



Economic impact analysis

The impact of the proposed International Visitor Levy and Electronic Travel Authority fee on inbound tourism

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An economic analysis of the impact of the proposed International Visitor Levy and Electronic Travel Authority fee on inbound tourism in New Zealand

Prepared by Ian Dickson, Senior Economist, for Immigration New Zealand

■ Summary

The Government is consulting on proposals for an International Visitor Conservation and Tourism Levy (IVL) and an Electronic Travel Authority (ETA) for some groups of visitors who do not require a visa to enter New Zealand.

Policy makers and stakeholders in the New Zealand tourism sector want to understand the possible impact of the proposed IVL and ETA fee on inbound visitor numbers, their spending while in New Zealand, and the contribution such spending makes to Gross Domestic Product (GDP).

Using forecasts of visitor numbers and their spending while in New Zealand produced by MBIE (MBIE(2018)), and the best available demand elasticity estimates for New Zealand inbound tourism (Schiff and Becken (2011)), this report makes estimates of the possible impacts on visitors by air. Approximately 200,000 visitors by sea are not able to be broken out of visitor arrival forecasts. The estimates are based on an ETA fee of \$9 and \$25 IVL. Where both apply, \$34 will be collected from the affected visitors. This represents an increase in the cost-price of visiting New Zealand that range between 0.1 percent and 0.6 percent.

Our estimates of the possible impacts in 2021, relative to the MBIE forecast for that year, are 14,983 fewer visitors, \$51 million reduced spending by visitors while in New Zealand and a \$42 million smaller contribution to GDP by the tourism sector. This corresponds to lowering the rate of growth of inbound visitors from 32 percent to 30 percent over the forecast period 2018-2024.

By visitor origin, the estimates are as follows:

Australia: 28 percent of visitor arrivals

No impact

China: 14 percent of visitor arrivals

3,926 fewer visitors – \$15.1 million reduced spending and \$12.7 million less contribution to GDP

Japan: 3 percent of visitor arrivals

970 fewer visitors – \$2.7 million reduced spending and \$2.2 million less contribution to GDP

South Korea: 3 percent of visitor arrivals

944 fewer visitors – \$2.8 million reduced spending and \$2.3 million less contribution to GDP

United States: 10 percent of visitor arrivals

1,432 fewer visitors – \$6.2 million reduced spending and \$5.1 million less contribution to GDP

United Kingdom: 6 percent of visitor arrivals

527 fewer visitors – \$1.6 million reduced spending and \$1.4 million less contribution to GDP

Germany: 3 percent of visitor arrivals

355 fewer visitors – \$1.7 million reduced spending and \$1.4 million less contribution to GDP

Other countries: 26 percent of visitor arrivals

6,829 fewer visitors – \$20.4 million reduced spending and \$16.8 million less contribution to GDP

Key Findings

Results are shown compared to MBIE's forecast visitor arrivals for 2021. The reference year of 2021 was chosen to give an adequate opportunity for the market to fully respond to implementation of the proposed policies.

Table 1 summarises the possible impacts of a \$9 ETA fee and \$25 IVL; \$34 in total for visitors from South Korea, United States, United Kingdom and Germany who are affected by both. Where the ETA fee and IVL apply, the cost-price of visiting New Zealand increases by between 0.2 percent and 0.9 percent. The possible impacts in 2021, relative to the MBIE forecast for that year, are 14,983 fewer visitors, \$51 million reduced spending by visitors while in New Zealand and a \$42 million smaller contribution to GDP. This corresponds to a 2 percent drop in visitor arrivals compared to the MBIE forecast for 2021.

Table 1 | Results summary, 2021

	Australia	China	Japan	South Korea	United States	United Kingdom	Germany	Other	Total
Visitor arrivals, 000	1,673	616	124	115	452	273	127	1,147	4,388
%	38%	14%	3%	3%	10%	6%	3%	26%	100%
Average cost of travel, \$	\$1,079	\$1,729	\$2,659	\$3,128	\$2,751	\$4,372	\$4,152	\$2,484	
Average visitor Spend, \$	\$1,693	\$3,838	\$2,768	\$3,011	\$4,328	\$3,871	\$4,927	\$2,991	
Base cost-price, \$	\$2,772	\$5,566	\$5,427	\$6,138	\$7,078	\$8,243	\$9,079	\$5,475	
ETA fee	\$0	\$0	\$9	\$9	\$9	\$9	\$9	\$0	
IVL	\$0	\$25	\$25	\$25	\$25	\$25	\$25	\$25	
Total = cost-price increase	\$0	\$25	\$34	\$34	\$34	\$34	\$34	\$25	
% change in base price	0.0%	0.4%	0.6%	0.6%	0.5%	0.4%	0.4%	0.5%	
Wtd av elasticity	-0.57	-1.49	-1.29	-1.55	-0.69	-0.49	-0.78	-1.37	
% change in demand	0.0%	-0.7%	-0.8%	-0.9%	-0.3%	-0.2%	-0.3%	-0.6%	
Change in demand, No.	0	-3,926	-970	-944	-1,432	-527	-355	-6,829	-14,983
Change in spend, \$m	\$0.0	-\$15.1	-\$2.7	-\$2.8	-\$6.2	-\$2.0	-\$1.7	-\$20.4	-\$51.0
Change in GDP cont., \$m	\$0.0	-\$12.4	-\$2.2	-\$2.3	-\$5.1	-\$1.7	-\$1.4	-\$16.8	-\$42.0

Source: MBIE, IDAL analysis

■ Introduction

Policy makers and stakeholders in the New Zealand tourism sector are acutely interested in the number of inbound visitors arriving each year and how much tourists spend during their visit that contributes to New Zealand's economic performance. Arrivals and spending, along with length of stay and visitor intentions, are key determinants of the economic impacts of inbound tourism. In the context of the proposed policies, there is an interest in understanding how many potential visitors might be discouraged from travelling to New Zealand resulting in reduced visitor spending.

This report estimates the possible impact of the proposed International Visitor Levy and Electronic Travel Authority fee on inbound visitor numbers, their spending while in New Zealand and the contribution such spending makes to Gross Domestic Product (GDP).

At the time of writing, the proposed IVL and ETA fee were out for consultation. For the purpose of the report, a levy of \$25 and fee of \$9 has been assumed.

The levy and fee have the impact of raising the cost-price of visiting New Zealand for liable visitors by \$25 or \$34 depending on the citizenship of the visitor. Visitors who are citizens of countries who require a visa to enter New Zealand do not incur the ETA fee because it is already a component of the visa application fee. By international treaty, some visitors are exempt from the IVL, principally Australian residents.

The estimate of the reduction in international visitor demand that results from the increase in the cost-price of visiting New Zealand is based on an economic model employing a constant price elasticity of demand. Put simply, this model says that if the cost-price of visiting New Zealand rises (all other things being equal) some potential visitors will be discouraged. The expenditure they would otherwise make in New Zealand is thus lost to the tourism industry, and the value added in that spending is a loss to the New Zealand economy. Visitors who are not discouraged from visiting New Zealand are assumed to absorb the cost-price rise.

■ Approach

Theoretical Underpinnings

Economic theory of markets (micro-economics) postulates that demand for goods and services is negatively related to price (higher price means reduced demand), positively related to income, and may be either positively or negatively related to other influences such as airline capacity, distance from destination and the "price" of alternative competing destinations. Factors other than economics have an influence on travel decisions and influence how responsive potential visitors will be to price or income changes. For example, holiday makers have much more flexibility in their choice of destinations than do visitors whose purpose for travelling is for business meetings and conferences, to visit friends and relatives, or to further their education.

The concept of "elasticity" is used to describe the responsiveness of one economic variable to changes in another. Formally, elasticity is the ratio of the percentage change in a "dependent" variable such as demand to a percentage change in another "explanatory" variable such as price, and may be a positive or negative number:

- An elasticity greater than one (>1) in absolute value indicates that the dependent variable is elastic when compared to changes in the explanatory variable, i.e., price-sensitive when the explanatory variable is price. An increase in the price of price-sensitive goods and services will cause a greater proportionate reduction in demand.
- Conversely an elasticity less than one (<1) in absolute value indicates price insensitivity. An increase in the price of price-insensitive goods and services will cause a less than proportionate reduction in demand.

Few estimates of the demand elasticity estimates for New Zealand inbound tourism have been made. Schiff and

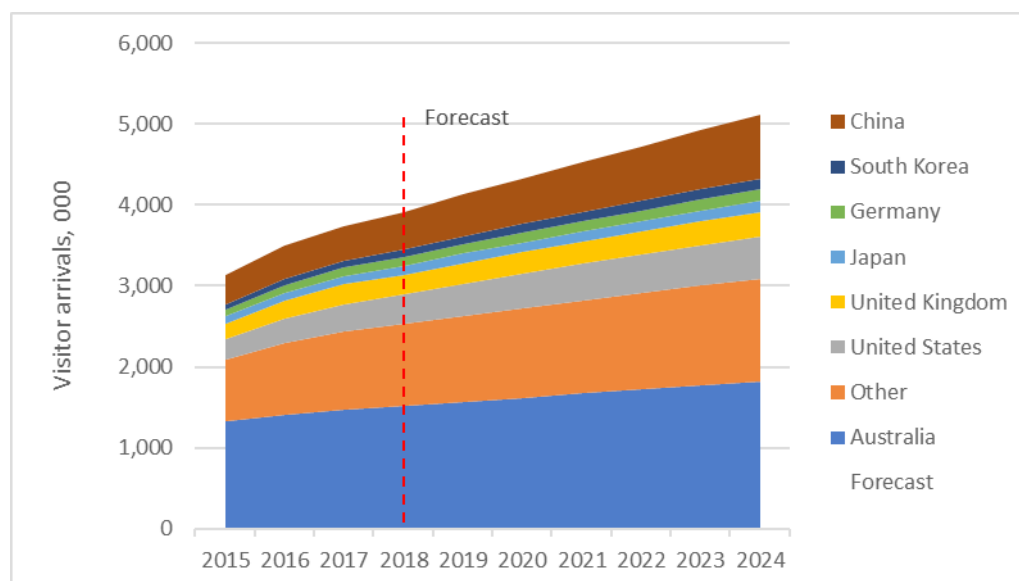
Becken (2011) estimated price elasticities for arrivals and in-country visitor spending on tourism goods and services based on annual data from 1997 to 2007. In this context the "price" of visiting New Zealand is estimated by the cost of air travel to New Zealand and visitor expenditure while in New Zealand.

Using Schiff and Becken's elasticity estimates we can calculate the numbers of visitors from each country who will no longer travel to New Zealand because of the cost-price increase caused by the IVL and ETA fee. This is the reduction in demand for visits to New Zealand. The consequential impact of a discouraged visitor is the loss of the amount that visitor would have spent while visiting and the contribution that spending would have made to GDP (82 percent on average according to StatsNZ (2016)).

Data Sources

MBIE (2018) contains forecasts of visitor arrivals segmented by intention for 2018 - 2024. The intention categories are business, holiday, visiting friends and relatives (VFR) and other (e.g., crew, education etc.). Cruise ship visitors are not separately identified. Visitors are classified by country of origin. Corresponding as closely as possible to the IVL and ETA fee scheme, and available elasticity estimates, we have used eight origin countries (from Australia, China, Japan, South Korea, United States, United Kingdom and Germany) and an "other" category (see below). The forecasts include as well as numbers of visitors, the amount visitors are forecast to spend during their visit. These forecasts provide the base drivers for our estimates. We have not made any assessment of the forecasts merely assumed they are a reasonable expectation of future visitor intentions and spending trends.

Figure 2 | International Visitor Arrival Forecasts 2018-2024



Source: MBIE(2018)

No separation is possible for visitors whose citizenship does not correspond to country of origin. For example, Australian residents who are not Australian citizens would be liable for the IVL although the levy does not apply to "Australians".

Repeat visitors from the same country do not pay ETA fee and IVL on their second and subsequent visits during the duration of their visa or, in the case of ETA, a proposed two-year duration. This has been estimated based on the limited available information on repeat visitors with a 5 percent of visitor default for countries where information or repeat visitations is not available.

As noted above, Schiff and Becken contains the best available estimates of tourism demand elasticities for New Zealand. The elasticities estimated are assumed to be constant at all prices. Schiff and Becken's elasticity estimates have several limitations that we have correct for in the following ways:

- Estimates of demand elasticities are provided for visitors from Australia, China, Japan, South Korea, United States, United Kingdom and Germany which together account for 74 percent of visitor arrivals based on 2017. For the remaining visitors it is assumed that their response to price changes is as great as the highest elasticity estimated by Schiff and Becken for an origin country (China).
- No information is available to distinguish cruise ship visitors.
- Where Schiff and Becken have elasticities for more than one sub-category of travel intention (such as free independent holiday as well as tour package holidaymakers) and there is no corresponding segmentation in the MBIE visitor number forecasts, we have used the elasticity with the highest absolute value for the whole category. This is a conservative approach.
- No estimates of the price elasticity for visitors whose purpose is business or other than holiday and visiting friends and relatives. Estimates for the demand elasticity for business travellers made by TRA (2011) for business visitors to Australia have been substituted for the business and other visitor category.
- No estimates of price elasticities for visitors from "other" countries. We have used the highest price elasticity estimated (China) as a proxy for visitors from other countries.

On a technical note, Schiff and Becken's estimates have large standard errors relative to the estimated elasticity values. The standard error is a measure of the precision with which the estimate approximates the true value and would be smaller if a bigger sample size was available. In the absence of further corroborating research, a cautious approach is demanded. We have set a 95 percent prediction interval to incorporate this uncertainty about the spread of inbound tourism demand impacts.

Table 3 | Price Elasticity Estimates

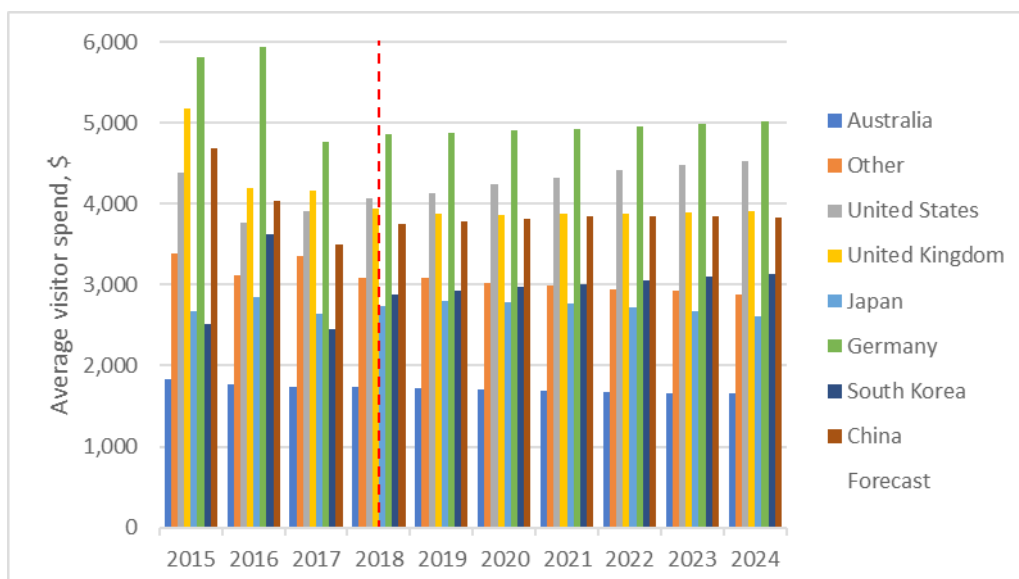
Visitor segment	Price elasticity	Standard error	95% prediction interval	
Australia				
FIT holiday	-0.26	0.11	-0.04	-0.48
FIT VFR	-1.05	0.42	-0.23	-1.87
Tour package	-0.31	0.13	-0.06	-0.56
China				
FIT holiday	-1.65	0.73	-0.22	-3.08
Tour package	-1.09	0.55	-0.01	-2.17
Japan	-1.55	0.48	-0.61	-2.49
South Korea	-1.75	0.64	-0.50	-3.00
United States				
FIT holiday	-0.29	0.12	-0.05	-0.53
Tour package	-0.78	0.17	-0.45	-1.11
United Kingdom	-0.52	0.25	-0.03	-1.01
Germany	-0.87	0.41	-0.07	-1.67

Source: Schiff and Becken (2011)

The next consideration is what base "cost-price" is relevant to prospective inbound visitors? The price of inbound tourism is situational, multi-dimensional and not directly observable. The price represents a bundle of goods and services that is almost unique to each visitor comprising international and domestic travel, accommodation, sustenance, experiences, and souvenir purchases etc. Tourism marketing practitioners believe that potential visitors facing such complexity focus their attention on the larger cost items, particularly airfares, accommodation and "tour packages". Witt and Martin (1987) argue that exchange rates are likely to play a proxy price role, as potential tourists are more readily able to inform themselves about exchange rates than about the plethora of destination prices. We have taken the average visitor forecast spend in New Zealand and included return airfares as a proxy for the cost-price faced by visitors.

The base cost-price of visiting New Zealand was estimated from two elements. The MBIE forecast of average spending in New Zealand by visitor arrivals and a proxy for the cost of travelling to New Zealand. Figure 2 shows the forecast spending by visitor arrivals.

Figure 4 | International Visitor Spending Forecasts 2018-2024



Source: MBIE(2018)

A proxy for the cost of travelling to New Zealand was derived from return airfares measured at June 2018 for return travel from the ports of origin shown in Table 5. The return airfares have been escalated at 0.6 percent per annum, the average rate of inflation of airfares over the past twenty years (according to the U.S. Bureau of Labor Statistics).

Table 5 | Base Cost-Price Estimates Airfare. June 2018

Origin Country	Origin Port	Median return airfare (NZD)	Airline
Australia	Sydney	\$1,060	Air NZ
China	Beijing	\$1,698	Air China
Japan	Tokyo	\$2,612	Air NZ
South Korea	Seoul	\$3,072	Korean Air
United States	Los Angeles	\$2,702	United
United Kingdom	London	\$4,294	Emirates
Germany	Frankfurt	\$4,152	Emirates
Other	Mumbai	\$2,484	Cathay Pacific

Source: googleflights.com

Table 6 summarises the base cost-price estimates.

Table 6 | Base Cost-Price Estimates. June 2018

	Australia	China	Japan	South Korea	United States	United Kingdom	Germany	Other	Total
Visitor arrivals, 000	1,673	616	124	115	452	273	127	1,147	4,388
%	38%	14%	3%	3%	10%	6%	3%	26%	100%
Average cost of travel, \$	\$1,079	\$1,729	\$2,659	\$3,128	\$2,751	\$4,372	\$4,152	\$2,484	
Average visitor spend, \$	\$1,693	\$3,838	\$2,768	\$3,011	\$4,328	\$3,871	\$4,927	\$2,991	
Base cost-price, \$	\$2,772	\$5,566	\$5,427	\$6,138	\$7,078	\$8,243	\$9,079	\$5,475	
Cost of travel, \$000m	\$1,806	\$1,064	\$330	\$361	\$1,244	\$1,192	\$527	\$2,849	\$9,374
Visitor spend, \$000m	\$2,833	\$2,363	\$344	\$348	\$1,957	\$1,055	\$626	\$3,430	\$12,956
Total, \$000m	\$4,639	\$3,427	\$674	\$709	\$3,201	\$2,247	\$1,153	\$6,279	\$22,329

Source MBIE, IDAL

Cost-price increases vary country by country according to the proposed application of the IVL and ETA fee. For example, visitors who require a visa to enter New Zealand do not incur the ETA fee since visa fees already include the processing cost. Visitors from certain countries will not pay the IVL because of pre-existing immigration treaties. The following Table 7 shows the scheme of application of ETA fee and IVL that are the increase in price facing visitors from overseas.

Table 7 | Application of ETA fee and IVL

Origin Country ¹	ETA	IVL	Combined levy
Australia	No	No	\$0
China	No	Yes	\$25
Japan	Yes	Yes	\$34
South Korea	Yes	Yes	\$34
United States	Yes	Yes	\$34
United Kingdom	Yes	Yes	\$34
Germany	Yes	Yes	\$34
Other	No	Yes	\$25

Note: ¹ Depending on citizenship.
Source: MBIE

Repeat visitors within the duration of their visa or ETA (proposed two years) has been estimated based on the limited available information on repeat visitors with a 5 percent default for countries where information is not available (applicable from the second and subsequent year the levy and fee are in force. Thus, on average 95 percent of liable visitors are assumed to be affected by the fee and levy after the initial year.

Results

The point elasticity method was used to calculate changes in demand.

Table 8 shows how much the ETA fee and IVL increase the cost-price to travel to New Zealand as a percentage. The resulting change in visitor demand is the product of the cost-price increase and the weighted-average demand elasticity for the country of origin. The change in visitor demand is translated to a reduction in the number of visitors. Multiplying the number of discouraged visitors by the average spend in New Zealand of visitors from that origin country provides an estimate of the possible reduction in spending in New Zealand as a result of the introduction of the ETA fee and IVL.

Table 8 | Changes in Visitor Demand by Origin Country, 2021

	Australia	China	Japan	South Korea	United States	United Kingdom	Germany	Other	Total
Visitor arrivals, 000	1,673	616	124	115	452	273	127	1,147	4,388
%	38%	14%	3%	3%	10%	6%	3%	26%	100%
Average cost of travel, \$	\$1,079	\$1,729	\$2,659	\$3,128	\$2,751	\$4,372	\$4,152	\$2,484	
Average visitor Spend, \$	\$1,693	\$3,838	\$2,768	\$3,011	\$4,328	\$3,871	\$4,927	\$2,991	
Base cost-price, \$	\$2,772	\$5,566	\$5,427	\$6,138	\$7,078	\$8,243	\$9,079	\$5,475	
ETA fee	\$0	\$0	\$9	\$9	\$9	\$9	\$9	\$0	
IVL	\$0	\$25	\$25	\$25	\$25	\$25	\$25	\$25	
Total = cost-price increase	\$0	\$25	\$34	\$34	\$34	\$34	\$34	\$25	
% change in base price	0.0%	0.4%	0.6%	0.6%	0.5%	0.4%	0.4%	0.5%	
Wtd av elasticity	-0.57	-1.49	-1.29	-1.55	-0.69	-0.49	-0.78	-1.37	

% change in demand	0.0%	-0.7%	-0.8%	-0.9%	-0.3%	-0.2%	-0.3%	-0.6%	
Change in demand, No.	0	-3,926	-970	-944	-1,432	-527	-355	-6,829	-14,983
Change in spend, \$m	\$0.0	-\$15.1	-\$2.7	-\$2.8	-\$6.2	-\$2.0	-\$1.7	-\$20.4	-\$51.0
Change in GDP cont., \$m	\$0.0	-\$12.4	-\$2.2	-\$2.3	-\$5.1	-\$1.7	-\$1.4	-\$16.8	-\$42.0

Source: MBIE, StatsNZ, IDAL Analysis.

Our estimates of the possible impacts in 2021, relative to the MBIE forecast for that year, are 14,983 fewer visitors, \$51 million reduced spending by visitors while in New Zealand and a \$42 million smaller contribution to GDP by the tourism sector (see Table 6). By visitor origin, the estimates are as follows:

- Australia, 28 percent of visitor arrivals, no impact
- China, 14 percent of visitor arrivals, 3,926 fewer visitors, \$15.1 million reduced spending and \$12.7 million less contribution to GDP.
- Japan, 3 percent of visitor arrivals, 970 fewer visitors, \$2.7 million reduced spending and \$2.2 million less contribution to GDP.
- South Korea, 3 percent of visitor arrivals, 944 fewer visitors, \$2.8 million reduced spending and \$2.3 million less contribution to GDP.
- United States, 10 percent of visitor arrivals, 1,432 fewer visitors, \$6.2 million reduced spending and \$5.1 million less contribution to GDP.
- United Kingdom, 6 percent of visitor arrivals, 527 fewer visitors, \$1.6 million reduced spending and \$1.4 million less contribution to GDP.
- Germany, 3 percent of visitor arrivals, 355 fewer visitors, \$1.7 million reduced spending and \$1.4 million less contribution to GDP.
- Other countries, 26 percent of visitor arrivals, 6,829 fewer visitors, \$20.4 million reduced spending and \$16.8 million less contribution to GDP.

Table 9 elaborates the change in demand by visitor intention. The greatest effect is consistently on holiday visitors who face more choice about visiting New Zealand than visitors with other intentions.

Table 9 | Changes in Demand by Intention and Origin Country, 2021

	Australia	China	Japan	South Korea	United States	United Kingdom	Germany	Other
Percentage change in visitors								
Holiday	0.0%	-0.7%	-1.0%	-1.0%	-0.4%	-0.2%	-0.3%	-0.8%
VFR	0.0%	-0.7%	-1.0%	-1.0%	-0.4%	-0.2%	-0.3%	-0.8%
Cruise	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Business & other	0.0%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Total	0.0%	-0.7%	-0.8%	-0.9%	-0.3%	-0.2%	-0.3%	-0.6%
Change in numbers of visitors								
Holiday	0	-3,284	-830	-804	-1,062	-244	-293	-4,525
VFR	0	-576	-105	-122	-295	-261	-47	-2,081
Cruise	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Business & other	0	-66	-34	-18	-75	-22	-15	-223
Total	0	-3,926	-970	-944	-1,432	-527	-355	-6,829
95% prediction interval	± 0	± 3,600	± 700	± 700	± 900	± 600	± 400	± 6,700

Source: IDAL Analysis.

Over the forecast period 2018-2024, the effect of the proposed IVL and ETA fee on growth in inbound visitor numbers is to reduce the projected 32 percent growth by two percentage points to 30 percent, as shown in Table 10.

Table 10 | Effect of IVL and ETA levy on Visitor Arrival Growth 2018-2024

	Australia	China	Japan	South Korea	United States	United Kingdom	Germany	Other	All
MBIE forecast growth	20%	81%	32%	30%	46%	22%	38%	27%	32%
With IVL & ETA	20%	74%	26%	23%	43%	21%	36%	22%	29%
Change in visitor arrival growth	0%	-7%	-7%	-7%	-3%	-1%	-2%	-5%	-3%

Source: IDAL Analysis.

The government has not determined the level of IVL and is consulting on a range of \$25 to \$35. The following Table 11 shows the sensitivity of the impacts to higher IVL. A \$30 IVL would reduce inbound visitor numbers by 17,765 (instead of 14,983) resulting in \$60.4 million less expenditure (instead of \$51.0 million).

Table 11 | Sensitivity of impacts to higher IVL, 2021

IVL	Drop in demand	Visitor No.	Spending
\$25	-0.3%	-14,983	-\$51.0
\$30	-0.4%	-17,756	-\$60.4
\$35	-0.5%	-20,529	-\$69.8

Source: IDAL Analysis.

■ Caveats and Limitations

The basis for the estimates presented in this report is a very simple application of standard microeconomic theory about how markets respond to small changes in cost-price taken in isolation from other influences in travel decisions. Other factors in the current travel environment (such as high oil prices) or trends in the economies of the origin countries may also affect the response to a new levy on visitors by amplifying or dampening the impact. It is possible that other positive or negative macroeconomic factors could outweigh any effect from the proposed IVL and ETA fee.

We have assumed that the effect of the IVL and ETA fee is on a change in visitor numbers, and that those who are not discouraged New Zealand do not change their behaviour and spending while in New Zealand. In other words, visitors absorb the IVL and ETA fee without reducing their spending on travel. There is no information on which to base estimates of changed behaviour by those whose travel decisions is unaffected. There is some evidence that visitors make their travel decisions based on the total cost-price (the airfare and spending).

Travel costs are not differentiated the travel costs by purpose of visit. To the extent that more price sensitive travellers choose lower-cost travel options it is possible that the sensitivity of such groups may be at the larger end of ranges estimated. Holidaymakers from Asian countries are potentially the most sensitive. Conversely the decrease in less price-sensitive groups (business and other), who may pay above average ticket prices will be lower.

The price elasticities are based on relatively old data and assume constant elasticity of demand. If prices have changed significantly in the intervening period they may no longer be accurate.

■ Conclusion

This report estimates the possible impact of the proposed IVL and ETA fees on inbound visitor numbers, their spending while in New Zealand and the contribution such spending makes to Gross Domestic Product (GDP). For the report, a levy of \$25 and ETA fee of \$9 has been assumed.

The levy and fee have the impact of raising the cost-price of visiting New Zealand for liable visitors by \$25 or \$34 depending on the citizenship of the visitor. Visitors who are citizens of countries who require a visa to enter New Zealand do not incur the ETA fee because it is already a component of the visa application fee. By international treaty, some visitors are exempt from the IVL, principally Australian residents.

The estimate of the reduction in international visitor demand that results from the increase in the cost-price of visiting New Zealand is based on an economic model employing a constant price elasticity of demand. Put simply, this model says that if the cost-price of visiting New Zealand rises (all other things being equal) some potential visitors will be discouraged. The expenditure they would otherwise make in New Zealand is thus lost to the tourism industry, and the value added in that spending is a loss to the New Zealand economy. Visitors who are not discouraged from visiting New Zealand are assumed to absorb the cost-price rise.

The possible impacts in 2021, relative to the MBIE forecast for that year, are estimated to be 14,983 fewer visitors, \$51 million reduced spending by visitors while in New Zealand and a \$42 million smaller contribution to GDP by the tourism sector. The greatest effect is on holiday visitors who face more choice about visiting New Zealand than visitors with other intentions.

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