Attachment 5

JSA: Response to the ACCC's information request

This note sets out NECG's answers to questions 6 to 10 contained in Scott Gregson's letter to Brett Johnson of Qantas Airways dated 30 June 2003.

Question 6

NECG outlines strategies that are likely to be considered by the Applicants in relation to IT systems in the absence of the JSA and estimates the cost savings associated with the JSA for each of these options. Please provide the Commission with the basis of, or a more detailed breakdown of, the estimates relating to each of the IT cost savings attributed to the JSA.

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Question 7

The Commission notes NECG's reference to findings published in 1992 by Crouch, Schultz and Valerio. Would you please advise the Commission if there are more recent studies that support these findings. Alternatively, please provide the Commission with information which supports the ongoing accuracy of these findings.

NECG is unaware of more recent published econometric studies of the effects of tourism promotion on tourist arrivals in Australia. However, an econometric model has been estimated that quantifies the relationship between Qantas' promotion and travel on the Kangaroo Route through sales outside Australia. The approach adopted is a multivariate regression analysis, which allows the impact of promotional spending on inbound Qantas

Revenue Passenger kilometres (RPKs) to be ascertained whilst also controlling for other variables that are likely to causally affect these RPKs. The analysis (detailed in the appendix) models RPKs as a function of GDP, price, promotion, exchange rates and a dummy to reflect the events of September 11. An error-correction regression framework is used so that the trend in RPKs (long-term movement) can be modelled separately from the cycle (short-term or dynamic movements around the trend). The results of this estimation suggest that promotion has a positive impact on demand on the Kangaroo Route. Specifically, it was found that a 1% increase in real promotional spending by Qantas results in a [*Confidential Information Deleted*] increase in the growth of RPKs (with a delay of two months). Since this elasticity analyses the impact that promotional spend has on the growth in demand, as opposed to the level of demand, it is not directly comparable to the findings of Crouch, Schultz and Valerio (1992).[1] Nonetheless, it provides evidence the positive impact that promotion has on demand on the Kangaroo Route.

In addition, as part of NECG's analysis of the proposed operating agreement between Qantas and Air New Zealand, econometric models were estimated to explain Air New Zealand's RPKs flown to New Zealand from Australia, North America and Japan / Asia. Significant promotion elasticities were found on the Australian and North American routes.

Initially, promotion was not found to be a significant determinant of demand for travel between the UK and New Zealand. However, further analysis of the data has been undertaken. This analysis revealed that the previously estimated model for the UK had failed to establish the determinants of demand due to the inclusion of data post March 2001, which includes the events of September 11. When this data was excluded and the model re run, a satisfactory statistical relationship explaining travel to New Zealand was found. The model employed GDP, price and promotion as its explanatory variables.[2] Promotion was

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1 Geoffrey Crouch, Lance Schultz and Peter Valerio (1992), "Marketing international tourism to Australia, A Regression analysis", *Tourist Management*, June, pp. 196-208.

2 The model used to quantify the relationship between promotion and Air New Zealand's UK-New Zealand RPKs is different but consistent with the model used to quantify the relationship between promotion and Qantas' Europe-Australia RPKs. The New Zealand data facilitated a simpler approach being adopted.

found to be one of the determinates of this demand and a 1% increase in Air New Zealand UK promotion relative to the UK CPI causes an increase in the number of passenger kilometres flown between NZ and the UK by [*Confidential Information Deleted*]. This derived promotion elasticity of [*Confidential Information Deleted*] is of the same order of magnitude to the promotion elasticities obtained by Crouch et al. For example, Crouch et al[3] report a marketing elasticity of 0.14 for advertising in the UK.

There is other evidence available that suggests that promotion has a positive impact on the demand for tourism by UK residents. Roy Morgan Research, for example, survey UK residents on various matters related to tourism. One question asked relates to the factors that helped tourists decide on a destination. Respondents were asked:

> "Still thinking about your last trip in the UK or overseas, from which of these places did you get any help in choosing your last holiday destination of 4 or more nights?"

Data for all long haul markets is summarised in Table 1.[4] Airlines and advertising in papers accounted for just under 10 per cent of responses received indicating that advertising plays a significant role in the choice of long haul destinations for UK tourists.

Some caution should be exercised in the interpretation of the Roy Morgan data as it is based on a relatively small sample size. Consequently, the estimated percentages may have reasonably high sampling errors. In addition, airline advertising probably plays an indirect role in facilitating long haul travel by providing information that assists other "places" to impact on tourists' decisions. For example, 14 per cent of tourists undertaking long haul travel indicated that brochures assisted in the choice of destination. Many of the brochures would be provided by airlines. Thus the role airlines play in assisting tourists decision about travel destinations is probably significantly higher than the 5 per cent figure given in Table 1.

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3 Crouch et al (1992)`op. cit.

4 Results for Australia alone could not be provided as only 15 of the 1000 respondents indicated they had travelled to Australia.

Table 1 Factors that influenced tourists' choice of long distance destinations

Travel Agent	37%
Airline	5%
Government Travel Centre	-
Motoring Club (eg. RAC, AA, etc.)	-
Tour Operator	3%
TV advertising	-
TV programme (eg. Lifestyle or Travel show)	1%
Radio advertising	-
Radio programme	-
Total TV or Radio	1%
Newspaper advertising	3%
Newspaper articles	4%
Magazine advertising	-
Magazine articles	0%
Total Newspapers or Magazines	5%
Brochures	14%
Travel or guide books	18%
Friends or relatives who had visited the destination	21%
Friends or relatives who live at the destination	16%
Total Friends or Families	37%
I had been there before	10%
Internet	18%
Teletext/ceefax	4%
Loyalty programme	-
Some other	1%
I did not obtain any information	9%
Can't say	11%

Source: Roy Morgan Research

Question 8

In terms of differences between the factual and counterfactual European promotional scenarios, what net effect will the recent announcement of the cancellation of Qantas flights to Rome (under the current JSA arrangements) and the subsequent reduction in promotional levels in Italy have on Australian tourism exports?

Qantas has suspended services to Italy. To examine the impact of this suspension on the calculated tourism promotion impact, the model was re run assuming that promotion in Italy in the factual case was equal to the assumed level of promotion in the counterfactual. The promotion reduction in the counterfactual in the other markets was kept at the same level as in the original analysis

In our original analysis, Qantas' reduction in promotion in the counterfactual represented a 7% decrease in total promotion (including expenditure by the ATC and state tourism bodies). A summary of the original analysis is contained in **Table 2.** With services to Italy suspended in both the factual and counterfactual, Qantas' reduction in promotion in the counterfactual represents a 4% fall in total promotion. **Table 3** shows the impact of a 4% decrease in total promotion in the counterfactual. The difference in NPV of promotion benefits of the JSA under the two cases is $25.0m (58.0-33.0).

Table 2: Promotion impact as per Report

Report analysis		Year1	Year 2	Year 3	Year 4	Year 5
Change in promotion	%	0%	-7%	-7%	-7%	-7%
Impact of arrivals wrt a 1% change in promotion	%	19%	19%	19%	19%	19%
Impact on tourist arrivals	Number	0	-4,781	-4,781	-4,781	-4,781
Average spend	$/trip	$3,466	$3,466	$3,466	$3,466	$3,466
Value of expenditure by tourists	$A'000	$0	-$16,570	-$16,570	-$16,570	-$16,570
Welfare impact (*1.07)	$A'000	$0	-$17,730	-$17,730	-$17,730	-$17,730
NPV Welfare impact	$A '000	-$57,950				

Table 3: Promotion impact with Italy promotion reduced in factual

Analysis after Qantas' suspension of Italy service		Year1	Year 2	Year 3	Year 4	Year 5
Change in promotion	%	0%	-4%	-4%	-4%	-4%
Impact of arrivals wrt a 1% change in promotion	%	19%	19%	19%	19%	19%
Impact on tourist arrivals	Number	0	-2,718	-2,718	-2,718	-2,718
Average spend	$/trip	3,466	3,466	3,466	3,466	3,466
Value of expenditure by tourists	$A'000	0	-9,421	-9,421	-9,421	-9,421
Welfare impact (*1.07)	$A'000	0	-10,081	-10,081	-10,081	-10,081
NPV Welfare impact	$A '000	-$32,954				

The reduction in the tourist promotion effects by $25m reduces the range of total net benefits associated with the JSA to between $377m (lost JSA capacity is replaced) and $536m (lost JSA capacity not replaced).

Question 9

Could you please provide a theoretical description of the Monash Model and an explanation of the consumption effects stemming from the exogenous shocks in the Monash Model's three simulations? Moreover, which industries are disadvantaged by the short-run capital and labour divergences caused by the reduction in tourism exports in the counterfactual (without capacity replacement)?

The Monash model is documented in Dixon, P.B. and M.T. Rimmer (2002), *Dynamic General Equilibrium Modelling for Forecasting and Policy: a Practical Guide and Documentation of MONASH*, North-Holland Publishing Company. Also, the simulations are documented in a paper prepared by Peter Dixon and Maureen Rimmer. This paper has previously been provided to the ACCC.

There are three factors driving the real consumption results in the simulations. First, in the short run, the expansion in exports increases the demand for labour. With sticky real wages the increased labour demand is reflected in an expansion in employment. [5] This drives up labour income and hence consumption.

Second, the expansion in exports increases the demand for capital which is reflected in a rise in real returns as the stock of capital is fixed in the short term. As Australians own a portion of the capital stock, in the short term the rise in the rate of return increases real incomes and hence real consumption.

Third, the rise in real returns stimulates investment that is assumed to be funded from overseas in the simulations. Thus, a real appreciation is required to contract the traded sector of the Australian economy and allow a trade deficit which is offset by capital inflow to fund the investment.

The contraction in the export sector leads to higher prices paid by foreigners for Australia's exports[6] which expands real income and hence real consumption.

In addition, the model incorporates endogenous technological growth. While these effects are mostly small in the simulations, growth in technology leads to higher real incomes for Australians that also expands real consumption.

The contributions these factors make to the change in real consumption differ through time. The growth in employment slows through time as real wages adjust to maintain employment at base case levels. Similarly, rates of return decline through time as investment adds to the capital stock.

In the long term, the rise in real consumption observed in the simulations is largely driven by the improvement in the terms of trade. Thus the improvement in the terms of trade is

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5 See Peter B Dixon and Maureen T. Rimmer, *"Three tourism simulations with the MONASH Model, paper prepared for NECG"*, Centre of Policy Studies, Monash University, February 19 2003.

6 This is known as a terms of trade gain.

documented as the main factor giving rise to the modelled sustained 0.02 per cent rise in real consumption in the simulation of an expansion in exports.

The relative importance and magnitude of the factors driving the real consumption results differ across the simulations. In the expansion in exports simulation, because of the parameter settings in the model,[7] the initial shift in exports puts more upward pressure on rates of return and this stimulates a much greater expansion in investment. The expansion in investment coupled with the expansion in labour demand caused by the increase in tourism, gives rise to a strong rise in the demand for labour. Consequently, real incomes rise by more in this simulation in the short term. In the longer term, these effects are reflected in a much stronger rise in the terms of trade compared to the import replacement simulation.

In both the import replacement and expansion in exports simulations, endogenous technological growth generates relatively modest increase in real incomes and hence real consumption.

In the simulation in which export expansion takes place without an expansion in airline capacity, a significant increase in real incomes is achieved because this simulation implies a strong increase in Total Factor Productivity in the airline industry in this simulation.

The industries that gain and lose from an expansion in tourism are documented in the paper detailing the simulation results. In all simulations the main industries to gain from the expansion in tourism are:

- air transport;
- hotels; and
- aircraft.

Other sectors that benefit, depending upon the simulation are:

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[7] In the MONASH model, export demand curves are more price elastic than export supply curves. Consequently, a shift out of the export demand curve will generate a bigger rise in export prices than will an equivalent shift inwards of the export supply curve.

- personal services; and
- transport services entertainment.

The industries found to contract in all simulations of an expansion in tourism include:

- pastoral zone;
- sporting equipment;
- oils and fats;
- construction machinery; and
- leather products.

As explained in the documentation of the simulation results, the industries that contract have either direct or strong indirect links with the export sector.

Question 10

Given the assumptions and inputs that underpin the Monash Model's outputs shown in figures 27-29, can you please provide further explanation to demonstrate how the multipliers are used to produce the results in the economic cost column in tables 61 and 62?

The welfare effects of a change in tourism are the result of two separate sets of calculations. The first set of calculations focus on the determination of the impact of capacity changes on arrivals in Australia. These calculations are given in **Table 4**.[8]

First, the numbers of tourists in the factual were compared to the counterfactual. The changes in passengers were then split into British, Australian and other nationals based on historical passengers shares. The change in the number of tourists was then found by

[8] Based on Tables 55 and 56 (pages 172-173) in the NECG report.

multiplying the change in passengers by the assumed proportion of passengers that are tourists. This proportion was set at 0.48 based on an estimate by Tourism Futures International (TFI).

Table 4 Price and capacity impacts of the JSA on tourism in Australia, Year 3.

	Passenger numbers in factual (000s)	Change in passengers due to JSA (000s)	Proportion of passengers who are tourists	Change in tourist numbers (000)	Expenditure on travel, excluding airfares ($/trip)	Value of expenditure by tourists ($'000)	Welfare multiplier	Welfare cost ($'000)
	a	b	c	d=b*c	e	f=d*e	g	H=g*f
(1) Australian	438	-42	0.48	-20	$3,261	$65,943	0.5	$32,972
(2) British	170	-23	0.48	-11	$3,530	-$39,660	1.07	-$42,436
(3) Other	377	-31	0.48	-15	$3,437	-$50,846	1.07	-$54,406
Net impact	(2+3-1)			-6		-$24,563		-$63,870

The change in tourist expenditure was then found by multiplying the change in tourist numbers by the assumed average expenditure per tourist. The following expenditure figures were used:[9]

- Australian $3,261;
- British $3,530; and
- Other nationals $3,437.

[9] Source: TFI

This gave the change in tourist expenditure split into expenditure by tourists from Britain, Australia and other nations.

These calculations were undertaken for years 1 to 5. The expenditures were then converted into a welfare effect by multiplying by a welfare multiplier. The multipliers used are detailed in the column headed "Welfare multipliers". For tourism exports a multiplier of 1.07 was used. For replacement of imports for domestic tourism by Australians, a multiplier of 0.5 was used.

A reduction in Australians flying overseas is assumed to be positive for the Australian economy. Thus adding the British and Other welfare totals and then subtracting the Australian total calculates the net effect.

In the second set of calculations, the effects of reductions in promotion are undertaken. These calculations for year three are given in **Table 5.**

Table 5 Impact of promotion effectiveness on tourist arrivals in Australia

Variable	Formula	Result
Passengers from Europe implied by factual (000)	A	817
Proportion who are tourists (%)	B	0.48
Tourists implied by factual (000s)	C=B*A	392
Existing promotion expenditure by parties ($'000)	D	7,250
Existing promotion by ATC ($'000)	E	24,871
Total promotion ($'000)	F=D+E	32,121
Assumed reduction in promotion if JSA removed ($'000)	G	2,117
Change in promotion (per cent)	H=G/F*100	-6.6%
Impact of arrivals wrt promotion (per cent)	I	18.50
Impact on tourist arrivals ('000)	J=I*H*C	-4.782
Average spend ($/trip)	K	$3,466
Value of expenditure by additional tourists $000s	L=J*K	-$16,571
Welfare multiplier	M	1.07
Welfare cost ($000s)	N=M*L	-$17,730

The number of passengers from Europe in the factual is multiplied by the proportion of passengers who are tourists, giving the assumed number of passengers susceptible to promotion of Australia by the parties.

The percentage change in promotion expenditure is then calculated given the assumed levels of promotion in the factual and counterfactual. Multiplying this percentage by the elasticity of arrivals with respect to promotion and tourists in the factual gives the impact on tourist arrivals of the reduction in promotion.

The reduction in passengers is then multiplied by the assumed average expenditure per tourist to obtain an estimate of the reduction in tourism expenditure associated with the reduction in promotion. Multiplying this expenditure by the welfare multiplier of 1.07 gives the estimated welfare impact.

Appendix

Impact on Qantas UK, Europe and South East Asia RPKs of Promotion Spend

Further evidence of the impact of promotional spend on inbound tourism can be seen by quantifying the relationship between Qantas RPKs on the Kangaroo Route from sales within the UK, the rest of Europe and South-East Asia (hereafter referred to as the UES countries) and Qantas' promotional spending in the UES countries. This relationship is investigated using monthly data from July 1999 to June 2002.

One means by which this relationship can be quantified is by the use of multivariate regression analysis, which allows the impact of promotional spending on inbound Qantas RPKs to be ascertained whilst also controlling for other variables that are likely to causally affect these RPKs. An error-correction regression framework is used so that the trend in RPKs, the long-term movement, can be modelled separately from the cycle, the short-term movement around the trend. This approach is taken because promotion by Qantas may not be the key driver of the long term the trend in RPKs on the Kangaroo Route but rather short-term movements around that trend.

We identify the likely main drivers of trends and short-term movements in RPKs as :

- the income of consumers or businesses that potentially demand air travel;
- the costs of the flight (including the costs of air travel itself);
- the cost of purchasing goods and services on arrival in the destination country (including the cost in the destination currency of tourism related goods converted into the origin country's currency);
- airline spending on promotion; and
- events that may increase the perceived security risk associated with flying.

Given these expected drivers, the specifications to be estimated in order to capture the trend and dynamical relationship between promotional spending and Qantas UES RPKs respectively are the following linear[10] expressions:

$$RPK_t = \beta_0 + \beta_1 GDP_t + \beta_2 P_t + \beta_3 EX_t + \beta_4 Sep11_t + \beta_5 Prom_t + \varepsilon_t \quad (1)$$

$$\Delta RPK_t = \alpha_0 + \alpha_1 \hat{\varepsilon}_{t-1} + \sum_{i=1}^{k} \Gamma_i \Delta \mathbf{X}_{t-i} + \eta_t \quad (2)$$

The following definitions are used in the construction of (1) and (2):

- RPK is defined as revenue passenger kilometres generated from sales within the UES countries (sourced from Qantas);
- GDP is defined as the real gross domestic product of the top 15 OECD European countries as a proxy for movements in the income of the UES countries (sourced from the Australian Bureau of Statistics, OECD database Table F24, and converted from quarterly to monthly data by assuming a constant compound monthly growth rate within quarters);[11]
- P is defined as Qantas' net yield from sales to air travellers in the UES countries divided by RPK and divided by the consumer price index of the top 15 European member countries, denoted CPI, thus P simulates a relative or real price of Qantas air travel (net yield data sourced from Qantas and CPI data sourced from the Australian Bureau of Statistics, OECD database Table C1);
- Sep11 is a binary dummy variable that is defined as 0 prior to the date September 11 2001 and 1 thereafter (constructed by NECG);

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10 A double-log model was also estimated in preliminary investigations but the statistical properties of the linear model were found to be superior.

11 This real GDP measure is a good income proxy for sales that originate in Europe, which is likely to be the vast majority of sales.

- EX is the number of Euros purchased with 1 Australian dollar so that an increase in EX means that the Euro is weaker against the dollar[12] (sourced from the Reserve Bank of Australia, *Bulletin*, Table F11);
- Prom is the nominal level of Qantas promotional spending adjusted for movements in CPI (promotion data sourced from Qantas);
- Δ is notation used for the first difference operator so that $\Delta y_t \equiv y_t - y_{t-1}$;
- $\mathbf{X}_{t-1}$ is a vector of the variables used in the trend regression (1);
- ε_t, the disturbance term is mean-zero homoskedastic Gaussian and captures deviation from long run equilibrium while the error term η_t is both mean-zero homoskedastic Gaussian and non-serially correlated, capturing the error associated with the short-run or dynamic movements in RPKs; and
- the subscript t denotes time.

The coefficients in the trend and dynamic regression specifications, β_i (i=0,...,5), α_0, α_1 and the Γ_j (j=1,...,k) are estimated by Ordinary Least Squares (OLS) using Engle and Granger's 1987 two-step procedure[13]. All variables are seasonally adjusted where found to be seasonally significant.[14]

The coefficient associated with the real promotional spending variable in the trend equation, β_5 is not expected to be significant different from zero as real promotional spending is stationary through time while RPKs tend to trend upward over the period of investigation (despite the dip in the trend that starts in the latter part of 2001). This is indicated in Figure 1.

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12 The Euro/Australian dollar is a component of the cost of purchases made by European travellers, the majority of travellers over the Kangaroo Route, when they land in Australia.

13 Engle, R.E. and C.W.J. Granger, (1987), "Cointegration and Error-Correction: Representation, Estimation and Testing", *Econometrica*, 55, March, pp 251-76.

14 The Census X-11 procedure is used to seasonally adjust variables if the seasonal influence was found to be significantly different from zero at the 10% level of significance.

This suggests for Qantas RPKs on the Kangaroo Route generated outside Australia the impact of an extra dollar of promotion today is not likely to last permanently into the future, rather it is likely to have a short-term impact that, over the long term, will gradually gravitate towards zero.

Figure 1 [*Confidential Information Deleted*]

The results of OLS estimation of the trend equation (1) are presented in Table A.1 along with some standard diagnostic statistics in trend equation estimates. Variables found to be insignificant in the trend equation at the 10% level have been removed in the pursuit of the most parsimonious trend specification. The right hand side variables omitted include P and Prom (as expected). Table A.1 suggests that a trend or cointegral relationship exists between UES RPKs, GDP, the exchange rate and the September 11 dummy.[15]

Table A.1: [*Confidential Information Deleted*]

This means that the coefficients entered into column 2 can be interpreted as long run trend coefficients. All coefficients are significant at the 5.3% or lower levels of significance. The entries in the last column of Table A.1 are the coefficients derived from the estimated linear trend equation converted into elasticities using the point of sample means. These elasticities have signs that accord with theoretical expectations:

- an increase in consumer and business incomes in Europe is likely to result in more air travel (positive sign);
- a stronger Euro or a decrease in Ex reduces the price of buying goods when Europeans land in Australia, thus increasing the demand for air travel (negative sign); and
- the events of September 11 resulted in an increase in the security risk of flying, thus resulting in lower demand for air travel (negative sign).

The residuals obtained from the estimation of (1) are now lagged one period and used in the estimation of specification (2). This lagged term is the error-correction component of the

[15] See the test statistic ADF(k) presented towards the bottom of Table 1.

model of short-term movements in RPKs, capturing short-term adjustments that are due to movements back towards some long run equilibrium or trend level. The lag length of the error-correction model (2), denoted by k, must also be chosen. This is selected using a general-to-specific modelling approach that involves the use of a sequence of likelihood ratio tests[16] supported by t-tests of the significance of lags. Lags that are not significantly different from zero at the 10% level are omitted from the estimated specification in the pursuit of the most parsimonious short run specification, whilst ensuring that the residual terms are still free from serial correlation problems (as described by a set of serial correlation tests).[17] The general-to-specific modelling approach starts with a maximum lag length of k=4, constrained by virtue of degrees of freedom restrictions, and tests down from this level. The results of OLS estimation of (2) are presented in Table A.2.

[**Table A.2:** *Confidential Information Deleted*]

Table A.2 indicates that the estimated short-run specification has reasonably high explanatory power, in excess of 65%, and the estimated residuals are free from serial correlation at standard significance levels (according to the LBP test).[18] This means that the estimated coefficients are statistically reliable, including the real promotion coefficients. There are a variety of lag terms on the right hand side of the estimated dynamic equation. These are the lag terms that were found to be significantly different from zero. They suggest that changes in European GDP and the Euro/$A exchange rate impact changes in RPKs on the Kangaroo Route with a two period lag, relative price changes impact changes in RPKs with a 4 period lag and real promotion impacts RPKs with a two period lag. Some of these lag effects are intuitive. For example, one would expect a lag between relative prices and

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16 See Judge, Hill, Griffiths et al (1988) pp 105 - 110 for a discussion of likelihood ratio tests.

17 The serial correlation tests include the Ljung-Box-Pierce test for the joint significance of autocorrelation coefficients, which is supported by the use of the Breusch-Godfrey autocorrelation test. See Gujarati (1995) for a simple discussion of the tests.

18 The LBP test result is supported by a standard Godfrey (1988) test of serial correlation.

RPKs because tickets are normally purchased in advance of the flight date. Or the lag between income and RPKs is expected because travellers take some time to make plans about how they will spend their extra income before those plans are realised. The promotion lag is expected because of the lag that is likely to exist between the time the promotional expenditure is incurred, the time advertisements go to air or to print, and the time it takes for potential air travellers to respond to the advertisements.

The real promotion coefficient in the estimated short run equation, which is the coefficient of interest, indicates that real Qantas promotion in the UES countries has a statistically significant positive two-period lagged impact on growth in UES RPKs. This confirms that Kangaroo Route demand is significantly and positively impacted by promotion. The two-month lag in the impact of promotion means, for instance, that Qantas promotional spending in July will normally reach its full positive impact by some time in September. The magnitude of the impact of an increase in real promotional spending in elasticity terms evaluated at the point of sample means, suggests that a 1% increase in Qantas promotional spending in the current month causes a [*Confidential Information Deleted*] increase in the growth of RPKs on the Kangaroo Route in two months time.[19]

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19 This cannot be directly compared with the promotional trend elasticity, which establishes the impact that a 1% increase in real promotional spending has on the level of, as opposed to the growth in, RPKs.