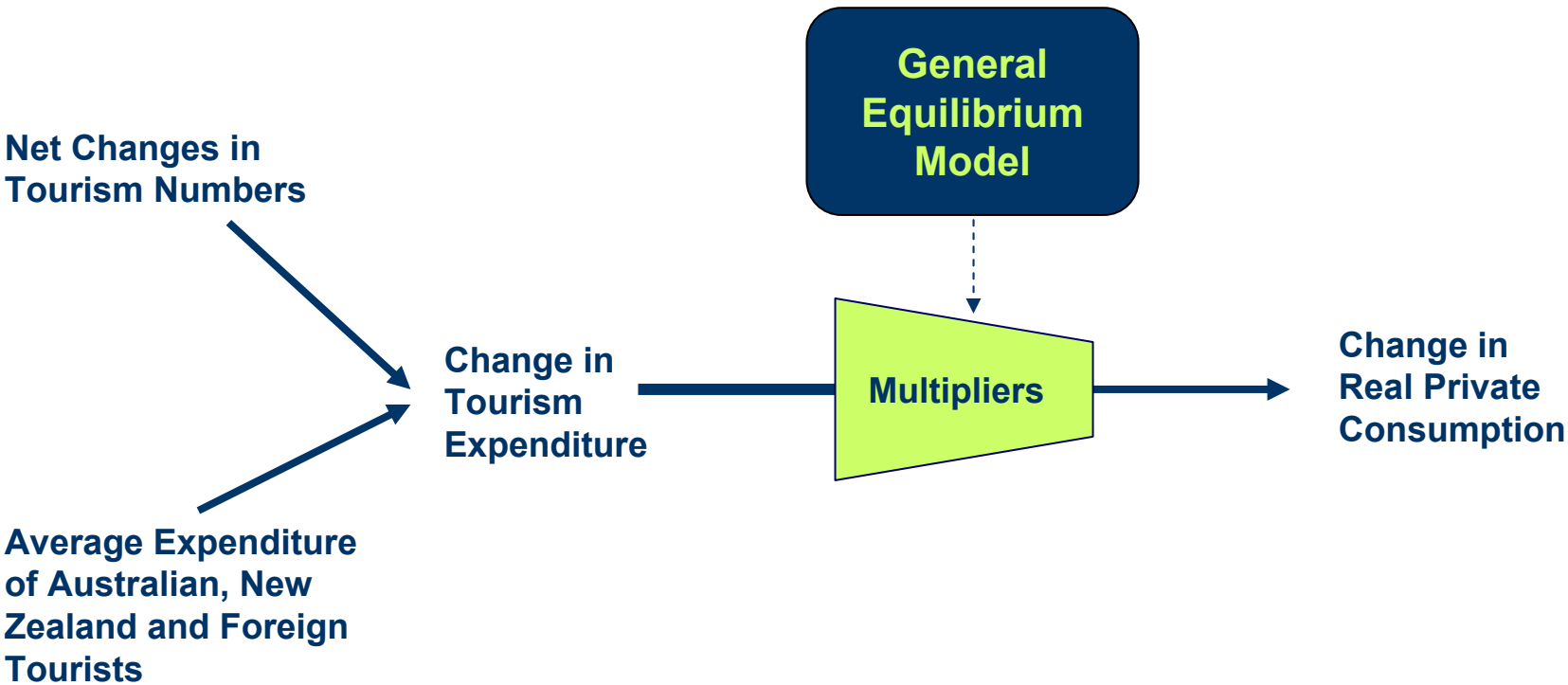
Welfare Benefits of Tourism Expansion

Overview

Multipliers derived from a general equilibrium model were used to estimate the welfare gains to New Zealand associated with the projected expansion in tourism



Tourist Numbers: Market Growth

Air New Zealand's greater capabilities, Qantas Holidays' initiatives and improvements in promotional effectiveness will attract 63,000 new tourists to NZ

Source	QH Plan	Promotional Effectiveness	Total
Australia	14,000	-	14,000
Foreign	36,000	13,300	49,000
Total	**50,000**	**13,300**	**63,300**

Tourism Numbers: Expansion

The 63,000 tourists are *additional* to existing tourist numbers, and will not come from share gain at the expense of other suppliers

Why Will Tourist Numbers Increase?

- **New and better products** will increase total demand in existing markets: improved itineraries (incl. dual destination), better schedules, more choice
- **New segments** that are not currently being adequately catered for will be opened up with **targeted promotion and** packages tailored to their interests
- **Under-developed geographical markets** will be opened up through better network connectivity and wider distribution of NZ product
- **Raised awareness** through greater promotion and increased sales presence creates larger pool of potential customers
- **Off-peak and shoulder periods** will be targeted, diverting tourists from other destinations that they would traditionally visit at that time
- **Special event deals** and promotion, creating to new demand (eg Welsh rugby fans who would not otherwise dream of visiting NZ)
- **Lower prices** for many itineraries due to more economical routing (no backtracking) and online flights

Tourist Numbers: Price & Capacity Effects

The impact of possible price and capacity effects on tourist numbers was considered under two different

Assumption	Modelled	Alternative
Impact of VBA entry on prices of other players	Much weaker in F than CF	Same in F and CF
Pass through of cost savings to consumers	Zero	Significant
Pricing discipline greatest in most elastic segments	No	Yes
F vs CF price level	***3.4% higher***	***2% lower***

Tourism Numbers: Price & Capacity Effects

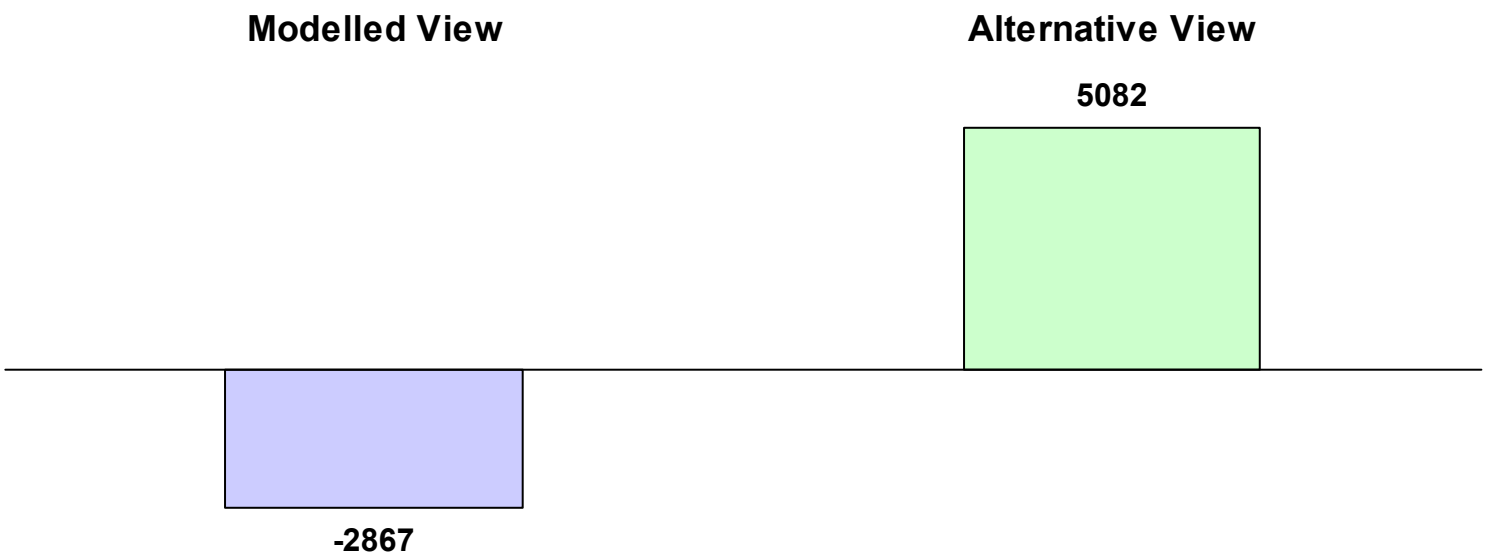
Empirical studies on airline alliances consistently find that major alliances result in lower prices

- Oum, Park and Zhang (2000) found that major strategic alliances reduce average yields by **5.5%**
- Bamberger, Carlton and Neumann (2001) found that:
  - The Continental / America West alliance resulted in an **8.4%** reduction in average fares
  - The Northwest / Alaska alliance resulted in a **3.9%** reduction in average fares
- Bruekner (2003) found that codesharing on international airline itineraries reduced fares by **8-17%**

Tourism Numbers: Price & Capacity Effects

Changes to tourism flows were modelled under each world view

Price & Capacity Impacts on Tourism Numbers
(Thousands of Tourists in Year 3)

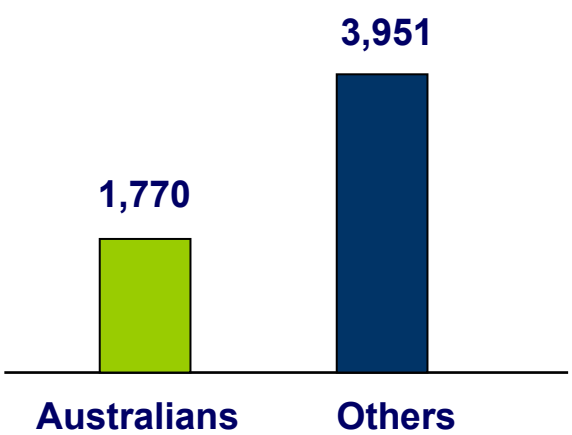


Average Expenditure

Conservative estimates of tourist expenditure were used, given that non-group package visitors spend significantly more than the average visitor

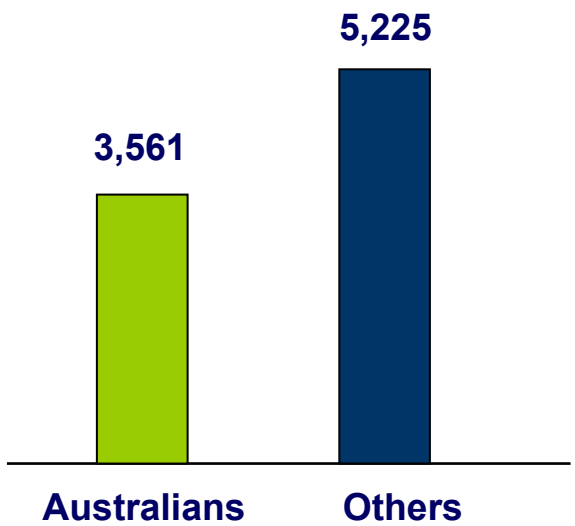
Average Expenditure of All Visitors to New Zealand

($NZ)



Average Expenditure of Non-Group Package Visitors to New Zealand

($NZ)



Source: International Visitor Survey, 12 months to June 2002, Tourism New Zealand

Modelling of Welfare Gains

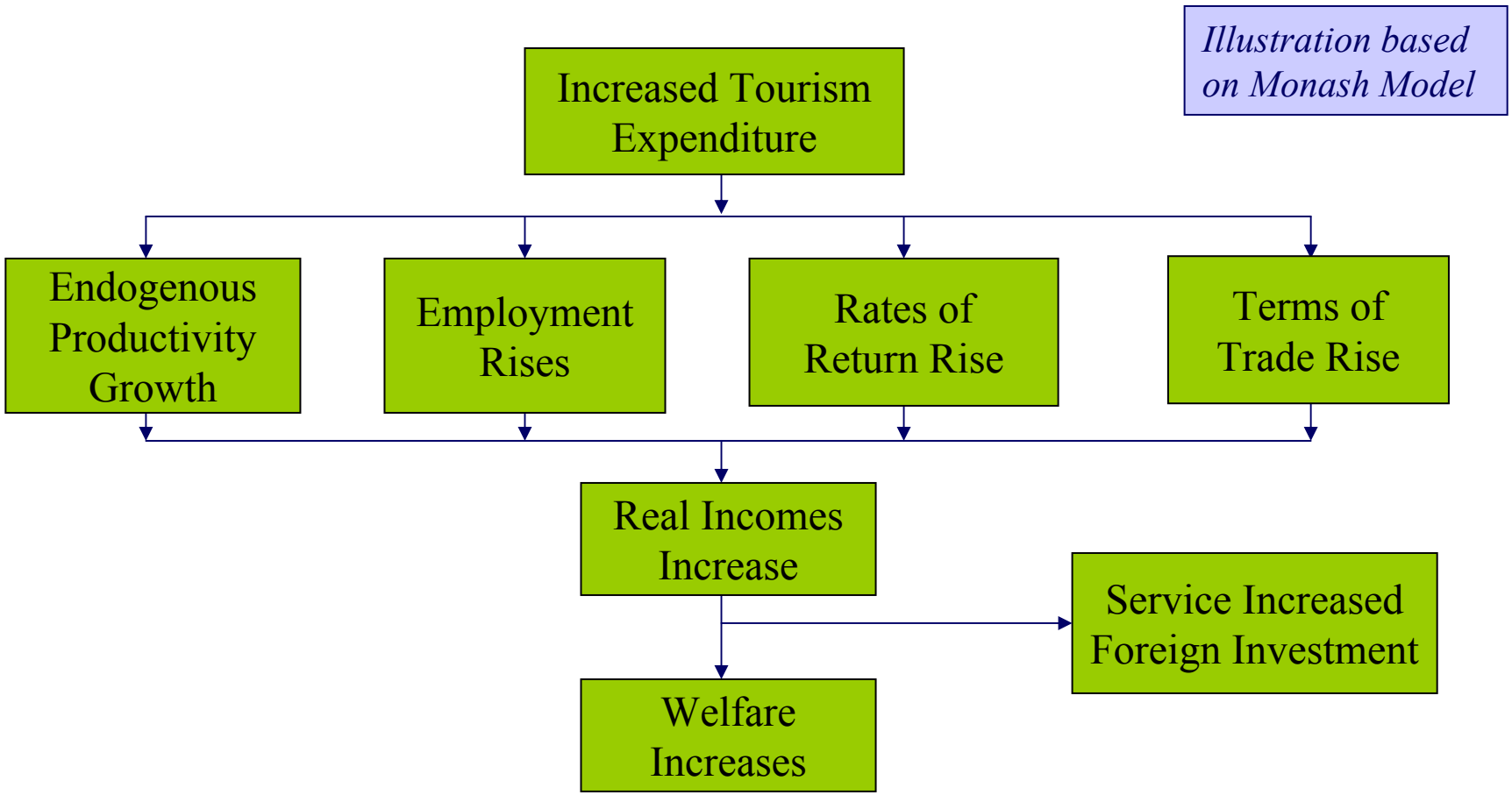
A number of important choices were made in developing an approach to estimating the welfare gains generated by the expansion in tourism

Consideration	Approach Adopted	Reasons
Type of model	Computable General Equilibrium Model	• Takes into account the additional resources needed to achieve the expansion in tourism • Captures both direct and indirect effects
Treatment of labour	Sticky real wages in the short term; flexible real wages in the longer term	• Consistent with: – Advice obtained from Prof. Peter Dixon – Budget predictions that unemployment will rise to 5.6% in 2006* • Standard application of model
Conversion of model results into multipliers	Multiplier calculated as Real Consumption gain / Increase in Tourism Export	• Multipliers allow CGE model results to be applied to different scenarios without re-running model • Assumes linear relationship between Real Consumption gain and changes in tourist expenditures
Form of closure	Tax rates endogenous	• Facilitates use of real consumption as welfare measure as foreigners fund increased investment

*Hon Dr. Michael Cullen, Minister of Finance, Budget 2003, Fiscal Strategy Report, 15 May 2003, Table A4.1

What Drives Welfare Gains

Increase tourism expenditure creates welfare gains through a number of effects



Modelling of Welfare Gains

Three different general equilibrium models were used to estimate welfare associated with an expansion in tourism

Overview of General Equilibrium Models Used

Model	Description	Assessment
Infometrics	• Model of NZ economy • Incorporates a tourism sector • Comparative static model – difficult to provide time profile of impacts	• Sensitive to parameter settings • Suitable for estimating benefits in early years
Monash Model	• CGE model developed by Prof Peter Dixon to analyse policy issues in Australian Economy • Dynamic model, extensively used, explicit calculation of welfare	• Considered the most appropriate model for present purposes
GTEM	• ABARE's dynamic model for policy analysis • No tourism sector • ABARE needed more time to ensure data consistency and finalise results	• ABARE prefers use of real GNP as welfare measure • Results similar to Monash, but indicative only

Modelling of Welfare Gains

Each model produces a set of multipliers that can be used to convert changes in tourism expenditure into changes in real consumption

Tourism Multipliers Generated by Each Model

($ real consumption / $ increase in tourism expenditure)

Model	**Real consumption Multipliers**		**Timeframe**
	Export Expansion (Inbound Tourism)	Domestic Tourism Expansion	
Infometrics	1.5	0.9	Short run result for 2004-05
Monash	1.0	0.5	Average 5 years to 2007

Tourism Impact

Real consumption impacts were calculated for each scenario using the multipliers produced by the models

Estimates of Gain in Real Consumption
($ million in Year 3)

Source	Modelled View	Alternative View
Infometrics	132.9	436.8
Monash	73.2	314.2

Under a highly pessimistic view of the Alliance's impact on prices, the Monash model indicates a net gain in real consumption of $73.2m

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