a second or third owner purchases them at a low enough level for the business to be viable. Losses are borne individually by investors/creditors and collectively by the community to the extent that financial investment returns are damaged and opportunities to generate added value are lost.

Late in 1991 the NZTB issued a preliminary assessment of future investment needs based on a target of 3 million visitors by the year 2000. The context of this was the drive for foreign investment in tourism by industry leaders and others in 1992.[13] The Board has calculated that to achieve this visitor growth, new capital investment

12 Sunk costs are costs incurred which are not recoverable e.g. associated with specialised plant which has no alternative uses and for which there is no meaningful second-hand market.

13 Refer for example NZTB (1992) *Invitation to Invest in New Zealand Tourism.*

of about $6 billion (in 1992 dollars) will be required between mid-1993 and the year 2000 for transport, accommodation and other tourism facilities.[14] This was the aggregate of $2.4 billion for accommodation, $2.1 billion for transport, $1 billion for airports, and $0.5 billion for development of tourism attractions.

5.2 Price, volume and quality responses

Underlying these estimates is the presumption that current infrastructure is or could become a major constraint on international visitor growth. We examine this presumption in the light of various scenarios as to visitor numbers and investment. An important point here is that under the definition of tourism and tourism investment adopted, it is not only international visitor numbers that count but also growth in domestic travel - both recreational and business. Hence, we need to be aware of the distinct factors driving the various facets of domestic tourism as well as the differences between expenditure patterns and how they might change.

Much of the analysis in this context has focussed on physical capacity and capacity utilisation, i.e.volume concepts, but values are equally if not more important. This is because the value of any asset should reflect the discounted value of future profits earned on that asset, in turn dependent on average yields and capacity utilisation. Likewise overall returns on investment will be heavily influenced by trends in asset values as well as current profits. Given these linkages (albeit loose) between capacity utilisation and asset values, the distinction between nominal and effective capacity is important. For example, the possibility needs to be allowed for that some facilities, while adding to physical capacity, are uneconomic because of their location, age or condition. Although the extent of this economic obsolescence is very difficult to gauge, it needs to be allowed for in interpreting capital stocks estimates.

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14 NZTB (June 1993) *Tourism in New Zealand - Strategy and Progress.*

The other side of this coin is the need to distinguish between capacity utilisation as measured by occupancy/usage rates, say, and financial returns. Clearly nominal capacity utilisation if achieved by heavy discounting for much of the year, indicates excess economic capacity. Adequate returns to investors require both capacity utilisation and real yields to be above certain minima, and for these levels to be maintained for a sufficient period each year. Seasonality, a problem for much of the tourism industry, raises similar issues. Annual averages of capacity utilisation can be misleading if they disguise periods when individual enterprises are short of capacity, combined with perhaps longer periods when there is clearly excess capacity and owners/industries are making losses and suffering cashflow problems.

One source of weakness in this and other analyses is the absence of demand information in the economic sense of the term i.e. a price/consumption relationship. Projections of visitor numbers or expenditure tend to be in isolation from explicit assumptions about relative price trends or elasticities. By default, it tends to be assumed that tourism capacity needs to be adjusted in line with growth in these proxies, and little attention is paid to the revenue and investment implications of alternative price responses. Demand elasticity (the responsiveness of demand to changes in relative prices) price differentiation according to quality, and the efficiency of price signals, are fundamental to appropriate investment decisions. It should also be remembered that much of the tourism industry, particularly parts dealing with inbound tourism, are having to make pricing decisions well in advance of the service being performed. Particularly coming out of a period of heavy discounting, as has been the situation in some sectors, this can delay signals of market firming, and add to uncertainty about future price trends and investment requirements.

5.3 Distributional effects of increased tourism capacity

We need to consider the incentives and risks in investment from various viewpoints. From the *social viewpoint* we are interested in allocative efficiency of investment, whatever the industry i.e.

economic benefit cost ratios, over a number of years.[15] In a country such as New Zealand, with a history of perpetual current account deficits, there is naturally an interest in exploiting overseas market possibilities as fully as possible. However, given that by definition the current account deficit is the excess of aggregate national savings over investment, increased foreign exchange earnings, from tourism or any other activity, will not necessarily have any sustained impact on the current account deficit.

Increased tourism may lead to increased profits and hence additions to retained earnings, taxation revenue, and household incomes, but aggregate net savings increments are hard to gauge, depending on investment trends in tourism and other industries. According to Forsyth and Dwyer (1991) the ultimate current account impact of increased foreign tourism is indeterminate. This is because desired savings and investment in the economy remain much the same, the real exchange rate rises to achieve this outcome, imports rise and non-tourism exports fall.[16] This is not an argument against increased foreign tourism, but points out that increased foreign exchange earnings is not an end in itself. If volumes can only be achieved in the absence of returns comparable with those of other industries, this raises fundamental questions about present capacity and competitiveness, and the ability to maintain competitiveness in the future.[17]

From the *private* viewpoint of enterprises in the tourism industry, volume growth in the industry may be the dominant objective - certainly considerable research emphasis has been on growth potential, and promotion focuses on absolute numbers of tourists.

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15 Incorporating the interests of the community as a whole - consumers, producers, taxpayers etc

16 The real exchange rate would be P/EP^* where the exchange rate E is expressed in units of domestic currency per unit of foreign currency, P^* is the foreign price level, and P is the local price level.

17 The "profitless volume" syndrome referred to by Sir Frank Moore, Chairman of the Australian Tourism Industry Association, at the South Pacific Tourism Summit, Auckland, December 1992.

Investment efficiency and profitability have only recently started to get the same attention. This is partly a matter of how management objectives are set. If they are purely volume driven, this may lead to inappropriate pricing and investment decisions, leading to the 'profitless growth' syndrome at the macro level. More focus on financial returns can give rise to conflicting incentives. The short-term view may be to minimise new investment and aim to expand revenue but with deteriorating plant. Alternatively, management might decide to upgrade plant and aim for the premium end of the market, and command prices sufficient to make the new investment viable.

Existing investors have different interests again. Those with existing commitments to tourism infrastructure will benefit from developments, either in markets or complementary infrastructure which increase their revenue and profitability. However they are likely to be threatened by competing investment which dilutes their financial prospects. *Consumers* on the other hand, whether domestic or foreign visitors, will benefit from increased competition - likely to increase choice and hold down real prices of tourism goods and services in any given quality range. The section on foreign investment examines some of the possible balances between these benefits and costs.

5.4 Conditions for tourism investment

The foregoing section has touched on issues such as what defines a capacity constraint; possible market responses; and the role and sources of price information. This leads into the practical question of the investment implications of, say, international inbound visitor numbers suddenly accelerating from recent growth of about 10% per annum to double that rate? To an important extent this depends on the mix of visitors, their spending patterns, and critically their average length of stay. It also depends on the seasonal distribution of the visits and assumptions about how sustained the growth surge will be. Broadly speaking though, the increased visitor numbers will result in additional:

- inbound and outbound airliner loadings;

- persons and probably flight numbers being processed through gateway airports;

- internal transport requirements;

- use of accommodation and other facilities such as tourism attractions and natural amenities;

- loads on public infrastructure such as roads.

Clearly if there were no domestic response at all and visitor numbers continued to grow rapidly there would be severe congestion, particularly in peak periods, which would damage the destination's image and longer term growth potential. In practice there will be various responses - either in terms of supply, or price and other forms of rationing which will preclude severe congestion. These responses will vary across the three types of infrastructure. However, they are to an extent interrelated because most visitors would be using more than one type of infrastructure in order to complete their travel intentions. Issues for the individual investment categories are:

Accommodation This is characterised by lumpy, specialised investment and relatively slow response rates, taking into account, planning, funding, permits and construction. However the construction period will vary widely depending on the size of capacity increments and the type of accommodation e.g a backpacker hostel might be created from an existing building, whereas a five-star hotel might take 18-24 months to complete.

What conditions are necessary for new investment to be undertaken? Probably some minimum average occupancy rate in the immediate locality which if achieved in the new hotel would accord with some minimum profitability level within a given period. There is an issue here of price elasticities i.e. given a shortage of accommodation and some increment in accommodation rates how sensitive will be usage and will this be reflected in shorter stays, for example, or moves to

cheaper accommodation? Alternatively are progressive tariff structures effective in moving demand off peak without reducing average length of stay in accommodation of that quality?

Transport infrastructure including planes, airport facilities, buses, trains, can also be relatively slow to commission, but this is not necessarily the first option given a rapid change in utilisation. For example more intensive use can be made of vehicle fleets by increasing the frequency of service. Alternatively, plant can be leased from other suppliers given sufficient capacity generally. Trans-Tasman aviation deregulation may well have a critical impact both on the role of, and growth pressures on, "gate-way" airports in New Zealand, and the aviation industry's ability to respond to rising visitor numbers. Again, the potential role of the price mechanism as a rationing device cannot be ignored.

Tourism attractions are even more heterogenous than the other two forms of infrastructure involving:

- some man-made developments intended to run at a profit;

- public amenities such as museums or art galleries where entry is either free or only partly covers costs; and

- natural attractions such as walking tracks - increasingly subject to quota limitations.

Although the capacity of man-made attractions can be added to either by expanding existing attractions or establishing new ones the capacity of natural attractions and their surrounding localities is inelastic both in the short and long-terms, and there is little that can be done by way of investment to change that. Price rationing may have a role but it may be hard to strike a balance between efficiency and equity in setting charges.[18]

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18 For a detailed discussion of the issues refer, for example, to Clough, Peter (1993) *Economic Instruments and Visitor Services on the Public Estate*, Ministry of Tourism, Wellington.

Particularly for natural attractions, capacity and capacity utilisation becomes a social issue as well as an economic issue, and one of resource management subject to government regulation. These issues have been increasingly prominent in tourism research, see for example NZTP Growth Series (1989/1), NZTD (1991), and PATA (1992). The second of these, surveyed 50 attractions and activities with the aim of identifying the nature and extent of pressures likely to emerge with substantial visitor growth. Main findings were that capacity problems are concentrated in summer months, and some mitigation can be found in improved facilities and visitor management practices. There are cases, however, where threats to plants and wildlife are more prominent, or where visitor density above certain levels can spoil the experience. Some of these are already facing "capacity" and "sustainability" problems in peak months, and require ongoing monitoring, as well as careful planning for growth.

Before considering prospects for each of the main investment types in greater detail, we consider:

- The role of foreign investment,

- Some of the difficulties facing medium to longer term projections of tourism and in interpreting their implications for investment.

5.5 Foreign investment in tourism

Foreign investors already play a significant role in New Zealand's tourism infrastructure, and can be expected to have a major influence on how the industry develops in the future. Bodies such as the Foreign Direct Investment Advisory Group (FDIAG), Ministry of Foreign Affairs and Trade, Tradenz and NZTB are facilitating or actively promoting New Zealand as a foreign investment destination. This will undoubtedly impinge on tourism investment. In this section we examine the theoretical implications of foreign investment in tourism, and draw conclusions in the context of opportunities for and constraints on tourism investment in toto. Much of the following is

based on Dwyer and Forsyth (1992) written in the context of foreign investment in Australian tourism.

In general, the motivation for and impacts of foreign investment can be examined from product market or financial perspectives. Bollard (1989) suggested five motivations for foreign investment - to secure local resources, to service local markets, to obtain cheaper labour than elsewhere, to service trade, and to invest in real estate for income and capital gains. From the viewpoint of the investment destination, the benefits and costs mainly depend on whether the investment is additional to what would have occurred in the absence of foreign investment, and the impact on tourism expenditure. Forsyth and Dwyer suggest that benefits and costs can be grouped into three categories.

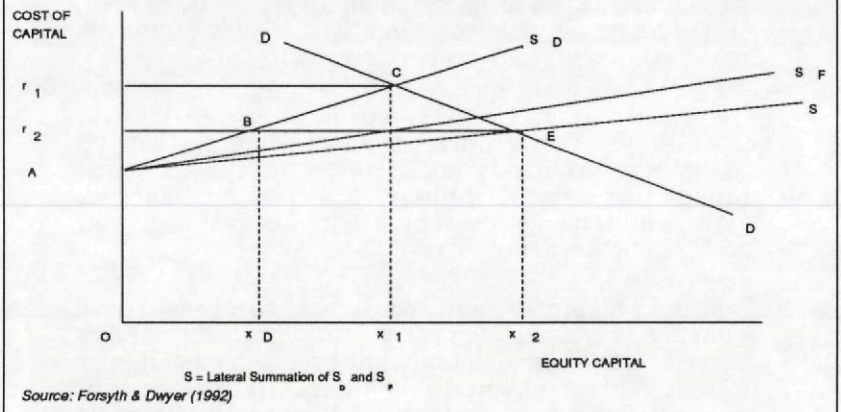
> **Direct externalities.** These are effects that foreign investment brings which would not have been present otherwise. For example, where technology transfer leads to improved production of local firms, or marketing techniques used by the foreign investors lead to better marketing by local firms, externalities would be present. Also foreign investment could have environmental impacts different from local investments.
>
> **The indirect impact on the economy through tourism expenditures.** Foreign investment can lead to changed expenditure on goods and services in the economy, through increasing total visitor flows and expenditures, and where it changes the source of inputs used (e.g. from local production to imports).
>
> **Impacts on profits and consumer surplus in the economy.** Foreign investment can affect the profits enjoyed by local firms, by providing more competition or possibly replacing them. In the process, it may result in lower prices for domestic tourists. When market power is extended or weakened, the profitability of local producers will be changed.

In this context it is likely to be the second and third of these which generate the major benefits and costs.

Increased visitor flows and expenditure on goods and services would be postulated as a consequence of foreign investment if the latter enhanced the competitiveness of the destination. This might be because it resulted in lower prices (for a given quality) of tourism product, an improved range of facilities, or better marketing and distribution. Note that both international and domestic tourism might be boosted by these changes in competitiveness.

Assuming that foreign investors have no advantage in purchasing inputs, reduced prices would need to depend on financial aspects of foreign investment. If foreign investors are prepared to accept a lower expected rate of return, for a given profile of returns and level of risks, they force prices down. As compared to a situation of no foreign investment, there will be additional capacity, resulting in falling rates e.g. for rooms, airline tickets etc.

Figure 5.1: Foreign Equity, Impacts on Investment and Cost of Capital



Source: Forsyth & Dwyer (1992)

"Without foreign investment, the supply of equity funds is shown as S_D and the demand for them is D (for simplicity assume no loan fund are used). Equilibrium is at C - the cost of capital is r_1, and investment equals x_1. The foreign supply of equity funds is shown as S_F - when

foreign investment is present, the overall supply of funds shifts to S. The new equilibrium is E, with a lower cost of capital r_2, and greater level of investment, x_2. Local suppliers of equity will lose - this surplus will fall from A C r_1 to A B r_2. They will be crowded out by foreign investors, and reduce the investment from Ox_1 to Ox_D. Consumers will gain; prices will be sufficient to yield returns on capital of r_2, not r_1. If all tourists are foreign, there will be a net cost to the economy from this effect, since local producers will make less profits, and the only gainers will be foreign tourists. (However, there will be gains from increased tourism expenditure.) Where there are domestic tourists as well, some of the gains in lower tourism prices will accrue to residents of the host country: on balance the country could gain or lose. With the expansion of the tourism industry, owners of resources needed, such as land near beaches, will gain from the increase in prices of these resources.

Profits and prices to consumers would be affected if it is assumed that foreign investment results in increased supply of equity capital. For a given demand schedule for equity capital (see line DD in the chart) the result will be a fall in the average costs of capital (required rate of return) and an increase in total investment in the industry. Prices to tourists will drop, and returns to existing i.e. domestic investors will also fall, possibly crowding them out completely. The latter depends partly on the response to lower prices in terms of visitor numbers and expenditure. In general however, local suppliers of equity will lose, and consumers will gain.

According to Forsyth and Dwyer, again in the context of the costs and benefits of foreign investment in tourism:

> "For a country such as Australia, with substantial domestic use of its tourism industry, the losses faced by investors are likely to be made up by gains made by domestic tourists. However, for a small countries which rely heavily on foreign tourism, and which rely heavily on foreign tourism, foreign investment will impose a net cost, since local investors will lose, and few domestic tourists will gain. This will need to be compared to the gains achieved from increased tourism expenditure."

This is a simple model based on comparative statics, and dynamic (i.e. ongoing) efficiency effects may be more important. In principle, the results are no different to those that could result from foreign investment in any industry. However, the result do serve as a reminder that while foreign investment has the potential to generate significant net economic benefits, distributional effects, some negative for current investors, may be involved.

5.6 Tourism projections and interpretation

Tourism has attracted considerable research effort - not least that concerned with forecasting tourist numbers over various timeframes. These forecast can be based on fairly complex models including macroeconomic variables such as international economic growth, trends in real incomes, demographics, relative prices and international cost competitiveness. Alternatively, they can be simple projections assuming some growth rate or rates based on past experience. This is the approach adopted in this research. Key assumptions are:

- International visitor growth of about 8% per annum, similar to average growth over the last decade. The outcome is about 2 million visitors by the year 2000. (Detailed analyses of visitor numbers are set out in Section 6 and Appendix 1.)

- A continued but gradual decline in average length of stay, partly reflecting increased Asian tourism. The upside of this might be more repeat visits.

- Daily spending per international visitor remaining steady at the estimated 1982/83 level in constant price terms.

- A gradual recovery in domestic visitor nights and expenditure.

- A gradual upward trend in the proportions of New Zealand consumption spending devoted to domestic and overseas travel.

This research is primarily concerned with the opportunities for and constraints on tourism investment. While we need some projections to

put the analysis in context, we do wish to emphasise forecasting method, nor any particular set of future outcomes. However we do need to point out of the pitfalls of making long-term investment decisions on the basis of forecasts of potentially volatile variables. We can cite examples from past research of forecasts (say of visitor numbers) that have been overly optimistic, and others that have been too conservative. The point is that even if forecasts of such broad variables came with cast-iron guarantees of accuracy, this still would provide no solid basis for predicting financial outcomes for tourism investments. Some of the questions arising from a forecast time series, for example of international inbound visitor numbers, are:

- What are possible error margins in annual visitor numbers and the indicated growth trend?

- How might average duration of visits alter through time?

- What will be the trend in the real value of spending per capita and per day?

- What are possible variations in the pattern of spending as between accommodation, transport, events, etc?

- Will the geographical pattern of travel and spending within New Zealand change much over the forecast period and why?

- Is a marked change in seasonal patterns of visitor numbers likely?

These refinements of broader forecasts have been given greater emphasis by researchers in recent years, and are being factored into individual project appraisals. However, acknowledgement of the issues and attempts to measure them cannot remove the high degree of uncertainty involved. For example, such changes as the single trans-Tasman aviation market, or increased emphasis on joint destination marketing, could have marked impacts on the various tourism localities and amenities in New Zealand - some positive and some negative.

Likewise, rapid income growth in Asia, associated with economic and political liberalisation, creates major potential cohorts of international visitors to New Zealand. It also creates vastly heightened competition for the international travel dollar, as interest in those countries widens and accessibility improves with investment in infrastructure. Certainly strong enough overall growth in tourist numbers and spending would compensate for some of the negatives, but it is inevitable that growth rates will fluctuate widely within a ten year period.

The conclusion for current or potential investors is to build in adequate margins to allow for variance between forecast and outcomes, and the intrinsically loose linkages between broad indicators, such as visitor numbers, and spending in the specific markets faced by particular tourism enterprises or sectors. Ideally the approach to any investment decisions might be to establish baseline projections for visitor numbers and expenditure, then generate alternative scenarios based on:

- Past experience with variability in numbers,

- Various assumptions about average length of stay,

- Various assumptions about average daily expenditure,

- Permutations of the geographical distribution of visitor numbers within New Zealand.

There are many other permutations which could be imposed on such projections, but these would add to complexity without any additional assurance about the likelihood of particular outcomes. The main point is to give proper allowance for the potential variability in year to year expenditure, even given some level of confidence in the medium term trend in visitor numbers.

6. INVESTMENT PROSPECTS

6.1 Background

Analysis of investment prospects needs to reflect the lessons and legacies of previous experience, as well as the theoretical case for investment strategy on the one hand or a laissez-affaire approach on the other.

Experience was that tax incentives to encourage the building of four and five star accommodation in the 1980s had a significant impact i.e. more of this class of hotel than would otherwise have occurred. It had the dual effect of increasing capacity to attract certain classes of tourist to particular centres, at the same time increasing financial exposure to a shortfall in that type of tourist i.e. the overall market or New Zealand's ability to compete for that type of tourist. Risks were taken on behalf of taxpayers and financial costs borne by individual investors and creditors. Financial benefits were enjoyed by construction and associated industries and by local and overseas consumers able to take advantage of discounted prices for quality facilities. Had the investment response been more muted or visitor numbers been stronger the penalties and rewards would have been distributed differently.

In contrast to accommodation, the dominant influences on transport were deregulation and public sector reform. As in the case of accommodation, developments and decisions affecting transport in the 1980s are having ongoing impacts in the 1990s. Specifically these changes were:

- Transport deregulation, principally from 1983.

• Restructuring of Air New Zealand in 1982/83 and subsequent privatisation in 1989.

• Deregulation of domestic aviation, with the entry of a second carrier Ansett New Zealand in July 1987.

• Corporatisation and sale of airport companies over the period 1986 to 1991.

• Corporatisation of part of the Civil Aviation Division of the Ministry of Transport in April 1987 to form Airways Corporation, responsible for air traffic control systems, telecommunications, and airport fire and rescue services.

• Granting of a number of landing and on-flying rights to foreign carriers in 1989.

• Privatisation of Air New Zealand and initial steps in deregulation of trans-Tasman aviation.

These changes involved a reduction in the role of government and devolution of aviation related issues through a changed and less centralised institutional structure. The general effect in both land and air transport was to increase capacity and choice on domestic routes through added competition or contestability; a similar impact on inbound and outbound international traffic; and through more modern and larger airport facilities, increased capacity to process airline passengers.

While there was considerable research into tourism growth and impacts in the 1980s, cooperation between the various branches of the industry in terms of marketing effort, and adoption of some common projections of tourism numbers, there was no overarching strategy in terms of tourism investment i.e. common to accommodation, transport and tourism attractions. In accommodation government intervention was significant, with a major bearing on the timing, quality and location of hotels, and thus with many of the effects that would be associated with a formal strategy.

By the late 1980s, attitudes to intervention of this sort were tending to reflect the general change in the policy environment since the mid-1980s. For example, the Taskforce 2000 report to the Minister in 1989 stated that "... for the medium-term future the priority for the Government and the industry should be to provide an attractive climate into which investment will flow without the necessity for supply-side incentives." Since that time there has been an increasing interest in the possibility of more active approaches to tourism investment, partly as a reaction to the rapid waning of investment activity since the late 1980s.

In considering investment prospects our major premise is that investment decisions will be dominated by recent past experience, tourism growth expectations, the private risk/reward parameters of individual investors, and the competitive conditions in each of the sub-sectors. In general, this points to a slower and later investment response than might be seen as desirable from a tourism industry perspective. From this perspective, the main priority is to avoid bottlenecks anywhere in the distribution, transport or amenities chain which might adversely affect visitor numbers. Theory tells us that there is a significant risk of market failure in tourism investment (i.e. either too much or too little) because of such factors as high sunk costs, associated with investment in tourism specific and durable investment goods, and high levels of uncertainty about demand outcomes, particularly at the localised level. Our proposition is that this will tend to give a downward bias to aggregate investment in the early part of the forecast period, albeit partly because oversupply and low yields of the 1988-1993 period will have an important bearing on investment decisions in that period. With the passage of time, that experience and its balance sheet effects will have a fading impact on decisions - current demand and yield experience will have an increasing bearing.

6.2 Accommodation investment prospects

6.2.1 Introduction

The analysis in this publication necessitated a number of simplifying assumptions, for example about the relationship between visitor growth and the viability of new accommodation. The projections should be assessed in the light of these assumptions, and should be regarded as indicative only.

Our objective here is to establish a reasonably robust basis in historical trends for forecasting what investment might be required in the future given expected growth in visitor numbers, changing average length of stay, and other market trends. An important part of this exercise is learning from recent history about the factors which might cause outcomes to diverge from forecast requirements. The data and analysis in this section was prepared by Ernst and Young's Tourism and Leisure Consulting Group.

As demand increases, additional accommodation is usually provided to ensure that "bottlenecks" do not occur, and that tourists and other accommodation users are not turned away, either from particular locations, or New Zealand as a whole. In past years these facilities have often been provided despite the unwillingness of users to pay prices which provide a reasonable return to investors. Frequently the commissioning of new accommodation has not been matched by increased demand. The result has been "boom and bust" scenarios in many New Zealand tourism centres, with accommodation owners and operators finding that their profitability expectations have not been met. Accordingly they have been unable to support their businesses through the difficult establishment period experienced with most accommodation development.

Recently, many hotels in New Zealand have been on the market for prices well below current replacement cost. Investment in new accommodation has virtually disappeared in the last three years, with the exception of a few hotel extensions, and a small number of motel developments. However, after a lull in the late 1980s, demand for

accommodation facilities in New Zealand is again increasing as our tourism industry matures and the country becomes more popular as a tourist destination. The NZTB has brought a new thrust to the marketing of the country by both the public and private sectors, and is more specifically targeting its efforts in marketing and investment of resources than was the case with its predecessors. In 1993 many tourist locations reported strong demand for accommodation, even through the traditionally quieter winter months.

The challenge for the accommodation sector is to provide the right number of rooms in the right locations, with a cost structure which allows efficient operators to earn a reasonable return on investment. The industry in New Zealand has some way to go before this is achieved. Fortunately the opportunities to ensure a successful and profitable industry are better now than for a number of years. In this section we examine the current supply of accommodation facilities, with a particular emphasis on hotel accommodation in New Zealand's main tourism locations. We also project future hotel accommodation requirements in those centres through to the year 2005 based on current travel patterns.

6.2.2 Growth in visitor numbers

The increase in leisure time and the relative decline in the cost of international travel has made tourism the world's fastest growing industry. The Asia/Pacific region is enjoying the greatest growth in the world with 40% of revenue passenger miles expected to be into this region by the year 2025, compared with about 20% at present. New Zealand is expected to share in this growth with predictions of arrivals varying between 2-3 million visitors by the year 2000. Throughout the 1980s, New Zealand's international visitor arrivals grew at an average rate of 8%, which was more than twice the world average. The growth was strong until 1986, after which there was a relative slow-down in the rate of visitor growth. There are now clear signs that moderately strong growth has returned, with total international arrivals in the twelve months to December 1993 up about 10%.

Any projection of growth in international visitors is subject to significant risk of error because so many factors can have a dramatic effect in a relatively short time. In 1991 the New Zealand Tourism Department produced a forecast of nearly 2 million arrivals by the year 2000. Its successor, the NZTB, has set a target of 3 million. While the 2 million forecast may be achievable with investment in the necessary plant funded partly from New Zealand sources, the target of 3 million may be difficult to reach without significant foreign investment. In the table we indicate the annual visitor numbers and growth rates implicit in NZTB's forecast and target.

Table 6.1 Projected International Visitor Growth - All Ages (000's) New Zealand

Years to 31 December	NZTD 2m Forecast 000's	% Increase	NZTB 3m Target 000's	% Increase
1990 Actual	976		975	
1991 Actual	963	(1.3)	963	(1.3)
1992 Actual	1,056	9.6	1,056	9.6
1993	1,127	6.7	1,221	15.7
1994	1,209	7.3	1,414	15.8
1995	1,302	7.7	1,638	15.8
1996	1,406	8.0	1,841	12.4
1997	1,519	8.0	2,069	12.4
1998	1,640	8.0	2,326	12.4
1999	1,771	8.0	2,612	12.3
2000	1,911	8.0	2,934	12.3

(Sources:NZTD NZ International Visitor Arrival Forecasts, Final Report, June 1991
NZTB: Tourism in New Zealand: A Strategy for Growth, November 1991)

Actual arrivals in 1992 at 1.1 million slightly exceeded the original forecast made in 1991, and, provided projected growth is maintained, the total will reach 1.9 million by the year 2000. The compounding growth rate required to meet the 3 million target is 50% above the rate achieved in the past decade. While New Zealand has achieved annual growth rates in excess of the required level, we believe that the

maintenance of this growth throughout the decade will prove difficult. The number of visitors arriving for holidays is expected to grow at double the rate for the other main sectors. Our analysis of current visitor numbers by reason for visit, together with the expected numbers and growth rates for the 2 million forecast and 3 million target follows in the table.

Table 6.2 Projected International Visits by Main Reason for Visit - all ages (000's)

Total New Zealand Years ended 31 December	Actual 1992	2 Million Forecast 2000	Growth No	Growth %	3 Million Target 2000	Growth No	Growth %
Main Reason for Visit							
Holiday	509	1,006	497	98	1,762	1,253	246
Visit Friends/Relatives	291	405	114	39	596	305	105
Business	151	227	76	50	299	148	98
Other	105	272	167	159	277	172	164
Total	1,056	1,911	855	81	2,934	1,878	178

(Source: Ernst & Young/NZTB)

We believe that the two million visitor forecast for the year 2000 is realistic given the growth in the international visitor industry world-wide and the NZTB's efforts in promotion.

In 1993 the overall rate of growth was in line with forecast, although there are some variations evident between the various international origin markets, with particularly strong growth evident from the smaller Asian markets of Taiwan, Korea, and Singapore, and continuing softness from the larger North American markets. A regional analysis of current international visits and detailed projections by source, reason for visit, and regional distribution in New Zealand, is set out in Appendix 1.

6.2.3 Domestic travel

Domestic travel comprises by far the largest part of the New Zealand travel industry, with NZTB analysis indicating that approximately 63% of all tourism spending in the 1991/92 year was generated by domestic visitors. Until the 1992/93 year there had been little or no growth for a period of three years, preceded by two years of decline. We now believe that modest growth is returning to domestic travel. This is reflected in improving occupancy rates in many parts of the accommodation sector together with improving load factors for airlines and transport operators.

In our view this growth is the result of such factors as:

- a general mood of optimism about economic growth, particularly in the business sector,

- an improvement in disposable income in some sectors such as farming,

- lower prices in the tourism industry because of discounting and increasing competition,

- extensive regional promotion.

In the next table we show the actual number of domestic trips from 1987 to 1990 (based on the NZ Tourism Department Domestic Travel Studies). We then estimate the number of trips which have occurred since then and will occur up to 2005. (Note that no Domestic Travel Studies have been conducted since 1990).

Our projection of growth in domestic visits assumes that the rate of growth will continue to increase until 1995, after which we expect that the following growth rates will be sustainable:

Main Reason for Trip	Annual Growth in Number of Trips (1995 onwards)
Holiday	3.9%
Visit Friends/Relatives	3.0%
Business	1.0%
Other	1.0%

(Source: Ernst & Young)

Domestic visitor statistics available from the NZTB indicate a national average length of stay of approximately 4 days. In our forecasts we

Table 6.3 Projected Domestic Visits - 15 years and over (000's) New Zealand

Years ended 31 December	No. of Trips	Growth 000's	Growth %
1987 Actual	11,750		
1988 Actual	10,818	(932)	(7.9)
1989 Actual	10,257	(561)	(5.2)
1990 Actual	10,340	83	0.8
1991 Estimated	10,340	-	-
1992 Estimated	10,444	104	1.0
1993	10,606	162	1.5
1994	10,801	195	1.8
1995	11,050	249	2.3
1996	11,305	255	2.3
1997	11,567	262	2.3
1998	11,837	270	2.3
1999	12,113	276	2.3
2000	12,398	285	2.3
2001	12,690	292	2.4
2002	12,989	299	2.4
2003	13,297	308	2.4
2004	13,614	317	2.4
2005	13,939	325	2.4

(Source: NZTD Domestic Travel Studies/Ernst & Young)

use this as a base, but allow for a reduction in the average length of stay to 3.9 days by December 2005. This reflects the fact that improved air services permit an increasing proportion of business visitors to return home sooner rather than stay away an extra night. We have also allowed for a higher proportion of shorter holiday breaks in our projections. The outcome of the number of domestic trips within New Zealand and the average length of stay is the total number of domestic visitor nights spent away from home, as summarised in the table overleaf.

Table 6.4 Projected Number of Domestic Visitor-nights - 15 years and over (000's) Total New Zealand

	Year Ended December		Cumulative Increase	
	1992	2005	(000's)	%
Main reason for visit				
Holiday	15,290	19,582	4,292	28
Visit Friends/Relatives	15,092	21,841	6,749	45
Business	5,043	5,039	(4)	-
Other	6,440	7,293	853	13
Total - New Zealand	41,865	53,755	11,890	28

(Source: Ernst & Young)

Regional analysis of current domestic visits, and detailed projections of domestic visitors by reason for visit and regional distribution, are set out in Appendix 1.

6.2.4 Hotel inventory

(For the purposes of our analysis, we define an accommodation establishment as an hotel if it provides food and beverage facilities.)

Table 6.5 Analysis of New Zealand Hotel Supply By Location

Centre	No. of Hotels	No. of Hotel Rooms	% of total New Zealand	Average No. of Rooms
Auckland	66	4,775	18.4	72
Rotorua	19	1,300	5.0	68
Taupo	13	379	1.5	29
Wellington	21	2,016	7.8	96
Christchurch	37	2,439	9.4	66
Queenstown	18	1,434	5.5	80
Dunedin	14	696	2.7	50
Total main centres	**188**	**13,039**	**50.1**	**69**
Bay of Islands	12	462	1.8	38
Hamilton	10	398	1.5	40
Napier	9	217	0.8	24
Palmerston North	12	464	1.8	39
Nelson	9	281	1.1	31
Te Anau	5	309	1.2	62
Invercargill	4	192	0.7	48
Total other centres	**61**	**2,323**	**8.9**	**38**
Other hotels	**661**	**10,638**	**41.0**	**16**
Total New Zealand	**910**	**26,000**	**100.0**	**29**

(Source: AA Accommodation Directories / Ernst & Young)

There are currently approximately 26,000 hotel rooms in 910 hotel establishments throughout New Zealand. Approximately 65% of these rooms have private facilities (i.e. bathroom and toilet facilities) and are generally referred to as 3 to 5 star rooms. Approximately 50% are located in seven main "tourism" centres in New Zealand, as detailed above.

Auckland and Christchurch are the main tourist gateways to New Zealand with approximately 75% of international visitors arriving through Auckland. Queenstown and Rotorua are the two main "resorts" in New Zealand.

6.2.5 Hotel standards

Although there is currently no grading system for hotel rooms in New Zealand, one does exist for motels. However, plans for a comprehensive accommodation system are currently being developed by the NZTB in association with the New Zealand Automobile Association. It is likely that some form of hotel grading will be implemented in New Zealand by 1995. In the absence of such a system, we have not attempted to make a detailed analysis of the hotel inventory by grade. However, in the main centres identified, our analysis indicates that there are approximately the following numbers of rooms in leading hotels.

Table 6.6 Analysis of Main Centre Hotels "Leading" Hotels

	No. of Hotels	No. of Rooms	Average No. of Rooms
Premium quality	2	618	309
Superior quality	4	1,144	286
Good quality	14	2,361	169
Leading tourist hotels	20	4,123	206
Other main centre hotels	168	8,916	53
Total main centres	188	13,039	69

(Source: Ernst & Young)

Generally, the hotel inventory in New Zealand is of a sufficient standard to support the current demands of hotel guests. However, hotel profitability over the past decade has been comparatively low,

with the result that major maintenance and refurbishment expenditure has been deferred at many properties.

There is growing evidence, however, that a number of properties have now commenced refurbishment programmes. Our research indicates that 20 hotels throughout the country are currently or have recently undertaken significant refurbishments.

A significant proportion of hotels in other centres currently require refurbishment to ensure that they continue to meet acceptable standards in the medium term. Such investment will, we believe, be dependent on improved profitability. Prospects for improvement in profitability are better now than at any time in the past ten years because:

- there were significant increases in hotel occupancies in many centres in 1993,

- with the exception of one in Queenstown, no major new hotels are expected to open this year or next year,

- no major extensions to existing hotels are taking place in the next two years,

- room yields are improving, albeit faster in some regions than others,

- continuing growth is expected in international visitor arrivals over the balance of the 1990s,

- marketing efforts, aimed at lifting shoulder season and low season activity has increased,

- improved financial management and marketing skills are being applied in the industry.

A frequently used accepted benchmark in the hotel industry is that hotel owners should put cash, equivalent to 3% of annual revenue,

Table 6.7 Analysis of New Zealand Motel Supply (excluding Motor Lodges) By Location

	No. of Motels	No. of Motel Units	Average No. of Units
Auckland (Metropolitan)	102	1,817	18
Rotorua	68	925	14
Taupo	34	441	13
Wellington (excl Hutt)	24	493	21
Christchurch	77	958	12
Queenstown	22	354	16
Dunedin	27	295	11
Total - Main Centre Motels	**354**	**5,283**	**15**
Other Centres (estimated)	**946**	**10,317**	**11**
Total - New Zealand (estimated)	**1,300**	**15,600**	**12**

(Sources: AA Accommodation Directories / Jasons Travel Publications / Ernst & Young)

into a separate fund for major refurbishment of the hotel. Our experience has shown that annual revenue has not increased sufficiently to ensure that the provision of 3% is adequate, particularly when refurbishment is postponed. In our view the hotel refurbishment policy should be determined by the level of wear and tear, the standard of the hotel, its location, the hotel's style, the mix of sales outlets, the local cost of refurbishment and the quality of new competition.

6.2.6 Motel inventory

(For the purposes of our analysis we have classified motels providing food and beverage facilities as hotels, and excluded the estimated number of motor lodges from the total).

There is currently no fully comprehensive database of motel establishments in New Zealand, although we understand that the Jasons Motel and Motor Lodge Guide covers approximately 95% of the establishments. The table summarises the number of motels and motel units in the main "tourism" centres in New Zealand.

Approximately 66% of motel units are located outside the main tourism centres, compared with 50% of hotel rooms. An increasing proportion of motels are believed to be owned on a freehold basis by the motel operators. Many are part of national or international referral chains.

Occupancy levels in many motels, especially those with good standards, are believed to have shown moderate or marked improvement over the 1992/93 season. This should have contributed to improved profitability after several years of poor results which has resulted in many motel businesses being put on the market for sale.

Although there are many modern motels furnished and managed to a high standard there is a significant proportion of motels which are now outdated and which we suspect do not have sufficient financial resources to permit the necessary refurbishment.

6.2.7 Past trends - hotel supply, demand and occupancy

There is currently no definitive listing of hotels in New Zealand. Until 1988, the former New Zealand Tourist and Publicity Department (NZTP) did compile an annual listing, based on accommodation establishments which were licensed to sell liquor. The NZTP definition of hotel accommodation is consistent with that used in this report. This was based on returns that have not been required since licensing laws were changed.

The total number of rooms in New Zealand, analysed between Grade I (private facilities) and other rooms from 1983 to 1988 is shown below.

Table 6.8 Hotel and Room Inventory - Grade I and other - 1983 - 1988
Total New Zealand

Year ended March	Number of Hotels			Number of Rooms		
	Grade I	Other	Total	Grade I	Other	Total
1983	191	649	840	11,461	8,116	19,577
1984	196	641	837	11,937	7,994	19,931
1985	204	645	849	12,558	8,264	20,822
1986	211	646	857	13,231	8,307	21,538
1987	222	644	866	13,783	8,334	22,117
1988	244	662	906	15,253	8,821	24,074

(Source: NZTP/Ernst & Young Hotel Survey)

In 1988 the average Grade I hotel had 63 rooms, compared to the overall average of 27 rooms. (Other hotels had an average of only 13 rooms).

In our detailed analysis of hotel rooms we have considered only Grade I rooms, as these are the hotels principally providing accommodation to the visitor industry.

Table 6.9 Hotel and room inventory - Grade I - 1989 - 1993
Total New Zealand

	Number of Hotels	Number of Rooms	Average Number of Rooms
1989	248	15,996	65
1990	249	16,380	66
1991	250	16,645	67
1992	251	16,892	67
1993	252	16,912	67

(Source: Ernst & Young)

The latest addition was the Millbrook Resort and Country Club at Arrowtown which has 20 condominium suites available.

The Ernst & Young Hotel Survey has provided detailed analysis of the hotel industry in New Zealand since 1982 and now covers approximately 55-60% of the Grade I hotel rooms in New Zealand. It is the source of data in the next table. This provides information on average occupancies achieved in the period 1988-92, as well as average house profits and room rates. (Note that the analysis covers a range of balance dates up to June in each year, with the exception of 1987, which is up to December).

This analysis shows that between 1987 and 1992 the financial performance of New Zealand hotels suffered dramatically from the combined effects of:

Table 6.10 Analysis of hotel performance New Zealand Hotels

Year	Average Occupancy %	% Change	Average Room Yield $	% Change	% of Total Revenue	Average House Profit $ per room	% Change
1987	63.9		94.87		21.4	10,199	
1988/89	55.5	-13.1	107.01	+12.8	18.7	8,718	-16.4
1989/90	55.4	-0.2	107.56	+0.5	17.5	8,217	-5.7
1990/91	54.6	-1.4	108.89	+1.2	16.7	7,751	-5.7
1991/92	55.1	+0.9	104.52	-4.0	16.1	7,050	-9.0

(Source: Ernst & Young Hotel Surveys)

- increases in room supply,
- reductions in occupancy levels,
- overall only marginal increases in nominal room yields (and decline in 1991/92),

• pressure for higher standards of service which prevented any significant reductions in cost structures,

• overseas competition.

As a result, the underlying asset values of New Zealand hotels fell.

Auckland hotels

The supply of Auckland Grade I hotel rooms increased from 2,599 in 1983 to 3,962 in 1992, an increase of 52% over the period. The most recent additions were the Centra (247 rooms in mid-1991) and the Pan Pacific (265 rooms in mid-1990). The Waipuna Hotel also opened a 134 room extension in 1990.

Table 6.11 Analysis of hotel performance Auckland

	No. of Grade I Rooms	Average Occupancy %	Average Room Yield $	Average House Profit % of total revenue	Average House Profit $ per Room
1987	3,299	75.6	109.88	N/A	N/A
1988/89	3,316	74.3	123.95	25.7	15,585
1989/90	3,450	75.9	132.19	20.7	13,022
1990/91	3,715	65.6	141.17	19.9	11,256
1991/92	3,962	60.7	131.20	17.0	8,719

(Source: Ernst & Young Hotel Surveys)

With Auckland hotels accounting for almost 20% of New Zealand's hotel rooms, and a higher proportion of Grade I hotel rooms, the dramatic reduction in the profitability of Auckland hotels was the major contributor to the overall reduction in New Zealand hotel profitability.

Rotorua hotels

Grade I hotel rooms in Rotorua increased from 762 in 1983 to 1,264 in 1992, an increase of 66% over the period. A significant feature of the Rotorua accommodation market is the comparatively high number of motel units. A number of the newer motels provide significant competition to the mid-range hotels, and we understand, achieved relatively high levels of occupancy, over the 1992/93 high visitor season.

Table 6.12 Analysis of hotel performance Rotorua

	No. of Grade I Rooms	Average Occupancy %	Average Room Yield $	Average House Profit % of total revenue	Average House Profit $ per Room
1987	1,154	61.8	85.47	N/A	N/A
1988/89	1,264	55.6	91.44	17.3	8,557
1989/90	1,264	52.3	90.56	15.1	6,359
1990/91	1,264	52.7	85.46	15.1	6,359
1991/92	1,264	55.7	90.88	11.8	4,949

(Source: Ernst & Young Hotel Surveys)

Wellington hotels

The supply of Wellington City Grade I hotel rooms increased from 1,146 in 1983 to 2025 in 1993, an increase of 77%. The most significant recent additions have been the Wellington Parkroyal (240 rooms in 1989), and the Portland Towers (114 rooms in 1988). The 200 room Plaza International Hotel, which opened in 1987, has also had a significant impact on the performance of the Wellington hotel market, as it opened at the time of the sharemarket "crash", which had a major impact on business travel in New Zealand, and particularly for Wellington.

The Plaza's subsequent receivership and sale, at a reportedly high discount to construction cost, have had a dampening influence on the performance of the Wellington hotel industry. However, we believe that this hotel's financial difficulties are now past, and the performance of other major Wellington hotels is significantly improved.

Table 6.13 Analysis of hotel performance Wellington

	No. of Grade I Rooms	Average Occupancy %	Average Room Yield $	Average House Profit % of total revenue	Average House Profit $ per Room
1987	1,471	68.3	108.59	N/A	N/A
1988/89	1,671	52.2	136.91	25.2	10,031
1989/90	1,785	53.8	128.27	30.4	13,469
1990/91	2,025	50.0	130.96	18.4	8,899
1991/92	2,025	49.9	123.23	22.0	9,915

(Source: Ernst & Young Hotel Surveys)

Christchurch hotels

The supply of Grade I hotel rooms in Christchurch grew from 1050 in 1983 to 2,439 in 1992, an increase of 132% over the period. The most significant addition to the room supply was the Christchurch Parkroyal Hotel which opened in late 1988, adding 297 rooms to the market. As Christchurch's largest hotel it has had a major impact on the Christchurch hotel market. Other hotel additions include a 100 room extension to the Chateau Hotel in 1988, the Pavilions Motor Inn (114 rooms in 1988), and the Quality Inn (161 rooms in 1987).

Since the opening of this significant number of new rooms within the space of 18 months, the performance of the Christchurch hotel industry has shown gradual but consistent improvement.

Table 6.14 Analysis of hotel performance Christchurch

	No. of Grade I Rooms	Average Occupancy %	Average Room Yield $	Average House Profit % of total revenue	Average House Profit $ per Room
1987	1,963	65.4	90.33	N/A	N/A
1988/89	2,439	48.9	97.56	15.1	5,417
1980/90	2,439	50.2	98.36	17.1	6,689
1990/91	2,439	53.8	103.15	18.6	7,751
1991/92	2,439	55.8	102.18	18.7	7,863

(Source: Ernst & Young Hotel Surveys)

Queenstown hotels

Between 1983 and 1992 the supply of Grade I Queenstown hotel rooms increased from 644 to 1,434, an increase of 123%.

As a result of hotel accommodation shortages in the early 1980s, and Government tax incentives to encourage new hotel development, a surplus of new rooms became available, particularly in 1987 and 1988. This, combined with the effects of the global sharemarket "crash" resulted in significant drops in average occupancy and room yield in Queenstown hotels. Whilst occupancy levels have since recovered, it was only in the 1993 year that reasonable improvements in average room yield began to emerge. This should result in a further significant improvement in Queenstown hotel profitability.

Table 6.15 Analysis of hotel performance Queenstown

	No. of Grade I Rooms	Average Occupancy %	Average Room Yield $	Average House Profit % of total revenue	Average House Profit $ per Room
1987	907	57.9	105.57	N/A	N/A
1988/89	1,284	48.5	92.07	13.4	3,598
1989/90	1,434	55.0	89.68	16.4	4,569
1990/91	1,434	58.3	92.11	22.6	6,759
1991/92	1,434	59.5	87.22	25.8	8,528

(Source: Ernst & Young Hotel Surveys)

We have not provided an analysis of the performance of hotels in Dunedin and Taupo because of the small number of hotels from these centres involved in our survey, and in order to protect the confidentiality of the information supplied.

6.2.8 Hotel requirements in New Zealand's main tourism centres

In this section we set out scenarios for hotel investment based on a standard set of assumptions and parameters. These projections should be treated as indicative of possible outcomes - not recommendations as to the rate, type or location of investment.

Our analysis of new hotel room requirements is based on our projections of increased visitor-nights in New Zealand's main tourism centres. The principal assumption is that international visitor growth with average 8% per annum. We have also taken into account:

- existing utilisation levels (i.e. room occupancies)

- existing average room densities (i.e. guests per room)

- existing patterns of accommodation preference in each location, analysed by nationality and main reason for visit.

We have assumed that the proportions of each visitor type (by nationality) will continue to use hotels in the same proportions as currently. This proportion may in fact change as a result of:

- a significant change in the profile (or sub market segment) of visitors from our markets,

- lack of available facilities resulting in substitution for other accommodation types,

- the provision of new accommodation facilities in particular locations causing a significant change in accommodation preferences (more likely in smaller centres).

In calculating the requirement for new hotel rooms we have not specifically allowed for the completion of existing hotel development proposals. Rather, we have calculated the time at which we believe new rooms must become available if the location is not to lose market share.

Auckland hotel room demand, supply and occupancy
Rooms available
Rooms occupied
Occupancy rate
Room nights per annum
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Occupancy rate
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
Year ending December

In doing so we have assumed that all existing hotel accommodation (with the exception of Wellington hotels) first reaches an average occupancy of 75%. At this level the effects of seasonal fluctuations in occupancy will usually mean that many hotels are fully utilised for some periods during the year. We also expect that this level of utilisation should result in significant improvements in profitability in most hotels. On this basis, it is very much more likely that hotel investment capital will be available than is the case in the present less profitable environment.

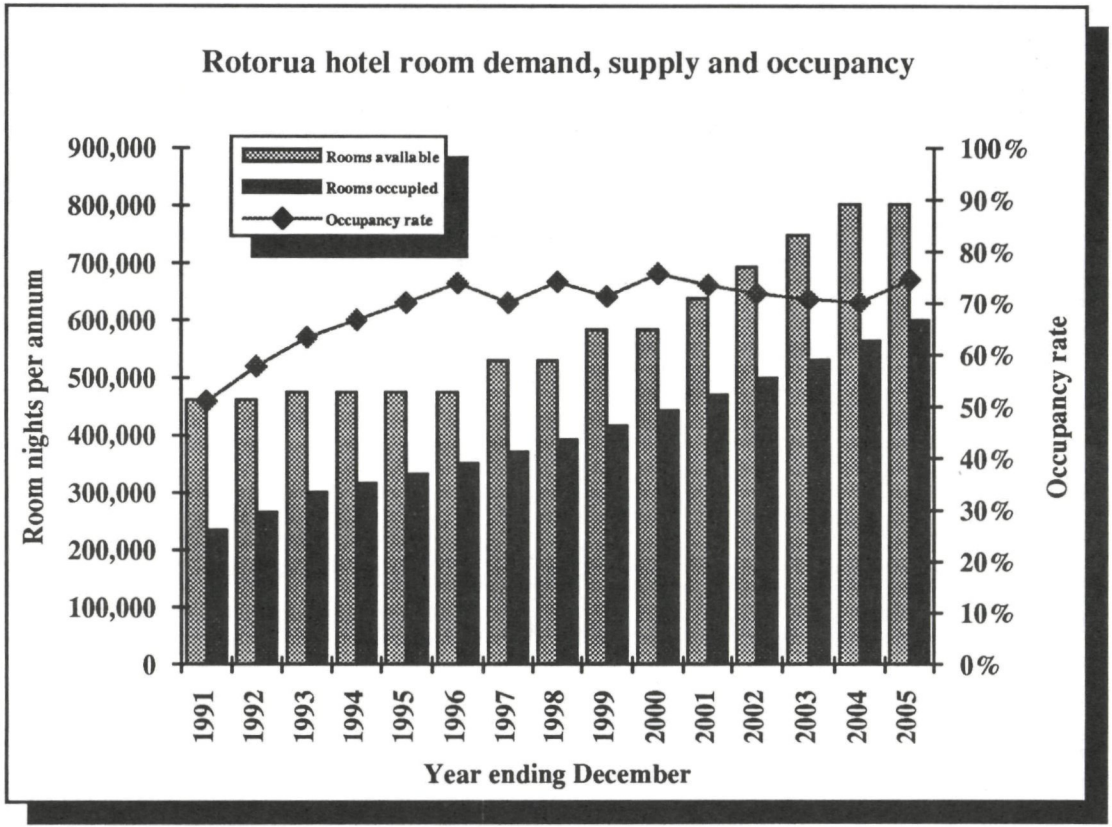
In Wellington, we have allowed for new hotel rooms when the existing establishments reach the lower trigger point of 70%. This takes into account the particular requirements of Wellington where weekend occupancy is generally low.

We comment briefly on the hotel requirements of each main centre in the following sections

Auckland Metropolitan

Table 6.16 New hotel rooms required by 2005 Auckland Metropolitan Area

Year ended	No. of new rooms	% increase
1996	200	4.2
1997	250	5.0
1998	300	5.7
1999	350	6.3
2000	400	6.8
2001	400	6.3
2002	450	6.7
2003	500	7.0
2004	500	6.5
2005	550	6.7
Total	3,900	


Rotorua hotel room demand, supply and occupancy
Rooms available
Rooms occupied
Occupancy rate
Room nights per annum
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Occupancy rate
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
Year ending December

Our research indicates that, at present, approximately 20% of international and 12% of domestic visitor-nights in Auckland are spent in hotel accommodation. Changes in the mix of visitors in Auckland will change these overall proportions to 23% and 10% respectively by 2005, based on the assumptions used in our analysis. Based on an existing average room density (or number of guests per hotel room) of 1.4, and an average occupancy of 63% in 1992, additional rooms will first be required in Auckland in 1996.

This represents a 31% increase on the current room supply by December 2000, and a cumulative increase of 86.1% by 2005. On the basis of an average hotel construction cost of $225,000 per room, the total investment required over the ten years 1996-2006 is about $900 million. The combined effect of room supply, demand and occupancy is demonstrated in the chart.

Rotorua

At present approximately 38% of international and 11% of domestic visitor nights in Rotorua are spent in hotels. These proportions are projected to increase to 40% and 12% respectively by 2005 as a result of the changing mix of visitors. Based on a current room density of 1.6 and an average occupancy of 58%, we calculate the first new hotel rooms will be required in Rotorua in 1997.

This represents a 23% increase in the existing room supply by December 2000, and a 79% increase by 2005. On the basis of an average hotel construction cost of $175,000 per room, the total investment required is $160 million.

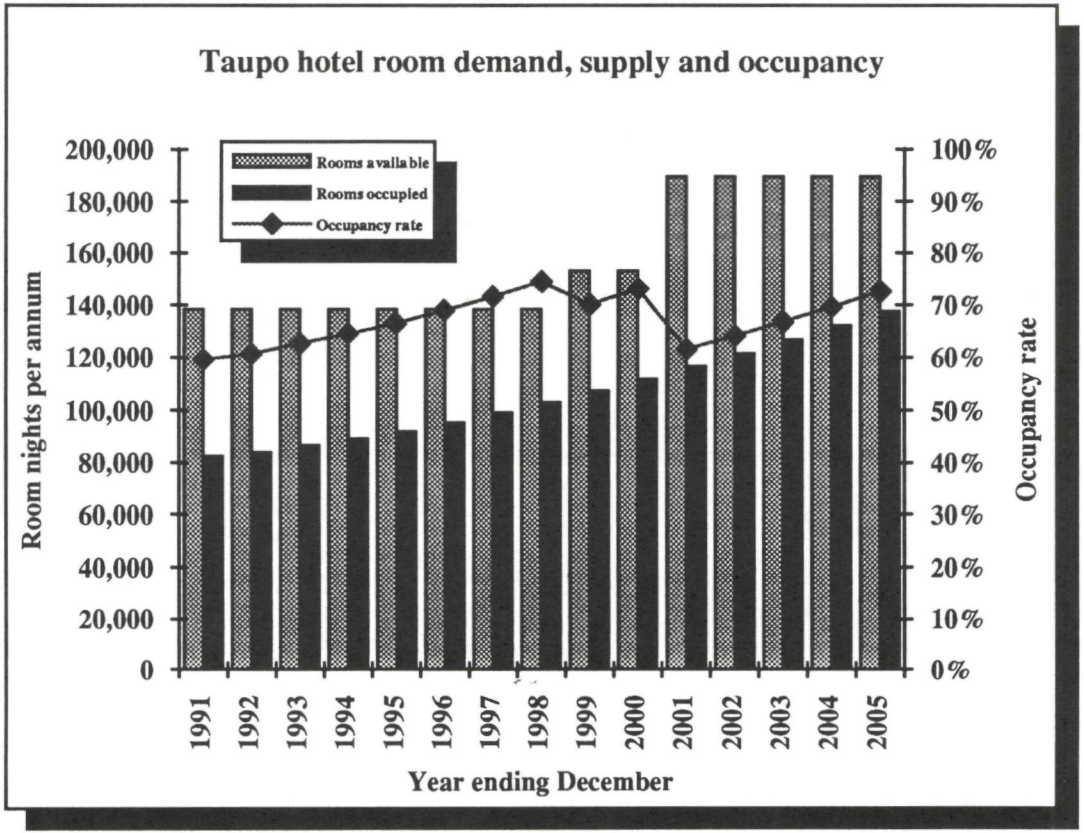
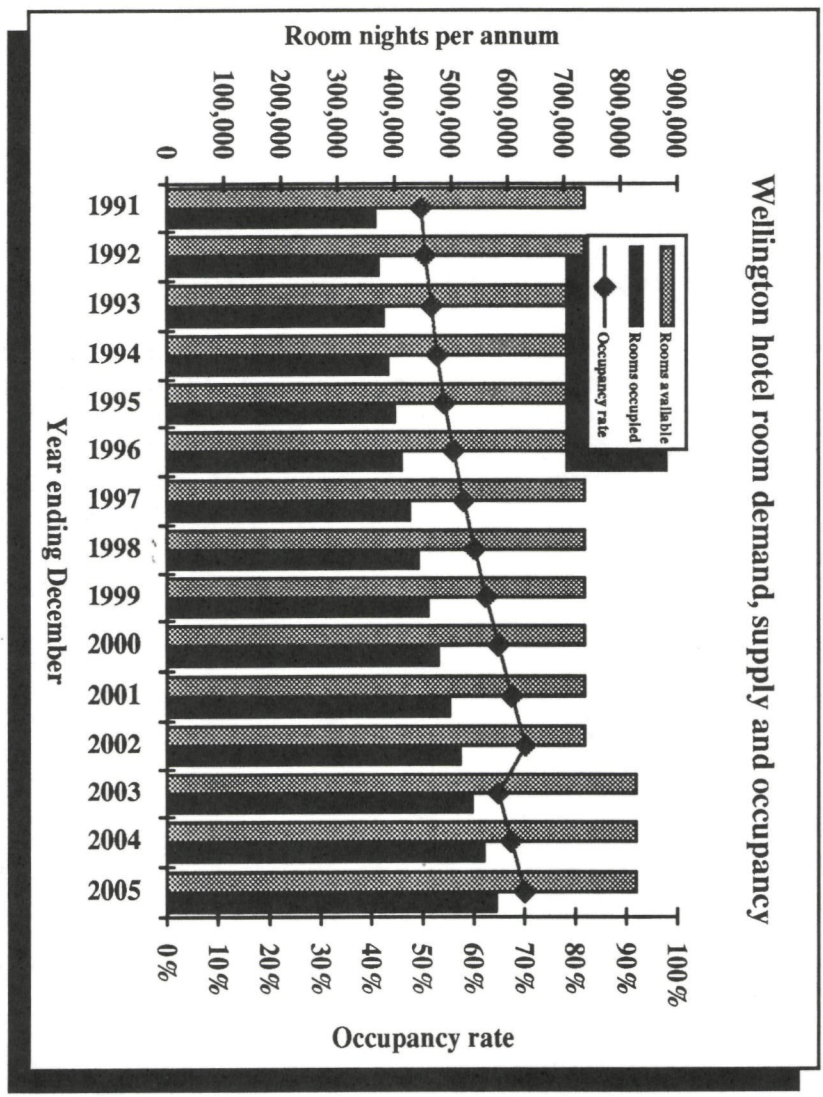

Taupo hotel room demand, supply and occupancy
Rooms available
Rooms occupied
Occupancy rate
Room nights per annum
Occupancy rate
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
Year ending December

Table 6.17 New hotel room requirements by 2005 Rotorua		
Year ended December	No. of new rooms	% increase
1997	150	11.5
1998	-	-
1999	150	10.3
2000	-	-
2001	150	9.4
2002	150	8.6
2003	150	7.9
2004	150	7.3
2005	-	-
Total	900	

Taupo

Our research indicates that approximately 19% of international and 8% of domestic visitor nights in Taupo are currently spent in hotels. These ratios are projected to reduce to 17% and 7.6% respectively because of our forecast change in the mix of visitors to Taupo by 2005. In 1992, there was a room density of 1.50 in Taupo hotels, and an average occupancy rate in the year of 61%.

Due to the relatively small size of the hotel market in Taupo, any significant increase in hotel room supply will have a marked impact on the occupancy of all hotels in the market. We have therefore allowed only 40 rooms (opening in 1999) as the first new hotel rooms, on the basis of an extension to the Wairakei Resort Hotel which has recently been announced by the hotel owners. This represents an 11% increase on the current room supply.


Wellington hotel room demand, supply and occupancy
Room nights per annum
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
Rooms available
Rooms occupied
Occupancy rate
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
Year ending December
100 %
90 %
80 %
70 %
60 %
50 %
40 %
30 %
20 %
10 %
0 %
Occupancy rate

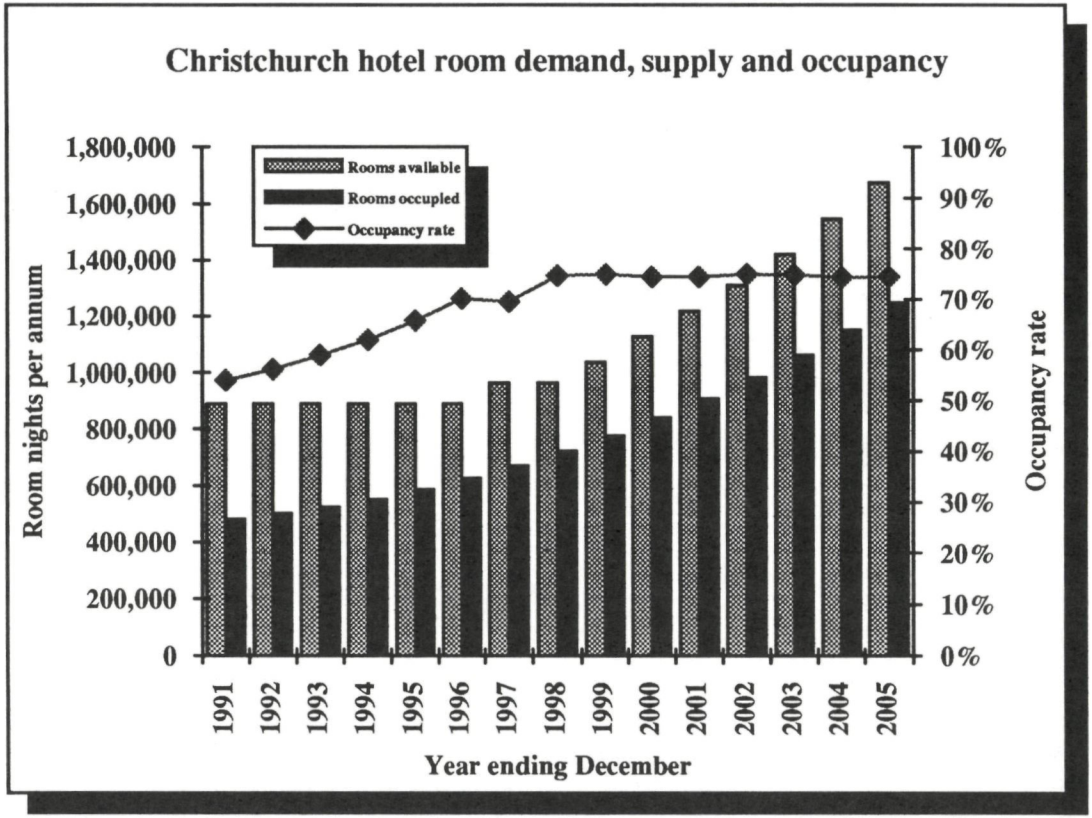
A further 100 room hotel is required in 2001, resulting in a cumulative room increase of 37%. The total investment required would be $21 million, based on an average hotel construction cost of $150,000 per room.

Wellington

Wellington currently attracts 8% of international visitor-nights but a lower share of international holiday visitor-nights (only 5.4% of the total). However, approximately 12.3% of international "business" visitor-nights are spent in the Capital city. This situation is also reflected in the domestic visitor numbers, with 4% of domestic visitor-nights spent in Wellington. Only 2% of domestic "holiday" visitor-nights are spent in the capital, compared with 10% of "business" visitor-nights. Consequently, in our projections, hotel demand is not expected to rise significantly in Wellington, with 14% of international visitor-nights and 17% of domestic visitor-nights spent in hotels.

Our research indicates a current room density of 1.35 in Wellington hotels, reflecting the relatively high business usage, and an average occupancy of 51%. Wellington hotel occupancies are traditionally lower than in other main centres (on an annual basis) due to the Wellington hotels' high exposure to the business sector, which predominantly uses hotels for only four nights of the week. As some compensation, however, business travel is not subject to the seasonal fluctuations of holiday travel.

If, for example, a Wellington hotel achieved a 90% average occupancy for four nights of the week for 48 weeks of the year, and 20% average occupancy on all other nights, the average annual occupancy would be only 57%. Alternatively, in order to achieve a 70% average occupancy for the year a hotel would have to achieve 95% occupancy for four nights every week for 48 weeks of the year, and an average 42% occupancy for all other nights. On this basis, we have used a lower "trigger point" of 70% occupancy for Wellington hotels. If all existing Wellington hotels were to fill to 70%, a new hotel would not be required until 2003. This hotel (250 rooms) would represent a 12% increase in the room supply.


Christchurch hotel room demand, supply and occupancy
Rooms available
Rooms occupied
Occupancy rate
Room nights per annum
1,800,000
1,600,000
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Occupancy rate
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
Year ending December

Because of the unusual nature of the Wellington hotel market, it is often difficult to book international visitor groups into Wellington hotels during the week. Therefore, if Wellington is to attract a higher proportion of international holiday visitors, it is likely to require new hotel accommodation earlier, with hotels continuing to experience lower levels of occupancy than in other centres. Unless significantly higher average room rates are achieved than in other centres, this is likely to result in less profitable hotels in Wellington, unless lower cost structures are implemented.

An example of such a lower cost structure would be the "all suite" hotel, increasingly popular overseas, which provides a high standard of guest room facilities but comparatively limited food and beverage facilities and more modest public areas than in a full service hotel. There are currently at least three Wellington hotels operating on this basis, although they are not currently marketed as such, due to a general lack of understanding of the concept in New Zealand.

On the assumptions set out, if the hotel construction cost is $200,000 per room, the investment requirement is $50 million over the 10 year period.

Christchurch

Christchurch hotels are well positioned to benefit from increasing tourism activity and also a significant commercial base. Christchurch is becoming increasingly popular as a "gateway" to New Zealand through its expanding international air connections, and is also increasingly attractive as a destination in its own right.

Approximately 30% of international and 8% of domestic visitor-nights in Christchurch are spent in hotels. We project these ratios to change to 36% and 7% respectively by 2005 as a result of the changing mix of visitors.

On the basis of a room density of 1.6 in Christchurch hotels currently, and an average occupancy of 56% in the year to December 1992, we project that new hotel rooms will be required in Christchurch by 1997.

Queenstown hotel room demand, supply and occupancy
Rooms available
Rooms occupied
Occupancy rate
Room nights per annum
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
0
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Occupancy rate
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
Year ending December

By 2000, our projections show a requirement for 650 new hotel rooms in Christchurch, a 27% increase on the current room supply. By 2005, an additional 1,500 hotel rooms will be required (2,150 in total) representing a cumulative increase of 88% over the current supply.

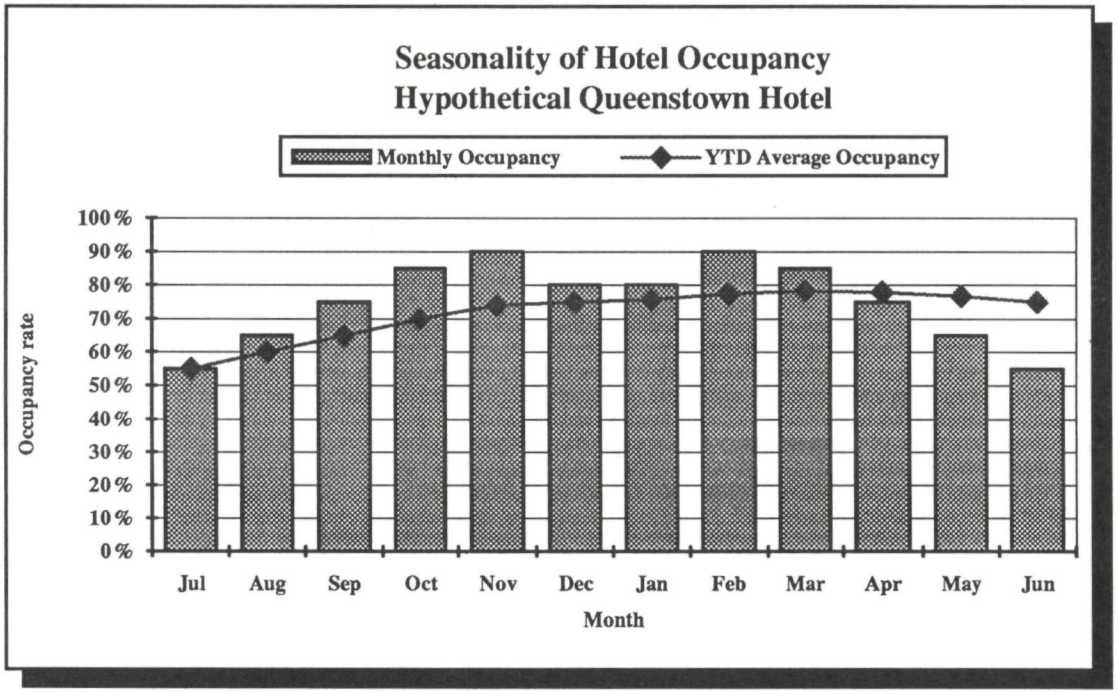
On the basis of an average hotel construction cost of $200,000 per room, the investment required in new hotels in Christchurch is $430 million over the period 1996-2005.

Table 6.18 New hotel room requirement by 2005 Christchurch

Year ended December	No. of new rooms	% increase
1997	200	8.2
1998	-	-
1999	200	7.6
2000	250	8.8
2001	250	8.1
2002	250	7.5
2003	300	8.4
2004	350	9.0
2005	350	8.3
	2,150	

Queenstown

Queenstown is the most dependent of New Zealand's main "tourism" centres on international and domestic holiday visitors. In particular, the utilisation and profitability of the resort's hotels are closely linked to changes in international visitor numbers. The hotels cannot easily "fill up" with other visitors during the off-peak holiday seasons to the extent that hotels in Auckland, Christchurch and even Rotorua can. Our projections of hotel requirements in all centres (other than Wellington) assume that all existing hotels will fill to an average occupancy level of 75% before new hotel accommodation is required.


Seasonality of Hotel Occupancy
Hypothetical Queenstown Hotel
Monthly Occupancy
YTD Average Occupancy
100 %
90 %
80 %
70 %
60 %
50 %
40 %
30 %
20 %
10 %
0 %
Occupancy rate
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Month

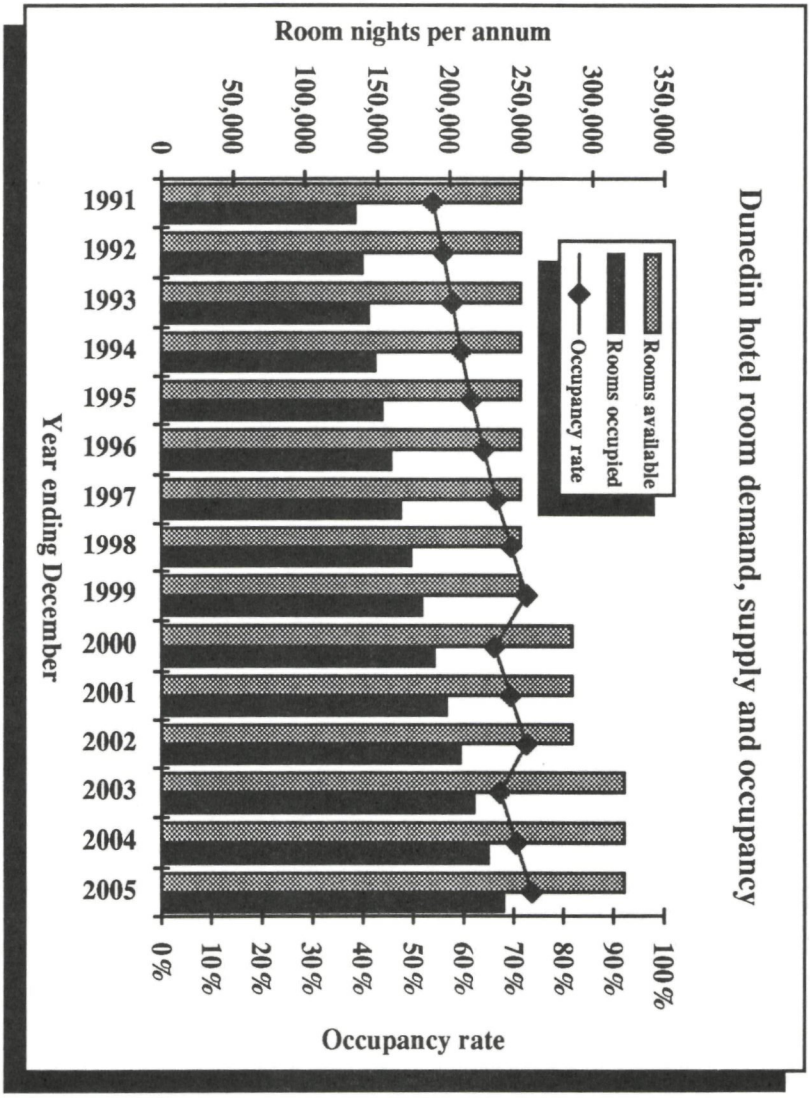
In a seasonal resort such as Queenstown, 75% occupancy will be a high target to achieve. An example of the effect of seasonal occupancy patterns on average annual occupancy is presented in the chart. This shows the monthly occupancies required to produce a 75% average annual occupancy.

Analysis indicates that, in the year to December 1992, average hotel occupancy in Queenstown was 63.0%, with an average room density of 1.75. On the basis of the high 75% "trigger point" our projections show a requirement for new hotel rooms in Queenstown in 1995. By 2000 the requirement is for 950 new rooms (a 66% increase on the current supply), and by 2005 a further 1,400 hotel rooms will be necessary, a cumulative increase in room supply of 164%.

New hotel room requirement by 2005
Queenstown

Year ended December	No. of new rooms	% increase
1995	150	10.5
1996	150	9.5
1997	150	8.7
1998	150	8.0
1999	150	7.4
2000	200	9.2
2001	200	8.4
2002	250	9.7
2003	300	10.6
2004	300	9.6
2005	350	10.2
	2,350	

On the basis of an average hotel construction cost of $200,000 per room, the investment required in Queenstown hotels is $470 million.


Dunedin hotel room demand, supply and occupancy
Room nights per annum
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
Rooms available
Rooms occupied
Occupancy rate
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
Year ending December
100 %
90 %
80 %
70 %
60 %
50 %
40 %
30 %
20 %
10 %
0 %
Occupancy rate

The effect of a reduced "trigger point" of 70% occupancy would be a requirement for 100 extra new rooms by 2000, and an extra 100 rooms by 2005, with the first rooms opening in 1994.

Dunedin

In the year to December 1992, Dunedin hotels achieved an estimated occupancy of 56%, with a room density of 1.5. Our research indicates that 23% of international and 11% of domestic visitor-nights are currently spent in Dunedin hotels, and that these proportions will change to 22% and 10% respectively by 2005 as a result in the projected change in mix of visitors to Dunedin.

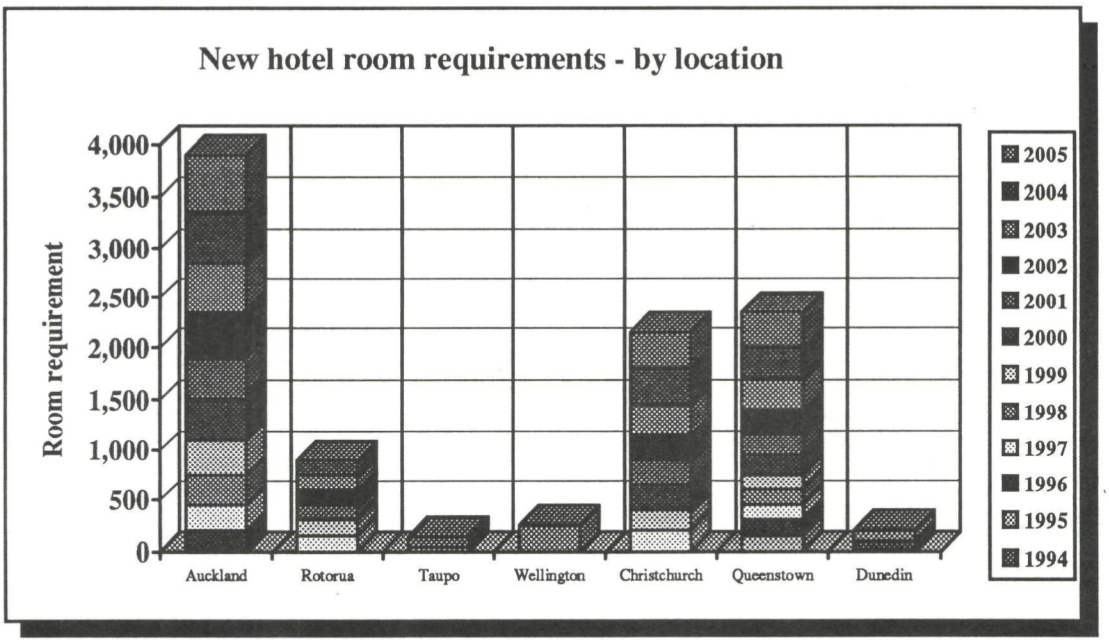
Calculations indicate that 100 new hotel rooms are required in Dunedin by 2000 (an increase of 15%) and a further 100 rooms by 2005, a cumulative increase of 29% of the current supply. This represents a $35m investment requirement on the basis of an average hotel construction cost of $175,000 per room.

6.2.9 Summary - main centre hotel investment requirements

Our analysis shows that the following requirement exists for new hotel rooms in New Zealand's main tourism centres, based on the assumptions outlined:

Table 6.20 New hotel room requirements
Main tourism centres

Year	Auck	Rot	Taupo	Wgtn	Chch	Qtown	Dun	Total
1995						150		150
1996	200					150		350
1997	250	150			200	150		750
1998	300					150		450
1999	350	150	40		200	150		890
2000	400				250	200	100	950
	1,500	300	40		650	950	100	3,540
2001	400	150	100		250	200		1,100
2002	450	150			250	250		1,100
2003	500	150		250	300	300	100	1,160
2004	500	150			350	300		1,300
2005	550				350	350		1,250
	2,400	600	100	250	1,500	1,400	100	6,350
Total	3,900	900	140	250	2,150	2,350	200	9,890


New hotel room requirements - by location
Room requirement
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Auckland
Rotorua
Taupo
Wellington
Christchurch
Queenstown
Dunedin
2005
2004
2003
2002
2001
2000
1999
1998
1997
1996
1995
1994

New hotel room requirements - by year
Number of rooms required per annum
1,600
1,400
1,200
1,000
800
600
400
200
0
Dunedin
Queenstown
Christchurch
Wellington
Taupo
Rotorua
Auckland
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
Year ending December

On the basis of the average cost per hotel room noted, the investment requirement is summarised as follows.

Table 6.21 New hotel investment requirements ($m) Main tourism centres

Year	Auck	Rot	Taupo	Wgtn	Chch	Qtown	Dun	Total
1995						30.00		30.00
1996	45.00					30.00		75.00
1997	56.25	26.25			40.00	30.00		152.50
1998	67.50					30.00		97.50
1999	78.75	26.25	6.00		40.00	30.00		181.00
2000	90.00				50.00	40.00	17.50	197.50
	337.50	52.50	6.00		130.00	190.00	17.50	733.50
2001	90.00	26.25	15.00		50.00	40.00		221.25
2002	101.25	26.25			50.00	50.00		227.50
2003	112.50	26.25		50.00	60.00	60.00	17.50	326.25
2004	112.50	26.25			70.00	60.00		268.75
2005	123.75				70.00	70.00		263.75
	540.00	105.00	15.00	50.00	300.00	280.00	17.50	1,307.50
Total	877.50	157.50	21.00	50.00	430.00	470.00	35.00	2,041.00

6.3 Transport investment prospects

6.3.1 Introduction

Transport infrastructure directly relevant to tourism includes air transport, airports, buses/coaches, rental cars/vans, and rail transport. These are components of wider industry classifications in the national accounts, and it is difficult to get direct measures of their economic contribution or of trends in or levels of capital investment. Some more disaggregated indicators can be found in the Annual Enterprise Survey but these are dated. Following are brief profiles of

each of the sub-sectors as a basis for consideration of investment prospects.

6.3.2 Air transport

Air transport comprises domestic services operating in New Zealand, and inbound and outbound international services. Air New Zealand and Ansett New Zealand are the country's largest domestic air service operators. Air New Zealand was restructured and sold in 1989.[19] Ansett New Zealand is a wholly-owned subsidiary of Ansett Transport industries in turn 50% owned by TNT Australia and News Corporation.

The investment environment has some parallels with that for accommodation but with the key difference that capacity in air transport is internationally mobile. Airlines may own aircraft, use finance leases to obtain other aircraft and ultimate ownership, or short-term operating leases to fill temporary capacity shortfalls. Conversely, and depending on international demand conditions, airlines here with excess capacity may lease out aircraft to foreign airlines. As at June 1993, Air New Zealand owned 10 aircraft and leased another 19.

International

Government policy objectives have been to extend deregulation of airways to international routes. In 1989, a number of landing and on-flying rights were granted to foreign airlines. One significant development over the next few years will be the opening up of trans-Tasman routes. On these routes third and fourth freedom air rights (the right to carry revenue traffic between Australia and New Zealand) are currently restricted to airlines designated by the Australian and New Zealand governments (Qantas, Ansett and Air New Zealand). Qantas and Air New Zealand have an agreement to share trans-Tasman capacity equally and third country carriers can

19 Air-New Zealand's ownership structure as at mid-1993 was Brierley Investments Limited (35.4%); Qantas (19.3%); Japan Airlines (5.0%); institutions and public (40.3%).

only carry passengers between Australia and New Zealand as part of long-haul operations. Most are also restricted under the terms of their respective bilaterals with Australia and New Zealand, as to the number of trans-Tasman flights they can operate. Currently there are six international airlines which operate scheduled passenger services on the trans-Tasman route.

Recent comment from IATA refer to some of the medium term difficulties facing air transport internationally including:[20]

- The impact of the Gulf War and world recession leading to aggregate losses of nearly $US12 billion in the three years 1990, 1991 and 1992, and further losses in 1993.[21]

- The problems of congestion in flight paths, landing slots and airports contrasting with overcapacity in air transport. "Between 1988 and 1992, traffic was up 22.1 per cent. But in the same period capacity was 33 percent higher."

- Commercial pressures towards industry concentration through mergers, alliances, cross-shareholdings and multinationalism - the conflicts between this and the existing bilateral system, and issues of sovereignty.

As pointed out in an airline survey in the Economist, although numbers travelling are starting to recover after the 1991 slump, and are projected to grow by around 6% per annum for the rest of the decade, there may still be pressures on yields.[22] This is because an increasing proportion of passengers are holidaymakers or visiting friends and relatives, mainly interested in "economy class" travel. Our region may be atypical in terms of the relative impact of these and

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20 White paper, December 1992.

21 Wellington Evening Post, April 23, 1993 "Excess Capacity Blamed for Airline Industry Losses". Comments by Director-General of IATA on 1992 results.

22 *Airlines* in the Economist, June 12th, 1993.

other pressures, but the differences are unlikely to be marked in the medium term.

It should be noted, however, that regional carrier Air New Zealand has been amongst the handful in the world that have been making profits, possibly because its capacity is not as far out of line with demand as for other companies.[23] In addition, demand prospects seem positive. According to McKay (1993) revenue passenger kilometres for inbound flights to New Zealand will grow faster than the number of passengers. This is because an increasing proportion of passengers is expected to be on long-haul routes (Japan, Taiwan, Hong Kong and Europe) and a decreasing proportion from Australia. Air New Zealand's international passenger capacity has continued to grow, and in 1992/93 was about 36% higher than in 1988/89. Passenger load factors, which had fallen for the preceding four years, recovered quite sharply in 1991/92 but then declined slightly in 1992/93. Appendix 2 sets out trends in Air New Zealand's international service capacity and utilisation, and passenger volume growth for all airlines servicing New Zealand.

Domestic

Air New Zealand's domestic airline operation is known as Air New Zealand National. The company also owns the Mount Cook Group which provides mainly tourist-oriented passenger services. Provincial routes are operated by Air Nelson and Eagle Airways (associate companies of Air New Zealand). Ansett's commuter operation which feeds the main trunk routes is run under the Tranzair brand.

Domestic aviation was deregulated in 1987 leading to the current duopoly on domestic trunk routes i.e. dominated by Air New Zealand National and Ansett New Zealand. These two concentrate on the main

23 Air New Zealand's 1992 Annual Report (p11) "Wide-ranging steps were taken during the year under review to improve the company's operational productivity. Closer alignment of capacity with forecast market demand led to the short-term leasing out of two B747-200 aircraft, and during the southern hemisphere winter, the leasing out of two B767-200 aircraft to northern hemisphere airlines."

Trans-Tasman Air Service Deregulation

Following are main points included in the Memorandum of understanding signed on August 1, 1992 by the Australian Minister for Transport and Communications and the New Zealand Minister of Transport.

- Multiple designation - From November 1, 1992, airlines other than Qantas and Air New Zealand can be designated to operate passenger services between Australia and New Zealand. The introduction of multiple designation will be phased in over two years. From November 1994, there will be no restrictions on route access between any international airports in Australasia for carriers of either country. Routes between non-international airports may also become available then, depending on agreement between the two countries on border control requirements.

- Beyond rights - There will be a staged increase in the beyond rights available to the airlines of both countries up to 1994. Air New Zealand is now operating services to Taipei and Bangkok via Brisbane.

- Domestic access - From 1994 (but possibly earlier) New Zealand carriers will gain access to to the Australian domestic market. New Zealand policy already allows up to 100 per cent foreign investment in New Zealand domestic airlines.

Source: Hon. W Rob Storey, Minister of Transport (1992)

trunk routes i.e. between Auckland, Wellington, Christchurch and Dunedin. Subsidiary companies operate the secondary links and commuter routes.

Commencement of New Zealand operations by Ansett in July 1987 initially added two Boeing 737s and two turbo-prop aircraft.[24] It coincided with the start of a sustained period of economic recession which affected both business travel and domestic travel by New Zealand residents. The combination of new plant and static or shrinking passenger loadings led to significant overcapacity, and initially significant real falls in fare prices. Ansett has absorbed six successive years of losses in building up market share. Appendix 3 shows load factors for domestic passenger services to 1990 and comparable data for Air New Zealand only.

The experience here since 1987, and in Australia since domestic airline deregulation there in 1991, suggests that there will scope for only gradual expansion of domestic airline capacity in the medium term. Although domestic leisure airtravel by New Zealanders will expand in the absence of sharp jumps in airfares, and internal transfers should also grow with increased international inbound travel, the growth will precede the investment rather than the other way around.

Summary - airline investment

Analysis of airline investment needs relevant to New Zealand tourism raise several definitional problems. Ultimately we are interested in net additions to carrying capacity that are going to be required by volume growth, and justifiable on commercial grounds. Undoubtedly capacity increases will be needed, but the ultimate financing and ownership of additional aircraft is subject to many uncertainties, including ownership and leasing decisions, and the range of carriers involved. For these purposes we have not attempted any detailed modelling of capacity utilisation, as in the accommodation section, but based on the foregoing assessment of possible investment increments on discussions with relevant operators.

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24 The Ansett New Zealand fleet now comprises nine BAE 146s and two turbo-props.

6.3.3 Airports

In the period since 1986, airports in New Zealand have been undergoing transformation from agencies of local authorities, to incorporated companies usually jointly owned by central government and the relevant local or regional council. Auckland and Christchurch airports became companies in 1988, and incorporation at Dunedin, Hamilton, Palmerston North, Wellington, Rotorua and Queenstown followed. The objects of incorporation were to:

- Provide managers with clear operating objectives, including returns on equity and assets employed.

- An improved framework for investment decisions.

The principal revenue sources for the airport companies are fees on aircraft movements, at rates dependent on the size of the aircraft, and airport taxes on passengers. On the basis of the current charging regime, revenue growth is thus contingent on trends in the number of flights and aircraft types using the airport. In turn decisions on new investment are dependent on projections of such indicators.

Most airport companies have undertaken significant net investment since incorporation, and ongoing investment in aggregate of $75 to $100 million annually is scheduled in the medium term. Generally this is a continuous programme, but tends to be lumpy. Several are having to plan for substantial expansion some time in the next ten years e.g. for new or extended runways or terminal facilities. Auckland International Airport Limited, for example, bases its investment programme on a long term plan, and the relationship between actual demand outcomes, and the broad assumptions underlying the plan. With respect to terminal facilities, investment increments might vary from extensions to existing terminals (one costing $25 million was recently completed) to much larger extensions, or even an additional terminal. When this or a second runway will be necessary is difficult to guess, bearing in mind that airports suffer from peaks and troughs on a seasonal basis and day by day. Airports have limited ability to spread these peaks, which are dictated by flight schedules and aircraft

utilisation demands. Auckland International Airport has estimated that construction costs for a second runway might be around $120 million. This will be commenced once the traffic load is established at a level which will both support and justify the additional capacity.

International passenger forecasts, e.g. as prepared by the British Airports Authority for the Australian Federal Airports Corporation and some New Zealand airport companies, are an input into planning. The most recent have a high growth scenario for total passenger movements of 6.5% per annum for the period 1992 to 2005. The low growth scenario for that period is around 4% per annum for the period. These reflect arrivals and departures for international visitors, and international departures and arrivals for New Zealand residents. For international visitors the forecast growth rates are around 8% per annum for the high scenario and 5% per annum for the low scenario. The former, more optimistic view, is broadly in line with visitor growth assumptions used in our accommodation analysis, i.e. based on 2 million visitors by the year 2000.

6.3.4 Bus and coach services

Activity in this sector is divided into three main components, with some firms operating in all of them:

• Tour charters - this services the package tour market, predominantly dealing with inbound tour operators and with a certain amount of domestic charter business. Major operators include Johnsons and Southern Pacific Coachlines (both owned by the Helicopter Line), Ritchies Transport Holdings, Mt Cook Group, Newlands Coachlines and Bayline Group.

• Route services - provides regular services on specific routes. Main demand comes from domestic passengers, but foreign tourists are an important market on certain routes at particular times of the year. Major firms are Intercity and Mt Cook Group.

• Daily brochured sightseeing - involving return day trips, mainly out of Auckland, Christchurch and Queenstown. An example, would be

the Great Sights/Greyline Joint Venture between Helicopter Line and Mt Cook.

Motor registration figures do not distinguish between buses and coaches - in total over 8,000 omnibuses and service coaches were registered as at March 1993. The NZTB has estimated that of these about 700 are coaches i.e. as used in the above three sectors. Companies may be vehicle providers or vehicle promoters. Some operate with a mixture of vehicles that they own, and those leased from others which provides capacity flexibility.

A broad generalisation, based on discussions with a number of major operators, is that in recent years profitability has been poor, particularly on international inbound business.[25] The sector has been subject to intense international competition, with tour operators using the leverage of overcapacity in other markets, and domestic competition since deregulation via the small operators that have emerged. The combination of seasonality, overcapacity and consequent discounting and poor returns have led to dwindling investment and an ageing fleet. On the assumption of 8 years as an optimal service life, and a national fleet of 500 coaches, about 60 new coaches should be commissioned each year. In recent years less than 20 new coaches have been commissioned annually. Currently each coach may cost about $450,000.

Most are optimistic about international volume growth, regarding the 2 million visitor forecast as readily achievable by the year 2000, but are cautious or financially constrained with respect to new investment. The implications of such growth will vary across the sector depending on the relative growth of group tours as distinct from free independent travellers (FITs). Younger foreign visitors with a good command of English tend to dominate the latter group.

Pressure to reinvest comes from the need to maintain quality, but pressure against investment may come from owners or managers

25 Operators in some niche markets have reported more than satisfactory growth and returns.

concerned about returns. Recently, some operators have observed a firming of the market, with increased forward bookings and longer lead times for tour operators. Some new investment is starting to emerge - with prospects for perhaps 20-30 new coaches annually.

6.3.5 Rental cars and campervans

The rental car industry comprises a number of larger groups (Budget, Hertz, Thrifty, Avis) with nationwide fleets, and possibly as many as 500 other operators, mainly small and localised. Most segment markets into three parts - international inbound, domestic leisure, and business. The relative importance of each of these can vary markedly from company to company, but for the majors international business is usually 50% or more. Because of this, the business is highly seasonal with fleets built up in the summer and sold off after March. Fleet size may fall by 25-50% between their high and low points. As at March 1993, registrations of rental cars amounted to about 9,600.

As with coaches, profitability of most firms has been under pressure in recent years, under intensifying competition. Emphasis is on spreading the high season into April/May shoulders. Demand should continue to grow, with increased international tourism, so some medium term growth in fleet sizes can be expected.

The rental campervan business is dominated by Leisure Port Ltd which accounts for a high proportion of vehicles and turnover. Other operators are Adventure Rental Vehicles and Blue Sky Motor Homes. As is the case for car rentals, the market is seasonal with December to March the high period. Summer usage is nationwide, while winter demand is concentrated in the South Island. Despite some rationalisation of the industry in recent years, fixed investment has grown significantly.

6.3.6 Rail transport[26]

Rails services cater for domestic and international visitor usage, and are subject to intense competition from other forms of transport. The international/domestic mix varies widely across the different services, with the Tranz Alpine (Christchurch to Greymouth), Coastal Pacific (Christchurch-Picton-Wellington) and Overlander (Auckland-Wellington day trip) having the highest international components. Share of total tourism is small, and growth is spasmodic - while investment tends to be lumpy and high cost. Again the potential may be there, but it is hard to assess what rate of investment would be financially viable.

6.3.7 Tourism Transport - Summary

Over the last five years, most transport operators have been adversely affected by only moderate capacity utilisation, and the impact of this and foreign competition on yields. Consequently most are adopting a cautious attitude to new investment, adding capacity gradually - despite strengthening demand in the last year. Although we are projecting continued growth in international visitors, and an upturn in domestic travel, we expect caution to be the dominant attitude for some years yet, and in aggregate considerable year to year volatility. Although there will be an underlining baseload of replacement investment, the trend of investment in new capacity is hard to gauge.

6.4 Tourism Attractions

Tourism attractions are heterogeneous and in many cases non-commercial and lacking in any sort of performance data. For this reason it is difficult to conceive of or effect any meaningful aggregation of capacity or demand. More fundamentally, many users are local and thus fall outside the accepted definitions of tourists. Hence the analysis of capacity, demand and investment implications

26 At the time of our discussions with New Zealand Rail, the company was under due diligence for eventual disposal by the government, and shortly after (late July, 1993) was sold to a consortium led by Wisconsin Central. Changing ownership may have important implications for investment in passenger transport.

attempted for transport and accommodation is difficult to apply to tourist attractions.

Despite these difficulties, tourism attractions should be included in this analysis. Attractions collectively are often the primary motivation for tourism and an important consideration in marketing the destination. The most recent survey of attractions, Deloitte Ross Tohmatsu (1992) sets out a variety of data on the attractions surveyed and touches on some of the investment issues. The survey response rate was 332 out of 487 issued. It is not possible to say what proportion of the total population of attractions this represents. It divides tourism into eight categories:

- Museums/art galleries
- Gardens
- Zoos/wildlife parks/aquaria
- Historic buildings
- Amusements/theme parks/entertainment complexes
- Transport (scenic train, plane or boat trips)
- Industry (brewery, winery, factory tours)
- Other (natural attractions and related facilities).

On capital improvements, the report observes the need for attractions to reinvest to maintain appeal and competitiveness. "With many attractions owned and operated by local authorities or by local trusts, local authorities will come under increasing pressure to make funds available for capital development. Failure to do so will inhibit the ability of those attractions to reach certain visitor targets and revenue projections."

Some indications of the magnitudes of capital improvements in tourism attractions during 1992, are set out in Table 12, page 52 of the Report. About 140 attractions recorded aggregate investment of $11 million in 1991, and $19 million in 1992.

7. CONCLUSIONS

7.1 Industry views - constraints on and opportunities for tourism investment

In mid-1993 we conducted interviews with senior executives of some key transport companies, as well as with hotel management and investment groups. Although each sector faces its own challenges, for example, in terms of market growth, competition and profitability, there are some common overriding concerns. These are

- For much of the last five years little net investment has occurred i.e. there has been some investment in new capacity and some refurbishment but overall the tourism capital stock has tended to age, and the average quality deteriorated.

- The overall constraint on investment has been inadequate returns to finance net investment and insufficient growth in the near term to justify it.

- These poor returns have reflected overcapacity - with past capacity increments a greater factor than a demand shortfall relative to expectations.

- New Zealand tourism companies have felt the impact of overcapacity both locally and overseas, which has resulted in discounting and volume driven business decisions.

- Although growth in international tourism has far outstripped domestic business in most cases, returns on the former has tended to fall below returns on the latter.

These are the constraints that have influenced tourism investment in the past, and which will have a bearing on decisions hereon. What about opportunities?

Here it is more difficult to generalise. The point of common focus is the growth in overall visitor numbers and forecasts thereof. The NZTB target of 3 million visitors by the year 2000 (requiring annual growth of 16% per annum from 1992/93 to 1999/2000) is generally regarded as ambitious, although some of those interviewed regard it as achievable given the right combination of circumstances. Generally though, tourism companies are likely to be making investment decisions on the assumption of some lower growth rate (perhaps 8-10% per annum) in the period 1993 to 2000. Investment opportunities are naturally also coloured by judgements on factors more specific to individual companies:

- Tourist expenditure trends i.e. how rapidly total expenditure grows and how the allocation changes, for example, as between accommodation, transport, attractions, and other, and the various price segments within each of these.

- Geographical travel patterns within New Zealand.

Some coach operators have made the decision to add new vehicles, on the basis that the market will firm allowing operators at the quality end of the scale to command rates sufficient to justify the investment.

Some new hotel capacity will be added, mainly from 1996, with this being led by those centres with the higher recent occupancy rates and room yields. However, an additional capacity is likely to proceed in smaller increments than in the 1980s and be relatively heavily weighted towards the medium price range.

Prospects for the aviation sector are likely to be heavily influenced by trends towards a single trans-Tasman aviation market. Additional flights are likely to be added in certain international sectors e.g. Taiwan, Korea but this may not require more planes, nor will the extra

capacity necessarily be added by Air New Zealand i.e. funding and ownership decisions may be made elsewhere.

7.2 Investment strategy, risks and rewards

This report commenced with a basic dichotomy. One side of this is that unless some sort of coordinated strategy is adopted in New Zealand to promote and direct investment, inadequate or inappropriate investment will occur. The counterview is that markets will respond appropriately to any demand signals so that any major capacity and demand mismatch will be shortlived. Investment theory and discussions with individual firms operating in the sector reinforces the view that in practice there is a real dilemma.

Since the late 1980s recent years new large scale investment in transport and acommodation serving tourists has been minimal - physical capacity has not expanded, the average age of the capital stock has tended to increase and average quality has tended to deteriorate. Poor returns have left existing investors with limited means to undertake new investment, and a limited appetite for exposure to the sector among potential investors or creditors. This experience will colour investment decisions for some years yet, despite signs of emerging bottlenecks in peak tourism months in some areas.

The problem revolves around the presence of "sunk costs" in much tourism investment, barriers to entry, uncertainty, and the question of comparative advantage in information gathering and interpretation. For individual investors, current or potential, there are several aspects of uncertainty relevant to medium term investment decisions: first how the overall market will grow, and second, how it will affect them, given changing tastes and spending patterns, and competitive pressures from other firms in the same sectors. Hence firms are constrained in investment decisions, by funding conditions, balance sheet and earnings hurdles, and by uncertainty and largely irreversible decisions. Because of sunk costs they may have limited mobility in terms of the activities they undertake.

In contrast to individual firms, government agencies or tourism industry bodies are likely to devote significant resources to researching general trends and interpreting their implications for the future. They are likely to have comparative advantage in this, although subject to the full range of uncertainties about prospects. They will be regarded as an important source of information about broad trends and the future.

The influence of this information on investment decisions will vary from firm to firm, depending on ability and willingness of each firm to add or upgrade capacity to participate in possible future rewards. This is partly a matter of how these firms interpret the information - as just part of the general array of information, or as authoritaive support for investment decisions. It will also depend on whether they are current investors - if they are, further investment will concentrate their risk, and possibly lower potential returns. If they are not, investment may be part of risk diversification, and if they have different investment criteria to existing investors may allow them to invest and take market share from incumbents.

Emerging trends and current policy elicit two very different responses.

- That capacity constraints will soon become serious if new investment does not start soon on a significant scale. If private sector investors are unable or unwilling to respond to the extent judged necessary, the government should directly encourage investment directly through incentives.

- At current yields, significant new investment is unlikely to be viable. Viability will only return given a recovery in prices/tariffs, which should be allowed to operate as the rationing device. From this perspective, investment should reflect the risk/reward frameworks applied by individual firms - central or local government encouragement of new investment is possibly unnecessary and probably a threat.

Given uncertainty about demand trends over the next 10 to 15 years, combined with the potential volatility of future investment, neither view can be supported dogmatically. The first i.e. an "investment strategy" may turn out have been appropriate, if tourism numbers and expenditure grow strongly enough, and if peak seasons can be stretched. However, it carries with it the risk of a repeat of the "boom-bust" experience of the last decade.

The second approach seems more consistent with the interests of current investors, but is not riskless. If, as is possible, the private investment response is too small or too late, and if this results in a loss of revenue to the tourism industry, significant private and social costs could be involved.

APPENDIX 1

Detailed visitor projections

(This appendix sets out more detail on Ernst & Young's visitor projections introduced in Section 6.)

Table A1. Projected Number International Arrivals - 15 years & over (000's) New Zealand

	Year Ended December 1992	2005	Cumulative+ Increase (000's)	%
Country of Origin				
Australia	326	684	358	110
USA	127	268	141	111
Japan	125	576	451	361
UK	92	196	104	113
Canada	25	45	20	80
Germany	45	272	227	504
Singapore	17	31	14	82
Other	223	564	341	153
Total	980	2,636	1,656	169
Main Reason for Visit				
Holiday	475	1,464	989	208
Visit Friends/Relatives	256	509	253	99
Business	151	354	203	134
Other	98	309	211	215
Total	980	2,636	1,656	169

(Source: Ernst & Young)

Projections of international visitor arrivals are adjusted to exclude children under the age of 15 and a small number of other international arrivals who are not treated as visitors for statistical purposes. The

table summarises forecast growth in international visitor numbers by country of origin between December 1992 and 2005. This growth is based on the growth rates established in the "2 million by 2000" international visitor arrival forecast continuing between 2001 and 2005.

This table demonstrates that the strongest growth in visitor numbers is expected from the holiday segment, and particularly from Japan, Germany and other countries (particularly from Asia). Australia, as our largest origin market, will also continue to be of particular importance because of:

- its relative proximity
- closer business and economic relations
- the introduction of "domestic" airline arrangements.

However, in economic terms, the Japanese and German markets are significant because:

- Japanese spend on average $261 per day, compared with the average international visitor daily spend of $118 *(Source: NZTB New Zealand International Visitor Survey 1992/93 - Summer Report).*

- Germans spend on average $3,606 during their 29 day visit, compared with the average international visitor spend of $2,147 for 19 days. *(Source: NZTB New Zealand International Visitor Survey 1992/93 - Summer Report).*

It is expected that the average length of stay will continue to decline, largely because the growth in visitors is generally from those nationalities, particularly Asians, who spend less time here. Following is an analysis of the projected visitor nights resulting from the projected visitor arrivals and average length of stay.

Table A2. Projected Number of International Person-nights - 15 years and over (000's) New Zealand

	Year Ended December 1992	2005	Cumulative Increase (000's)	%
Country of Origin				
Australia	4,776	8,741	3,965	83
USA	1,901	4,210	2,309	121
Japan	1.422	7,810	6,388	449
UK	3,019	5,579	2,560	85
Canada	594	999	405	68
Germany	1,358	6,124	4,766	351
Singapore	244	443	199	82
Other	5,729	14,248	8,519	149
Total - New Zealand	19,044	48,150	29,106	153
Main Reason for Visit				
Holiday	7,869	23,642	15,773	200
Visit Friends/Relatives	6,722	12,556	5,834	87
Business	2,118	4,958	2,840	134
Other	2,334	6,994	4,660	200
Total - New Zealand	19,044	48,150	29,106	153

(Source: Ernst & Young)

Regional Analysis

Ernst & Young's research, based on analysis of several years of the International Visitors Surveys and Domestic Travel Studies shows the following regional market shares of person-nights in New Zealand for the year ended December 1992. It should be noted that, in some cases, small sample sizes are involved in the surveys, implying that, particularly in the case of the "smaller" main centres, there may be significant error margins in estimating regional shares. Where possible

we have adjusted the data to reflect what we believe to be the true situation.

Table A3. Analysis of Regional Market Shares
Visitor-nights - Year ended December 1992

Centre	International Visitor-night Market Share		Domestic Visitor-night Market Share		
	Nights (000s)	%	Nights (000s)	%	Total
Auckland Metro	5,366	28.2	4,373	10.4	9,739
Rotorua	738	3.9	1,348	3.2	2,085
Taupo	292	1.5	863	2.1	1,155
Wellington	1,523	8.0	1,722	4.1	3,245
Christchurch	1,889	9.9	2,640	6.3	4,529
Queenstown	936	4.9	459	1.1	1,395
Dunedin	449	2.4	896	2.4	1,435
Total - Main Centres	11,193	58.8	12,391	29.6	23,583
Other locations	7,851	41.2	29,474	70.4	37,325
Total - New Zealand	19,044	100.0	41,865	100.0	60,908

(Source: Ernst & Young/NZTB)

Table A4 is an analysis of the main reason for visit of international and domestic visitor nights.

Table A4. Analysis of Reason for Visit (International & Domestic) Visitor-nights - Year ended December 1992

Centre	Main Reason for Visit Holiday (000s)	VFR (000s)	Business (000s)	Other (000s)	Total (000s)
Auckland	2,554	4,215	1,693	1,277	9,739
Rotorua	974	614	240	257	2,085
Taupo	662	227	98	168	1,155
Wellington	761	1,279	764	441	3,245
Christchurch	1,432	1,611	562	924	4,529
Queenstown	988	209	59	139	1,395
Dunedin	430	547	164	294	1,435
Total - Main Centres	7,801	8,702	3,580	3,500	23,583
Other locations	15,357	13,112	3,581	5,275	37,325
Total - New Zealand	23,158	21,814	7,161	8,775	60,908

(Source: Ernst & Young/NZTB)

The key points from this table are that:

- Auckland dominates the visitor industry in terms of volume,
- over 43% of Auckland visitor nights are for visiting friends and relatives (VFR),
- over 71% of Queenstown visitor nights are for holidays,
- only 4% of Queenstown visitor nights are for business,
- only 23% of Wellington visitor nights are for holidays,
- over 23% of Wellington visitor nights are for business,
- the same proportion of holiday nights are currently spent in Queenstown and Rotorua, but Rotorua attracts significantly more visitors in total due to its higher business and population base,

• the main "tourism" centres account for 39% of total visitor nights in New Zealand, and the following share of nights, analysed by reason for visit:

Main Reason for Visit	Proportion of all NZ Visitor Nights
Holiday	33.7%
VFR	39.9%
Business	50.0%
Other	39.9%

Table A5. Projected growth in visits and visitor nights (000s)
International and Domestic Visitors - New Zealand

Y.E. December	Number of International Visitors (All Ages)	(15 years+)	Number of International Visitor Nights	Number of Domestic Visitor Nights	Total
1992	1,056	980	19,044	41,865	60,908
1995	1,306	1,215	23,009	44,027	67,035
2000	1,925	1,799	33,414	48,619	82,033
2001	2,082	1,947	36,063	49,601	85,664
2002	2,248	2,104	38,860	50,605	89,465
2003	2,423	2,271	41,800	51,632	93,432
2004	2,610	2,448	44,895	52,682	97,576
2005	2,807	2,636	48,150	53,755	101,905

(Source: Ernst & Young)

Table A6. Projected visitor-nights - International and Domestic (000s)						
	Year Ending December 2000			Year Ending December 2005		
	Inter-national	Domestic	Total	Inter-national	Domestic	Total
Auckland	*9,182*	*5,060*	**14,242**	*12,922*	*5,584*	**18,507**
Rotorua	*1,323*	*1,636*	**2,959**	*1,941*	*1,800*	**3,741**
Taupo	*523*	*993*	**1,516**	*760*	*1,091*	**1,850**
Wellington	*2,552*	*1,966*	**4,518**	*3,533*	*2,151*	**5,684**
Christchurch	*3,442*	*3,046*	**6,488**	*5,166*	*3,356*	**8,521**
Queenstown	*1,872*	*534*	**2,406**	*2,996*	*591*	**3,587**
Dunedin	*793*	*1,147*	**1,940**	*1,134*	*1,270*	**2,404**
Total Main Centres	*19,687*	*14,382*	**34,069**	*28,452*	*15,843*	**44,294**
Other locations	*13,727*	*34,237*	**47,964**	*19,698*	*37,912*	**57,611**
Total New Zealand	*33,414*	*48,619*	**82,033**	*48,150*	*53,755*	**101,905**
(Source: Ernst & Young)						

Projected growth in visitor nights - main tourism centres

The extended growth forecast through to December 2005 results in projected international arrivals of 2.8m (all ages) or 2.6m aged 15 years and over. In preparing this projection, we have used the established growth patterns of the "2 million by 2000" forecast as a base, but have modified the growth rates where VFR, business and other growth rates had been compounding at a comparatively high rates between 1996 and 2000. We have allowed for an ongoing gradual reduction in these rates of growth to more moderate levels, on the basis that the growth from 2001 onwards is from a significantly higher base.

APPENDIX 2

AIR PASSENGER VOLUMES & CAPACITY

Table A7. Air New Zealand International Services

March years (1)	Seat km available (million	Passengers carried (million)	Passenger kilometres (million)	Passenger load factor (%)
1980	6,264	1.006	4,430	70.7
1981	6,625	1.047	4,531	68.4
1982	7,387	0.992	4,506	61.0
1983	8,105	0.945	5,043	62.2
1984	8,472	0.997	5,518	65.1
1985	8,770	1.100	6,092	69.5
1986	9,268	1.211	6,568	70.9
1987	11,058	1.413	7,515	68.0
1988	11,722	1.519	8,237	70.3
1989	13,056	1.690	9,059	69.4
1990	12,912	1.658	8,734	67.6
1991	14,776	1.721	9,522	64.4
1992	16,096	1.915	11,633	72.3
1993	17,808	2.090	12,360	69.4

Note: (1) June year from 1990-91
Source: Air New Zealand - Annual Reports

Table A8. International Air Service: Volumes, Passengers (000)

Year ended December	Trans-Tasman	Pacific Island(1)	North American	Asian	South American	Long-haul(2)	Total Passengers
1980	1,262	346				221	1,814
1981	1,209	283				239	1,776
1982	1,109	256				350	1,664
1983	1,087	261				407	1,693
1984	1,222	292				385	1,851
1985	1,444	282				444	2,056
1986	1,656	330				537	2,457
1987	1,910	410	421	238	22		3,001
1988	2,133	444	430	329	24		3,361
1989	1,920	434	465	426	10		3,263
1990	1,807	419	426	471	8		3,129

Notes: (1) Short-haul only to 1986; thereafter all Pacific Island flight stage.
(2) North and South American, Asian, and long-haul Pacific Island flight stages.
(3) Columns do not reconcile precisely with total because of double counting in some years

Source: Ministry of Transport

APPENDIX 3

Table A9. Summary of Domestic Scheduled Air Services

December year	Seat km available (million)	Passengers carried (million)	Passenger kilometres (million)	Passenger load factors (%)
1980	1,731	2.478	1,172	67.7
1981	1,682	2.356	1,134	67.4
1982	1,640	2.248	1,085	66.2
1983	1,739	2.429	1,168	67.2
1984	2,027	2.950	1,397	68.9
1985	2,270	3.255	1,554	68.5
1986	2,414	3.444	1,652	68.4
1987	2,540	3.785	1,728	68.0
1988	3,165	4.174	1,900	60.0
1989	3,088	4.467	1,908	61.8
1990	3,599	4.502	2,101	58.4

Note: (1) Revenue passenger load factor. Figures for 1980, 1981 are for Air New Zealand only.

Sources: Ministry of Transport via Yearbooks

Table A10. Air New Zealand Domestic Services(1)				
March years (2)	**Seat km available (million)**	**Passengers carried (million)**	**Passenger kilometres (million)**	**Passenger load factors (%)**
1980	1,649	2.403	1,161	70.6
1981	1,604	2.241	1,086	67.7
1982	1,555	2.119	1,048	67.4
1983	1,527	2.029	1,013	66.3
1984	1,644	2.262	1,130	68.7
1985	1,838	2.603	1,304	71.0
1986	1,992	2.772	1,382	69.4
1987	2,132	2.998	1,494	70.1
1988	2,189	2.962	1,506	68.8
1989	2,256	2.915	1,502	66.5
1990	2,310	2.861	1,481	64.1
1991	1,961	2.180	1,136	58.0
1992	1,906	1.950	1,077	56.5

Note: (1) Excluding subsidiaries and associates
(2) June year from 1990-91
Source: Air New Zealand - Annual Reports

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