

# Air travel statistics and modelling



# We have analysed a range of air travel data

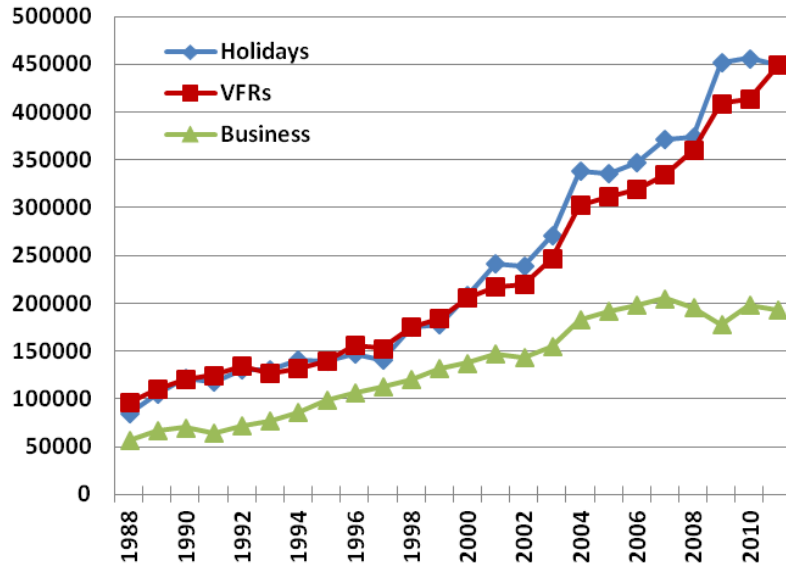


- ▶ International arrivals and departures by air for different travel purposes
- ▶ Domestic air passenger travel
- ▶ Domestic aircraft-kilometres travelled
- ▶ Domestic air passenger-kilometres travelled

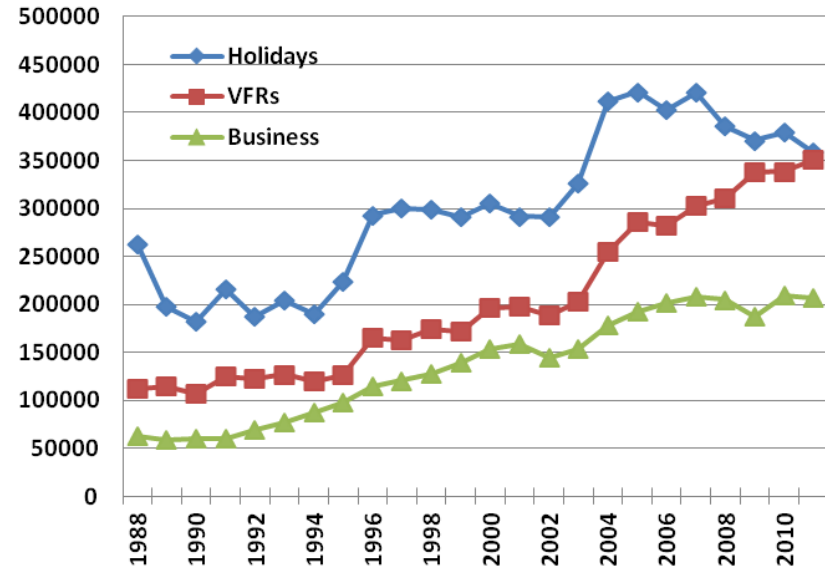
# Australia is our largest international market



(a) Australian visitors



(b) New Zealanders visiting Australia



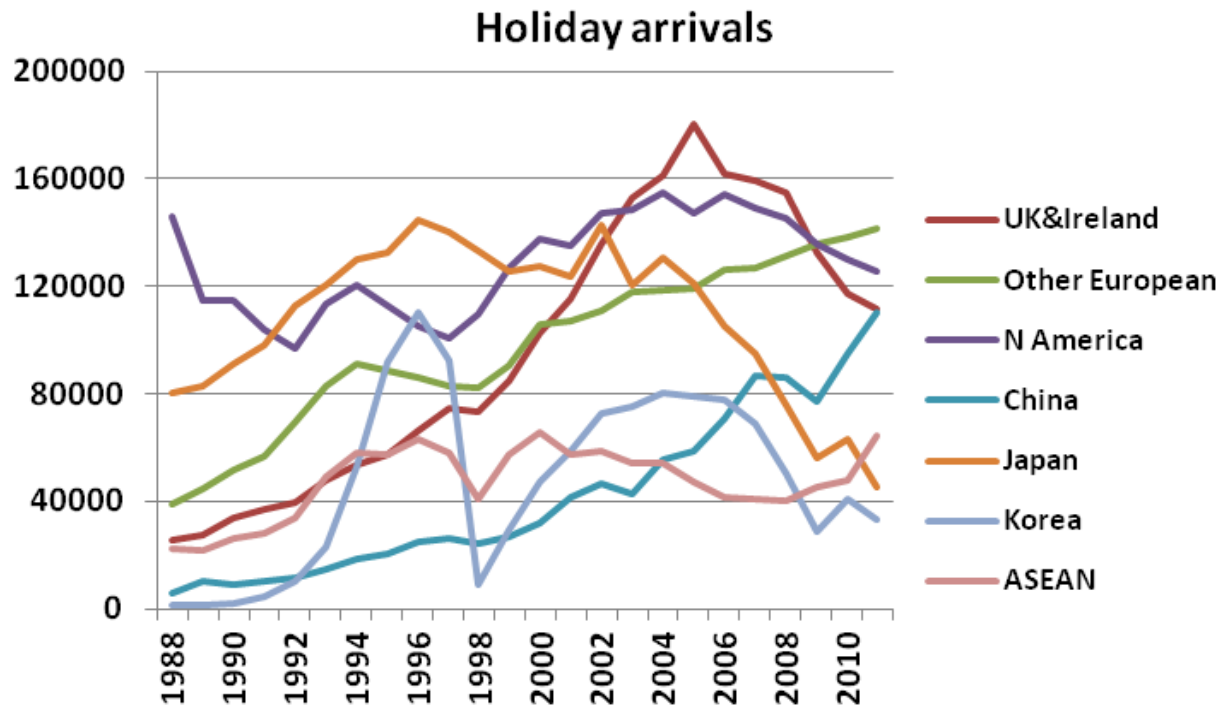
- ▶ Over 40% market share
- ▶ Still expanding

VFRs = visiting friends and relatives

# Other key international markets – a mixed picture



- ▶ International arrivals from traditional markets have been down
- ▶ International arrivals from China and other emerging markets have increased rapidly

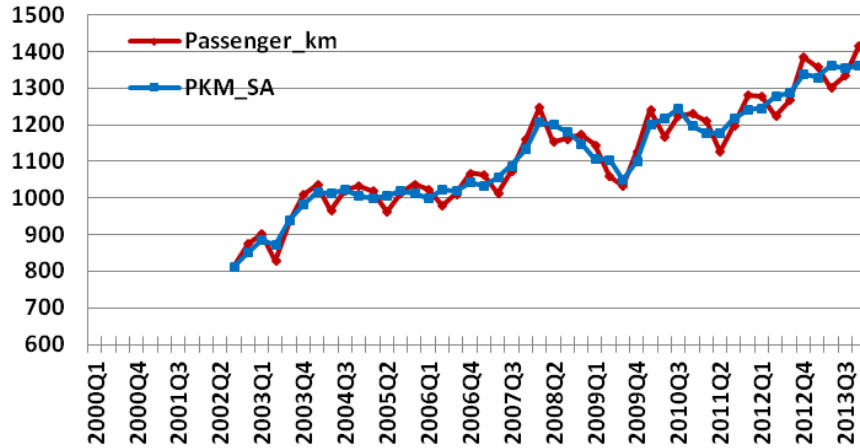


# Domestic air travel data and trends

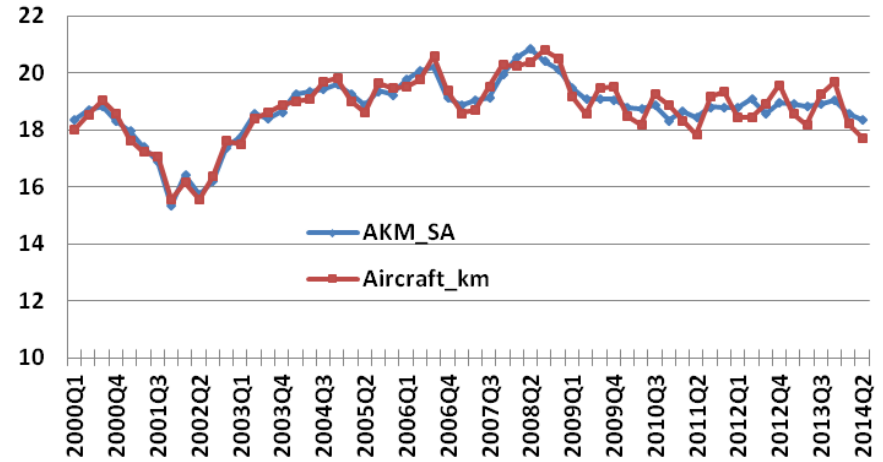


- ▶ Domestic air passenger-kms travelled are still increasing
- ▶ Domestic aircraft-kms travelled have been relatively stable in recent years

Domestic air passenger-km travelled, million



Domestic aircraft-km travelled, million



- ▶ Note: blue lines show seasonally adjusted data

# Air travel modelling – key drivers



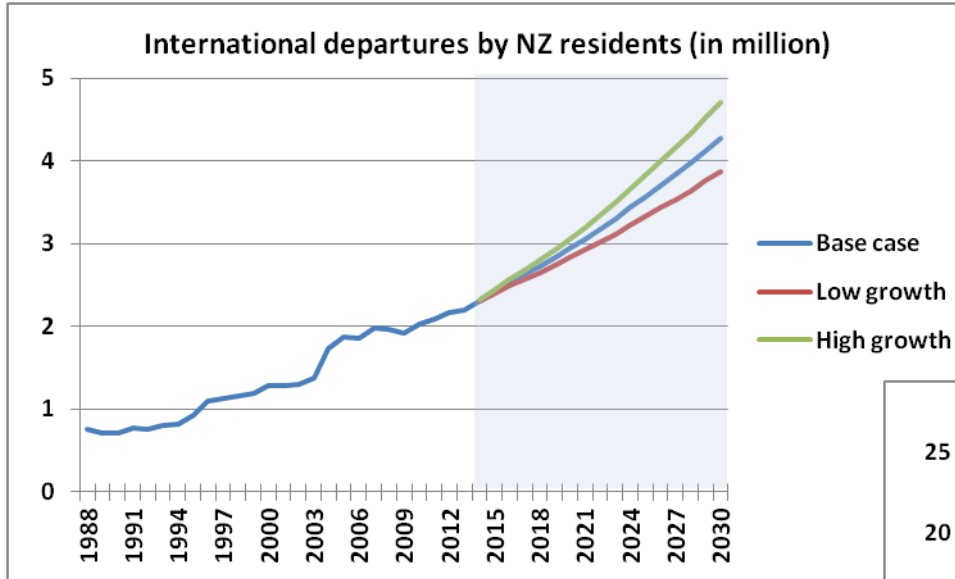
We have studied the key drivers of international air travel

- ▶ Real GDP per capita is the most important factor

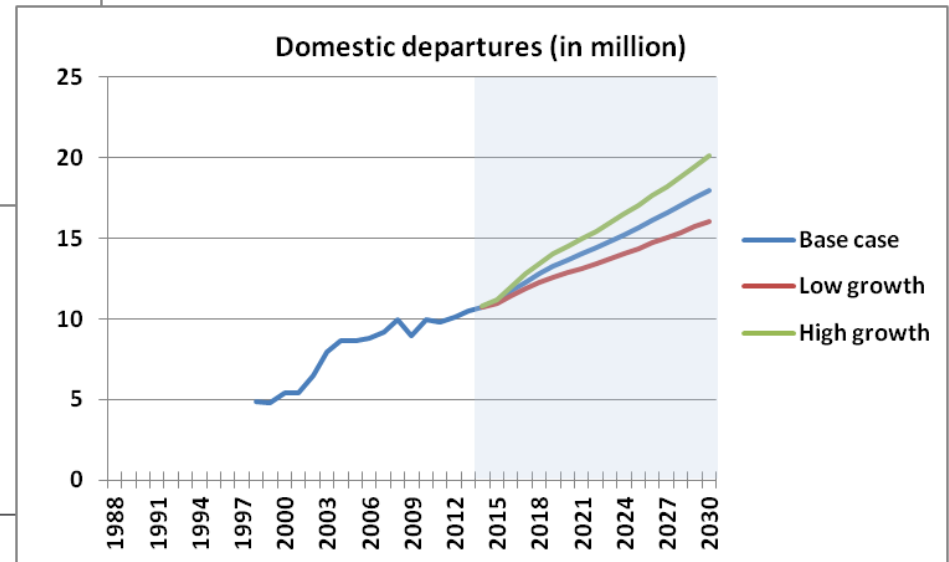
			PCGDP	Trade openness	Exchange rate	Crude oil price	RCPI
<b>Australia</b>	Australian resident arrivals	Holidays	1st		3rd		1st
		VFRs	1st		3rd		1st
		Business	1st			2nd	
	NZ resident departures	Holidays	1st		3rd		2nd
		VFRs	1st				
		Business	1st	2nd			
<b>ASEAN</b>	ASEAN resident arrivals	Holidays	1st		3rd	2nd	
		VFRs	1st				2nd
		Business	1st			2nd	
	NZ resident departures	Holidays	1st	3rd	1st		
		VFRs	2nd	1st	2nd		
		Business	2nd	1st		2nd	

Ranking key: 1<sup>st</sup>  2<sup>nd</sup>  3<sup>rd</sup>

# Air travel forecasting



We have developed a forecast model for both international departures by NZ residents and total domestic air departures



# Future forecasting work



## We will develop forecasting models for

- ▶ Domestic aircraft-kilometres travelled
- ▶ Domestic air passenger-kilometres travelled
- ▶ Domestic air travel energy demand and greenhouse gas emissions
- ▶ International air freight travel



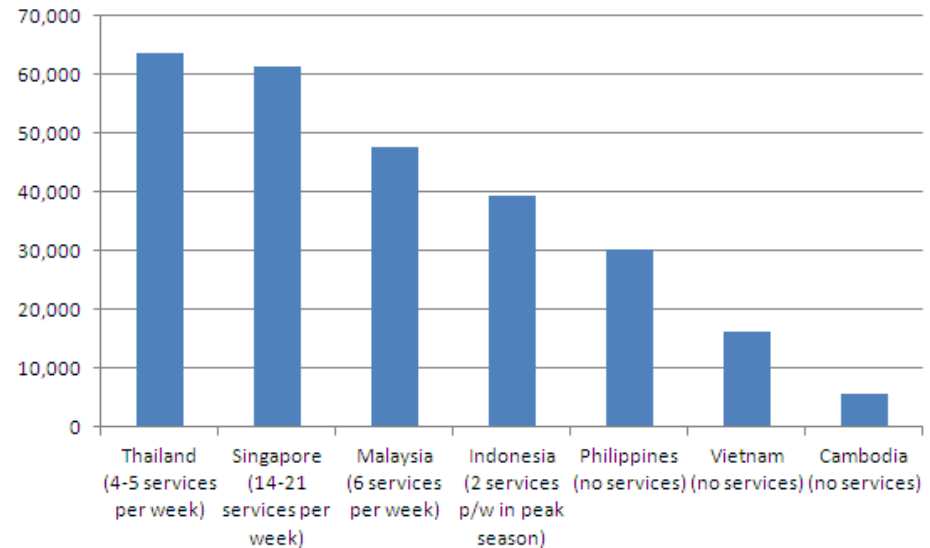
# Better data leads to better decision making – Example 1



## *Air services agreements*

- ▶ The Ministry negotiates air services agreements on the government's behalf.
- ▶ We use the international travel and migration database to determine priority countries to negotiate with where the potential for additional air services is greatest.

Market size and current air services between New Zealand and South East Asia (2013 data)

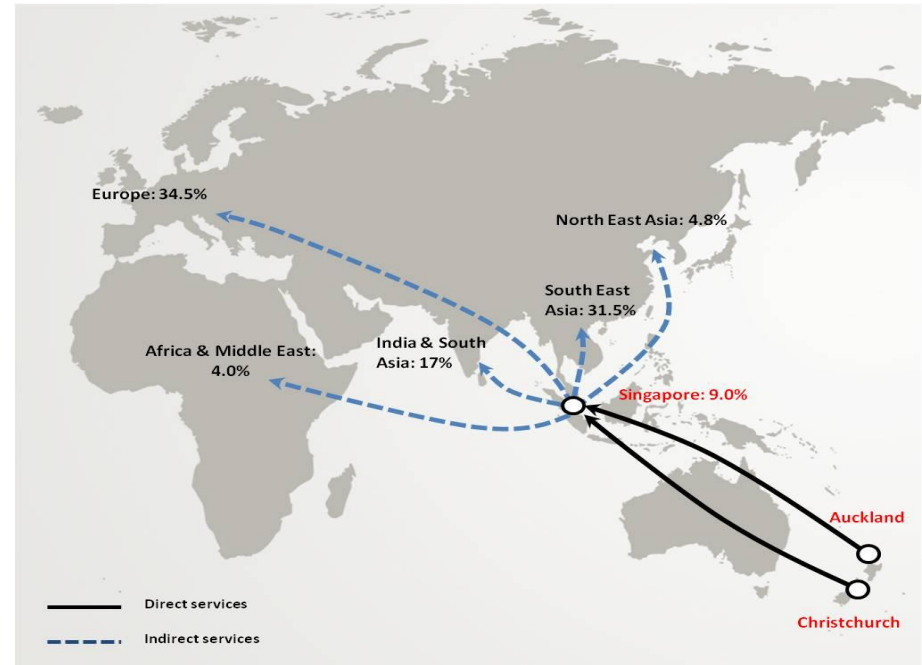


# Better data leads to better decision making – Example 2



## *Alliance agreements*

- ▶ The Ministry is responsible for providing advice on alliance applications between airlines (for example, alliance between Air New Zealand and Singapore Airlines)
- ▶ International travel and migration data enables us to understand travel flows to and from New Zealand – not just where people are going but *why* they are travelling and *how* they are getting there.
- ▶ We can get a far better understanding of the impact that an alliance will have on competition across different markets



## Better data leads to better decision making – Other examples



- ▶ Many aviation user-charges (such as passenger security charges) are based on projected passenger volumes. Better forecasts of domestic and international passenger movements will help to prevent fluctuations in revenue
- ▶ Robust projections will help identify when and where capacity constraints might occur in the future
- ▶ There is potential to use the data to inform infrastructure planning and better understand the links between aviation and other transport modes

Thank you

