

Deloitte Access Economics

The Economic Contribution of the Qantas Group to Australia

The Qantas Group

November 2015

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Glossary

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
DAE	Deloitte Access Economics
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GOS	Gross Operating Surplus
IO	Input Output
IVS	International Visitor Survey
NVS	National Visitor Survey
NSW	New South Wales
TRA	Tourism Research Australia

Key points

Qantas: Turnaround airline of the year in 2015

- The Qantas Group achieved a significant turnaround in profitability in the financial year 2014/15 recovering from an underlying loss before tax of \$646 million in 2013/14 to an underlying profit before tax of \$975 million in 2014/15. This performance earned it the award of international turnaround airline of the year by the CAPA Centre for Aviation in October 2015.
- This has been assisted by an improved outlook for international tourism, while falling oil prices and the \$2 billion Qantas Transformation Program has reduced the Qantas Group's cost base.

The contribution to the Australian economy is significant

- The economic contribution of the Qantas Group (which includes Qantas¹, Jetstar, Qantas Freight and Qantas Loyalty) is estimated using an input-output model of the Australian and state economies, based on financial and input data provided by the Qantas Group.
- Based on the modelling, the estimated total economic contribution of the Qantas Group to Australia in 2014/15 is \$11.4 billion (\$5.9 billion direct and \$5.4 billion indirect) while facilitating an additional \$9.5b of tourism expenditure across Australia
- The Qantas Group is also a significant employer. Its total direct employment is 28,622 full time equivalent (FTE) workers with 25,601 based in Australia. A further 35,596 FTEs are employed indirectly as a result of its operations.

Table i: Economic contribution of the Qantas Group, 2014/15

Metric	Direct	Indirect	Total
Value add (\$m)			
Qantas	4,665	3,717	8,382
Jetstar	960	1,142	2,102
Qantas Freight	294	576	870
Qantas Group	5,919	5,434	11,354
Employment (FTEs)			
Qantas	20,042	24,866	44,908
Jetstar	4,207	6,765	10,972
Qantas Freight	1,352	3,965	5,317
Qantas Group	25,601	35,596	61,197

Source: Deloitte Access Economics

Note: Value added associated with Qantas Loyalty has been split across Qantas, Jetstar and Qantas Freight.

- The economic contribution of the Qantas Group represents 0.7% of total Gross Domestic Product in Australia. This is a significant share of total economic activity for a single corporate group. Considering solely the direct contribution, the operations of the Qantas Group made up approximately 0.4% of GDP, a more significant contribution to Australian GDP than over half the industries categorised in the ABS IO tables and just under one third of the economic contribution of coal mining. This is significant as most industries consist of a large number of different companies.

¹ Qantas includes Qantas Domestic, Qantas International and QantasLink

- In addition to the economic activity of the operations of the Qantas Group, it plays a vital role in the transport of tourists to and around Australia. Combining the contribution of both domestic and international tourism expenditure from tourists who travel on Qantas and Jetstar, the additional total value added to the Australian economy in 2014/15 is estimated to be \$9.5 billion.
- Comparing these results with the TRA 'State Tourism Satellite Accounts' for 2013-14 (2015c) indicates that just over one in nine jobs contributed by the tourism sector (either directly or indirectly) are attributable to expenditure by those travelling on the Qantas Group airlines.
- The Qantas Group also plays an important broader role in marketing Australian tourism both internationally and domestically, particularly through its contribution to state and territory tourism organisations.

1 Introduction

Deloitte Access Economics was commissioned by the Qantas Group to undertake an economic study of the Qantas Group's contribution to the Australian Economy for the 2014-15 financial year. As the country's largest airline, Qantas plays a key role in the nation's economy, both as an employer and as a provider of transport services for both passengers and freight.

Its contribution extends further than just its direct activities, as it is a key consumer of upstream inputs, generating additional indirect contributions through the supply chain. It is also a key facilitator of Australia's tourism sector, transporting visitors both domestically within Australia and from other countries.

This report estimates these contributions, drawing on a range of data and modelling techniques. In particular, it estimates:

- The direct economic contribution by Qantas Group, including Qantas (Qantas International, Qantas Domestic and QantasLink), Jetstar, Qantas Loyalty, Qantas Freight and Corporate activities;
- The indirect economic contribution of all Qantas Group activities;
- These contributions at both the national and state levels; and
- The facilitated tourism expenditure for both domestic and international tourism at both the national and state level.

The data on which this analysis is based draws on publically available material and expenditure data from Tourism Research Australia (TRA) and Tourism Australia, while the core economic contribution analysis is based on detailed financial data provided by the Qantas Group. This data is used to calculate the direct value added for the Qantas Group's operations, as well as the flow-on contributions to upstream industries through detailed input data.

The estimates of the direct and indirect economic contribution, as well as the facilitated tourism contribution are based on Input-Output (IO) modelling techniques. The Australian Bureau of Statistics produce IO tables which provide the value added for each sector of the Australian economy, as well as the linkages between sectors. This allows the activities of Qantas Group to be traced through the economy, and the value added at each stage to be estimated.

This report is structured as set out below.

- Chapter 2 provides a background to the report, outlining the Qantas Group's activities and more details on the approach taken to estimating the contributions.
- Chapter 3 provides the estimates of economic contribution at the national level.
- Chapter 4 disaggregates these contributions to the state level.
- Chapter 5 present estimates of the facilitated tourism contribution of the Qantas Group's activities.

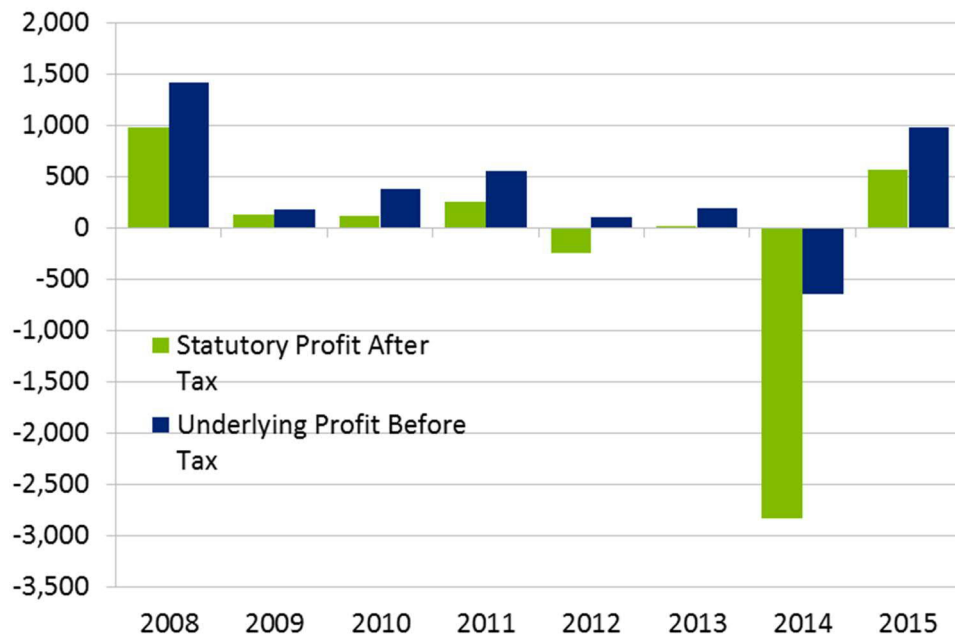
- Chapter 6 summarises the combined direct, indirect and downstream tourism contribution of the Qantas Group.
- Technical details of the economic modelling are presented in Appendix A.

2 Background and approach

Qantas was established in 1920 and has served as Australia’s national carrier since. The airline has played a central role in the development of Australian and international aviation and has undergone significant transformations in this time. Previously state owned, the Commonwealth initially floated a 25% share on the stock exchange in 1993 and finalised privatisation in 1995. Since then, the Qantas Group has doubled its international capacity, expanded offerings for both domestic and international routes and launched its low-cost carrier, Jetstar.

The effect of the Global Financial Crisis (GFC) on airlines worldwide was significant, with the industry recording significant reductions in profitability. The effect on the Qantas Group, while not as negative as airlines elsewhere, is demonstrated by its statutory profit after tax in Chart 2.1, showing a decline in profit from \$970 million for the financial year ending 2008 to \$123 million in 2009. Against this backdrop, Qantas and other legacy airlines have faced significant competition from emerging airlines from the Middle East and low-cost Asian carriers. These competitive pressures, combined with the high Australian dollar and significant increases in oil prices, put pressure on the company’s bottom line through FY14.

Chart 2.1: Qantas Group’s Financial Performance (millions)



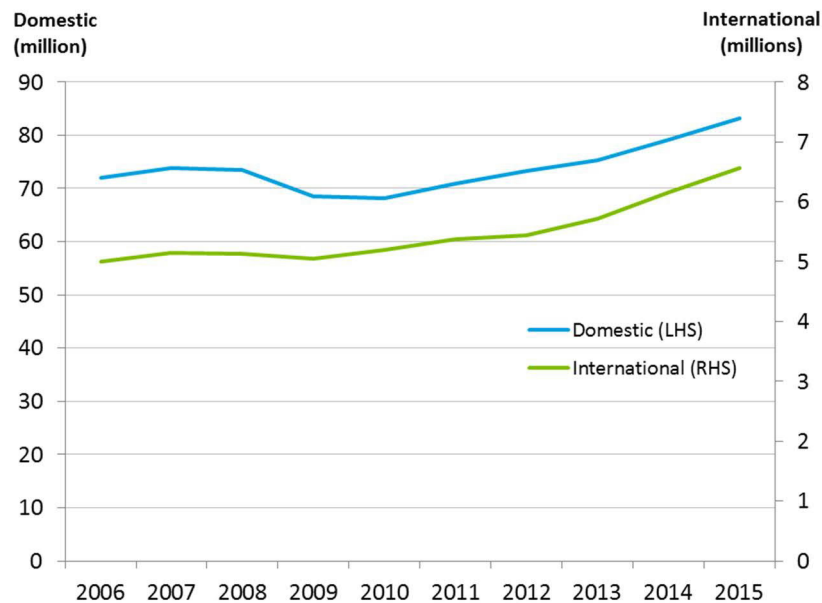
Source: Qantas Group Annual Report, 2007-08 to 2014-15

Recent macroeconomic conditions have been more favourable to the Qantas Group. Economic growth has returned to pre-GFC levels in Asia and the US economy shows continued signs of improvement. Concurrently, falling oil prices and an internal transformation that included right-sizing, improvements in efficiency and renewal of the Qantas Group’s fleet, has kept cost pressures under control. Recent depreciation in the Australian dollar has also increased the airlines’ competitiveness on international routes.

These factors culminated in Qantas Group recording a \$560 million statutory profit after tax for the 2014/15 financial year, the largest profit since the GFC.

While strong economic growth in Asia has buoyed international visitors, domestic tourism has also increased significantly, growing at 4.2% per annum since the GFC and increasing by 5.2% for the last financial year, the largest increase in visitors since the National Visitor Survey began tracking domestic visitor numbers.

Chart 2.2: International and domestic visitors (millions)



Source: TRA NVS and IVS surveys (2015a, 2015b)

2.1 Approach to measuring the economic contribution of the Qantas Group

Economic contribution studies provide a snapshot of the contribution of a company or industry at a particular point in time. The analysis uses common financial measures, such as revenue and cost of goods sold, to estimate a company's direct value-add to the Australian economy. This direct impact is calculated using the income approach to Gross Domestic Product (GDP), calculating the returns to capital through Gross Operating Surplus, and the returns to labour through wages. That is, it estimates the total income generated, net of costs, through the activities of the entity being modelled.

This approach is consistent with the framework used by the Australian Bureau of Statistics in compiling the Australian National Accounts. In addition to this direct component, the demand for upstream inputs and further interlinkages with other sectors of the economy are modelled. This expenditure drives the indirect contribution to value-add and is determined through Deloitte Access Economics' Regional Input-Output Model (DAE-RIO-M).

The economic contribution of the Qantas Group is broader than the direct and indirect contribution. By facilitating tourism and connecting Australia to the rest of the world, the Qantas Group contributes to the economy through expenditure by visitors to Australia who fly with the company. Given this, Deloitte Access Economics has modelled the economic contribution of the Qantas Group by considering the direct and indirect contribution, as well as the activity it facilitates through the tourism sector.

Chart 2.3: Economic contribution of the Qantas Group and the activity it facilitates



The Qantas Group's operations have other impacts on the economy and social welfare more broadly that are less easily captured in an economic accounting framework. By increasing connectivity within Australia and the rest of the world, the company increases labour productivity and supports economic activity in regional communities by facilitating tourism and exports. This economic relationship between connectivity and economic development is well researched² and suggests that the economic contribution to Australia is likely to be wider in scope than the benefits from its operational activities would suggest. Given the difficulty in quantifying these benefits, they have not been included in the figures but are considered through several case studies throughout this analysis.

² For a recent example see Baker, D, Merkert, R, and Kamruzzaman M, 2015, Regional aviation and economic growth: cointegration and causality analysis in Australia, Journal of Transport Geography, Vol 43.

3 The economic contribution of the Qantas Group to Australia

This section outlines the input-output (IO) modelling techniques used to determine the economic contribution of the Qantas Group and how the data provided has been utilised.

3.1 Methodology

3.1.1 Data provided by the Qantas Group

The Qantas Group provided Deloitte Access Economics with detailed profit and loss break down by segment for the financial year 2014. This data has been aggregated and key results are broken down by:

- Qantas (including Qantas Domestic, Qantas International and QantasLink);
- Qantas Freight; and
- Jetstar.

For the purpose of this report, revenue and expenditure numbers for Qantas Loyalty were aggregated with Qantas and are not analysed separately. While Qantas Loyalty generates substantial revenue through its own operations, the profitability of this business unit is determined primarily by demand for Qantas Frequent Flyer Points. This demand is closely tied to the overall network and reward offering of the Qantas Group and has hence been aggregated.

The Corporate division's revenue and expenditure has been distributed across Qantas, Jetstar and Qantas Freight for the purpose of this report. The Corporate division contributes to the organisation by providing strategic advice, managing finances and providing human resourcing support. While these functions are integral to any company, the benefits and revenue associated with such services are accrued through other business units. As the revenue is accrued by those units, the costs should also be distributed so as to reflect the intermediate inputs required to generate revenue. As such, the costs of the Corporate division have been distributed based on information provided by the Qantas Group.

Similarly, revenue and expenditure reported for the unallocated/eliminated³ category has also been distributed. These measures have been distributed evenly across Qantas, Jetstar and Qantas Freight.

³ The Qantas Groups' Annual Report 2015 notes that unallocated/eliminated 'represents other businesses of the Qantas Group which are not considered to be significant reportable segments and consolidation elimination entries and are immaterial to this analysis.

In determining the Qantas Group's indirect contribution to the Australian economy, expenditure on intermediate inputs has been separated between expenditure occurring within Australia and occurring internationally. The majority of the company's intermediate expenditure occurs in Australia, with 64% of intermediate inputs sourced locally. The majority of the expenditure on inputs from outside Australia is attributable to jet fuel, commissions and selling costs and aircraft operating leases that are unable to be sourced locally. The level of expenditure that occurs internationally has been determined using currency flows provided by the Qantas Group.

3.1.2 Methodology

The economic contribution of the Qantas Group's business units for the financial year 2014/15 is split into direct and indirect components. The direct component is based on the value added measure, calculated by determining the returns to labour and the returns to capital, derived from sales data and ongoing operations. That is, it measures the income (whether to labour or owners of capital) that the Qantas Group directly produces for the Australian economy.

Direct contribution

While revenue is more commonly reported in financial accounts, value added provides a more accurate assessment of a company's contribution to the overall economy because it nets out the value that is created by upstream industries. The direct contribution therefore isolates the value created by the Qantas Group.

The returns to capital, also referred to as the gross operating surplus (GOS), is determined by calculating the ongoing operational profit and operational costs, prior to the impacts of interest, tax, depreciation and amortisation. The returns to labour are calculated by aggregating compensation provided to employees either through wages or other employment benefits.

Indirect contribution

The second aspect involves measuring the indirect or flow-on contribution of the company's activities. This is the value added generated in upstream sectors of the economy that produce inputs to the airline's operations. The flow-on contribution is based on Qantas Group's expenditure in these industries and the profit and wages that are generated as a result. Only expenditure on inputs that occurs in Australia is considered, with inputs purchased overseas excluded from the analysis.

Economic contribution of multi-territory enterprises

Accounting for the economic contribution of multi-territory enterprises, such as airlines, presents measurement challenges. When compiling the National Accounts, the ABS judges an enterprise's predominant centre of economic interest. This determines whether goods or services that are sold overseas are considered exports or if they are excluded from Australian Gross Domestic Product entirely.

For most corporations this is straightforward, but for enterprises that have interrelated operations across multiple economic territories, as is the case with airlines and shipping lines, determining a single economic territory is more challenging.

One method for accommodating this is to pro-rate the economic activity across several economic territories. This could potentially include assessing the contribution to operations based on equity shares or shares split based on operational factors such as passenger movements. For the sake of simplicity, all economic activity in this analysis has been attributable to Australia. Given that this pro-rate would only apply to a segment of the international activity undertaken, the effect on the overall contribution of Qantas Group is expected to be minimal.

3.2 Economic contribution results

Based on this modelling, the direct economic contribution of the Qantas Group in 2014/15 was \$5.9 billion (Table 3.1). The majority of this economic value-add was a result of Qantas, making up 79% of the total direct contribution. Jetstar and Qantas Freight contributed 16% and 5% respectively.

The indirect contribution of the Qantas Group was \$5.4 billion in 2014/15. As with the direct contribution, Qantas made up the largest share (68%) with Jetstar and Qantas Freight making up 21% and 11% respectively. The largest share of indirect contribution occurs as a result of the Qantas Group's expenditure on intermediate inputs from the transport support services industry and aircraft repair and manufacturing.

Combining the direct and indirect measures, the total economic contribution of the Qantas Group to the Australian economy in 2014/15 was \$11.4 billion. The contribution from respective business units and the split between direct and indirect activity is shown in Chart 3.1.

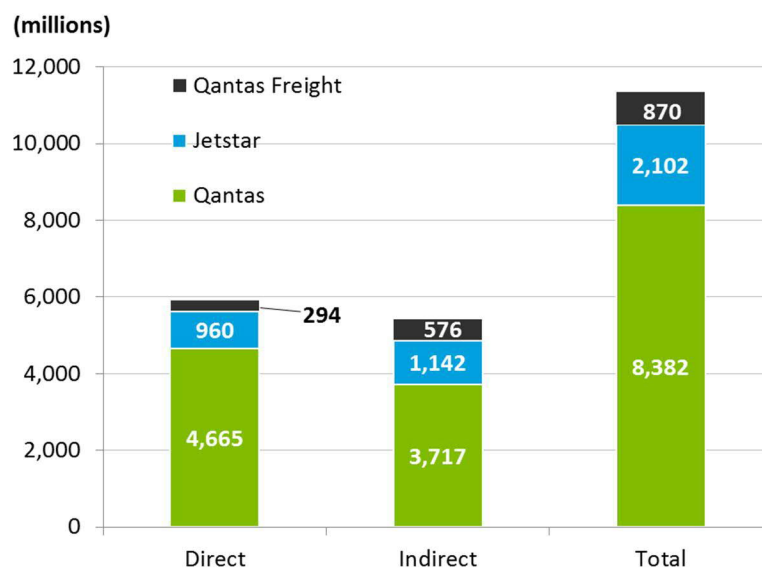
Table 3.1: Economic contribution of Qantas Group, 2014/15

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Qantas Group	25,601	35,596	61,197

Source: Deloitte Access Economics and the Qantas Group

As a share of Gross Domestic Product, the economic contribution of the Qantas Group represents 0.7% of total economic activity in Australia. This is a significant share of total economic activity for a single Group. Considering solely the direct contribution, the Qantas Group's operation made up approximately 0.4% of GDP, a more significant contribution to Australian GDP than over half the industries categorised in the ABS IO tables (2015a) and just under one third of the economic contribution of coal mining. This emphasises the scale of the Qantas Group's contribution the Australian economy, with the total contribution to total GDP being larger than whole industries (such as broadcasting and the rail transport industries) that are comprised of hundreds of companies.

Chart 3.1: Economic contribution by business unit



Source: Deloitte Access Economics and the Qantas Group

The direct contribution of the Qantas Group to employment was 28,622 FTEs with 25,601 FTEs being based in Australia. Additionally, the indirect contribution to employment in 2014/15 was 35,596. In terms of employment, the Qantas Group's total contribution was 61,197 FTEs in Australia. Qantas contributed the most significant share (73%), with Jetstar making up 18% and Qantas Freight 9%. The indirect component of employment was greater than the direct share for all business units, reflecting the labour intensive nature of the industries that support the Qantas Group's operations.

The ratio of indirect to direct employment is slightly lower than average for industries in the IO table. It is higher than industries such as retail and education which have a more limited reliance on indirect inputs but lower than sectors such as mining which are capital intensive but have a relatively high total to direct employment ratio.

The total employment contribution of the Qantas Group makes up 0.6% of employment in Australia. Considering just the direct component, the Qantas Group's employment contributes 0.3% of total employment in Australia. As with the contribution to GDP, this is a significant share for a single Group and surpasses the contribution to employment of 47% of all industries categorised in the IO tables and is just over half of employment in the iron ore mining industry.

The Qantas Group also collects and pays a range of taxes on its products and services. Taxes paid by the Qantas Group (such as company and payroll tax) are included in value added, while those it collects on behalf of the Government (such as GST or the passenger movement charge) are not included. Based on data provided by the Qantas Group, in the 2014-15 financial year the sum of net GST payments, passenger services charges passenger movement charges and safety and security charges paid by the Qantas Group was \$1.3 billion.

4 The economic contribution of the Qantas Group by State

This section discusses the IO modelling techniques used to determine the economic contribution of the Qantas Group by State and the adjustments to the data that have been made. Results are presented for the company in terms of value-add and employment for each state.

4.1 Methodology

The economic contribution of the Qantas Group by State has been determined by distributing the gross operating surplus generated by the company in Australia by passenger departure data provided. This departure data was disaggregated by Qantas and Jetstar and a weighted average of the two was used to distribute value-add for Qantas Freight. This distribution of passenger departures at the State and Territory level is presented in Table 4.1. This does not include freight activity. The direct labour income was allocated to states based on their respective share of employment by business unit.

Similarly, the Qantas Group's expenditure on intermediate inputs is distributed by each State's relevant industry share. For example, as NSW accounts for 32% of total activity in the transport and support services industry in Australia, this same share of the Qantas Group's expenditure on transport and support services is distributed to NSW. While this does not directly capture the geographical dispersion of the Qantas Group's activities (which would require more detailed purchase data) it is a relatively accurate approximation of this dispersion in lieu of this data.

The expenditure on intermediate inputs drives the indirect contribution for each State. In determining the contribution to value-added and employment driven by the company's expenditure on intermediate inputs, Deloitte Access Economics has disaggregated the national IO table for each individual state. This ensures that industry structure of each state is accurately described and the relevant economic activity is captured.

Table 4.1: Distribution of passenger departures at State and Territory level

State	Qantas	Jetstar	Total
NSW/ACT	29%	28%	28%
VIC	19%	24%	21%
QLD	25%	32%	28%
SA	6%	5%	6%
WA	16%	2%	11%
TAS	1%	7%	3%
NT	3%	2%	3%

Source: The Qantas Group

4.2 Economic contribution results

The Qantas Group's largest economic contribution is in NSW/ACT, where total activity contributes \$4.3 billion to the NSW and ACT economy. In NSW, a higher proportion of the value add is generated directly (than indirectly) because NSW accounts for a relatively high proportion of total employment by the Qantas Group and thus a large proportion of direct labour income is estimated to accrue to NSW.

Table 4.2: Economic contribution of the Qantas Group by State, 2014/15

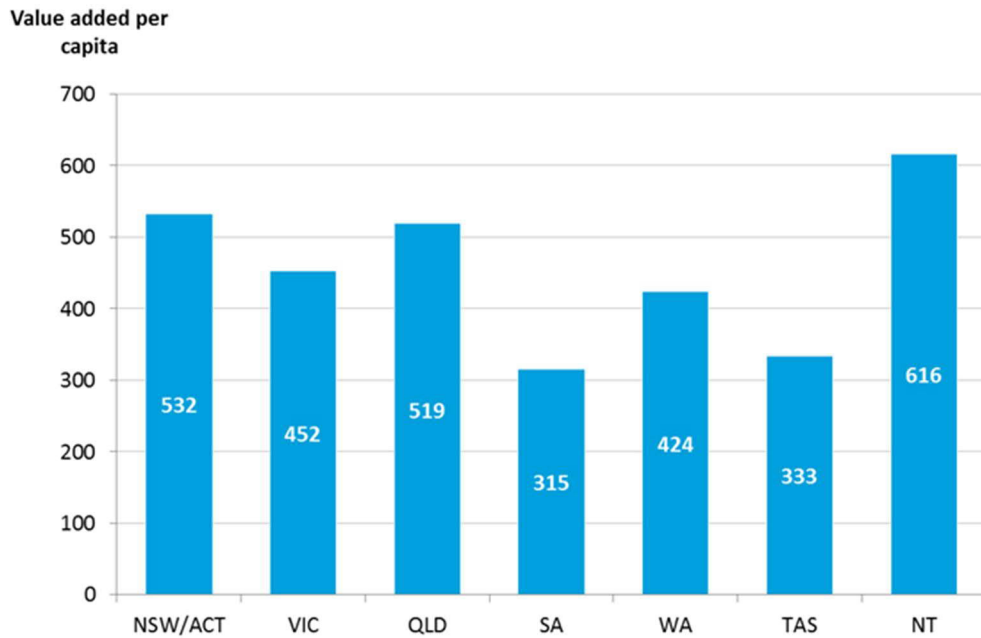
Metric	Direct	Indirect	Total
Value add (\$m)			
NSW/ACT	2,399	1,853	4,252
VIC	1,259	1,416	2,675
QLD	1,271	1,201	2,473
SA	241	294	534
WA	564	533	1,098
TAS	96	76	172
NT	89	61	150
Australia	5,919	5,434	11,354
Employment (FTEs)			
NSW/ACT	12,346	12,475	24,822
VIC	5,635	8,772	14,407
QLD	4,661	7,494	12,155
SA	686	1,789	2,474
WA	1,838	4,161	5,999
TAS	291	461	752
NT	142	445	587
Australia	25,601	35,596	61,197

Source: Deloitte Access Economics and the Qantas Group

This total economic contribution split by direct and indirect components is presented in Chart 4.1. While the total contribution to Australia is approximately evenly split between direct and indirect components, this is not reflected in each individual state with NSW having a relatively large share of direct activity.

The Qantas Group's total economic contribution to Victoria is \$2.7 billion and this is weighted more heavily to the indirect component that makes up 53% of the total contribution. While the State makes up 21% of the airline's direct economic activity, it attracts a larger share of the company's intermediate expenditure as a result Victoria's sizeable transport services industry with Jetstar being based in Melbourne resulting in demand for a range of third party service providers.

Chart 4.1: Value add per capita by State (\$)



Source: Deloitte Access Economics and the Qantas Group

In Queensland, the total economic contribution of the Qantas Group was \$2.5 billion. This was split relatively evenly between direct and indirect value added. Queensland's diverse offering of natural assets, such as the Great Barrier Reef and man-made attractions such as its theme parks and casinos make it a popular tourist destination. This is reflected by the large share of departures occurring from the State.

As with Queensland, the largest share of the Qantas Group's economic contribution in Tasmania, Western Australia and Northern Territory is driven by direct activity whereas the share of indirect activity is larger in South Australia.

Another way to determine the economic contribution of the Qantas Group is by considering the value-add per capita (shown in Chart 4.1). The Group's value add per capita is significant across all States and Territories, with the highest contribution in the Northern Territory with a per capita contribution of \$616. New South Wales/Australian Capital Territory and Queensland were the next highest, with a per capita contribution of \$535 and \$519 respectively.

In terms of direct employment, NSW/ACT makes up the most significant share with 12,346 FTEs, approximately 48% of the company's employment in Australia. The Qantas Group contributes another 12,475 FTEs indirectly to the State through its intermediate expenditure, aggregating for a [total contribution of 24,822 employees to NSW](#). Victoria and Queensland are the next largest, with the Qantas Group contributing 5,635 and 4,661 FTEs directly to each State. Combined with the indirect contribution, the Qantas Group's total contribution to employment in Victoria was 14,407 FTEs and 12,155 FTEs in Queensland.

The economic contribution that the Qantas Group makes also plays an important role in connecting regional communities. Case Study 1 below looks at the contribution of the company Tamworth, a regional city located in the New England region of NSW.

Case Study 1: The impact of Qantas on Tamworth, a regional port

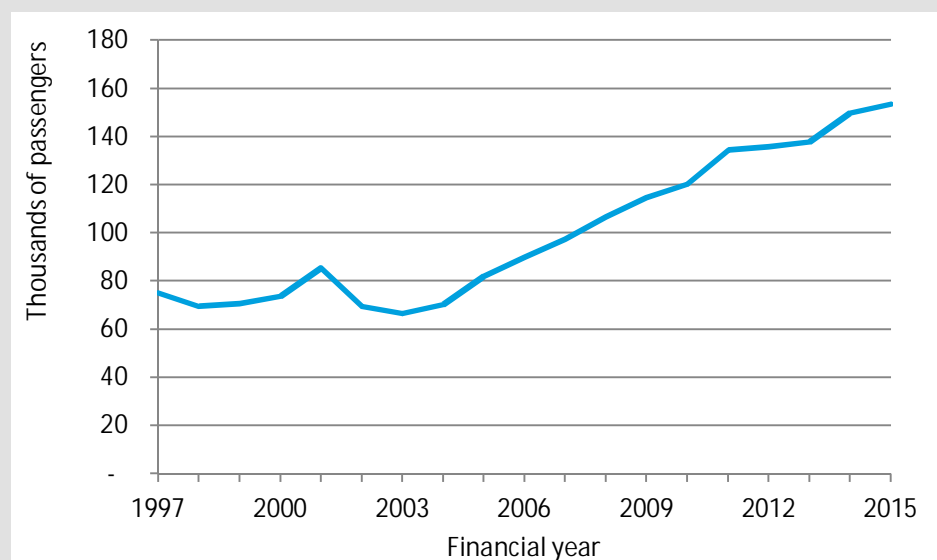
Aviation plays an important role in supporting regional areas, providing improved connectivity for local businesses, bringing families together and facilitating viable access to core services. Aviation also plays a vital role in supporting tourism in many regional areas.

Qantas has a long history of providing aviation services in Tamworth, which can be traced back to the creation of the one aircraft Tamworth Air Taxi Service, which started in 1949. Tamworth is currently a heavy maintenance base for all QantasLink turboprop aircraft. QantasLink employs 111 people in Tamworth, with 100 working in the heavy maintenance facility and 11 in the administration office. The airport is owned by Tamworth Regional Council. In May 2015, Qantas introduced a QRamp at Tamworth Airport to improve boarding times, the first such ramp introduced in regional NSW.

Qantas was the sole operator of the Sydney to Tamworth route, although Virgin Australia commenced services in May 2015, while Jetgo recently entered the market to provide services to Brisbane. Qantas currently serves a mix of corporate and leisure travellers, with corporate customers comprising approximately 28% of the customer base with the NSW government being an important corporate customer.

In 2014-15, Qantas transported a total of 151,831 passengers on the Sydney to Tamworth route, operating 36 return services per week. This provides strong connectivity for local residents seeking to travel and Sydney and also those transferring to Brisbane, Melbourne or Perth. Chart 4.2 illustrates the growth of passenger movements on the Sydney to Tamworth route over time.

Chart 4.2: Passenger movements on the Sydney to Tamworth route



Source: Transport for NSW

Passenger movements on the route have grown rapidly over the last decade, growing at an average rate of 6.5% per annum. This has resulted in a doubling of passenger movements since 2004.

In addition to improving connectivity for local residents and tourists, Qantas also plays an important role in support the local community through its sponsorship of the Tamworth Country Music Festival, the Tamworth Regional Development Corporation, Business Chamber of Commerce, the Arts North West Regional Arts Board and other community organisations.

5 The contribution of the Qantas Group to domestic and international tourism

In addition to the contribution, generated by its operations, the Qantas Group plays an instrumental role in supporting tourism in Australia, both through facilitating air travel by domestic and international residents and through marketing Australian tourism destinations to domestic and international consumers. In particular, the extensive network operated by the Qantas Group plays a pivotal role in allowing tourists to access many regional destinations throughout Australia.

This section estimates the amount of value added and employment in Australia which is facilitated by the Qantas Group as a result of its role in carrying domestic and international tourists.

The estimated contribution of the Qantas Group in facilitating domestic and international tourism expenditure is based on the estimated spending that occurs by travellers at the destination, and does not include expenditure on airfares which is captured in chapter 3. The methodology for measuring the economic contribution of the Qantas Group to tourism in Australia is discussed in more detail below.

5.1 Methodology

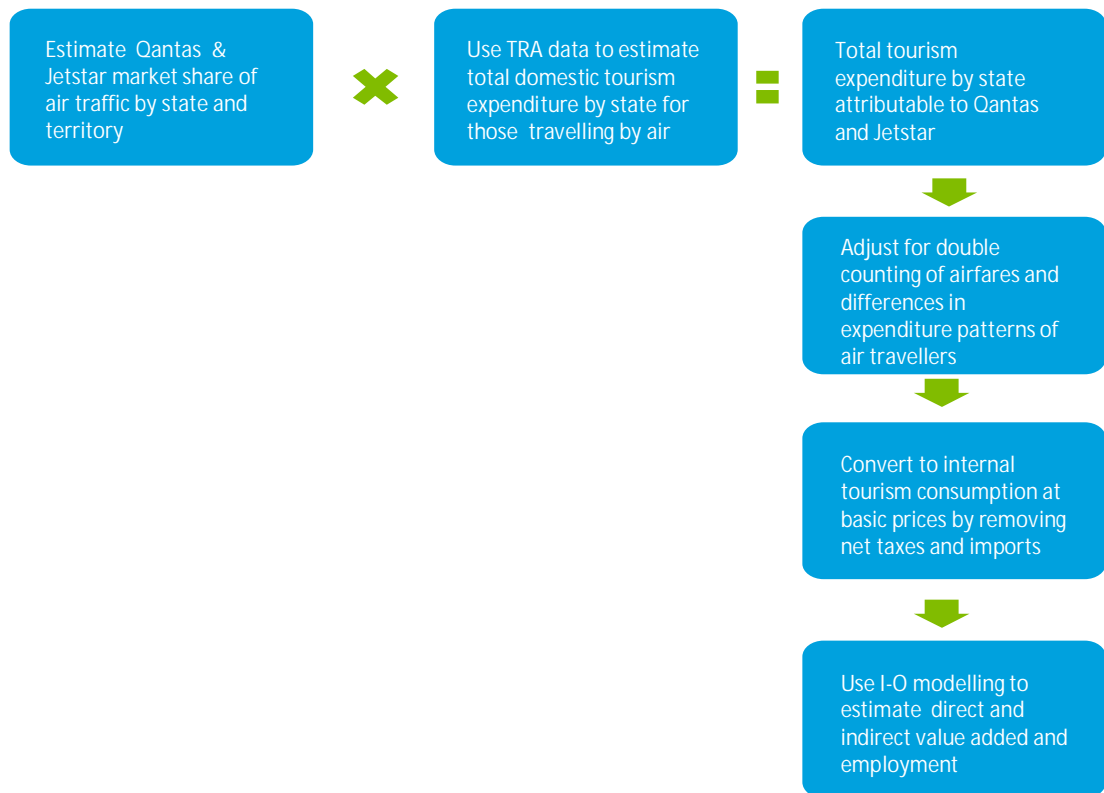
5.1.1 Estimating the contribution to domestic tourism

Figure 5.1 provides an overview of the process used to estimate the economic contribution of domestic tourism expenditure facilitated by the Qantas Group. In the first stage, market share information by route provided by the Qantas Group was matched to data on passenger numbers on each route from the Bureau of Infrastructure, Transport and Regional Economics (BITRE). This was used to calculate estimates of passenger numbers carried by Qantas and Jetstar on each route.

Routes were aggregated to a state level by attributing half the traffic on a route pair to each state. For example, 50% of traffic on the Sydney to Melbourne route was attributed to NSW and 50% to Victoria. Market shares by state were developed separately for interstate and intrastate travel.

In the second stage, these market shares were multiplied by estimates of regional expenditure by domestic overnight and domestic day visitors in each state. To calculate regional expenditure, information on average expenditure per night from the TRA National Visitor Survey (2015a) was combined with other data from TRA on visitor numbers travelling interstate and intrastate by air.

Figure 5.1: Overview of methodology for estimating the domestic tourism contribution



Source: Deloitte Access Economics

In the third stage, estimates of market shares by state are multiplied by total tourism expenditure for air travellers (calculated in the second stage) to develop estimates of total tourism expenditure attributable to Qantas and Jetstar for both interstate and intrastate travel.

This data is then subject to some further adjustments in the fourth stage to ensure it is consistent with the expenditure profile of airline travellers noting that expenditure estimates are based on all domestic tourists not just airline travellers.

- First, all expenditure on domestic airfares is excluded to avoid double-counting expenditure already included in the economic contribution of the Qantas Group.
- Second, expenditure on vehicle maintenance and repairs is excluded on the basis that this is more likely to be incurred by those on driving holidays.
- Finally, expenditure on fuel is reduced to the average amount per day incurred by international tourists as those travelling by air are expected to spend less on fuel than those travelling to a destination by car. These assumptions are likely to be conservative because it is likely that air travellers have a higher average expenditure per night than those travelling by car or bus.

The next stage involves adjusting tourism expenditure, which is recorded in purchaser prices to internal tourism consumption at basic prices by removing the impact of imports and net taxes on production and adjusting for imputed consumption. Finally, input-output

modelling is used to convert internal tourism consumption by item to estimates of direct and indirect value added and indirect and direct employment.⁴

5.1.2 Estimating the contribution to international tourism

A similar procedure was used to estimate the economic contribution of international tourism facilitated by the Qantas Group. The various stages in this process are outlined in Figure 5.2 below.

Estimating the market share of Qantas and Jetstar is more complicated in the case of international tourism. While BITRE has information on airline travel by route, this does not map neatly to country of origin for some countries and does not account for differences in the ratio of foreign to local residents carried by different airlines.

Information on airline market shares of tourist arrivals by country of origin is collected by the Department of Immigration and Border Protection. However, recent legislative changes mean that it is not possible to obtain this data for the purposes of the analysis conducted here. Nevertheless, Tourism Australia (2015) has published information on airline market shares by country of origin for Australia's sixteen largest tourism source market in 2014 (a slightly different timeframe to the 2014-15 financial year used in this report). These countries cover 75% of total tourism arrivals in Australia.

Deloitte Access Economics also received detailed data from Qantas and Jetstar on incoming passengers by point of sale. While point of sale is not a perfect measure of country of origin it is likely to be a relatively good approximation. This can then be used to estimate market share of arrivals (after adjusting for the fact that some travellers are not short-term visitors but longer-term visitors or permanent settlers). The average difference in market share estimates between the Tourism Australia data and the Qantas Group point of sale data for Australia's sixteen largest tourism source markets was 1.6% indicating that this approach yields a close approximation.

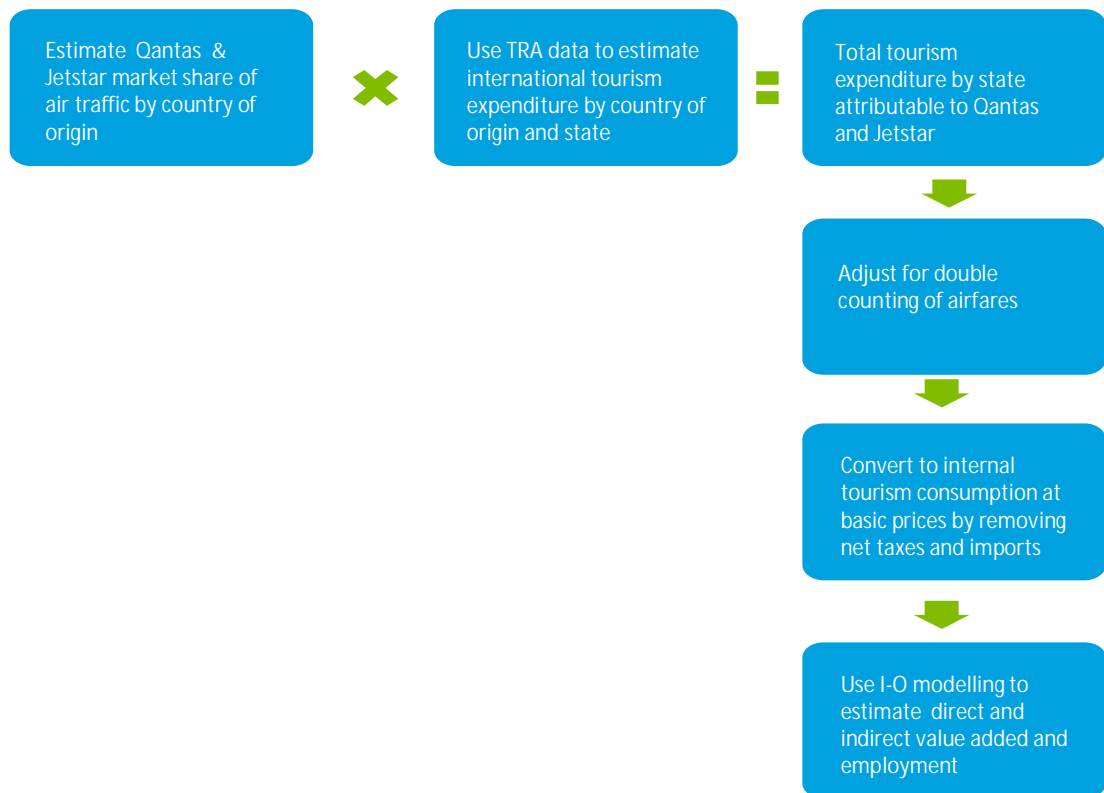
The market share of Qantas and Jetstar by country of origin is estimated by combining the Tourism Australia (2015) data for the sixteen largest tourism source markets with estimated markets shares from point of sale data for source markets which were not included in the Tourism Australia data. This was judged to be the most appropriate way of estimating market share because the point of sale data indicated that the market share of Jetstar was relatively small outside major tourist source markets such as Japan, New Zealand and South East Asia.

In the second stage this data was multiplied by estimates of expenditure (excluding prepaid fares and package tours) by country of origin for inbound tourist arrivals for each state from TRA. The resulting estimates reflect the total international tourism expenditure for each state attributable to tourists travelling on Qantas or Jetstar.

⁴ An alternative approach to Input-Output modelling is to apply consumption to total value added ratios based on the State Tourism Satellite Accounts (TRA 2015c). This was not used here because the estimated tourism expenditure profile was adjusted to exclude airline travel, although overall results using both approaches were broadly similar. Estimates of total value added using the State Tourism Satellite Accounts were approximately 5%-10% lower, although the consumption bundle used there is slightly different to that used in the IO modelling since it includes fares and fuel expenditure by tourists travelling by car.

The next stage involves adjusting this expenditure to exclude expenditure on international and domestic airfares in Australia to avoid double counting any expenditure captured in Chapter 3. As for the domestic tourism expenditure this was then converted to tourism consumption at basic prices and then converted to estimates of direct and indirect value added and employment using Input-Output modelling.

Figure 5.2: Overview of methodology for estimating the international tourism contribution



Source: Deloitte Access Economics

It should be noted that the Qantas Group also contributes in a significant way to supporting marketing activities by State Tourism Organisations (STOs). The Qantas Group makes a significant contribution through marketing/promoting Australia globally. In the 2014 financial year, Qantas announced a \$72 million partnership with STOs across Australia.

While marketing expenditure is captured in the economic contribution of the Qantas Group in Chapter 3, this marketing expenditure also plays an important role in attracting people to come to Australia, some of whom will travel on Qantas or Jetstar and some of whom will travel on other airlines. While a detailed analysis of the impact of this marketing expenditure on visitor arrivals is beyond the scope of this report, previous research has found that the return on tourism marketing expenditure is relatively high. Deloitte Access Economics (2013) estimated that each million dollars in tourism marketing expenditure generated between \$6 million and \$19 million of economic activity in Tasmania if that expenditure was not matched by additional expenditure in other states.

5.2 Economic contribution results

The economic contribution of the tourism activity facilitated by the Qantas Group is shown in Table 5.1 below. The total economic contribution associated with expenditure by domestic tourists travelling on Qantas or Jetstar airlines in 2014-15 was \$6.2 billion, comprising \$3.5 billion in direct value added and \$2.8 billion in indirect value added. Of the total value added, 64% was contributed by passengers carried by Qantas and 36% from passengers carried by Jetstar.

The contribution of this tourism expenditure to employment was 70,594 FTEs. This tourism expenditure contributed directly to the employment of 50,028 FTEs and indirectly to the employment of 20,566 FTEs as a result of flow-on effects from tourism expenditure to other sectors of the economy.

In total, 71% of the total employment contribution associated with this tourism expenditure was direct. This is a relatively high ratio of direct to indirect contribution and reflects the fact that sectors of the economy directly associated with tourism expenditure such as retail, food and beverage services and accommodation are relatively labour intensive. It is also partly driven by excluding spending on more capital intensive areas of tourism expenditure such as aviation and fuel.

Table 5.1: Economic contribution of the Qantas Group to domestic tourism, 2014/15

Metric	Direct	Indirect	Total
Value add (\$m)			
Qantas	2,241	1,775	4,017
Jetstar	1,242	984	2,226
Qantas Group	3,483	2,759	6,242
Employment (FTEs)			
Qantas	32,196	13,233	45,429
Jetstar	17,832	7,333	25,165
Qantas Group	50,028	20,566	70,594

Source: Deloitte Access Economics

Note: All figures have been rounded to the nearest unit so totals may be subject to rounding errors.

Table 5.2 shows the estimated economic contribution of the Qantas Group through facilitating international tourism expenditure. In total, expenditure associated with international tourists carried by the Qantas Group was estimated to contribute \$3.2 billion in value added to the Australian economy, including \$2 billion in direct value added and \$1.3 billion in indirect value added. Of this, 77% was attributable to Qantas and 23% attributable to Jetstar.

The expenditure of international tourists carried by the Qantas Group was estimated to support the employment of 34,479 FTEs, 24,979 directly and 9,501 indirectly as the result of flow-on effects of tourism expenditure to other downstream sectors of the economy.

Table 5.2: Economic contribution of the Qantas Group to international tourism, 2014/15

Metric	Direct	Indirect	Total
Value add (\$m)			
Qantas	1,529	985	2,514
Jetstar	443	292	735
Qantas Group	1,972	1,276	3,249
Employment (FTEs)			
Qantas	19,347	7,327	26,675
Jetstar	5,631	2,173	7,805
Qantas Group	24,979	9,501	34,479

Source: Deloitte Access Economics

Note: All figures have been rounded to the nearest unit so totals may be subject to rounding errors.

Table 5.3 below estimates the overall contribution of the Qantas Group by state, combining the contribution of both domestic and international tourism expenditure. The total value added across Australia was estimated to be \$9.5 billion, with \$2.5 billion being contributed to NSW, \$2.5 billion to Queensland, \$1.8 billion to Victoria and \$1.4 billion to Western Australia. The relatively strong contribution of Queensland reflects the fact that total domestic visitor nights for air travellers is much higher in Queensland than other states.

Expenditure by tourists travelling on Qantas and Jetstar is estimated to support a total of 105,073 FTEs, 75,006 directly and 30,067 indirectly. The employment contribution is estimated to be largest in NSW and the ACT and Queensland with a total employment contribution of approximately 27,000 FTEs.

To place these figures in perspective, comparing these results with the TRA 'State Tourism Satellite Accounts' for 2013-14 (2015c) indicates that just over 1 in 9 jobs contributed by the tourism industry (either directly or indirectly) is attributable to expenditure by those travelling on the Qantas Group airlines. Similarly, just over 1 in 9 dollars in total gross value added for the tourism industry is attributable to expenditure by tourists travelling on the Qantas Group airlines. This is a relatively large share of the market given that the vast majority of domestic tourism activity is attributable to those travelling by means other than air travel.

The role of the Qantas Group in facilitating international tourism has been expanded through the formation of partnerships and with airlines in key markets. These partnerships allow the Qantas Group to extend its presence and network, utilise additional sales, marketing and distributional channels and enhance the potential capacity of its network overseas.

Table 5.3: Economic contribution of the Qantas Group to tourism by State, 2014/15

Metric	Direct	Indirect	Total
Value add (\$m)			
NSW/ACT	1,446	1,086	2,531
VIC	1,057	787	1,844
QLD	1,421	1,090	2,511
SA	251	176	427
WA	848	596	1,444
TAS	200	145	346
NT	233	156	389
Australia	5,455	4,036	9,491
Employment (FTEs)			
NSW/ACT	19,252	8,157	27,410
VIC	15,194	6,177	21,371
QLD	20,156	8,369	28,524
SA	3,935	1,358	5,294
WA	10,286	3,906	14,192
TAS	3,260	1,127	4,387
NT	2,923	972	3,895
Australia	75,006	30,067	105,073

Source: Deloitte Access Economics

Note: All figures have been rounded to the nearest unit so totals may be subject to rounding errors.

Case Study 2 below discusses the importance of some of Qantas' key partnerships in contributing to tourism demand and expenditure.

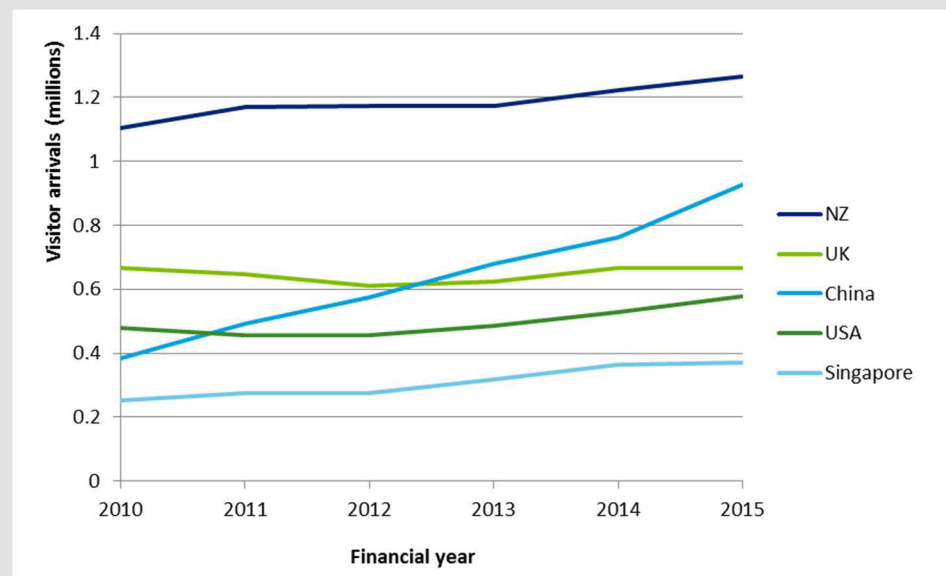
Case Study 2: Supporting growing tourism markets

Asia has become an increasingly important source for international tourists in recent years, reflecting the rapid expansion of the middle class in China and many parts of South East Asia. Since 2009-10, short term visitor arrivals have risen from 5.6 million to 7.1 million in 2014-15 (ABS 2015b). China alone accounted for 36% of this growth with a further 36% attributable to other countries in the Asian region.

While visitor numbers from the UK and US declined between 2009-10 and 2011-12 as a result of the GFC, they have since begun to recover with visitor arrivals from the UK returning to their 2009-10 level while visitor arrivals from the US have grown at an average rate of 8.2% over the last three financial years.

Chart 5.1 shows growth in visitor arrivals in Australia’s major tourism source markets over the last five years. The mid blue line highlights the rapid growth of tourism arrivals from China, where arrivals have grown from 380,000 in 2009-10 to 920,000 in 2014-15. Arrivals from New Zealand, the US and Singapore (albeit from a lower base) have also grown strongly over the last three years.

Chart 5.1: Growth in major source markets for tourism arrivals



Source: ABS (2015b), Deloitte Access Economics.

Alliances between Qantas and China Eastern, American Airlines and Emirates are likely to help support growth in key source markets.

China is Australia’s most valuable inbound tourism market in terms of expenditure and the largest two-way trading partner in goods and services. TRA (2014) projects that inbound tourism from China will account for 24% of all growth in arrivals and 40% of growth in inbound tourism expenditure in Australia between 2012-13 and 2022-23.

The US is Australia's third largest inbound tourism market in terms of expenditure (after China and the UK) and third largest two-way trading partner in goods and services with the Australia- United States Free Trade Agreement having entered into force in January 2005.

North America

As the world's largest economy, the US is a major driver of global economic activity. The airline industry in the US consists of some of the world's largest carriers with very strong brand and network presence, making it challenging for non-domiciled carriers to stimulate significant demand without a local partner.

The alliance between Qantas and American Airlines received interim authorisation from the Australian Competition and Consumer Commission in July 2015. If it receives final regulatory approval, the alliance will strengthen the existing joint venture between Qantas and American Airlines creating a revenue sharing agreement between the two to allow for joint strategic planning, scheduling, route planning, sales and marketing.

Qantas currently operates non-stop services from Australia to Hawaii, Los Angeles and Dallas Fort Worth, a one stop service to New York via Los Angeles and seasonal services to Vancouver. The partnership would allow Qantas to also commence operations between Sydney and San Francisco in December whilst American Airlines will launch a service from Los Angeles to Sydney.

By operating into each other's respective hubs and coordinating schedules, Qantas and American Airlines are able to provide a total of 45 services per week between Australia and North America from January 2016. This will provide access to more than 150 destinations throughout North America on American Airlines' extensive network from Dallas Fort Worth, Los Angeles and San Francisco. Inbound tourists to Australia will be able to access more than 60 destinations across Australia and New Zealand on Qantas' network.

China

In China, the alliance between Qantas and China Eastern airlines was authorised by the ACCC in August 2015. As a result of the relationship, Qantas passengers have access to China Eastern's domestic network from its Shanghai hub and the airlines offer 38 return weekly services including three daily services to Shanghai from Sydney, two daily services to Shanghai from Melbourne and three weekly services between Sydney and Beijing via Nanjing. China Eastern has also announced it will commence direct flights between Shanghai and Brisbane in January 2016.

By utilising each other's domestic networks and hubs, the two airlines provide connections to 18 destinations in mainland China and over 50 destinations in Australia, with over 400 weekly connections to their own-operated services between Shanghai and Australia.

In addition to improving network connections, the alliance is also likely to help support increases in freight activity associated with the signing of the China-Australia Free Trade Agreement in June 2015.

Europe

The geographic distance between Australia and Europe naturally favours mid-point hub carriers in the Middle East and Asia. In this market environment, the Australian-based carriers have to focus on the large trunk markets.

Unlike the partnerships with China Eastern and American Airlines, the alliance with Emirates enables Qantas to access multiple destinations in Europe, the Middle East and North Africa beyond the partner airline's home market.

Qantas and Emirates operate over 90 weekly services between Australia and Dubai, including Qantas' daily services to London from Sydney and Melbourne. The alliance provides Qantas with access to Emirates' network of destinations across Europe, the Middle East and North Africa, whilst giving Emirates access to Qantas' Australian domestic and regional network. This is complemented by coordination on services between Australia and South East Asia, and between Australia and New Zealand.

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Appendix A: Economic contribution modelling framework

Economic contribution studies are intended to quantify measures such as value added, exports, imports and employment associated with a given industry or company, in a historical reference year. The economic contribution is a measure of the value of production by a company or industry.

Value added

The measures of economic activity provided by a contribution study are consistent to those provided by the Australian Bureau of Statistics. For example, value added is the contribution the sector makes to total factor income and gross domestic product (GDP) and gross territory product.

There are a number of ways to measure GDP:

- **Expenditure approach** – measures the expenditure; of households, on investment, government and net exports
- **Income approach** – measures the income in an economy by measuring the payments of wages and profits to workers and owners

Below is a discussion measuring the value added by an industry using the income approach.

Measuring the economic contribution – income approach

There are several commonly used measures of economic activity, each of which describes a different aspect of an industry's economic contribution:

- **Value added** measures the value of output (i.e. goods and services) generated by the entity's factors of production (i.e. labour and capital) as measured in the income to those factors of production. The sum of value added across all entities in the economy plus net taxes less subsidies on products equals gross domestic product. Given the relationship to GDP, the value added measure can be thought of as the increased contribution to welfare.

Value added is the sum of:

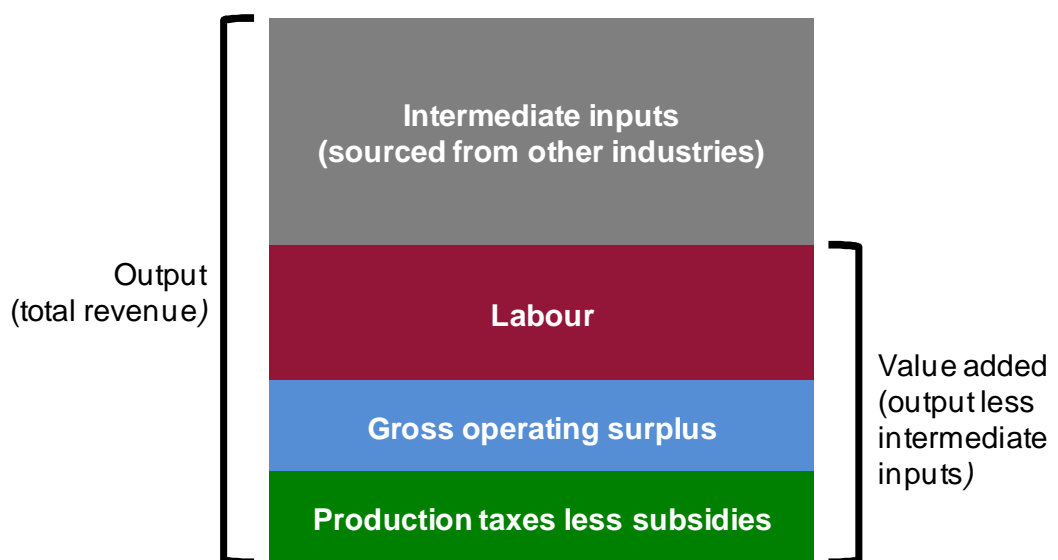
- Gross operating surplus (GOS). GOS represents the value of income generated by the entity's capital inputs, generally measured as the earnings before interest, tax, depreciation and amortisation (EBITDA).
- Tax on production less subsidy provided for production. Note: given the returns to capital before tax are calculated, company tax is not included or this would double count that tax. In addition it excludes goods and services tax, which is a tax on consumption (i.e. levied on households).

- Labour income is a subcomponent of value added. It represents the value of output generated by the entity's direct labour inputs, as measured by the income to labour.

Figure A.1 shows the accounting framework used to evaluate economic activity, along with the components that make up output. Output is the sum of value added and the value of intermediate inputs used by the company.

The value of intermediate inputs can also be calculated directly by summing up expenses related to non-primary factor inputs.

Figure A.1: Economic activity accounting framework



Source: Deloitte Access Economics.

It should be noted that Qantas also levies a range of net taxes on products which it then passes on to the government. These include the passenger service charges, passenger movement charges, international security charges and GST. These net taxes on products are not included in value added but are included in GDP.

Contribution studies generally outline employment generated by a sector. Employment is a fundamentally different measure of activity to those above. It measures the number of workers that are employed by the entity, rather than the value of the workers' output.

Direct and indirect contributions

The **direct** economic contribution is a representation of the flow from labour and capital in the company.

The **indirect** contribution is a measure of the demand for goods and services produced in other sectors as a result of demand generated by the Qantas Group. Estimation of the indirect economic contribution is undertaken in an IO framework using Australian Bureau of Statistics IO tables which report the inputs and outputs of specific sectors of the economy (ABS 2015a).

The total economic contribution to the economy is the sum of the direct and indirect economic contributions.

Other measures, such as total revenue or total exports are useful measures of economic activity but these measures alone cannot account for the contribution made to GDP. These measures overstate the contribution to value added because they include activity by external companies supplying inputs, in addition they do not discount the inputs supplied from outside Australia.

Input-output analysis

Input-output tables are required to account for the intermediate flows between sectors. These tables measure the direct economic activity of every sector in the economy at the national level. Importantly, these tables allow intermediate inputs to be further broken down by source. These detailed intermediate flows can be used to derive the total change in economic activity associated with a given direct change in activity for a given sector.

A widely used measure of the spill-over of activity from one sector to another is captured by the ratio of the total to direct change in economic activity. The resulting estimate is typically referred to as 'the multiplier'. A multiplier greater than one implies some indirect activity, with higher multipliers indicating relatively larger indirect and total activity flowing from a given level of direct activity.

The IO matrix used for Australia is derived from the ABS 20012-13 IO tables (2015a). The industry classification used for IO tables is based on ANZSIC, with 114 sectors in the modelling framework.

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Contact us

Deloitte Access Economics
ACN: 149 633 116

Level 1
9 Sydney Avenue
Barton ACT 2600
PO Box 6334
Kingston ACT 2604 Australia

Tel: +61 2 6175 2000
Fax: +61 2 6175 2001

www.deloitteaccesseconomics.com.au

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