PROPOSED SPECTATOR EVENTS AND EDUCATION ZONE

ECONOMIC IMPACT ASSESSMENT

FINAL REPORT

Prepared for

CARISBROOK STADIUM TRUST

DECEMBER 2007

Prepared by

CONSULTANTS TO THE HOTEL, TOURISM & LEISURE INDUSTRIES
A member of Horwath International

IN CONJUNCTION WITH

market economics

Abbreviations

"BERL"	Business & Economic Research Limited
"CST"	Carisbrook Stadium Trust
"GDP"	Gross Domestic Product
"GST"	Goods & Services Tax
"HHTL"	Horwath HTL Limited
"MEL"	Market Economics Limited
"NPV"	Net Present Value
"NZRU"	New Zealand Rugby Union
"ORC"	Otago Regional Council
"ORFU"	Otago Rugby Football Union
"PWC"	PricewaterhouseCoopers
"RWC"	Rugby World Cup

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Executive Summary

PURPOSE AND APPROACH

The key purpose of this report is to provide a summary of the economic impact results attributable to the proposed stadium and University development at Awatea Street, North Dunedin.

This assessment focuses on the direct and total impacts in net present value terms over the 50 year life of the Stadium, net of a "no new stadium" scenario which assumes the existing Carisbrook Stadium continues operating in its current form.

Two activity scenarios have been considered in relation to the new Stadium – a realistic base scenario and a conservative scenario.

The economic impact assessment has been undertaken in relation to both the Dunedin City and the Otago Region economies and adopts the same broad approach to the economic impact assessment by BERL for Dunedin City Council in 2003. Both analyses adopt a relatively narrow view of costs and benefits and do not, for example, consider social and environmental costs and benefits.

There are five key components to the economic impact analysis:

1. Estimating the total direct expenditure arising from incremental activity at the Stadium (ie: excluding activity that would have occurred at the existing Carisbrook Stadium and other event venues in Dunedin / Otago without the new Stadium). This direct expenditure relates to event organisers, spectators / attendees and media, and also includes the retention of local resident expenditure in the local economy as a result of not having to travel out of the region to attend events. The direct expenditure analysis also allows for the loss of local expenditure from the local economy as a result of spending on event tickets sold by non-local organisers
2. Estimating the total direct expenditure attributable to University of Otago students that are attracted to Dunedin due to the presence of the campus Stadium and associated University facilities to be built adjacent to the Stadium
3. Estimating the net additional expenditure into Dunedin City and the Otago Region economies by only including the spending of visitors from outside the region who are visiting the area with the key purpose of attending the event
4. Identifying maintenance and capital expenditure and operating cash flow associated with the Stadium and assessing the opportunity costs of the maintenance and capital expenditures. Opportunity costs relate to the need to divert household and business expenditure to fund the initial capital costs and on-going capital maintenance
5. Analysing the net additional direct expenditure by each spending group through an Input-Output model of Dunedin City and the Otago Region economies to assess the economic impacts in terms of direct and total output, value added (or contribution to Gross domestic Product), and employment.

KEY FINDINGS

Our economic impact assessment shows that the Stadium development results in:

- an annual average increase in visitors to Otago of 25,680 under the base case and 15,980 under the conservative case
- an annual average increase in visitors to Dunedin of 54,770 (including visitors from elsewhere in Otago) under the base case and 34,520 under the conservative case
- an average of 8,400 fewer trips per annum by Dunedin residents outside Dunedin to attend events under the base case and 2,110 under the conservative case
- an average of 10,440 fewer trips per annum by Otago residents outside Otago to attend events under the base case and 3,040 under the conservative case
- an average annual increase of 34,400 Dunedin residents attending events organised by non-Dunedin organisers under the base case and 15,250 under the conservative case
- an average annual increase of 42,540 Otago residents attending events organised by non-Otago organisers under the base case and 20,020 under the conservative case
- an annual average increase in sport media to Dunedin of 38 under the base case and 21 under the conservative scenario
- an annual average increase in events organised by non-local organisers of five under the base case and two under the conservative case.

In addition, the University of Otago has estimated that the new Stadium being on campus could assist it in attracting approximately 500 more students than it otherwise might. Under the conservative scenario, we have estimated the additional number of students to be 350.

Based on these incremental visitor assumptions and using average visitor spend assumptions derived from previous research undertaken by BERL, Covec, University of Otago, Ernst & Young and HHTL, we have developed the following present value estimates of incremental visitor expenditure over the assumed 50 year life of the Stadium.

Table 1: Overall Net Increase in Visitor Expenditure ($m)

	Base		Conservative	
	Dunedin	**Otago**	**Dunedin**	**Otago**
Spectator Expenditure	150.4	109.5	95.8	70.4
Retained Resident Expenditure	36.0	50.2	11.3	16.8
Resident Ticket Expenditure Outflows	-20.4	-31.2	-8.4	-11.8
Visiting Media Expenditure	1.8	1.8	1.6	1.6
Visiting Organiser Expenditure	22.2	22.2	11.2	11.2
Additional Student Expenditure	88.7	95.2	62.1	66.6
Net Incremental Expenditure	**278.7**	**247.7**	**173.6**	**154.8**

(Source: HHTL)

In addition to visitor expenditure, there is also expenditure in relation to future capital maintenance and the initial capital cost that provide a positive impact.

Our assessment shows that the new stadium's future capital maintenance requirements equate to a present value of $3.5m more than the "do nothing" scenario. The total capital cost of the project is $188m, excluding the University's new buildings which are not included because the University's space shortage means this capital expenditure would occur in Dunedin irrespective of the Stadium development. $138m of the project cost is assumed to occur within the region with the balance flowing out to external contractors.

Our analysis has also taken into consideration the opportunity costs that arise through the diverting of household and business expenditure to fund the initial capital costs and on-going capital maintenance.

The table below summarises these expenditures and opportunity costs to illustrate the net direct expenditure associated with the Stadium development.

Table 2: Overall Net Increase in Direct Expenditure ($m)

	Base		Conservative	
	Dunedin	**Otago**	**Dunedin**	**Otago**
Positive Impacts				
Visitor Expenditure[1]	269.5	239.4	167.8	149.6
Future Capital Maintenance	3.5	3.5	3.5	3.5
Capital Expenditure	138.0	138.0	138.0	138.0
Total Positive Impacts	411.0	380.9	309.3	291.1
Negative Impacts				
Opportunity Cost	145.2	156.1	150.2	161.3
Net Direct Expenditure	265.8	224.7	159.0	129.9

(Source: MEL, HHTL)

ECONOMIC IMPACT

To estimate the economic impacts of the new Stadium, the direct expenditure figures above have been applied to Market Economics Ltd's Input-Output model. This analysis shows that under the base case scenario, the Stadium will result in total value added (or contribution to GDP) of $260m for Dunedin City and $221m for the Otago Region. This compares to $156 million and $129 million respectively under the conservative scenario.

The principal reason for the greater economic impact in Dunedin City is that the City will receive incremental expenditure from visitors who live elsewhere within the Otago region (outside of Dunedin) but this expenditure is not incremental at the regional level.

[1] As per the total of Table 1 with an adjustment for retail goods sold in Dunedin / Otago stores that have been imported. The value of these goods does not increase the Dunedin / Otago economy other than through the retail margin applied.

Table 3: Economic Impact – Total Value Added ($m)

	Base		Conservative	
	Dunedin	**Otago**	**Dunedin**	**Otago**
Positive Impacts				
Visitor Expenditure	264.5	235.3	164.9	147.2
Future Capital Maintenance	3.4	3.4	3.4	3.4
Capital Expenditure	120.7	120.7	120.7	120.7
Total Positive Impacts (A)	**388.6**	**359.4**	**289.0**	**271.3**
Negative Impacts				
Opportunity Cost (B)	128.4	138.0	132.8	142.3
Net Economic Impact	**260.2**	**221.4**	**156.2**	**128.9**

(Source: MEL)

As noted in our methodology, the economic impact has netted off opportunity costs and has been undertaken using present values in 2011 dollars. Therefore, at the Dunedin City level, the $260 million contribution to GDP is net of opportunity costs associated with the initial development and on-going capital maintenance of the Stadium. The present value approach adopted in our analysis means the economic impact of the Stadium over its assumed 50 year life is equivalent to a $260 million contribution to GDP all in 2011 (the year in which the Stadium opens). The discounting of future expenditure, which is inherent in present value analysis, means that it is not appropriate to divide the $260 million contribution to GDP by 50 years to calculate an "average annual impact" as this will understate the nominal value of the impact experienced in each year.

Under the base case, the economic impact equates to 4,800 additional FTEs in Dunedin City and 4,100 additional FTEs in the Otago Region. This compares to 3,000 additional FTEs in Dunedin City and 2,500 in Otago under the conservative scenario.

The economic impact can also be considered in terms of the ratio between the total value added generated within the local economy as a result of the stadium development and the opportunity cost in terms of the total value added associated with the principal alternative. Our assessment shows that for every dollar of opportunity cost (B) associated with the Stadium there are $3.00 of contribution to GDP (A) for Dunedin and $2.60 for Otago. Under the conservative scenario this reduces to $2.20 and $1.90 respectively.

1. INTRODUCTION

1.1 BACKGROUND

Horwath HTL ("HHTL") has been commissioned by the Carisbrook Stadium Trust ("CST") to update the economic impact assessment for the proposed stadium in Dunedin ("the new Stadium / the Stadium") included in our report to CST dated February 2007, in light of the following developments:

(i) Revisions in the proposed design of the covered Stadium in so far as they might impact on operating activity, revenues or costs
(ii) Developments in the proposed funding model for the Stadium and implications this may have for annual operating revenues for the Stadium
(iii) Discussions between CST and Otago Rugby Football Union ("ORFU")
(iv) Updated estimates of potential turf maintenance costs for the Stadium
(v) Any updated or further information available.

The primary purpose for updating the economic impact analysis is for inclusion in the proposed plan change, which we understand CST is submitting to Dunedin City Council ("DCC") on Monday 17 December 2007.

1.2 OUR APPROACH

The broad approach to the assessment is based on work undertaken by BERL in 2003 for Dunedin City Council, which appraised Carisbrook Stadium upgrade options at that time. The key similarity in approach is that the assessment looks at potential economic costs and benefits of the redevelopment options. As with the earlier BERL analysis, this analysis adopts a relatively narrow view of costs and benefits and do not, for example, consider social and environmental costs and benefits. This analysis does, however, differ from the BERL analysis in a number of important ways:

1. it considers all incremental activity at the stadium, not just test match rugby and Super 14 rugby
2. it includes expenditure of visiting media and event organisers as well as visiting spectators
3. it allows for the retention of local resident expenditure in the local economy as a result of not having to travel elsewhere to attend events
4. it allows for the loss of local resident expenditure from the local economy as a result of spending on event tickets sold by non-local event organisers (eg: NZRU)
5. impacts are considered over the assumed 50 year life of the asset (rather than the first 15 years in the BERL analysis) and all impacts are discounted to provide a present value as at 2011. Future impacts have been discounted at 7.5% per annum
6. economic impacts are considered in terms of total value added, rather than total expenditure as it is the total valued added (or total contribution to GDP) that is retained within the local economy and represents the "benefit" to the

local economy. By contrast total expenditure includes expenditure that occurs outside the local economy.

In order to assess the incremental activity attributable to the new stadium options, it is necessary to develop a scenario of future activity at the existing Carisbrook Stadium if no upgrade or redevelopment work is undertaken. Key assumptions within this scenario are that:

1. Dunedin will not host test match rugby
2. Dunedin will not host Rugby World Cup matches in 2011
3. Dunedin will cease to be a base for a Super 14 franchise from 2011
4. Dunedin will not host a Lions provincial match in 2017.

All figures in this report exclude GST and are in 2011 dollars, unless otherwise stated.

For the purpose of the plan change, we have considered the economic impact in terms of both base activity levels and conservative activity levels, as reflected in the event schedule contained in Appendix 1. The base scenario was included in the updated financial feasibility report of November 2007 , which was subject to a peer review by PricewaterhouseCoopers ("PWC"), on behalf of Dunedin City Council. The peer review identified suggested changes to some variables to provide what PWC considered a conservative scenario. We consider the base case provides a realistic view of activity levels that could reasonably be achieved by the Stadium.

We have included the conservative scenario as a sensitivity analysis to demonstrate the impacts that arise with the conservative assumptions by PWC. We do note, however, that some of the PWC assumptions are extremely conservative (eg: no commercial concerts at the Stadium in 50 years of operation).

Assumptions

In order to model the likely outcomes from any investment in the Stadium a number of assumptions have had to be made. It is important to note that the results reported in this report are tied directly to these assumptions. In addition, the assumptions made are not necessarily the only valid set of assumptions that could be made (potentially producing quite different results).

Assumptions can be split between those that are inherent in Input-Output modelling and those that are particular to the assessment of the proposed Stadium.

Input-Output Modelling Assumptions

- The regional and City economies in the future have the same structure as the current economy – the Input Output model contains a transaction table that defines how sectors interact with each other. This is a static relationship meaning that technological change is assumed to be nil and proportion of imports to local production is held constant.
- The model aggregates the economy into 123 sectors each producing a single commodity – this leads to a degree of aggregation bias where variation within a sector is ignored.
- Households and businesses spend any (potential) reduction in rates in a similar way to that revealed in the Input-Output model. This is important in assessing the opportunity costs of the development

- The economy is operating at full capacity, such that a unit increase in final demand requires businesses to require more inputs from suppliers and requires workers to work more hours. This implies that firms do not have surplus stock that could be utilised to meet increases in demand, rather they must increase production. This is a long run view of the impacts, given that at some point firms would need to produce goods to meet the additional demands brought about by any stadium investment.

Stadium Modelling Assumptions

- Councils borrow to fund the majority of the capital cost of development
- Interest on any loans, 7%
- Discounting was conducted using the same formulation and discount rate as described by Horwath HTL
- Share of capital expenditure to develop the stadium options on works versus professional fees 90% and 10%
- Level of spend on capital expenditure within the Region equates to approximately 75% of total capital costs and the balance flows out to external contractors
- Distribution of maintenance costs are 100% within Dunedin City.

1.2 SCOPE OF WORK

HHTL undertook the following key tasks to fulfil CST's requirements:-

(i) adjusted to activity levels in the economic impact model to reflect the findings of our updated financial feasibility report of November 2007 and letter of 7 December 2007

(ii) updated the economic impact model to reflect the revised net cash flow performance of the Stadium as per our updated financial feasibility report of November 2007 and letter of 7 December 2007

(iii) updated the economic impact model to reflect updated capital funding information

(iv) sub-contracted Market Economics to assess opportunity cost effects in relation to the development funding and to undertake input-output analysis to assess the economic impacts on the economies of both Dunedin City and Otago Region

(v) updates Section 5 of our February 2007 report summarising our updated analysis and modified it so as to be a stand-alone report.

Exclusions of Scope:
Our scope of work for this assignment excluded:-

- detailed community and other consultation
- social impact study
- cost benefit study.

1.3 DISCLAIMERS

This report has been prepared by Horwath HTL Limited, in conjunction with Market Economics Limited, for the Carisbrook Stadium Trust and is intended for your internal use. The report is based on estimates, assumptions and other information available to us, the sources of which are stated in the appropriate sections of the report. We did not carry out an audit or verification of the information supplied to us during the engagement, except to the extent stated in this report.

We understand that references to Horwath HTL Limited and Market Economics Limited and extracts from our report are to be incorporated into a plan change document for the Trust. These references and extracts should be read in conjunction with, and in the context of, our report and our disclaimers.

Some assumptions inevitably will not materialise, and unanticipated events and circumstances may occur. Therefore, actual results achieved during the period covered by our analysis may vary from those described in our report (including forward looking statements and projections) and the variations may be material. We did not carry out an audit or verification of the information and comments supplied to us during the engagement, except to the extent stated in this report.

Horwath HTL Limited assumes no responsibility whatsoever, except to the Carisbrook Stadium Trust, in respect to, or arising out of, or in connection with the contents of our report or work undertaken for you. If any other parties choose to rely in any way on any advice provided by Horwath HTL to the Trust, they do so entirely at their own risk.

2. ECONOMIC IMPACT ESTIMATE

It is important for decision makers to understand the flow on effects of decisions on capital expenditure. In particular, large capital projects that are likely to have extensive and wide ranging effects on the local and regional economies.

The key purpose of this report is to provide a summary of the economic impact attributable to the proposed stadium and University development at Awatea Street, North Dunedin.

This analysis focuses on the direct and total impacts in NPV terms, net of a "no new stadium" scenario where the existing Carisbrook Stadium continues in its current form. Two scenarios involving a new stadium have been considered – a realistic scenario ("Base"), and a more conservative scenario ("Conservative").

The economic impact assessment has been undertaken in relation to both the Dunedin City and the Otago Region economies.

There are five key components to the economic impact analysis:

6. Estimating the total direct expenditure arising from incremental activity at the Stadium (ie: excluding activity that would have occurred at the existing Carisbrook Stadium and other event venues in Dunedin / Otago without the new stadium). This direct expenditure relates to event organisers, spectators / attendees and media, and also includes the retention of local resident expenditure in the local economy as a result of residents not having to travel out of the region to attend events. The direct expenditure analysis also allows for the loss of local expenditure from the local economy as a result of spending on event tickets sold by non-local organisers
7. Estimating the total direct expenditure attributable to University of Otago students that are attracted to Dunedin due to the presence of the campus Stadium and associated University facilities to be built adjacent to the Stadium
8. Estimating the net additional expenditure into Dunedin City and the Otago Region economies by only including spending of visitors from outside the region who are visiting the area with the key purpose of attending the event
9. Identifying maintenance and capital expenditure and operating cash flow associated with the new Stadium and assessing the opportunity costs of the maintenance and capital expenditures. Opportunity costs relate to the need to divert household and business expenditure to fund the initial capital costs and on-going capital maintenance
10. Analysing the net additional direct expenditure by each spending group through an Input-Output model of Dunedin City and the Otago Region economies to assess the economic impacts in terms of direct and total output, value added (contribution to Gross Domestic Product), and employment.

2.1 VISITOR EXPENDITURE - DUNEDIN CITY

At the Dunedin City level, visitor expenditure attributable to the new Stadium arises as a result of an increase in non-Dunedin visitors that visit primarily because of events at the Stadium.

Projected event activity at the Stadium under the base and conservative scenarios is summarised in Appendix 1.

The percentage of non-Dunedin visitors attending events will depend upon the event's status and its ability to draw people from further a-field. The assumed percentage of non-Dunedin visitors is based on our extrapolation of previous research undertaken by Dunedin City Council and utilised by BERL.

The assumed increase in the average number of annual visitors (over 50 years) to Dunedin as a result of the new Stadium is summarised in Table 2.1 below.

Table 2.1: Estimated Average Annual Increase in Visitors

	Base		Conservative	
	Non Otago	Oth. Otago*	Non Otago	Oth. Otago*
Rugby Tests	4,820	4,010	4,820	4,010
RWC	480	250	480	250
Junior ABs	60	120	60	120
Lions – Prov.	1,000	260	1,000	260
Super 14	11,640	14,660	9,360	11,930
Air NZ Cup	2,020	3,870	170	460
Other Sport	-	70	-	70
Commercial Concerts	5,580	4,410	-	-
Community Concerts	-	1,300	-	1,300
Day Meetings	-	-	-	-
Conferences	70	20	70	20
Functions	20	120	20	120
Total	25,680	29,090	15,980	18,540

*ie: non-Dunedin Otago visitors
(Source: HHTL)

The assumed average expenditure per person is based on our extrapolation of previous research undertaken by Dunedin City Council and utilised by BERL, as well as research undertaken by Covec in relation to the 2005 DHL Lions Tour, as summarised in Table 2.2 below.

Table 2.2: Estimated Average Expenditure per Person (excl. GST)

	Non Otago	Oth. Otago*
Rugby Tests	$318	$207
RWC	$477	$310
Junior ABs	$255	$165
Lions – Prov.	$442	$287
Super 14	$204	$132
Air NZ Cup	$204	$132
Other Sport	$204	$132
Commercial Concerts	$255	$165
Community Concerts	$204	$132
Day Meetings	$204	$132
Conferences	$867	$563
Functions	$204	$132

(Source: HHTL, BERL)

Based on the estimated incremental visitors and the average trip expenditure, the present value of incremental expenditure over 50 years is summarised in Table 2.3.

Table 2.3: Present Value of Incremental Visitor Expenditure – Dunedin ($m)

	Base		Conservative	
	Non Otago	Oth. Otago	Non Otago	Oth. Otago
Accommodation	$15.9	$7.0	$10.2	$4.4
Food & Beverage	$34.8	$26.3	$22.4	$16.5
Retail	$17.2	$11.4	$11.0	$7.2
Transport & Travel	$17.4	$7.0	$11.2	$4.4
Recreation & Other	$6.6	$6.7	$4.3	$4.2
Total	$91.9	$58.5	$59.1	$36.7

(Source: HHTL)

Under the Base scenario, it is projected that the increased event activity will result in present value incremental visitor expenditure of $150.4 million over 50 years ($91.9 million from non-Otago visitors and $58.5 million from Otago visitors). Under the Conservative scenario, the lower level of increase in activity is projected to result in present value incremental visitor expenditure of $95.8 million.

2.2 VISITOR EXPENDITURE – OTAGO REGION

At the Otago Regional level, visitor expenditure attributable to the new Stadium arises as a result of an increase in non-Otago visitors that visit primarily because of events at the Stadium.

The assumed increase in the average number of annual visitors (over 50 years) to Otago as a result of the new Stadium is summarised in Table 2.5 below.

Table 2.4: Estimated Average Increase in Annual Visitors to Otago

	Base	Conservative
Rugby Tests	4,820	4,820
RWC	480	480
Junior ABs	60	60
Lions – Prov.	1,000	1,000
Super 14	11,640	9,360
Air NZ Cup	2,020	170
Other Sport	-	-
Commercial Concerts	5,580	-
Community Concerts	-	-
Day Meetings	-	-
Conferences	70	70
Functions	20	20
Total	25,680	15,980

(Source: HHTL)

The assumed average expenditure per person is based on our extrapolation of previous research undertaken by Dunedin City Council and utilised by BERL, as well as research undertaken by Covec in relation to the 2005 DHL Lions Tour, as summarised in Table 2.5 below. The higher average spend, compared to that for Dunedin City (as shown in Table 2.2), reflects the fact that these visitors also incur expenditure in other locations within Otago outside of Dunedin City during their visit.

Table 2.5: Estimated Average Expenditure per Person (excl. GST)

	Non Otago
Rugby Tests	$379
RWC	$568
Junior ABs	$303
Lions – Prov.	$526
Super 14	$243
Air NZ Cup	$243
Other Sport	$243
Commercial Concerts	$303
Community Concerts	$243
Day Meetings	$243
Conferences	$1,032
Functions	$243

(Source: HHTL)

Based on the estimated incremental visitors and the average trip expenditure, the present value of incremental expenditure over 50 years is summarised in Table 2.6 below.

Table 2.6: Present Value of Incremental Expenditure – Otago ($m)

	Base	Conservative
Accommodation	$20.8	$13.4
Food & Beverage	$41.1	$26.4
Retail	$18.2	$11.7
Transport & Travel	$19.9	$12.8
Recreation & Other	$9.5	$6.1
Total	$109.5	$70.4

(Source: HHTL)

Under the Base scenario, it is projected that the increased event activity will result in present value incremental visitor expenditure of $109.5 million over 50 years. Under the Conservative scenario, the lower level of increased activity is projected to result in present value incremental visitor expenditure of $70.4 million.

2.3 LOCAL RESIDENT EXPENDITURE FLOWS – DUNEDIN CITY

The increased event activity will also result in changes in local resident expenditure flows. Positive changes will occur as a result of local residents not having to travel outside Dunedin to attend new events that will be available at the new stadium. This positive change will be off-set to some extent by the expenditure of local residents on tickets to events organised by non-Dunedin event organisers (eg: NZRU). This expenditure leaves the City and then a proportion re-enters as the event organiser incurs expenses in Dunedin (event organiser expenditure is accounted for in Section 2.6).

The assumed average annual reduction in residents travelling outside Dunedin to attend events is summarised in Table 2.7 below.

Table 2.7: Assumed Reduction in Residents Travelling Outside Dunedin

	Base	Conservative
Rugby Tests	1,670	1,670
RWC	140	140
Junior ABs	140	140
Lions – Prov.	100	100
Concerts	6,290	-
Conferences	-	-
Exhibitions	60	60
Total	8,400	2,110

(Source: HHTL)

For the purpose of the analysis it is assumed that the expenditure these residents would have incurred had they travelled would be the same as the expenditure level of visitors coming to Dunedin for comparable events. Therefore, the present value of resident expenditure retained in Dunedin over the 50 year period is as summarised in Table 2.8 below.

Table 2.8: Present Value of Resident Expenditure Retained in Dunedin ($m)

	Base	Conservative
Accommodation	$4.3	$1.4
Food & Beverage	$16.2	$5.1
Retail	$7.0	$2.2
Transport & Retail	$4.3	$1.4
Recreation & Other	$4.1	$1.3
Total	$36.0	$11.3

(Source: HHTL)

The increase in the projected average annual number of local residents attending new events organised by non-Dunedin organisations is summarised in Table 2.9.

Table 2.9: Projected Local Attendance to Non-Dunedin Organised Events

	Base	Conservative
Rugby Tests	10,290	10,290
RWC	460	460
Junior ABs	260	260
Lions – Prov.	650	650
Concerts	19,150	-
Conferences	30	30
Exhibitions	3,560	3,560
Total	34,400	15,250

(Source: HHTL)

The present value of expenditure lost from the Dunedin economy over the 50 year period due to the increased number of events organised by non-Dunedin entities is as summarised in Table 2.10 below.

Table 2.10: Present Value of Expenditure Lost From Dunedin Economy ($m)

	Base	Conservative
Event Tickets	-$20.4	-$8.4

(Source: HHTL)

2.4 LOCAL RESIDENT EXPENDITURE FLOWS – OTAGO REGION

The increased event activity will also result in changes in Otago resident expenditure flows. Positive changes will occur as a result of residents not having to travel outside Otago to attend events that will be available at the new Stadium. This positive change will be off-set to some extent by the expenditure of residents on tickets to events organised by non-Otago event organisers (eg: NZRU). This expenditure leaves the Region and then a proportion re-enters as the event organiser incurs expenses in Otago (event organiser expenditure is accounted for in Section 2.6).

The projected average annual reduction in residents travelling outside Otago to attend events is summarised in Table 2.11 below.

Table 2.11: Projected Reduction in Residents Travelling Outside Otago

	Base	Conservative
Rugby Tests	2,310	2,310
RWC	200	200
Junior ABs	180	180
Lions – Prov.	140	140
Concerts	7,400	-
Conferences	20	20
Exhibitions	200	200
Total	10,440	3,040

(Source: HHTL)

For the purpose of the analysis it is assumed that the expenditure these residents would have incurred had they travelled would be the same as the expenditure level of visitors coming to Otago for comparable events. Therefore, the present value of resident expenditure retained in Otago over the 50 year period is as summarised in Table 2.12 below.

Table 2.12: Present Value of Resident Expenditure Retained in Otago ($m)

	Base	Conservative
Accommodation	$9.5	$3.2
Food & Beverage	$18.9	$6.3
Retail	$8.4	$2.8
Transport & Retail	$9.1	$3.1
Recreation & Other	$4.3	$1.4
Total	$50.2	$16.8

(Source: HHTL)

The increase in the projected average annual number of Otago residents attending events organised by non-Otago organisations is summarised in Table 2.13 below.

Table 2.13: Projected Local Attendance to Non-Otago Organised Events

	Base	Conservative
Rugby Tests	14,140	14,140
RWC	660	660
Junior ABs	320	320
Lions – Prov.	910	910
Concerts	22,530	-
Conferences	30	30
Exhibitions	3,960	3,960
Total	42,540	20,020

(Source: HHTL)

The present value of expenditure lost from the Otago economy over the 50 year period due to the increased number of events organised by non-Otago entities, is as summarised in Table 2.14 below.

Table 2.14: Present Value of Expenditure Lost From Otago Economy ($m)

	Base	Conservative
Event Tickets	-$31.2	-$11.8

(Source: HHTL)

2.5 VISITING MEDIA EXPENDITURE

Account has also been taken of incremental expenditure in Otago by visiting media as a result of increased sport activity. For the purpose of this analysis it has been assumed that all media expenditure occurs within Dunedin City and therefore the impact is the same for Dunedin City as for the Otago Region.

The assumed average number of media per sport event is summarised in Table 2.15 below. These assumptions are based on benchmarking against similar economic impact studies.

Table 2.15: Estimated Average Media per Sport Event

	Media
Cat B Rugby Tests - Premier	40
Cat B Rugby Tests - Other	24
RWC	100
Junior ABs	12
Lions – Prov.	100
Super 14	40
Air NZ Cup	40

(Source: HHTL)

The present value of the future incremental expenditure by visiting media over the 50 year period is as summarised in Table 2.16 below.

Table 2.16: Present Value of Future Incremental Expenditure by Visiting Media ($m)

	Base	Conservative
Accommodation	$0.5	$0.4
Food & Beverage	$0.3	$0.2
Transport & Retail	$0.7	$0.6
Recreation & Other	$0.3	$0.3
Total	$1.8	$1.6

(Source: HHTL)

2.6 VISITING ORGANISER EXPENDITURE

The final component of event-related expenditure is the additional expenditure that occurs in the Otago economy from non-Otago event organisers choosing to bring additional events to Dunedin because of the new Stadium. For the purpose of this analysis it is assumed that all event organiser expenditure occurs in Dunedin City resulting in the same impacts for Dunedin as for Otago.

The projected present value of expenditure by event organisers over the 50 year period is as summarised in Table 2.17 below. This expenditure estimate is based on benchmarking against similar economic impact studies.

Table 2.17: Present Value of Expenditure by Event Organisers ($m)

	Base	Conservative
Venue Hire	$6.5	$3.7
Accommodation	$1.0	$0.9
Food & Beverage	$0.7	$0.6
Transport & Retail	$0.9	$0.7
Recreation & Other	$13.0	$5.3
Total	$22.2	$11.2

(Source: HHTL)

2.7 ADDITIONAL STUDENT EXPENDITURE

The University of Otago believes that the co-location of the new Stadium with University facilities has the potential to improve the attractiveness of the University amongst potential students. The University would be unique amongst New Zealand universities in being able to offer a "campus stadium" environment and it is believed that such a facility would hold strong student appeal, particularly amongst students studying sports-related degrees (eg: physical education, physiotherapy, etc).

The University has estimated that a covered stadium could assist it in attracting approximately 500 more students than it otherwise might. This estimate does not necessarily mean the University's roll will increase by 500 students in the short term, however, as it does anticipate a softening in student numbers due to demographic trends. The University does believe though that the stadium would assist in ensuring student numbers do not reduce by as much as they otherwise might.

Under the Conservative scenario, we have assumed the additional number of students to be 350.

The University of Otago's 2004 Economic Impact Report demonstrated that the University's total annual expenditure equated to $35,000 per student. However, much of this expenditure is fixed in nature and would not be directly influenced by an increase of 350 - 500 students. Student expenditure will be the component that is most directly influenced by an increased student roll. For this reason, the economic impact analysis in relation to the University-related expenditure focuses on student expenditure.

The University of Otago has provided student expenditure information. The estimated Dunedin City portion of this expenditure is summarised in Table 2.18 below.

Table 2.18: Estimated Dunedin City Portion of Student Expenditure

	Expenditure Per Annum
University Fees	3,842
Rent	4,094
Food & Beverage	2,121
Retail	4,749
Transport & Travel	1,718
Total	16,524

(Source: University of Otago, HHTL)

The present value of incremental expenditure by university students over the 50 year period is summarised in Table 2.19 below.

Table 2.19: Present Value of Incremental Expenditure by University Students ($m)

	Base	Conservative
University Fees	20.6	14.4
Rent	22.0	15.4
Food & Beverage	11.4	8.0
Retail	25.5	17.8
Transport	9.2	6.5
Total	88.7	62.1

(Source: HHTL)

The estimated Otago Region portion of the University student expenditure is slightly higher than that for Dunedin City due to transport expenditure that is assumed to occur outside Dunedin. This is summarised in Table 2.20 below.

Table 2.20: Estimated Otago Region Portion of Student Expenditure

	Expenditure Per Annum
University Fees	3,842
Rent	4,094
Food & Beverage	2,233
Retail	5,277
Transport	3,817
Total	19,263

(Source: University of Otago, HHTL)

The present value of incremental expenditure by university students in Otago over the 50 year period is summarised in Table 2.21 below.

Table 2.21: Present Value of Incremental Expenditure by University Students ($m)

	Base	Conservative
University Fees	$20.6	$14.4
Rent	$22.0	$15.4
Food & Beverage	$12.0	$8.4
Retail	$28.3	$19.8
Transport	$12.3	$8.6
Total	$95.2	$66.6

(Source: HHTL)

2.8 TOTAL VISITOR EXPENDITURE

The overall present value of the net increase in visitor expenditure in Dunedin City over the 50 year period is summarised in Table 2.22 below.

Table 2.22: Overall Net Increase in Visitor Expenditure – Dunedin ($m)

	Base	Conservative
Non-Otago Visitors	$91.9	$59.1
Otago Visitors	$58.5	$36.7
Retained Resident Expenditure	$36.0	$11.3
Resident Ticket Expenditure Outflows	-$20.4	-$8.4
Visiting Media Expenditure	$1.8	$1.6
Visiting Organiser Expenditure	$22.2	$11.2
Additional Student Expenditure	$88.7	$62.1
Net Incremental Expenditure	$278.7	173.6

(Source: HHTL)

The overall present value of the net increase in visitor expenditure in the Otago Region over the 50 year period is summarised in Table 2.23 below.

Table 2.23: Overall Net Increase in Visitor Expenditure – Otago ($m)

	Base	Conservative
Non-Otago Visitors	$109.5	$70.4
Retained Resident Expenditure	$50.2	$16.8
Resident Ticket Expenditure Outflows	-$31.2	-$11.8
Visiting Media Expenditure	$1.8	$1.6
Visiting Organiser Expenditure	$22.2	$11.2
Additional Student Expenditure	$95.2	$66.6
Net Incremental Expenditure	$247.7	$154.8

(Source: HHTL)

2.9 OTHER EXPENDITURE EFFECTS

The analysis has also identified the ongoing capital maintenance, capital funding, and net operating cash flow performance of the Stadium, assessed the opportunity cost of these expenditures and then deducted these costs from the capital works expenditure effects.

Our analysis shows that the new stadium's future capital maintenance requirements equate to a present value of $3.5m more than the "do nothing" scenario over the 50 year life of the stadium. This is based on input from the professional consultants engaged by CST that suggests the future capital maintenance requirements for the new Stadium equate to a present value of $6.4 million, compared to $2.9 million for the existing Carisbrook Stadium.

The total capital cost of the project is $188m, excluding the University's new buildings which are not included because the University's space shortage means this capital expenditure would occur in Dunedin irrespective of the Stadium development. For the purpose of our analysis, $138m of the project cost is assumed to occur within the region with the balance flowing out to external contractors.

An important cost to be calculated in any capital development assessment is the opportunity cost of undertaking the development in question. The opportunity cost is usually defined in economics as the cost of something in terms of an opportunity forgone, or the most valuable forgone alternative. In this case what is the opportunity cost of expending funds on the upgrade or construction of a new Stadium. The question is how would these funds have been spent if the Stadium development was not undertaken?

To answer this question Market Economics Ltd has analysed the parties who will be funding the stadium under each scenario. The funding groups have been placed into four categories, households, private business, local governments, and outside the region.

The first step is to exclude the funding from outside of the region. The funding from outside of the region has no opportunity cost to the region because these funds are "new" to the region.

Given the nature of the remaining three funding groups and their current spending behaviour we can allocate the funding sources to households and businesses. This calculation gives the direct spend by households and businesses which would have occurred if the stadium had not been built. We have assumed this direct spend is then distributed across the different industries using current spending patterns. The resulting allocations were run through Market Economics' Input Output tables to calculate the total economic impact. This gives the economic impact which would have occurred if the Stadium had not been developed. We have assumed that this would be the next best option and therefore is the opportunity cost of investing in the Stadium.

Note that businesses have a range of expenditure options available to them, such as; retiring debt, declaring higher profits paying taxes then paying dividends, or investing in capital to increase production. An alternative mix of these options would have different impacts on the local economy than those modelled in this report, for example, declaring higher profits and paying taxes removes a portion of the money from the economy and the resulting dividend payments are spent in a very different way than the original business spend.

A summary of these effects at the Dunedin level for the Base Case and Conservative Scenario is provided in Table 2.24 below.

Table 2.24: Other Expenditure Effects – Dunedin City ($m)

	Base	Conservative
Positive Impacts		
Visitor Expenditure[3]	269.5	167.8
Future Capital Maintenance	3.5	3.5
Capital Expenditure	138.0	138.0
Total Positive Impacts	411.0	309.3
Negative Impacts		
Opportunity Cost to Households[4]	68.0	71.3
Opportunity Cost to Businesses[5]	77.2	78.9
Total Negative Impacts	145.2	150.2
Net Direct Expenditure	265.8	159.0

(Source: MEL)

A summary of these effects at the Otago level for the Base Case and Conservative Scenario is provided in Table 2.25 below.

Table 2.25: Other Expenditure Effects – Otago Region ($m)

	Base	Conservative
Positive Impacts		
Visitor Expenditure	239.4	149.6
Maintenance	3.5	3.5
Capital Expenditure	138.0	138.0
Total Other Positive Impacts	380.9	291.1
Negative Impacts		
Opportunity Cost to Households	75.1	78.5
Opportunity Cost to Businesses	81.0	82.8
Total Negative Impacts	156.1	161.3
Net Direct Expenditure	224.7	129.9

(Source: MEL)

2.10 NET ECONOMIC IMPACT

Direct and 'flow on' economic impacts of events are frequently measured using regional input-output models. The key impacts considered are gross output, value-added (payments to all factors of production and including profits, depreciation, and wages and salaries) –measured in $m terms.

Value Added is the most important measure as it represents the amount of impact generated within or felt within the economy. It is synonymous with Gross Domestic

[3] As per Section 2.8 with an adjustment for retail goods sold in Dunedin / Otago stores that have been imported. The value of these goods does not increase the Dunedin / Otago economy other than through the retail margin applied.

[4] Opportunity costs relate to the need to divert household expenditure (including via rates and purchase of ground memberships) to fund the initial capital costs, on-going capital maintenance, and subsidise future operating deficits (if relevant).

[5] Opportunity costs relate to the need to divert business expenditure (including via rates and purchase of corporate suites) to fund the initial capital costs, on-going capital maintenance, and subsidise future operating deficits (if relevant).

Product (GDP) the standard measure of economic performance for regions and nations.

To estimate the economic impacts of the new Stadium on Dunedin City and Otago Region economies, Input-Output models for Dunedin City and Otago Region were used. These models identify the total output, value added and employment effects of additional expenditure generated by the Stadium which is directed to each sector (spend by all groups on food, drink, transport, construction, entertainment, and accommodation etc), and calculate the flow-on effects of this expenditure.

The additional expenditure has been allocated to relevant industry sectors to take into account different types of spending by each group and the flow on effects as directly impacted industries increase their purchases of intermediate inputs to meet the increased demand. The model estimates the direct value added and employment effects, and then applies the appropriate sector multipliers to take account of the indirect and induced impacts, and estimate the total impacts. These multipliers were estimated using Market Economics Ltd Input-Output Models for national, regional and territorial local authority level economies. These models are based on the Statistics New Zealand Inter Industry Transaction Tables (published in 2001) and have been used extensively for other comparable economic impact studies.

Economic impacts can be assessed in a number of ways. Each broad category of impact (Gross Output, Value Added, Household Income and Employment) can be assessed in terms of the direct, indirect and induced effects. These are defined as follows:

- **Direct Effects** – these are also termed the first round effects. They cover the direct spending that occurs for an event such as the RWC (direct ticket sales, direct organiser spend, direct spend associated with the event such as at restaurants, cafes, accommodation and retail outlets). This direct spending sustains a certain amount of direct employment to meet these direct needs, and generates a certain amount of direct value added ($).

- **Indirect Effects** – these are the effects that occur when suppliers to the directly impacted businesses have to increase their production to meet the increase in demand for goods and services. This requires the further purchase of other goods and services from their suppliers. Indirect effects are calculated in terms of indirect gross output ($), and value added ($).

- **Induced Effects** – the final category of economic impact covers the induced effect of additional wages and salaries paid into the regional economy inducing additional expenditure. When businesses either directly or indirectly impacted are assumed to be operating at maximum capacity, additional demand causes them to either hire additional workers or pay overtime. This means more money is available to households in the economy. The induced effect covers how this money then flows through the system as people spend more.

For the purposes of this Report, estimates of the direct and total effects are presented for value added. These total effects include all direct, indirect and induced impacts.

Net Expenditure and Transfers

Net effects rather than total effects of the event are the focus of this report, since the economic impact of the Stadium arises from the net additional expenditure flows, rather than the gross expenditure. Care must be taken to include only additional spending in the relevant geographic area, and to exclude "transfer" expenditure – money which would have been spent in the area in any case, but is spent on the event rather than alternative activity.

It is assumed that households and individuals operate with some sort of budget constraint, and that spending that occurs at the Stadium is spending that would have been directed elsewhere and is not newly created money. This means that spending by Otago residents is usually considered a transfer since it is presumed that the residents' money spent at the event would otherwise have been spent in the Regional economy (though this overstates the true level of transfer to some degree because a proportion of residents' expenditure is normally spent on 'out-of-region' goods and services). The exception to this is the proportion of local resident spend that would otherwise have been spent attending an event at an alternative venue outside of the region (e.g. a rugby test in Christchurch).

However, expenditure by event organisers and media is almost all a net addition to the local economy, because it would not have been spent in the regional economy if the tournament were not held.

Similarly, visitor spending will generally be an addition to Otago's economy if the visitors came to Otago because of the event. As determined in other economic impact studies most spectators spend the major proportion of their time attending the event itself, and only a very minor share would have visited the area in the absence of the event.

2.10.1 BASE CASE

Market Economics has taken the direct additional spend ($271.7m), capital expenditure ($188.0m) and capital maintenance ($6.4m) derived by HHTL as an input for the calculation of the following results. The results in the table below show that the additional total expenditure associated with the Stadium amounts to $621.1m for Dunedin City and $535.3m for the Otago Region.

The actual impact on Dunedin City is $260.2m (value added) and on the regional economy is $221.4m. The economic impact equates to 4,100 additional FTEs in the Region.

As noted in our methodology, the economic impact has netted off opportunity costs and has been undertaken using present values in 2011 dollars. Therefore, the $260 million contribution to GDP is net of opportunity costs associated with the initial development and on-going capital maintenance of the Stadium. The present value approach adopted in our analysis means the economic impact of the Stadium over its assumed 50 year life is equivalent to a $260 million contribution to GDP all in 2011 (the year in which the Stadium opens). The discounting of future expenditure, which is inherent in present value analysis, means that it is not appropriate to divide the $260 million contribution to GDP by 50 years to calculate an "average annual impact" as this will understate the nominal value of the impact experienced in each year.

Table 2.26: Net Economic Impacts – Base Case

	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 265.8	$ 224.7
Direct Value Added ($m)	$ 97.2	$ 79.8
Direct Employment (FTE)	2,704	2,295
Direct Household Income ($m)	$ 67.5	$ 58.1
Total Expenditure ($m)	$ 621.1	$ 535.3
Total Value Added ($m)	$ 260.2	$ 221.4
Total Employment (FTE)	4,797	4,132
Total Household Income ($m)	$ 135.5	$ 117.8

(Source: MEL)

In order to provide an insight into the relative merit of the Stadium development, from an economic perspective, we have developed a ratio between the total value added generated within the local economy as a result of the development and the opportunity cost in terms of the value added associated with the principal alternative. It is important to note that this is not a full cost benefit comparison.

As shown in Table 2.27, the ratio between the opportunity costs ($137.9m) and economic impacts shows that for every dollar of opportunity cost associated with the Stadium development there are $2.60 of net economic impact for the Region ($3.00 for Dunedin City)[6].

Table 2.27: Economic Impact Ratio

	Dunedin	**Otago**
Positive Impacts		
Visitor Expenditure	264.5	235.3
Future Capital Maintenance	3.4	3.4
Capital Expenditure	120.7	120.7
Total Positive Impacts (A)	**388.6**	**359.4**
Negative Impacts		
Opportunity Cost (B)	128.4	137.9
Economic Impact Ratio (A/B)	**3.0**	**2.6**

(Source: MEL)

[6] The calculation of the ratio is the sum of total value added impacts divided by the sum of opportunity costs in total value added. For example Dunedin City Base Case;

- Expenditure total value added impact $264.5m
- Maintenance total value added impact $3.4m
- Capital total value added impact $120.7m
  - Total value added impact =$264.5m+$3.4m+$120.7m ≈$388.6m
- Household Opportunity Cost in total value added=$57.1m
- Business Opportunity Cost in total value added=$71.3m
  - Total value added Opportunity cost=$57.1m+$71.3m ≈$128.4m

Ratio =$388.6m/$128.4m=3.0

2.10.2 CONSERVATIVE SCENARIO

For this scenario Market Economics has taken the direct additional spend ($178.8m), capital expenditure ($188.0m) and capital maintenance ($6.4m) derived by HHTL as an input for the calculation of the following results. The results in the table below show that the additional total spend associated with the Conservative scenario amounts to $404.3m for Dunedin city and $3454.7m for the Otago Region. The actual impact on the regional economy is $128.9m and the impact on the Dunedin City is $156.2m (value added). The economic impact equates to 2,500 additional FTEs in the Region.

Table 2.28: Net Economic Impacts – Conservative Scenario

	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 159.0	$ 129.9
Direct Value Added ($m)	$ 45.9	$ 33.1
Direct Employment (FTE)	1,510	1,223
Direct Household Income ($m)	$ 38.9	$ 32.2
Total Expenditure ($m)	$ 404.3	$ 344.7
Total Value Added ($m)	$ 156.2	$ 128.9
Total Employment (FTE)	2,980	2,521
Total Household Income ($m)	$ 86.9	$ 74.7

(Source: MEL)

As shown in Table 2.29, the ratio between the opportunity costs ($142.3m) and economic impacts shows that for every dollar of opportunity cost associated with the scenario there are $1.90 of net economic impact for the Region ($2.20 for Dunedin City).

Table 2.29: Economic Impact Ratio

	Dunedin	**Otago**
Positive Impacts		
Visitor Expenditure	164.9	147.2
Future Capital Maintenance	3.4	3.4
Capital Expenditure	120.7	120.7
Total Positive Impacts (A)	**289.0**	**271.3**
Negative Impacts		
Opportunity Cost (B)	132.8	142.3
Economic Impact Ratio (A/B)	**2.2**	**1.9**

(Source: MEL)

Appendix 1: Event Schedule

Projected Stadium Activity

Event Type	Base	Conservative
Rugby Tests	3 tests every 4 years	3 tests every 4 years
RWC	3 games in 2011	3 games in 2011
Junior All Blacks / NZ Maori	1 match every 2 years	1 match every 2 years
Lions Provincial Match	1 match in 2017	1 match in 2017
Super 14	5 – 6 games per year	5 – 6 games per year, reduced attendance
Super 14 Finals	1 semi-final match every 5 years	No matches
Air NZ Cup	5 games annually	5 games annually, reduced attendance
Air NZ Cup Finals	2 quarter-finals every 3 years and 1 semi-final every 3 years	No matches
Club Rugby Finals	1 match per year	1 match per year
Soccer	10 – 11 games per year	10 – 11 games per year
Community Concert	1 concert per year	1 concert per year
Commercial Concert	3 concerts per year	No concerts
Summer Corporate Event	1 event per year	1 event per year
Day Meeting - Small	Up to 200 per year	Up to 200 per year
Day Meeting - Medium	Up to 30 per year	Up to 30 per year
Day Meeting - Large	Up to 14 per year	Up to 14 per year
Conference - Small	3 per year	3 per year
Conference - Large	2 per year	2 per year
Exhibitions	3 per year	3 per year
Functions	18 per year	18 per year

(Source: HHTL)

The base activity outlined in the schedule above does differ, in some parts, to the activity schedule assumed in the other consultants' reports. The differences arise because our analysis has looked at activity levels over the future life of the stadium, rather than taking a "snapshot" view of an average year. Importantly, from an economic impact perspective, our base case activity is more conservative than the activity levels considered under the "Likely Scenario" by CST's other consultants.

APPENDIX 2: DETAILED ECONOMIC IMPACT TABLES

"Base Case" Scenario

Positive Economic Impacts (net of the Do Nothing Economic Impacts)

Expenditure	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 269.5	$ 239.4
Direct Value Added ($m)	$ 132.0	$ 119.6
Direct Employment (FTE)	3,007	2,662
Direct Household Income ($m)	$ 72.8	$ 65.3
Total Expenditure ($m)	$ 545.3	$ 480.0
Total Value Added ($m)	$ 264.5	$ 235.3
Total Employment (FTE)	4,576	4,028
Total Household Income ($m)	$ 123.1	$ 109.1

Maintenance	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 3.5	$ 3.5
Direct Value Added ($m)	$ 1.3	$ 1.3
Direct Employment (FTE)	31	31
Direct Household Income ($m)	$ 0.9	$ 0.9
Total Expenditure ($m)	$ 7.9	$ 7.9
Total Value Added ($m)	$ 3.4	$ 3.4
Total Employment (FTE)	57	57
Total Household Income ($m)	$ 1.7	$ 1.7

Capital	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 138.0	$ 138.0
Direct Value Added ($m)	$ 29.3	$ 29.3
Direct Employment (FTE)	531	531
Direct Household Income ($m)	$ 20.1	$ 20.1
Total Expenditure ($m)	$ 344.1	$ 344.1
Total Value Added ($m)	$ 120.7	$ 120.7
Total Employment (FTE)	1,776	1,776
Total Household Income ($m)	$ 60.8	$ 60.8

Negative Economic Impacts (net of the Do Nothing Economic Impacts)

Opportunity cost to Households (Maintenance, Capital and Operating loss)	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 68.0	$ 75.1
Direct Value Added ($m)	$ 31.6	$ 34.9
Direct Employment (FTE)	389	429
Direct Household Income ($m)	$ 11.1	$ 12.2
Total Expenditure ($m)	$ 121.7	$ 134.5
Total Value Added ($m)	$ 57.1	$ 63.1
Total Employment (FTE)	681	752
Total Household Income ($m)	$ 20.5	$ 22.7

Opportunity cost to Businesses (Maintenance, Capital and Operating loss)	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 77.2	$ 81.0
Direct Value Added ($m)	$ 33.9	$ 35.6
Direct Employment (FTE)	476	500
Direct Household Income ($m)	$ 15.2	$ 15.9
Total Expenditure ($m)	$ 154.5	$ 162.1
Total Value Added ($m)	$ 71.3	$ 74.9
Total Employment (FTE)	931	977
Total Household Income ($m)	$ 29.7	$ 31.2

"Conservative" Scenario

Positive Economic Impacts (net of the Do Nothing Economic Impacts)

Expenditure	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 167.8	$ 149.6
Direct Value Added ($m)	$ 83.1	$ 75.3
Direct Employment (FTE)	1,842	1,619
Direct Household Income ($m)	$ 45.1	$ 40.3
Total Expenditure ($m)	$ 338.0	$ 298.8
Total Value Added ($m)	$ 164.9	$ 147.2
Total Employment (FTE)	2,813	2,472
Total Household Income ($m)	$ 76.3	$ 67.6

Maintenance	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 3.5	$ 3.5
Direct Value Added ($m)	$ 1.3	$ 1.3
Direct Employment (FTE)	31	31
Direct Household Income ($m)	$ 0.9	$ 0.9
Total Expenditure ($m)	$ 7.9	$ 7.9
Total Value Added ($m)	$ 3.4	$ 3.4
Total Employment (FTE)	57	57
Total Household Income ($m)	$ 1.7	$ 1.7

Capital	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 138.0	$ 138.0
Direct Value Added ($m)	$ 29.3	$ 29.3
Direct Employment (FTE)	531	531
Direct Household Income ($m)	$ 20.1	$ 20.1
Total Expenditure ($m)	$ 344.1	$ 344.1
Total Value Added ($m)	$ 120.7	$ 120.7
Total Employment (FTE)	1,776	1,776
Total Household Income ($m)	$ 60.8	$ 60.8

Negative Economic Impacts (net of the Do Nothing Economic Impacts)

Opportunity cost to Households (Maintenance, Capital and Operating loss)	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 71.3	$ 78.5
Direct Value Added ($m)	$ 33.1	$ 36.4
Direct Employment (FTE)	408	448
Direct Household Income ($m)	$ 11.6	$ 12.8
Total Expenditure ($m)	$ 127.7	$ 140.4
Total Value Added ($m)	$ 59.8	$ 65.8
Total Employment (FTE)	714	785
Total Household Income ($m)	$ 21.5	$ 23.7

Opportunity cost to Businesses (Maintenance, Capital and Operating loss)	Dunedin City	Otago Region
Direct Expenditure ($m)	$ 78.9	$ 82.8
Direct Value Added ($m)	$ 34.7	$ 36.4
Direct Employment (FTE)	487	511
Direct Household Income ($m)	$ 15.5	$ 16.3
Total Expenditure ($m)	$ 158.0	$ 165.7
Total Value Added ($m)	$ 73.0	$ 76.5
Total Employment (FTE)	952	998
Total Household Income ($m)	$ 30.4	$ 31.9