Assessment Schedule – 2013 Scholarship Economics (93402) Evidence Statement

# Question ONE

This is an open-ended question, allowing for the discussion of the factors that impact on the elasticity of demand

in the airline industry, and the relevance of elasticity concepts to airlines.

- How an airline operator can benefit from knowledge of each of the three elasticities of demand when making its pricing decisions could include:
  - Knowledge of the level of PED enables the seller to select the most profitable pricing policy. For instance, if the service is price elastic, then the most suitable policy would be to decrease price as this would increase total revenue (and possibly profit).
  - The seller might aim to charge the individual consumer a different price according to what each consumer is prepared to pay, as this would enable the firm to maximise revenue. This is unlikely to be achievable. However, as long as it is possible to identify different sectors in the market that have differing levels of PED, and arbitrage is not possible the seller can use price discrimination.
  - Price discrimination might be for the particular route, pairs of cities, the season (peak / off-peak), time of day, day of the week, duration of journey (number of stops), etc.
  - Knowledge of CED can help the operator in determining pricing and booking arrangements for their services in relation to changes by other operators in the industry, ie whether there is a complementary or substitute relationship between the services. Airlines may seek to establish their brand more effectively to reduce the degree that other airlines are perceived to be a substitute. Similarly, loyalty programmes seek to reduce consumer willingness to switch to other airlines, reducing cross elasticity.
  - Knowledge of level of YED enables the seller to determine whether its service is classified as normal or inferior, as this will help forecast how sales and revenues might be influenced by the likely changes in consumers' incomes – resulting from forecast changes in the business cycle. Airlines may also use YED to alter pricing for flights to and from different countries depending on the YED for the population base in that country.
- How the operator can determine the level of elasticity of demand could include:
  - The trade-off between price and quantity sold needs to be investigated, if the seller is considering a change in price to increase its revenue, and possibly its profits. If the seller has data on how the QD for its product has responded to a change in price, then the data could determine the price elasticity of demand (PED).
- Factors that are likely to help an airline operator determine elasticity of demand for its service include:
  - The price and availability of substitutes (other airlines, other modes of transport, etc.), the price of the product in relation to the consumers' total spending (first-class vs economy seats), the timeframe (this is equivalent to the durability when measuring PED of other products), and the degree of necessity of the product (ie whether it is a business trip or a holiday).
  - If the seller has data on how QD for its product has responded to a change in the price of a different product, then it could determine the cross elasticity of demand (CED).
  - Determining the level of CED enables the seller to identify the nature, and the strength of, and the relationship between goods (ie whether they are substitutes, complements, or unrelated).
  - If the seller has data on how QD for its product has responded to a change in consumers' disposable income, then it could determine the income elasticity of demand (YED).
  - Disposable incomes might be influenced by changes in government policy (taxes, etc.), time of the business cycle (booms / recession), the demographic characteristics of travellers (population, age, etc).
- Evaluation of the importance of this knowledge for an airline operator in maximising its revenue in the long run could include:
  - If there were relatively low barriers to entry, any supernormal profits would attract new entrants into the industry, effectively increasing market supply, driving down prices and revenue earned.
  - PED will enable the firm to learn more about the market structure the firm is operating in (monopolistic competition, etc), so it is better able to maintain its competitive edge.
  - Continue to adopt strategies (eg differentiation) that enable the firm to keep market power in order to stay ahead of the competition, and increase revenue in the long run.
  - The operator may investigate changing the nature of the service it provides, such as providing fewer seats in business class, or becoming a 'low cost' airline by providing only budget services.
  - The firm might establish different brands, such as Qantas setting up the low cost off-shoot Jetstar.

- The firm might establish strategic links with providers of complementary services, such as hotels, car-hire, travel insurance, etc.
- A (black swan) event might make the firm's pricing policy redundant, eg another 9 / 11, a significant change in technology, a change in government policy, etc.
- Might be just as relevant to know about PES, rather than PED as airlines may need to plan for service expansion as demand in developing countries expands or as demand grows as developed countries emerge from the recession.

Outstanding Scholarship	8 Marks	The candidate produces and effectively communicates an outstanding and sophisticated economic analysis of how an airline operator could estimate the elasticity of demand for its services, and of the significance of this knowledge for the firm in making its pricing decisions when operating in the highly competitive New Zealand airline industry, by applying microeconomic theory. This is complete and demonstrates <i>perception and insight</i> AND  demonstrates sophisticated abstraction and integration of the resource material AND  demonstrates independent reflection and extrapolation relevant to the evaluation AND  is convincing and economically literate.
	7 Marks	The essay fulfils most of the requirements above, <b>but</b> :  Contains minor factual inaccuracies (when this affects a statement or opinion)  OR  deals inadequately with an essential point  OR  lacks sufficient abstraction or integration of the resource material  OR  has some minor failure in the evaluation  OR
		may lack some fluency and / or coherence.
Scholarship	6 Marks	The candidate produces and effectively communicates a sophisticated economic analysis of how an airline operator could estimate the elasticity of demand for its services, and of the significance of this knowledge for the firm in making its pricing decisions when operating in the highly competitive New Zealand airline industry, by applying microeconomic theory. This demonstrates a high level of analysis and critical thinking AND incorporates a competent level of integration and synthesis of the resource material AND the discussion and evaluation is clear, logically developed, and precise.
	5 Marks	The essay fulfils most of the requirements above, <b>but</b> : has some unsupported generalisations  OR some major point in the discussion is neglected or incomplete  OR has some inadequacy in the evaluation  OR ideas may not be communicated effectively.

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4 Marks	The candidate produces a comprehensive analysis of how an airline operator could estimate the elasticity of demand for its services, and of the significance of this knowledge for the firm in making its pricing decisions when operating in the highly competitive New Zealand airline industry, by applying microeconomic theory AND
	produces a <i>clear but undeveloped</i> discussion and evaluation
	AND
	demonstrates some level of integration and synthesis of the resource material
	AND
	demonstrates some application of economic theory relevant to the discussion.
3 Marks	The answer fulfils most of the requirements above, <b>but</b> :
	is incomplete
	OR
	fails to present a cogent argument or make critical analysis
	OR
	does not communicate ideas adequately.
2 Marks	The answer shows limited understanding relevant to the question. Some information is recalled, but ideas are not explained or analysed.
1 Mark	The answer contains a minimal amount of relevant evidence.
0 Marks	No response; no relevant evidence.

#### **Evidence statement**

## **Question TWO**

This is an open-ended question allowing for discussion of the equity and efficiency issues regarding child poverty, and possible government interventions to reduce child poverty.

- The impact of child poverty on equity and economic efficiency:
  - High levels of child poverty reduce economic efficiency, as these children are more likely to be sick, have cognitive issues, and reduced educational opportunities as a result, leading to an inefficient use of human resources in the future due to lower productivity.
  - High levels of child poverty reduce equity, as these children will not have the same educational, health, or job prospect opportunities as other children, which can be seen to be unfair.
  - Candidates may note that poverty as discussed in the resource material is relative poverty, so in reality, some families defined as living in poverty may actually have sufficient resources to get by.
  - Research suggests that child poverty is costing the country \$10 billion a year therefore there is a case that it would be worthwhile for the government to intervene, so long as the cost of intervention is less than the benefits that would arise.
- Analysis of possible government interventions:
  - Free meals in schools will be at a cost to the government (idea of opportunity cost), but would ensure that all students are fed and ready to learn, improving educational outcomes for the future. However, there will be some inefficiency as some children will receive the meals, even though their families could afford the meals themselves so resources are wasted. This policy would be fair, as children will have improved opportunities in school (more aligned to those children from better-off families).
  - Rental house warrant of fitness families on poverty levels of income are renting. A WoF would ensure that rental housing is of reasonable quality so that tenants' health is not negatively affected, so that children are less likely to have health issues that impact on their education and future prospects. Would cost the government relatively little, but pass the cost on to landlords. Discussion as to whether this is fair could be considered. This could be seen as efficient, since negative externalities associated with sub-standard housing will have to be internalised by landlords.
  - Enrolling every child in health and social services at birth would aid in ensuring improved state of children's health at relatively low cost, and therefore be efficient. This could be seen as intrusive for families, and therefore unfair.
  - Universal child payment would ensure that all families have an additional income base to pay for child-related expenses. However this is an inefficient use of government funds, since "universal" means that high-income families receive the benefit, as well as low-income so resources are wasted. This could also be seen as unfair, since high-income families do not need the additional funds.
  - Other possible interventions may be considered and analysed, such as a means-tested child payment, or child support payments passed on to beneficiaries.

A justified recommendation as to which policy or policies would be most effective.

Outstanding Scholarship	8 Marks	The candidate produces and effectively communicates an outstanding and sophisticated economic analysis of the equity and efficiency issues regarding child poverty, and the case for government interventions to reduce child poverty by applying microeconomic theory. This is complete and demonstrates <i>perception and insight</i> AND
		demonstrates sophisticated abstraction and integration of the resource material AND
		demonstrates independent reflection and extrapolation relevant to the evaluation of possible government interventions to reduce child poverty  AND
		is convincing and economically literate.
	7 Marks	The essay fulfils most of the requirements above, <b>but</b> :
		contains minor factual inaccuracies (when this affects a statement or opinion)  OR
		deals inadequately with an essential point  OR
		lacks sufficient abstraction or integration of the resource material
		OR
		has some minor failure in the evaluation
		OR
		may lack some fluency and / or coherence.
Scholarship	6 Marks	The candidate produces and effectively communicates a sophisticated economic analysis of the equity and efficiency issues regarding child poverty, and the case for government interventions to reduce child poverty, by applying microeconomic theory. This demonstrates a high level of analysis and critical thinking  AND
		incorporates a competent level of integration and synthesis of the resource material AND
		the discussion of the possible government interventions to reduce child poverty is <i>clear</i> , <i>logically developed</i> , <i>and precise</i> .
	5 Marks	The essay fulfils most of the requirements above, <b>but</b> :
		has some unsupported generalisations
		OR
		some major point in the discussion is neglected or incomplete
		OR
		has some inadequacy in the evaluation
		OR
		ideas may not be communicated effectively.

4 Marks	The candidate produces a comprehensive analysis of the equity and efficiency issues regarding child poverty, and the case for government interventions to reduce child poverty, by applying microeconomic theory
	AND
	produces a <i>clear but undeveloped</i> discussion and evaluation
	AND
	demonstrates some level of integration and synthesis of the resource material
	AND
	demonstrates some application of economic theory relevant to the discussion.
3 Marks	The answer fulfils most of the requirements above, <b>but</b> :
	is incomplete
	OR
	fails to present a cogent argument or make critical analysis
	OR
	does not communicate ideas adequately.
2 Marks	The answer shows limited understanding relevant to the question. Some information is recalled, but ideas are not explained or analysed.
1 Mark	The answer contains a minimal amount of relevant evidence.
0 Marks	No response; no relevant evidence.

#### **Evidence statement**

## **Question THREE**

This is an open-ended question, allowing for discussion of the key factors that influence the level of the New Zealand exchange rate, the effect of a high exchange rate, the case for government intervention to lower the New Zealand exchange rate, and possible methods of intervention.

- Factors influencing the New Zealand exchange rate:
  - The New Zealand exchange rate is determined by demand and supply for New Zealand dollars on the foreign exchange market. An appropriate graph of the foreign exchange market in equilibrium should be provided.
  - Demand for the New Zealand dollar comes from overseas investors investing in New Zealand, overseas buyers paying for New Zealand exports or exporters repatriating overseas income, tourists to New Zealand. Investment into New Zealand will depend on relative interest rates and economic conditions, such as loans from foreign banks financing the housing boom in recent years.
  - Supply of the New Zealand dollar comes from investors shifting funds out of New Zealand, importers paying for New Zealand imports, New Zealand tourists traveling overseas, and repayment of loans to foreign banks.
  - New Zealand interest rates are high relative to overseas, because New Zealand Reserve Bank's policy
    prioritises inflation control. This has resulted in greater demand for New Zealand dollars, and reduced supply of
    New Zealand dollars, with interest rates high.
  - New Zealand's relatively stable and growing economy also makes it attractive for investment, particularly compared to European economies (and US).
  - Quantitative easing in the US and Europe has weakened the value of those currencies, conversely increasing the value of the New Zealand dollar.
- · Effects of a high exchange rate:
  - A high exchange rate makes exports less competitive and reduces returns on exports, negatively affecting
    economic growth and employment in the export sector. It will also make tourism to New Zealand less
    attractive, reducing export receipts received from tourism. A negative multiplier effect of the reduced injections
    could also be mentioned.
  - A high exchange rate reduces the cost of imports including imported materials for firms, reducing costs of production. Consumers benefit from cheaper priced imports, potentially raising living standards.
  - Cheaper imports result in greater difficulty for domestic industries competing with imports.
  - Overall, a high exchange rate reduces AD but increases AS. The impact is likely to be disinflationary and reduce economic growth the decrease in AD is likely to exceed any increase in AS.
- Government policies to reduce the exchange rate:
  - To lower the exchange rate, the RBNZ could intervene in the foreign exchange market by selling New Zealand dollars, increasing supply. However, this could not be sustained in the long run, due to the cost, and the risk to the taxpayer, so is unlikely to be effective.
  - Lower the Official Cash Rate to make New Zealand less attractive to investors, which would reduce demand and increase supply of New Zealand dollars. However, this is likely to be inflationary, which in the long term, could damage the competitiveness of exports.
  - Candidates could also comment on policies to increase savings to reduce the reliance on overseas borrowing.
  - A justified conclusion as to the advisability of intervention in the foreign exchange market should be provided.

Outstanding Scholarship	8 Marks	The candidate produces and effectively communicates an outstanding and sophisticated economic analysis of the key factors that influence the level of the New Zealand exchange rate, and the effects of a high exchange rate on the economy. This is complete and demonstrates perception and insight AND demonstrates sophisticated abstraction and integration of the resource material AND demonstrates independent reflection and extrapolation relevant to the evaluation of the case for government intervention to lower the New Zealand exchange rate and possible methods of intervention AND is convincing and economically literate.
		1
	7 Marks	The essay fulfils most of the requirements above, <b>but</b> : contains minor factual inaccuracies (when this affects a statement or opinion)  OR deals inadequately with an essential point  OR lacks sufficient abstraction or integration of the resource material  OR has some minor failure in the evaluation  OR may lack some fluency and / or coherence.
Scholarship	6 Marks	The candidate produces and effectively communicates a sophisticated economic analysis of the key factors that influence the level of the New Zealand exchange rate, and the effects of a high exchange rate on the economy. This demonstrates a high level of analysis and critical thinking AND incorporates a competent level of integration and synthesis of the resource material AND the discussion of the case for government intervention to lower the New Zealand exchange rate, and possible methods of intervention, is clear, logically developed, and precise.
	5 Marks	The essay fulfils most of the requirements above, <b>but</b> : has some unsupported generalisations  OR some major point in the discussion is neglected or incomplete  OR has some inadequacy in the evaluation  OR ideas may not be communicated effectively.
	4 Marks	The candidate produces a comprehensive analysis of the key factors that influence the level of the New Zealand exchange rate, and the effects of a high exchange rate on the economy AND produces a clear but undeveloped discussion on the case for government intervention to lower the New Zealand exchange rate, and possible methods of intervention AND demonstrates some level of integration and synthesis of the resource material AND demonstrates some application of economic theory relevant to the discussion.
	3 Marks	The answer fulfils most of the requirements above, <b>but</b> : is incomplete OR

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	fails to present a cogent argument or make critical analysis
	OR
	does not communicate ideas adequately.
2 Marks	The answer shows limited understanding relevant to the question. Some information is recalled, but ideas are not explained or analysed.
1 Mark	The answer contains a minimal amount of relevant evidence.
0 Marks	No response; no relevant evidence.