

Economic impact of Dunedin hotel

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Authorship

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1. EXECUTIVE SUMMARY

This assessment provides estimates of the potential economic impacts of the proposed 210 room, 49 apartment, luxury hotel development in Dunedin. The proposed hotel development would contribute to Dunedin's economy in two key ways. Firstly, there would be a lift to economic activity during the construction phase, while once the hotel was operational, there would then be an ongoing lift to GDP, provided that the hotel attracted new visitors to the region. This assessment has been done mechanistically using assumptions provided, or derived from official statistics.

Construction phase

One of the key assumption of this report in calculating the economic impact of the construction phase of the hotel is that the \$63m project can be completed without displacing other building activity. However, it is also possible that the building of the hotel would discourage investment in accommodation that would have happened in the absence of the hotel being built. It is Infometrics' view that the estimates presented in this report are at the top end of the likely range of economic impacts on the Dunedin economy.

With these caveats in mind, the results of the economic impact calculations show that the construction of the hotel would result in a \$45.6m lift to value add (GDP) in Dunedin's economy over the eighteen-month construction phase (once direct, indirect, and earnings effects are taken into consideration). This lift is equivalent to 0.64% of GDP in year one and 0.32% of GDP in year two. This is a one-off boost to the *level* of GDP, not a boost to the growth rate in perpetuity.

The ongoing GDP effects

In the calculation of the ongoing effects to GDP, a key assumption was made that the opening of the hotel does not crowd out any other activity in Dunedin. This assumption implies that the hotel will entice new visitors who would not have visited Dunedin in the absence of the hotel.

The ongoing economic impact of the hotel differs markedly with the expected level of visitor spend. Using information on anticipated room rates and restaurant revenue that was provided by the developer, a 'high spend' assumption was developed to reflect that a luxury hotel would likely attract visitors who spend more than the average hotel guest would. It assumes that guests spend between 56% and 60% of their total expenditure on accommodation and in-house restaurants and bars. Without information on the distribution of visitor's expenditure, spending levels on other categories are assumed to be the same as the regional average, as derived from official statistics. It is possible that guests in the hotel spend more than the average on all types of expenditure, and therefore this analysis may tend to understate the total spending of guests.

Furthermore, under the no crowding out assumption, the high spend scenario with a 70% occupancy rate implies that there would be a 23% lift in guest nights in hotels in Dunedin from day one. This would represent a 7.5% increase in guest nights across all forms of accommodation (e.g. backpacker and holiday park beds).

Once the hotel is operational the results show that at the Dunedin 10-year average occupancy rate of 65%, the additional spending by visitors whose spending patterns align with the annual average of guest spending in Dunedin could add \$14.6m per annum to GDP in the local economy. If the hotel maintains 70% occupancy under the higher spend case, which assumes higher expenditure on accommodation, food and bars, the hotel could add \$25m per annum. These figures equate to a range of between 0.32% and 0.54% of GDP – and again, they are boosts to the level of GDP, not a permanent boost to the growth rate.

2. THE CONSTRUCTION PHASE

The calculation of the contribution to value added (GDP) of constructing the hotel is based on the key assumption that there is capacity in the construction sector to build the hotel without crowding out other investment. In other words, all spending falls outside of business as usual construction activity. The construction is assumed to occur over a period of 18 months, with a build cost of \$63m.

Calculating the value added from the construction phase

Given the assumptions above, we have estimated the economic impact of the construction phase as follows. All values are in millions of dollars and are in constant (December 2016) prices.

Table 1

	Value added (GDP)
Direct impact (\$m)	\$21.1
Indirect impact (\$m)	\$16.1
Earnings impact (\$m)	\$8.4
Total (\$m) over 18 months	\$45.6
Total in year one	\$30.4
Total in year two	\$15.2
Addition to GDP in year one	0.64%
Addition to GDP in year two	0.32%

The direct effect is the impact on GDP associated with the \$63m increased spending in construction over the project duration. Direct effects are estimated to be \$21.1m.

The indirect impacts are the second round of economic effects associated with the direct effect. An increase in construction activity will require construction companies to purchase goods and services from suppliers within the district which will create economic activity in industries with linkages to construction. Our estimation takes into account that not all suppliers will be based in Dunedin and that there will be leakage of spending outside the city. Overall, the indirect impact of the project over the course of the construction phase is estimated to be \$16.1m.

The earnings effect arises from increased spending from new employment associated with the project, and is expected to be \$8.4m. These new workers will spend some on their earnings locally, for example at bars, which will induce extra economic activity.

Summary of construction phase

The calculations in the above table indicate that the construction phase will add about \$30.4m to GDP in year 1 (after we take into account indirect effects and earnings impact - explained above) and \$15.2m in year 2. This is equivalent to 0.64% of GDP in year 1 and 0.32% of GDP in year 2 to business as usual growth in Dunedin.

3. THE ONGOING GDP EFFECTS

The hotel development will provide an ongoing contribution to GDP once the project has been commissioned. This contribution to GDP is in addition to the one-off stimulus during the construction stage and is derived from additional visitors who come to Dunedin to stay in the hotel and who in turn spend money in the city.

In calculating the ongoing contribution to GDP from the hotel it has again been assumed that there is no crowding out of existing activity by the hotel. This assumption implies that all people staying at the hotel are new visitors into the area that would not have visited Dunedin without the hotel being there. Furthermore, it assumes that the spending by hotel guests on other attractions in Dunedin in no way crowds out other visitors from also spending money at those attractions.

The proposed hotel will have 210 rooms and 49 residential units. It is unclear if the units will be sold to private owners or be retained as part of commercial hotel operations. Therefore, for the calculation of the ongoing contribution to GDP, the residential units will be treated as part of the hotel, and are subject to the same set of assumptions we use for the 210 hotel rooms. These assumptions regarding guest numbers and their spending patterns are outlined below.

Assumptions

Two assumptions of occupancy for the hotel have been considered. Under the first assumption (Assumption A), it is premised that there is 70% occupancy of the rooms, while under the second assumption (Assumption B), occupancy is 65%. Assumption A was derived from the hotel's development business case. Assumption B is based on the ten-year average occupancy in Dunedin City from the Commercial Accommodation Monitor (CAM). Under both assumptions there is 1.75 guests on average per room, this is informed by the 2017 March year end annual average from the CAM, and aligns with an expected 25% single occupancy and 75% double occupancy of hotel rooms from the developer's business case.

It is expected that the hotel will receive a five-star rating, a first for Dunedin. We have therefore taken into consideration the likely higher spending of guests staying at the hotel compared to the average tourist in Dunedin. As a consequence, two additional assumptions were developed for guest spending patterns (i.e. average and high).

The first assumption of spending patterns (Assumption C) uses average tourist expenditure in Dunedin City and is based on official statistics. In the absence of data for the distribution of tourist spending, this assumption establishes an estimate for the average tourist in Dunedin City.

Spending habits for the Assumption C were formed using two methods.

The spending habits of international visitors are based on average daily spend data from the International Visitor Survey, and adjusted using a weighted average for the historic type of visitor arriving in Dunedin. This estimate has been broken down into spending categories that align with Infometrics' economic impact calculation tool. The breaking down of this spend was done using spending proportions for categories in MBIE's Regional Tourism Estimates for Dunedin.

The spending habits of domestic visitors are based on spending patterns in the Domestic Visitor Survey that have been aligned to spending categories used by Infometrics. Please note that the Domestic Visitor Survey was discontinued in 2012 so spending estimates have been inflated to current pricing using the CPI.

A limitation of this assumption is that visitors who come to stay in the hotel are expected to have the same demographic mix, place of origin, and spending patterns as the current mix of visitors to Dunedin.

The following tables show the division of spending from aligning the Regional Tourism Estimate to the categories in Infometrics' economic impact calculation tool. The split between international and domestic visitors is based on the proportion of international versus domestic guest nights in the Commercial Accommodation Monitor in Dunedin.

Assumption C: Average spend guest

Table 2

	International visitors	Domestic visitors
Proportion of total guest nights	37.8%	62.2%
Average spend per visitor per day	\$214.35	\$159.28
Spending proportions		
Accommodation, restaurants and bars	36.6%	25.8%
Food purchases from stores	7.6%	11.5%
Other retail (eg. souvenirs, gifts)	22.9%	34.0%
Ground and other transportation	11.6%	8.0%
Fuel for own transport	10.0%	7.1%
Other services	11.4%	13.6%
Total	100.0%	100.0%

An alternative assumption (Assumption D) was developed to acknowledge that the five-star hotel will likely attract visitors who spend more than the average tourist would. This assumption characterises a higher spend guest.

For Assumption D, the 'Accommodation, restaurants and bars' category was determined by the expected room rate and expenditure per guest on restaurants and bars within the hotel. It is important to note that in the absence of data for other categories of spending, expenditure on other categories of spending is assumed to be the same as the average spend scenario. The implication of this assumption is that a higher proportion of a guest's spending is on accommodation, restaurant and bars compared to the average assumption.

Assumption D: High spend guest

Table 3

	International visitors	Domestic visitors
Proportion of total guest nights	37.8%	62.2%
Average spend per visitor per day	\$310.55	\$292.86
Spending proportions		
Accommodation, restaurants and bars	56%	60%
Food purchases from stores	5%	6%
Other retail (eg. souvenirs, gifts)	16%	19%
Ground and other transportation	8%	4%
Fuel for own transport	7%	4%
Other services	8%	7%
Total	100.0%	100.0%

A limitation of this assumption is that it assumes that guests spend a higher proportion of total expenditure on accommodation, restaurants and bars, but are only expected to spend the same amount as the average guest on all other categories.

Calculating the ongoing contribution to GDP

The assumptions above were used to develop four scenarios to calculate the following estimates of total annual guest nights and total spend per annum. A summary is presented in the following table.

These four scenarios were then run through the Infometrics' calculator to estimate the economic impact of the additional visitors to Dunedin on the Dunedin economy. All values are in millions of dollars and are in constant (December 2016) prices.

Table 4

	International visitors	Domestic visitors	Total
Scenario One: Average spend and 65% occupancy			
Total guest nights (pa)	40,698	66,894	107,592
Total spend (\$m, pa)	\$8.7	\$10.7	\$19.4
Scenario Two: Average spend and 70% occupancy			
Total guest nights (pa)	43,804	72,001	115,805
Total spend (\$m, pa)	\$9.4	\$11.5	\$20.9
Scenario Three: High spend and 65% occupancy			
Total guest nights (pa)	40,698	66,894	107,592
Total spend (\$m, pa)	\$12.6	\$19.6	\$32.2
Scenario Four: High spend and 70% occupancy			
Total guest nights (pa)	43,804	72,001	115,805
Total spend (\$m, pa)	\$13.6	\$21.1	\$34.7

Table 5

	Value added (GDP)	
	65% occupancy	70% occupancy
Average guest spend	<i>Scenario One</i>	<i>Scenario Two</i>
Direct impact (\$m)	\$7.8	\$8.4
Indirect impact (\$m)	\$4.5	\$4.8
Earnings impact (\$m)	\$2.3	\$2.5
Total (\$m, pa)	\$14.6	\$15.7
High guest spend	<i>Scenario Three</i>	<i>Scenario Four</i>
Direct impact (\$m)	\$13.8	\$14.9
Indirect impact (\$m)	\$6.0	\$6.5
Earnings impact (\$m)	\$3.3	\$3.6
Total (\$m, pa)	\$23.1	\$25.0

The direct impacts are the effects directly attributable to spending by new visitors to Dunedin as a result of the additional hotel beds being used.

The indirect impacts are the second round of economic effects associated with the direct effect. An increase in tourism activity will require companies to purchase goods and services from suppliers within the district which will create economic activity in industries with linkages to the tourism sector.

The earnings effect arises from increased spending from new employment associated with the lift in activity in the tourism sector. These new workers will spend some on their earnings locally, for example at bars, which will induce extra economic activity.

The following table shows the ongoing contribution to GDP under each scenario.

Table 6

Ongoing contribution to Dunedin's GDP			
	65% occupancy		70% occupancy
	<i>Scenario One</i>	<i>Scenario Two</i>	
Average guest spend		0.32%	0.34%
	<i>Scenario Three</i>	<i>Scenario Four</i>	
High guest spend		0.50%	0.54%

4. CONCLUDING REMARKS

The crude estimates of the economic impact of a new hotel in Dunedin presented in this report are dependent on a number of key assumptions including:

- all guests staying in the hotel would not have visited Dunedin in the absence of the hotel
- the construction of the hotel does not displace any investment that would have occurred had the hotel not been built.

These are both strong assumptions and it is likely that they exaggerate the true economic impact of the hotel. It is Infometrics' view that the estimates presented in this report are at the top end of the likely range of economic impacts on the Dunedin economy.

However, it is also worth repeating that, in lieu of other reliable information, we have assumed that guests at a five star hotel only spend the same as all other tourists on goods and services *outside* the hotel. This is probably a conservative assumption and helps to soften the content of the above two bullet points.

In other words, it is important to note that there are limitations to the assumptions used, and there are risks of both overstating and understating the economic impact of the proposed hotel.

Summary of ongoing contribution to GDP

The calculations above show the annual lift to the level of GDP should the hotel encourage additional visitors to come to Dunedin. The overall contribution is reduced if some of the hotel's visitors would have visited Dunedin and stayed in a hotel even if the hotel does not get built. In other words, there is an element of "crowding out" of activity in Dunedin City as a result of the hotel.

The difference in the contribution to GDP between the 65% and 70% occupancy rates is very small. Both scenarios are included, however, for analytical rigour - i.e. one is based on official statistics (65%) and one is based on the developer's own view.

Overall, the calculations in the above table indicate that should the hotel attract guests who spend more on accommodation and food than the average tourist in Dunedin, and the hotel achieves 70% occupancy, then the additional visitors would add about \$25m each year to GDP (after we take into account indirect effects and earnings impact - explained above). Under the same high spending guest assumption but a lower occupancy rate of 65%, the hotel contributes just over \$23m each year to GDP. These increases to annual GDP are equivalent to 0.54% and 0.50% of GDP in Dunedin.

Should the hotel attract visitors who spend on average the same per person as does the current average in Dunedin, the additional visitors will contribute about \$15.7 in the 70% occupancy scenario and \$14.6m in the 65% occupancy scenario. These increases to annual GDP are equivalent to 0.34% and 0.32% respectively of GDP in Dunedin.

It is important to note that both the initial construction phase and the business-as-usual phase for the hotel will raise the *level* of GDP in Dunedin, but won't be permanent boosts to the *growth rate*.