

# Tourism Satellite Account



*The contribution made by tourism to the  
New Zealand economy in 2009*

2009



# Tourism Satellite Account: 2009



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## Preface

*Tourism Satellite Account: 2009* provides a picture of the role tourism plays in New Zealand, with information on the changing levels and impact of tourism activity. It presents information on tourism's contribution to the New Zealand economy in terms of expenditure and employment. Results cover provisional figures for the years ending March 2006–09 and an updated summary of the results for 2005.

Developed and published by Statistics New Zealand, the tourism satellite account is compiled under a United Nations World Tourism Organization (UNWTO) framework and funded by the Ministry of Tourism. It is one component of a core set of tourism data that provides base information for understanding and monitoring the changing levels and impact of tourism activity in New Zealand. Other elements of the core dataset include surveys of spending by international and domestic visitors, visitor arrival and accommodation statistics, and forecasts of tourist numbers and expenditure.

Readers of previous publications in this series will note a change in the levels of both direct and indirect tourism value added for all years. This is due to changes in the methodology relating to how tourism direct and indirect value added is derived. *Tourism Satellite Account: 2009* is the first to incorporate these changes, which are recommended by the UNWTO and approved by the United Nations Statistical Commission.

The timeliness of *Tourism Satellite Account: 2009* has been improved by the rescheduling of the release date to October to incorporate the latest March annual year. Provisional estimates are now produced for the years ending March 2006–09. This has led to the sequence of annual publications advancing from *Tourism Satellite Account: 2007* to *Tourism Satellite Account: 2009*.



Geoff Bascand  
Government Statistician

## Standards and further information

### Percentage changes

Percentage movements are, in a number of cases, calculated using data of greater precision than published. This could result in slight variations. Individual percentages may not sum to 100 due to rounding.

### Rounding procedures

On occasion, figures are rounded to the nearest thousand or some other convenient unit. This may result in a total not summing to the total of the individual items shown in tables. Where figures are rounded, the unit is, in general, expressed in words below the table headings, but where space does not allow this, the unit may be shown as (000) for thousands, etc.

### Changes of base

Where consecutive figures have been compiled on different bases and are not strictly comparable, a footnote is added indicating the nature of the difference.

### Values

All expenditure values are shown in New Zealand dollars and are in current prices.

### Source

All data is compiled by Statistics New Zealand, except where otherwise stated.

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# 1 What is a tourism satellite account?

Tourism, unlike 'conventional' industries such as agriculture or manufacturing that are classified in accordance with the goods and services they produce, is defined by the characteristics of the customer demanding tourism products. Tourism products can cut across standard industry definitions, and therefore require a different approach.

A tourism satellite account integrates data about the supply and use of tourism-related goods and services into a single format. It provides a summary measure of the contribution tourism makes to production and employment, consistent and integrated with New Zealand's official national accounts. This ensures that the importance of the tourism sector is measured and understood in the context of the New Zealand economy as a whole. New Zealand's tourism satellite account (TSA) measures expenditure in New Zealand by both resident and non-resident tourists, and thus gives a picture of the overall size of the tourism industry, including its contribution to GDP and employment.

Satellite accounts are an extension of the core national accounts, and involve the rearrangement of existing information in the national accounts so that an area of particular economic or social importance can be analysed more closely. As extensions of the core system of national accounts, satellite accounts are an important recommendation of the international standard, the *System of National Accounts 1993* (Inter-Secretariat Working Group on National Accounts, 1993).

We present both final and provisional estimates in *Tourism Satellite Account: 2009*. The supply and use framework provides a detailed picture of the economy broken down by industry, product, primary input, and final demand categories. It provides the starting point for deriving final accounts. In order to give a more timely picture of the impact of tourism, provisional TSAs are prepared using fewer data sources than final year estimates. The provisional estimates are presented in a less detailed format, and are subject to revision as relevant data sources subsequently become available.

As balanced supply and use tables are completed for the relevant years (as part of the ongoing production of the New Zealand System of National Accounts), we are able to replace provisional results with final year estimates.

*Tourism Satellite Account: 2009* presents results for the years ended March 2006–09 at the aggregated provisional estimate level in current prices. Appendix 6 contains detailed results for the latest final account, the year ended March 2005, updated since the previously released results in *Tourism Satellite Account: 2007*.

## Value added

Value added is the 'value' businesses add to the goods and services they purchase (intermediate inputs) and use in the process of producing their own outputs. The measurement of tourism's direct value added, also known as tourism's direct contribution to GDP, is the major focus of the TSA. As direct value added for tourism is measured on the same basis as that used for industries in the national accounts, it enables a consistent comparison between the tourism industry's contribution to GDP and that of more traditional industries such as agriculture and construction.

Direct value added does not measure the full impact of tourism on the New Zealand economy because it is limited to those businesses that have a direct relationship with tourists. Additional value added results from tourism through production of the intermediate inputs used in the production of goods and services sold to tourists, although there is no direct relationship between the producer of the intermediate inputs and the tourist. This additional value added is known as indirect value added.

## 2 Summary results

Tourism plays a significant role in the New Zealand economy in terms of the production of goods and services and the creation of employment opportunities. Tourism expenditure includes spending by international and resident household tourists as well as business and government travellers. International tourism expenditure includes spending by foreign students studying in New Zealand for less than 12 months.

Key results for the year ended March 2009 are:

- Total tourism expenditure was \$21.7 billion, increasing 1.1 percent from the previous year.
- International tourism decreased 0.9 percent (\$87 million) from the previous year to \$9.3 billion and contributed 16.4 percent to New Zealand's total exports of goods and services.
- Domestic tourism expenditure was \$12.4 billion, an increase of 2.6 percent from the previous year.
- Tourism generated a direct contribution to GDP of \$6.4 billion, or 3.8 percent of GDP. This represents a decrease from 4.1 percent in the previous year.
- The indirect value added of industries supporting tourism generated an additional \$8.7 billion to tourism.
- The tourism industry directly employed 94,600 full-time equivalent employees (or 4.9 percent of total employment in New Zealand), an increase of 0.4 percent from the previous year.
- Tourists generated \$1.6 billion in goods and services tax (GST) revenue.

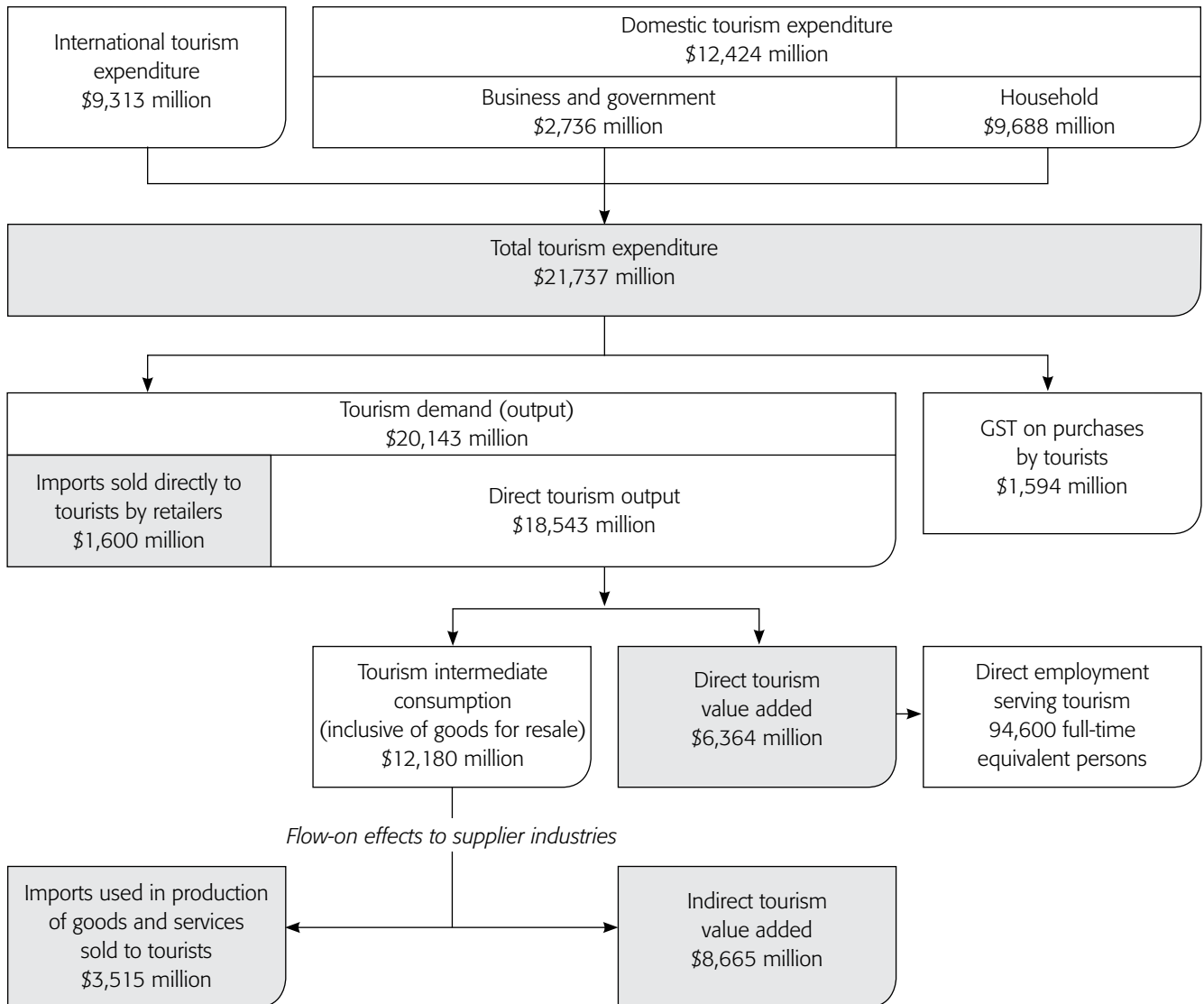
Statistics New Zealand's Accommodation Survey recorded 32.1 million guest nights spent in short-term commercial accommodation in the year ended March 2009, a 3.8 percent decrease compared with the year ended March 2008. This follows an increase of 3.5 percent in the year ended March 2008 and an increase of 3.1 percent in the year ended March 2007.

*Tourism Satellite Account: 2009* is the first in this series of publications to implement a new standard introduced by the United Nations World Tourism Organization (UNWTO) and approved by the United Nations Statistical Commission relating to the derivation of tourism value added. The implications of this new standard has led to a change in the levels of both direct and indirect tourism value added for all years. However it does not affect the aggregated total tourism value added. Further details regarding this new standard are explained in appendix 1.

Figure 1 traces the flows of tourism expenditure through the New Zealand economy for the year ended March 2009. It shows the value tourism adds to the New Zealand economy, to the goods and services tax (GST) received by government, and to the imports of goods and services.

Figure 1

**Flows of Tourism Expenditure through the New Zealand Economy**  
*Year ended March 2009<sup>(1)(2)</sup>*



(1) Totals may not add due to rounding.

(2) Tourism expenditure is measured in purchaser prices. Other monetary aggregates are measured in producer prices.

## Key results by topic for the year ended March 2009

### Tourism expenditure

- Total tourism expenditure increased 1.1 percent to \$21.7 billion, the lowest annual increase since official tourism expenditure measures were first devised in 1999 (see table 1).
- Tourism expenditure generated \$6.4 billion of direct value added, representing a 3.8 percent contribution to GDP. A further \$8.7 billion of indirect value added activity was recorded (see table 1 and figure 2).

Table 1

### Summary of Tourism Expenditure Components<sup>(1)(2)</sup> 1999–2009

Year ended March	Direct tourism value added	Indirect tourism value added <sup>(3)</sup>	Imports used in production of goods and services sold to tourists; and imports sold directly to tourists by retailers	GST on purchases by tourists	Total tourism expenditure	Value added as a percentage of total industry contribution to GDP		
						Direct tourism value added	Indirect tourism value added	Total tourism value added
\$(million)						Percent		
1999	3,549 R	5,130 R	2,809	888	12,376	3.7 R	5.4 R	9.1
2000	3,930 R	5,653 R	3,164	978	13,725	3.9 R	5.6 R	9.5
2001	4,107 R	6,542 R	3,579	1,087	15,314	3.8 R	6.1 R	9.9
2002	4,481 R	6,801 R	3,710	1,172	16,165	3.9 R	5.8 R	9.7
2003	5,154 R	6,836 R	3,902	1,261	17,154	4.3 R	5.6 R	9.9
2004	5,504 R	6,894 R	3,931	1,300	17,629	4.2 R	5.3 R	9.6
2005	5,845 R	7,094 R	4,233 R	1,381 R	18,552 R	4.2 R	5.1 R	9.3
2006P	6,029 R	7,522 R	4,410 R	1,435 R	19,396 R	4.1 R	5.2 R	9.3 R
2007P	6,388 R	7,877 R	4,630 R	1,502 R	20,397 R	4.2 R	5.2 R	9.3 R
2008P	6,660	8,371	4,905	1,574	21,511	4.1	5.1	9.2
2009P	6,364	8,665	5,115	1,594	21,737	3.8	5.2	9.1

(1) Individual figures may not sum to stated totals due to rounding.

(2) Revisions between 1999 and 2007 reflect the impact of the new international standard for the derivation of value added.

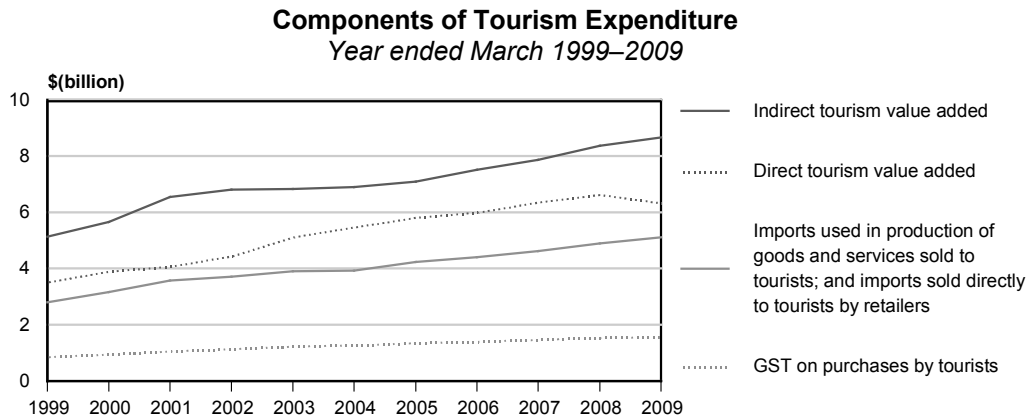
(3) Results from input-output tables for 1996 have been used in the calculation of indirect tourism value added.

#### Symbols:

P provisional

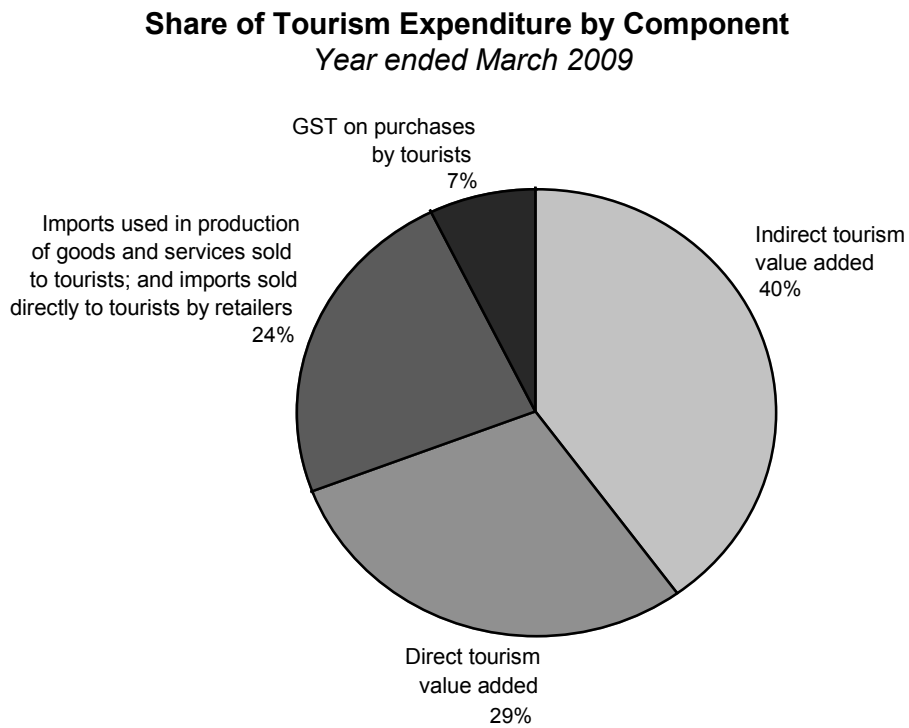
R revised

Figure 2



- Direct and indirect tourism value added, when combined, account for 69 cents in every dollar spent by tourists, while GST accounts for 7 cents in every dollar spent by tourists. The remainder represents imports (see figure 3).

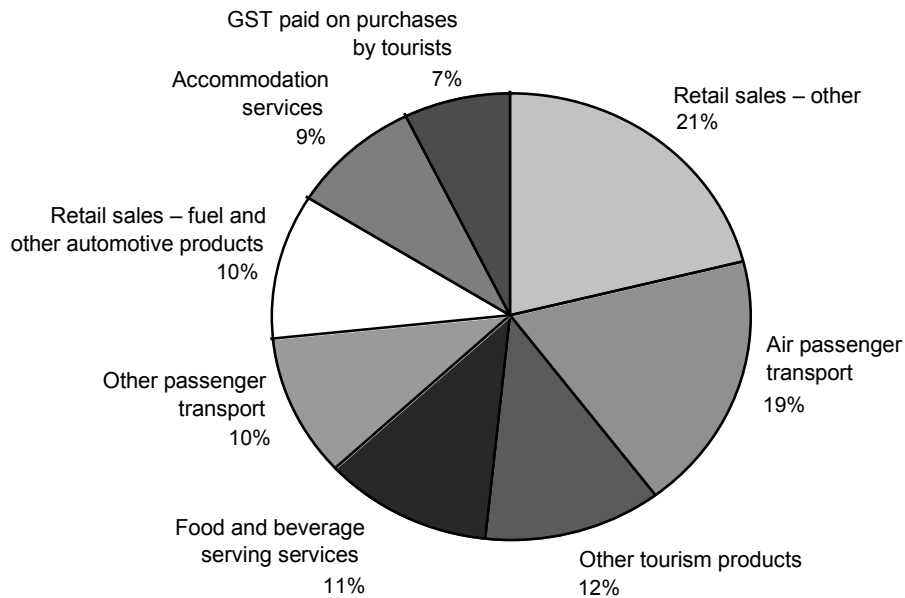
Figure 3



- The main products purchased by tourists are retail goods (including fuel and other automotive products) and air passenger transport, contributing 31 percent and 19 percent, respectively (before GST). Tourists spent 11 percent of their budget on food and beverage serving services and 9 percent on accommodation (see figure 4).

Figure 4

**Share of Tourism Expenditure by Type of Product**  
*Year ended March 2009*



- International tourism expenditure fell 0.9 percent whilst domestic tourism expenditure increased 2.6 percent (see table 2 and figure 5).

Table 2

**Summary of Tourism Expenditure by Type of Tourist<sup>(1)</sup>**  
1999–2009

Year ended March	International tourism expenditure		Domestic tourism expenditure		Total tourism expenditure		Total exports of goods and services	International tourism as a percentage of total exports
	\$(million)	Annual percentage change	\$(million)	Annual percentage change	\$(million)	Annual percentage change	\$(million)	Percent
1999	4,950	...	7,427	...	12,376	...	30,394	16.3
2000	5,923	19.7	7,803	5.1	13,725	10.9	33,526	17.7
2001	6,763	14.2	8,551	9.6	15,314	11.6	41,159	16.4
2002	7,093	4.9	9,071	6.1	16,165	5.6	43,694	16.2
2003	7,567	6.7	9,587	5.7	17,154	6.1	42,566	17.8
2004	7,751	2.4	9,877	3.0	17,629	2.8	40,658	19.1
2005	8,234 R	6.2 R	10,317 R	4.5 R	18,552 R	5.2 R	43,337 R	19.0 R
2006P	8,563 R	4.0 R	10,833 R	5.0 R	19,396 R	4.5 R	43,808 R	19.5 R
2007P	8,982 R	4.9 R	11,415 R	5.4 R	20,397 R	5.2 R	48,202 R	18.6 R
2008P	9,400	4.6	12,111	6.1	21,511	5.5	51,390	18.3
2009P	9,313	-0.9	12,424	2.6	21,737	1.1	56,711	16.4

(1) Individual figures may not sum to stated totals due to rounding.

**Symbols:**

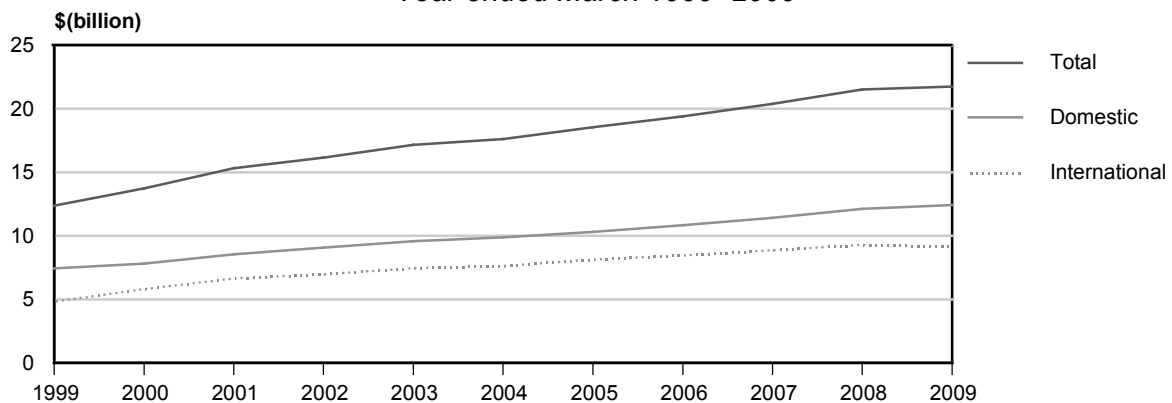
P provisional

R revised

... not applicable

Figure 5

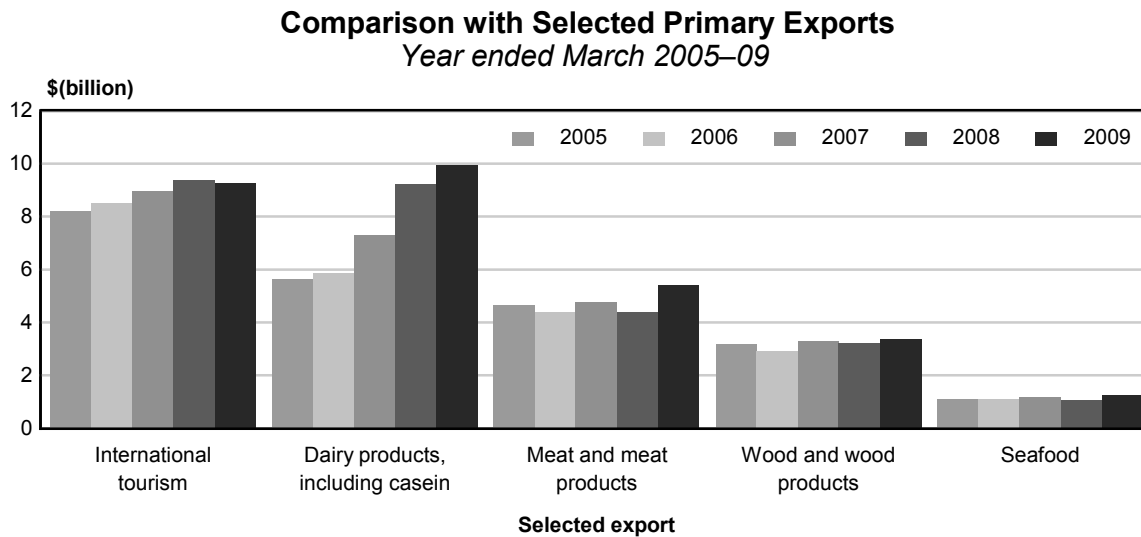
**Tourism Expenditure by Type of Tourist**  
Year ended March 1999–2009



## Exports

- International tourism continues to be a major export earner for New Zealand and compares favourably with other traditional export products (see figure 6).

Figure 6



- International tourism's contribution to total exports, at \$9.3 billion (16.4 percent of exports), is less than the export receipts from dairy products, including casein, which totalled \$10.0 billion (17.6 percent of exports).

Note that international tourism is compared against primary exports in figure 6.

## Employment

- The tourism industry directly employed 94,600 full-time equivalent employees, an increase of 0.4 percent from the previous year. This includes employment generated by foreign students studying in New Zealand for less than 12 months (see table 3).
- Tourism activity directly generated 4.9 percent of total employment in New Zealand (see table 3). This compares with tourism generating 3.8 percent of direct value added to GDP. The fact that tourism contributes more to total employment than it does to direct value added reflects a higher level of labour intensity in tourism industries.

Table 3

**Summary of Tourism Employment<sup>(1)(2)(3)(4)</sup>**  
2001–09

Year ended March	Employment (FTE <sup>(5)</sup> persons)			Employment (FTE persons) in tourism as a percentage of total employment in New Zealand		
	Direct employment in tourism	Indirect employment in tourism	Total tourism employment in New Zealand	Direct employment in tourism	Indirect employment in tourism	Total tourism employment in New Zealand
				Percent		
2001	85,200 R	73,400 R	158,600	5.3 R	4.6 R	9.9
2002	87,600 R	76,400 R	164,000	5.3 R	4.6 R	10.0
2003	94,000 R	82,000 R	176,000	5.6 R	4.9 R	10.4
2004	90,700 R	81,200 R	171,900	5.2 R	4.7 R	9.9
2005	90,100 R	84,200 R	174,200 R	5.0 R	4.7 R	9.7 R
2006P	93,100 R	85,000 R	178,100 R	5.0 R	4.6 R	9.6 R
2007P	92,600 R	88,500 R	181,100 R	4.9 R	4.7 R	9.6 R
2008P	94,200	89,600	183,900	5.0	4.7	9.7
2009P	94,600	90,200	184,800	4.9	4.7	9.6

(1) As a result of a change in methodology, this data is only available from 2001. For more details refer to Appendix 3.

(2) Revisions between 2001 and 2007 reflect the impact of the new international standard for the derivation of value added on direct and indirect employment calculations.

(3) Individual figures may not sum to stated totals due to rounding.

(4) Percentage changes are calculated from unrounded employment numbers.

(5) FTE is an abbreviation for full-time equivalent.

**Symbols:**

R revised

P provisional

## Overseas visitor arrivals

Table 4 presents the breakdown of international visitors by region of last permanent residence and by purpose of visit for the years ended March 2006–09.

Table 4

### Overseas Visitor Arrivals<sup>(1)(2)</sup> 2006–09

	Year ended March				Annual percentage change		
	2006	2007	2008	2009	2007	2008	2009
	Number				Percent		
<b>By region of last permanent residence</b>							
Oceania	983,605	1,034,607	1,095,303	1,113,712	5.2	5.9	1.7
Asia	512,859	515,741	493,064	434,897	0.6	-4.4	-11.8
Europe	514,598	519,221	515,783	486,494	0.9	-0.7	-5.7
Americas	283,209	293,621	303,502	275,848	3.7	3.4	-9.1
Other <sup>(3)</sup>	68,020	72,478	78,906	78,601	6.6	8.9	-0.4
<b>Total<sup>(4)</sup></b>	<b>2,378,797</b>	<b>2,445,130</b>	<b>2,496,994</b>	<b>2,400,719</b>	<b>2.8</b>	<b>2.1</b>	<b>-3.9</b>
<b>By purpose of visit</b>							
Holiday/vacation	1,183,028	1,205,315	1,228,420	1,142,575	1.9	1.9	-7.0
Visit friends/relatives	672,384	700,822	727,918	737,957	4.2	3.9	1.4
Conference/convention	57,773	61,007	57,992	57,533	5.6	-4.9	-0.8
Business	264,812	270,191	266,830	247,302	2.0	-1.2	-7.3
Education/medical	48,780	52,678	53,228	51,887	8.0	1.0	-2.5
Other <sup>(5)</sup>	135,514	145,655	152,170	152,298	7.5	4.5	0.1

(1) Intended length of stay in New Zealand is less than 12 months.

(2) Individual figures may not sum to stated totals due to rounding.

(3) Includes not stated.

(4) These totals are actual counts, and may differ from the sum of individual figures for different countries that are derived from samples.

(5) Includes unspecified.

- International visitors decreased 3.9 percent (96,275), following an increase of 2.1 percent in the previous year. Visitor numbers from all international regions with the exception of Oceania decreased.
- Visitors from Oceania (predominantly Australia) increased 1.7 percent (18,409) following a 5.9 percent (60,696) increase in the previous year. Visitor numbers from both Asia and Europe recorded two consecutive years of negative growth.
- Much of the decline in short-term arrivals to New Zealand stemmed from holiday/vacation and business purpose visits. These categories decreased 7.0 percent (85,845) and 7.3 percent (19,528), respectively. The 'visiting friends/relatives' and 'other' categories recorded small increases.

In the context of the TSA, the term 'tourist' includes travellers who might not usually be associated with the term. For instance, in addition to holiday and leisure travel, it covers other activities of visitors, such as conducting business, attending meetings and conferences, and arriving for short-term education. Domestic costs incurred by New Zealanders travelling overseas are included in domestic travel expenditure, as well as off-trip purchases of tourism-specific consumer durable goods.

## Tourism-related events

A number of key tourism-related events influenced New Zealand over the period covered by *Tourism Satellite Account: 2009*, the March years 2006–09:

- Cheaper trans-Tasman airfares and a strong New Zealand dollar have led to continued strong growth in the number of New Zealanders holidaying in Australia and other overseas destinations.
- The Easter holiday period did not occur in the March 2009 year, but it occurred twice in the March 2008 year, once in the March 2007 year, and not in the March 2006 year.
- The global financial crisis contributed to a decline in economic activity including that of tourism.
- The 2005 British and Irish Lions Rugby Tour generated international and domestic tourism activity within New Zealand for the year ended March 2006.
- The decline in the number of international students in the March 2006 year coincided with a reduction in the number of English language schools operating within New Zealand.
- More than 45 films and telefeatures were filmed completely, or in part, in New Zealand between the March years of 2006–09. A number of these were successful internationally.

### 3 Tourism expenditure

The major focus of the TSA is to identify and measure tourism expenditure on goods and services produced within the New Zealand economy.

From this, tourism's direct contribution to GDP can be derived and compared with the contribution to GDP of other industries, such as agriculture or manufacturing.

Table 5 and figure 7 present tourism expenditure (or direct tourism demand) by type of product.

Table 5

#### Tourism Expenditure by Type of Product<sup>(1)(2)</sup> 2006–09

Product	Year ended March				Annual percentage change		
	2006P	2007P	2008P	2009P	2007P	2008P	2009P
	\$(million)				Percent		
Accommodation services	1,789 R	1,862 R	1,917	1,936	4.1 R	3.0	1.0
Food and beverage serving services	2,292 R	2,389 R	2,465	2,494	4.2 R	3.2	1.2
Air passenger transport	3,519 R	3,771 R	4,119	4,064	7.2 R	9.2	-1.4
Other passenger transport	2,063 R	2,190 R	2,297	2,272	6.2 R	4.9	-1.1
Retail sales – fuel and other automotive products	1,778 R	1,919 R	2,096	2,239	7.9 R	9.2	6.8
Retail sales – other	4,167 R	4,302 R	4,488	4,559	3.2 R	4.3	1.6
Other tourism products	2,353 R	2,463 R	2,554	2,579	4.7 R	3.7	1.0
<b>Total tourism demand excluding GST</b>	<b>17,961 R</b>	<b>18,895 R</b>	<b>19,936</b>	<b>20,143</b>	<b>5.2 R</b>	<b>5.5</b>	<b>1.0</b>
GST paid on purchases by tourists	1,435 R	1,502 R	1,574	1,594	4.6 R	4.9	1.2
<b>Total tourism expenditure</b>	<b>19,396 R</b>	<b>20,397 R</b>	<b>21,511</b>	<b>21,737</b>	<b>5.2 R</b>	<b>5.5</b>	<b>1.1</b>

(1) All values are in producers' prices.

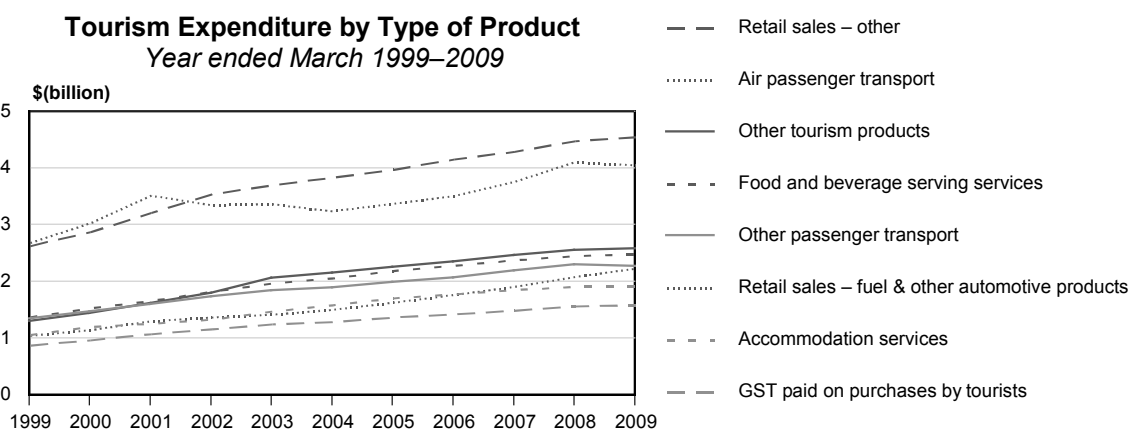
(2) Individual figures may not sum to stated totals due to rounding.

#### Symbols:

P provisional

R revised

Figure 7



Points to note from table 5 and figure 7:

For the year ended March 2009:

- Total tourism expenditure increased 1.1 percent, following an increase of 5.5 percent in 2008 and 5.2 percent in the previous year.
- Tourism expenditure on air passenger transport decreased 1.4 percent, with spending on retail sales of fuel and other automotive products increasing 6.8 percent.

Table 6 presents tourism expenditure by type of product and by type of tourist for the years ended March 2006–09. The tourism product ratio is the proportion of total supply (national production plus imports) of each product that is purchased by tourists. International tourism expenditure includes spending by foreign students studying in New Zealand for less than 12 months.

Table 6

**Tourism Expenditure<sup>(1)(2)</sup>**  
*By type of product and type of tourist*  
 Year ended March 2006–09

Product	Domestic demand		International demand	Total demand	Total supply	Tourism product ratio
	Business and government demand	Household demand				
	\$(million)					
<b>2006P</b>						
Accommodation services	226 R	509 R	1,054 R	1,789 R	1,876 R	0.95
Food and beverage serving services	67 R	842 R	1,383 R	2,292 R	5,333 R	0.43
Air passenger transport	868 R	640 R	2,010 R	3,519 R	3,602 R	0.98 R
Other passenger transport	847 R	458 R	758 R	2,063 R	2,787 R	0.74
Retail sales – fuel and other automotive products	177 R	1,343 R	258 R	1,778 R	8,552 R	0.21
Retail sales – other	0	2,793 R	1,374 R	4,167 R	81,161 R	0.05
Other tourism products	155 R	1,064	1,133 R	2,353 R	45,354 R	0.05
<b>Total tourism demand by type of tourist excluding GST</b>	<b>2,340 R</b>	<b>7,650 R</b>	<b>7,971 R</b>	<b>17,961 R</b>	...	...
GST paid on purchases by tourists	12 R	831 R	592 R	1,435 R	...	...
<b>Total tourism expenditure by type of tourist</b>	<b>2,352 R</b>	<b>8,481 R</b>	<b>8,563 R</b>	<b>19,396 R</b>	...	...
<b>2007P</b>						
Accommodation services	237 R	529 R	1,096 R	1,862 R	1,957 R	0.95
Food and beverage serving services	70 R	880 R	1,439 R	2,389 R	5,523 R	0.43
Air passenger transport	930 R	687 R	2,155 R	3,771 R	3,866 R	0.98
Other passenger transport	913 R	482 R	795 R	2,190 R	2,949 R	0.74
Retail sales – fuel and other automotive products	192 R	1,451 R	275 R	1,919 R	9,584 R	0.20 R
Retail sales – other	0	2,879 R	1,423 R	4,302 R	86,284 R	0.05
Other tourism products	168 R	1,111 R	1,183 R	2,463 R	47,705 R	0.05
<b>Total tourism demand by type of tourist excluding GST</b>	<b>2,510 R</b>	<b>8,019 R</b>	<b>8,367 R</b>	<b>18,895 R</b>	...	...
GST paid on purchases by tourists	12 R	873 R	616 R	1,502 R	...	...
<b>Total tourism expenditure by type of tourist</b>	<b>2,522 R</b>	<b>8,892 R</b>	<b>8,982 R</b>	<b>20,397 R</b>	...	...

For footnotes, see end of table.

Table 6 *continued*

**Tourism Expenditure<sup>(1)(2)</sup>**  
*By type of product and type of tourist*  
 Year ended March 2006–09

Product	Domestic demand		International demand	Total demand	Total supply	Tourism product ratio
	Business and government demand	Household demand				
\$(million)						
<b>2008P</b>						
Accommodation services	248	550	1,120	1,917	2,028	0.95
Food and beverage serving services	75	915	1,476	2,465	5,794	0.43
Air passenger transport	1,023	760	2,336	4,119	4,218	0.98
Other passenger transport	972	499	826	2,297	3,084	0.74
Retail sales – fuel and other automotive products	209	1,582	304	2,096	10,445	0.20
Retail sales – other	0	3,013	1,474	4,488	89,786	0.05
Other tourism products	175	1,153	1,226	2,554	49,738	0.05
<b>Total tourism demand by type of tourist excluding GST</b>	<b>2,701</b>	<b>8,472</b>	<b>8,763</b>	<b>19,936</b>	...	...
GST paid on purchases by tourists	14	923	637	1,574	...	...
<b>Total tourism expenditure by type of tourist</b>	<b>2,715</b>	<b>9,396</b>	<b>9,400</b>	<b>21,511</b>	...	...
<b>2009P</b>						
Accommodation services	253	580	1,103	1,936	2,036	0.95
Food and beverage serving services	78	959	1,458	2,494	5,857	0.43
Air passenger transport	1,026	739	2,299	4,064	4,163	0.98
Other passenger transport	964	502	806	2,272	3,035	0.75
Retail sales – fuel and other automotive products	223	1,697	319	2,239	10,906	0.21
Retail sales – other	0	3,096	1,463	4,559	92,409	0.05
Other tourism products	179	1,169	1,231	2,579	50,615	0.05
<b>Total tourism demand by type of tourist excluding GST</b>	<b>2,723</b>	<b>8,741</b>	<b>8,679</b>	<b>20,143</b>	...	...
GST paid on purchases by tourists	13	947	633	1,594	...	...
<b>Total tourism expenditure by type of tourist</b>	<b>2,736</b>	<b>9,688</b>	<b>9,313</b>	<b>21,737</b>	...	...

(1) All values are in producers' prices.

(2) Individual figures may not sum to stated totals due to rounding.

**Symbols:**

P provisional

R revised

... not applicable

Points to note from table 6:

- Household tourism expenditure increased by 3.1 percent in the March 2009 year, following an increase of 5.7 percent in the previous year.
- Between 2006 and 2009, household tourism spending increased 14.2 percent. Over the corresponding period total household final consumption expenditure (HCE) increased 14.3 percent.
- Growth in domestic household tourism expenditure in the March 2009 year was strongest in retail sales of fuel and other automotive products, up 7.3 percent (\$115 million), while accommodation and food and beverage serving services were up 5.4 percent and 4.8 percent respectively from the previous year.
- Spending by international tourists in New Zealand fell 0.9 percent in the March 2009 year, following increases of 4.6 percent in the March 2008 year and 4.9 percent in the March 2007 year.
- International tourist expenditure on air passenger transport decreased 1.6 percent (\$37 million) in the March 2009 year following increases of 8.4 percent and 7.2 percent in the March 2008 and 2007 years respectively.

## 4 Tourism supply

The tourism supply of an industry is derived by summing the value of tourism products sold by that industry. The value of tourism product sales is derived as the total supply (national production plus imports) multiplied by its corresponding tourism product ratio.

In 2005, the value of total supply by product and by industry was sourced from the balanced supply and use tables for these years (see appendix 6, Detailed tables for 2005).

In the absence of supply and use tables for the years ended March 2006–09, an initial value of supply by product by industry was made from a variety of sources (covered in detail in appendix 3, Methodology). Supply by product and value added are shown only for tourism-characteristic industries and for all other industries. (See appendix 5, Tourism industry concordance, for detailed listings.)

Total supply and tourism supply by product are shown in table 7 for the years ended March 2006–09.

Points to note from table 7:

- Goods and services can be consumed/purchased by tourists and non-tourists. The tourism product ratio indicates the proportion of the supply of a product that is purchased by tourists. In 2009, for example, the tourism product ratio for accommodation services was 0.95. This means that almost all accommodation available was purchased by tourists. In contrast, tourists purchased only 21 percent of retail supplies of fuel and other automotive products.
- Tourism supply increased 1.0 percent in the March 2009 year. From 2006–09, tourism supply increased at a slower rate than total supply (12.1 percent compared with 13.7 percent over this three-year period).
- Imports consumed by tourists represent 7.9 percent of total tourism supply in the March 2009 year with the remainder provided by domestic industries.

Table 7

**Derivation of Tourism Supply<sup>(1)(2)</sup>**  
*Year ended March 2006–09*

Product	Total supply				Tourism product ratio	Tourism supply			
	Tourism-characteristic industries	All other industries	Imports	Total		Tourism-characteristic industries	All other industries	Imports sold directly to tourists by retailers	Total
	\$(million)					\$(million)			
<b>2006P</b>									
Accommodation services	1,463 R	413 R	0	1,876 R	0.95	1,395 R	394 R	0	1,789 R
Food and beverage serving services	4,002 R	1,331 R	0	5,333 R	0.43	1,768 R	524 R	0	2,292 R
Air passenger transport	3,537 R	65	0	3,602 R	0.98 R	3,473 R	46	0	3,519 R
Other passenger transport	2,611 R	177 R	0	2,787 R	0.74	1,982 R	81	0	2,063 R
Retail sales – fuel and other automotive products	37	6,002 R	2,514 R	8,552 R	0.21	7	1,305 R	466 R	1,778 R
Retail sales – other	885 R	62,134 R	18,141 R	81,161 R	0.05	74 R	3,276 R	817 R	4,167 R
Other tourism products	3,398 R	41,955 R	0	45,354 R	0.05	484 R	1,869 R	0	2,353 R
<b>Total tourism products</b>	<b>15,933 R</b>	<b>112,077 R</b>	<b>20,655 R</b>	<b>148,666 R</b>	<b>...</b>	<b>9,184 R</b>	<b>7,495 R</b>	<b>1,283 R</b>	<b>17,961 R</b>
<b>2007P</b>									
Accommodation services	1,477 R	480 R	0	1,957 R	0.95	1,406 R	456 R	0	1,862 R
Food and beverage serving services	4,172 R	1,351 R	0	5,523 R	0.43	1,802 R	588 R	0	2,389 R
Air passenger transport	3,791 R	74 R	0	3,866 R	0.98	3,718 R	53 R	0	3,771 R
Other passenger transport	2,762 R	187 R	0	2,949 R	0.74	2,101 R	89 R	0	2,190 R
Retail sales – fuel and other automotive products	42 R	6,803 R	2,740 R	9,584 R	0.20 R	8	1,439 R	472 R	1,919 R
Retail sales – other	904 R	65,605 R	19,774 R	86,284 R	0.05	80 R	3,345 R	878 R	4,302 R
Other tourism products	3,460 R	44,246 R	0	47,705 R	0.05	503 R	1,960 R	0	2,463 R
<b>Total tourism products</b>	<b>16,608 R</b>	<b>118,746 R</b>	<b>22,514 R</b>	<b>157,868 R</b>	<b>...</b>	<b>9,616 R</b>	<b>7,930 R</b>	<b>1,348 R</b>	<b>18,895 R</b>

For footnotes, see end of table.

Table 7 continued

**Derivation of Tourism Supply<sup>(1)(2)</sup>**  
*Year ended March 2006–09*

Product	Total supply				Tourism product ratio	Tourism supply			
	Tourism-characteristic industries	All other industries	Imports	Total		Tourism-characteristic industries	All other industries	Imports sold directly to tourists by retailers	Total
	\$(million)					\$(million)			
<b>2008P</b>									
Accommodation services	1,532	497	0	2,028	0.95	1,448	470	0	1,917
Food and beverage serving services	4,288	1,506	0	5,794	0.43	1,910	555	0	2,465
Air passenger transport	4,132	86	0	4,218	0.98	4,057	62	0	4,119
Other passenger transport	2,887	196	0	3,084	0.74	2,203	94	0	2,297
Retail sales – fuel and other automotive products	44	7,555	2,847	10,445	0.20	9	1,580	507	2,096
Retail sales – other	980	68,261	20,545	89,786	0.05	78	3,496	914	4,488
Other tourism products	3,607	46,131	0	49,738	0.05	510	2,044	0	2,554
<b>Total tourism products</b>	<b>17,469</b>	<b>124,231</b>	<b>23,392</b>	<b>165,093</b>	...	<b>10,215</b>	<b>8,301</b>	<b>1,420</b>	<b>19,936</b>
<b>2009P</b>									
Accommodation services	1,544	492	0	2,036	0.95	1,476	460	0	1,936
Food and beverage serving services	4,303	1,554	0	5,857	0.43	1,889	606	0	2,494
Air passenger transport	4,088	75	0	4,163	0.98	4,011	52	0	4,064
Other passenger transport	2,836	199	0	3,035	0.75	2,176	97	0	2,272
Retail sales – fuel and other automotive products	47	7,727	3,131	10,906	0.21	10	1,595	634	2,239
Retail sales – other	996	68,812	22,600	92,409	0.05	74	3,518	965	4,559
Other tourism products	3,852	46,762	0	50,615	0.05	518	2,061	0	2,579
<b>Total tourism products</b>	<b>17,667</b>	<b>125,622</b>	<b>25,731</b>	<b>169,021</b>	...	<b>10,154</b>	<b>8,389</b>	<b>1,600</b>	<b>20,143</b>

(1) Tourism supply by product may differ from that obtained by multiplying total supply by the relevant tourism product ratio. Supply is generally calculated at a finer product level than shown.

(2) Individual figures may not sum to stated totals due to rounding.

**Symbols:**

P provisional

R revised

... not applicable

## 5 Tourism value added

### Direct tourism value added

Direct tourism value added calculations are made at a finer level of industry detail than is presented in table 8.

The tourism industry ratio is calculated by dividing tourism supply by industry by the total supply for that industry. The tourism industry ratio represents the proportion of each industry's output that is consumed by tourists.

Tourism industry ratios are multiplied through each production account for all industries to produce direct tourism value added. This is summarised and presented in table 8 for the years ended March 2006–09.

Table 8

### Direct Tourism Value Added<sup>(1)</sup> 2006–09

	Year ended March				Annual percentage change		
	2006P	2007P	2008P	2009P <sup>(2)</sup>	2007P	2008P	2009P
	\$(million)				Percent		
Published GDP	157,855 R	165,903 R	177,472	179,912	5.1 R	7.0	1.4
<b>Less</b> GST, import duties, and other taxes on production	11,928 R	13,209 R	14,113	14,307	10.7 R	6.8	1.4
<b>Gives contribution to GDP from production</b>	<b>145,927 R</b>	<b>152,694 R</b>	<b>163,359</b>	<b>165,605</b>	<b>4.6 R</b>	<b>7.0</b>	<b>1.4</b>
Tourism output of tourism-characteristic industries	9,184 R	9,616 R	10,215	10,154	4.7 R	6.2	-0.6
<b>Less</b> tourism intermediate consumption of tourism-characteristic industries	5,455 R	5,661 R	6,064	6,268	3.8 R	7.1	3.4
<b>Gives direct tourism value added of tourism-characteristic industries</b>	<b>3,729 R</b>	<b>3,955 R</b>	<b>4,151</b>	<b>3,886</b>	<b>6.1 R</b>	<b>5.0</b>	<b>-6.4</b>
<b>Plus</b> direct tourism value added of all other industries	2,300 R	2,433 R	2,509	2,479	5.8 R	3.1	-1.2
<b>Gives total direct tourism value added</b>	<b>6,029 R</b>	<b>6,388 R</b>	<b>6,660</b>	<b>6,364</b>	<b>5.9 R</b>	<b>4.3</b>	<b>-4.4</b>
Direct tourism value added as a percentage of total industry contribution to GDP	4.1% R	4.2% R	4.1%	3.8%	...	...	...

(1) Individual figures may not sum to stated totals due to rounding.

(2) Due to the GDP from Production and its components for 2009 being unavailable at the time of publication, GDP Expenditure has been used.

#### Symbols:

P provisional

R revised

... not applicable

Points to note from table 8:

- Comparing 2006 and 2009, direct tourism value added (also referred to as tourism's direct contribution to GDP) increased 5.6 percent, a lower rate than the contribution to GDP from domestic production, which increased by 13.5 percent.

As illustrated in figure 1, total expenditure on goods and services by tourists (\$21,737 million in 2009) consists of three components:

- Direct tourism output of \$18,543 million, representing the value of goods and services produced in New Zealand and directly purchased by tourists. Domestic production (in producers' prices) consisted of \$12,180 million of intermediate inputs, and \$6,364 million of direct tourism value added.
- Imports of \$1,600 million sold directly to tourists by retailers.
- GST of \$1,594 million paid on goods and services purchased by tourists.

## Indirect tourism value added and imports

As well as measuring direct tourism value added, *Tourism Satellite Account: 2009* measures indirect tourism value added, or tourism's indirect contribution to GDP. This indirect measure goes beyond the value added generated by producers directly supplying tourism products, and embraces the total value added of all producers both directly and indirectly.

Measuring indirect tourism value added involves tracing the flow-on effects of businesses' intermediate purchases that are used directly in producing tourism products (\$12,180 million in 2009, see figure 1) and measuring the cumulative value added these purchases generate.

For example, included in the \$12,180 million are the intermediate purchases of the accommodation, and cafes and restaurants industries. These include items such as electricity, bedding, and food purchased from other industries or imported. In turn, these other industries will have made intermediate purchases from other industries (or from overseas) in order to produce the items they sell to the accommodation and cafes and restaurants industries. So the sequence continues, until all intermediate purchases can be directly accounted for, either as value added or imports.

Measuring indirect tourism contribution to GDP involves summing the value added of each industry that is generated throughout this sequence. The New Zealand TSA covers the intermediate consumption related to direct tourist expenditure. Total tourism expenditure can be explained in terms of:

- direct tourism value added
- indirect tourism value added
- imports (both those directly sold to tourists and those used indirectly in production)
- GST.

Note that some of tourism indirect demand for intermediate inputs will not be met by the output of New Zealand producers, but by imports that provide no direct contribution to New Zealand's GDP.

Table 9 summarises the relationship between the various components of tourism expenditure.

Table 9

**Components of Tourism Expenditure<sup>(1)</sup>**  
2006–09

	Year ended March				Annual percentage change		
	2006P	2007P	2008P	2009P	2007P	2008P	2009P
	\$(million)				Percent		
Direct tourism value added	6,029 R	6,388 R	6,660	6,364	6.0 R	4.3	-4.4
Indirect tourism value added	7,522 R	7,877 R	8,371	8,665	4.7 R	6.3	3.5
Imports used in production of goods and services sold to tourists; and imports sold directly to tourists by retailers	4,410 R	4,630 R	4,905	5,115	5.0 R	5.9	4.3
GST on purchases by tourists	1,435 R	1,502 R	1,574	1,594	4.6 R	4.9	1.2
<b>Total tourism expenditure</b>	<b>19,396 R</b>	<b>20,397 R</b>	<b>21,511</b>	<b>21,737</b>	<b>5.2 R</b>	<b>5.5</b>	<b>1.1</b>

(1) Individual figures may not sum to stated totals due to rounding.

**Symbols:**

P provisional

R revised

Direct tourism value added does not necessarily show the same movement as tourism expenditure. This is because changes in expenditure patterns flow through into the composition of industries that supply products consumed by tourists.

Changing industry composition flows through into other economic aggregates. This can lead to a result whereby different industries contributing to tourism have varying value added to output ratios.

Movements in the value of imports directly sold to tourists and imports used in the production of goods and services sold to tourists are strongly influenced by exchange rate variations and changes in the mix of products purchased. In the year ended March 2009, these imports increased by 4.3 percent, while total tourism expenditure rose 1.1 percent (see table 9).

Alternatively, the components can be presented as their share of total tourism expenditure as shown for the years ended March 2006–09 in table 10.

Table 10

**Share of Tourism Expenditure by Component<sup>(1)</sup>**  
*2006–09*

	Year ended March			
	2006P	2007P	2008P	2009P
	Percent			
Direct tourism value added	31.1 R	31.3 R	31.0	29.3
Indirect tourism value added	38.8 R	38.6 R	38.9	39.9
Imports used in production of goods and services sold to tourists; and imports sold directly to tourists by retailers	22.7 R	22.7 R	22.8	23.5
GST on purchases by tourists	7.4	7.4	7.3	7.3
<b>Total tourism expenditure</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

(1) Individual figures may not sum to stated totals due to rounding.

**Symbols:**

P provisional

R revised

## 6 Tourism employment

Direct tourism employment adds another dimension to measuring the role of tourism in the New Zealand economy, focusing on tourism's impact on employment. Table 11 shows total full-time equivalent (FTE) persons directly employed in tourism.

These are shown in terms of paid employees and working proprietors, and are broken down into full-time and part-time positions. In the absence of hours worked data, a part-time employee is assumed to equate to 0.5 of a FTE employee. A full-time employee is defined as an employee who works 30 or more hours a week, while a part-time employee is one who works fewer than 30 hours a week.

Table 11

### Direct Tourism Employment <sup>(1)(2)(3)</sup> 2006–09

	Year ended March				Annual percentage change <sup>(4)</sup>		
	2006P	2007P	2008P	2009P	2007P	2008P	2009P
	Number				Percent		
<b>Total employment</b>							
Full-time employees	1,329,600	1,376,800	1,385,900	1,416,000	3.6	0.7	2.2
Part-time employees	369,800	376,200	396,500	406,900	1.7	5.4	2.6
FTE <sup>(5)</sup> employees	1,514,500	1,564,900	1,584,100	1,619,400	3.3	1.2	2.2
Full-time working proprietors	293,400	277,600	278,900	268,600	-5.4	0.5	-3.7
Part-time working proprietors	76,600	70,900	76,300	77,100	-7.3	7.5	1.0
FTE working proprietors	331,700	313,100	317,000	307,100	-5.6	1.3	-3.1
<b>Total FTE persons employed</b>	<b>1,846,100</b>	<b>1,877,900</b>	<b>1,901,200</b>	<b>1,926,500</b>	<b>1.7</b>	<b>1.2</b>	<b>1.3</b>
<b>Tourism employment</b>							
Tourism full-time employees	54,700 R	55,200 R	56,000	57,400	0.8 R	1.5	2.5
Tourism part-time employees	48,800 R	47,300 R	48,400	46,500	-3.2 R	2.4	-4.0
Tourism FTE employees	79,100 R	78,800 R	80,200	80,600	-0.4 R	1.8	0.5
Tourism full-time working proprietors	12,200 R	12,300 R	12,500	12,400	0.6 R	1.3	-0.2
Tourism part-time working proprietors	3,500 R	3,200 R	3,200	3,100	-8.2 R	-0.2	-1.0
Tourism FTE working proprietors	14,000 R	13,800 R	14,100	14,000	-1.2 R	1.9	-0.3
<b>Total FTE persons directly employed in tourism</b>	<b>93,100 R</b>	<b>92,600 R</b>	<b>94,200</b>	<b>94,600</b>	<b>-0.5 R</b>	<b>1.8</b>	<b>0.4</b>
<b>FTE persons directly employed in tourism as a percentage of total FTE persons employed in New Zealand</b>	<b>5.0% R</b>	<b>4.9% R</b>	<b>5.0%</b>	<b>4.9%</b>	...	...	...

(1) Employment numbers are rounded to the nearest hundred. Individual figures may not sum to stated totals due to rounding.

(2) Total employment numbers and tourism working proprietor numbers (excluding unpaid family workers and unspecified) are sourced from the Household Labour Force Survey and are averages for the year ended March.

(3) Tourism employee numbers are sourced from the Quarterly Employment Survey and are averages for the year ended February.

(4) Percentage changes are calculated from unrounded employment numbers.

(5) FTE is an abbreviation for full-time equivalent.

#### Symbols:

P provisional

R revised

... not applicable

Points to note from table 11:

- There were 94,600 FTE persons directly employed in tourism for the year ended March 2009. Direct tourism employment increased 1.6 percent between 2006 and 2009. Total FTE persons employed in New Zealand increased by 4.4 percent over the corresponding period.
- The number of persons employed in tourism does not necessarily correlate with movements in total tourism expenditure or direct value added. In 2009, for example, direct tourism value added decreased by 4.4 percent, while FTE persons directly employed in tourism increased by 0.4 percent. This difference may be the result of a number of factors. There may be a lag between growth in a given industry and the decisions made to employ new staff. Alternatively, there may be a shift in the number of hours worked, or in output per FTE. Furthermore, the convention of defining a part-time employee as equivalent to 0.5 of a FTE may not necessarily be a true representation of the differences in hours worked.

Tourism industry ratios have been used to allocate tourism employment numbers by industry. This treatment assumes that, for each industry, a given dollar value of output will require a fixed quantity of labour input, regardless of whether the products are purchased by tourists or non-tourists.

## 7 Tourism industry profitability

A measure of tourism industry profitability allows for more in-depth alternative analysis of the tourism sector. This measure provides time series data on variables at an industry level allowing comparison both across time, within an existing industry, and across industries.

Table 12 and figure 8 show gross operating surplus as a percentage of total tourism output for tourism industries and for all non-tourism-related industries. It is one measure of tourism profitability, but reflects economic rather than accounting concepts. Data is presented up until the latest balanced supply and use year.

Gross operating surplus is before the deduction of interest and economic depreciation.

Table 12

### Tourism Gross Operating Surplus as a Percentage of Total Tourism Output <sup>(1)(2)(3)</sup> 2001–05

Industry	Year ended March				
	2001	2002	2003	2004	2005
	Percent				
<b>Tourism-characteristic industries</b>					
Accommodation, cafes and restaurants	16.1	18.1	18.3	18.0	18.7
Accommodation <sup>(4)</sup>	..	22.8	22.5	21.8	22.6
Cafes and restaurants <sup>(4)</sup>	..	14.1	14.7	14.6	15.0
Road, rail, and water passenger transport <sup>(5)</sup>	8.6 R	13.7 R	11.9	11.3	10.0
Air transport	-0.1	-0.6	5.5 R	7.0	8.0
Other transport, storage, and transport services <sup>(6)</sup>	27.4	28.9 R	28.7 R	30.4	30.2
Machinery and equipment hiring and leasing	44.2	48.0 R	50.4 R	50.1	52.9
Cultural and recreational services	26.5	25.9	27.5	28.2	26.4 R
<b>Total tourism-characteristic industries</b>	11.4	12.9	16.0 R	17.1	17.6 R
<b>Tourism-related industries</b>					
Retail trade	20.4 R	22.9 R	24.1 R	23.9 R	23.3 R
<b>All non-tourism-related industries</b>	<b>26.8 R</b>	<b>26.1 R</b>	<b>26.8 R</b>	<b>27.1 R</b>	<b>27.1 R</b>
<b>Total</b>	<b>14.6 R</b>	<b>16.2 R</b>	<b>18.8 R</b>	<b>19.7 R</b>	<b>20.0 R</b>

(1) Tourism gross operating surplus as a percentage of gross output is considered to be an indicator of tourism profitability.

(2) Individual figures may not sum to stated totals due to rounding.

(3) Revisions between 2001–2005 reflect the impact of the new international standard for the derivation of value added on gross operating surplus calculations.

(4) Prior to 2002, the cafes and restaurants industry was combined with the accommodation industry.

(5) Road, rail, and water passenger transport are combined for confidentiality reasons.

(6) See appendix 4 and 5 for details about what is included in this industry.

#### Symbols:

R revised

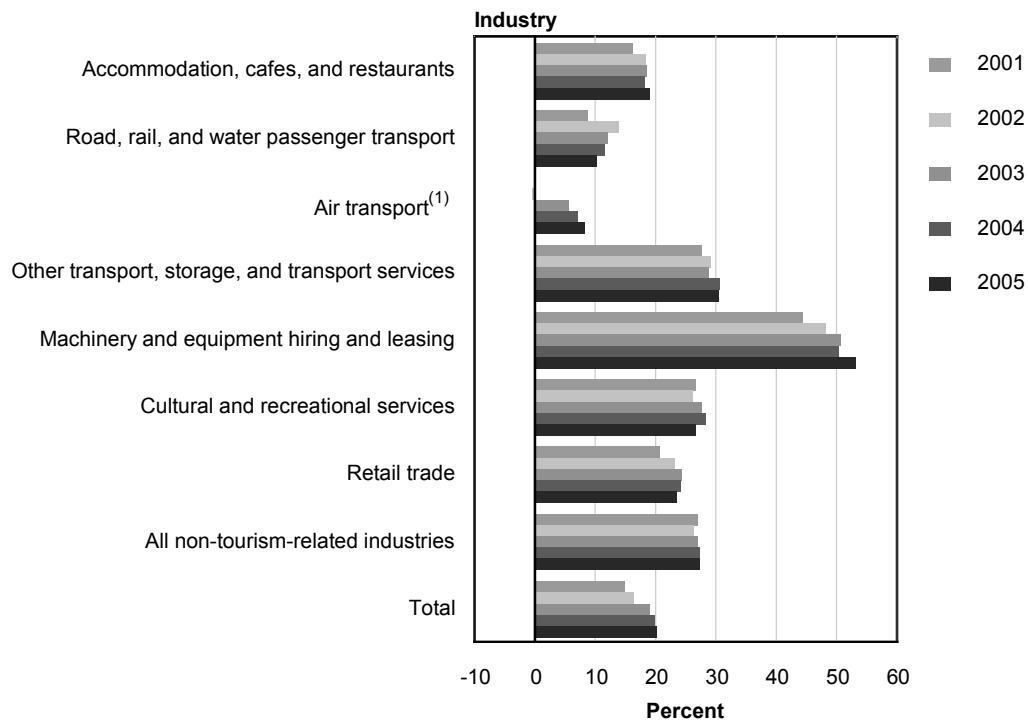
... not applicable

Points to note from table 12:

- For the year ended March, the profitability of tourism-characteristic industries (17.6 percent) was lower than for all non-tourism related industries (27.1 percent).
- The 'other transport, storage, and transport services' industry and the 'machinery and equipment hiring and leasing' industry each recorded higher profitability ratios than other tourism industries.
- Comparing the year ended March 2001 with 2005, all broad tourism industry categories, with the exception of cultural and recreational services, have increased their profitability ratios.
- In the years ended March 2001 and 2002, the air transport industry recorded a negative profitability ratio, but more recently, this profitability ratio has returned to a positive level.

Figure 8

### Tourism Gross Operating Surplus as a Percentage of Total Tourism Output Year ended March 2001–05



(1) Data for 2001 and 2002 is negative, but is less than 1%.

## Appendix 1 New standard for the derivation of tourism value added

### New Zealand's adaptation of a change in 2008 *Tourism Satellite Account: Recommended Methodological Framework*

#### Overview

The United Nations World Tourism Organization (UNWTO) has introduced a change in how tourism direct and indirect value added is derived, in *2008 Tourism Satellite Account: Recommended Methodological Framework* (United Nations Statistics Division et al, 2008).

New Zealand has implemented this change, in line with the direct contact principle of having a strong economic link between the tourist and the supplier of goods or services. The effect of the change has resulted in a reallocation of some components of direct tourism value added to indirect tourism value added. The reallocation does not affect aggregated total tourism value added, which is unchanged.

#### Introduction to the new standard

The New Zealand tourism satellite account provides a summary measure of the contribution tourism makes to the New Zealand economy. It is consistent with and integrated into the New Zealand System of National Accounts, to provide data about the supply and use of tourism-related goods and services.

Furthermore, it is consistent with a conceptual framework for the design of the tourism satellite account prepared by the UNWTO with an intersecretariat working group made up of the United Nations Statistics Division, the Statistical Office of the European Communities, and the Organisation for Economic Cooperation and Development.

In parallel with the drafting of the *2008 International Recommendations for Tourism Statistics (IRTS 2008)* the UNWTO and the Inter-Agency Coordination Group on Tourism Statistics began work on updating the *2000 Tourism Satellite Account: Recommended Methodological Framework*. This work focused on overcoming existing conceptual differences in the Tourism Satellite Account and other tourism and economic related frameworks. These included the *Manual on Standard International Trade Classification*, *Migration Statistics*, the *Balance of Payments Manual*, and a revised version of the *System of National Accounts 1993*. The resulting updated framework, *2008 Tourism Satellite Account: Recommended Methodological Framework*, provides greater consistency between tourism statistics and the rest of the statistical system.

The impact of the new standard may vary between countries, depending on how these statistics are compiled and published. In New Zealand's tourism satellite account, the fundamental change concerns how tourism direct and indirect value added are derived. This change stems from the direct contact principle, which requires a strong economic link between the tourist and the supplier of goods or services.

To understand this change, we examine the concept of tourism output, then outline how it is determined and the impact it has on direct and indirect tourism value added.

#### Tourism output

Tourism output is derived by removing the imports sold directly to tourists by retailers from tourism demand and comprises the following components:

- tourism intermediate consumption – the goods and services used in the process of production of products sold to tourists

- tourism value added – consisting of:
  - direct tourism value added – the value of the output of tourism products by industries, less the value of intermediate consumption (purchased goods and services) used in producing those products.
  - indirect tourism value added – generated from the purchase of goods that are subsequently resold, or the purchase of goods and services used in producing products that are sold directly to tourists.

### **Determining the direct and indirect relationship**

To derive direct or indirect tourism value added, it is first necessary to determine the economic relationship that the producer of goods or services has with tourists. For instance, the producer could be a retailer, wholesaler, or manufacturer.

The direct contact principle requires a strong economic link between the tourist and the supplier of the goods or services. This is especially evident between a tourist and a retailer, and therefore constitutes a direct relationship. The wholesaler and manufacturer have no direct contact with the tourist and therefore have an indirect relationship.

In the course of producing goods or services to sell to a tourist, a producer can apply both an amount to recover costs associated with providing the goods or services, and a profit component. This amount can take the form of:

- the margin a retailer applies to selling a product to a tourist
- the margin charged by the wholesaler
- the price received by the manufacturer.

The margin represents the difference between the value at which goods or services are acquired and the value for which they are sold.

The price at which the retailer sells to a tourist includes the margin components outlined above. Once the direct and indirect relationships are established, direct and indirect tourism value added can be determined by following the same direct contact principle.

### **The impact on direct and indirect tourism value added**

Under the previous New Zealand standard, the derivation of direct tourism value added took into consideration the retail and wholesale margin components and the amount received by the manufacturer regardless of interaction with the tourist.

The new recommendation incorporated in the New Zealand TSA and reflected in *Tourism Satellite Account: 2009* sees only the retail margin component incorporated within direct tourism value added, as it is the retailer who has direct contact with the tourist. In other words, when measuring direct tourism value added, only the part of the supply that has direct contact with the visitor is considered.

The margin charged by the wholesaler and the amount received by the manufacturer are components that do not have direct contact with the visitor. They are therefore measured within indirect tourism value added. This is illustrated in figure 9.

Figure 9

### Comparing the Old and New Standard

<b>Old standard</b>			
<b>Production side</b>	<b>Supply side</b>	<b>Demand side</b>	
Tourism output (value of goods and services)	100 = Direct tourism sales	100 = Tourist expenditure	100
		Less GST & imports	-10
Less intermediate consumption	-50	<b>Less direct tourism value added</b>	<b>-50</b>
<b>Direct tourism value added</b> (Wholesale and retail margins and the amount received by manufacturer)	<b>50</b>	<b>Indirect tourism value added</b>	<b>40</b>

<b>New standard</b>			
<b>Production side</b>	<b>Supply side</b>	<b>Demand side</b>	
Tourism output (value of goods and services)	100 = Direct tourism sales	100 = Tourist expenditure	100
		Less GST & imports	-10
Less intermediate consumption (Incorporates wholesale margin and amount received by manufacturer)	-60	<b>Less direct tourism value added</b>	<b>-40</b>
<b>Direct tourism value added</b> (Retail margin)	<b>40</b>	<b>Indirect tourism value added</b> (Wholesale margin and amount received by manufacturer)	<b>50</b>

It is important to note that despite the reallocation of some components of direct tourism value added to indirect tourism value added, the aggregated total tourism value added remains unchanged.

### **Comparing the old and new standard**

The impact on both the direct and indirect tourism value added estimates, and their respective percentage of total industry contribution to GDP, is evident in tables 13 and 14. These tables illustrate the difference between the application of the old standard and the new recommended standard, using results from table 1 of *Tourism Satellite Account: 2009*.

### **Flow-on impacts**

The introduction of the new standard for the derivation of tourism value added does impact on estimates of direct tourism employment and gross operating surplus as a percentage of total tourism output. The derivation of each of these estimates utilises direct tourism value added. In terms of direct employment, as illustrated with the revised direct and indirect value added estimates, there is a reallocation from direct to indirect employment with total tourism employment remaining unchanged. In terms of gross operating surplus as a percentage of total tourism output, the impact is observed in the all non tourism-related industries category.

Table 13

**Table 1 Calculated with Old Standard****Summary of Tourism Expenditure Components<sup>(1)(2)</sup>**

1999–2009

Year ended March	Direct tourism value added	Indirect tourism value added	Imports used in production of goods and services sold to tourists; and imports sold directly to tourists by retailers	GST on purchases by tourists	Total tourism expenditure	Value added as a percentage of total industry contribution to GDP		
						Direct tourism value added	Indirect tourism value added	Total tourism value added
\$(million)						Percent		
1999	4,508	4,171	2,809	888	12,376	4.7	4.3	9.1
2000	4,916	4,668	3,164	978	13,725	4.9	4.6	9.5
2001	5,083	5,566	3,579	1,087	15,314	4.8	5.2	9.9
2002	5,593	5,689	3,710	1,172	16,165	4.8	4.8	9.7
2003	6,330	5,661	3,902	1,261	17,154	5.2	4.7	9.9
2004	6,803	5,595	3,931	1,300	17,629	5.2	4.3	9.6
2005	7,129 R	5,809 R	4,233 R	1,381 R	18,552 R	5.1	4.2	9.3
2006P	7,375 R	6,176 R	4,410 R	1,435 R	19,396 R	5.1	4.2 R	9.3 R
2007P	7,789 R	6,477 R	4,630 R	1,502 R	20,397 R	5.1	4.2 R	9.3 R
2008P	8,165	6,867	4,905	1,574	21,511	5.0	4.2	9.2
2009P	7,810	7,218	5,115	1,594	21,737	4.7	4.4	9.1

(1) Individual figures may not sum to stated totals due to rounding.

(2) Revisions between 2005 and 2007 reflect updated source data.

(3) Results from input-output tables for 1996 have been used in the calculation of indirect tourism value added.

**Symbols:**

R revised

P provisional

Table 14

**Table 1 Calculated with New Standard****Summary of Tourism Expenditure Components<sup>(1)(2)</sup>**  
*1999–2009*

Year ended March	Direct tourism value added	Indirect tourism value added <sup>(3)</sup>	Imports used in production of goods and services sold to tourists; and imports sold directly to tourists by retailers	GST on purchases by tourists	Total tourism expenditure	Value added as a percentage of total industry contribution to GDP		
						Direct tourism value added	Indirect tourism value added	Total tourism value added
\$(million)						Percent		
1999	3,549 R	5,130 R	2,809	888	12,376	3.7 R	5.4 R	9.1
2000	3,930 R	5,653 R	3,164	978	13,725	3.9 R	5.6 R	9.5
2001	4,107 R	6,542 R	3,579	1,087	15,314	3.8 R	6.1 R	9.9
2002	4,481 R	6,801 R	3,710	1,172	16,165	3.9 R	5.8 R	9.7
2003	5,154 R	6,836 R	3,902	1,261	17,154	4.3 R	5.6 R	9.9
2004	5,504 R	6,894 R	3,931	1,300	17,629	4.2 R	5.3 R	9.6
2005	5,845 R	7,094 R	4,233 R	1,381 R	18,552 R	4.2 R	5.1 R	9.3
2006P	6,029 R	7,522 R	4,410 R	1,435 R	19,396 R	4.1 R	5.2 R	9.3 R
2007P	6,388 R	7,877 R	4,630 R	1,502 R	20,397 R	4.2 R	5.2 R	9.3 R
2008P	6,660	8,371	4,905	1,574	21,511	4.1	5.1	9.2
2009P	6,364	8,665	5,115	1,594	21,737	3.8	5.2	9.1

(1) Individual figures may not sum to stated totals due to rounding.

(2) Revisions between 1999 and 2007 reflect the impact of the new international standard for the derivation of value added.

(3) Results from input-output tables for 1996 have been used in the calculation of indirect tourism value added.

**Symbols:**

P provisional

R revised

## Appendix 2 Conceptual framework

### Definitions

*Tourism Satellite Account: 2009* is based on the methodology produced by the United Nations World Tourism Organization (UNWTO) in its publication *2008 Tourism Satellite Account – Recommended Methodological Framework*, and approved by the United Nations Statistical Commission, and methodological publications of the Organisation for Economic Co-operation and Development (OECD). These organisations have collaborated to produce guidelines for tourism satellite accounts (TSAs). Although the organisations may differ slightly in their recommended treatment of some conceptual issues, they generally take a similar approach that is based on the international standard *System of National Accounts 1993*. Definitions used in *Tourism Satellite Account: 2009* are based on the recommendations of the UNWTO, with some modification for New Zealand purposes.

### Tourist

A tourist is any person travelling to a place other than their usual environment for less than 12 months and whose main purpose is other than the exercise of an activity remunerated from within the place visited.

Not all travellers (persons moving from one place to another) are tourists. To be defined as a tourist, a person must also be travelling to places outside their usual environment (defined below) for a limited time. The 12-month time limit is consistent with the definition in *System of National Accounts 1993*, which is that a person staying in a country for longer than 12 months is a resident. A place becomes part of a tourist's usual environment after the tourist has spent more than 12 months there.

The following people are not considered tourists:

- those, such as travelling salespeople, for whom travel is an intrinsic part of their job
- those who travel for the purpose of being admitted to, or detained in, a residential facility, such as a hospital, prison, or long-stay care
- those travelling as part of a shift to a new permanent location
- those undertaking military duties
- those travelling between two parts of their usual environment.

The New Zealand TSA covers only tourists who travel to or within New Zealand. These are classified as either domestic or international tourists. Domestic tourists are further broken down according to household, business, or government travel.

### Domestic tourist

A domestic tourist is a New Zealand resident who travels within New Zealand but outside their usual environment. While travelling, they do not stay in any one place for more than 12 months.

- A domestic **household** tourist is a domestic tourist whose purpose of visiting is other than to carry out a business activity.
- A domestic **business** tourist is a domestic tourist and an employee of a private sector enterprise whose purpose of travel is to carry out a business activity and whose expenses are met either in full or in part by their employer.
- A domestic **government** tourist is a domestic tourist and an employee of a central or local government sector enterprise whose purpose of travel is to carry out a business activity and whose expenses are met either in full or in part by their employer.

## International tourist

An international tourist is a person who travels to a country other than that in which they have their usual residence, and outside their usual environment. While travelling, they do not stay in any one place for more than 12 months.

For the purposes of a TSA, international tourists are exclusively inbound travellers (non-residents travelling in New Zealand). International students studying in New Zealand for less than 12 months are included in the scope of the TSA. All their expenditure – airfares, course fees, and accommodation and living expenses – are included in international tourism expenditure. International students studying in New Zealand for more than 12 months are excluded from the TSA because they are considered to be residing in their usual environment within New Zealand. Such students are treated as tourists only if they travel outside their usual environment within New Zealand. However, in practice, it is difficult to estimate this expenditure, and it is therefore excluded.

## Usual environment

Usual environment is the place or places a person occupies within their regular routine of life (excepting places visited for leisure or recreational activities only).

It is the concept of 'usual environment' that defines a tourist. Individuals must be travelling outside their usual environment for their expenditure to be considered tourism.

A particular destination will benefit from the goods and services purchased by tourists travelling outside their usual environment, by the amount spent by the tourist at that location, excluding imports. The important link between usual environment and tourism is that tourists, in purchasing goods and services outside their usual environment, have a positive economic impact on that destination. This benefit would not have occurred without tourism. This is the basis of tourism expenditure and is the reason a TSA excludes expenditure by outbound New Zealand travellers on foreign-produced goods and services. In other words, the economic benefits that accrue from these travellers do not benefit New Zealand.

However, expenditure by outbound tourists on domestically produced services (eg international flights on New Zealand carriers, New Zealand travel agents' booking fees, or travel insurance for outbound trips) is included within the TSA because it is a form of tourism and provides economic benefit to the New Zealand economy.

The concept of usual environment is difficult to define because it depends on the nature of the country in question. For this reason, the UNWTO does not give a definitive definition. Instead, it suggests possible criteria to be used by countries to establish their own definition.

In New Zealand, for a tourist to be outside their usual environment they must, subject to previously stated exclusions, satisfy at least one of the following conditions:

- travel by a scheduled flight or inter-island ferry service
- travel more than 40 kilometres from their residence (one way) and outside the area they commute to for work or visit daily
- travel as an international tourist.

Information from the Domestic Travel Survey (DTS) was also collected on this basis.

## Tourism expenditure

Tourism expenditure is spending by, or on behalf of, a tourist before, during, and after a trip. This expenditure occurs either on the trip (eg meals or souvenirs), or is travel related (eg pre-booked airfares, luggage, or other tourism-specific durables). The trip must be taken outside the usual environment of the tourist. This expenditure includes goods and services tax (GST).

Since tourists are defined based on their relationship to their usual environment, expenditure on a product may constitute tourism expenditure, depending on who is purchasing the product. Tourism expenditure is defined from the perspective of the tourist.

On-trip tourism expenditure is tourism expenditure occurring during a trip. Off-trip tourism expenditure is expenditure that occurs outside of a trip but relates to goods and services purchased specifically for use while on a trip.

### **Tourism demand**

Tourism demand is GST-exclusive expenditure made by, or on behalf of, a tourist before, during, and after a trip. This expenditure occurs either on the trip or is travel related, and the trip must be taken outside the usual environment of the tourist. In other words, tourism demand is equivalent to tourism expenditure, excluding GST.

### **Tourism output**

Tourism output is the value of goods and services purchased by tourists, excluding imports sold directly to tourists. It is derived from tourism demand by removing the imports sold directly to tourists component.

### **Tourism intermediate consumption**

Tourism intermediate consumption consists of goods and services used in the process of producing products sold to tourists.

Travel agents' commissions, even where these are paid by transport or accommodation providers to travel agents, are not included in tourism intermediate consumption. Instead, this expenditure is included in tourism demand (and in business travel expenditure) because it is assumed these commissions are paid to travel agents by transport or accommodation providers on behalf of tourists. Travel agents' commissions received directly from fares booked are also included in tourism demand.

### **Goods for resale**

Goods for resale are goods acquired for the purpose of reselling and without further processing or transformation.

## **Valuation basis used in tourism satellite accounts**

Tourism expenditure in TSAs is initially measured in purchasers' prices (market prices). Essentially, purchasers' prices are the amounts paid by tourists for products. Tourism expenditure is then converted into producers' prices for incorporation into the supply and use framework of the TSA. Producers' prices are the amounts producers receive for selling their products. For this reason, they are exclusive of GST. All monetary aggregates presented in a TSA are in producers' prices, unless otherwise stated.

Some valuation issues exist when comparing the New Zealand TSA with those of other countries. This is because the New Zealand System of National Accounts (NZSNA) and the TSA measure industry value added in producers' prices, while Australia and other countries measure industry value added in basic prices, or at factor cost. Consequently, international comparisons can be slightly misleading, as industry value added estimates can have a different valuation basis. (For definitions of basic, producers', and purchasers' prices, see the glossary.)

It is important to emphasise that the direct tourism value added valuation is consistent with the value added generated by industries in the NZSNA, as the former is also measured in producers' prices.

## Tourism products

### The tourism product ratio

The tourism product ratio is the proportion of the total supply of a product or service that is consumed by tourists. It provides the means of classifying tourism products as outlined below.

### Classifying products sold to tourists

TSA's make a distinction between three categories of products:

- A **tourism-characteristic** product is one that would cease to exist in meaningful quantity, or for which the level of consumption would be significantly reduced, in the absence of tourists. A product is classified as a tourism-characteristic product if at least 25 percent of its production is purchased by tourists.
- A **tourism-related** product is distinct from a tourism-characteristic product in that tourists consume a smaller proportion of the total supply of the product. For a product to be classified as a tourism-related product, tourists must purchase up to 25 percent of its production.

Note, a tourism-specific product is either a tourism-characteristic product or a tourism-related product.

- A **non-tourism-related** product is a product that is not tourism-specific. It is assumed in the New Zealand TSA that none of these products are purchased by tourists.

A full list of tourism-characteristic and tourism-related products is in appendix 4, Tourism product classification.

The criteria for categorising products are derived from the UNWTO's recommended treatment, while the product classification used is based on the *Australia and New Zealand Standard Commodity Classification*.

When looking at product classifications, the following points are important to consider:

- The main purpose of making the distinction between categories of products is for presentational and analytical purposes. It allows analysis to be specifically focused on products that make up the majority of tourism expenditure.
- Tourism products are not exclusively consumed by tourists. A non-tourist can consume a tourism-characteristic product. Rather than providing a robust set of products consumed exclusively by tourists, tourism product classifications provide a way of identifying an industry's supply of products consumed by tourists.

Note, constraints on the availability of input data for provisional accounts means that a regrouping of tourism-characteristic and tourism-related products is necessary. (See table 15 in appendix 4, Tourism product classification.)

## Industries producing tourism products

### The tourism industry ratio

The tourism industry ratio is the proportion of an industry's output that is consumed by tourists. It provides the means of classifying industries, as outlined below.

### Categorising industries producing tourism products

A **tourism-characteristic** industry is one where either:

- at least 25 percent of the industry's output is purchased by tourists, or
- the industry's 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. As a result, 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
- a direct physical contact occurs between the industry and the tourist buying its products. As a result, manufacturing and wholesaling industries are not tourism-related industries.

In practice, the retail trade industry is the only tourism-related industry.

A **non-tourism-specific** industry is any industry that is not a tourism-characteristic industry or a tourism-related industry. However, a non-tourism-specific industry may still sell some of its products to tourists.

The following points relate to the TSA industry classification:

- The industries are consistent with the published industries within the NZSNA.
- The classification of industries outlined above has no effect on the value of direct tourism value added. This is because direct tourism value added is determined by the scope of total tourism expenditure regardless of the classification of the industry. The tourism-characteristic and tourism related industries are identified for extra emphasis in this TSA because they are involved significantly in tourism.

Note, constraints on the availability of input data for provisional accounts mean that supply by product and value added are shown only for tourism-characteristic industries and for all other industries. (See appendix 5: Tourism industry concordance, for detailed listings.)

## Value added

Value added is the 'value' that a producer adds to the raw material goods and services and/or transformed goods it purchases in the process of production. This can be shown as:

$$\begin{array}{r}
 \text{Output (produced goods and services)} \\
 \textit{less} \quad \text{intermediate consumption (purchased goods and services required to} \\
 \quad \text{produce outputs)} \\
 \textit{equals} \quad \text{value added.}
 \end{array}$$

The value added of a business is less than the value of its output.

Value added has several components:

- compensation of employees – the cost of employing labour used to produce output
- gross operating surplus – the surplus or deficit accruing from production before taking account of any interest or rent payable on financial or tangible non-produced assets borrowed or rented by the enterprise, any interest or rent receivable on financial or tangible non-produced assets owned by the enterprise, or the depreciation of capital used in production (that is, consumption of fixed capital)
- net taxes on production and imports – taxes payable (less subsidies receivable) on goods and services (excluding GST ) when they are produced, plus taxes and duties on imports that become payable (less subsidies receivable) when goods enter the country.

### Direct tourism value added

Direct tourism value added is the value added by producers from the production of goods and services that are sold directly to tourists. This results in a measure of the contribution of tourism to gross domestic product (GDP) that is consistent with that measured for other industries in the economy.

These goods and services (products) can be produced through the involvement of a manufacturer and a wholesaler before being supplied to retailers to sell to tourists. During this process, a margin can be applied as follows:

- the margin (or 'mark up') of the retailer selling the product
- the margin charged by the wholesaler
- the price received by the manufacturer.

For the product to be sold directly to a tourist there needs to be a strong economic link between the tourist and the producer. This is best represented in the form of a physical contact between the parties, for example a tourist purchasing a souvenir from a retail outlet.

Through selling the souvenir to the tourist, the producer (a retail outlet in this case) will have applied their margin (or 'mark up') over and above the costs associated with selling this souvenir. It is solely this margin that direct tourism value added is then derived from.

## Indirect tourism value added

Indirect tourism value added is generated from the purchase of goods that are subsequently resold, or the purchase of goods and services used in producing products that are sold directly to tourists. Producers of these products have no direct relationship with the tourist.

Using the example from above, the manufacturer's purchase of raw materials and services used in producing the souvenir, and the margin applied by the wholesaler, represent output from which indirect tourism value added is derived – for industries that have no direct contact with the tourist.

## Relating direct tourism value added and tourism expenditure

It is important to distinguish between two related concepts: total tourism expenditure and direct tourism value added. The two differ in both concept and scope.

Total tourism expenditure equals output sold to tourists, plus imported goods directly purchased by tourists, plus GST on purchases by tourists. Direct tourism value added equals the value of goods and services produced domestically and consumed by tourists, less the value of purchased goods and services required to produce these goods and services (outputs).

The relationship between these concepts is as follows:

	Total tourism expenditure
<i>less</i>	GST
<i>equals</i>	tourism demand
<i>less</i>	imports sold directly to tourists by retailers
<i>equals</i>	tourism output
<i>less</i>	tourism intermediate consumption (including goods for resale)
<i>equals</i>	direct tourism value added
	Tourism intermediate consumption (including goods for resale)
<i>less</i>	imports used in production of goods and services sold to tourists
<i>equals</i>	indirect tourism value added.

## Appendix 3 Methodology

### Direct tourism value added

Tourism expenditure and direct tourism value added (or tourism's contribution to gross domestic product (GDP)) are the two major economic aggregates derived in a tourism satellite account (TSA).

Tourism expenditure measures the value of products purchased by visitors, whether before, during, or after travel.

Direct tourism value added measures the value of the output of tourism products by industries, less the value of goods and services used in their production. When summed across all industries, it shows the direct value added to the economy by tourism.

Tables 5, 6, 7, and 8 detail the process used to measure direct tourism value added. This involves the following steps:

- Table 5 presents tourism expenditure by type of product. (It is further dissected by type of tourist in table 6.)
- Tourism expenditure by type of product is matched with the total supply of products in the annual supply and use tables of the New Zealand economy. The tourism product ratio for each product is derived by dividing the value of tourism expenditure by total supply of the product.
- Each industry's supply by product is multiplied by the tourism product ratio, to calculate tourism supply by industry. Table 7 presents tourism supply for tourism-characteristic industries, all other industries, and imports.
- Tourism supply is then divided by total output by industry, to give tourism industry ratios – the proportion of each industry's total output that is purchased by tourists.
- The tourism industry ratios are multiplied through each industry's production account. The resulting series are summed to obtain total tourism value added. Table 8 presents total tourism value added resulting from tourism-characteristic industries and all other industries.

The same methodology underlies the calculation of direct tourism value added for final and provisional accounts, and is ordered according to the steps above. However, the derivation of inputs into the calculation process and the level at which calculations are performed differ between final and provisional accounts. There are three main reasons for this:

- The lack of balanced supply and use results for the provisional accounts limits the level at which expenditure by product can be calculated for business and government travellers.
- The same constraints apply to the supply of tourism products. The absence of balanced supply and use accounts means the supply of each product by industry cannot be derived reliably at the same level of detail as in a final account.
- The industry production accounts, and therefore industry value added, are provisional and are yet to be balanced within a supply and use framework to derive a final GDP figure.

Differences in the derivation of input data for final and provisional accounts are outlined in the following sections.

## Calculating tourism expenditure

Table 6 presents tourism expenditure by product by type of tourist: international, household, and business and government. Descriptions of how expenditure by the three types of tourist are calculated as outlined below.

### International tourism expenditure

International tourism expenditure comprises both international visitors' and international students' expenditure.

#### *Final accounts*

Expenditure by international tourists in New Zealand is derived from the International Visitors Survey (IVS) published by the Ministry of Tourism. This sample survey is extrapolated up to full population estimates using migration data. The IVS data is supplemented with breakdowns from balanced supply and use accounts, consumers price index (CPI) weightings, and tourism producers' own data. In some instances, tourism producers can provide estimates of the proportions of their output consumed by international visitors.

Broad-level valuations of international visitors' expenditure in New Zealand are derived from transportation and travel services items in the balance of payments (BoP). IVS data is a major source for BoP statistics, but a number of supplementary sources are also used. TSA totals are obtained after excluding people who are visiting New Zealand specifically to obtain medical treatment (an adjustment needed because of a conceptual difference between TSA and BoP statistics). These totals are then broken into tourism products. The initial breakdown comes from the IVS, which groups expenditure into 10 major groups (eg transport, meals, sightseeing). These expenditures are then further split into TSA tourism products, using proportions from balanced supply and use accounts. These splits are compared with other data sources, and refinements made where additional estimates are available.

#### *Provisional accounts*

The same basic data source, the IVS, is also used in the provisional accounts. However, in the absence of supply and use tables, the IVS is not broken down to the same level of product detail found in final accounts. The breakdown derived for the latest final account is used to derive the initial product breakdown for the provisional years. This initial product breakdown is subsequently refined during the balancing process (covered in more detail later in this appendix, see 'Balancing tourism expenditure and tourism production').

### Tourism expenditure by international students

Tourism expenditure by international students studying for less than 12 months in New Zealand is calculated using the following steps:

- Total international student numbers are obtained from the Ministry of Education and the Survey of English Language Providers. The latter is an annual Statistics NZ survey that collects information on the expenditure of international students studying at New Zealand English language schools, categorised by tuition and other fees.
- The number of international students studying in New Zealand for less than 12 months is derived as a proportion of total student numbers by using short-term passenger arrivals visiting New Zealand for education or medical purposes.
- Expenditure on course fees is calculated using Education New Zealand data, which is a census of international students studying in New Zealand. It includes average course fees for students studying at schools, tertiary education institutes, and private tertiary establishments (such as English language schools).
- Expenditure on living costs (including accommodation costs) is assumed to be equivalent to expenditure on course fees, on a per student basis.

- Expenditure on airfares by short-term students is calculated by multiplying the numbers of students in New Zealand for less than 12 months as a proportion of total international arrivals, by the total airfare income of resident airlines (from BoP).
- Total tourism expenditure by international students in New Zealand for less than 12 months is the sum of expenditure on course fees, living costs, and airfares.

## Household tourism expenditure

Household tourism expenditure, shown as household demand in table 6, consists of four components. These are:

### 1. Household domestic travel expenditure

The Domestic Travel Survey (DTS) measures the expenditure and behaviours of domestic travellers within New Zealand. It provides valuable information on the nature of domestic travel activity, including the origin and destination of domestic travellers. DTS data collection began in 1999, and data is available as both quarterly and annual series.

The DTS data supplied by the Ministry of Tourism to Statistics NZ is categorised by purpose of travel, expenditure type, and length of trip (either day trip or overnight trip). The four travel purposes are: holiday, visiting friends and relatives, business, and other. The eight expenditure categories are: transport, accommodation, food, alcohol, gifts and souvenirs, recreation, other shopping, and gambling. DTS expenditure levels are available by purpose of travel, expenditure category, and length of trip.

The DTS captures approximately 80 percent of domestic household expenditure in the TSA. The remaining 20 percent is calculated using separate estimates for outbound travel purchased from New Zealand-resident firms, off-trip purchases of tourism-specific consumer durable goods, and imputed rental on holiday homes.

#### *Final accounts*

The DTS is a key data source in calculating domestic household expenditure in the TSA. Data obtained from the DTS is supplemented with data from the Household Economic Survey (HES) and other sources.

DTS business expenditure data and data from the other three DTS travel purpose types are used to estimate part of TSA domestic household expenditure. For each of the eight expenditure categories mentioned above, a predetermined proportion of the DTS business expenditure is included within TSA domestic household expenditure. For example, 67 percent of DTS business expenditure on alcohol is considered to be within the scope of TSA domestic household expenditure, which reflects the business tourist paying for 67 percent of their alcohol consumption without being compensated by their organisation. The remaining 33 percent is considered to be consumption for which the business tourist is compensated by their organisation. This amount is therefore not classified as TSA domestic household expenditure.

#### *Provisional accounts*

Total domestic household expenditure for provisional March years is calculated by applying movements in the March year DTS data, from the latest final domestic household expenditure values. Other data sources, such as annual reports and the HES, are also incorporated into the calculations. This mechanism provides the initial product expenditure levels, which are subsequently modified during the balancing process (covered in more detail later in this appendix, see 'Balancing tourism expenditure and tourism production').

### 2. Outbound travel purchased from New Zealand-resident firms

#### *Final accounts*

Household tourism expenditure in the TSA includes expenditure on overseas travel, where New Zealanders purchase New Zealand-produced goods and services. This expenditure includes fares paid to resident air carriers for flying a household tourist overseas, commissions paid to resident travel agents for booking household outbound

travel, pre-paid travel insurance, and vaccinations needed by household outbound tourists. This expenditure is estimated from a variety of sources, including BoP data, the HES, and company annual reports.

#### *Provisional accounts*

Household outbound tourism expenditure for provisional accounts is calculated by using product breakdowns from the latest final account, to split household consumption expenditure groupings. For example, household tourism expenditure on travel insurance is rated forward by using total household consumption expenditure on insurance. Annual movements in the appropriate household consumption expenditure category are used to estimate expenditure, based on the latest final account. Expenditure estimates are subject to modification during the supply and use confrontation (covered in more detail later in this appendix, see 'Balancing tourism expenditure and tourism production').

### **3. Off-trip purchases of tourism-specific consumer durable goods**

#### *Final accounts*

Off-trip expenditure by households on tourism-specific consumer durables (such as tents and sleeping bags) is included in household tourism expenditure. These off-trip purchases are based on data from the HES and are added to the on-trip purchases of these goods. Off-trip tourism expenditure is defined under 'Tourism expenditure' in appendix 2, Conceptual framework. Further discussion on consumer durables in the TSA is in the 'Special treatments' section later in this appendix.

#### *Provisional accounts*

Domestic household purchases of tourism-specific consumer durables for the provisional years are calculated by using household consumption expenditure groupings, to split products down to a detailed level. Annual movements in the household consumption expenditure groupings are used to estimate expenditure at the detailed product level, for each provisional account. The detailed product level is then reaggregated to the published tourism product level. Expenditure estimates are subject to modification during the balancing process (covered in more detail later in this appendix, see 'Balancing tourism expenditure and tourism production').

### **4. Imputed rental on holiday homes**

#### *All years*

The TSA includes an imputed rental on dwellings owned by households that are used as holiday homes. The total number of holiday homes is calculated using data from the population census. The imputed weekly rental price is calculated using census data, movements in the appropriate consumers price index, and accommodation survey occupancy rates. This is multiplied by the number of weeks in the year to give an annual imputed rental price. The number of holiday homes is then multiplied by the annual imputed rental price to give the total imputed rental value.

## **Business and government travel expenditure**

#### *Final accounts*

Business travel expenditure is drawn from intermediate consumption, by product, of private sector industries in the balanced supply and use accounts. This is supplemented by other data sources, including the Annual Enterprise Survey. DTS business expenditure data are not used to derive the TSA business expenditure estimates. To avoid double-counting, the DTS business expenditure categories that are included within TSA domestic household expenditure (such as the 67 percent of the alcohol category mentioned earlier in this appendix, see 'Household tourism expenditure') are not incorporated into the TSA business expenditure estimates.

Travel expenditure by local authority and central government agencies and departments (that is, non-market units) is calculated by directly surveying a sample of agencies and applying the results across all authorities and agencies. Travel expenditure by local and central government market units uses the same supply and use method as for business travel.

*Provisional accounts*

Travel expenditure is part of the intermediate consumption of businesses and government. In the absence of balanced supply and use accounts, intermediate consumption is first derived using a variety of data sources, including GST purchases, annual reports, and results from the Annual Enterprise Survey. The ratio of travel expenses to total intermediate consumption from the latest final account is then applied. This provides the initial product breakdown, which is subsequently modified during the balancing process (covered in more detail later in this appendix, see 'Balancing tourism expenditure and tourism production').

As with the final accounts, DTS data is not used in estimating TSA business and government expenditure.

## Production of tourism goods and services

*Final accounts*

Analysing the production of tourism-characteristic and tourism-related products starts with the production accounts by industry that underlie the supply and use table. Within the balanced supply and use accounts, each industry's output and intermediate consumption are broken down into products. Final demand categories such as household consumption expenditure and exports are also broken down by product. For the TSA, output product data from balanced supply and use tables are rearranged to focus on tourism-characteristic and tourism-related products. Total sales by each industry are arranged into tourism-characteristic, tourism-related, and non-tourism-related products.

*Provisional accounts*

Constraints on the availability of data for provisional accounts (no balanced supply and use results available) mean that supply by product is shown only for tourism-characteristic industries and for all other industries. Without balanced supply and use accounts, total output by industry is derived using a variety of indicators, including GST sales, the Retail Trade Survey, the Annual Enterprise Survey, the Accommodation Survey, and annual reports. This output is then broken down into the supply of tourism products by using the latest final account breakdown of output by product and industry. This provides the initial product breakdown, which is subsequently modified during the balancing process (covered in more detail in 'Balancing tourism expenditure and tourism production', see below).

## Balancing tourism expenditure and tourism production

*Final accounts*

Supply and use balancing is an established and integral process in compiling of the national accounts. It is used "for checking the consistency of statistics on flows of goods and services obtained from quite different kinds of statistical sources" (Inter-Secretariat Working Group on National Accounts, 1993). The supply and use balancing process rigorously examines diverse data sources, reconciling them in a framework that reduces the error margins implicit in the individual data sources.

The supply and use approach provides the best framework to bring the demand and supply sides of the economy into balance. The usual process is to confront supply and demand by product, and perform adjustments so that the value of the supply of each product is equal to the value used. Adjustments are made to either supply or demand, depending on the relative strength of each data source. In doing so, the potential for errors that may result from using a single data source, either supply- or demand-based, is reduced. Similar checking of supply and use by product, which underlies Statistics NZ's annual supply and use models, was also performed in the TSA.

The TSA begins with the balanced supply and use tables, so all products are balanced in terms of their total supply and total use. These 'product accounts' are broken down further into their tourism and non-tourism components. The resulting tourism supply and tourism use may no longer be balanced as a consequence of the methodology used to make this split. The same type of data confrontation used in supply and use balancing is then used in the TSA to ensure that tourism supply is equal to tourism use.

A typical example of how this process is undertaken follows:

1. Compare the total supply of tourism-characteristic and tourism-related products with the total direct tourism demand and non-tourism demand for these products. This comparison identifies areas where the tourism product ratio is unexpected or obviously incorrect. Note that GST is deducted from tourism expenditure for this comparison – so production for and expenditure on tourism products are both valued in producers' prices.
2. Re-examine the methodology used, checking for errors, conceptual inconsistencies, and methodological problems.
3. Compare the strength of the respective supply-and demand-side data sources, identifying areas where particular strengths and weaknesses lie. Typically, the strengths are in the supply-side industry and product data, and the total demand by type of tourist data. Demand for individual products is often considered to be of weaker quality.

The focus is to strengthen the breakdown of total tourism expenditure types into products. The first step is to look for any extra data sources to provide indications of what these should be. Where possible, changes are incorporated. In areas where no data is available, iterative changes are made to these products, keeping particular areas of confidence 'locked'. This process is continued until the ratios for each product come into line with expectations. The outcome of the balancing process is a strengthened analysis and a complete set of tourism product ratios – that is, the proportion of the supply of products that make up tourism demand. The tourism industry ratios, and thus tourism value added, are derived from these.

#### *Provisional accounts*

The same checking of supply and use by product that underlies the annual supply and use analysis is also performed in the provisional accounts. However, due to data constraints, the process is at a more aggregated product level. Furthermore, the relative strengths of supply and use data sources are quite different between provisional and final accounts.

## **Calculating direct tourism value added**

### **Derivation of the tourism product ratio**

Tourism consumption for each product is divided by total supply to give the tourism product ratio. This ratio measures the proportion of a product's output that is used by tourists.

### **Derivation of tourism supply and the tourism industry ratio**

Calculation of tourism supply and the tourism industry ratio for each industry is an important intermediate step in deriving direct tourism value added and employment.

Tourism supply by product by industry is derived by applying the tourism product ratio (from table 6) to the supply of that product by each industry. Total tourism supply by each industry is then calculated by summing tourism supply for all products.

For example, the tourism product ratio for accommodation services was applied to the output of all industries supplying this product. This gave tourism supply of accommodation services by each industry. Tourism supply by each industry was then

divided by total industry output, to give the tourism industry ratio. It is worth noting that although the accommodation industry is the dominant supplier of accommodation services they are not the sole supplier as other industries can also supply this product.

While the calculation of the tourism industry ratio and tourism supply by industry is an important step in deriving direct tourism value added, neither is shown in provisional years. This is because these values are themselves derived from the gross output of each industry. Table 7 shows total supply and tourism supply by product for tourism-characteristic and all other industries.

### **Derivation of direct tourism value added**

The tourism industry ratio is applied to the production account for each industry to obtain direct tourism value added.

Production accounts by industry are not available for provisional years. Therefore, before tourism value added can be calculated, provisional production accounts for each industry are derived. Data from a variety of sources, including GST sales and purchases, annual reports, and the Annual Enterprise Survey, are used to break down the latest published total value added to give value added by industry.

Final TSA account tables present full production accounts, as well as tourism production accounts by industry. Direct tourism value added in provisional TSA accounts is split by tourism-characteristic and all other industries. This reflects the less detailed nature of total value added by industry in years in which tourism value added is derived as a subset.

A major assumption is made in the compilation of the TSA relating to the use of the tourism product ratio and the tourism industry ratios. The industry technology assumption is that the input requirements of tourism and non-tourism products are identical for an industry. That is, if 50 percent of the output of an industry is goods and services sold to tourists, then 50 percent of its inputs are used to produce those goods and services. This is likely to be a more valid assumption for an industry that makes a range of products that are very similar, requiring similar inputs. However, in some instances the assumption is likely to be less valid; for example where an industry has a low degree of tourism specialisation, and a diverse range of products are produced.

An alternate assumption is to relate specific inputs to outputs – a product technology assumption. However, this approach is not easily implemented due to the lack of sufficiently detailed product data. Industry data, on the other hand, is far more readily available. Both the industry and product technology assumptions are sanctioned by the UNWTO.

### **Direct tourism employment**

Direct tourism employment (see table 11) is derived by applying tourism industry ratios to the number of people engaged in each industry. This approach produces a value for the number of people in each industry as a result of tourism.

Employee numbers (persons employed full time, part time, or full-time equivalent) by each industry are sourced from the Quarterly Employment Survey (QES). Exceptions are the water transport and agriculture industries, as the QES does not survey employment for some parts of these industries. Their employee numbers come from the Household Labour Force Survey (HLFS).

Working proprietor numbers (persons employed full time, part time, or full-time equivalent) by each industry are sourced from the HLFS. The QES is not suitable as a data source because it counts only working proprietors with employees.

Before *Tourism Satellite Account 2004*, the tourism employment series was compiled mainly from the Annual Frame Update Survey (AFUS). However, since 2003 the AFUS has been unable to provide a comprehensive full-time/part-time employment split. As a

consequence, the TSA tourism employment series from 2004 use QES and HLFS data. The new series are currently available for all years from 2001.

## Tourism industry profitability

Tourism gross operating surplus as a percentage of total tourism output is one measure of tourism profitability. It reflects national accounting rather than commercial concepts. Gross operating surplus is before interest and depreciation.

## Indirect effects of tourism

### Indirect imports and tourism value added

As described in appendix 2 (see 'Relating direct tourism value added and tourism expenditure'), the basis of a TSA's measure of indirect tourism value added (or tourism's indirect contribution to GDP) is:

	Total tourism expenditure
<i>less</i>	GST
<i>equals</i>	tourism demand
<i>less</i>	imports sold directly to tourists by retailers
<i>equals</i>	tourism output
<i>less</i>	tourism intermediate consumption (inclusive of goods for resale)
<i>equals</i>	direct tourism value added
	Tourism intermediate consumption (inclusive of goods for resale)
<i>less</i>	imports used in production of goods and services sold to tourists
<i>equals</i>	indirect tourism value added.

The derivation of imports used in producing goods and services sold to tourists and indirect tourism value added are discussed below.

### Imports used in production of goods and services sold to tourists

Indirect tourism imports represent imported products not sold directly to tourists, but used in producing tourism supply.

The value of imports used in producing products sold to tourists is calculated using the table of cumulated import coefficients of industries, and categories of final demand, from 1996 input-output tables, the most recent cumulated import coefficients table available. This may be updated when the relevant tables from more recent years become available. The cumulated imports coefficients table shows how many units of imports are required for an industry to produce a unit of output. Tourism supply by industry is derived as part of the direct tourism value added calculation. Multiplying this supply by the relevant import coefficients by industry produces the value of imports used in producing goods and services sold to tourists.

### Indirect tourism value added

Indirect tourism value added may be calculated directly by using the supply and use framework, or derived indirectly as a residual item. The indirect method calculates total tourism expenditure (excluding GST), then subtracts direct tourism value added, imports sold directly to tourists by retailers, and imports used in the production of goods and services that are sold to tourists.

#### *Final accounts*

Indirect tourism value added is calculated directly using the table of industry by industry total requirements from 1996 input-output tables, the most recent total requirements table available.

*Provisional accounts*

Indirect tourism value added is derived using the subtraction method, after first deriving imports used in production of goods and services sold to tourists. The advantage of this method is that it is simpler, does not require multiple iterations, and industry total value added is a less critical input.

**Indirect tourism employment**

Numbers of full-time equivalent employees (FTEs) indirectly employed in tourism are presented in table 3.

*Final accounts*

Indirect tourism employment takes, as its starting point, indirect tourism value added by industry. The ratio of indirect tourism value added to direct tourism value added is calculated, and multiplied by direct tourism employment, to give indirect tourism employment by industry. These industry estimates are summed to calculate the total FTEs indirectly employed in tourism.

*Provisional accounts*

For provisional years, neither direct tourism value added nor indirect tourism value added is available by industry in the NZSNA. Therefore, the ratio of total tourism indirect tourism value added to total direct tourism value added, by industry, is calculated for the latest final year. This is multiplied by total direct tourism employment, to give the total FTEs indirectly employed in tourism.

**Supply and use framework***Final accounts*

The TSA is a rearrangement of the NZSNA. More specifically, the tables for final accounts are derived from the annual supply and use analyses of the New Zealand economy. Supply and use analyses are both a statistical and economic representation of the economy, broken down by industry, product, primary input category (eg compensation of employees, consumption of fixed capital), and final demand category (such as household consumption expenditure and exports). By adopting the supply and use framework, a 'tourism industry' can be presented in the same way as industries such as agriculture and manufacturing. It is then possible for tourism to be compared with other industries and with total national accounts aggregates, such as GDP.

Additionally, by compiling the TSA within a supply and use framework, derived tables may be produced that allow further analyses. For example, an 'impact analysis' can be completed, which allows the user to trace the direct and indirect impact of tourism expenditure on the economy. This shows the flow-on effects of tourism, as expenditure on tourism products impacts first on industries that directly supply tourists, and then on industries that provide indirect inputs to the industries supplying tourists.

The supply and use structure also allows economic data on tourism to be easily linked to non-financial data such as employment. Balanced supply and use accounts provide detail, at the product level, of both the structure of industry output (supply), and the demand for these products by business and final demand categories (eg household spending). They are the starting point from which a TSA is derived.

*Provisional accounts*

Balanced supply and use accounts are not yet available for provisional years. Only total economy-wide value added has been published for these years. Therefore, aggregated supply of products sold to tourists by industry are calculated. This involves:

- deriving the output of each industry (as outlined earlier in this appendix)

- breaking down total output into supply of each tourism product, using the industry output breakdown from the latest available supply and use analysis. This provides the initial product breakdown, which is subsequently modified during the balancing process
- calculating value added by industry within the constraint of published total value added.

The absence of balanced supply and use accounts results in less robust estimates of tourism value added for these later years.

## Special treatments

This section details a number of areas in TSA methodology that receive special treatment.

### Treatment of the margin

In the national accounts, purchases of retail goods can effectively be split into three components:

- the margin (or 'mark up') of the retailer selling the product
- the margin charged by the wholesaler
- the price received by the manufacturer.

The treatment adopted in the TSA is illustrated using the following example:

A tourist purchases a jersey for \$100, comprising a \$10 mark up from the retailer (who has direct contact with the tourist), \$15 margin from the wholesaler, and \$75 charged by the manufacturer.

- the full purchase price of the jersey (\$100) is recorded as total tourism expenditure
- the margin (or 'mark up') by the retailer selling the jersey to the tourist is the retail output (\$10) from which direct tourism value added is then derived
- the remaining \$90 is the price received by the manufacturer (\$75) and the margin charged by the wholesaler (\$15), neither of these has direct contact with the tourist and is the output from which indirect value added is derived.

### Consumer durables

Two types of expenditure on consumer durables are included in tourism expenditure in a TSA, consistent with UNWTO recommendations:

- Conceptually, all consumer durables acquired on a trip are included in tourism demand. This includes the purchase of high-value consumer durables during a trip, such as motor vehicles, even though the primary purpose may not be for tourism use. The estimate of purchases of motor vehicles by households while on trips is related to the proportion of New Zealanders' living in rural areas. This is based on the assumption that rural residents will travel outside their 'usual environment' (defined in appendix 2) to purchase a motor vehicle. It is recognised that, the usual environment for a rural New Zealander may well include urban areas that fall outside the strict TSA definition of 'usual environment'. While the measurement makes some attempt to take this into consideration, there is little hard data with which to refine it. As a result, these estimates may be revisited in the future.

- Off-trip purchases of a specific range of consumer durables with very high tourism use are included. For example, luggage and tents are acquired primarily for tourism purposes, so are always considered tourism expenditure. TSAs have defined a set of consumer durables with very high tourism use, based on a list developed by the OECD that is supplemented with consumer durables having high tourism use in New Zealand. (See appendix 4, Tourism product classification, for items included as tourism consumer durables.)

### **Holiday homes**

An imputed rental on owner-occupied dwellings is calculated in the national accounts. This is to avoid distortions over time resulting from changes in the number of people renting versus owning homes (otherwise, an increase in the number of people renting homes would increase GDP). This imputed rental is applied to both first and second homes (which includes holiday homes).

Although a holiday home may not be in full-time use, the assumption is made that it is available to be used all year, and therefore the rental from owning the holiday home is allocated to tourism expenditure.

For a TSA, 'demand' for holiday homes is assumed to come solely from domestic recreational tourists, due to a lack of data on the origin of holiday home owners. Total supply of holiday homes is set equal to the total imputed holiday home rental (and therefore total demand) of domestic household tourists, as holiday home supply is provided solely for the purposes of tourism.

### **Package tours**

TSAs apply the net approach to recording package tour expenditure, whereby the organiser's margin is recorded as the sole output – for arranging the tour – while the components of the tour are treated as being purchased directly by the tourist.

For example, a travel agent sells a package tour to a tourist. The travel agent (organiser) records a margin from the sale of the package tour. The expenditure on each of the components of the tour is captured under the respective industry's output.

### **Travel agency services**

There are two major ways in which travel agents obtain their income. Firstly, income is earned by buying travel products (generally at a bulk discount) and selling them to travellers, earning a margin. Secondly, an agent may book a traveller's fare or accommodation with the service provider, and receive commission from the service provider (on behalf of the traveller). There are special treatments in TSAs for each of these means of generating income:

- Where travel agents have sold travel to travellers, then travellers are recorded as having bought travel (from the travel provider) and travel agency services (the travel agent's margin).
- Where travel agents have received commissions, providers are assumed to have purchased travel agency services on behalf of the tourist. This means that these travel agency services are included in direct tourism demand and therefore contribute to direct tourism value added. Consequently, business travel expenditure includes a high level of demand for travel agency services.

### **Non-market output consumed by tourists**

The New Zealand TSA does not include an imputation for the provision of individual non-market tourism services in total tourism consumption. These services include information centres, museums, libraries, and any other services that tourists use without having to pay for them, such as national parks. This is a recommended inclusion in UNWTO TSA methodology.

To implement the UNWTO recommendation requires:

- a very detailed functional breakdown of the expenditure of government and non-profit institutions; that is, separately identifying those entities which provide 'individualised' services
- splitting this expenditure between tourist and non-tourist consumption.

Identifying individualised and collective non-market consumption is a *System of National Accounts 1993* recommendation. However, this has been only partly implemented (local government has not been fully split). In areas that have been split, the breakdowns are not sufficiently detailed for TSA purposes.

## Appendix 4 Tourism product classification

Tourism product information is less detailed in a provisional tourism satellite account than it is for a final tourism satellite account. Table 15 shows these distinctions. The inclusions and exclusions are not exhaustive, but are intended to clarify coverage from a tourism perspective.

Table 15

### Tourism Product Classification

Tourism product for provisional tourism satellite accounts	Tourism product for tourism satellite accounts	Includes	Excludes
Accommodation services	Accommodation services	Hotel and other lodging services	Accommodation for the elderly, Students' accommodation (eg student hostels) are excluded from tourism
Food and beverage serving services	Food and beverage serving services	Takings from meals (including takeaways), beverage serving services for consumption on the premises	
Air passenger transport	Air passenger transport	Scheduled and unscheduled air passenger transport. Rental services of aircraft with operator	Air freight transport
Other passenger transport	Road passenger transport	Bus and taxi passenger transport, other unscheduled road passenger services	Road freight transport
	Rail passenger transport	Passenger transport by rail	Rail freight transport
	Water passenger transport	Passenger transport by international and coastal sea-going vessels and inland water passenger transport	Water freight transport
	Travel agency services	Booking services, ticket selling	Freight agency services
	Motor vehicle hire or rental	Hiring of cars, trucks, buses, and campervans	Taxis, hiring of motor vehicles with drivers, machinery hire
Retail sales – fuel and other automotive products	Retail sales – fuel and other automotive products	Diesel, motor oils	
Retail sales – other	Retail sales – alcohol	Alcoholic beverages purchased from liquor stores, supermarkets, and other retail outlets	Alcohol sold for consumption on premises
	Retail sales – clothing and footwear		
	Retail sales – food, beverages, tobacco and other groceries		
	Retail sales – retail medicines, toiletries		
	Retail sales – tourism consumer durables	Tents, sleeping bags, luggage, skiing equipment, climbing/tramping equipment, diving equipment, motor vehicles, pleasure, and sporting boats	
	Retail sales – other shopping		

Table 15 *continued***Tourism Product Classification**

<b>Tourism product – Provisional tourism satellite accounts</b>	<b>Tourism product – Tourism satellite accounts</b>	<b>Includes</b>	<b>Excludes</b>
Other tourism products	Imputed rental on holiday homes	Imputed rental on second homes used only (or partly) by the owner. These may be made available to third parties for holidays, leisure and business activities	
	Libraries, archives, museums and other cultural services	Zoos, nature reserves	
	Other sport and recreation services	Recreational parks and gardens, services to the arts, horse and dog racing, golf course operation, swimming pools, ski-fields, and other recreation services	
	Financial services	Issuing and negotiating foreign cash and non-trade financial instruments	Financial intermediation services indirectly measured
	General insurance	Travel insurance, other general insurance	Life insurance, superannuation, and health insurance
	Social and health-related services	Health and medical services, social services	
	Gambling services	Gambling at the casino, other gambling services	
	Education services <sup>(1)</sup>	Spending on education by international students studying in New Zealand for less than 12 months	Spending on education by international students studying in New Zealand for more than 12 months
	Other tourism-related services	Telecommunications, postal and courier services, and other tourism products	Health and medical services
	Other personal services	Laundry services, film processing, hairdressing, and beauty services	

(1) Prior to the *Tourism Satellite Account 2005*, education services was included within other tourism-related services.

## Appendix 5 Tourism industry concordance

Within the national accounting system, industries are defined as a group of producers that supply particular goods or services. Instead of producing goods or services, the tourism 'industry' is defined by the particular group of consumers – tourists – who purchase its output. Tourism industry information is more aggregated in a provisional tourism satellite account than it is for a final tourism satellite account. This is shown in table 16.

Table 16

### Tourism Industry Concordance

Tourism industry category Provisional tourism satellite accounts	Tourism industry category Tourism satellite accounts	Tourism industry component	ANZSIC code	ANZSIC industry description
Tourism characteristic industries	Tourism-characteristic industries	Accommodation <sup>(1)</sup>	H571	Accommodation
		Cafes and restaurants <sup>(1)</sup>	H572	Pubs, taverns and bars
			H573	Cafes and restaurants
			H574	Clubs (hospitality)
		Road passenger	I6121	Long distance bus transport
			I6122	Short distance bus transport (including tramway)
			I6123	Taxi and other road passenger transport
		Rail transport	I62	Rail transport
		Water transport	I63	Water transport
		Air transport	I64	Air and space transport
		Other transport, storage, and transport services	I65	Other transport
			I66	Services to transport
			I67	Storage
		Machinery and equipment hiring and leasing	L774	Machinery & equipment hiring and leasing
Cultural and recreational services	P92	Libraries, museums and the arts		
	P93	Sport and recreation		
All other industries	Tourism-related industries	Retail trade	G511	Supermarket and grocery stores
			G512	Specialised food retailing
			G521	Department stores
			G522	Clothing and soft good retailing
			G523	Furniture, houseware, & appliance retailing
			G524	Recreational good retailing
			G525	Other personal & household good retailing
			G526	Household equipment repair services
G53	Motor vehicle retailing and services			
	All non-tourism-related industries		All other ANZSIC industries	

(1) Prior to the *Tourism Satellite Account 2005*, the cafes and restaurants industry was combined with the accommodation industry.

## Appendix 6 Detailed tables for 2005

Tables 17–24 in this section are updated detailed tables for the tourism satellite account for the year ended March 2005, the latest year for which balanced supply and use tables are available.

Detailed tables for the years ended March 2006, 2007, 2008, and 2009 will be available when the balanced supply and use tables for these years are compiled.

The detailed tables for 2005 are also available from the Statistics NZ website in Excel format ([www.stats.govt.nz](http://www.stats.govt.nz)).

Table 17

**Tourism Expenditure**  
*By type of product and type of tourist*<sup>(1)(2)</sup>  
 Year ended March 2005

Product	Domestic demand			International demand	Total demand
	Business demand	Government demand	Household demand		
	\$(million)				
<b>Tourism-characteristic products</b>					
Accommodation services	152	66	487	1,013	1,718
Food and beverage serving services	45	20	808	1,328	2,202
Road, rail, and water passenger transport <sup>(3)</sup>	110	32	206	186	534
Air passenger transport	693	137	613	1,943	3,385
Travel agency services	491	94	191	258	1,033
Motor vehicle hire or rental	58	23	47	292	420
Imputed rental on holiday homes	0	0	380	0	380
Libraries, archives, museums, and other cultural services	0	0	41	86	127
Other sport and recreation services	4	1	210	156	370
<b>Total tourism-characteristic products</b>	<b>1,553</b>	<b>371</b>	<b>2,983</b>	<b>5,262</b>	<b>10,169</b>
<b>Tourism-related products</b>					
Retail sales – alcohol	0	0	119	86	204
Retail sales – clothing and footwear	0	0	256	257	513
Retail sales – food, beverages, tobacco, and other groceries	0	0	849	265	1,115
Retail sales – fuel and other automotive products	154	2	1,242	242	1,640
Retail sales – retail medicines, toiletries	0	0	74	61	135
Retail sales – tourism consumer durables	0	0	934	46	980
Retail sales – other shopping	0	0	443	593	1,036
Financial services	4	1	10	8	23
General insurance (incl travel insurance)	8	1	12	7	29
Social and health-related services	0	0	75	1	75
Gambling services	0	0	66	47	113
Education services	0	0	0	447	447
Other tourism-related services	124	1	198	324	647
Other personal services	0	0	21	23	44
<b>Total tourism-related products</b>	<b>291</b>	<b>5</b>	<b>4,300</b>	<b>2,406</b>	<b>7,002</b>
<b>Total tourism demand by type of tourist excluding GST</b>	<b>1,844</b>	<b>376</b>	<b>7,282</b>	<b>7,668</b>	<b>17,171</b>
GST paid on purchases by tourists	11	...	803	566	1,381
<b>Total tourism expenditure by type of tourist</b>	<b>1,855</b>	<b>376</b>	<b>8,086</b>	<b>8,234</b>	<b>18,552</b>

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producers' prices.

(3) Road, rail, and water passenger transport are combined for confidentiality reasons.

**Symbol:**

... not applicable

Table 18

**New Zealand System of National Accounts Production Accounts**  
*By industry*<sup>(1)(2)</sup>  
 Year ended March 2005

	Tourism-characteristic industries							Tourism-related industries	All non-tourism-related industries	Total
	Accommodation	Cafes and restaurants	Road passenger, rail, and water transport <sup>(3)</sup>	Air transport	Other transport, storage, and transport services	Machinery and equipment hiring and leasing	Cultural and recreational services	Retail trade		
	\$(million)									
<b>Published GDP</b>	...	...	...	...	...	...	...	...	...	<b>149,949</b>
<b>Less</b> GST, import duties, and other taxes on production	...	...	...	...	...	...	...	...	...	<b>11,152</b>
<b>Contribution to GDP from production</b>	<b>1,073</b>	<b>1,771</b>	<b>769</b>	<b>1,022</b>	<b>2,119</b>	<b>1,529</b>	<b>2,455</b>	<b>8,819</b>	<b>119,240</b>	<b>138,797</b>
<b>Equivalent to</b> total output	2,199	3,995	1,896	3,964	3,616	2,374	4,436	16,182	255,436	294,099
<b>Less</b> intermediate consumption	1,125	2,224	1,127	2,942	1,497	845	1,981	7,363	136,197	155,302
<b>Components of GDP</b>										
Compensation of employees	545	1,116	508	690	981	254	896	4,798	54,450	64,237
Gross operating surplus	496	599	393	316	1,091	1,256	1,179	3,899	57,827	67,056
Taxes on production and imports	34	59	45	16	47	21	396	152	7,224	7,994
<b>Less</b> subsidies	2	3	177	0	0	2	17	30	261	491

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producers' prices.

(3) Road passenger, rail, and water transport are combined for confidentiality reasons.

**Symbol:**

... not applicable

Table 19

**Sales Analysis**  
*By type of product and industry<sup>(1)(2)</sup>*  
 Year ended March 2005

Product	Tourism-characteristic industries							Tourism-related industries	All non-tourism-related industries	Imports	Total supply
	Accommodation	Cafes and restaurants	Road passenger, rail, and water transport <sup>(3)</sup>	Air transport	Other transport, storage, and transport services	Machinery and equipment hiring and leasing	Cultural and recreational services	Retail trade			
\$(million)											
<b>Sales of tourism-characteristic products</b>											
Accommodation services	1,192	171	0	0	0	0	82	0	392	0	1,837
Food and beverage serving services	706	3,145	0	0	2	0	79	968	281	0	5,181
Road, rail, and water passenger transport <sup>(3)</sup>	0	0	928	0	2	0	9	0	153	0	1,092
Air passenger transport	0	0	0	3,388	10	0	0	0	63	0	3,461
Travel agency services	0	0	5	3	1,039	1	3	0	9	0	1,059
Motor vehicle hire or rental	0	0	3	0	0	525	0	0	8	0	536
Imputed rental on holiday homes	0	0	0	0	0	0	0	0	380	0	380
Libraries, archives, museums, and other cultural services	0	0	0	0	0	0	315	4	180	0	499
Other sport and recreation services	0	0	0	0	1	5	760	0	308	0	1,074
<b>Total tourism-characteristic products</b>	<b>1,898</b>	<b>3,316</b>	<b>936</b>	<b>3,391</b>	<b>1,054</b>	<b>531</b>	<b>1,247</b>	<b>972</b>	<b>1,774</b>	<b>0</b>	<b>15,119</b>
<b>Sales of tourism-related products</b>											
Retail sales – alcohol	224	404	0	0	0	0	3	153	3,011	314	4,110
Retail sales – clothing and footwear	0	0	0	0	0	0	1	1,375	1,429	1,299	4,105
Retail sales – food, beverages, tobacco, and other groceries	19	42	0	1	2	0	1	2,956	26,824	1,847	31,692
Retail sales – fuel and other automotive products	0	0	2	5	1	27	0	351	4,873	2,349	7,607
Retail sales – retail medicines, toiletries	0	0	0	0	0	0	0	955	1,723	1,354	4,032
Retail sales – tourism consumer durables	0	0	76	0	3	0	2	1,942	2,977	5,444	10,443
Retail sales – other shopping	0	0	27	0	2	2	61	2,795	13,322	6,697	22,905
Financial services	0	0	0	0	0	0	0	0	1,981	0	1,981
General insurance (incl travel insurance)	0	0	0	0	0	0	0	0	1,921	0	1,921
Social and health-related services	0	0	0	0	0	0	1	0	5,346	0	5,347
Gambling services	0	168	0	0	0	0	1,887	0	46	0	2,101
Education services	0	0	0	0	0	0	1	0	2,871	0	2,872
Other tourism-related services	0	0	4	0	128	4	38	2,890	22,763	0	25,827
Other personal services	0	0	0	0	0	0	1	0	1,228	0	1,229
<b>Total tourism-related products</b>	<b>242</b>	<b>615</b>	<b>109</b>	<b>7</b>	<b>135</b>	<b>33</b>	<b>1,996</b>	<b>13,416</b>	<b>90,315</b>	<b>19,304</b>	<b>126,173</b>
<b>Sales of all domestically produced non-tourism-related products</b>											
	<b>43</b>	<b>59</b>	<b>844</b>	<b>557</b>	<b>2,396</b>	<b>1,801</b>	<b>1,145</b>	<b>1,723</b>	<b>160,374</b>	<b>...</b>	<b>168,941</b>
<b>Total sales</b>	<b>2,183</b>	<b>3,989</b>	<b>1,889</b>	<b>3,955</b>	<b>3,585</b>	<b>2,366</b>	<b>4,388</b>	<b>16,111</b>	<b>252,464</b>	<b>19,304</b>	<b>310,233</b>
<b>Other output items</b>											
	<b>16</b>	<b>6</b>	<b>7</b>	<b>9</b>	<b>31</b>	<b>8</b>	<b>48</b>	<b>72</b>	<b>2,973</b>	<b>...</b>	<b>3,169</b>
Less imports of tourism-related products <sup>(4)</sup>	...	...	...	...	...	...	...	...	...	-19,304	-19,304
<b>Total output</b>	<b>2,199</b>	<b>3,995</b>	<b>1,896</b>	<b>3,964</b>	<b>3,616</b>	<b>2,374</b>	<b>4,436</b>	<b>16,182</b>	<b>255,436</b>	<b>...</b>	<b>294,099</b>

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producers' prices.

(3) Road, rail, and water passenger transport are combined for confidentiality reasons.

(4) Imports of tourism-related products are subtracted from total sales, as this relates to goods not produced in New Zealand.

**Symbol:**

... not applicable

Table 20

**Derivation of Tourism Product Ratios<sup>(1)(2)</sup>**  
*Year ended March 2005*

Product	Total demand (from table 17)	Total supply (from table 19)	Tourism product ratio <sup>(3)</sup>
	\$(million)		
<b>Tourism-characteristic products</b>			
Accommodation services	1,718	1,837	0.94
Food and beverage serving services	2,202	5,181	0.43
Road, rail, and water passenger transport <sup>(4)</sup>	534	1,092	0.49
Air passenger transport	3,385	3,461	0.98
Travel agency services	1,033	1,059	0.98
Motor vehicle hire or rental	420	536	0.78
Imputed rental on holiday homes	380	380	1.00
Libraries, archives, museums, and other cultural services	127	499	0.26
Other sport and recreation services	370	1,074	0.35
<b>Total tourism-characteristic products</b>	<b>10,169</b>	<b>15,119</b>	...
<b>Tourism-related products</b>			
Retail sales – alcohol	204	4,110	0.05
Retail sales – clothing and footwear	513	4,105	0.13
Retail sales – food, beverages, tobacco, and other groceries	1,115	31,692	0.04
Retail sales – fuel and other automotive products	1,640	7,607	0.22
Retail sales – retail medicines, toiletries	135	4,032	0.03
Retail sales – tourism consumer durables	980	10,443	0.09
Retail sales – other shopping	1,036	22,905	0.05
Financial services	23	1,981	0.01
General insurance (incl travel insurance)	29	1,921	0.02
Social and health-related services	75	5,347	0.01
Gambling services	113	2,101	0.05
Education services	447	2,872	0.16
Other tourism-related services	647	25,827	0.03
Other personal services	44	1,229	0.04
<b>Total tourism-related products</b>	<b>7,002</b>	<b>126,173</b>	...
<b>Total excluding GST</b>	<b>17,171</b>	<b>141,292</b>	...
GST paid on purchases by tourists	1,381	...	...
<b>Total tourism expenditure by type of tourist</b>	<b>18,552</b>	...	...

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producers' prices.

(3) Tourism product ratios shown in this table may differ at the industry level for some products from the ratios used to derive tourism supply in table 21. Supply is calculated at a more detailed level than the level presented in other tables.

(4) Road, rail, and water passenger transport are combined for confidentiality reasons.

**Symbol:**

... not applicable

Table 21

**Derivation of Tourism Industry Ratios<sup>(1)(2)</sup>**  
*Year ended March 2005*

Product	Tourism-characteristic industries							Tourism-related industries	All non-tourism-related industries; Imports sold directly to tourists by retailers <sup>(4)</sup>	Total
	Accommodation	Cafes and restaurants	Road passenger, rail, and water transport <sup>(3)</sup>	Air transport	Other transport, storage, and transport services	Machinery and equipment hiring and leasing	Cultural and recreational services	Retail trade		
	\$(million)									
<b>Tourism-characteristic products</b>										
Accommodation services	1,115	160	0	0	0	0	76	0	367	1,718
Food and beverage serving services	311	1,368	0	0	1	0	35	366	120	2,202
Road, rail, and water passenger transport <sup>(4)</sup>	0	0	466	0	1	0	5	0	62	534
Air passenger transport	0	0	0	3,330	10	0	0	0	45	3,385
Travel agency services	0	0	4	3	1,013	1	3	0	9	1,033
Motor vehicle hire or rental	0	0	3	0	0	411	0	0	6	420
Imputed rental on holiday homes	0	0	0	0	0	0	0	0	380	380
Libraries, archives, museums, and other cultural services	0	0	0	0	0	0	80	1	46	127
Other sport and recreation services	0	0	0	0	0	2	265	0	103	370
<b>Total tourism-characteristic products purchased by tourists</b>	<b>1,426</b>	<b>1,528</b>	<b>473</b>	<b>3,333</b>	<b>1,025</b>	<b>414</b>	<b>464</b>	<b>368</b>	<b>1,138</b>	<b>10,169</b>
<b>Tourism-related products</b>										
Retail sales – alcohol	15	27	0	0	0	0	0	11	152	204
Retail sales – clothing and footwear	0	0	0	0	0	0	0	158	355	513
Retail sales – food, beverages, tobacco, and other groceries	4	9	0	0	0	0	0	195	907	1,115
Retail sales – fuel and other automotive products	0	0	0	0	0	0	0	124	1,515	1,640
Retail sales – retail medicines, toiletries	0	0	0	0	0	0	0	34	100	135
Retail sales – tourism consumer durables	0	0	0	0	0	0	0	163	817	980
Retail sales – other shopping	0	0	0	0	0	0	0	309	727	1,036
Financial services	0	0	0	0	0	0	0	0	23	23
General insurance (incl travel insurance)	0	0	0	0	0	0	0	0	29	29
Social and health-related services	0	0	0	0	0	0	0	0	75	75
Gambling services	0	1	0	0	0	0	111	0	0	113
Education services	0	0	0	0	0	0	0	0	447	447
Other tourism-related services	0	0	0	0	7	0	3	182	455	647
Other personal services	0	0	0	0	0	0	0	0	44	44
<b>Total tourism-related products purchased by tourists</b>	<b>19</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>114</b>	<b>1,177</b>	<b>5,647</b>	<b>7,002</b>
<b>Direct tourism sales</b>	<b>1,445</b>	<b>1,566</b>	<b>473</b>	<b>3,333</b>	<b>1,032</b>	<b>414</b>	<b>579</b>	<b>1,544</b>	<b>6,786</b>	<b>17,171</b>
<b>Total industry output</b>	<b>2,199</b>	<b>3,995</b>	<b>1,896</b>	<b>3,964</b>	<b>3,616</b>	<b>2,374</b>	<b>4,436</b>	<b>16,182</b>	<b>255,436</b>	<b>294,099</b>
<b>Tourism industry ratio</b>	<b>0.66</b>	<b>0.39</b>	<b>0.25</b>	<b>0.84</b>	<b>0.29</b>	<b>0.17</b>	<b>0.13</b>	<b>0.10</b>	<b>0.01</b>	<b>...</b>

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producers' prices.

(3) Road, rail, and water passenger transport are combined for confidentiality reasons.

(4) The 'all non tourism-related industries industry ratio' is calculated exclusive of imports sold directly to tourists by retailers.

**Symbol:**

... not applicable

Table 22

**Derivation of Direct Tourism Value Added<sup>(1)(2)</sup>**  
*Year ended March 2005*

	Tourism-characteristic industries							Tourism-related industries	All non-tourism-related industries	Total
	Accommodation	Cafes and restaurants	Road passenger, rail, and water transport <sup>(3)</sup>	Air transport	Other transport, storage, and transport services	Machinery and equipment hiring and leasing	Cultural and recreational services	Retail trade		
	\$(million)									
<b>Tourism industry ratio</b>	<b>0.66</b>	<b>0.39</b>	<b>0.25</b>	<b>0.84</b>	<b>0.29</b>	<b>0.17</b>	<b>0.13</b>	<b>0.10</b>	<b>0.01</b>	...
<b>Direct tourism value added</b>	<b>707</b>	<b>694</b>	<b>199</b>	<b>859</b>	<b>604</b>	<b>267</b>	<b>321</b>	<b>823</b>	<b>1,371</b>	<b>5,845</b>
<i>Equivalent to</i> tourism output	1,445	1,566	473	3,333	1,032	414	579	1,544	2,212	12,598
<i>Less</i> tourism intermediate consumption	738	872	274	2,474	427	148	258	722	841	6,753
<b>Contribution to GDP from production</b>	...	...	...	...	...	...	...	...	...	<b>138,797</b>
<b>Direct tourism value added as a percentage of total industry contribution to GDP</b>	...	...	...	...	...	...	...	...	...	<b>4.2%</b>
<b>Components of direct tourism value added</b>										
Tourism compensation of employees	359	437	140	580	280	44	116	451	693	3,101
Tourism gross operating surplus	327	235	102	265	311	219	155	360	606	2,580
Tourism taxes on production and imports	22	23	16	14	13	4	53	14	79	238
<i>Less</i> tourism subsidies	1	1	59	0	0	0	2	3	7	74

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in producers' prices.

(3) Road, rail, and water passenger transport are combined for confidentiality reasons.

**Symbol:**

... not applicable

Table 23

**Direct Tourism Employment and Compensation of Employees***By industry<sup>(1)(2)(3)</sup>*

Year ended March 2005

	Tourism-characteristic industries							Tourism-related industries	All non-tourism-related industries	Total persons engaged
	Accommodation	Cafes and restaurants	Road, rail, and water passenger transport <sup>(4)</sup>	Air transport	Other transport, storage, and transport services	Machinery and equipment hiring and leasing	Cultural and recreational services	Retail trade		
<b>Number</b>										
<b>Total employment</b>										
Full-time employees	9,900	20,800	8,900	7,500	15,600	6,200	19,000	106,400	1,083,800	1,278,100
Part-time employees	15,100	40,100	4,100	1,300	4,300	1,300	13,700	90,300	196,000	366,300
FTE <sup>(5)</sup> employees	17,400	40,900	10,900	8,200	17,800	6,900	25,800	151,500	1,181,900	1,461,300
Full-time working proprietors	2,400	6,700	4,500	100	1,500	200	6,200	34,600	245,600	301,700
Part-time working proprietors	900	800	500	--	100	200	4,500	5,500	63,100	75,500
FTE working proprietors	2,900	7,000	4,800	100	1,500	300	8,400	37,300	277,100	339,500
<b>Total FTE persons employed</b>	<b>20,300</b>	<b>47,900</b>	<b>15,700</b>	<b>8,300</b>	<b>19,300</b>	<b>7,200</b>	<b>34,200</b>	<b>188,800</b>	<b>1,459,000</b>	<b>1,800,700</b>
<b>Tourism industry ratio<sup>(6)</sup></b>	<b>0.66</b>	<b>0.39</b>	<b>0.25</b>	<b>0.84</b>	<b>0.29</b>	<b>0.17</b>	<b>0.13</b>	<b>0.10</b>	<b>0.01</b>	<b>...</b>
<b>Tourism employment</b>										
Tourism full-time employees	6,500	8,200	2,400	6,300	4,500	1,100	2,400	9,900	10,800	52,000
Tourism part-time employees	10,000	15,700	1,500	1,100	1,200	200	1,800	9,300	3,000	43,800
Tourism FTE employees	11,500	16,000	3,100	6,900	5,100	1,200	3,300	14,600	12,300	73,900
Tourism full-time working proprietors	2,600	2,600	1,800	100	600	--	800	3,800	2,500	14,800
Tourism part-time working proprietors	600	300	200	--	--	--	400	600	600	2,700
Tourism FTE working proprietors	2,900	2,800	1,900	100	600	100	1,100	4,100	2,800	16,200
<b>Total FTE persons employed in tourism</b>	<b>14,400</b>	<b>18,800</b>	<b>5,000</b>	<b>6,900</b>	<b>5,700</b>	<b>1,300</b>	<b>4,300</b>	<b>18,700</b>	<b>15,000</b>	<b>90,100</b>
FTE persons employed in tourism as a percentage of total persons employed in New Zealand	...	...	...	...	...	...	...	...	...	5.0%
<b>\$(million)</b>										
<b>Tourism compensation of employees<sup>(6)</sup></b>	<b>359</b>	<b>437</b>	<b>140</b>	<b>580</b>	<b>280</b>	<b>44</b>	<b>116</b>	<b>451</b>	<b>693</b>	<b>3,101</b>
<b>(\$)</b>										
Average compensation per tourism FTE employee <sup>(7)</sup>	31,300	27,300	45,100	84,600	55,200	36,800	35,100	31,000	56,500	42,000

(1) Employment numbers are rounded to the nearest hundred. Individual figures may not sum to stated totals due to rounding.

(2) Employee numbers by industry are sourced from the Quarterly Employment Survey (QES) and are averages for the year ended February.

Employee numbers for the water transport and agriculture industries are not available from the QES, as parts of each industry are not surveyed. As a result, employee numbers for these industries are sourced from the Household Labour Force Survey (HLFS).

Total persons engaged are sourced from the HLFS and are averages for the year ended March.

(3) Working proprietor numbers by industry are sourced from the HLFS and are averages for the year ended March.

(4) Road, rail, and water passenger transport are combined for confidentiality reasons.

(5) FTE is an abbreviation for full-time equivalent.

(6) The tourism industry ratio and compensation of employees rows are sourced from table 22.

(7) Calculated as tourism compensation of employees divided by tourism FTE employees and then rounded to the nearest hundred.

**Symbols:**

-- amount too small to be expressed

... not applicable

Table 24

**Gross Fixed Capital Formation and Net Capital Stock**  
*By industry* <sup>(1)(2)(3)</sup>  
 Year ended March 2005

	Tourism-characteristic industries							Total tourism-characteristic industries	All other industries <sup>(5)</sup>	Total
	Accommodation	Cafes and restaurants	Road, rail, and water passenger transport <sup>(4)</sup>	Air transport	Other transport, storage, and transport services	Machinery and equipment hiring and leasing	Cultural and recreational services			
\$(million)										
<b>Gross fixed capital formation</b>										
<b>Asset type</b>										
Residential building	0	0	0	0	0	0	0	0	10,377	10,377
Non-residential building	213	101	26	14	238	29	165	786	3,735	4,521
Other construction	1	4	92	0	71	4	3	176	3,778	3,954
Land improvement <sup>(6)</sup>	1	1	0	0	1	0	1	4	516	521
Transport equipment	8	18	245	112	70	1061	37	1552	2,604	4,155
Plant, machinery, and equipment	145	145	20	96	90	447	314	1258	8,258	9,516
Intangible assets	5	8	9	10	40	9	11	92	2,436	2,527
<b>Total gross fixed capital formation</b>	<b>374</b>	<b>277</b>	<b>393</b>	<b>232</b>	<b>510</b>	<b>1,550</b>	<b>531</b>	<b>3,867</b>	<b>31,703</b>	<b>35,571</b>
<b>Net capital stock</b>										
<b>Total net capital stock</b>	<b>2,772</b>	<b>2,298</b>	<b>3,056</b>	<b>1,550</b>	<b>4,759</b>	<b>5,851</b>	<b>5,070</b>	<b>25,356</b>	<b>406,362</b>	<b>431,719</b>

(1) Individual figures may not sum to stated totals due to rounding.

(2) All values are in purchasers' prices.

(3) Gross fixed capital formation by industry and asset type and net capital stock by industry were used as a basis for calculating the table.

(4) Road, rail, and water passenger transport are combined for confidentiality reasons.

(5) The all other industries column includes all tourism-related and non-tourism-related industries.

(6) Land improvements are shown in gross fixed capital formation, but do not form a part of net capital stock.

# Glossary

## National accounts definitions

### Basic prices

The amounts receivable by producers from purchasers for units of goods or services produced as outputs minus any taxes payable, and plus any subsidies receivable. They exclude any transport charges invoiced separately by the producers.

### Change in inventories

The book value change as recorded in most business accounting records, less an inventory valuation adjustment that removes the capital gains and losses that may arise through holding inventories purchased at prices either higher or lower than those ruling during the period of account. Change in inventories effectively values the change in stocks at the average prices for the period.

### Compensation of employees

Total remuneration, in cash or in kind, payable by enterprises to employees. Includes contributions paid on employees' behalf to superannuation funds, private pension schemes, the Accident Compensation Corporation, casualty and life insurance schemes, and other fringe benefits.

### Consumption of fixed capital

The reduction in the value of the fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence, or accidental damage. It is valued at replacement cost.

### Exports of goods and services

All goods and services produced by New Zealand residents and purchased by non-residents.

### Gross domestic product (GDP)

The total market value of goods and services produced in New Zealand after deducting the cost of goods and services used in the process of production, but before deducting allowances for the consumption of fixed capital.

### Gross fixed capital formation

The total value of a producer's purchases, less disposals, of durable real assets such as buildings, motor vehicles, plant and machinery, hydro-electric construction, roading, and improvements to land. Land is excluded from gross fixed capital formation. Included is the value of construction work done by a firm's own employees. The term 'gross' indicates that consumption of fixed capital has not been deducted from the value of the outlays.

### Gross operating surplus

Output at producer's values less the sum of intermediate consumption, compensation of employees, and taxes on production and imports net of subsidies. It is approximately equal to accounting profit before the deduction of depreciation, direct taxes, dividends, interest paid and bad debts, and before the addition of interest and dividends received.

### **GST on production**

The transactions of registered producers are recorded excluding goods and services tax (GST), while those of final consumers (including producers of exempt goods and services) are recorded at actual market prices. The potential imbalance between the value of goods and services produced and the value ultimately consumed is removed by including the item 'GST on production' in the GDP account. This item produces a measure of the amount of GST included in the valuation of the final demand categories.

### **Imports of goods and services**

All goods and services produced by non-residents and purchased by New Zealand residents.

### **Intermediate consumption**

The value of non-durable goods and services used in production. Valuation is at purchaser's values.

### **Net capital stock**

The accumulated written-down value of fixed assets valued in current prices. It is equal to accumulated investment less retirements and less accumulated depreciation for assets still operating.

### **Output**

Goods and services produced within an establishment that become available for use outside that establishment, plus any goods and services produced for own final use.

### **Producer prices**

The amount receivable by the producer from the purchaser for a unit of goods or a service produced as output less any deductible taxes invoiced to the purchaser. The producer price excludes any transport charges invoiced separately by the producer.

### **Purchaser prices (market prices)**

The amount paid by the purchaser, exclusive of any deductible taxes, in order to take delivery of goods or services at the time and place required by the purchaser. The purchaser price of goods is inclusive of any transport charges paid separately by the purchaser to take delivery at the required time and place.

### **Subsidies**

Current unrequited payments made by governments to enterprises on the basis of the levels of their production activities or the quantities or values of the goods and services they produce, sell, or import.

### **Taxes on production and imports**

Taxes assessed on producers in respect of the production, sale, purchase, and use of goods and services, and that add to the market prices of those goods and services. Includes sales tax, local authority rates, import and excise duties, fringe benefits tax, and registration fees, such as motor vehicle registration, paid by producers.

### **Value added**

The value added to goods and services by the contributions of capital and labour (that is after the costs of bought-in materials and services have been deducted from the total value of output).

## Abbreviations used in this report

AFUS:	Annual Frame Update Survey
ANZSCC:	<i>Australian and New Zealand Standard Commodity Classification</i>
ANZSIC:	<i>Australian and New Zealand Standard Industry Classification</i>
BoP:	balance of payments
CPI:	consumers price index
DTS:	Domestic Travel Survey
GDP:	gross domestic product
GST:	goods and services tax
HCE:	household consumption expenditure
HES:	Household Economic Survey
HLFS:	Household Labour Force Survey
ISIC:	<i>International Standard Industrial Classification</i>
IVS:	International Visitors Survey
NZSIC:	<i>New Zealand Standard Industry Classification</i>
NZSNA:	<i>New Zealand System of National Accounts</i>
QES:	Quarterly Employment Survey
OECD:	Organisation of Economic Co-operation and Development
SNA93:	<i>System of National Accounts 1993</i>
TSA:	tourism satellite account
TSA03:	<i>New Zealand Tourism Satellite Account 2003</i>
TSA04:	<i>New Zealand Tourism Satellite Account 2004</i>
TSA05:	<i>New Zealand Tourism Satellite Account 2005</i>
TSA06:	<i>New Zealand Tourism Satellite Account 2006</i>
TSA07:	<i>New Zealand Tourism Satellite Account: 2007</i>
UNWTO:	United Nations World Tourism Organization

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