MINISTRY OF TOURISM
TE MANATU TAPOI

BASELINE REVIEW OF TOURISM NEW ZEALAND

REPORT

ISSUES RELEVANT TO THE CONTEXT OBJECTIVE

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INTRODUCTION

Officials have been directed by the Cabinet to undertake a baseline review of the off-shore destination marketing of Tourism New Zealand. The purpose is to gain a better understanding of the net economic benefit of further government investment in off-shore destination marketing, including the productivity of the resources employed in tourism relative to other sectors of the economy and the relative importance of marketing spending in influencing the decision of tourists to visit a particular destination.

Three sets of objectives have been identified for the review. These are classified as context objectives, focus objectives, and effectiveness objectives. Martin Jenkins and Associates has been contracted by the Ministry of Economic Development to undertake an analysis of issues relevant to the context objectives.

The context objectives focus on:

- Establishing the case for government support of off-shore destination marketing, utilising such data as are available on the contribution of the tourism industry to the New Zealand economy.
- Developing a framework that allows an assessment to be made of the appropriate size and scope of government support for off-shore marketing.

The approach to the analysis has involved:

- A review of the literature on the economic benefits of the government investing further in off-shore marketing. The literature review is attached as a separate document.
- An analysis of the available data on the characteristics and contribution tourism makes to the New Zealand economy, including the Tourism Satellite Account.
- Interviews with key stakeholders, notably the Treasury, the Ministry of Economic Development, Tourism New Zealand, the Tourist Industry Association, and major industry players such as Air New Zealand.

The report is structured as follows:

- Part 1 provides a brief overview of the contribution of tourism to production, employment and exports in New Zealand, drawing on data from the Tourism Satellite Account.
- Part 2 discusses the case for government investment in the off-shore marketing of New Zealand as a tourist destination.
- Part 3 develops the arguments in Part 2 by analysing the impact of tourism expansion on the use of resources, with a particular focus on labour.
- Part 4 assesses, to the extent possible, the relative productivity of tourism.
- Part 5 scopes out and analyses different funding models for off-shore marketing leading to the identification of the preferred approach.
- Part 6 draws together the analysis and develops a framework to assist in assessing the merits or otherwise of further government investment in the off-shore marketing of New Zealand as a tourist destination.

1. A BRIEF OVERVIEW OF TOURISM'S CONTRIBUTION TO PRODUCTION EMPLOYMENT AND EXPORTS

The Tourism Satellite Account (TSA), which has been developed and published by Statistics New Zealand, provides a summary measure of the contribution tourism makes to production and employment in New Zealand. The need for the TSA reflects the fact that tourism is defined by the demands of the customer and thus cuts across a broad range of 'conventional' industries. The TSA, which has been developed in accordance with guidelines published by the World Tourism Organisation, is consistent and integrated with New Zealand's official national accounts.

It is important to note that for the purposes of the TSA the term 'tourist' covers a wider range of traveller than might usually be associated with the term (e.g. business travellers). Importantly, the data on overseas visitor arrivals relates to persons whose intended length of stay in New Zealand is less than 12 months, which includes a proportion of the international student population.

For the year ended March 2004, total tourism expenditure in New Zealand was $17.24 billion (including GST). The total value added by tourism to the New Zealand economy was of the order of $12 billion (9.4% of GDP), of which some $6.2 billion (4.9% of GDP) constituted a direct contribution by the tourism industry, and $5.8 billion (4.5% of GDP) was generated by industries supporting tourism. Imports that are used directly in the production of goods and services sold to tourists, or which are sold directly to tourists by retailers, accounted for just under $4 billion of total tourism expenditure. Tourists paid $1.28 billion in GST. However, because GST is a tax on value added and not a tax on expenditure, the more meaningful figure is GST paid on direct tourism value added, which is of the order of $600 million.

Since 1999, total tourism expenditure has grown by almost 40%, most of which occurred between 1999 and 2001. The direct and indirect contribution of tourism to GDP has grown from 9% to 9.4%. The growth in international tourism expenditure has outstripped the growth in domestic tourism expenditure (50.2% compared with 32.7%). This strong growth in international tourism between 1999 and 2001 may in part be attributable to the Sydney Olympics. However, in the year to March 2004 a 2.4% decline was recorded reversing the strong growth of previous years. Nonetheless, international tourists spent $7.4 billion in the year ended March 2004.

Amongst the reasons for the recent decline in international tourism is the outbreak of SARS in a number of Asian countries causing uncertainty in the international travel environment, security concerns arising from 9/11, the rising value of the New Zealand dollar, and a decline in the number of international students from Asia, primarily China. There was a 10.1% decline in visitor arrivals from Asia in the year ended 31 March 2004, and a 15.6% decline in the number of people visiting for education/medical reasons.

International tourism has become New Zealand's largest export earner, accounting for 18.5% of total exports compared with 14.3% from the next largest contributor, dairy products. Statistics New Zealand figures reveal that even since 2001, when the growth in international tourism expenditure has been a more modest 10%, it has still outstripped that of the other major export earners. Over this period, export receipts from dairy products, wool and wool products, and seafood have declined, whereas receipts for Meat and meat products have grown only very slightly.

An estimated 102,700 full-time equivalent employees were directly engaged in producing goods and services purchased by tourists in the year ended March 2004. This amounts to 5.9% of total employment in the economy. As noted previously, this number includes employment generated by international students studying in New Zealand for less than one year .They would therefore include teaching and administrative positions in English Language Institutes. Since 2001, the number of employees directly engaged in tourism has grown by 8.2% (comparable figures are not available pre 2001).

Estimates of the numbers indirectly engaged in tourism were provided in 2002 from the Annual Frame Update Series (AFUS). Since 2003, the AFUS has been unable to provide a comprehensive full-time/part-time employment split. In 2002, the number indirectly engaged in tourism was estimated at 66,400 full-time equivalent employees. The total direct and indirect contribution to employment at that time was estimated at 164,900, or 10% of total employment.

The TSA provides a breakdown of tourism expenditure by type of tourist and type of product. Table 1 shows a breakdown of international tourism expenditure by type of product for the year ended March 2004.

Table 1: International Tourism Expenditure

International Tourism Expenditure by Type of Product Year ended March 2004 ($ million)				
Product	**International Demand**	**% of Total International Demand**	**Total Supply**	**% of Total Product Supply**
Accommodation services	889	13.0	1,627	55.0
Food and beverage serving services	1,161	17.0	4,807	24.0
Air passenger transport	1,754	25.0	3.349	52.0
Other passenger transport	708	10.0	2,506	28.0
Retail sales-fuel and other automotive products	182	3.0	6,376	3.0
Retail sales-other	1,251	18.0	71,203	2.0
Other tourism products	1,008	14.0	40,897	2.0
Total Expenditure (ex GST)	**6,964**	**100.0**		
GST	481			
Total Expenditure	**7,435**			

Whist a significant percentage of the spending of international tourists is on retail sales (21%), this expenditure is only a small percentage of the total supply of these products (5 %). Not surprisingly, air passenger transport, accommodation services and food and beverage serving services are the main beneficiaries of the spending of international tourists, both in terms of the share of total spending and the percentage that spending constitutes of the total supply of those products.

All in all, tourism is a major and growing contributor to production, employment, and exports in New Zealand. International tourism (along with export education) has been part of a radical shift in the composition of export services in New Zealand since the mid-1990's, and as noted earlier has now supplanted dairy products as the major export earner. This has had the benefit of spreading New Zealand's export exposure.

However, as will be argued later in the report, the measured contribution that international tourism makes to production, employment and exports in New Zealand does not in itself warrant further government investment in off-shore marketing.

2. THE CASE FOR GOVERNMENT INVESTMENT IN OFF-SHORE DESTINATION MARKETING

THE PROBLEM OF MARKET FAILURE

Most governments throughout the world invest directly in off-shore destination marketing because they accept the existence of market failure. The standard technical reasons for market failure, together with their application to tourism, are discussed below.

Externalities/non-appropriability

The argument is that the individual tourism operator that engages in off-shore marketing is not able to capture many of the benefits that this type of marketing will bring. Other operators benefit from the marketing activity without contributing to the costs, with the result that the private returns to marketing are much less than the social returns and an under-investment in this form of marketing occurs. The likelihood of this 'free rider' effect is considered to be high in tourism because the industry comprises a large number of small firms and the beneficiaries of tourism spending are spread throughout the community and include firms that are not directly part of the tourism industry.

Risk and uncertainty

Individual firms are typically risk averse and prefer, for a given rate of return, to invest in activities with low risks. Off-shore destination marketing is seen to be risky partly because of the long lead time between the initial spending and the realisation of the benefits in the form of increased tourist flows. While in principle risks can be reduced by spreading the cost over a larger number of firms, the 'free rider' problem in tourism serves to restrict cooperative off-shore marketing. An under-investment in off-shore marketing therefore occurs, particularly if there are differences in time preferences between the private sector and society as a whole.

Indivisibilities

This occurs when the minimum outlay required to effectively market off-shore is beyond the resources of an individual firm. Cooperative marketing can in principle overcome this cause of market failure. However, it is argued that the tourism industry is too fragmented, complex and diverse to be able to effectively organise a cooperative marketing effort.

It also needs to be recognised that most inbound tourists to New Zealand face a large fixed cost in getting here. They are motivated to visit the destination rather than to specifically consume the goods or services provided by an individual tourist operator. There is therefore little incentive for the smaller operators in particular to advertise overseas. In contrast, a hotel in Paris may derive direct benefit by directly marketing in London.

The existence of market failure does not in itself establish a case for government investment in off-shore marketing. It may point more to the need for collective industry provision rather than government support, whether through the imposition of a compulsory levy such as applies in the rural sector, or through voluntary provision by the major players in the industry.

It is argued that the imposition of a compulsory levy would be difficult and administratively costly in the tourism industry, which is characterised by a preponderance of small firms scattered across many different sectors of the economy. These firms provide a diverse range of products and services that are sold directly to the tourist. In the rural sector on the other hand the farmers are readily identifiable, their products are often sold to designated marketing authorities, the volume and value of production is easily measured for the purposes of fixing a levy, and the benefits obtained by the levy expenditure are proportional to the value or volume of production from each farm. Given the structure of tourism, the administrative costs of imposing a levy would also be significant.

On the other hand, although the private returns to off-shore marketing may be lower than the social returns, they may still be acceptable and create incentives for a coalition of the major firms to voluntarily pool resources and market collectively off-shore. However, this is viewed as highly unlikely by the industry. The major firms, of which there are few, already commit significant resources to marketing New Zealand as a destination and would not be well disposed to committing further resources to make up the shortfall from any withdrawal of government funding. Moreover, even if some pooling of resources occurred, the existence of significant externalities and the free rider problem would mean that the extent of investment would be well below what is socially optimal.

An intermediate position that recognises the benefits of off-shore destination marketing to the private sector would be a mix of private and public sector funding, which might be expressed in a formal private/public sector partnership. These arrangements are relatively common overseas and various funding models present. Possible approaches to a private/public sector partnership are discussed in Part 5.

Nor does the existence of market failure offer any guidance on the appropriate level of government support, the extent if any of private sector funding, or how to raise or spend

scarce resources for off-shore marketing. To the extent that government support for off-shore marketing results in either increased taxes or reductions in government expenditure for other purposes, it will impact on the allocation of resources.

As noted in Appendix 2, the initial view of the Australian Industries Assistance Commission in its interim report on Travel and Tourism (1989) was that the provision of selective assistance to a particular industry was inconsistent with the development of efficient internationally competitive industries and with efficient resource use in the economy. The Commission subsequently modified this view in its final report following a strong response from the tourist industry.

On the other hand, it needs to be recognised that international tourists in New Zealand pay goods and services tax (GST). As noted in Part 1, the GST on direct tourism value added is of the order of $600 million. The data on direct tourism value added do not distinguish between domestic and international tourism, and it is therefore not possible to accurately estimate the amount of GST attributable to international tourism. It is probably of the order of $200 to $300 million given the international tourism expenditure is around 40% of total expenditure.

Given the high rates of return on additional government support for off-shore tourism marketing (see below), the additional GST from the increased direct value added arising from increased international tourism would more than compensate for that increased support. In this case, resource allocation would only be affected if the growth in tourism displaced output and hence GST revenue in other industries.

Finally, market failure is a necessary but not a sufficient condition to warrant government support. Rather, the case relies on an analysis of the real costs and benefits off off-shore destination marketing. Indeed, in an economy with distortions to market prices arising, for example, from the existence of taxes, subsidies, industry protection, or externalities, it is possible that the resource costs of providing for tourists could exceed tourist expenditure.

THE NET ECONOMIC BENEFITS OF OFF-SHORE DESTINATION MARKETING

A summary of the literature on the net economic benefits of investing in off-shore destination marketing is provided in the literature survey. The literature survey revealed a paucity of rigorous economic analysis on the economic benefits of government support of off-shore destination marketing. What exists amounts to a handful of case studies, although their

conclusions are reasonably consistent and their theoretical underpinnings are sound. Nonetheless, caution must be exercised in drawing definitive conclusions from the studies.

Most of the research is sourced from Australia, reflecting the particular challenges that confront a geographically isolated tourist destination. It therefore has considerable relevance to New Zealand.

THE RATE OF RETURN TO OFF-SHORE DESTINATION MARKETING

Off-shore destination marketing is just one factor that influences international tourism flows. The main determinants are thought to include disposable incomes in the off-shore markets, the real exchange rate, the direct costs of travel, relative prices on the ground, and off-shore marketing of the destination directed a raising the awareness of the potential tourist.

A number of studies have sought to isolate out off-shore marketing expenditure as an independent variable. Two studies in particular are of relevance to New Zealand. The first, undertaken by the National Bank of New Zealand (1997) for the New Zealand Tourism Board, used a co-integration model to capture each of the main influences behind an individual's decision to travel to another country. Proxies were used to measure the influence of real income, competitiveness, airfares (real oil prices were used as a proxy because there is no time series data on airfares), arrivals into Australia, and marketing expenditure.

The analysis was in three parts. Visitor arrivals and expenditure per day at an aggregate level was modelled, using data from 1979 to 1996. Arrivals into New Zealand by country of origin were modelled using both cross-country and time series data (1987:2 to 1996:2). Finally, a global perspective was taken to assess whether those countries which 'destination market' benefit from increased tourist arrivals.

All the variables were found to be strongly positive, except the proxy for airfares (oil prices). Thus:

- a sustained 1 % rise in New Zealand's tourist weighted real exchange rate will lower arrivals by 0.28% per quarter and reduce the amount spent per day by 0.5%;
- a 1% rise in per capita income in New Zealand's tourist markets will raise arrivals by approximately 2% and the amount spent per day by 1.65%, giving a total revenue impact of 3.65%;
- a 1% rise in real marketing expenditure raises the arrivals rate by approximately 0.1% and the amount spent per day by almost 0.5%.

The results easily passed the co-integration tests for long run statistical validity.

The National Bank converted these results into a rate of return on off-shore destination marketing. A NZ$10million increase in marketing expenditure increased the arrivals rate by 29,600 visitors per year, who spend on average NZ$2,780 per visit, thereby bringing in NZ$82.4 million in total revenue. The growth in marketing expenditure increased the average spend of all visitors by NZ$13.70 per day, bringing in NZ$367.8 million per year.

The results therefore suggested that a $10 million increase in spending on destination marketing would generate a $450 million increase in tourism expenditure, equivalent to a rate of return on the margin of 45:1. The National Bank argued that the additional GST earned on the extra revenues (estimated at $28 million) would more than pay for the additional support.

The National Bank's study was reviewed by the New Zealand Institute of Economic Research. The Institute generally concluded that it was a 'solid piece of work', although it did comment that the rate of return seemed to be very high. It also noted that the analysis did not factor in general equilibrium effects, which would reduce the benefits revealed by a straight rate of return analysis (see below).

Whilst as the Institute notes the rate of return seems very high, it is consistent with estimates of the impact of off-shore destination marketing expenditure on inbound tourism numbers in Australia. Dwyer and Forsyth (1992), drawing on the results of an earlier regression analysis by Crouch et al (1992) estimated the rate of return on the margin to be of the order of 40:1.

On the basis of these studies, the rate of return on off-shore destination marketing expenditure appears to be very favourable. The studies suggest that this form of government support to tourism is effective in raising awareness of the destination and in subsequently generating an increase in tourism expenditure. In this respect, off-shore marketing serves to reinforce the other influences on an individual's decision to holiday in a particular destination.

However, the National Bank study was conducted some years ago and it is difficult to assess how relevant the results are today given the changing nature of the world security environment and New Zealand's industrial structure. In addition, as noted in Part 1, international tourism expenditure has increased substantially since 1999, while at the same time off-shore marketing expenditure has been relatively constant. This suggests that there are other factors to play.

On the other hand, since the late 1990's, Tourism New Zealand has developed a coherent New Zealand brand, which may well have provided some of the impetus for increasing expenditure notwithstanding the fact that the off-shore marketing spend has been relatively constant. In other words, TNZ has used its resources more effectively.

For these reasons, there may well be benefit in up-dating the National Banks analysis.

It is important to appreciate that a straight rate of return analysis of the type undertaken by the National Bank does not capture all of the benefits of off-shore promotion, or all of the costs. Nor do these studies provide a measure of overall returns to the New Zealand economy from increased marketing expenditure. The returns to the economy as a whole is the additional wages and profits earned by the factors of production that provide services to tourists, but some of this may occur because New Zealand resources will shift from outside tourism into tourism (general equilibrium effects). In the absence of a tourist boom, the resources might arguably be gainfully employed elsewhere. The net gain to the country of additional tourism expenditure is therefore likely to be more modest than that suggested by the straight rate of return analysis.

THE RETURN TO THE ECONOMY FROM OFF-SHORE DESTINATION MARKETING

Expanding on this theme, it is clear from the literature that any consideration of enhanced government support for off-shore destination marketing must consider the impact of tourism growth on output and employment elsewhere in the economy. Unless there is excess capacity in tourism related industries, increased tourism will tend to 'crowd out' economic activity in other sectors of the economy, particularly 'traditional' export and import competing industries.

How significant any 'crowding out' effect is depends on the extent of the constraints on the supply of factors of production, namely, land, labour and capital. If any of these are in short supply, then expanding tourism will lead to higher input prices and reduce the competitiveness of traditional export and import substitution industries.

These effects will be exacerbated if expanding tourism leads to an appreciation in the real exchange rate. This will put even more pressure on input prices, further erode the destinations price competitiveness, and thereby reduce the positive effects on employment and output growth.

Computable General Equilibrium models can be used to illustrate these effects. The few studies that have used this technique to monitor the effects of an expansion or contraction in tourism are summarised in the literature survey. In reviewing the results of these studies alongside their own research, Dwyer and Forsyth et al (2000) tentatively conclude that the primary effect of expanding tourism has been to alter the industrial structure of the economy rather than generate a large increase in aggregate economic activity.

However, caution must be exercised in reading too much into this conclusion. It is based on a handful of case studies, and the results of these studies are heavily dependent on the assumptions underlying the scenarios that have been modelled.

Computable general equilibrium models have not been used to analyse the effects of tourism expansion in New Zealand. However, Roger Bowden (2004) has analysed the implications of the new export services industries on New Zealand's exchange rates, inflation and interest rates. Bowden notes the radical shift that has taken place in the composition of export services, with a major re-weighting of tourism to become New Zealand's single largest export earner and, from 1998 onwards, the rise of education services as a major export industry.

Bowden argues that export services such as tourism and export education are more labour intensive than traditional exports such as farming and more linked to the non-traded sector, that is, good or services that are produced and supplied in New Zealand but not exported or imported. The prices of non-traded goods and services are set in New Zealand. Rising demand for export services will therefore flow into demand for non-traded goods and services.

Further growth of export services such as tourism will therefore require a corresponding growth in labour supply to service both their demands and the demands of the non-traded sectors with whom they compete. If the growth in labour supply is not forthcoming, then the prices of non-tradeables will rise and result in either price inflation or a secular rise in the exchange rate to lower import prices. The real exchange rate will be strong or stronger, the balance of payments position will deteriorate, and interest rates will remain high as the Reserve Bank moves to contain inflationary pressures.

The magnitude of these effects depends on whether there is an increase in national savings that acts as a check on the inflationary effects of the increased expenditure. They will however serve to reduce the competitiveness of the 'tradeable' sector of the economy, such as farming.

On the upside, Bowden notes that the growth in export services has led to a significant diversification in the export base, which in turn will help to buffer the cyclical exposure of the real exchange rate and business activity in general.

The extent to which the expansion of tourism in New Zealand has 'crowded out' other industries is therefore conjectural. However, it could be expected that the strong growth in tourism through the best part of the 1990's would have had only limited effects on other industries because there was a reasonable level of spare capacity in the economy. As noted in part 3 of the report, throughout the 1990's labour was not seen by employers to be a significant constraint on expansion (see page 22).

However, the sustained growth in the New Zealand economy since the late 1990s has given rise to considerable capacity constraints. Shortages of labour are evident across all skill categories and have been identified as the main constraint on growth by regional economic development agencies. Those agencies also report shortages of land as an emerging constraint on industrial development, particularly in regions that are popular retirement, lifestyle, and tourism destinations. In the current environment, an expansion of tourism (or any other industry for that matter) could be expected to have some 'crowding out' effects on other industries.

3. RESOURCE USE IN TOURISM

The key conclusion that emerges from the analysis in Part 2 is that an expansion in international tourist arrivals and expenditure will lead to a growth in aggregate economic activity providing there is surplus capacity in tourist related industries. If there is not, then tourism will compete for scarce resources with other industries and, to the extent that it is successful in attracting resources, off-setting adjustments in output will occur elsewhere in the economy, although a net benefit may still accrue. It is therefore useful to comment in general terms on the use of resources in tourism.

Because parts of tourism are relatively labour intensive, any expansion will generate significant labour requirements which, in a relatively full employment environment, could be expected to impact on other industries such as horticulture and farming. For this reason, much of the focus of the analysis that follows is on labour requirements. The requirements for land and capital are briefly touched on first.

LAND USE

Land is required for infra-structure such as roads and airports and for tourist development. It is required in the main urban entry ports for international tourists such as Auckland and Christchurch and near the coastal fringe, where it competes with retail and residential development. Land near attractive environmental resources (e.g. Queenstown) becomes more in demand by the hospitality sector as tourism develops, increasing land values.

Increased land values due to tourism will impact on the costs of other industries. These costs could also include un-priced losses to the quality of life as well as higher prices for residential or conservation purposes.

It is noteworthy that Economic Development Agencies in regions that are popular retirement, lifestyle and tourist destinations report land shortages as a constraint on industrial development. However, the extent to which tourism expansion is crowding out other productive activities for the available supply of land is not known without further analysis.

Infrastructural and tourist developments required to support an expansion of tourism can also impact negatively on the environment and culture in the tourist destination, as does the expansion of other industries.

CAPITAL

Expenditure on capital in response to increased tourism expenditure is undertaken by both the private and public sectors. Expansion in tourism will lead to greater use of existing plant and equipment such as hotels, cafes, aircraft and coaches. If wages rise relative to the costs of employing capital, then capital: labour ratios will tend to rise. Some new investments will expand capital stocks relatively easily (cafes) but in other cases the long lead times required for new investments will result in existing capital being used more intensively in the short run, which will either push up operating costs and hence prices to tourists or lower quality and impact on the ability to generate yield.

Lack of suitable infrastructure to support tourism development is one of the major constraints to growth. New tourist developments can lead to increased use of local roads, requiring greater expenditure on road maintenance and repair, and generate demand for water, sewerage, and sanitation facilities, telecommunications and the provision of energy.

Additional tourist numbers also puts pressure on the natural attractions such as Crown-owned National Parks and Forest Parks, requiring continual maintenance and upgrading of tracks and facilities to support the higher numbers. For example, the Department of Conservation is investing in an upgrade of tracks and facilities in the Whirinaki Forest in order to take pressure of other more popular tracks such as Lake Waikaremoana and Tongariro.

In the absence of full cost recovery on the development of infrastructure and on Crown – owned attractions, both short run operating costs and the long run costs of capital expansion will be met, at least in part, by the wider community, thereby reducing the economic impacts of tourism growth in the longer term.

The infrastructural issues are particularly relevant to Tourism New Zealand's strategy of seeking to change the composition of international tourism in favour of the interactive tourist, that is, the tourist that stays longer, visits more destinations, and spends more. To the extent that this is successful, it will put pressure on the infrastructure of regions that have not in the past attracted significant numbers of international tourists, unless excess capacity exists in those regions. However, to the extent that the TNZ strategy holds or reduces the increase in tourist numbers, then this will off-set the infrastructural effects.

More significantly, the highly seasonal nature of tourism in New Zealand means that existing capital is considerably under-utilised in the off-season-May through to October. Statistics New Zealand's Commercial Accommodation Monitor shows that average stay unit nights in the off-season was only 70% of the average for the peak season. Stay unit nights in the trough month of June was only 50% of the peak month of January. This seasonality also has a significant impact on employment, with relatively high proportions of part-time and casual employees engaged in the accommodation and food and beverage sectors and significant fluctuations in employment levels throughout the year (see below).

Consultation with the industry revealed that shortage of product in the peak season was a major constraint on growth. Significant gains in terms of greater utilisation of existing capital will clearly accrue from a strategy to reduce the seasonality of tourism in New Zealand. However, as noted below, accessing the necessary labour to support a longer season could prove highly problematic.

In the medium to longer term, additional investment will result in an expansion of the physical capital stock. In an open economy such as New Zealand, the increased demand for funds to finance capital investment will in part be met from inflows from abroad. There will thus be no crowding out effect and additional resources will be employed in the economy. This enables an increase in production as measured by GDP. However, to the extent that increasing capital requirements are financed off-shore, it will lead to an increase in income payable abroad to the lenders of the finance. The income accruing to residents of New Zealand will therefore be reduced.

LABOUR

The tourism sector is diverse, however a large proportion of employment in the sector is low-skilled and low wage, and relies on a ready supply of young people. With an ageing population, this supply will continue to be under pressure and will present a real challenge to the industry. Shortages of both low skilled and highly skilled labour have persistently been cited as constraints on growth in recent years. While this is likely to ease with the economic cycle, longer-term trends mean labour-intensive industries are likely to continue to have difficultly. The likely effects of increased tourism marketing on labour demand must therefore be considered in any assessment of economic impacts.

Size and Profile of the Labour Force

As noted in Part 1, in the year ended March 2004 there was an estimated 102,700 full-time equivalent employees directly[1] engaged in the production of goods and services purchased by tourists, or 5.9% of total employment in the economy. Since 2001, the number of employees directly involved in tourism has increased by 8.2%, slightly under the growth in employment in the economy as a whole of 9.8%.

The latest available estimate of the number of full-time equivalent employees indirectly engaged in tourism was in 2002, at which time there was an estimated 66,400 employees. This suggests that the overall number of employees directly and indirectly engaged in tourism is of the order of 170,000 or 10% of total employment in the economy.

With the exception of transport, the main industries engaged in tourism have a high incidence of part-time employment compared with the national average, as illustrated in Table 2 below:

Table 2: Incidence of Part-time Employment in Tourism-Characteristic Industries

Sector	Percentage Full-time Employed	Percentage Part-time Employed
Hotel accommodation	72.0	28.0
Other accommodation	57.9	42.1
Food and beverage	57.9	42.1
Air Transport	89.6	10.4
Surface Transport	80.0	20.0
Services to transport and storage	87.0	13.0
Culture, sport, recreation	63.2	36.8
Gaming services	75.1	24.9
All New Zealand	**77.0**	**23.0**

Source: Calculated from Population Census 2001, Statistics New Zealand[2]

The high percentage of part-time employment in the accommodation and food and beverage industries reflects the seasonal nature of tourism. BERL, in their Tourism Workforce

[1] A tourism characteristic industry is one where: at least 25 percent of the industry's output is purchased by tourists (ie the tourism industry ratio is greater than or equal to 0.25) or the industry's characteristic output includes a tourism characteristic product. For example, less than 25 percent of the water transport industry's output is consumed by tourists, but its characteristic outputs are water freight transport and water passenger transport. Water passenger transport is a tourism characteristic product, so the water transport industry is classified as a tourism characteristic industry, and a direct physical contact occurs between the industry and the tourist buying its products. Hence, manufacturing and wholesaling industries are not tourism characteristic industries. A tourism related industry is one where: the industry is not a tourism characteristic industry between 5 percent and 25 percent of the industry's output is purchased by tourists (ie the tourism industry ratio is greater than 0.05 and less than 0.25) a direct physical contact occurs between the industry and the tourist buying its products (hence manufacturing and wholesaling industries are not tourism related industries). Statistics New Zealand.

[2] Note that there are no statistics available on 'casual' employment by industry group. Classification as part-time or full-time will only be based on hours per week in the reference period e.g. the week before surveyed.

Projections (2004), calculated that employment levels in the trough months of May and June were less than 80% of the level in January. Changes in the number of part-time and casual employees were reported by employers as the principal means of adjusting labour requirements to reflect the seasonal nature of tourism. Many of these part-timers would be students, young tourists on working holidays, or people who secure employment in other industries (or return to unemployment) in the off-season.

In this context, it is important to note that the accommodation, food and beverage sectors provide considerable employment opportunities for young people leaving school. Many of these would be transiting to tertiary study, and undoubtedly welcome the employment opportunities that are available over the summer months. This is reflected in the fact that employees aged 15 to 19 accounted for 18% of employment in accommodation, food and beverage, well above the national average of 7%. Employment in these industries then falls rapidly in the age cohorts after 20 to 24.

The ability of tourism to access seasonal labour such as school leavers in tertiary study and tourists on working holidays[3] to cover off the peak times puts in perspective concerns about the crowding out effects of expanding tourism. The extent of competition throughout the economy for this type of labour is less than for the older age cohorts, the main competitors being horticulturalists. It is clear that once school leavers have completed their tertiary studies many find employment in other industries relevant to their qualification. In addition, anecdotally many people opt to work in tourism (whether as employees or working proprietors) as a lifestyle choice and would not necessarily find employment in other industries attractive.

A significant proportion of tourism-related employment is low-skilled and low-waged. In respect of qualification levels, employees in the accommodation and food and beverage industries had a lower level of post-school qualification compared to the national average (35% compared with 39%), while the transport and the activities, attractions, tours and services industries record a slightly higher level. The relatively low level of qualification in accommodation and food and beverages reflects in part the relatively high proportion of young people (15 to 19 year olds) employed. It also reflects the preponderance of low skilled jobs, such as housekeeping, laundering and cleaning, bar tendering and waiting, catering counter assistant, and kitchen hand.

Average hourly earnings in tourism-characteristic industries are varied, with accommodation and retail earning below the national average. In fact, accommodation, cafes and restaurants has the lowest average total hourly earnings of any industry. Again, this reflects in part the

[3] *In New Zealand, statistics are not kept on what (if any) employment working-holidaymakers take up, nor do employment statistics register people's visa status.*

preponderance of low skilled jobs in this industry, together with the relatively high percentage of young people employed.

Table 3: Average Total Hourly Earnings, June 2005, Males and Females Combined ($)

Industry Classification	$
Finance & Insurance	29.05
Electricity, Gas & Water	28.33
Education	27.26
Government Admin. & Defence	26.19
Property & Business Services	24.11
Cultural & Recreational Services	22.26
Forestry & Mining	22.14
Wholesale Trade	21.79
Health & Community Services	21.60
Transport, Storage & Communication	21.06
Total All Industries Combined	**20.98**
Manufacturing	19.80
Personal & Other Services	19.76
Construction	18.51
Retail Trade	14.28
Accommodation, Cafes & Restaurants	13.89

Source: Quarterly Employment Survey, Statistics New Zealand

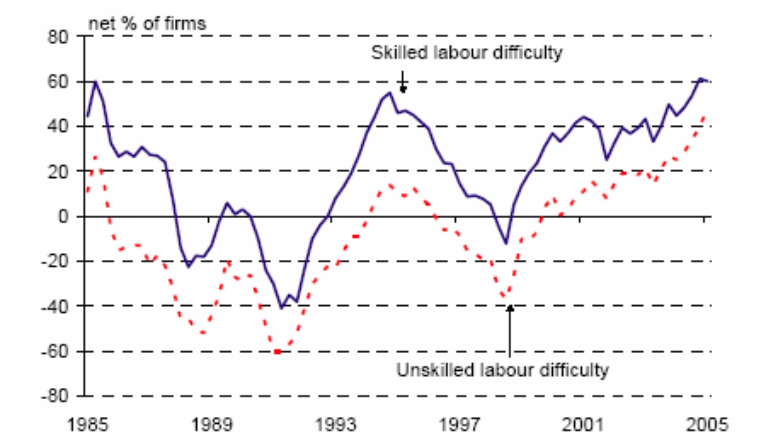
Union membership is very limited in tourism-characteristic industries. In accommodation, restaurants and cafes, less than 1% of employees are covered by collective agreements. In cultural and recreational services and transport the comparable percentages are 1% and 3% respectively.

INDICATORS OF CAPACITY IN THE CURRENT LABOUR MARKET

Labour and skill shortages have been identified as a constraint on economic activity in New Zealand over the last few years. As the economy has increased its growth, employers have reported that recruiting the staff they expect has become harder. This is a sign of the economy operating at capacity.

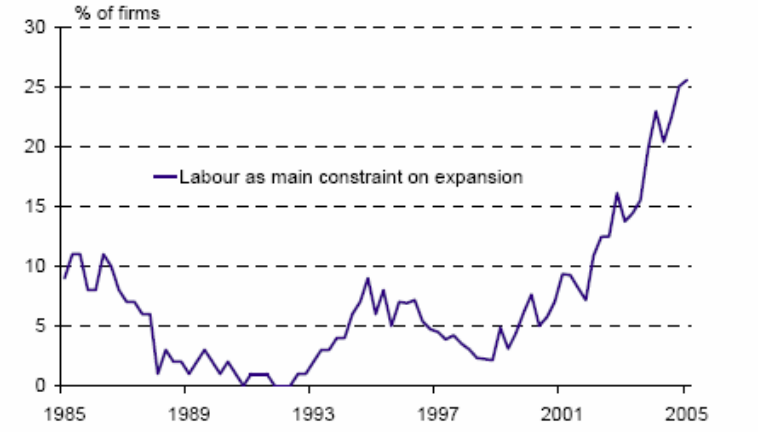
The following two charts of results from the Quarterly Business Opinion Survey demonstrate this pressure on staffing.

Difficulty in finding staff



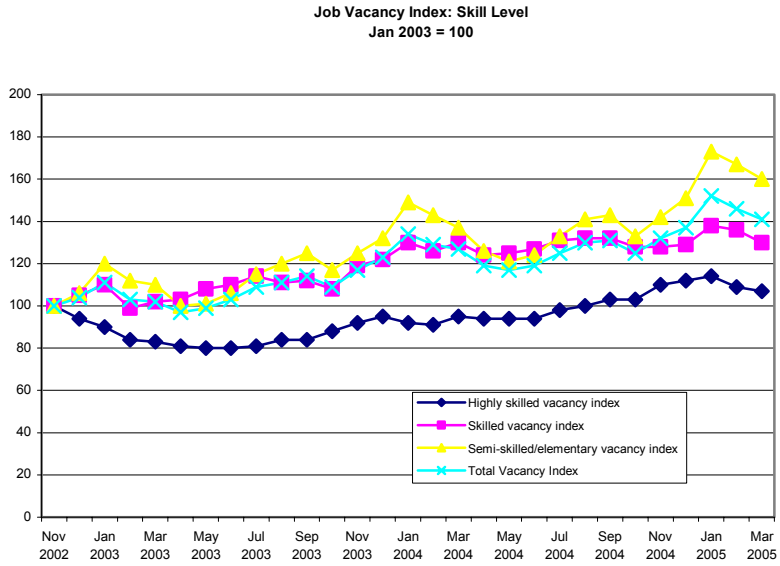
Source: NZIER Quarterly Survey of Business Opinion in "Skills in the Labour Market, June 2005" Department of Labour

Labour as main constraint

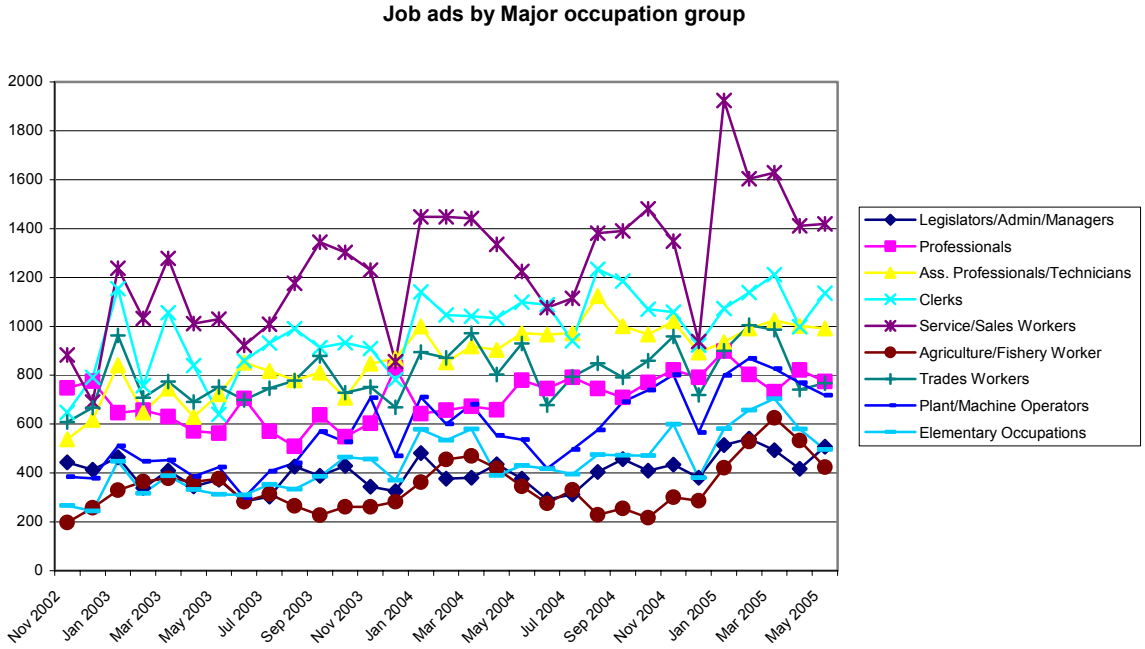


Source: NZIER Quarterly Survey of Business Opinion in "Skills in the Labour Market, June 2005" Department of Labour

Another source of information is the Department of Labour's **Job Vacancy Monitoring Project.** This indicator shows that semi-skilled and elementary vacancies have grown the most since the beginning of the series in late 2002.



The count of job vacancies advertised shows that service and sales workers are the group advertised for the most, and with the largest growth over time. Much employment in the tourism sector would be likely to fall into this category.



The labour market is typically cyclical and predictions are that the pressure may ease somewhat but that shortages will remain in the short-term.

The supply of labour and skilled labour is affected by demographic trends, by education and training levels, migration in and out of the country, and movement in and out of the labour force (e.g. to retirement or after time at home with children). As discussed elsewhere, the medium and longer term outlook is affected by demographic change which will reduce the number of people entering the workforce.

FUTURE REQUIREMENTS FOR LABOUR

BERL was commissioned by various industry players to provide projections of tourism's workforce requirements through to 2010, given the expected growth in tourism. Taking the March 2003 TSA employment estimates as a base, employment in tourism is projected to increase by 2.1% per annum between 2003 and 2010, equivalent to 16,640 full-time equivalent jobs. This growth in employment is driven mainly by international tourism growth, which is projected to grow substantially faster than domestic tourism.

The breakdown in the projected employment growth between the tourism-characteristic industries is as follows:

Table 4: FTE Employment in Tourism by Sector[4]

	Year			Change 2003 to 2010	
Sector	**2001**	**2003**	**2010**	**Total**	**%pa**
Accommodation, restaurants and hotels	34,664	37,623	43,432	5,809	2.07
Road, water and rail transport	4,789	5,024	5,787	763	2.04
Air transport	14,784	15,254	18,767	3,513	3.00
Other property services	1,691	1,810	2,053	244	1.82
Culture and recreation	4,285	4,518	5,134	616	1.84
Wholesale and retail trade	20,241	20,853	23,783	2,930	1.90
Total	98,638	104,147	120,590	16,443	2.12

Source: Tourism Workforce and Skill Projections Report, BERL, October 2004.

Over the same period, the economy-wide projected increase in employment is 1.8%. This suggests that tourism will represent a growing share of employment over the period. BERL observe that 'given the context of rising employment across the economy, competition for both skilled and unskilled labour is likely to be intense'.

[4] *In this table, sector tourism ratios have been applied to calculate the proportion of each industry sectors employment which is thought to come from tourism.*

On the supply side, New Zealand faces a transition to zero population growth, mainly due to a decline in fertility below the level required for a population to replace itself. In the absence of migration, if fertility levels remain at around 1.9 births per woman, the New Zealand population will continue to grow until the mid 2030's and decline thereafter. Even with net annual migration of 5000, the population would continue to grow for a further six to eight years peaking at 4.6 million in 2043, and then decline thereafter. To maintain a positive rate of population growth would require net migration at unprecedented levels.

Below replacement fertility will result in substantial declines at the younger ages. The number of new entrants to the New Zealand labour force is expected to increase through to 2011 and decline thereafter. This will contribute to a stationary labour force by 2021 and possibly to an absolute reduction in the size of the labour force thereafter. At the same time, the population aged 65 years and over will more than double from 0.45 million to 1.18 million by 2051.

These demographic trends are even more pronounced in Europe than in Australia and New Zealand, leading to world-wide competition for the available labour supply across all categories of skill.

Migration impacts on the available labour force

Education and training, improved pay and conditions and immigration can all be part of a solution to labour and skill shortages. Some suggest that inward migration (temporary or permanent) is a good solution for tourism-related industries, suited to seasonal employment or using the skills of migrants. However, while migration is an important component in the New Zealand labour market, it is not expected to offer a panacea to ongoing labour supply pressures.

In the New Zealand context, migration affects the labour force with large movements both in and out of the country. The main groups coming in permanently include returning New Zealanders, as well as those granted residence (skilled, family or humanitarian categories). Currently the New Zealand Immigration Programme aims to approve 45,000 residents per year. In future residence approvals are likely to remain at the same volume, reflecting immigration policy decisions. The government expects to make a set number of such approvals in a year.

Year	Residence Programme[5]
97/98	35,000
98/99	35,000
99/00	38,000
00/01	38,000
01/02	53,000
02/03	50,000
03/04	45,000
04/05	45,000

The actual number approved in a year can vary depending on demand and processing capacity. Note that about half of people approved for residence are already onshore in NZ, and that some who are approved may not arrive for up to a year.

The numbers of people entering on temporary work permits is as large again as the number of residence approvals. The following table gives some indication of the types of employment those on work permits take up:

Table 5: Work Permits by Occupation

Occupations of approved work applications*, by year of approval

Applications Decided	FinancialYear				
NZSCO major description	2002/03	2003/04	2004/05	2005/06	Grand Total
Agriculture and Fishery Workers	955	2728	2008	246	5937
Clerks	157	763	1260	152	2332
Elementary Occupations (incl Residuals)	188	1241	4609	643	6681
Legislators, Administrators and Managers	808	3002	5711	853	10374
Plant and Machine Operators and Assemblers	291	1765	2576	255	4887
Professionals	3037	8892	9605	974	22508
Service and Sales Workers	2470	6348	9394	917	19129
Technicians and Associate Professionals	2413	7011	9127	969	19520
Trades Workers	1076	2984	3565	507	8132
(blank)	8846	13094	8984	697	31621
Grand Total	20241	47828	56839	6213	131121

This table counts each person granted a work permit which requires a job offer, and the classification of that job off
It does not include those granted work permits for any other reason e.g. family.

Source: Department of Labour.

Earlier in the paper it was noted that foreign fee-paying students are counted as tourists for some purposes. They also represent a potential labour source. Foreign fee-paying students are another large cohort of temporary migrants, and many have limited working rights while they study. Reliable information is not available on how many take up employment while in New Zealand. The numbers of students overall varies according to market influences in the export education sector.

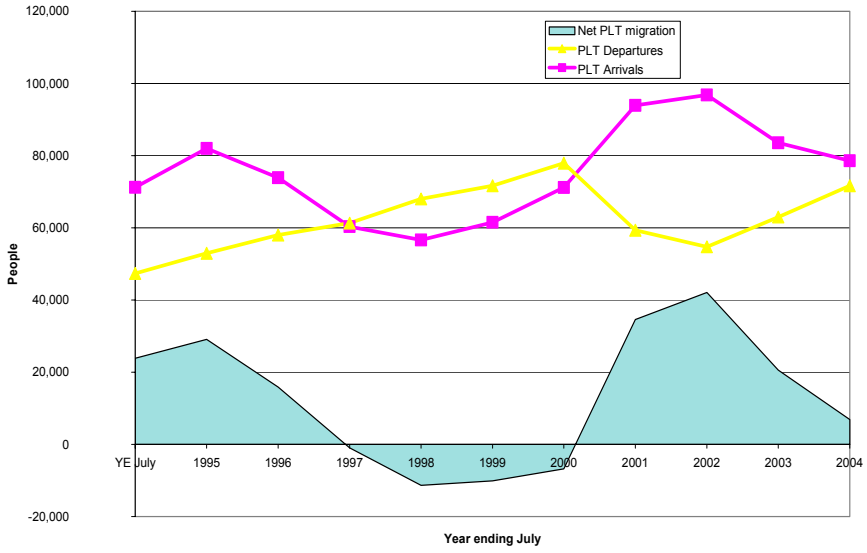
[5] *Source: Department of Labour*

As well as the positive increase of available workers which immigration represents, New Zealand also has an established pattern of large numbers of people leaving the country on a permanent or long-term basis. Outflows of people are not in the control of government policy, and the biggest single factor is the movement of New Zealanders to Australia, which is effectively an open border for New Zealand citizens. Although the net movement between the two countries has been positive in Australia (i.e. more New Zealanders lost to Australia) for about the last thirty years, the movement in volume of people moving to Australia does change, and tends to be the biggest single indicator of whether New Zealand migration is positive or negative in net terms, i.e. whether NZ is gaining people or not.

The other important factor about the Trans-Tasman flows is that the skill mix of those moving to Australia is more like the New Zealand population as a whole than those moving to other countries. Thus when more people are moving to Australia, there will be a net loss of lower-skilled people who are over-represented in the tourism workforce,

Movement to most other countries requires people to meet immigration criteria (unless there are family links) and therefore they tend to have higher skills overall.

Permanent and Long-term migration[6], all people



In short, the medium term outlook is not favourable for industries that are relatively labour intensive, have limited capacity to substitute capital for labour, and are relatively dependent on young people as a 'flexible' and low cost source of labour. Parts of tourism fit this profile. Whilst immigration can be used to mitigate these effects in the short-run, it also can be a net drain on the workforce, and does not present a long-term solution in itself to increased demand for labour in tourism or other sectors.

6 External migration is measured by arrival and departure card data from airports and other points of entry. Permanent and long-term arrivals are those who indicate they are planning to stay in New Zealand for one year or more, and permanent and long-term departures are those who indicate they expect to stay away from NZ for one year or more.

4. PRODUCTIVITY IN THE TOURISM SECTOR

The preceding analysis suggests that in the future there will be intense competition throughout the economy for the available supply of labour, and that this will occur across all skill categories. To the extent that tourism expands, it will put further pressure on the price of labour and reduce the competitiveness of other export and import substitution industries. A 'crowding out' effect might well occur that will reduce (or possibly eliminate) the net economic benefit of expanding tourism.

On the other hand, it is every bit as likely that expansion in other industries will 'crowd out' tourism. As noted above, the decline in the number of new entrants to the labour market from 2011 will disproportionately impact on the accommodation, food and beverage parts of the industry. The high labour intensity of these industries coupled with their reliance on school leavers as a low cost and flexible supply of labour does not position them well to compete with other industries for labour in the older age cohorts.

Given the intense competition for labour that is likely in future years, the question arises as to whether labour is more productively employed in tourism than in other sectors of the economy. Unfortunately, this is very difficult to establish with any confidence from existing data sources. The analysis that follows pushes the limits of what is possible.

The Tourism Satellite Account (TSA) allows an estimation of tourism expenditure, value added and employment. It also enables the calculation of basic measures of labour productivity (i.e. output per worker), using tourism value added and employment data. Differences in labour productivity levels reflect differences in capital-labour ratios and differences in multi-factor productivity levels. Unfortunately, Satellite account data does not allow decomposition into these different aspects of productivity levels.

GROSS VALUE ADDED

Gross Value Added (GVA) provides a measure of the economic importance of an industry sector, relative to other industries and the economy as a whole.

GVA for an industry is the value of output of goods and services less the value of inputs used in producing those goods or services. Tourism GVA is defined as the value of the output of goods/services which are consumed by visitors less the value of the inputs used in producing those goods/services.

Table 6 shows how direct real Tourism gross value added has grown since 1997.

Table 6: Real Direct Tourism Value Added, 1997 to 2004

Year Ended March	1997 $ million	% of GDP	Year on Year % Change
1997	4,198	4.7%	n/a
1998	4,099	4.4%	(2.4%)
1999	4,472	4.8%	9.1%
2000	4,707	4.9%	5.2%
2001	4,588	4.8%	(2.5%)
2002	4,862	4.8%	6.0%
2003	5,686	5.0%	16.9%
2004	5,421	4.5%	(-4.7%)

In the eight years to March 2004, direct Tourism value added has grown 29% in real terms. The tourism sector's share of GDP has remained relatively constant over the period at around 4.7%.[7]

Table 7 provides an overview for the year to March 2002 of the composition of gross value added by industry, and by the three major components of gross value added: compensation of employees (i.e. wages and salaries); gross operating surplus (i.e. trading profit/loss); and other net taxes on production (e.g. PAYE, Rates etc).

[7] *Strong year-on-year growth in the year to March 2003 saw the industry contribution jump to 5.0% of GDP.*

Table 7: Composition of Gross Value Added, March 2002

Direct Tourism Value Added	GVA	Compensation of Employees	Gross Operating Surplus	Taxes on Production and Imports
Tourism Characteristic Industries	**$ million**	**%**	**%**	**%**
Accommodation, cafes and restaurants	1116	58%	38%	3%
Road passenger, rail and water transport	177	65%	29%	7%
Air transport	444	109%	-11%	2%
Other transport, storage and transport services	542	47%	51%	3%
Machinery and equipment hiring and leasing	187	22%	76%	1%
Cultural and recreational services	289	36%	49%	14%
Tourism-related Industries				
Retail trade	728	55%	44%	2%
All non-tourism related industries	2062	45%	39%	15%
TOTAL	**5544**	**54%**	**39%**	**8%**

As can be seen, 'Accommodation, cafes and restaurants' made the largest single contribution to Tourism GVA (20.1%), followed by 'Other Transport, Storage and Transport Services' (9.8%) and 'Air Transport' (8.0%). For the Tourism sector overall, compensation of employees represented 54% of GVA, but this masks significant variation across tourism-characteristic industries. The contribution to GVA of industry profitability was particularly variable, with one industry (Air Transport) reporting an aggregate loss for the year.

Table 8 illustrates that, with two minor exceptions, the sub-industry structure of the tourism sector, measured in terms of the sub-industry shares of value added, has been remarkably stable over time. The exceptions relate to a significant reduction in the share of Tourism value added captured by the Air Transport sector, predominantly to the benefit of non-tourism related industries.

Table 8: Sub-Industry Share of Gross Value Added, 1997-2002

Share of Direct Tourism Value Added	1997	1998	1999	2000	2001	2002
Tourism Characteristic Industries	%	%	%	%	%	%
Accommodation, cafes and restaurants	19%	19%	19%	19%	20%	20%
Road passenger, rail and water transport	4%	4%	4%	4%	4%	3%
Air transport	16%	14%	13%	14%	11%	8%
Other transport, storage and transport services	10%	10%	9%	10%	9%	10%
Machinery and equipment hiring and leasing	3%	3%	3%	3%	3%	3%
Cultural and recreational services	4%	5%	4%	4%	5%	5%
Tourism-related Industries						
Retail trade	13%	13%	12%	13%	13%	13%
All non-tourism related industries	32%	33%	35%	35%	35%	37%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Totals may not sum due to rounding.

TOURISM EMPLOYMENT

Table 9 shows aggregate tourism employment data for 2001-04. A change in the data source for employment means that consistent data prior to 2001 is not available. For the three years to March 2004, direct tourism employment increased by 8.2%, compared with growth in real Tourism value added over the same period of 18.2%, suggesting significant growth in levels of labour productivity over the period.

Table 9: Employees Directly Engaged in Tourism

Year Ended March	FTE	Year on Year % Change
2001	94,900	n/a
2002	98,500	3.8%
2003	104,200	5.8%
2004	102,700	(1.4%)

The above figures include working proprietors. Average compensation per tourism FTE is derived by Statistics New Zealand by excluding working proprietors, as shown in table 10 below.[8]

[8] *The assumption made by Statistics New Zealand seems to be that working proprietors do not pay themselves a salary but instead take their remuneration in the form of drawings/dividends. In practice, they make take a mix of both, which would cause the average compensation per employee figures to be overstated.*

Table 10: Average Compensation per FTE – Year to March 2002

Direct Tourism Value Added	Compensation of Employees	Direct Tourism Employment	Average Compensation per Tourism Employee
Tourism Characteristic Industries	$	FTEs (excl working proprietors)	$ per FTE (excl working proprietors)
Accommodation, cafes and restaurants	651	27,000	24,111
Road passenger, rail and water transport	115	2,800	41,071
Air transport	485	7,300	66,438
Other transport, storage and transport services	253	5,300	47,736
Machinery and equipment hiring and leasing	41	800	51,250
Cultural and recreational services	105	3,500	30,000
Tourism-related Industries			
Retail trade	399	13,700	29,124
All non-tourism related industries	931	21,100	44,123
TOTAL	**2981**	**81,500**	**36,577**

The wide variation of average compensation per employee - $24,100 in the accommodation, cafes and restaurants sector through to $66,400 in the air transport sector - is suggestive of significant differences in labour productivity within the industries that make up the tourism sector. This is likely to reflect differences in skill levels and availability as well as differences in the capital-labour ratio (relative capital/labour intensity) in the different sectors.

LABOUR PRODUCTIVITY

Productivity is the rate at which outputs of goods and services are produced per unit of input. Labour productivity is typically measured as the gross value of output (value added) divided by the number of workers (or, better, the number of hours worked). Data on hours worked for the tourism sector is not available so we have used the number of full-time equivalent employees as a crude measure of labour input.

Table 11 shows changes in labour productivity levels (and rates of change) for the period 2001 to 2004. Over the three years to 2004, real (compound) productivity growth averaged 3.0 % per annum.

Table 11: Real Labour Productivity in Tourism 2001 to 2004

Year Ended March	Real GVA 2004 $ million	FTEs #	GVA / FTE $ per FTE	Year on Year Change %
2001	5,257	94,900	$55,393	n/a
2002	5,572	98,500	$56,565	2.1%
2003	6,515	104,200	$62,525	10.5%
2004	6,212	102,700	$60,487	(3.3%)

Average labour productivity levels for the tourism sector mask considerable variation at the sub-industry level, as seen in Table 21. The gross value added per full-time worker ranges from $33,820 in the accommodation, cafes and restaurants sector to approximately $170,000 in the machinery and equipment hiring and leasing sector. As with variation in the compensation per employees, this reflects differences in the capital-labour ratio in different sectors.

Table 12: Average Labour Productivity at the Industry Level

Direct Tourism Value Added (March 2002 data)	GVA	Direct Tourism Employment	GVA per worker
Tourism Characteristic Industries	$ million	FTEs (incl working proprietors)	$ per FTE (incl working proprietors)
Accommodation, cafes and restaurants	1,116	33,000	$33,820
Road passenger, rail and water transport	177	4,400	$40,230
Air transport	444	7,300	$60,820
Other transport, storage and transport services	542	6,100	$88,850
Machinery and equipment hiring and leasing	187	1,100	$170,000
Cultural and recreational services	289	4,700	$61,490
Tourism-related Industries			
Retail trade	728	17,800	$40,900
All non-tourism related industries	2,062	24,100	$85,560
Total	**5,544**	**98,500**	**$56,280**

In addition, growth in labour productivity has been very uneven across the tourism sub-industries. Table 13 shows annual average real growth in labour productivity for each sub-industry, measured over the period 1997-2000 and 2001-02.[9] The table shows that while some tourism sub-sectors have shown strong average annual growth in labour productivity

[9] *A change in the data source for employment prevents a calculation of productivity growth over the period 2001 to 2002.*

between 1997 and 2002 (e.g. machinery and equipment hiring and leasing, retail trade), data on others sectors imply a negative average rate of change of labour productivity (i.e. air transport, non-tourism related services).

Table 13: Average Labour Productivity Growth at the Industry Level

Average Percentage Change in Labour Productivity 1997-2000 and 2001-02	**Average Year-on-Year Change**
Tourism Characteristic Industries	**%**
Accommodation, cafes and restaurants	0.1%
Road passenger, rail and water transport	0.4%
Air transport	(1.2%)
Other transport, storage and transport services	1.4%
Machinery and equipment hiring and leasing	9.5%
Cultural and recreational services	1.2%
Tourism-related Industries	
Retail trade	4.5%
All non-tourism related industries	(0.7%)
TOTAL	**1.3%**

It is not possible to obtain comparable productivity levels data for other industrial sectors or for the economy as a whole, as the data on full-time equivalent employees for the tourism sector is a unique hybrid measure based on the Quarterly Employment Survey and Household Labour Force Survey. However, productivity growth comparisons across industry sectors are probably less susceptible to this problem.[10]

Table 14 shows the year-on-year percentage change in real Gross Domestic Product (GDP) per FTE for 2002-2004. The data show that, over this short period, aggregate productivity growth was approximately 5.1%, slower than the 9.2% labour productivity growth measured for the tourism sector over the same period.

[10] *The assumption is that employment trends across surveys are comparable even if levels of employment are not.*

Table 14: Changes in GDP per FTE 2002 to 2004

Year Ended March	Real GDP 2004 $ million	FTEs (from QES)[11] #	GDP / FTE $ per FTE	Year on Year Change %
2001	118,877	1,126,300	$105,546	n/a
2002	124,144	1,162,000	$106,837	1.2%
2003	130,042	1,199,000	$108,459	1.5%
2004	137,150	1,236,300	$110,936	2.3%

In sum, recent years have seen strong growth in real output, employment and labour productivity in the tourism sector. Since 2001, growth in value added (18.2%) and labour productivity (9.2%) has outstripped the corresponding measures of growth in the wider economy (15.4% and 5.1% respectively), and employment growth has been a shade behind the rest of the economy (8.2% in tourism versus 9.8% for the economy as a whole).

Whether the growth differential in labour productivity has been driven by multi-factor productivity or changes in the capital-labour ratio is not known. Nor is it possible, given the very short period for which data is available, to conclude whether the measured differences in labour productivity represent structural or cyclical influences. Despite tourism's apparently strong productivity performance, one could not conclude that this will necessarily continue to be the case.

In terms of the quality of tourism data for the purposes of productivity measurement, a key weakness is the absence of hours worked data in terms of employment. Measurement of labour productivity (even using the measures in this report) may also be impeded by the shift to Rolling Mean Employment (RME) counts instead of FTEs. The absence of time-series data on the capital stock is also a problem, in that it prevents further decomposition of labour productivity, although it is pleasing to see estimates of the net capital stock in the most recent TSA. Future work on Tourism statistics should bear these considerations in mind.

[11] The choice of data source for aggregate FTE data has a significant impact on measured rates of productivity growth, as well as productivity levels, which emphasizes the need for considerable caution in interpreting these statistics. For example, using an alternative (unofficial) Statistics New Zealand FTE series modeled based on Business Demography data, we calculate the year-on-year change in real GDP/FTE as 1.5%, -0.7% and 1.9% for the years to March 2002, 2003 and 2004 respectively.

5. ALTERNATIVE MODELS FOR FUNDING OFF-SHORE DESTINATION MARKETING

As discussed in Part 2 of the report, there is a prima facie case that off-shore destination marketing satisfies the standard tests for the existence of market failure, namely, the tests of externalities/non-appropriability, risk and uncertainty, and indivisibilities. In the absence of intervention, an underinvestment in this form of marketing will occur. As a result, most governments throughout the world invest in off-shore destination marketing.

However, the existence of market failure does not in itself pre-determine the most appropriate approach to the funding of off-shore destination marketing. A number of different models present throughout the world, which may be broadly classified as follows.

- Funding from general taxation.
- Funding by way of a discriminatory tax on the tourist.
- Funding from industry.
- Any combination of the above.

These are discussed in turn.

FUNDING FROM GENERAL TAXATION

Most countries that have established National Tourist Organisations (NTOs) to undertake off-shore destination marketing fund them either in whole or in part from general taxation. Typically, a mix of private and public funding is involved but New Zealand is one of a number of countries that funds its NTO (Tourism New Zealand) entirely from general taxation (see below).

The principal advantages of funding off-shore marketing from general taxation (as opposed to a discriminatory tax) are that it does not distort the competitive position of tourism, both against other industries and across rival tourist destinations, and that it is administratively efficient with minimal compliance and enforcement costs. It also allows the government the flexibility to continually assess the relative priority of spending on off-shore destination

marketing. This flexibility is generally not available under a discriminatory taxation regime, where the expectation (if not the obligation) is that the proceeds of the tax will be spent on tourism.

As noted previously, inbound tourists to New Zealand do contribute to general government revenue through the payment of goods and services tax on their purchases, which is of the order of $200 to $300 million per annum. This can be seen as a contribution to the costs of the infrastructure and public services that underpin their visit.

DISCRIMINATORY TOURISM TAXATION

One of the most common of the discriminatory taxes imposed on tourists is a bed night tax. Singapore funds its entire tourism budget through revenues generated by a bed night tax. Other countries/municipalities have considered introducing a bed night tax and not proceeded with it in face of industry opposition (e.g .the British government's proposal for a 2% tax)), or have introduced a tax and subsequently withdrawn it when the impacts on demand became evident (e.g. the 5% tax imposed on hotels by the City of New York that was withdrawn after four years).

In parts of Europe, tourists have benefited from positive discrimination through reduced rates of VAT and rates of VAT on tourist related services vary greatly throughout Europe.

As noted above, the application of discriminatory or inequitable taxes may distort the competitive position of the sector, both against other industries and across rival destinations. A tax that is negatively discriminatory against tourists may depress demand through the increases in costs to consumers stemming from the tax increases, with consequent business failures and job losses. The WTO cites examples where governments have ended up with less revenue overall after increasing a tax on tourists.

The extent of the distortionary impacts of tourism taxation depends on the price elasticity of demand for the services being taxed. The evidence suggests that tourists are sensitive to changes in effective prices such as would occur through the imposition of a discriminatory tax:

- A Delloite Touche study (1995) for the British Tourist Authority estimated the price elasticity of demand for an increase in VAT to be as high as (-) 2.5, that is, a 1% increase in VAT would reduce tourist demand by 2.5%;

- Durbarry and Sinclair (2000) calculated the sensitivity of overseas tourism demand in the form of tourism expenditure to changes in effective prices (which take account of the exchange rate) to be approximately unity. They concluded that a decrease in tourism taxation would improve UK competitiveness and generate a significant increase in tourist receipts, providing the reduced taxation was passed on to tourists through reduced prices;
- As noted in Part 2, The National Bank found that a sustained 1% rise in New Zealand's tourist weighted real exchange rate (the proxy for prices) would reduce tourist arrivals by 0.28% and the amount spent per day by 0.5%, giving a total revenue impact of 0.78%. The slightly lower values revealed for New Zealand probably reflect the fact that New Zealand is a relatively remote tourist destination with the tourist facing high fixed costs in getting here. On the other hand, the UK is exposed to considerable competition from other European countries on its doorstep.

Of course, these studies take no account of general equilibrium effects. It is interesting in this regard that Blake (2002), using a Computable General Equilibrium model, concluded that an accommodation tax increase would be beneficial to the Spanish economy because, inter alia, it is levied on an export with a low elasticity of demand relative to other exports, and counteracts the effects of transport subsidies. However, Blake cautions that the transition costs in the move to long run equilibrium in tourism (temporary unemployment, capacity underutilisation) are large in comparison to the overall welfare gain and could outweigh the long run benefits.

In New Zealand, $889 million was spent on accommodation services in the year ended March 2004. This amounts to 12.8% of total expenditure. Fully funding the current baseline for off-shore destination marketing would require an accommodation tax of 6% (ignoring costs of administration). Assuming that the elasticity values revealed by the National Bank study for total tourism expenditure are the same as for accommodation services, a 6% accommodation tax would reduce expenditure on accommodation by 4.68% or $4.2 million.

FUNDING FROM INDUSTRY

As noted above, funding for off-shore destination marketing typically involves a mix of private and public sector funding. This reflects the fact that off-shore destination marketing confers private benefits, and it is therefore not unreasonable to expect some contribution from industry.

It is difficult to get an up to date and accurate picture of the relative split between private and public sector funding. A WTO Business Council survey of public-private cooperation initiatives found that whilst private sector funding for off-shore marketing has been growing annually as a proportion NTO's budgets, it still represented a modest proportion in most countries surveyed and was usually not automatic. In addition, some countries including New Zealand and Australia have bucked the trend.

Table 15, which is drawn from various sources over various years, provides some indication of the public-private split in funding for selected countries.

Table 15: Public-Private Split in Funding of NTO's

Country	Public	Private
Australia (2005/6)	85%	15%
Austria	80%	20%
Canada	46%	54%
Chile	52%	48%
Egypt	75%	25%
France	50%	50%
Germany	85%	15%
Hong Kong	95%	5%
Ireland	80%	20% (including EU)
Italy	100%	
Mexico	100%	
Netherlands	51%	49%
New Zealand	100%	
Singapore (bed tax)	100%	
South Africa	67%	33%
United Kingdom	66%	34%

Source: Primarily WTO, up-dated from Annual NTO Reports where possible

As can be seen, the proportions vary markedly between countries. So also do the forms of private sector assistance. For example:

- Maison de la France receives both membership dues plus contributions to specific promotional campaigns. Members include companies from the manufacturing and retail sectors;

- SATOUR receives one third of its funds from a voluntary levy, set at 1% of all customer accounts from all sectors of the industry. The levy is paid directly into a tourism fund;
- Sri Lanka Promotion raises funds by way of an industry levy. Anyone seeking to renew a licence to operate a hotel, travel agency, or tourist shop must pay the levy as a condition of obtaining the licence. This is a very new initiative, and reflects that fact that off-shore destination marketing has been very poorly resourced in Sri Lanka. There is no information on how successful it has been.
- The Canadian Tourism Commission receives a proportion of its private sector funds in the form of direct grants.

In Australia, the share of private sector funding of off-shore destination marketing has almost halved since 1997. This primarily reflects the very substantial increases in public sector funding arising from the Tourism White paper.

In similar vein, New Zealand moved away from public-private sector funding in the form of joint ventures with industry in the late 1990's. At that time, the industry contribution was of the order 24% of total funding.

The decision by the then Tourism Board to withdraw from joint ventures was taken deliberately. New Zealand had not developed a tourism profile. Instead, the marketing initiatives were scattered between the different tourism markets and there was no growing of a coherent brand. This reflected the tension between generic marketing of a destination and tactical marketing of a product, with the interests of the private partner primarily being in the latter. There was also considerable doubt over whether the industry contribution represented an addition to the pool of overall funding or whether it amounted to a diversion of funds that otherwise would have been spent on marketing the product.

The industry contribution is therefore confined to familiarisation work, to the provision of free travel for trainers and journalists, and to trade fairs. In the case of the latter, the cost is split three ways between the international industry, the New Zealand industry, and Tourism New Zealand. Both Qantas and Air New Zealand provide discounted fares to Tourism New Zealand personnel.

Given the benefits that accrue to the industry from Tourism New Zealand's marketing, it is not unreasonable to argue for a more substantial contribution than applies at present. If this argument is accepted, the issue shifts to the most appropriate mechanism for securing that contribution.

As argued in Part 2, the imposition of a compulsory levy would be difficult and administratively costly in an industry as fragmented as tourism, which is characterised by a few large players and a large number of very small firms scattered across many different sectors of the economy. These firms produce a diverse range of products and services that are sold directly to the tourist. However, the relative shares of output contributed by the big players and small firms is not known. With the exception of Sri Lanka, no other country has attempted to raise funds for off-shore marketing by way of a compulsory levy.

The experience of SATOUR in raising funds by way of a voluntary levy is worthy of further investigation. As noted above, this levy is set a 1% of all customer accounts across all sectors of the industry, and is paid directly into a tourism account. Within the New Zealand setting, a 1% levy that is applied to those sub-sectors that rely on international tourists to purchase a significant share of their product (accommodation, food and beverage serving, and transport) would raise a maximum of NZ$45 million, or, assuming around a 50% collection rate, NZ$22 million. The TSA could be used to create expectations around the share of the contribution that would be equitable from these sub-sectors. Industry buy-in to such an approach would be necessary to ensure a measure of success.

A third and probably more practicable approach would be the establishment of a partnership between industry and the government whereby any additional government funding would be conditional, in whole or in part, on an equivalent contribution from industry. The advantage of this approach, in addition to recognising the private benefits of off-shore destination marketing, is that it better aligns incentives for both the industry and Tourism New Zealand.

The issue that arises is how to incentivise industry to match the increased government contribution. One approach would be for Tourism New Zealand to move to address the current imbalance between the awareness levels of interactive tourists of New Zealand as a preferred destination, and the conversion of this awareness into a sale. This possibility is discussed in Part 6.

6. A POSSIBLE FRAMEWORK FOR ASSESSING THE CASE FOR FURTHER FUNDING OF OFF-SHORE DESTINATION MARKETING

Drawing the threads of the preceding analysis together, it is evident that:

- Tourism is a major and growing contributor to production, employment and exports in New Zealand, and international tourism has supplanted the dairy industry as the major earner of export receipts. The growth in tourism and other export services has led to a diversification of New Zealand's export base, and helped to buffer the cyclical exposure of the real exchange rate and business activity in general.
- Tourism has also been a major driver of economic development in some regions and acted as a catalyst for developing and preserving cultural heritage.
- There is a prima facie case for government support for off-shore destination marketing on the grounds of market failure, and this is reflected in current levels of support in New Zealand
- Off-shore destination marketing has played an important role in generating this growth by raising the awareness of potential tourists to New Zealand as a destination. In this regard, it has served to reinforce other influences behind an individual's choice of destination.
- Since 2001, tourism's growth in value added and labour productivity has outstripped the corresponding measures of growth in the wider economy, and employment growth has been a shade behind the rest of the economy. However, whether this differential is driven by multi-factor productivity or changes in capital/labour ratios is not known, nor is it possible, given the short time period, to establish whether the differences represent cyclical or structural influences.
- However, this differential in labour productivity masks considerable variation at the sub-industry level, with accommodation, cafes etc recording hardly any growth in labour productivity and air transport a negative growth.

On the other hand:

- International literature, such as it is, suggests that a large part of the expansion of tourism has been at the expense of output and employment in other industries. The return to the community from this expansion is correspondingly much less than is immediately apparent.

- There is no research on the extent to which tourism expansion in New Zealand has crowded out the growth in other industries. However, the extent of crowding out during the 1990's cold be expected to be relatively small given the surplus capacity in the economy. With the economy now running at full capacity, any further expansion of tourism (or any other industry for that matter) is likely to be off-set (in part at least) by reductions in output and employment in other industries.
- The infra-structural and tourist developments required to support an expansion in tourism can increase the price of land for other users, and can impact negatively on the quality of life of residents in the tourist destination, as well as the natural and cultural environment.
- Parts of tourism, most notably accommodation and food and beverage serving, are characterised by relatively low paid and low skilled jobs, with considerable seasonal fluctuations in employment. They are dependent on young people (mainly school leavers moving into tertiary study) as a flexible and low cost source of labour.
- Tourism is projected to have significantly increased requirements for labour through to 2010 and command a greater share of the labour force. This will lead to intense competition for the available supply of labour throughout the economy.
- In the medium term, the outlook for relatively labour intensive industries that rely on new entrants to the workforce as a flexible and low cost source of labour is not good. The number of new entrants to the workforce is expected to decline after 2011, which means that the parts of tourism that rely on this source of labour will increasingly need to compete for labour in the older age cohorts, with consequent effects on pay levels and costs. Given the relatively low levels of pay in parts of tourism, the industry may have difficulty in competing for this type of labour.

Returning to the original objectives of this report, the case for further taxpayer funding of off-shore destination marketing rests on the following criteria being met:

1. That market failure exists that establishes a prima facie case for government support.
2. That TNZ's branding strategy is contributing to increased tourism expenditure.
3. That the net economic benefits of further growth in tourism can be established, given the increasing pressure on land and labour.
4. That the infra-structural and tourist development investments required to support increased tourism expenditure have minimal impacts on the physical and cultural environment.
5. That the benefits of increased tourism expenditure are distributed more widely regionally, and lead to more sustainable and better remunerated employment.
6. That tax-payer funding is the most appropriate means of providing for any increase in TNZ's baselines.

The analysis presented in the report suggests that the conventional causes of market failure are present in off-shore destination marketing and that the first criterion is therefore met.

The effectiveness of TNZ's branding strategy has yet to be fully established in the next phase of the review (effectiveness objectives). The research undertaken in Australia and New Zealand on the rate of return to off-shore marketing at the very least points to a positive relationship between off-shore marketing and increasing tourism arrivals and expenditure.

Assessing the net economic benefits of further growth in tourism (criterion 3) is more problematic. The conventional approaches to assessing the net economic benefits of government support for off-shore tourism have their limitations. Cost/benefit analyses do not adequately capture intangibles, which include important government goals, or general equilibrium effects. Computable General Equilibrium Models are useful for understanding linkages and trade-offs in the economy, but the results generated are heavily dependant on the assumptions that underlie the scenarios being modelled. The development of a Computable General Equilibrium Model may have merit in the long term, but is clearly not practicable over the timeframe of this baseline review.

In the absence of these tools, the assessment largely boils down to a judgment as to whether the economy's resources can support a further growth in tourism without off-setting adjustments in output and employment elsewhere. In this regard, the availability of labour poses as a real constraint. BERL forecasts that tourism will demand an increasing proportion of the labour force over the next few years, which together with the requirements of other industries will lead to intense competition for labour throughout the economy. On the supply side, the demographic trends are not favourable for industries that rely on low paid young employees as a flexible source of labour. Constant or only modest growth in tourist numbers would mitigate these pressures.

It is tempting to conclude from this analysis that a strong case does not exist for additional government support for off-shore destination marketing. However, it must be acknowledged that TNZ's baseline has remained relatively constant since the late 1990's and has therefore fallen in real terms. In contrast, competitor countries are now investing more heavily in off-shore tourism marketing,

The fact that TNZ's baseline has remained relatively constant since the late 1990's is not unusual. Baselines are rarely if ever adjusted for inflation, the rationale being to encourage publicly funded organisations to be efficient. Equally, the fact that competitor countries invest more in off-shore marketing does not in itself provide justification for increased government

support. The same could be said across many areas of government expenditure, and countries vary both in their capacity to pay and in relative priorities accorded to different areas of expenditure.

The more significant issue is the extent to which New Zealand risks losing 'share of voice' in its main markets and the implications of this in terms of awareness of New Zealand as a tourist destination. If there are risks that awareness levels will fall then simply maintaining tourist numbers and expenditure at current levels may prove to be a challenge. Compounding this is the impact of the recent growth in petrol prices on the competitiveness of long-haul tourism destinations. The effectiveness phase of the review should shed light on these issues.

It is also clear that there is excess capacity in the tourism industry in the off-season and that a more extended season could well allow for some expansion in tourism without significant off-setting effects elsewhere in the economy. Equally, increasing the proportion of high yield inter-active tourists that stay longer and travel to regions outside of the main tourist destinations could also serve to limit crowding out effects. This is particularly so if the capacity constraints in those regions are not as severe as in the urban entry ports and main tourist destinations and if a growing proportion of these tourists visit in the low-peak or shoulder seasons.

A strategy directed at increasing the proportion of inter-active tourists and lengthening the tourist season might also encourage the establishment of relatively capital intensive and high quality boutique accommodation in regions, spread the benefits of tourism more equitably between regions and lead to more sustainable and better remunerated employment (criterion 5). It might also minimise the pressure on local infra-structure and the natural and cultural environment (criterion 4).

In summary, there may be an argument for an adjustment to TNZ's baseline to simply maintain New Zealand's positioning in the marketplace, but a final judgment on this should await the outcome of the next phase of the review. If this case is established, then it is not unreasonable for this to be funded entirely by the government.

Outside of this, any additional funding of TNZ should support strategies directed at both raising the proportion of inter-active tourists and lengthening the tourist season. Such an approach would better align to the criteria outlined above. This will require TNZ to address the current imbalance between the awareness levels of interactive tourists of New Zealand as a desired destination and the subsequent conversion into sales and arrivals. This might well require direct cooperation between TNZ and the industry in marketing activities.

Because industry will directly benefit from these strategies and the more tactical approaches to marketing that flow from them, then any additional funding should be provided jointly by the government and industry on a dollar for dollar basis. Given the likely scale of the additional funding involved, there is little point in devising more sophisticated mechanisms for securing industry funding, such as a levy.

The framework described above can be used to assess the relative merits of different outcomes arising from different marketing strategies. Some examples are provided below for illustrative purpose.

For the purposes of the analysis, it is assumed:

- that the current baseline funding of $54 million is given; and
- that any additional funding for off-shore destination marketing (from whatever source) will generate higher tourism expenditure.

Three alternative outcomes are identified for illustrative purposes:

1. higher tourism expenditure arises from a marketing strategy directed at growing the number of tourists overall, with the proportion of high-yield Interactive Tourists remaining the same;
2. higher tourism expenditure arises from a marketing strategy directed at increasing the proportion of Interactive Tourists, with no increase in tourist numbers overall;
3. higher tourism expenditure arises from a marketing strategy directed at increasing both the proportion of high-yield Interactive Tourists and extending the tourist season.

A multi-criterion analysis forms the basis of the framework, classified as follows: the New Zealand Tourism Strategy Objectives 2010; economic efficiency criteria; and equity-based criteria.

Table 16

NZTS 2010 Objective	Short Description
Securing and conserving a long-term future	Conserving the natural, built, the social and cultural environment
Marketing and managing a world-class visitor experience	Attract more visitors with a higher yield
Working smarter	Minimise duplication, maximize coordination
Being financially and economically prosperous	Increase yield, increase viability and prosperity long-term

Economic Efficiency Criteria	Short Description
Demands on land for additional infra-structure and tourist development	Modest requirements for additional infra-structure and tourist development
Opportunities to improve the utilisation of capital	Significant improvements in the utilisation of the existing capital stock
Opportunities to increase capital intensity	Significant scope for saving labour through the use of more capital
Demands for additional labour	Modest impact of additional labour requirements on the general labour market
Opportunities for improving labour productivity	Significant scope for working smarter (e.g. improved management practices) and skill acquisition
Equity Criteria	**Short Description**
Opportunities for positive regional and community impacts	Significant employment opportunities in low-employment regions/communities. Significant opportunities to develop and preserve the cultural heritage of regions/communities
Opportunities for participation in high quality, well paid and diversified employment (Government Employment strategy goal)	Significant opportunities to upskill the workforce and grow well-paid employment

The three alternative outcomes are compared against the criteria/objectives in the table below. The degrees of alignment with the criteria as elaborated in their short description are assessed as high, medium or low.

Table 17: Assessment of Alternative Outcomes

Criteria	Outcome 1: Growth in tourist numbers, same proportion of high-yield tourists	Outcome 2: Constant tourist numbers, higher proportion of high yield tourists	Outcome 3: Higher proportion of high yield tourists, extended season
Securing and conserving a long term future	low	medium	high
Marketing and managing a world class visitor experience	low	high	high
Working smarter	low/medium	medium/high	medium/high
Being financially and economically prosperous	low	high	high
Demands on land for additional infra-structure and tourist development	low	medium	medium
Opportunities to improve the utilisation of capital	low	medium	high
Opportunities to increase capital intensity	medium	medium/high	medium/high
Demands for additional labour	low	medium	medium
Opportunities to improve labour productivity	medium	medium/high	medium/high
Opportunities for positive regional and community impacts	medium	high	high
Opportunities for participation in high quality, well paid and diversified employment	low	medium	medium

Broadly speaking, an outcome that is well aligned with the criteria is one that is environmentally friendly, profitable, has minimum impact on the output and employment of other industries by using its scarce resources efficiently, has positive regional and community impacts, and creates opportunities for high skilled and well paid employment.

Outcome 3 represents the best fit and provides the strongest case for increased support for off-shore destination marketing from both the government and industry.

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