Christchurch International airport Limited

COMMERCE COMMISSION SECTION 56G REVIEW

PROCESS AND ISSUES PAPER

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1. OVERVIEW

The period since the introduction of the Information Disclosure (***ID***) regime for New Zealand airports has coincided with a period of unique challenges for CIAL. Following intensive consultations with its major customers, CIAL undertook the development of the Integrated Terminal Project (***ITP***): a fundamental re-invention of Christchurch Airport, bringing our services and facilities up to international best practice standards. It is remarkable in the circumstances, that the terminal project was delivered just over budget, despite the unforeseen impacts on project costs and timing from the Canterbury earthquakes and the consequences of the need to remove asbestos in the demolition process.

The Canterbury earthquakes have also created other major challenges. They have caused a significant temporary reduction in passenger numbers to date, and - more importantly - have created a great deal of uncertainty about the pattern of future growth. They have also affected the economics of our major customers and have increased many costs, such as insurance and asset maintenance.

CIAL's approach to the 2013 pricing reset has inevitably been influenced by these circumstances. We have found ourselves in the middle of a periodic investment and pricing cycle, at a time of market downturn and increased uncertainty. The scale of the ITP (almost doubling the value of our aeronautical asset base) magnified the requirement of the current price cycle required by the Airport Authorities Act.

With this in mind, CIAL's approach to the 2013 price consultations and our future intentions has been to:

- recognise the inefficiency of major investment cycles relative to the duration of present price cycles and to develop a methodology to smooth the effects of such cycles by moving to a long-term pricing model;
- recognise the competitive constraints faced by CIAL from other South Island airports, and more generally as a gateway to a global leisure destination; and
- focus on delivering improved services to airlines and passengers through our new integrated terminal.

The fact that the timing of the Commerce Commission's (***Commission's***) review coincides with these significant events for CIAL highlights the challenge faced by the Commission in undertaking its assessment. At a broad level, these post-pricing event reviews are intended to enable the Commission to assure the Government that airports are not earning excessive returns (including in the form of sub-standard services) in situations where they are perceived to have market power. However, the Commission should be careful not to presume that such market power exists, and should instead examine the specific circumstances facing each airport. Good indications of the degree of market constraints on airports that exist now, and that are likely to exist in the future, are:

- historic pricing and returns earned by an airport;
- the extent of risk sharing an airport undertakes with airlines;
- the fact that counterparties to pricing consultations are well resourced with significant experience and knowledge of the sector; and
- an airport's demonstrated approach to major projects and market events.

CIAL has a long history of commitment to price stability and indeed a history of under-pricing in response to competitive pressures. As we explain in detail in response to specific questions, our pricing during PSE1 and PSE2 shows accommodation to airport users and modest

profitability over the medium term. Before the completion of our recent investment cycle, we had not increased our terminal charges in over 10 years. Our history suggests that CIAL pricing is constrained by the market, so the Commission should avoid presuming that such a constraint is absent from future pricing.

In considering whether ID promotes the objectives of Part 4 of the Commerce Act, the Commission asks a number of broad questions about various aspects of airport performance. We welcome this broad perspective. The Commission has emphasised on numerous occasions that ID is not a form of price control regulation and we strongly agree. This is precisely why it does not make sense to assess whether an airport's performance advances the Part 4 objectives by examining compliance with each individual component of the ID input methodologies. Such an approach could inadvertently mutate into a form of price control. Instead, the Commission should consider specific issues that it wishes to address within the overall competitive environment, including a broad set of market outcomes.

The first such consideration for the Commission relates to WACC. When considering whether CIAL is targeting an appropriate rate of return, the Commission must ensure that the discussion of (and any disagreement over) various WACC components does not obscure the distinction between CIAL's estimated cost of capital, and the actual returns targeted in our posted prices. CIAL's permanent under-recovery means that our targeted return is less than our estimated WACC. In addition, by deferring recovery of a material portion of our investment and working with airlines to enable greater innovation — such as more efficient use of check-in space — CIAL is taking on further risks which may not be remunerated in the long run.

CIAL's analysis of real-world financial market conditions leads us to conclude that our cost of capital is likely to be greater than would be suggested by a mechanical application of the Commission's input methodologies (which are based on the theoretical long-term Capital Asset Pricing Model). However, CIAL's departure from the input methodologies in this respect provides little insight on whether our performance is in line with the objectives of Part 4 of the Commerce Act. As we show in this submission, CIAL's medium-term return is clearly constrained by the market.

The timing of cost recovery is another factor where the Commission should be very cautious in drawing any conclusions about market outcomes, based on mechanical disparities between the input methodologies and CIAL's pricing model. Whether one agrees or disagrees with any individual component of the Commission's input methodologies, they are designed to attribute costs to a specific five-year period. However, in real-world markets, the timing of cost recovery for long-lived assets will be influenced by many factors.

Our long-term pricing model means that timing issues are largely irrelevant to the price level. This particularly relates to the question of tax, arising out of the use of the pre-tax WACC. Whether or not the implied tax expense over PSE2 is a good estimate of the tax payable during this period is irrelevant and has no implications for pricing. The only relevant question for pricing is whether the present value of the implied tax expense over the life of the assets is a reasonable estimate of the present value of anticipated tax payable. CIAL presents evidence that:

- our use of pre-tax WACC is reasonable, and
- our logically consistent, long-term pricing model in fact results in a lower price level than would have resulted from a mechanical (but conceptually incorrect) application of Commission's input methodologies.

In considering likely pricing in PSE3, the Commission must be guided by:

- CIAL's past pricing history - which shows a high degree of market constraint and a commitment to price stability;
- CIAL's medium-term pricing approach - which will result in largely constant prices once the long-run marginal cost (***LRMC***) level is reached (subject to future consultations required by the Airport Authorities Act and appropriate adjustments for WACC, demand and new capex); and
- The fact that the range of disagreement over WACC will narrow substantially - CIAL's main disagreement with the Commission on WACC is about how to make adjustments for the global financial crisis and there is every reason to expect that markets will return to normal over the medium term.

In essence: CIAL has not priced excessively in PSE1, is not pricing excessively in PSE2, and the Commission has no reason to expect it will price excessively in PSE3. This reflects the reality that CIAL has very little or no market power: as a largely leisure airport, CIAL competes both as a domestic and international gateway to the South Island

In our submission, we provide evidence of our service standards and of our commitment to work with the airlines to respond to their needs. With the completion of the ITP, CIAL meets or exceeds expected service standards, demonstrated through the improved customer service experience as measured by the ASQ Survey results. It has and will continue to work with airlines and other stakeholders to implement innovations that improve customer experience and reduce processing times for both inbound and outbound passengers and aircraft. We also strive to facilitate innovations by airlines and are sharing the burden of recovery in the aftermath of the Christchurch earthquakes.

Against this context, CIAL's pricing delivers modest returns over the medium term, with significant financial risks for CIAL in the short term. We strongly believe that CIAL's performance meets all of the objectives set out in Part 4 of the Commerce Act.

It is more difficult to distil how much of that outcome is derived from the implementation of the ID regime. We believe that ID has helped by providing a conceptual structure for the consultations and has improved the transparency of information between CIAL and its customers. At the same time, it is important to emphasise that our approach to pricing and other consultations (such as consultations over the ITP) and our response to and consideration of airline responses during consultation is fundamentally influenced by competitive market constraints, rather than by the specific details of the input methodologies used in the ID regime.

As CIAL emphasises throughout this submission, it is critically important that the ID regime does not lead to the unintended consequence of forcing mechanical compliance with the input methodologies. This outcome would be to the detriment of overall competitive performance, and so would undermine the objectives of Part 4 of the Act. We urge the Commission to consider CIAL's overall performance in the context of the real world constraints offered by the aviation and financial markets.

2. PERFORMANCE REVIEW

2.1. Has information disclosure had any impact on Christchurch Airport's performance and/or in understanding Christchurch Airport's performance relative to the first price setting event (PSE1) and why?

- The primary impact of ID relative to PSE1 has been in providing an improved, common understanding of Christchurch Airport's actual performance, between the airport and its customers. In preparing the forecasts for the consultation underpinning PSE1, the information provided was limited to three years ending 30 June 2011. This was due to the significant investment change envisaged post the completion and commissioning of the new Integrated Terminal.

- The price reset in 2009 was the first increase in airport charges since January 2001 (resulting in prices being fixed for a period of approximately 9 years). Given the forthcoming terminal investment, that price re-set focused on the airfield, where historical prices were no longer providing an adequate return on investment. The price increase in 2009 only affected airfield charges, with domestic and international terminal charges being retained at rates prevailing since 1 January 2001.

- CIAL applied the building block approach to determining the required revenue to be recovered in PSE1. The development of the cost inputs into the respective building blocks applied a number of factors similar to those determined under the input methodologies - particularly with respect to allocation methodologies. However, in setting the opening regulated asset base (***RAB***) and the starting base for PSE2, some minor adjustments were made to the land valuation methodology (following the completion of the input methodologies to support ID) (refer to the Appendix **attached** for an extract from CIAL's Price Setting Disclosure, explaining how the input methodologies have influenced CIAL's pricing decisions).

- Through the input methodologies, information disclosure has established a more disciplined framework, providing guidance for the elements to be included and considered within the price consultation and decision making process.

- In addition, information disclosure regarding the assessment of performance for PSE1 has provided transparency to interested parties. As well as considering the operating performance of the company, it has established a set of key performance indicators to monitor achievement of, and the trend in on-going, business performance. It has also provided a common basis for benchmarking relative performance with other major airports.

- A further tangible benefit has been a proper understanding of the basis of how future investment may be viewed under the information disclosure process, and how such returns on investment will be monitored. While CIAL had already made the major decision to invest in the new Integrated Terminal, information disclosure has provided a useful framework to guide future investment decisions, particularly with respect to their impact on charges and how returns will be portrayed.

- CIAL believes that this understanding of our performance will have improved from PSE1 into PSE2. Information disclosure has provided us with a basis for better articulation of our pricing methodology, creating greater transparency of the framework on which pricing decisions will be made, the input elements into the pricing methodology, and the final pricing

decision made. In addition, the provision of a longer term view of the forward demand forecast and of forecast capital investment provides a longer term perspective on the airport's future operational outlook, and on how the airport will ensure the provision of services necessary for continued efficient performance. In contrast, PSE1 was for a discreet period of three years only.

- Additional refinement of information and a greater forward focus mean that information disclosure has provided a better understanding of Christchurch Airport's performance in PSE2 than was the case for PSE1. This highlights the need to ensure that information disclosure takes a longer term assessment of investment and performance, particularly when airports make major investment decisions. It is very clear from PSE2 that the level of return in the short run is inadequate. To understand medium term returns, the airport users and the Commission should assess outcomes over a number of pricing periods. Any snapshot view based on a discreet price review period is likely to be misleading. .

2.2. Has information disclosure had any impact on the effectiveness and scope of consultation as part of Christchurch Airport's second price setting event (PSE2) relative to PSE1, and why?

- In a broad sense the information disclosure regime has had a positive impact on the effectiveness and time taken for the consultation process for PSE2. Information disclosure provided an improved level of transparency of information, over that experienced in PSE1. It also provided a reference point for the level and detail of information shared with airline customers. The input methodologies provided, to some degree, common reference points for the various cost components, such as operating costs, assets, the allocation methodologies applied, and how certain items (e.g. revaluations), should be considered and treated in the development of the pricing model. At the same time, some input methodologies played a somewhat negative role of promoting theoretical debates, and diverting attention from the overall commercial setting.

- Overall, in part thanks to the role played by information disclosure, the PSE2 consultation process took less time and required fewer iterations, workshops and information updates than PSE1. The PSE1 process took place under an endeavour to progress constructive engagement to ensure there was a common understanding of the inputs into the pricing consultation process on which the final pricing decision would be made. The lack of a pre-determined set of reference methodologies, as subsequently provided by ID, meant the process had to traverse framework and methodological debates as well as settle on appropriate inputs. While not mandatory in the setting of prices, the input methodologies did provide a common framework for PSE2 to support discussions on, and reasons for, any variation in application.

- In CIAL's view, an increased understanding of performance and a common reference point has assisted both CIAL and the airlines in many respects with regard to the consultation process, including by providing greater clarity around the information required, and - more particularly – by resulting in an improved timeframe over which the consultation process is carried out. For example, in PSE1 the pricing consultation commenced in mid-2007 and the pricing decision was made in February 2009, and while there were a number of other extenuating circumstances affecting this period, the need for iterative interactions with the airlines in order to achieve a common understanding took some considerable time.

Consultation Process

- The pricing consultation for PSE2 was very different to that experienced in PSE1. The commercial focus for PSE1 was use of the existing infrastructure following the expiry of previous prices. In contrast, PSE2 involved consideration of the significant investment in Christchurch Airport's new Integrated Terminal - which requires CIAL to achieve the required return over the lifecycle of the asset.
- The emphasis during the consultation process was to ensure that the pricing methodology enabled CIAL to achieve the necessary return on its major ITP investment over the life of the asset. The pricing methodology and the transition path discussed during the consultation process were designed to ensure transparency of the extent to which prices would provide returns to CIAL over the current consultation period. Our consultation documents highlighted that CIAL had considered not just the pricing methodology framework to be applied, but also the economic environment that airlines are currently experiencing. This included the residual effects of the global financial crisis, and the Canterbury earthquakes and their on-going impacts on, and the uncertainty provided in, setting the demand forecast for the next 5 years.
- The PSE2 consultation provided a relatively clean break in that the asset structure on which the valuations and allocations set were able to be clearly established and worked through. This provided significant benefit in terms of a more cohesive and constructive determination of the capital cost and how such capital cost should be allocated to the different business activities. It also provided a constructive framework that will enable:
    - a more effective allocation of the effect of possible changes in business practice over time; and
    - a constructive framework to identify the on-going operating costs of the different activities and assets of the business.
- During the consultation CIAL continued to focus the consultation on standard services provided for airfield and terminal activities, and in this regard the revenue requirement for the 2012 pricing decision did not include other regulated activities, such as: terminal activities covered by discrete commercial arrangements (e.g. check-in counter licences), specific terminal leases for aeronautical activity, and aircraft and freight activities. This is because the revenue from such activities is not recovered by way of standard aeronautical charges. These arrangements are covered by leases/licences between CIAL and individual customers based on market value and valuation of other assets employed.
- CIAL believes that information disclosure had a positive impact on the scope and structure of consultation in PSE2. This was particularly assisted by the earlier and separate consultation on the ITP, where the major consultation on the capital investment and the required operating functionality had been previously completed prior to PSE2. The pricing consultation process did include consultation on the on-going capital investment to support the business, but the focus was more on identifying the required revenue to be recovered and the method through which this recovery would occur. Information disclosure provided a structure for consultation on operating costs and the methodologies/allocation bases on which such elements should be determined and allocated to the respective aeronautical activity.
- Information disclosure and the input methodologies have enabled consultation to be a significantly improved and more constructive process - resulting in a considerably shorter consultation period and so better timing for the making of the final pricing decision. This was a more cost effective outcome for both CIAL and major airline customers.

2.3. What aspects of performance and conduct should we focus our efforts on for this review for Christchurch Airport?

- There is a statutory context to this review which provides binding parameters to the Commission's exercise. That is, the Commission is directed by s 56G to assess how effectively information disclosure is promoting the long term benefit of consumers. Information disclosure will be effective to the extent it promoting the regulatory objectives in the Part 4 Purpose, namely that suppliers:
    - have incentives to innovate and to invest, including in replacement, upgraded, and new assets; and
    - have incentives to improve efficiency and provide services at a quality that reflects consumer demands; and
    - share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and
    - are limited in their ability to extract excessive profits
- The statutory scope of the review in s 56G requires an assessment of each regulatory objective, and does not permit an undue focus on any of the objectives to the exclusion of others.
- There are a number of overarching themes or features relating to CIAL that are crucial to the Commission's review. These are:
    - the commissioning of CIAL's new Integrated Terminal. In CIAL's view, this issue frames the review, as the new terminal has driven CIAL's long-term pricing approach and represents a step-change in its business, affecting levels of opex and service quality, among other things;
    - the Canterbury earthquakes have created a special environment in which investment is vital to ensuring the Canterbury region recovers;
    - CIAL has a unique risk exposure in the proportionally higher numbers of leisure travellers using the airport. Demand for airports services from leisure customers is much more elastic than for business travellers; and
    - demand is weaker than we forecast for the pricing reset, even after we had factored in the consequences of the Canterbury earthquakes and weak global economic recovery. This highlights CIAL's unique exposure to demand risk.

Incentives to innovate and to invest?

- A core question is whether information disclosure promotes incentives to innovate and invest. For CIAL, the recovery of the cost of committed investment is the most important way to ensure that there are appropriate incentives to innovate and invest. CIAL has committed to a long run approach to the recovery of the costs of the new Integrated Terminal. This is an innovative approach to recovery that will benefit both consumers and CIAL. This approach required careful consideration and some deviation from the Commission's input methodologies, which were designed for a pricing period of 5 years but not always for a longer recovery period (refer to the Appendix **attached** for an extract from CIAL's Price Setting Disclosure, explaining CIAL's approach to long-run levelised pricing).

- If information disclosure undermines innovative, long term recovery approaches such as that CIAL has committed to, incentives to invest will be undermined.
- The same can be said of CIAL's approach to the estimation of its cost of capital. As discussed below, there is currently a disjoint between the WACC estimate that results from a mechanical application of the CAPM (which is the method used to set the WACC input methodology) and the returns required by capital markets. Further, to rely on an industry-wide WACC that ignores features unique to CIAL would result in expected returns out of line with CIAL's risk profile. The task in this review is to reflect on whether CIAL's estimate of WACC is within a reasonable range appropriate to the market circumstances in which CIAL is operating.

Incentives to improve efficiency and provide services at a quality that reflects consumer demands

- The question here is whether CIAL has the right incentives to improve efficiency and to provide services at an appropriate quality.
- CIAL expects that the increased transparency afforded by information disclosure provides greater incentives for efficient expenditure and the provision of appropriate service quality. Therefore, the Commission in this review ought to focus on the quality of CIAL's disclosures to ensure that they provide the appropriate degree of transparency.
- The new Integrated Terminal will result in a step-change in the way that CIAL operates. Service quality has increased since the progressive implementation of the new Integrated Terminal, and CIAL expects further improvements as the terminal is completed. This will include opex efficiencies over time. However, those efficiencies may not become visible immediately, as the larger Integrated Terminal will likely require greater opex.
- For PSE2, CIAL has implemented a new efficient charging structure which includes fixed and variable charges (the variable charge is based on aircraft weight). This charging structure recognises that some of the costs of service are fixed (e.g. emergency fire services).

Share with consumers the benefits of efficiency gains, including through lower prices?

- CIAL notes that, in the price control regimes for electricity and gas, efficiency gains are shared with customers at the end of every five year regulatory period through the resetting of prices to reflect cost, including forecast opex and capex. This is what CIAL does and intends to continue doing in the future.

Limited in ability to extract excessive profits?

- This is a question of the returns that CIAL has been earning since the implementation of information disclosure, and the expectation of returns for PSE2 and into the future. As we explain elsewhere in this submission, this question is loaded with the presumption that CIAL has market power. This question—like the others—is derived from the objective of Part IV of the Commerce Act, and as such, is framed in the context of the natural monopolies. When it comes to airports, there should be no presumption that there is market power. The possibility of market power is something that the Commission must investigate with respect to each airport. The history of pricing and the expected prices are probably the best guide. To emphasise again, CIAL is subject to considerable market discipline, as demonstrated by its history of stable pricing, its deliberate policy to backload future returns on investment, and the overall modest returns over the medium term. As we demonstrate elsewhere in the submission, our IRR calculated using the methodology set

down by the Commission for WIAL and AIAL is well below even the Commission's own estimate of WACC, which in turn is markedly lower than the current market conditions.

- CIAL notes that the Commission has speculated about how WIAL and AIAL might price for the period after PSE2. CIAL urges the Commission to be particularly cautious about hypothesising as to what might occur in PSE3, for the obvious reason that no decisions by airports have been made in respect of that period. CIAL has made a commitment to long-run pricing now that the Integrated Terminal has largely been commissioned, but we would be in breach of our Airport Authorities Act consultation obligations if we pre-determine the outcomes.
- The key to understanding the reasonableness of CIAL's returns is to understand the long-run pricing approach CIAL has adopted. This pricing model was designed to smooth prices over time, to reduce any rate shock from the commissioning of the Integrated Terminal.
- Since CIAL's prices were reset in December 2012, demand has softened against our forecasts. This is relevant to expectations of CIAL's returns, and also shows that our demand forecasts were not biased.
- CIAL also believes it is important to focus on those areas where CIAL has gone beyond the minimum required. This includes a substantial contribution to the Canterbury recovery through a permanent one-off reduction to CIAL's revenue recovery.

3. IS CHRISTCHURCH AIRPORT EARNING AN APPROPRIATE RETURN OVER TIME

3.1. Is Christchurch Airport targeting an appropriate return, and why?

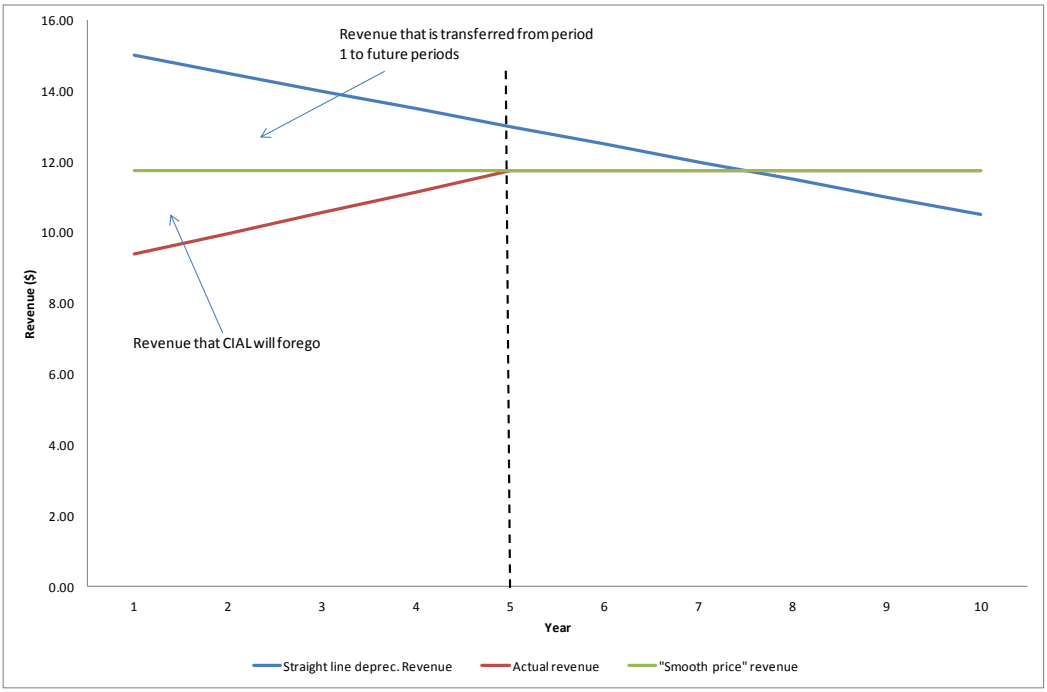
- CIAL is targeting an appropriate return. CIAL's approach to targeting returns has the following components:
  - we estimate an appropriate WACC, which is used to calculate our cost of service;
  - we use our long-term pricing model to estimate the levelised constant real prices that—subject to volume and future capex forecasts—will allow us to recover our cost of service over the economic life of our assets;
  - we set a transition path from current prices to the levelised constant real price. This includes a permanent NPV $16m under-recovery. This transition path sets our "rack rates" for PSE2;
  - we undertake commercial negotiations with our customers, offering discounts and incentives as required by the market to stimulate and grow existing and new routes/services.
- The determination of WACC is an important element of our overall approach to targeting return, but it would be inappropriate to consider our WACC determination in isolation when answering the Commission's questions about our annual return and its appropriateness:
  - CIAL's long-term pricing model means that our annual returns will differ during the investment cycle. We expect that our return over PSE2 will be substantially below our WACC, but equally, we expect return in future periods— for example, in PSE4 and 5—to exceed our WACC. For this reason, any short-term snapshot of our returns is likely to be misleading. CIAL's expected relatively low returns in PSE2 and 3 do not imply that our

cost of capital does not matter. Equally, our relatively high expected returns in subsequent periods will not be in any sense excessive.

- The Commission should be careful in drawing conclusions about CIAL's returns from the published rack rates. The rack rates represent a transition to a price path required to recover reasonable costs. However, in any pricing period, airports have to make adjustments in response to market realities. The degree of adjustment necessary depends on particular airport circumstances that may occur, e.g. Canterbury earthquakes, the level of competitive pressure faced by each individual airport, and the degree of countervailing power enjoyed by its customers. These factors clearly differ from airport to airport.
- In this respect, CIAL faces a tough competitive landscape. The high proportion of leisure travellers through CIAL indicates that we are, to a significant extent, a South Island airport rather than just a 'city of Christchurch' Airport. This has a big impact on the alternatives available to our customers:
  - Long-haul airlines have a choice between flying directly to Christchurch and feeding traffic to the South Island via Auckland; and
  - For domestic and trans-Tasman services, Queenstown represents a viable point to point substitute for accessing the South Island.

- Given the options available to our customers, our approach to pricing represents a constant balancing act between the need to recover our reasonable costs and the need to meet market expectations.
- In workably competitive markets, prices are influenced both by the opportunity cost of capital and by competitive pressures. CIAL is in the same position.
- To help the Commission understand our current and expected returns, we have prepared an input methodologies-compliant model of the same type used by the Commission in its assessments of the Auckland and Wellington airports. This model (attached) estimates our IRR on the comparable basis with other airports. We have done this two ways. A direct implementation of the Commission's IRR model—using a straight line depreciated RAB as the terminal value and not modelling PSE3 explicitly—would calculate IRR of 6.7%. If we use a 10 year period forecast to 2022 thereby modelling both PSE2 and PSE3 our IRR is 8.1 percent.
- We emphasise that care is required when drawing conclusions from the resulting IRRs. With levelised constant prices, annual returns measured on an asset base that is depreciated with standard straight line depreciation will vary over the life of the asset. Our long run levelised price model effectively defers recovery of the ITP investment (as compared to a straight line depreciation building blocks approach). Conceptually, this deferral should be accounted for by being capitalised into the RAB. We do not capitalise deferrals in order to avoid further deviations from the input methodologies (we note that this is a further unintended consequence of input methodologies). This has a number of important effects:
  - Without capitalised under-recovery resulting from the levelised prices, the longer the time period over which the IRR model is rolled forward, the higher the IRR
  - Future returns on the straight line depreciated RAB must grow, and eventually exceed WACC
  - Any attempt to re-introduce short-term building blocks based pricing in the future (i.e. to keep returns on straight lined depreciated RAB to WACC) would result in locking in a permanent under-recovery over and above our proposed under-recovery of $16m, and would ensure that NPV would be less than zero.

- As we have explained in our information disclosure, our agreed permanent under-recovery of $16 million refers to the difference between our planned revenue and the revenue that would have resulted from the introduction of the long-run levelised constant real prices at the start of PSE2. In other words, this is the under-recovery which relates solely to the phased implementation of the long-term pricing model. There is a further under-recovery of approximately $5 million in today's terms (using the pre-tax WACC to discount) that results from the deferral of revenue under the long-term pricing model. We do not intend to make that latter under-recovery permanent, nor do we plan to repeat the $16 million permanent under-recovery in future PSEs, and hence will expect our IRRs to increase. This is illustrated in the stylised diagram below.



- Having said that, we believe that the Commission's IRR model provides a useful benchmark. While it does not look sufficiently far into the future, it recognises uncertainties about future pricing, and seeks to assess the trend in return given the current market conditions and the current phase of the investment cycle. While such an assessment has its limitations, it also provides some useful insights. In particular, it highlights the effects of competitive pressures on the relative returns of various airports.
- CIAL would also like to highlight that we have enhanced the Commission's IRR model by explicitly modelling PSE3 (rather than using the RAB at the end of PSE2 as the residual value in the model). While our actual prices during PSE3 of course cannot be pre-determined, given our obligation to consult with the airlines in good faith, our medium-term pricing model signals our commitment to price stability once the constant real price that enables medium-term recovery of our investment is reached. Of course, we recognise that the calculation of such a constant real price is itself subject to periodic adjustments: at each price reset, we expect that WACC is likely to be different, while the model will need to be updated for forward demand forecasts, forecast operating costs and for additional proposed capex. However, such adjustments are likely to be relatively minor.
- We have learned from the competitive market in which we operate that our customer's value price stability. Having been forced into a significant price adjustment by the implementation of the Integrated Terminal project (and the short-term orientation of our historical pricing strategies), we are determined to avoid investment cycle-induced price shocks in the future.

- Hence, CIAL believes that our medium-term pricing model provides the Commission with the best available predictor of what our pricing would look like in PSE3. We note that CIAL's higher estimate of the IRR across the 10 year forecast period as compared to PSE2 alone is consistent with the fact that a medium-term approach to pricing—with broadly stable prices—should lead to higher returns in subsequent pricing periods.
- It is crucial to emphasise that such an approach to recovering the costs of long-lived assets should not be confused with ability and intent to utilise market power in the future. Rather, an approach based on stable prices and deferred profitability is very much a reflection of real-world competitive market constraints.

WACC

- While WACC is not the only factor in determining our target rate of return, it is clearly an important element. It is also one element that features prominently in the ID requirements and in the comments CIAL received during the consultation process.
- As explained in our Information disclosure, our estimated WACC differs from the Commission's estimate for the ID input methodologies in two respects:
    - we disagree with the Commission's conclusions on certain WACC parameters. These disagreements are currently subject to the merits review; and
    - we make an adjustment for the effects of the global financial crisis (***GFC***) on the cost of equity.
- The adjustment for the GFC accounts for most of the difference between our estimated WACC and the WACC derived from the input methodologies. We wish to address the consequences of the GFC in some depth.
- The fundamental problem is that the cost of equity is not readily observable, particularly for firms with no traded shares. Moreover, unlike debt, equity has no fixed tenor. For this reason, it is particularly difficult to answer the question of what is the cost of equity over the next pricing period. The conventional approach to estimating the cost of equity is to use the Capital Asset Pricing Model (***CAPM***).
- While most practitioners acknowledge the limitations of CAPM, regulators and market analysts have generally been happy to use the results of the model during the period of relative financial market stability. However, the onset of the GFC has made a mechanical application of the model, particularly for estimating the cost of equity, no longer viable.
- This concern has been most recently and eloquently set out in the IPART discussion paper "*Review of Method for Determining the WACC*" (December 2012). It is worth quoting this discussion paper at some length:

> *"Since the GFC, the WACC estimated using our current methodology has declined…the midpoint of the feasible range for the real post-tax WACC established by this method declined from more than 6.0% in early 2011 to less than 3.5% in November 2012. This is primarily due to a reduction in the estimated cost of equity.*
>
> *In our report on our determination for Sydney Desalination Plant in 2011 (and in subsequent reports) we expressed concern that the actual cost of capital may not have declined by this much…*
>
> *We consider that the reason our current method underestimates the WACC in post-GFC market conditions is that data used to estimate the cost of debt reflects current market conditions, while the data used to estimate the cost of equity reflects historic market conditions. In particular, we:*

- *Estimate the cost of debt using short-term average data for both the risk-free rate and debt margin, but*
- *Estimate the cost of equity using long-term average data for the MRP [market risk premium] (and a short-term average data for the risk-free rate).*

The rationale for using long-term average data to estimate MRP is that such an estimate provides a proxy for current expectations about the premium. This approach served well from early 2000 to 2008, when interest rates were fairly stable in Australia. But since the GFC, we have witnessed substantial dislocations in financial markets that have affected interest rates and investor perceptions of risk and required return on equity.

…In equity markets, there was a substantial reduction in share prices. Given forecast dividends and an assumption of a return to "normal" growth in dividends in future years, this implied a substantial increase in equity risk premium. It suggests that the GFC may have altered investors' perceptions of the risk of equity investment, and hence they require a higher return on equity. Since the initial spike, the MRP has fallen, but it does not appear to have returned to pre-GFC levels in Australia.

There was also a substantial fall in yields on Government bonds, which we use as a measure of the risk-free rate. There is no indication if and when yields will revert to more normal levels."(pp14-15)

- CIAL believes that exactly the same concerns apply in New Zealand.
- The intuition behind the CAPM is quite simple: an investor is able to construct a perfectly diversified portfolio. By holding any individual firm's equity, an investor takes on some non-diversifiable risk. Hence, investors need to be properly compensated for the additional risks associated with holding such equity, or they would decline to buy it.
- The willingness to hold the additional risk, compared to a risk-free security such as a government bond, is measured through the equity risk premium: the gap between the return on the risk free asset and the required return on equity that would induce an investor to take on the additional risk.
- Regulators in New Zealand and Australia have traditionally implemented this logic by calculating the cost of equity from:
    - Most recent observation of the risk free rate. The thinking here is that the spot rate is the best predictor of the likely future rate over the pricing period
    - An estimate of the equity beta derived from a sample of companies in a similar business listed on stock exchanges around the world. There are two complications with estimating an equity beta. First, historic betas can only be observed for listed stocks. Second, an equity beta has to be estimated from an observed asset beta using a calculated long-term relationship between the level of leverage and the variability of stock returns. Clearly, there are significant margins of error in all of these estimates. particularly due to likely changes in covariance between airports and the market from period to period
- A long-term historical estimate of the market risk premium: i.e. the actual average observed margin between the risk free rate and the stock market returns that was required by the investors. In addition to the data issues which make it difficult to obtain a reliable estimate, the reliance on the long-term historical average is based on the assumption that over the coming pricing period, the historical average market risk premium is the best predictor of the actual market risk premium.

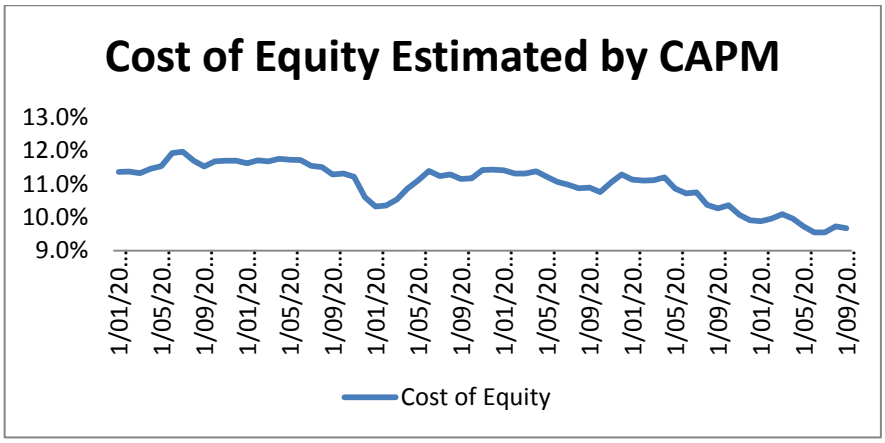
- This approach does not assume that the market risk premium is invariable. Rather, it assumes that deviations are random and temporary, and that whatever deviation occurs, the premium is likely to revert to the mean within the next pricing period.
- We strongly share the concern of IPART that there are a number of reasons why conventional estimates may be particularly inappropriate during the global financial crisis. A crisis of the magnitude being experienced by the world economies at present could:
    - Be of such duration that, even if the market risk premiums were to return to their long-term averages, the return would take longer than usual. In particular, there would be no guarantee that the return would occur within the next pricing period;
    - Be of such systemic significance that the historically observed long-term averages would no longer hold. In other words, there is a possibility that the market risk premium would not only be above the long-term historical average for a prolonged period, but that it would then settle to a higher average;
    - Lead to significant and sustained changes in behaviour. For example, the crisis may break the long-term trend in the growth of air travel; or
    - Lead to periods of market disequilibria. For example, the flight to safety could result in excess demand for government bonds. This would bid up the prices of such bonds and drive down returns on risk free assets in a way that is not sustainable. Once the flight to safety reverses, the government bond returns would go up. In this environment, the current risk-free return may no longer be a good predictor of future risk-free returns.
- There is a strong reason to believe that the factors listed above remain important, and that the CAPM estimate of the cost of equity remains out of line with the likely cost.
- It is instructive to consider the implications of the recent changes in the risk free rate on the cost of equity implied by the CAPM model. The chart below shows yields on the NZ Government ten year bonds. With stable inflation, yields have been fairly stable from the late 1990s to late 2007. Since then, yields on risk free government securities have collapsed.

NZ "Risk Free" Rate

- The chart below sets out the cost of equity which would have been calculated using the standard CAPM model, using the WACC parameters accepted by CIAL in its application for

merits review. In essence, the standard CAPM model would predict a very sharp fall in the cost of equity between 2008 and 2012.

CAPM Estimated Cost of Equity for CIAL



- Such an estimated fall in the cost of equity is not a realistic representation of market reality. It is at odds both with market evidence and with market intuition. As part of this submission, we enclose a consolidated expert report from our independent advisors, PwC. This report—in comparing PwC results with the WACC estimate prepared by BARNZ's advisors—notes that

  "*virtually all of the difference in the WACC estimates of Futures and ourselves can be reduced to difference of view as to whether the cost of equity should be assumed to have fallen in line with the precipitous recent decline in government bonds rates… Futures commented somewhat colourfully that our advice not to use the current New Zealand Government bond rates when estimating the cost of equity is "another spurious attempt by advisers to justify increased returns for their monopoly clients" (emphasis added).*[1] *We note, however, that we are not in fact advocating an increase in the WACC, but merely that the WACC should not be assumed to have decreased substantially from the level at which it was prior to the GFC, which is the implication of Future's advice*."

- An alternative to using long-term historical estimates of the equity premium is to use market data to derive the implied forward-looking risk premium. In a simplified case of dividends growing at a constant rate, the value of equity can be estimated as:

  Value of equity = Expected Dividends Next Period (Required Return on Equity - Expected Growth Rate)

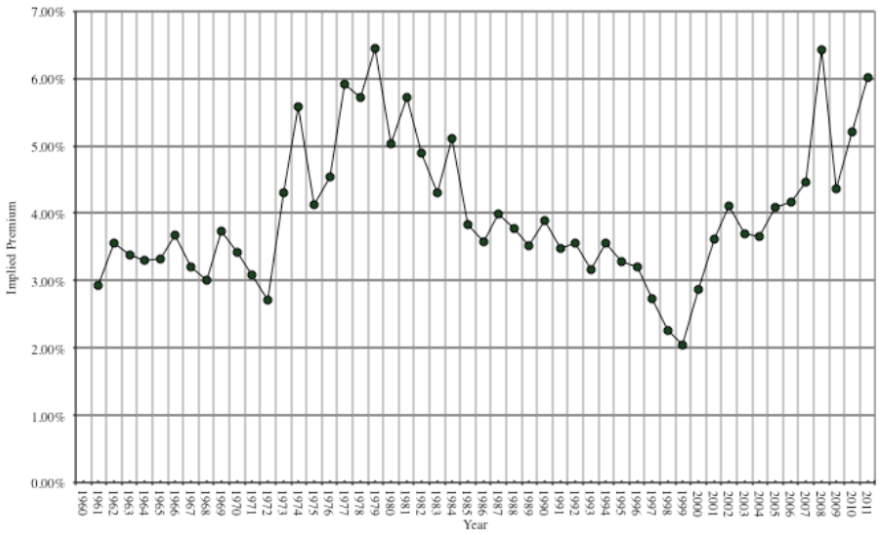
- Three of the four inputs in this model can be obtained or estimated - the current level of the market (value), the expected dividends next period and the expected growth rate in earnings and dividends in the long term. The only "unknown" is then the required return on equity. When we solve for it, we get an implied expected return on stocks. Subtracting out the risk free rate will yield an implied equity risk premium.

- Aswath Damodaran, Professor at the Stern Business School, and the leading expert in corporate valuations, publishes estimates of the implied risk premium for the US market. This is presented in the chart below, and shows that the implied risk premiums spiked

[1] Futures Consultants Limited (2012), Op. Cit., p.8.

immediately after the start of the global financial crisis (collapse of Lehman Brothers), then settled down for a while, and have now gone back up since the start of the quantitative easing exercises in the US.

Implied Market Risk Premium: US



- In essence, Damodoran's analysis for the US market confirms that the relationship between the risk free rate and the required return on equity has not settled back to the long-term historical average, even though the immediate crisis has passed.

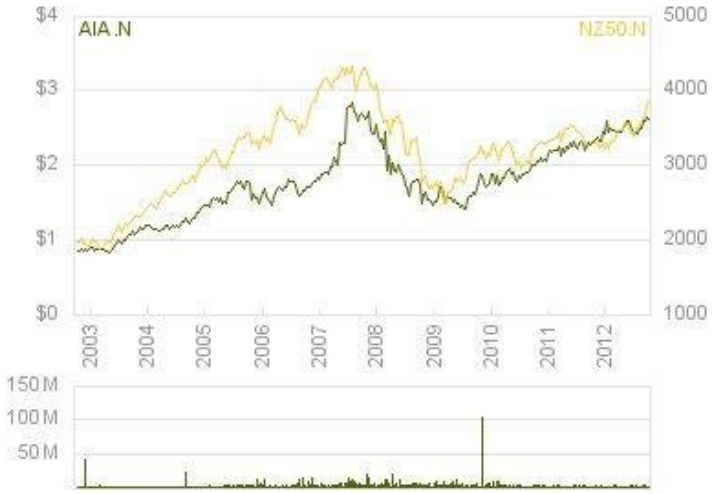
  Damodoran had this to say about the US market:

  > *I believe that the very act of valuing companies requires taking a stand on the appropriate equity risk premium to use. For many years prior to September 2008, I used 4% as my mature market equity risk premium when valuing companies, and assumed that mean reversion to this number (the average implied premium over time) would occur quickly and deviations from the number would be small. Though mean reversion is a powerful force, I think that the banking and financial crisis of 2008 has created a new reality, i.e., that equity risk premiums can change quickly and by large amounts even in mature equity markets. Consequently, I have forsaken my practice of staying with a fixed equity risk premium for mature markets, and I now vary it year to year, and even on an intra-year basis, if conditions warrant. After the crisis, in the first half of 2009, I used equity risk premiums of 6% for mature markets in my valuations. As risk premiums came down in 2009, I moved back to using a 4.5% equity risk premium for mature markets in 2010. With the increase in implied premiums at the start of 2011, my valuations for the year were based upon an equity risk premium of 5% for mature markets and I increased that number to 6% for 2012. (Equity Risk Premiums: Determinants, Estimation and Implications, 2012 Edition, Stern Business School)*

- While his numbers obviously only apply to the US market, Damodaran's analysis agrees with the intuition of the New Zealand market participants: in essence, apart from a spike immediately after the 2007 crisis, the cost of equity in the New Zealand market has remained either broadly unchanged from the pre-crisis levels or has possibly increased somewhat. It certainly has not declined sharply, as would have been implied by the mechanical application of the CAPM.

- As a sanity check, we have applied Damodaran's approach to estimating the implied equity risk premium to the Auckland International Airport (***AIA***). As the only publicly listed airport in New Zealand, it provides the best indicator of the likely changes in the cost of equity (we are not comparing levels, but rather are examining trends over time).
- It is reasonable to assume that AIA is a stable growth stock, with long-run growth approximately in line with inflation: we assume that AIA will broadly expect to earn its maximum allowable revenue, so that increases or decreases in volume would be compensated over time with off-setting price movements.
- AIA has also paid very stable dividends until the latest year: $8.20 per share in every year from 2006 to 2010, $8.70 in 2011 and $10.50 in $2012.

Auckland International Airport Share Price



Source: AIA; AIA share price on left scale, NZX50 index on right scale

- The relationship between the share price movements and the expected dividend payments implies a decline in the required return on equity during the boom through to 2007/08, followed by a rise to above pre-crisis levels. Since the risk free rate has fallen in that period, this consequently implies an increase in the equity risk premium for the company.
- There are a number of ways to articulate the problem in measuring the gap between the risk-free rate and the required return on equity. Adjustments could focus on the market risk premium or the risk-free rate..
- CIAL has used the medium-term average of the risk free rates as the forecast of the future risk free rate, while sticking to the historical estimates of the market risk premium. Under the current market conditions, this is arguably a more robust and more defensible position:
    - Many analysts expect the stock market to return to normal over PSE2, so that historical risk premiums may prevail once again.
    - On the other hand, there appears to be a growing view among market participants and analysts that it is the government bond market that is going through a "bubble".
    - In this setting, it is no longer probable that the most recent risk free rate is the best forecast of the future risk free rates.
- Hence, the CIAL approach represents a legitimate response to market uncertainty, and produces a coherent and logical result. The issue of the cost of equity is not just a matter of

theory for CIAL. As a result of the earthquakes, CIAL faces heightened demand risk, and hence has to keep its capital structure under constant review.

- In the enclosed expert report, PwC provides further examples of regulatory and commercial decisions which support CIAL's view that there has been no decline in the cost of equity since the GFC, demonstrating that our approach is consistent with the conventional view of the current market situation. By contrast, mechanical acceptance of current CAPM estimates is unconventional.

3.2. Are there any indicators of superior performance that would justify Christchurch Airport earning higher than normal profits?

- Our response to the previous question shows that we are neither aiming at, nor will we be likely (given competitive constraints) to earn, higher than normal profits.
- We would like to emphasise, however, that in any case, the Commission should be very cautious about drawing conclusions about "higher than normal" by comparing airports' own WACC estimates, or comparing the estimated IRRs to the WACC derived from the Commission's input methodologies.
- The Capital Asset Pricing Model—used in estimating WACC—is clearly not a perfect reflection of the actual financial markets. In turn, financial markets are far from perfect, particularly during periods of crisis and disequilibrium. For this reason, it is important to recognise that there is likely to be some difference between any model-based estimates of the cost of capital and the actual cost of capital facing firms, particularly during artificially fixed snap-shots of time. This difference has to be seen as being additional to the usual sampling error of model-based estimates.
- Given this margin of error, the Commission needs to examine a broad range of market evidence in considering whether any projected profits may be higher than normal, not just nominal deviation between targeted or expected rates of return and the WACC derived from the input methodologies. For example, the Commission should take into account actual competitive constraints, such as withdrawal of services, pricing strategies, risk sharing and other factors in its assessment. We note that CIAL has faced considerable pressure from the withdrawal of services, including both reductions in services on the existing routes by the incumbent airlines, and the short-lived attempt by Air Asia to open a new route. Our pricing strategy is a clear signal of the market pressure perceived by CIAL. If CIAL was not subject to competitive market discipline, it would have no incentive to backload returns, thus taking on unremunerated risks, or to aim for price stability. In fact, our long-term pricing strategy represents a significant re-allocation of risks from the airlines to the airport, compared to the risk allocation implied in the Commission's input methodologies. The Commission must ask itself why would any entity with market power agree to such a re-allocation? The answer, in our view, is that the market power is illusory.
- A recommendation to the Minister that an airport is earning a higher than normal profit requires a high burden of proof – which is not met in CIAL's case.

3.3. What wash-ups, discounts or other discretionary adjustments have been applied to the forecast revenue requirements?

- We used a long-term estimate of our cost of service in developing the forecast revenue requirements for the price setting period 1 December 2012 to 30 June 2017.

- There were no wash-ups or other discretionary adjustments for any aspect of operating costs or capital expenditure relating either to the forward cost model or in relation to any expenses incurred in the period from 1 April 2009 to 30 November 2012.

- In estimating the cost of service, we made a number of revaluation adjustments. These included:

  Opening Land RAB
  An adjustment of $10.75 million was made to the land valuation, using the Market Value Alternative Use (***MVAU***) methodology for valuing land at 30 June 2009 as set out in the asset valuation IM. In PSE1 the valuation of land was based on MVAU with the alternative use being based on the prevailing concentration of use referenced to present airport use zones. The input methodology for land valuation has based the use element on the alternate use as if the airport was no longer in operation. Accordingly, a revised land use plan considering the alternate use of the airport was developed (refer Segar & Partners Valuation Report 2009). This upward adjustment reflected the change in valuation as a consequence of using the asset valuation IM.

  Land 2010-2012
  This item included the revaluation of land at 30 June 2011 and 30 June 2012, initially indexed at CPI, and then adjusted to an updated market value alternate use valuation at 31 December 2011.

  Specialised assets
  This item included the revaluation of specialised assets included in the opening regulated asset base as at 30 June 2009 and subsequently indexed using CPI.

  All revaluations treated as revenue
  In estimating the revenue requirement for PSE2, the above three valuation adjustments were treated as revenue, and hence led to a reduction in our prices.

  Timing of price increases
  We also made a number of discretionary decisions on the timing of price increases:

  - We deferred implementation of the initial price adjustment for PSE2 to December 2012, due to the delay in the completion of the ITP. This delay affected the pricing for all services (including airfield) even though not all of our services were affected by the timing of the terminal development;
  - We staggered the price increases to spread the effect over PSE2. We did this to recognise the size of the cost increase for our airline customers, and the challenging market conditions experienced after the GFC and the earthquakes.

  The effect of these discretionary adjustments has been to defer the implementation of the long-term levelised prices, which has resulted in a permanent under-recovery of costs (-$15.9m on an NPV basis).

There were no other discretionary adjustments applied to the forecast revenue requirements for PSE2.

3.4. How reasonable is Christchurch Airport's revenue forecast for the second PSE compared to the first PSE forecasts, and why?

- The revenue forecast for the current price setting event (PSE2) is reasonable. As discussed above, the revenue forecast is based on pricing decisions that aim for long term levelised prices and allow for a transition to that level. When forecasting volume, CIAL has had to contend with an uncertain environment in which the forecast of passenger and aircraft demand has been unusually difficult for both CIAL and our airline customers. The influence of the Canterbury earthquakes in 2010 and 2011 has created an increased level of uncertainty over the pricing period, particularly with respect to the 2013 and 2014 years. This item is covered in more detail in question 8.1 under the demand forecast below.

- The revenue requirement for PSE2 is a significant uplift over that for the first price setting event for a number of reasons, including that;
  - the current price reset is for a five year period (versus the 3 year for PSE1);
  - the significant investment in a new Integrated Terminal, which has significantly increased the opening asset base;
  - the increased operating costs arising from the terminal expansion; and
  - a considerable impact on costs as a consequence of the Canterbury earthquakes (notably, a large uplift in insurance premiums and asset management costs).

Revenue Category	PSE 1	PSE 2	Variation	Reason
Airfield Revenues	**$62,068**	**$169,962**	+$107,894	Increased period/volumes/prices
• Aircraft Movements	112,939	254,990		
• MCTOW movements	5.743,271	10,353,037		
Terminal revenues	**$25,609**	**$94,577**	+$68,968	Revised prices primarily owing to increased investment, particularly ITP
• Domestic Pax	12,999,414	21,535,832		
• International Pax	4,819,754	7,767,349		
Passenger Services Charges	**$49,804**	**$84,292**	+34,488	Extended period but impacted by compressed international tourism numbers
Total Revenues	**$137,481**	**$348,831**	**+$211,350**	
Average revenue per annum	**$45,827**	**$69,766**		

3.5. To what extent did actual results for the first PSE differ from forecasts, and why?

- The forecasts incorporated into the PSE1 pricing consultation originally covered the period 1 April 2008 to 30 June 2011. However, due to the extended consultation process, the final price increase only became effective on 1 April 2009. At that stage, we expected that the new Integrated Terminal would be completed by 30 June 2011. Owing to a number of factors (including the extended ITP capital consultation process with the airlines to determine the projects functionality design requirements, the resulting delay in construction commencement, and the effect of the Canterbury earthquakes), the new Integrated Terminal was not substantially complete until late 2012, with final civil works to be completed by early 2013. Consequently, the decision was made to extend PSE1 to 30 November 2012. Since this extension came after the completion of the PSE1 consultation, no forecasts were available for the year ending 30 June 2012.

Performance

Forecast Passenger Demand PSE 1					
Inbound Passengers		2009	2010	2011	2012
Domestic	Forecast	2,124,376	2,166,054	2,209,277	
	Actual	2,121,321	2,159,391	2,115,152	2,053,231
International	Forecast	787,478	794,126	828,273	
	Actual	800,614	821,669	744,439	707,311
Total	Forecast	2,911,854	2,960,180	3,037,550	
	Actual	2,921,935	2,981,060	2,859,591	2,760,542
Outbound Passengers		2009	2010	2011	2012
Domestic	Forecast	2,124,376	2,166,054	2,209,277	
	Actual	2,067,723	2,215,009	2,163,724	2,079,511
International	Forecast	787,478	794,126	828,273	
	Actual	774,169	800,972	743,923	712,548
Total	Forecast	2,911,854	2,960,180	3,037,550	
	Actual	2,841,892	3,015,981	2,907,647	2,792,059
Total Passengers		**2009**	**2010**	**2011**	**2012**
Domestic	Forecast	4,248,752	4,332,108	4,418,554	0
	Actual	4,189,044	4,374,400	4,278,876	4,132,742
International	Forecast	1,574,956	1,588,252	1,656,546	0
	Actual	1,574,783	1,622,641	1,488,362	1,419,859
Total	Forecast	5,823,708	5,920,360	6,075,100	0
	Actual	**5,763,827**	**5,997,041**	**5,767,238**	**5,552,601**
Variance		*-59,881*	*76,681*	*-307,862*	

Aircraft Movements PSE 1					
Number of aircraft Landings		2009	2010	2011	2012
Aircraft 30 tonnes MCTOW or more	Forecast	28,395	26,762	27,330	
	Actual	20,776	19,431	17,817	15,907
Aircraft 3 tonnes or more but less than 30 tonnes MCTOW	Forecast	9,263	10,677	10,512	
	Actual	17,742	17,915	17,591	17,352
Total	Forecast	37,658	37,439	37,842	
	Actual	38,518	37,346	35,408	33,259
Variance		*860*	*-93*	*-2,434*	
Landings MCTOW		2009	2010	2011	2012
Aircraft 30 tonnes MCTOW or more	Forecast	1,708,007	1,669,843	1,736,690	
	Actual	1,697,475	1,590,450	1,429,870	1,327,025
Aircraft 3 tonnes or more but less than 30 tonnes MCTOW	Forecast	204,786	213,798	210,147	
	Actual	339,657	344,527	339,515	334,106
Total	Forecast	1,912,793	1,883,641	1,946,837	
	Actual	2,037,132	1,934,978	1,769,384	1,661,131
		124,339	51,337	-177,453	

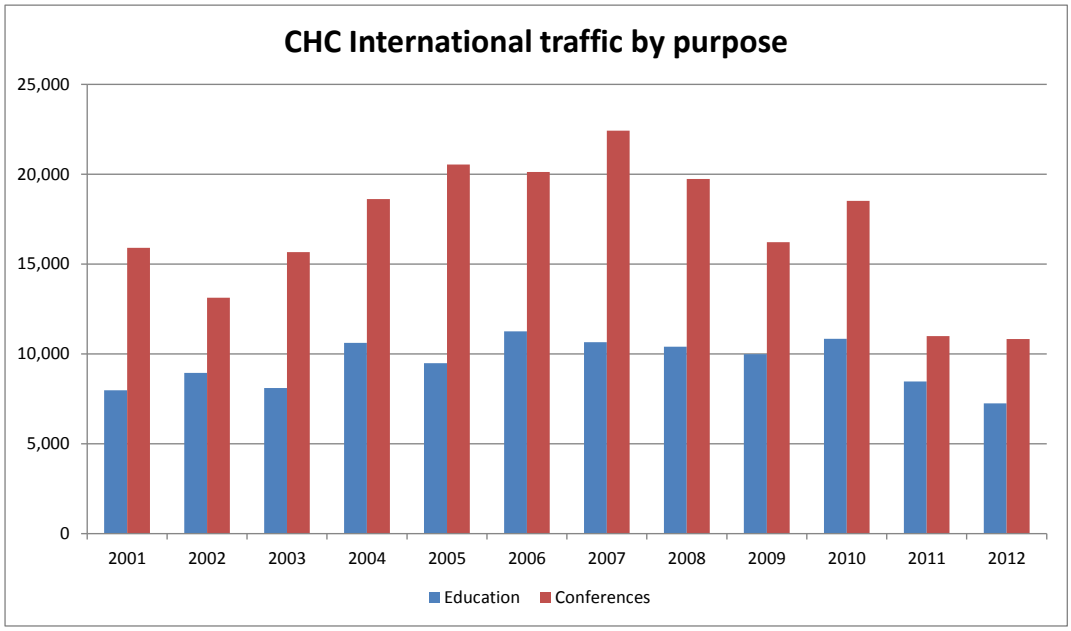
Revenues Received

Forecast Revenue	Forecast	Forecast	Forecast	PSE 1
	FY 09	FY 10	FY 11	Total
Total Airfield Charges	16,539	20,527	25,002	62,068
Total Terminal Charges	8,354	8,488	8,767	25,609
International Passenger Charges	16,275	16,412	17,117	49,804
Total Airfield and Terminal	**41,168**	**45,427**	**50,886**	**137,481**

Actual Revenue	Actual	Actual	Actual	Sub Total	Actual	Total
TOTAL	**FY 09**	**FY 10**	**FY 11**	**2009-11**	**FY12**	**PSE1**
Total Airfield Charges	15,233	18,233	19,415	**52,881**	18,773	**71,654**
Total Terminal Charges	8,193	8,005	7,278	**23,476**	7,018	**30,494**
International Passenger Charges	15,975	16,591	14,781	**47,347**	14,657	**62,004**
Total Airfield and Terminal	**39,401**	**42,829**	**41,474**	**123,704**	**40,448**	**164,152**

- Total revenues for the three year period for which forecasts were prepared were $137.5m, $13.8m less than forecast owing to the following factors:
    - The passenger demand forecast for 2009 and 2010 was reasonably accurate until the September 2010 and February 2011 earthquakes, which led to a 5.1% drop in total passenger movements for the 2011 year.
    - Domestic passenger movements were only 3.2% below forecast in 2011, but international passenger movements were 10.1% below forecast - demonstrating the significant harm that the Canterbury earthquakes have caused the South Island tourism sector. The continuing aftershocks (in excess of 11,000 events), and the lack of accommodation in Christchurch has resulted in a general drop in leisure travel activity and the cancellation of a number of international traveller 'groups' that otherwise would have travelled to Christchurch. An example of this is groups travelling for the purpose of:
        (a) education; and
        (b) international conferences.

      The following chart illustrates the impact on these two international travel categories;



    - The overall reduction in passenger movements was associated with an even greater reduction in aircraft movements compared to forecasts over the relevant period (illustrating the airlines' ability to rationalise aircraft being used on routes so as to improve route yields and to respond to revised market circumstances). Aircraft movements in 2011 were 6.4% below forecast. However, through the use of turboprop aircraft, as opposed to Jet aircraft, the actual MCTOW for landings were down 9.1% - thereby further reducing revenues compared to forecast.

Revenue Comparison

Category	Forecast	Actual	Variation	Reason for difference
	2009-2011			
Airfield Charges	62,068	52,881	-9,187	• Reduced Aircraft movements • Phased implementation of new price path
Terminal Charges	25,609	23,476	-2,133	• Reduced Aircraft movements • Phased implementation of new price
Passenger Services Charges	49,804	47,347	-2,457	• Reduced International Passenger movements
Total Revenue	**137,481**	**123,704**	**-13,777**	

Operating Costs

- Operating Costs for the forecast pricing period to 30 June 2011 amounted to $51,480m.

Forecast Operating Expenses PSE 1				
	Forecast	**Forecast**	**Forecast**	**Total**
Categories	**FY 09**	**FY 10**	**FY 11**	**PSE 1**
Personnel	7,790	7,533	7,835	**23,158**
Administration	5,341	4,566	4,413	**14,320**
Repairs and Maintenance	922	903	931	**2,756**
Other Operating Costs	3,761	3,687	3,798	**11,246**
Total Airfield and Terminal	**17,814**	**16,689**	**16,977**	**51,480**

- Actual operating costs for the forecast pricing period to 30 June 2011, applying the same cost allocation framework to that used in preparing the cost forecast, were $54.061m (and $76.708m for the extended period to 30 June 2012).

Actual Operating Expenses PSE 1 TOTAL	**Actual FY 09**	**Actual FY 10**	**Actual FY 11**	**Sub total**	**Actual FY12**	**Total PSE 1**
Personnel	7,648	8,017	7,983	23,648	9,264	**32,912**
Repairs and Maintenance	908	812	1,839	3,558	1,138	**4,696**
Administration and other Operating Costs	9,149	8,168	9,538	26,855	12,245	**39,101**
						-
Total Terminal Operating Expenses	**17,704**	**16,996**	**19,360**	**54,061**	**22,647**	**76,708**

- The main differences in expenditure to that forecast for the original PSE1 period were as follows:

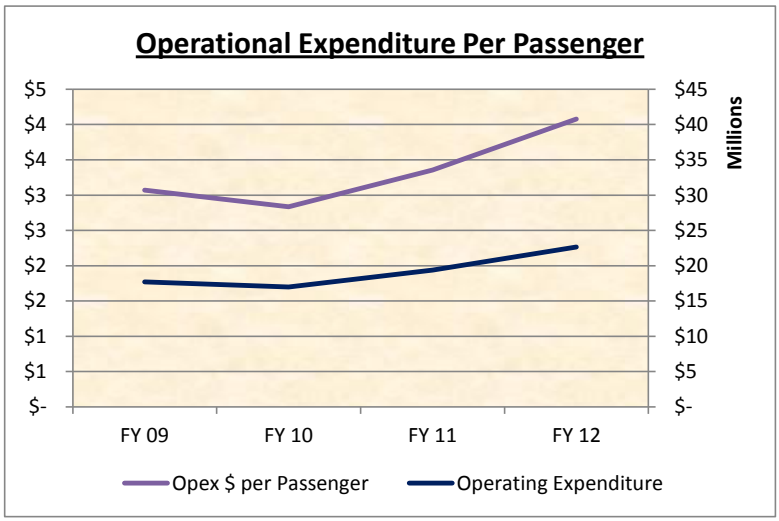
Total Operating Expenses PSE 1	Forecast 2009-2011	Actual 2009-2011	Variance	Reason For variance
Categories				
Personnel	23,158	23,648	490	Cost variance
Repairs and Maintenance	2,756	3,558	802	Increased costs owing to earthquake damage
Administration & Other Operating Costs	25,603	26,855	1,252	Incremental promotion/incentive costs to stimulate new routes/services
Total Airfield and Terminal	**51,480**	**54,061**	**2,581**	

- Apart from the effects of the earthquakes, operating costs were relatively close to, or under, the initial forecast. Additional costs were incurred to stimulate and promote new services and the adverse effect of the Canterbury earthquakes.

Cost Efficiency

- The following charts show our costs on a per passenger basis. Since many operating costs at airports are largely fixed in nature, changes in volume do not impact the level of operating costs. However the cost increases as a consequence of the earthquakes have resulted in notable increases in unit costs.
- The commissioning of two key stages of the Integrated Terminal led to further increases in operating costs. While in other infrastructure sectors new capex may reduce maintenance, in airports, terminal expansions and upgrades frequently require greater associated opex.

Operating Expenditure per Passenger	Actual FY 09	Actual FY 10	Actual FY 11	Actual FY 12
Operating Expenditure	$ 17,704,473	$ 16,996,374	$ 19,359,897	$ 22,647,416
Total Passengers	5,763,827	5,997,041	5,767,238	5,552,601
Opex $ per Passenger	**$ 3.07**	**$ 2.83**	**$ 3.36**	**$ 4.08**



Capital Expenditure

Summary of Forecast Capital Expenditure PSE1

Forecast Capital Expenditure PSE 1- before allocation

Category	2009	2010	2011	Total
Major Maintenance - Runways, Aprons & Taxiways	4,776	10,938	9,410	25,124
Terminal Facilities	740	2,090	95	2,926
Plant, Equipment and Infrastructure	1,870	1,017	696	3,583
General Airport Equipment	1,335	3,856	4,934	10,125
Forecast Capital Expenditure	**8,721**	**17,901**	**15,136**	**41,758**

Forecast Capital Expenditure PSE 1 - after allocation

Category	2009	2010	2011	Total
Major Maintenance - Runways, Aprons & Taxiways	4,776	10,938	9,410	25,124
Terminal Facilities	547	1,422	52	2,021
Plant, Equipment and Infrastructure	785	469	267	1,521
General Airport Equipment	1,143	2,977	2,287	6,407
Forecast Capital Expenditure	**7,251**	**15,806**	**12,016**	**35,073**

Summary of Actual Capital Expenditure PSE 1

Asset Additions	2009	2010	2011	Total	2012	Total PSE1
Runways, Aprons & Taxiways	3,640	9,604	5,194	18,438	4,448	22,886
Terminal Facilities	603	578	0	1,181	426	1,607
Plant, Equipment and Infrastructure	1,794	1,155	1,284	4,233	2097	6,330
General Airport Equipment	653	498	1,129	2,280	1,307	3,587
ITP Development			41,992	41,992	24797	66,789
Actual Capital Expenditure	**6,690**	**11,835**	**49,599**	**68,124**	**33,075**	**101,199**

- Actual capital expenditure, excluding the new Integrated Terminal for the extended period to 30 June 2012, was $34.410m, as compared with the forecast capital expenditure for the 3 years to 30 June 2011 of $35.073m. There was no forecast of capital expenditure made for 2012 as the original PSE1 price reset period was only for 3 years. Within that total:
    - runways, aprons and taxiways reflected the work determined from the annual pavement condition review, as compared to that forecast from the long term pavement maintenance programme prepared by Beca; and
    - terminal facilities expenditure was below budget (as a focus was on minimising expenditure over the forecast period prior to the commissioning of the new Integrated Terminal development); however this was more than offset by the increase in plant, equipment, infrastructure and general airport equipment.

3.6. What is the effect of differences, if any, between cost allocation methodologies and cost categories used for 2011/12 historical reporting under information disclosure and the second PSE price setting?

- The cost classification categories, the allocation methodologies used for the 2011 and 2012 information disclosure reports, and those methodologies applied in the second price setting event, have been largely similar. However the approach taken in the setting of the PSE1 costs was based on the configuration of the original domestic terminal in operation over that period. The 2011 and the 2012 information disclosures have been progressively updated to incorporate the on-going commissioning of the new Integrated Terminal, resulting in a change in both the overall footprint of the terminal, and the activities in use over the terminal. The allocation approach applied in PSE2 has been reflective of the final terminal configuration and of how the terminal will be used across the range of business activities. This configuration, and the assets and costs applied, will only be reflected in the annual information disclosure reporting for 2013 onwards - once the full terminal has been completed.

3.7. How reasonable are Christchurch Airport's asset valuations, and why?

- The opening regulated asset base for information disclosure was seen as the starting point for the determination of assets to be employed from the beginning of PSE2. However, following the completion of the ITP in 2012, a substantial part of the terminal (namely the old domestic terminal) had been fully demolished and had a nil residual value. The terminal assets remaining were in effect the international terminal adjusted for the integration with the new terminal development. Accordingly, valuations for PSE2 comprised the existing international terminal (residual) based on an ODRC valuation, using the configuration of the continuing infrastructure at 30 June 2011. The ODRC Valuation was totally consistent with the input methodology determined under information disclosure.

- The balance of the terminal is a newly commissioned asset with the valuation of this asset being based on actual cost of the new development, including an allowance for the capitalisation of interest through construction to the date of commissioning.

- Land valuation has been based on a methodology entirely consistent with the asset valuation input methodology. The MVAU valuation is based on an alternate use land use plan independently prepared by expert advisers, Planit Associates. The land use plan was reviewed by Chapman Tripp to ensure that it was consistent with the Regional Policy Statement for planning at the time of the commencement of PSE2. This land use plan was reviewed by Zomac Planning Solutions (***ZPS***) on behalf of BARNZ as part of the consultation process. The conclusion from ZPS, as advised by BARNZ, was:

  > *"...that such land use plans were plausible, although a note of caution was sounded with respect to the level of residential development likely to be permitted as opposed to less intensive rural-residential. Given this conclusion BARNZ advised that they believed no further comment was necessary."*

- The market valuation applied to this alternate land use plan was updated on 31 December 2011, again prepared under a method consistent with the asset valuation input methodology, with such revaluations being included in revenue.

- The valuation of the airfield, including runways aprons and taxiways, was based on ODRC as per the closing RAB at 30 June 2009. The international terminal was based on a valuation of the residual international terminal assets, as compiled by Opus International at 30 June 2011.

- CIAL applied revaluations on specialised assets through applying CPI indexation to the relevant asset bases from the opening RAB at 30 June 2009, again including such revaluations as income.

- BARNZ observed in their response to this item in the consultation process that they "considered this approach to be appropriate."

3.8. What do parties consider to be the most likely basis of asset valuation used to set prices after 2017?

- No valuation basis can be predetermined before the next pricing reset as this would be contrary to the obligations for consultation as required under the Airport Authorities Act.

- However at this stage CIAL is not aware of any reason why the basis of asset valuation used in the setting of prices for PSE3 would not continue in line with the underlying valuation methodology applied in PSE2, and again consistent with the input methodologies.

- In line with the current approach, CIAL's intention is to treat all future revaluations as revenue.

3.9. Has Christchurch Airport appropriately excluded assets held for future use?

- As a matter of principle, CIAL believes that assets held for future use should be included in the asset base. The question should be the extent of return that should be sought on such assets. While it is not an easy question to answer, it needs to be considered as part of consultation. Assets held for future use have been acquired to ensure the long term provision of airport services to Canterbury and the South Island. To this end, long term investment decisions have been made and accordingly a return on such assets should be received. A zero return until the date of use is not acceptable and is not a fair and proper reflection of prudent long-term investment decisions made with sound commercial judgement to ensure the provision of airport infrastructure as required in future periods. However we have made a commercial decision to use an asset base for pricing that is consistent with the input methodology and so have excluded all assets held for future use.

- In the PSE1 price setting decision, CIAL removed some land that had previously been incorporated in the aeronautical pricing reset in January 2001. This was the result of significant interaction with the airlines as to the area of land that should be incorporated in the airfield asset base, both in terms of the overall area and required areas for runway end protection areas (***REPAs***). The airlines argued that a larger amount of land should have been excluded.

- CIAL explained to the Airlines why such land should be included. Consideration must be taken of aprons and taxiways and the relevant aircraft landing/takeoff clearance lines required to meet safety regulations, particularly to the west extremity of the airport. Information was provided to Airlines on the area required, including that required from a safety perspective to ensure that the runway protection area could not be penetrated by any fixed obstacles, thereby determining the area effectively sterilised for airfield operations.

CIAL referred to NZCAA Part 139 – 06A Chapter 4 - which set out the required specifications and the logic for adopting such parameters.

- In the 2012 price reset (PSE2) the airlines again argued the land area should be removed. CIAL is firmly of the view there is logical rationale for the land, as detailed, to be included in the pricing reset asset base.

- A reconciliation of land area (and valuations) between information disclosure and that included in the price reset has been provided to the Commission.

- In addition to this land area, the PSE2 consultation included a forecast of the additional investment required to divert roading infrastructure to enable CIAL to have the necessary Runway End Safety Areas (RESA) to comply with CAA requirements for Christchurch Airport. This regulatory obligation underscores CIAL's current need to own the land.

- The following table provides a summary of the land area included in the historic and current price reset:

Element	**2000 Pricing Reset**	**2009 Pricing Reset**	**2012 Pricing Reset**
Airfield Land	373.9000 ha	315.6224 ha	315.6224 ha
Terminal land	2.2000 ha	1.9734 ha	1.9734 ha
New Additions		Nil	Nil
Total Land	**376.1000 ha**	**317.5958 ha**	**317.5958 ha**

- This table shows the changes in the land area incorporated in the airfield asset base over time. The reduction in land area incorporated in the 2009 reset was based on commercial judgement, and offered to the airlines as a pragmatic solution to resolve an area of contention in the 2009 pricing reset consultation.

3.10. Do parties consider that the prices set for PSE2 will result in a permanent under-recovery of $16 million, as stated in the Executive Summary of the 2012 Pricing Decision on page 7 of Christchurch Airport's Price Setting Disclosure?

- The permanent under-recovery set out in the disclosure document will arise as long as CIAL's prices do not exceed the long-run constant real price calculated using the CIAL pricing model. We have no intention of exceeding such a price, and hence this amount represents a permanent under recovery of revenue.

3.11. Do parties consider the prices set by Christchurch Airport will result in an appropriate recovery of the tax allowance?

- This question is addressed in combination with the following question.

3.12. Is Christchurch Airport's approach using a pre-tax WACC likely to cause any issues either in the long-term or for this section 56G review?

- CIAL has been publicly criticised by BARNZ over CIAL's use of the tax expense in modelling the long-run constant real price. The argument against CIAL's modelling is that the tax expense approach, which assumes the company pays tax at the corporate tax rate, will overstate the tax liability relative to the tax payable approach. Consequently—the argument goes—when CIAL sets prices to recover the overstated tax allowance, the resulting prices are incorrectly inflated.
- This criticism of CIAL's approach is wrong because it picks one element of how the tax calculation is used for the setting of prices, without taking account two other crucial elements:
  - The long-run pricing model, and
  - The choice of the appropriate pre-tax WACC for discounting the tax allowance.
- When combined with the right pre-tax discount rate, the use of the implied tax expense does not lead to higher prices in the context of LRMC price setting.
- Prior to presenting evidence to show the above point, we would like to point out that during the consultation process CIAL provided the airlines with calculations demonstrating that our expected revenue recovery for PSE2 would be less than the maximum allowable revenue that would be derived from the use of our estimated post-tax WACC and the BARNZ estimate of our tax payable for PSE2. This evidence was detailed in our Pricing Event Information Disclosure.
- CIAL is disappointed about continued claims of alleged over-recovery of tax. During the price consultation process we did not develop a detailed long-term forecast of tax payable because such an exercise appeared to us to be irrelevant in light of the LRMC price methodology applied. To put this issue to rest, we have now developed a detailed long-term tax model. The attached model, which shows both the current long-term estimates of tax payable and the estimates of tax expense, calculates present value of the tax allowance using various approaches. As we explain in detail below, it shows that our tax expense approach does not in any way overstate the calculation of the present value. The present value is the number that enters into the pricing model.

Long-run pricing model

- During PSE2, CIAL is implementing a series of price increase steps aiming towards reaching (or approximately reaching), by the end of the period, the constant real price that would allow the recovery of CIAL's reasonable costs over the life of the assets. The efficiency benefits of such a pricing approach are well understood: constant real prices avoid an investment cycle-driven price cycle, and ensure that both current and future users pay in equal proportion for the same level of service.
- The tax calculation has to be understood within the mechanics of the long-run pricing model. In calculating LRMC prices, we start by estimating the maximum allowable revenue (MAR) over the long term (twenty years in CIAL's case). The four standard building blocks to the MAR are return on capital, return of capital, opex, and tax.
- The LRMC prices are derived by dividing the present value of the MAR over the twenty year period by the sum of forecast volumes over the same period. In other words, to understand how the tax treatment affects the LRMC price, it is essential to consider what difference it makes to the present value of MAR.

- BARNZ is correct that the use of the vanilla pre-tax WACC, which in effect assumes that CIAL will pay a tax equal to the 28% corporate tax rate, would over-estimate the actual amount of tax CIAL is likely to pay during PSE2. However, while correct, this observation is not relevant. In the long-run model, the effect of the tax treatment on prices does not depend on whether the 5-year forecast is right. It depends on whether the present value of the tax allowance over the 20-year period is right.
- In turn, the present value of the tax allowance over the 20-year period depends on two factors:
    - nominal tax allowance estimates for each year; and
    - the discount rate.
- CIAL's approach is to use pre-tax WACC to calculate the return required on assets in the build-up of the MAR. We then discount this MAR back using the same pre-tax WACC to give the present value. Since post-tax WACC is converted to pre-tax WACC using the 28% tax rate (post-tax WACC is divided by one minus the corporate tax rate), the implied nominal tax payment is 28% in each year.

Discount rate

- We can consider how we would calculate the present value of MAR under the tax payable approach. First we need to estimate post-tax MAR. To do that, we estimate return on capital based on post-tax WACC, the depreciation, and opex. We would then calculate the tax allowance separately, using the input methodology. The tax calculations steps as prescribed by the input methodology are:
    - start with EBIT
    - deduct tax depreciation and notional interest expense to give profit before tax
    - apply the tax rate to profit before tax to calculate tax payable
    - calculate the tax allowance by dividing tax payable by one minus the tax rate (because you need enough revenue to cover the tax on tax) by dividing tax payable by (1-tax).
- This tax allowance would then be added to the post-tax return on RAB, regulatory depreciation, and opex to calculate the MAR.
- So far, so well. There is no doubt that the resulting nominal MAR in each of the next 20 years will be different using this methodology than by simply using the vanilla pre-tax WACC. We would expect that when using the pre-tax WACC (implied tax expense), the resulting nominal MAR will be higher in early years and lower in later years.
- Now comes the tricky part. To calculate the present value of MAR, we need to discount the MAR – <u>but at what discount rate</u>? The conceptual difficulty arises because the discount rate must itself incorporate the tax treatment:
    - It is clear that the cash flows derived from using the pre-tax WACC must be discounted at the same pre-tax WACC.
    - It is equally clear, that if we were trying to calculate the present value of the post-tax cash flows, we would use the post-tax WACC as the discount rate.
- However, the difficulty arises in deciding at what rate to discount the post-tax MAR calculated using the tax payable approach. It would clearly not be appropriate to discount that by the vanilla pre-tax WACC. Such a discount rate would give too much weight to the immediate tax payable obligations and would give too little weight to the future obligations. To put it another way, a constant real price derived from the present value of pre-tax cash

flows build-up using annual tax payable calculations discounted at the vanilla pre-tax WACC would under-recover the tax liability over the life of the assets.

- Similarly, it would be inappropriate to use the post-tax WACC as the discount rate. Such an approach would give too much weight to future tax obligations, and would lead to an over-recovery built into the constant real price. We note that the Commission, in regulating the electricity and gas distribution businesses, uses the post-tax WACC to discount pre-tax cash flows for the purpose of levelising prices over the 5-year pricing period. Despite the distortion, this may be a reasonable approximation over the relatively short time period. However, such an approximation would not work over the 20 year period, as the distortion would be significant.
- In CIAL's case, applying the Commission's approach of (i) calculating the tax allowance from annual tax payable estimates, and (ii) discounting pre-tax cash flows using post-tax WACC would lead to prices that are higher than the proposed prices: our estimate of the present value of MAR is $650m, but using the Commission's approach produces $837. While tempting, we believe a conceptually consistent approach is necessary.
- A conceptually consistent approach would be to estimate the effective tax rate and then to discount pre-tax cash flows derived from the annual calculations of tax payable by the rate equal to the post-tax WACC divided by one minus the effective tax rate. Since the effective tax rate is lower than the corporate tax rate, the discount rate would be less than the vanilla pre-tax WACC.
- The main difficulty with the conceptually correct approach is its complexity. We would need to calculate the effective tax rate for each year, and then discount cash flows by different discount rates for each year. To estimate a single time-weighted effective tax rate requires circular logic: we would need to know the present values of pre-tax and post-tax cash flows, but we need such an estimate in the first place to calculate the present value of pre-tax cash flows.
- So what does this mean for CIAL pricing? We acknowledge that the nominal value of the tax expense is, over the twenty year period, slightly higher than the nominal value of the tax payable summed over the same period ($350m compared to $339m). However, we take these slightly higher nominal cash flows (and a somewhat different payment profile) and discount them at the higher discount rate (vanilla pre-tax WACC). An equally conceptually consistent alternative would be to take the somewhat lower nominal cash flows (and a different time profile) derived using the tax payable approach and then discount them by the somewhat lower discount rate derived from dividing the post-tax WACC by one minus the effective tax rate.
- We checked our approach by asking the following questions:
    - What discount rate would produce the same present value of MAR when applied to the input methodology-based approach (using post-tax WACC and calculating annual tax payable) compared to our approach (using vanilla pre-tax WACC and discounting by the same rate)?
    - What is the effective tax rate implied by such a discount?
- Our estimates (presented in the attached spreadsheet), show that:
    - The present value of MAR is the same under both approaches if the pre-tax cash flows derived from the annual calculation of tax payable are discounted at 12.7% (using the 9.76% post tax WACC).

- The 12.7% pre-tax WACC implies an effective tax rate of approximately 24% (22% to 23.6% depending on assumptions around tax depreciation), given the post-tax WACC of 9.76%.

- In other words, in terms of its effect on long-run constant real prices, the CIAL simplified tax approach is exactly equivalent with the application of the tax payable model, on the assumption that the average effective tax rate is 24%. This is close to the average effective tax rate paid by CIAL, as derived from our 2012 Annual Financial Statements.
- In summary, permanent differences between the tax payable and tax expense approaches arise out of the benefits of tax deferral: overall, the same nominal amount of tax would in general be paid, but the tax payable calculation captures the benefit of the tax being paid later, and hence, being worth less. However, the use of the appropriate discount rate over the long-term largely compensates for that difference.
- Of course, some small differences may exist. While the effective tax rate implied by our calculation appears realistic, the reality may be slightly higher or slightly lower. In our view, the effect on the long-run constant price would be well within the margin of error. For example, our current calculation of MAR only includes the forecast capex program for PSE2, and hence does not allow for new capex for PSE3, 4 and 5. This would understate the long-run constant real price.
- Overall:
  - Even if we used the same discount rate for the pre-tax flows, the difference between the present value of MAR using the tax payable and the tax expense approaches is quite small.
  - Using the same discount rate for pre-tax cash flows incorporating different implied tax treatments is conceptually wrong.
  - The lower discount rate implied by the effective tax rate offsets the deferral effect of the tax payable approach.
  - At the appropriate discount rate, there is no material effect on the present value of MAR from our simplified tax payable approach.
- Any calculation of the regulatory tax payable is an approximation. We are confident that our approach would result in an appropriate recovery of the tax allowance, provided that the pricing approach remains consistent. Our approach to how the tax allowance enters the pricing calculation is based on the 20-year model, and hence the appropriate tax recovery—just as the appropriate recovery of all other costs—depends on the consistent application of the pricing model over the medium term.

3.13. Are there any issues likely to result from Christchurch Airport's use of a 4.5 year pricing period rather than a full five year period?

- No issues are likely to result from our use of a 4.5 year pricing period and our medium-term pricing model seeks to look beyond the artificial constraints of fixed 5-year periods. To understand airport performance and to set appropriate prices for long-lived infrastructure assets (which have a weighted average life of approximately 30 years), it is essential to take a longer-term perspective than is allowed by any 5-year snapshot. Having said that, we consider a 5-year price reset to be the shortest appropriate period for adjusting prices in response to new information about demand forecasts, financial market changes affecting WACC, and new capex approvals.

- Our deferral included in PSE2 has no implication for future price resets, and is essentially a discretionary one-off concession in favour of our customers.

- The price reset date of 1 December was determined as being an appropriate date for the substantial completion of the new Integrated Terminal, as the terminal had been progressively developed in stages over a 3 year period. Construction commenced in June 2009 with Stage 1 (the substantial part of the new terminal development) being completed in March 2011 and Stage 2 being completed in March 2012. The full terminal will be completed by March 2013 but in order to provide a reasonable date when CIAL commences to receive a return on investment, and recognising substantial customer's position of not paying for assets prior to coming into use, it was believed a target date of 1 December 2012 was appropriate and reasonable to both parties. Consideration was given to a progressive implementation allowing for increased prices to come into effect as each stage was completed, but in order to achieve a position of simplicity, the 1 December 2012 reset date was chosen.

- In the initial proposal to airlines, the original pricing model used the full five year financial period from 1 July 2012 to 30 June 2017. In the initial stage of the consultation process, airlines expressed concern that if the period from 1 July to 30 November was included it had a perceived effect that airlines would be compensating for under-recovery from periods prior to the reset date of 1 December 2012, the period covered by PSE1. While this was not the case, in order to clearly demonstrate the position for the airlines, CIAL changed the pricing model to include only the part financial year for 1 December 2012 to 30 June 2013 period, together with the subsequent four financial years to 30 June 2017.

- The financial model provided to the airlines identified the level of recovery against the long-run marginal cost (see section 3.12), which identified:

    - the transition price path that CIAL had elected to adopt (having taken account of the underlying economic environment in which the airlines are experiencing); and

    - the permanent under-recovery that CIAL was willing to accept as a sharing of the detrimental impacts caused by the Canterbury earthquakes.

- However, in presenting the information disclosure as required for this price reset, the financial analysis required by the regulation was for the 5 years ending 30 June 2017. Accordingly, CIAL's disclosure included the other specified activities not covered under PSE2 consultation, and the initial 5 month period from 1 July 2012 to 30 November 2012, neither of which are covered by the pricing model used for the consultation.

- This should not create any issues in terms of being able to identify the results, post implementation of the price reset. The model structure and the allocations of inputs, including operating costs and return on capital employed, have separately identified the initial 5 month period. However when the Commission carries out its internal rate of return calculation base on the disclosed information it will include the initial 5 month period. By delaying the start to the pricing period, despite a significant amount of the investment in ITP having been commissioned, CIAL forgave any revenue recovery for the first five months of the 2013 financial year. This is estimated to be a benefit of approximately $5 million to substantial customers and further assists airlines operating in the current difficult market conditions.

4. IS CHRISTCHURCH AIRPORT OPERATING AND INVESTING IN THEIR ASSETS EFFICIENTLY?

4.1. Where and when do any capacity constraints occur at Christchurch Airport, and is additional investment necessary to address these constraints?

- In considering the issue of capacity constraints, CIAL continually reviews its level of performance and identification of where constraints may arise. Constraints can occur under the following three categories, which we discuss in greater detail below:
  - Terminal infrastructure
  - Airfield and aircraft parking
  - Access roads

Terminal infrastructure

- Development of the new Integrated Terminal was necessary to address the reduction in service levels being experienced by both the travelling public and the airlines in the old domestic terminal, as a result of the progressive growth in domestic passengers over the 40+ year life of the old terminal. The new Integrated Terminal has removed the service level constraints experienced in the old terminal.

- As part of CIAL's PSE2 consultation process, it engaged AirBiz to carry out an independent review of stand and gate capacity, considering the forward demand forecast for the 10 year period to 2022. The AirBiz review identified that, due to the expected growth in international aircraft movements, two international gates at Christchurch Airport need to be optimised to handle such requirements. An allowance for the capital expenditure necessary for this optimisation was included in the initial capital investment forecast contained in CIAL's consultation proposal for PSE2. However following consultation with the airlines, and consideration of their view of growth and whether such augmentation would be required, CIAL revised the investment development path for international gate expansion - retaining the capital investment on one gate within PSE2 and transferring the investment on the second gate to be discussed in the context of PSE3.

Airfield and aircraft parking

Based on current airline schedules and aircraft types operating at Christchurch airport;

- There are presently no constraints on the airfield or for aircraft parking.
- It has been identified that there are likely to be constraints for aircraft parking in the future and so CIAL has developed comprehensive plans to address this, particularly for parking turboprop aircraft. Aspects of these plans include:
  - demolishing an aircraft hangar currently leased by Air NZ; and
  - when parking constraints arise, providing alternate parking in remote locations, particularly to handle itinerant aircraft movements.
- There are also plans in place to enable the development and use of the existing runways for simultaneous operations. This is designed to postpone the need for substantial investment in a parallel runway for at least 40-50 years.
- the expanding use of the Airbus A380 aircraft has the potential to impose additional requirements on to CIAL in the future. CIAL has developed plans to facilitate this aircraft's unique runway and terminal handling requirements, at an approximate cost of $23 million.

Should this investment be necessary, plans have been made that will enable the necessary shoulder and taxiway strengthening to occur in conjunction with the necessary adjustments to the terminal. This redevelopment can be completed within 12 months of the developments becoming necessary.

Access Roads

- There are presently no constraints on CIAL owned and managed access roads; however some Christchurch city arterial congestion is presently experienced in the northwest sector of Christchurch city constraining access to Christchurch Airport. Initiatives to redress these areas of constraint are presently being advanced by NZTA and Christchurch City Council.

4.2. How reasonable are Christchurch Airport's opex and capex forecasts for the second PSE, and how do these compare to forecast and actual expenditure from the first PSE?

- The opex and capex forecasts for PSE1 and PSE2 were reasonable. As we explain below, both forecasting exercises took place in unique circumstances – first immediately prior and then immediately after the ITP. The forecasts are difficult to compare, for this reason.

Price Setting Event 1

- In setting the initial forecast of operating costs and the capital investment required for PSE1 the initial consultation was planned to be a two-step process. Firstly, it was to include the pricing period from 1 July 2008 until 30 June 2010 - at which time it was anticipated that the new Integrated Terminal would have been commissioned. Following that date, a second reset in prices was to occur allowing for the additional investment necessary for the new Integrated Terminal.

- However, owing to the extensive consultation process for the ITP capital investment, substantial customers were concerned that this process had not been concluded and therefore it would not be practical to estimate the final capital cost to be included in the pricing consultation for the ITP. Accordingly a decision was made to exclude the second stage from the consultation process for the ITP. The reset period was then set to only be for a three year period for the financial years ending 30 June 2009, 2010, and 2011. It was forecast that from 1 July 2011 a new price reset would be progressed, allowing for the increased investment following the commissioning of the Integrated Terminal. It was projected the consultation process for this subsequent reset would commence in 2010.

- In light of this decision the operating cost structure and the capital investment forecast were then made on business as usual basis, with such forecasts being based on the business plans prepared in 2007. In considering the operating cost base for the three year period covered in PSE1, CIAL incorporated an additional component as part of the consultation process, as a reflection of the drive to achieve improved cost efficiency, by including a cumulative target of 10% saving in operating costs into the operating costs forecast. At that stage there were no definitive initiatives identified to achieve such target, but in order to demonstrate CIAL's drive to improve cost efficiency this cost reduction target was incorporated into the operating costs forecast.

- In developing the capital investment forecast for this three year period CIAL initially forecast a capital investment programme of $37.954 million over the three years. This forecast was revised to $35.073 million after detailed consultation with the airlines.

- Actual results for PSE1 were, in total, relatively close to forecast (refer to the detailed analysis in Question 3.5, where variations to forecast were explained).

- **Price Setting Event 2**In preparing the forecasts for PSE2, detailed explanations and validations were provided to airlines to explain the increases in operating costs, which were influenced by:

  - the on-going effect of the earthquakes on infrastructure operating costs, such as insurance and asset maintenance;

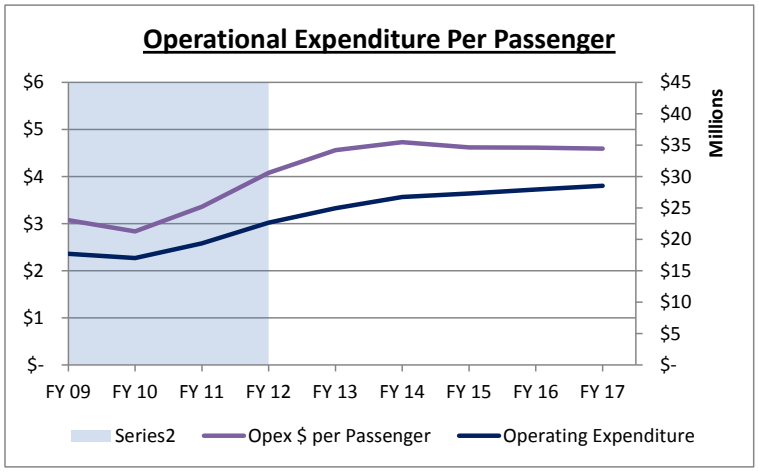
  - the increase in the asset base post the commissioning of the ITP which - with an overall increase in total terminal footprint of approximately 26% - had an impact on infrastructure operating costs such as cleaning, energy and rates;

  - an increase in activities included in the pricing activity base (e.g. baggage makeup) – which were previously covered under separate commercial arrangements but, following the integration of activities post the ITP, this activity is now covered under general aeronautical charges.

Total operating Costs	2012	2013	2014	2015	2016	2017
Corporate overheads	6,858	7,552	8,099	8,260	8,459	8,643
Asset management and airport operations	14,057	15,483	16,604	16,933	17,342	17,717
Asset Maintenance	1,732	1,908	2,046	2,086	2,137	2,183
	22,647	24,943	26,749	27,279	27,938	28,543
Increase %		*10.1%*	*7.2%*	*2.0%*	*2.4%*	*2.2%*

- The following chart illustrates the profile of such operating costs on a per pax basis, identifying that while the cost per pax increases it peaks in 2014 and gradually trends down from that date.

Operating Expenditure per Passenger	Actual FY 09	Actual FY 10	Actual FY 11	Actual FY 12	Forecast PSE2 FY 13	Forecast PSE2 FY 14	Forecast PSE2 FY 15	Forecast PSE2 FY 16	Forecast PSE2 FY 17
Operating Expenditure	$ 17,704,473	$ 16,996,374	$ 19,359,897	$ 22,647,416	$ 24,943,448	$ 26,748,955	$ 27,278,786	$ 27,938,134	$ 28,543,071
Total Passengers	5,763,827	5,997,041	5,767,238	5,552,601	5,468,933	5,652,868	5,903,482	6,059,083	6,218,815
Opex $ per Passenger	**$ 3.07**	**$ 2.83**	**$ 3.36**	**$ 4.08**	**$ 4.56**	**$ 4.73**	**$ 4.62**	**$ 4.61**	**$ 4.59**



4.3. What factors outside Christchurch Airport's control have contributed to the capex and opex forecast for the second PSE and to changes in expenditure since the first PSE?

Operating Cost Forecast

- There have been several substantial elements that have had an impact on the forecast operating expenditure for PSE2 as compared with PSE1. These relate particularly to:
    - the occurrence of the Canterbury earthquakes in September 2010 and February 2011; and
    - The completion of the ITP. While the ITP was a discretionary investment and in that sense within CIAL's control, once the commitment to the project was made, as explained below there were significant implications for opex that were unavoidable.
- ***Canterbury earthquakes*** - the Canterbury earthquakes have changed the operating cost environment for several specific areas, including:
    - *Insurance premiums* – there has been a significant increase in insurance premiums as a consequence of the substantial increase in the cost of catastrophe cover (both in terms of the premium payable and also the loss deductibles that are to be applied for future loss events). For the company as a whole, annual insurance premiums have increased from approximately $1 million in 2010 to approximately $4.5 million in 2012. It is anticipated that such premiums are likely to continue over the forecast period, albeit at a lower trend as the extent of cost increases appears to abate to some degree. However the step change in cost as a consequence of the increased risk is projected to remain for the full PSE2 pricing period.
    - *Asset management costs* - asset management costs for the remediation of earthquake damage (for areas not reimbursed through insurance cover) will have an on-going impact on the business. While Christchurch Airport is perceived to have an extremely low risk profile, as verified by independent Geotechnical surveys, CIAL has had non-structural damage to existing terminal assets – with an allowance for such costs being built into the on-going asset management plans for the future.
- ***Infrastructure development*** – the completion of the new Integrated Terminal has resulted in a step change in both the value of the asset base employed and the on-going operating costs for the terminal activities.
    - *The footprint* of the total terminal complex increased from approximately 59,000m² to approximately 75,000m² across all three terminal components servicing international / domestic jets and turboprop aircraft. This change in terminal footprint has resulted in increases in costs as a consequence of the scale increase for operating costs such as rates, electricity and heating, cleaning, and the like - which are predicated on the footprint size of the terminal infrastructure. A number of efficiencies were achieved through the new Integrated Terminal (see Question 5.2) including through energy efficiency initiatives from the use of groundwater to support the air conditioning requirements, lighting improvements and reduced future maintenance costs arising out of the improved materials and design features. But these items have not been sufficient to offset the increased costs arising from the increased footprint size. In addition, CIAL has been able to hold its energy costs for the last 5 years, but - as with many external costs - the costs of energy generally is on an upward trend and will result in increases in operating costs over PSE2.

- *In addition* to the greater operating costs arising from the terminal's larger footprint, there has also been a growth in personnel. This growth in personnel is necessary to support the increased scale of the new Integrated Terminal operations and related activities.
- *Looking at operating costs in total*, the increase was significant at the beginning of PSE2, owing to the step change arising from the ITP infrastructure investment. But from 2015 the increase is effectively equivalent to CPI. When considering operating costs on a per passenger basis, the overall trend in the cost per passenger over PSE2 is a peak in 2014 with a gradual reduction thereafter.

4.4. What role did information disclosure regulation play in consultations concerning Christchurch Airport's expenditure forecasts?

- The role that information disclosure and, more particularly, the input methodologies, played in the compilation of expenditure forecasts for PSE2 was to provide a transparent framework to demonstrate and articulate how such expenditure forecasts were developed.
- The impacts of the Canterbury earthquakes and the new Integrated Terminal have played a significant part in setting the level of expenditure forecast included in PSE2; but application of the input methodologies addressed some concerns that arose in PSE1 - particularly with respect to the allocation of costs to pricing activities where a direct causal allocator was not necessarily evident.
- CIAL's objective in applying the input methodologies was to ensure that, where appropriate, costs were allocated directly to specified airport activities and, within the terminal activities, to further allocate such costs to discreet sub-categories on which the specific aircraft type pricing unit charges were developed. This resulted in the residual "overhead costs" being reduced in size when final cost allocations were carried out. In preparing the expenditure forecasts and the allocation drivers, we believe this transparent disclosure of information enabled the airlines to have a better understanding of the various components involved.
- The step change in costs as a consequence of the ITP was an estimate based on best current knowledge. Forecasts will be refined as actual performance is identified, providing an improved framework for the forecasting of operating costs for the price reset in 2017.

4.5. What effect has information disclosure regulation had on the efficiency of Christchurch Airport's investment and operational expenditure?

- As an extension to Question 4.2, the effect of information disclosure on the type and quantum of capital investment and operational expenditure will be one of transparency of outcomes against forecast.
- The annual information disclosure on performance will provide more detailed information on performance and on the reasons for any variation in actual expenditure against forecast expenditure.
- CIAL faces strong incentives for efficient investment and opex, and Information disclosure strengthens those incentives through this added transparency.

- Having said that, we do recognise that it will be difficult to observe the effect of Information disclosure on the efficiency of investment and opex until further time has passed. In particular, as there has been a step-change in our assets with the completion of the ITP this will result in opex not being easily comparable with historical results.

5. IS CHRISTCHURCH AIRPORT INNOVATING WHERE APPROPRIATE

5.1. How does the level of innovation at Christchurch Airport compare to innovation at other airports both domestic and international?

- New Zealand airports are amongst the most innovative in the world, especially regarding initiatives to improve passenger facilitation and processing times. CIAL is no exception to this rule and believes that innovation can take many forms, leading to improvements in overall asset investment, operational improvement, process efficiency and effectiveness, business performance reliability, efficiency and optimisation of expenditure, and success of new initiatives to stimulate aeronautical growth.

- The development of the new Integrated Terminal has involved significant innovation, benefiting CIAL as a company, the airlines as customers, the general travelling public, and meeters and greeters using Christchurch Airport.

- In developing new infrastructure for airports, which occurs every 40-50 years, significant consideration and planning is required to achieve the overall functional and cost outcomes required by all stakeholders.

- The new Integrated Terminal was the outcome of in depth consideration of a range of options considered in 2003 and 2004 and was subject to further consideration over 2006 to 2008 as airline business models evolved following the entry of low cost carriers into the domestic market. The old domestic terminal was opened in 1960 when annual passenger numbers were only 200,000. In 2010, total passenger numbers for Christchurch Airport reached 6,000,000 movements and, although the old terminal had served stakeholder needs well, and underwent several expansions and upgrades, the continuous growth in demand necessitated replacement.

- The new terminal building replaces the old domestic terminal and integrates the international check-in and related baggage handling infrastructure. The international departure and arrivals area were already adequately sized and did not need replacement. A pre-requisite for the new building was the need to be located across the same footprint as the old building and to be integrated into the existing international building, to ensure an integrated solution for the travelling public using Christchurch Airport. Christchurch Airport's catchment and passenger volumes are insufficient to warrant independent and standalone buildings. An integrated solution was necessary to ensure efficiency and effectiveness of passenger facilitation between domestic and international and vice versa. This meant that common or integrated facilities that could be shared by both domestic and international operations were a necessary design feature.

- A significant challenge in developing the new Integrated Terminal was to ensure careful staging of the project to allow airline operations to continue unaffected during the four years of construction - which commenced in June 2009, with the final stage being completed in March 2013.

- The new Integrated Terminal is considered a resounding success, receiving praise from all quarters. It meets the key criteria set out in the original business case for the terminal, which were to:
    - Meet the needs of travellers and visitors who want convenience, ease of use, comfort and access to a range of retail food and beverage and other airport services.
    - Meet the operational needs of airlines who want cost efficiency, aircraft turnaround efficiency, reliability and improved airside/landside operations.
    - Meet the needs of shareholders who wanted good asset utilisation, competitive advantage, expandability and flexibility, and return on investment through an asset that would provide an enhanced regional gateway to Canterbury and the South Island.
    - Meet the needs of other stakeholders, including: an efficient retail footprint for tenants, increased availability of space for border agency partners, and minimisation of operational disruption during implementation.

5.2. What innovation activities have been undertaken or are forecast to be undertaken by Christchurch Airport, and why?

A) ITP infrastructure

- ***An integrated and common use check-in hall*** - one hall accommodates all domestic and international check-in processing, thereby optimising space. Check-in desks and facilities are not allocated permanently to individual airlines but are allocated as required, so multiple airlines can share the same check-in counters. This further optimises space and reduces the level of future capital investment. This integration took into account the changing air travel environment, including changes in passenger processes and technological solutions for improving passenger facilitation to support the passenger journey from carpark to aircraft. The benefit of this integration has led to significant savings for our airline customers through the rationalisation of capital investment required for the new Integrated Terminal. If the new terminal had replicated the previous check in counter configuration it would have required at least 72 check-in counters for both international and domestic services, whereas the integration enabled this to be reduced to 60 counters.

- ***Swing gates*** - swing gates provide three new aircraft parking positions which can be occupied by either domestic or international aircraft. Such gates are configured so that aircraft can handle either domestic or international boarding or departing passengers, and they can even change mode during transit. This flexibility is a great advantage to airlines. At other airports without swing gates, a repositioning of the aircraft may be required.

- ***Heating efficiency*** – heating efficiency is achieved through the use of artesian water for heating and cooling systems, which lowers operating and maintenance costs, reduces energy utilisation, significantly increases operating efficiencies, reduces noise levels, and reduces carbon emissions (the terminal produces no local gaseous emissions).

- ***Plant rooms*** - plant rooms were developed in 3D to ensure co-ordination of similar equipment activities and to maximise space allowance for future expansion requirements.

- ***Building Services -*** all building services were integrated with the ITP design. Key factors were:

- *Lighting* - focussed on energy efficiency, lowering maintenance costs, commonality of parts, and longevity.
- *Heating ventilation and air-conditioning* – the heating and ventilation ensures adequate fresh air, while minimising energy use and ensuring air quality. Tempered fresh air is backed up by generators to ensure continued operation during power outages.
- *Flexibility of Services* – the terminal was constructed to accommodate future changes in technology and/or building use.
- *Environmental responsibility* - one of the critical elements in the project was to ensure a minimisation of the carbon footprint. The project used the REBRI model, reducing building material use, segregating waste, re-using excavated material and sorting material for use on site.

- ***Baggage handling*** - a state of the art, full automatic baggage handling system was installed providing 100% baggage identification, automated in-line security screening (x-ray), and automated baggage allocation to particular flights. The system can either be fully automated (requiring no user intervention) or can be manually operated.

- ***Design and construction -*** responding to the latest developments in air travel required innovative design, and continuing the airports business required innovative construction practices that ensured continued compliance with the building code:
  - *Service provision* - services were provided to maintain operational areas during the continuous construction and demolition of the terminal. Construction staging was modified to retain essential services, and services were diverted and established temporarily, when required.
  - *Public Safety* - construction of a new facility adjacent to, and over, a fully operating airport raised important public safety concerns - with many thousands of travellers passing through the site on a daily basis. Approximately 44 million people passed through the terminal while it was being developed, with minimal disruption and zero harm. The required the staging of construction to be strenuously planned to ensure the continuing operations of the airport business in what was a construction environment, to minimise the impact on public access and airport movements.
  - *Border Management* - Christchurch Airport acts as an international border, so works had to be planned and executed without compromising the integrity of that border. The infrastructure and life safety systems of the airport that existed at the start of the project had to be maintained during the building, demolition, and re-building phases, and had to remain fully functional on completion.
  - *Materials used* - a number of innovative building materials were used - including products that were Greenpeace future approved, were less susceptible to erosion and which reduced the quantity of chemical additives required in the heating and cooling of water. Exterior materials were selected to provide long term flexibility, enabling subsequent modification of the building when required with relatively no maintenance at an affordable cost.
  - *Commissioning* – the progressive commissioning of completed stages of the Integrated Terminal into the operating airport required significant planning and consideration to minimise time required and to ensure all parties experienced minimal disruption. Specialist capability was recruited from Canada to bring ORAT (operational Readiness and Trials) capability to CIAL to determine the commissioning programme and trials required. This resulted in extremely successful integration outcomes with minimal disruption on cutover.

B) Airport Operations

- ***Improved passenger handling -*** CIAL has implemented SmartGates for trans-Tasman travel in collaboration with Customs to improve passenger flows across borders (by effectively enabling passengers to self-process). CIAL also provides multi-head boarding gates, enabling flexibility between wide and narrow body aircraft.
- ***Flexible operating capability*** - CIAL's operating flexibility (in terms of its ability to accommodate changing aircraft/airline needs) was demonstrated when Christchurch Airport was chosen for the introduction of Jetstar into the New Zealand market, and Pacific Blue into the domestic market.
- ***Improved passenger processing times*** - CIAL has achieved this by:
    - having an integrated terminal that provides a total service for all categories of service under one roof, thereby providing timely transit between international, domestic jet and turboprop aircraft services;
    - moving Security to be in front of Customs in the international departures hall, enabling the early identification of liquids, aerosols and gels and thereby minimising quarantine waste recovery;
    - implementing processes to improve passenger processing times from aircraft through to arrivals, including monitoring processes to measure passenger processing and holding times through the various stages of the international arrival and departures process – identifying actions which will enable the average turnaround time for an aircraft to be reduced.
    - established an ambassador programme to support passenger flows and information sharing throughout the terminal. The Ambassador programme has been extended through the use of a youth programme at peak times during the Christmas holiday period to support peak passenger levels and also to act as a development initiative for teenagers.
- ***Environmental responsibility*** – CIAL recycles pavement maintenance material in the annual major maintenance programme for our runways (residual material is recycled and re-used in other roading programmes throughout the city).
- ***Management of bird risk*** – CIAL has trialled slow-growing grass to reduce bird risk and reduce annual operating costs through annual mowing programmes. CIAL also actively participates in programmes to stop/minimise bird friendly developments around the airport.

  In addition, CIAL uses best practice advisers to ensure that certain business operations (e.g. wildlife management), are being effectively monitored, managed and contained within the desired performance outcomes. This involves using international experts from the United Kingdom and also participating in annual international wildlife management conferences in the United States.

- ***Proactive land use management programme*** – CIAL implemented this programme to manage wildlife incursion and the use of land around the airport. CIAL is considered one of the leading airports in Australia for such practices. The land use programmes have required significant investment in the design and operation of the airport and are designed to manage airport noise contours to ensure Christchurch airport retains its 24/7 curfew free operating status. The loss of this curfew free operating status factor would lead to a significant reduction in economic value for Canterbury and the wider south Island

- ***Growing CIAL's influence*** – CIAL is focussed on proactively supporting growth of the

South Island tourism industry, particularly as a consequence of the detrimental effects of the Canterbury earthquakes. CIAL is taking a lead role in developing initiatives with regional tourism organisations to stimulate international traveller growth into Canterbury and the wider South Island tourism sector.

- ***Efficient emergency management practices*** – These are particularly important due to the incidence of natural disasters in the region, such as: the Canterbury earthquakes, volcanic dust clouds and snowstorms. CIAL requires significant flexibility in managing such disruptions to ensure minimal effect on returning the airport to an operating status. It is of note that, through the efficient use of emergency management processes, Christchurch Airport returned to operating status following the Canterbury earthquakes within hours of the major events occurring. This was a critical lifeline requirement to the Canterbury region in February 2011 and has been credited with saving 20-30 lives as a consequence. The repeated requirement to respond to recent emergencies has enabled these practices to be continually refined and improved over time. CIAL was, as a result of this capability, awarded the Jim Collins Award for "an outstanding contribution to Aviation Safety 2011".

- CIAL also liaises with other airports to identify and benchmark the critical success factors to assist in the development of improved emergency disruption business processes. An example of this was a visit from a Vancouver Airport expert to communicate, advise and document processes on how to handle the management of major snowstorms in winter conditions, and to identify best practices used to minimise disruption to airport operations during such events.

- ***Technological advancement*** – CIAL is technology-focussed and is committed to using technological advancements (in conjunction with the airlines) for future improvement of: passenger processing (including border processing), check-in times, and baggage handling.

- ***CIAL's ethos: "One Team Best Airport"*** – This ethos is designed to ensure that all employees and contractors working across the airport have a singular view of customer service excellence, encouraging them to work together to deliver a seamless service to all travellers and users of the airport. Many examples of innovative and customer efficiency initiatives and examples of customer service excellence have been identified and are periodically communicated through an airport wide newsletter to all parties on the airport.

5.3. How receptive is Christchurch Airport to innovation activity led by airlines?

- Christchurch Airport hosts six major airlines - all of whom require a range of service delivery levels covering the full spectrum of airport operations (from premium service through to requirements for low cost carriers).
- CIAL is very receptive to innovation activity led by airlines. Examples of this include:
    - the complete adoption of Air New Zealand's Kingfish and Kupe products into our new check-in hall, allowing automatic self bag drop and kiosk check-in for domestic and trans-Tasman flights;
    - the use of mobile departure kiosks at departure gates for low cost carriers to achieve passenger flow cost efficiency and the meeting of aircraft turnaround times;
    - the use of kiosks for check-in in the terminal to meet individual airline passenger processing requirements;

- the use of innovative activities (such as push back on turboprop aircraft) to enable efficient use of aircraft parking stands;
- the modification of emergency management processes to support airlines in how they will manage emergencies, including major and natural disasters such as earthquakes, avian flu outbreaks and the like;
- the use of performance based navigation, working with airways and airlines under a tripartite collaborative arrangement to drive improved landing capabilities which will lead to improved navigation and fuel efficiency;
- the development of ground power options in conjunction with the airlines for turboprop and most currently jet aircraft, to assist airlines to reduce the cost of energy for aircraft startup and powering aircraft air conditioning while on the ground – with the added benefit it is environmentally responsible through reducing the use of diesel powered ground handling equipment.

5.4. How does the level of innovation at Christchurch Airport compare now to prior to the introduction of information disclosure regulation?

- As the drive for innovation has been a continuing ethos of the company for many years there has been no change in such activity post information disclosure, however the introduction of information disclosure regulation has improved transparency of the level of innovation. This has communicated our initiatives and outcomes to a wide range of customers and stakeholders.
- CIAL considers its level of innovation is appropriate for its location and its position as the gateway to Canterbury and the South Island. We believe this is demonstrated through strong performance driven by a focus on ensuring that all staff and participants across the airport focus on service excellence and the identification and development of innovative and leading practices to continually improve the airport experience. CIAL has gained recognition for its innovative approach to sustainability, and was the first airport to be awarded carbon zero certification in the Southern Hemisphere (CIAL has continued to be accredited since that initial achievement).

6. IS CHRISTCHURCH AIRPORT PROVIDING SERVICES AT A QUALITY THAT REFLECTS CONSUMER DEMAND?

6.1. What changes in quality have occurred since information disclosure regulation was introduced?

- The quality of service provided by CIAL is critical to its performance as the gateway to the South Island. Achievement of service at levels expected by our customers and users of the wider airport are an integral part of our operating environment. If service levels drop below the standards required then immediate action is taken to improve the service level and remediate any deficiencies.

- The information disclosure regime has benefited CIAL and users of Christchurch Airport by establishing a defined set of key performance indicators that are reported on to interested parties, and which motivates staff to achieve the required quality outcomes and to seek improvement across all business processes.

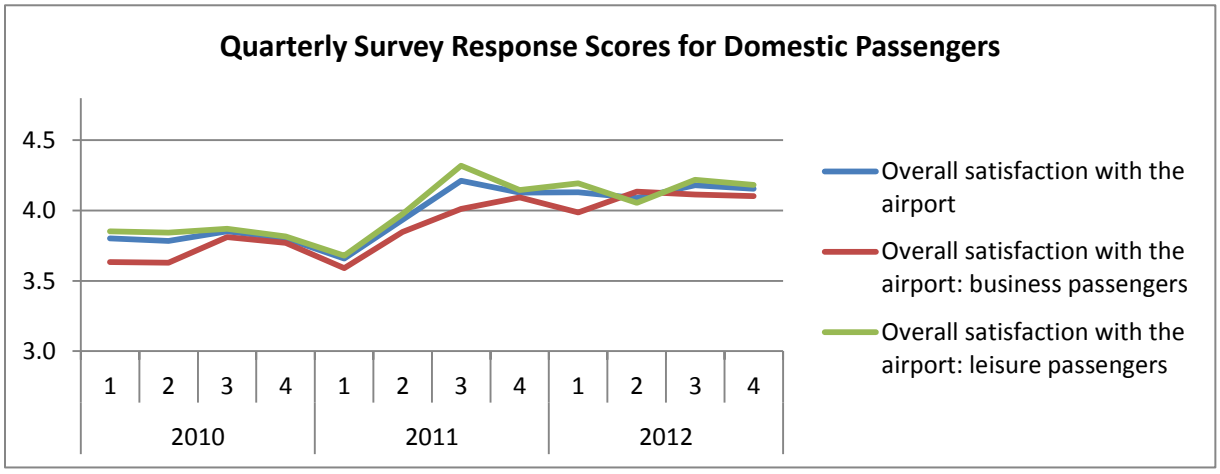
- CIAL uses a number of methods to understand and improve the quality of services required by our customers and to assess satisfaction as to the level of service delivered.

- These include:

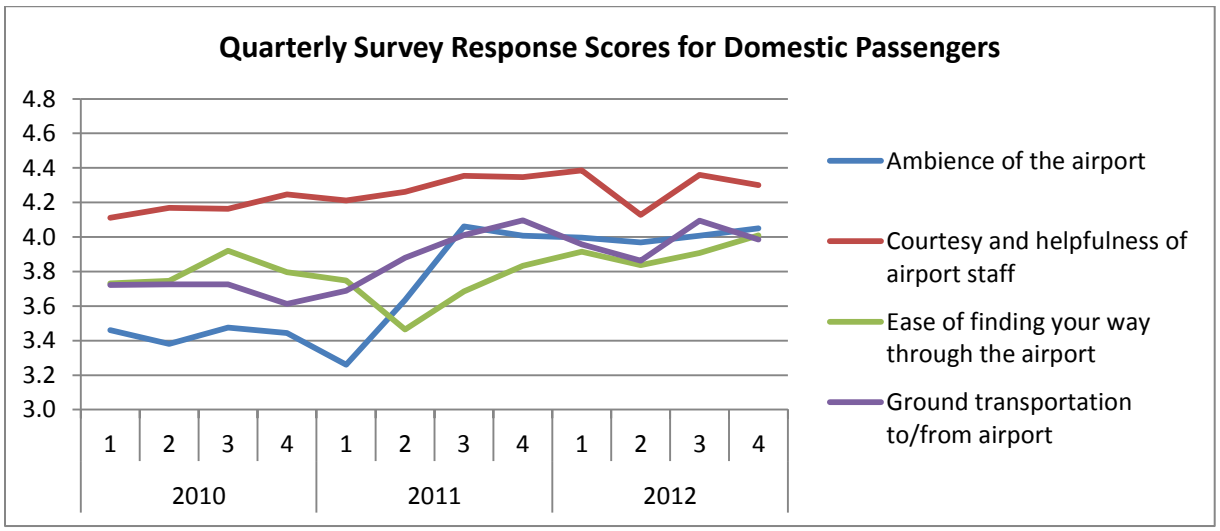
    - Membership of the global ASQ service rating system of which the details are outlined in Schedule 14 of the information disclosure report (see below for further detail).

    - With respect to customer service, the following charts identify the overall trend of customer service excellence using the ASQ survey for both domestic and international passengers.

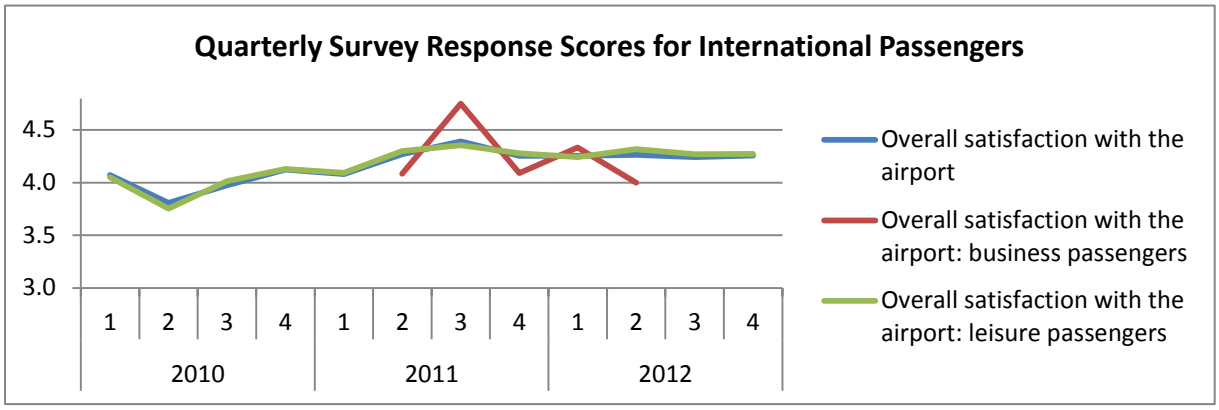
Domestic Passengers



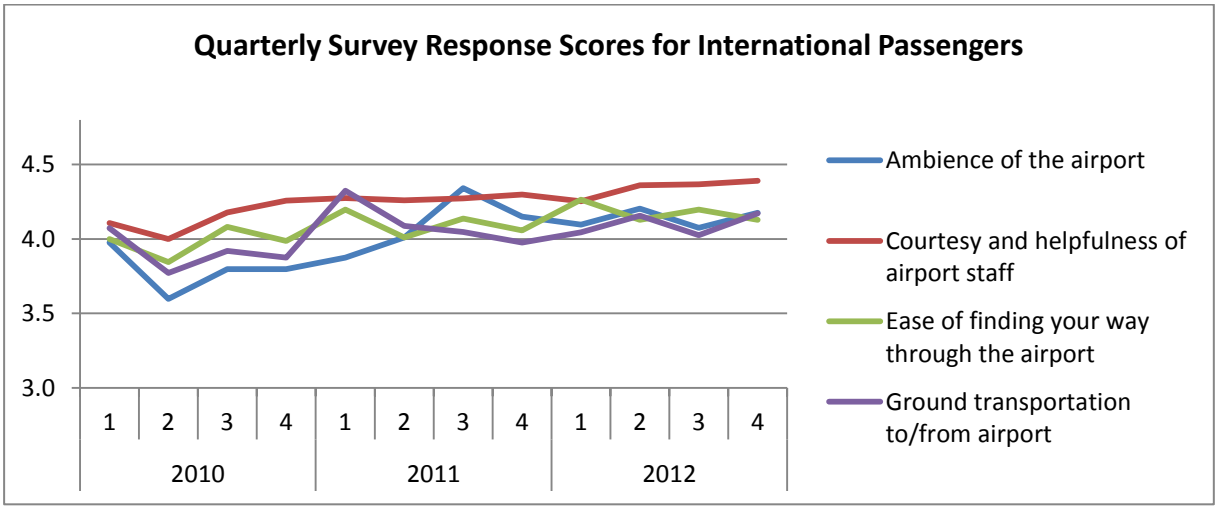
- The above chart reflects the initial lower ratings for domestic customer satisfaction – owing to the age and condition of the aged facilities in the original domestic terminal; followed by the marked uplift resulting from the commissioning of stages 1 and 2 of the new Integrated Terminal. This is further reflected in the chart below which highlights the improvement in the ambience and ease of finding your way around the airport.



International Passengers



- The level of customer satisfaction for international passengers has been consistent overall. The predominant make up of such passengers is for leisure travel with approximately 84% of total international travellers being for leisure purposes. Business passengers make up only a small component of international travellers, so the fluctuation in responses is mainly explained by the small sample size. This fluctuation occurs when the sample of business passengers falls below a minimum sample of 10, in which case no results are recorded. This general trend in satisfaction improvement is illustrated further below considering the factors detailed.



- CIAL also carries out more in depth market research to identify the cause of outcomes that have been identified in the ASQ market research. This enables CIAL to track and investigate particular items either to understand what has occurred, or to identify how we can improve our services to meet the changing demographics of the international travelling public. An example of this was following the introduction of Air Asia X, further research was undertaken to understand the drivers of service and requirements of this passenger group, to enable CIAL to modify its service and offerings to deliver the required service standards.
- CIAL also benchmarks its performance against other airports with comparable scale and passenger mix to compare the level of service quality that it is providing customers. This enables CIAL to identify areas where it is performing well and where performance could be improved.
- In terms of efficiency and service delivery, CIAL also uses a range of monitoring initiatives to identify how certain activities (e.g. passenger arrivals) are being processed. Progressive monitoring is carried out to ensure that the standards required by the airlines are being met

and what can or needs be done to facilitate required performance improvement.

- The following awards are noted as concrete recognition received by CIAL of the service performance provided to all stakeholders using Christchurch Airport;
    - CAPA (Centre for Asia Pacific Aviation) "Special Airport Leadership Award" 2011
    - Champions of Canterbury award for leadership 2011
    - The New Zealand Airports Association Airport of the Year Award for 2010
    - World Routes - Winner Asia Beijing 2009 - Marketing Award
    - Routes Asia - Winner Asia Pacific Hyderabad 2009 - Marketing Award
    - Routes Asia - Winner Oceania Hyderabad 2009 - Marketing Award
    - Future Travel Experience Awards -"Best Arrivals Experience 2011"
    - New Zealand Institute of Chartered Accountants - "2011 Best Annual Report Award - Sustainability Reporting"
    - New Zealand Institute of Chartered Accountants - "2011 Best Annual Report Document by a Corporate Organisation"
    - Travel Digest Industry Awards 2012 - The International Airport of the Year

6.2. What, if any, aspects of quality do you think should or could be improved (or potentially lowered) at Christchurch Airport?

- Prior to the completion of the new Integrated Terminal service performance was below the standard required by stakeholders as measured by the ICAO service standards. This was one of the drivers leading to the construction of the new Integrated Terminal. Significant service quality improvements have been achieved both in terms of the passenger experience but also in terms of the asset and how it is managed, the longevity of its life and also the provision of flexibility to meet current and future needs as required and agreed with airlines.

- The on-going evolution of the company's ethos "one team best airport' will be a continuing catalyst for all parties across the airport to continually seek opportunities for further efficiency and improvement, - with a common objective of customer service excellence. This isn't a destination but rather a never ending journey with a common aim held by all parties involved.

6.3. What consultation was undertaken on aspects of service quality during Christchurch Airport's second PSE? How does this differ from consultation on quality at the first PSE?

- Quality of service is not separately consulted on during price setting events and arises only to the extent it is relevant to the consultation process, particularly with respect to the development of the relative inputs into the building block revenue determination. This includes asset management, operating cost efficiency, and improvements in demand.

- With the development of the new Integrated Terminal significant improvements to services were expected in line with that agreed with airlines, and accordingly the service quality focus was more around the level of demand that is likely to occur over the future.

- Major investment and new infrastructure has now been completed and accordingly the rationale for forecast capital expenditure projects included in the consultation processes were aligned towards:
    - ensuring the continuing operation of the business;
    - meeting the changing needs arising from an efficient asset management programme;
    - meeting the changing needs arising from technology changes in the future.
- In PSE1 the focus was on business as usual, in advance of the development of the new Integrated Terminal. This investment occurred over PSE1 and was a pre-cursor for PSE2 and required significant but independent capital consultation, as required by section 4B of the Airport Authorities Act, for all major investment at airports.
- The capital consultation on the new Integrated Terminal took considerable time with the design and functional requirements progressively developing and evolving to take account of changing business needs, as airlines modified their service delivery models to meet changing industry conditions. This included the entry of low cost carriers who have differing requirements to full legacy integrated carriers. The final design of the Integrated Terminal, and a separate terminal to meet the regional service requirements of the major domestic carrier, were initiatives that evolved progressively between PSE1 and PSE2. Accordingly, PSE2 consultation was predicated on the basis that the service requirements from terminal infrastructure had been delivered through the new terminal and it was more of a focus on what and how the cost of the use of such services by airlines at Christchurch Airport should be recovered.

6.4. What role did information disclosure play in consultations concerning service quality during Christchurch Airport's second PSE?

- Ensuring service quality is an on-going process, involving considerable interaction between CIAL, the airlines, and other parties that are dependent on Christchurch Airport (including airways, Customs, and MAF). CIAL management regularly reviews service performance and customer service standards and there are bodies through which such items are discussed with the airlines on an on-going basis - as explained in our information disclosure reports in 2011 and 2012.
- Accordingly, discussion during the PSE2 consultation was not directly influenced by information disclosure, but as with the overall information disclosure programme, it provided a framework on which information was disclosed. This included the provision of capital investment forecasts and passenger and aircraft demand forecasts for the 10 year period to 2022 - identifying the levels of investment required by category and the rationale and benefit behind such capital investment together with the 10 year profile of the type and number of passenger and aircraft movements.

7. IS CHRISTCHURCH AIRPORT SHARING THE BENEFITS OF EFFICIENCY GAINS WITH CONSUMERS, INCLUDING THROUGH LOWER PRICES?

7.1. How do the prices set by Christchurch Airport for PSE2 reflect previous efficiency gains? How did the prices set by Christchurch Airport for the first PSE reflect previous efficiency gains?

- PSE1 (the period 2009 to 2011) was based on the forecast efficient operating costs structure prevailing at the time. In determining this efficient operating cost structure, CIAL had adopted a 10% efficiency target over the course of the 2009-2011 period, with this target being incorporated into the operating cost forecast. The actual performance (as covered separately under Question 3.5) identifies that there were a number of factors during that period which resulted in actual costs being higher than that forecast.

- In addition, the impact of the Canterbury earthquakes on CIAL's cost structure has had a significant impact, and has more than negated any efficiency gains that were achieved. This is particularly the case for maintenance and insurance costs, which have and will add significant expense in the future to remediate earthquake damage and to compensate for the insurance market's perceived higher risk for the Christchurch region.

- The cost structure for PSE2 considered the operating cost structure arising from the impact of major events such as earthquakes, and the change in the business operation as a consequence of the introduction of the ITP. As already noted, these factors impacted operating performance capabilities, increased the terminal footprint, and increased costs such as energy - all contributing to a step change increase in operating costs from that previously prevailing under PSE1.

- The prices set in PSE2 have reflected this operating cost forecast which, for the first three years, was based on the approved business plan to 30 June 2015 - which was considered in depth and scrutinised by the CIAL board prior to its adoption. The final price structure on which the operating cost building block component was determined reflected this change together with the change in allocations as a consequence of the change in use of activities being carried out in the terminal. Accordingly, the operating costs allocated to aeronautical activities comparing PSE1 and PSE2 are different and include the combined effect of both of these events.

- CIAL notes that, in the price control regimes for electricity and gas, efficiency gains are shared with customers at the end of every five year regulatory period through the resetting of prices to reflect cost, including forecast opex and capex. This is what CIAL does and intends to continue doing in the future.

7.2. Does Christchurch Airport have any mechanism to share any efficiency gains with consumers during the pricing period?

- The CIAL pricing model incorporates an assessment of feasible efficiency gains into our calculation of the required opex for the period. In other words, the planned efficiency gains are shared with the customers during the period.

- For subsequent pricing periods, the CIAL long-run pricing model allows for updates of the pricing model, incorporating the latest forecast of opex and capex into the price re-set. Again, this means that at each pricing period, CIAL will pass the benefits of achieved efficiency gains to its customers in the next price reset period.

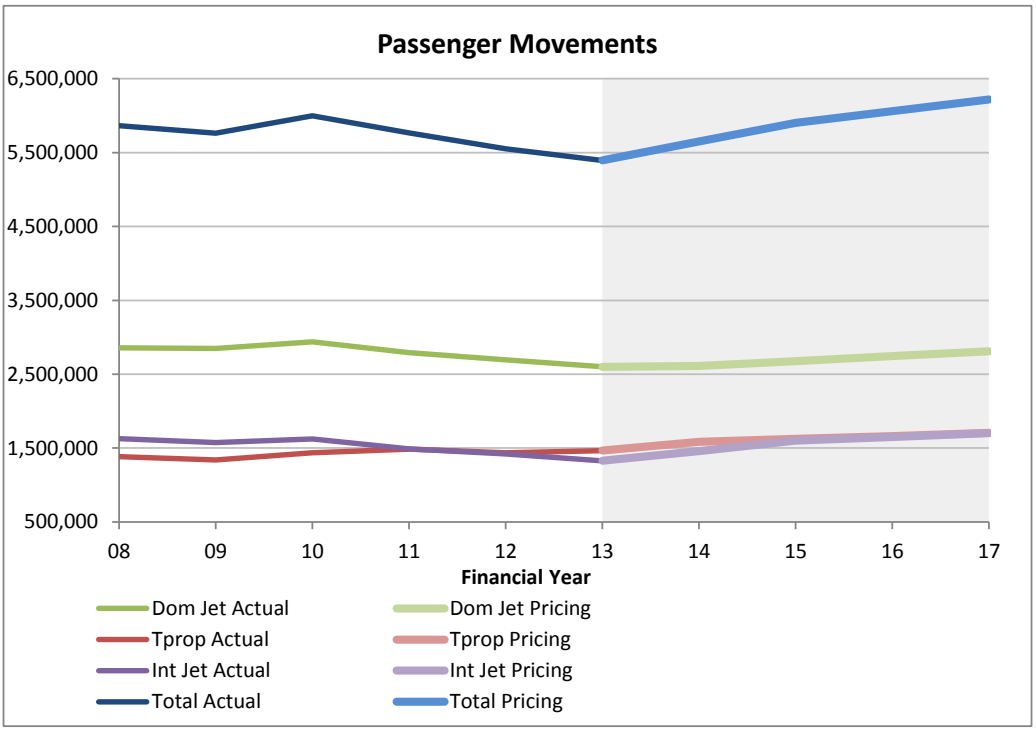
8. DO THE PRICES SET BY CHRISTCHURCH AIRPORT PROMOTE EFFICIENCY?

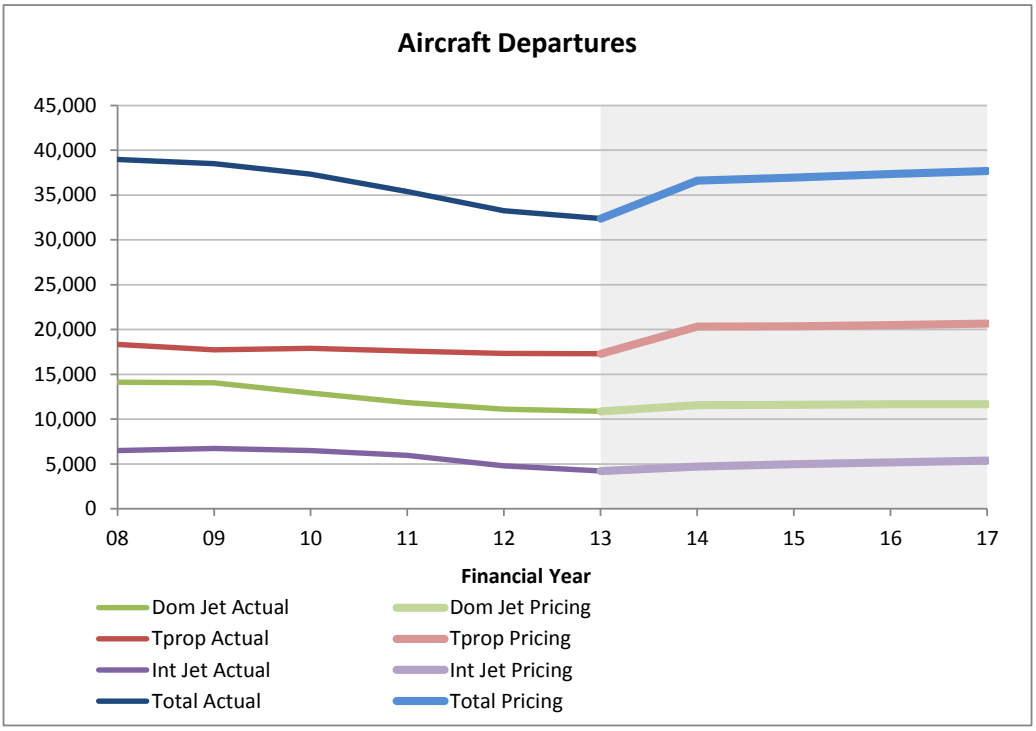
8.1. How reasonable is Christchurch Airport's demand forecast for the second PSE compared to the forecast from the first PSE, and why?

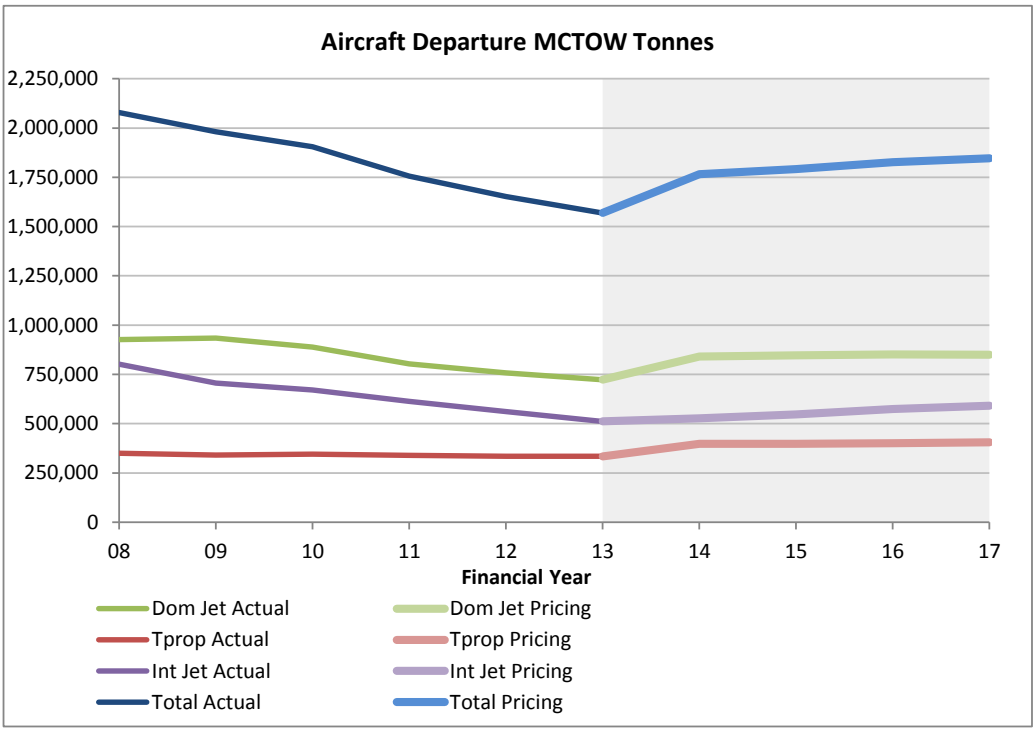
- CIAL considers that the demand forecast used in PSE2 is reasonable when compared with the demand forecast used in PSE1 (which was also reasonable).
- The PSE1 forecast, detailed in Question 3.5, represented reasonably held views of both CIAL and independent advisers at the time of the pricing consultation, with the forecasts being subject to robust scrutiny during the consultation process.

PSE 2 Demand Forecast

- In setting the demand forecast for PSE2 the environment had changed dramatically. The impacts of the Canterbury earthquakes in September 2010 and February 2011, as illustrated above, have dramatically changed the tourism landscape and the level of passenger/aircraft movements through Christchurch Airport.
- The initial implications of the earthquakes were:
  - significant damage to Christchurch City and accommodation to support tourism activity;
  - significant uncertainty of long-haul markets, including conference education and general tourism activity;
  - continued uncertainty created by the on-going aftershocks; and
  - the relative benefit of the Australian dollar to the US dollar which provided an alternate venue for leisure activity when compared with the South Island of New Zealand as a tourism destination, while this uncertainty was prevalent.
- The following table outlines the historic demand profile comparing with the actual levels in PSE1 with forecast for PSE2.


Passenger Movements
6,500,000
5,500,000
4,500,000
3,500,000
2,500,000
1,500,000
500,000
08
09
10
11
12
13
14
15
16
17
Financial Year
Dom Jet Actual
Dom Jet Pricing
Tprop Actual
Tprop Pricing
Int Jet Actual
Int Jet Pricing
Total Actual
Total Pricing


Aircraft Departures
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
08
09
10
11
12
13
14
15
16
17
Financial Year
Dom Jet Actual
Dom Jet Pricing
Tprop Actual
Tprop Pricing
Int Jet Actual
Int Jet Pricing
Total Actual
Total Pricing



- In developing the demand forecast for PSE2, a commercial judgement needed to be made on what the likely recovery period for Christchurch and the South Island was as a consequence of the uncertainty of the tourism market recovery post the earthquakes, particularly for 2013 and 2014.

- To this end, a demand forecast was prepared having considered the comparative impacts of other international disasters, including the tsunami experienced in Phuket. This comparison identified a relatively short recovery period. Unfortunately, post the preparation of the initial demand forecast for PSE2, the continuation of the aftershocks created further uncertainty and so prior to sending the demand forecast to the airlines for consideration, and in advance of the consultation process commencement, the initial demand forecast was independently reviewed by AirBiz. Their conclusion was that;

  "The CIAL passenger demand forecasts fall within a reasonable range of expectations considering the natural growth attributes of the Canterbury region and the lasting effects of the recent earthquakes. Aggressive marketing exercises such as the Tourism NZ/Jetstar agreement will contribute in re-establishing Canterbury as a prime tourism destination for domestic and international passengers.

  The forecast CIAL aircraft movement indicators (average aircraft seats and load factors) are generally consistent with expected values. The recent purchase of ATR72-600 aircraft by Air New Zealand, the Air New Zealand/Virgin Australia alliance and enhanced presence of Jetstar domestically consolidates the previous findings on aircraft movements.

  The specific impacts of the Canterbury earthquakes on air travel were reviewed against published studies prior and after the events of September 2010 and February 2011. The approach presented by the Christchurch International Airport was found to be appropriate to the scale and type of events and in line with past experiences worldwide, more specifically the Boxing Day tsunami in Thailand.

  The extent and pace of recovery in passenger movements at Christchurch International Airport will be affected by the ability of the local, regional and national tourism bodies to attract tourist from emerging nations, the pace at

which tourism infrastructure is rebuilt and under the assumption that no significant aftershock is to hit the region in the horizon of the present assessment."

- The demand forecast was then submitted to airlines for their consideration and CIAL requested their assessment of the possible demand recovery period. There was no consistent opinion from the airlines on the forecast, as different airlines had differing views on the domestic market recovery as compared with the international market. In light of this difference of opinion the initial proposal was used as the baseline demand forecast for the pricing proposal. However, following discussions with the airlines as part of the consultation process, several changes were made to reflect, firstly, the updated demand forecast for actual results to 30 June 2012, and secondly, the revised fleet reconfiguration plan by Air New Zealand. These changes were incorporated into the final demand forecast on which the price reset decision was made.
- In preparing the PSE 2 demand forecast, an assumption was made that 2012 would be the trough in the passenger movement volumes and that passenger movement growth would be stimulated in 2013 as the Christchurch redevelopment programme began to influence both domestic and international air travel to and through Christchurch airport. However, a very clear picture is being observed from the operating results to date that the reduction in demand has continued through 2013. The Christchurch redevelopment programme has taken significantly longer than initially anticipated to come into effect, with the forecast passenger growth now not expected to begin until the 2015 financial year. This was identified to the airlines as a risk when setting the demand forecast on which to base the forecast unit charges.
- The following chart illustrates the outlook for year 1 of PSE2 and based on present market circumstances it is not expected that the growth in 2014 will be near the growth trend originally forecast. This has increased the risk profile for CIAL owing to this specific factor and is likely to lead to a greater under recovery for PSE2 that that originally anticipated.

Comparison							
Pricing						*Growth trend*	
2009	4,333,294	1,574,783	5,908,077	actual			
2010	4,377,773	1,622,641	6,000,414	actual	1.0%	3.0%	1.6%
2011	4,287,338	1,488,362	5,775,700	actual	-2.1%	-8.3%	-3.7%
2012	4,032,718	1,312,948	5,345,666	Pricing Forecast	-5.9%	-11.8%	-7.4%
2013	4,113,372	1,355,561	5,468,933	Pricing Forecast	***2.0%***	***3.2%***	***2.3%***
2014	4,195,640	1,457,228	5,652,867	Pricing Forecast	***2.0%***	***7.5%***	***3.4%***
Updated outlook							
2013	4,065,629	1,328,095	5,393,724	Updated Forecast	***0.8%***	***1.2%***	***0.9%***

8.2. To what extent do changes in the pricing structure at Christchurch Airport at the second PSE better reflect efficient pricing principles (for example, are prices subsidy-free, do they have regard to service capacity, do they take account of consumers' price sensitivity) relative to the first PSE?

- CIAL's PSE2 pricing structure better reflects efficient pricing principles relative to PSE1, because CIAL introduced a two part charge for the airfield for PSE2, incorporating a fixed fee

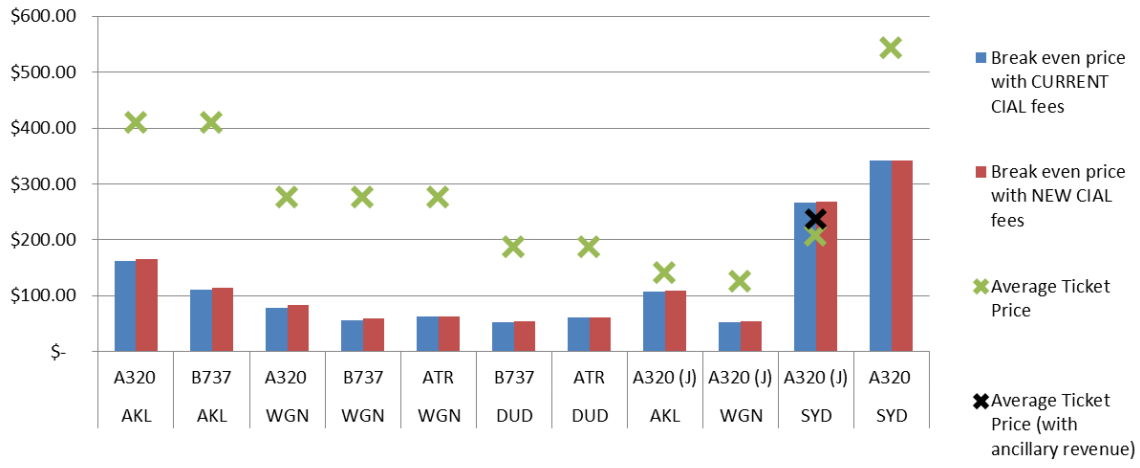
per aircraft movement and a variable (***MCTOW***) based charge, based on aircraft weight. In our view, this two-part structure has a good conceptual justification because:

- any given number of aircraft movements per day imposes a requirement on the scope of runways, taxiways and the apron, regardless of the size of the aircraft. For example, during a take-off or a landing, an ATR uses up as much runway opportunity capacity as an A320. Hence, both aircraft could be expected to contribute the same airfield capacity utilisation charge; and
- different aircraft, depending on their weight characteristics, will impose different levels of usage damage on the runway - which can be reflected in a variable charge.

- The practical effect of introducing the two-part structure is that it, in relative terms, somewhat increases the airfield charges on ATRs and other turbo-prop aircraft, and reduces them for jet aircraft.
- In a practical sense, our pricing methodology involves four steps:

1. Establish the target airfield (net) revenue path. To make it easier to do this within the current financial model, we derive the path by applying an increase to the existing charges, that is, *as if* there is no split into fixed and variable charges.
2. We then introduce a fixed airfield charge. By multiplying the fixed charge by the amount of aircraft departing movements projected for the period, we calculate the total revenue from the fixed charge. The difference between the total target revenue and the fixed charge revenue is thus the required variable charge revenue.
3. Dividing required variable charge revenue by yearly MCTOW gives us the variable charge ($/MCTOW) required to achieve the total target revenue for the airfield.
4. Since $/MCTOW is calculated as the balancing item, it naturally fluctuates year on year. To avoid this, we calculate the price increase required to achieve NPV=0 over the period.

Impact of airport charges on costs per kilometre from Christchurch for different aircraft types



- The rebalancing of charges has two important incentive effects:
  - It reduces (or possibly eliminates) the potential for airlines to substitute ATRs for A320s on main trunk domestic services to minimise airport charges.

- It leads to a slightly higher level of cost recovery from the relatively less competitive and price sensitive domestic services, and a slightly lower relative level of cost recovery from the more competitive and more price sensitive international services.

8.3. How appropriate is the allocation of costs between services?

- CIAL has chosen to apply the input methodologies for the allocation of costs. This involved allocating assets and operating costs to/across CIAL's "specified airport activities" and the commercial business.

- In carrying out this process it was identified that if a cost was directly attributable to one of the three specified airport activities, insofar as the asset or operating expenditure is solely and wholly caused by a single activity, then the cost or asset was allocated directly to that regulated activity. However where assets and costs were shared across activities, it was necessary to establish a fair apportionment between the aeronautical and commercial activities based on the use of resources to support those activities.

- The apportionment used for the calculation of assets or costs incorporated into the aeronautical pricing activities excluded all assets and operating expenses that supported the commercial activities of the business. It also excluded aeronautical areas of the terminal that are subject to separate pricing arrangements directly with airlines (e.g. check-in counters and the regional lounge that supports Air New Zealand's turboprop services).

- Costs or assets that are not directly attributable to a single activity were allocated using the accounting based allocation approach. Where possible, costs and asset allocators were based on current "causal relationships". Where this was not possible, proxy allocators were used and the drivers used detailed below.

- Specific allocation methods were applied to the three categories of: terminals, other assets, and land.
- The new Integrated Terminal supports a combination of international and domestic services and, in addition, the domestic operation supports jet services separately from turboprop services. Accordingly, in terms of determining the revenue requirements on which the unit prices were determined, the grouping of terminal services were differentiated as follows:
    - International jet;
    - Domestic jet; and
    - Turboprop.

- All three service groups have specific requirements for their operations and have been priced separately. All assets and operating costs have been allocated to terminal activities to determine the total revenue to be recovered for the purposes of setting terminal services charges; this total revenue was then further allocated to determine the distinct revenue to be recovered through passenger service charges for international, domestic jet and turboprop terminal services. The allocation to the various activities included a range of allocators including:
    - footprint ratio of the terminal; and
    - specific capital identification for particular elements of infrastructure (e.g. baggage handling facilities).

- During the consultation, detailed summaries of the different allocation drivers used, including details of the footprints of the different areas of activity, were applied to the allocation of operating costs and asset values.

- Operating costs were largely attributed on the basis of:
    - a general allocator based on the footprint of the terminal into the specific activity types; and
    - the allocation of terminal services staff based on the relative share of their service time deployment as a percentage of total time employed.

- The major categories of operating costs were allocated to the individual activities and, whilst it did require some estimation for certain areas (e.g. corporate staff), the majority of costs were able to be directly allocated to the specific areas of the terminal. Other costs were allocated using directly attributable activity allocation drivers - the allocation of energy using an audit carried out by an independent energy consultant to identify the relative proportion of energy consumed by the different segments of the Integrated Terminal, and the allocation on footprint for such infrastructure support costs as cleaning, maintenance etc.

- The analysis of the new terminal footprint involved a detailed room by room assessment considering its specific use, and, where there were general areas identified as public and common areas - particularly in landside areas - appropriate allocations were used between activities based on:
    - A proportionate allocation of the footprint in the landside areas and
    - where such areas supported several travel types it was then based on a percentage allocation of passenger movements for the pricing period. The increase in CIAL's commercial business has also resulted a greater allocation of overheads to such activity as compared to PSE1.

8.4. To what extent have airlines and other consumers of Christchurch Airport's services been able to make price-quality trade-offs that best meet their needs for the second PSE? How does this compare with the first PSE?

- The integrated terminal investment—and hence, the quality standards associated with that level of investment—were extensively discussed with the airlines in a separate capital consultation process. Separate consultations were required due to the scale of the ITP.
- Given the ITP consultations were completed prior to PSE2, quality/cost trade-offs did not constitute a significant feature of the PSE2 consultations. However, even within this more limited scope, our customers had the opportunity to question the need for our proposed additional capex and opex. As a result of the feedback we received during PSE2 consultations, we reduced our forecast capex requirement in certain areas, which directly translated into lower prices.
- More generally, the consultation process around price re-sets is likely to continue to provide an important forum for discussions about the required capex and opex, and hence for price/quality trade-offs.

8.5. To what extent do Christchurch Airport's prices promote certainty and stability? How does this compare relative to the first PSE?

- CIAL believes that the shift to an approach based on long-run constant real prices is a significant improvement in terms of certainty and stability.
- New Zealand airports—like airports elsewhere in the world—are subject to a significant lumpy investment cycle. The present investment cycle has led to a corresponding price cycle, including the requirement for the significant price adjustment by CIAL during PSE2. While the current price increases are unavoidable given past decisions, CIAL is of the view that such cycles should and can be avoided in the future.

8.6. How do airlines and other consumers of Christchurch Airport's services expect their demand to change in response to the prices set by Christchurch Airport in the second PSE

- CIAL does not expect demand to change as a result of our pricing. Where necessary, we have signalled a willingness to engage in commercial negotiations with individual airlines to assist in the opening of new routes/services or to help preserve marginal services.

8.7. What impact has information disclosure had on the pricing methodology set by Christchurch Airport for the second PSE?

- For PSE2, CIAL applied a new and more efficient charging structure designed to ensure economic return over the lifecycle of the asset and to avoid price shocks between reset periods. New fixed and variable charges, which recognise that some of the costs of aeronautical services are fixed and independent of the weight of the aircraft (e.g. emergency fire services), were used. Our thinking was informed by the economic disciplines emphasised during the development of the input methodologies.

9. WHAT ARE THE STRENGTHS AND WEAKNESSES OF THE CURRENT INFORMATION DISCLOSURE REQUIREMENTS?

9.1. How much of the information disclosed during the recent price setting round would have been publicly disclosed, or disclosed to airlines, in the absence of information disclosure regulation?

- The level of information provided during the pricing/consultation process would largely have been the same as that provided in previous consultations; however the common framework and understanding provided by information disclosure removed ambiguity, reducing the need to spend time on iterative components of the consultation process while definitions and interpretations were progressed. In considering the overall information that can be used by interested parties not part of the consultation process, significantly more information has been published under the Information disclosure regime as compared with previously.

- In terms of the disclosure of information for PSE2, information disclosure regulation, and in particular the input methodologies, has provided a common framework for both CIAL and the airlines. CIAL has largely applied the input methodologies with the objective of providing parties with a common framework through which CIAL could communicate an understanding to airline customers as to what was included as inputs in the various building blocks, how it was included, what were the assumptions used, and what were the consequences of such inclusions. This enabled a more timely process to be followed and provided an improved focus on the critical elements of pricing methodology and recovery profiles.

- Whilst the use input methodologies are not a prerequisite for pricing, CIAL determined this as being of advantage to both parties in their application as it ensured transparency of the information provided, a commonality of understanding of methods applied, and early identification of areas of difference. The significant benefit of this is that it enabled the crux of the issues in the consultation process to be identified relatively quickly and therefore made the process:
  - more efficient,
  - less time consuming, and
  - more focused.

- CIAL has provided the Commission with the full record of information for the PSE2 consultation process and this has provided evidence of the extensive scope and scale of information provided to the airlines for the consultation process and also the elements that were proposed, duly considered, revised and finally determined as part of the final pricing decision.

9.2. What are the benefits to Christchurch Airport, airlines and other consumers of Christchurch Airport's services of using the information disclosed?

- The information that CIAL discloses pursuant to the information disclosure requirements is useful to CIAL in two ways:
  1. it helps CIAL to better understand its business and also to understand its business from the perspective of the customer.
  2. it is very helpful in the consultation process. The information and input methodologies provided a benchmark for certain matters and narrowed scope of contested issues (e.g. asset valuation was not materially contested).
- The information that CIAL discloses also provides airlines with greater transparency as to CIAL's pricing decisions - streamlining consultations and ensuring greater understanding of the rationales underlying CIAL's final decisions.

9.3 What additional information could be added to the current information disclosure requirements that would better help you assess whether the purpose of Part 4 is being met?

- CIAL does not believe that any additional information should be added to the current

information disclosure requirements. Sufficient information is already disclosed to enable the Commission to properly assess whether the purpose of Part 4 is being met.

- CIAL emphasises that, when assessing whether the Part 4 purpose is being met, the Commission and other stakeholders should weigh the information that relates to each of the separate limbs of the purpose statement.

APPENDIX – EXTRACTS FROM CIAL'S PRICE SETTING DISCLOSURE (19 DECEMBER 2012)

1. Explanation of how the Input Methodologies influenced CIAL's pricing re-set decision:[2]

CONSISTENCY WITH PART 4 OF THE COMMERCE ACT

The Commerce Commission's IMs and the purpose of Part 4 of the Commerce Act have been an integral part of CIAL's deliberations for this pricing reset

How the IMs have influenced our decision

Questions about the legal relevance of the IMs have not been a pressing issue for CIAL in this decision. Instead, our starting point has been that the IMs are an important benchmark, representing as they do the Commission's view as to the most appropriate way to calculate the efficient cost of service for airports under Part 4 information disclosure.

CIAL followed the logic of the IMs in calculating its cost of service using the building blocks methodology, and setting its charges so as to recover its reasonably efficient costs.

Where it was appropriate, CIAL directly adopted the IMs to identify its costs. However, CIAL also exercised its duty to shareholders to make its own assessment of the reasonable costs of owning and operating Christchurch International Airport. A key part of that assessment has been to consider the way the IMs calculate costs and the reasoning behind the IMs, and to form our view as to the true costs of owning and operating the airport. Because the IMs were deliberated over a long period with input from a number of parties and experts, CIAL was able to use the IMs as the point of reference for its own analysis, and to focus on the aspects of the IMs which CIAL believed were not appropriate for the CIAL's circumstances.

Our overall assessment is that our cost inputs are fully consistent with the asset valuation and cost allocation IMs.

Our approach to tax is complicated by the fact that our pricing is derived on the basis of expected cost recovery over the life of the assets, rather than only from the calculation of costs within the pricing period itself. Although we use the pre-tax WACC to estimate the benchmark levelised constant real price, we show later in this disclosure document that our revenue over the pricing period does not exceed the maximum allowable revenue based on the tax payable approach. Our analysis presented to the airlines as part of the Revised Pricing Proposal shows that there is no material difference in the level of the levelised constant real price between deriving that price on the basis of (i) our approach of using the pre-tax WACC to calculate the levelised constant real price and (ii) the calculation of the levelised constant real prices using the present value of tax payable over the life of the assets. For this reason, we consider our method of using the pre-tax WACC to estimate the levelised constant real price over the life of the assets is consistent with the tax IM.

In the one area where we have materially diverged from the IMs – WACC – we have explained in this document our reasons for doing so.

One area where the IMs have clearly influenced our decision is in the valuation of CIAL's assets. CIAL has applied the asset valuation IM except for one particular departure in favour of the airlines. Although the IM does not require revaluations required by the 2009 RAB MVAU valuation to be treated as income, CIAL has decided to treat the revaluation gain as income.

[2] CIAL *Price Setting Disclosure* (19 December 2012) at 8-9.

This is a $10.5m benefit to airlines and is additional to the $16m present value under recovery discussed above.

Conclusion

CIAL's decision has been made after a constructive consultation process with the airlines under the AAA. CIAL's intention from the outset of this process has been to arrive at a decision which balances the needs of the airlines, the travelling public and CIAL. The consultation process has greatly assisted CIAL in this and CIAL believes that the new charges achieve our objective of prices that strike the right balance.

Getting the balance right has been a fundamental consideration throughout the process to determine CIAL's charges. CIAL is acutely aware of the challenges facing not only the airlines in a tough commercial environment, but also the broader challenges facing the Canterbury region after the 2010 and 2011 earthquakes. It is important to CIAL's shareholders that CIAL contributes to efforts to re-establish Christchurch and the South Island as a thriving commercial centre and an attractive tourist destination.

2. Overview of CIAL's methodology used to determine the revenue requirement:[3]

Schedule 18 requires CIAL to provide an overview of the methodology used to determine its "revenue requirements" for specified airport services. The revenue requirement is an estimate of the total efficient cost of service—including return on and of capital—in providing the required services during the pricing period. An airport's actual pricing proposal may exceed or fall below the revenue requirement during any one period, depending on decisions made about the timing of cost recovery over the life of the assets. In general, for long-lived assets serving a growing volume of customers, it would be efficient for pricing to recover less than the total cost of service during the early years of the economic life of the assets and more than the total cost of service during the later years of the economic life.

Schedule 18 assumes that an airport has set its prices for 5 years, the prices cover all specified services, and the prices were calculated using a building blocks model. Given the standard practice of airports, the 5 year building block is used as the framework for assessing the maximum allowable revenue to be recovered for that period. This requirement is derived without reference to the volumes expected during the period. However in the circumstances facing CIAL, where it had made a significant infrastructure investment in the new integrated terminal, the pricing methodology CIAL developed was to recover the ITP investment over the expected life of the facility in line with growth in volumes. This involved the setting of prices by reference to a calculation of long-run levelised prices that was designed to minimise demand distortions, provide a cost efficient outcome and minimise price shock distortion between price reset periods. The long term model looks at the overall cost using the building block accumulation process, over the economic life of the assets (20 years plus a terminal value), including projections for additional forecast capital expenditure (for the pricing period) and long term volume growth. As a result, the target revenue for the current pricing period differs from an assessment of maximum allowed revenue which does not take the growth in volumes into account.

The pricing consultation for this pricing period was only for a period of 4 years and 7 months and the graduated price path set only applies to a subset of the specified services, as some specified services are priced under separate commercial agreements. This means that to complete the disclosure required by Schedule 18, we have had to start with our pricing decision, widen the period scope to a five year period (by starting at 1 July 2012 rather than 1

[3] CIAL *Price Setting Disclosure* (19 December 2012) at 14 – 17.

December 2012) and add the revenue from Other Regulated activities not covered by the pricing decision (refer Table 2). Since Schedule 18 assumes a building blocks approach for the maximum allowable revenue which we did not use for the setting of our prices for the 4 yr 7 month period, we had to populate Schedule 18 with proxies that were used as a cross check in the pricing consultation. For example, we used an annual tax payable building block figure in our cross-check on the reasonableness of our calculation of long-run levelised prices, and this amount has been included in Schedule 18.

The cost estimate was based on the most current information available, including the approved Business Plan for the three years ending 30 June 2015. While the new Integrated Terminal had not been completed at the time of the preparation of forecast, the estimates of operating costs likely to occur post the commissioning of the new terminal were made on the best information available at the time.

We are required to forecast both the revenue requirement over the pricing period and forecast revenue over the same period. In the context of disclosing our revenue requirement, it is necessary to emphasise that this five year requirement was an important but only partial input into our pricing model. As explained, our pricing model is based on setting a levelised constant real price to recover the overall costs over the economic life of the assets. For short-hand, we refer to this price as LRMC: long-run marginal cost. However, the estimated revenue requirement disclosed in Schedule 18 played two crucial roles:

- *It provided the basis for estimating costs for the remainder of the period: all costs were rolled forward using assumptions about inflation, volumes as well as specific additional capex requirements*
- *It provided the benchmark for checking our estimated revenue for the pricing period. We did not wish to exceed the required revenue. In fact, our pricing approach is designed to under-recover the required revenue during the next pricing period.*

As indicated in Part A of the disclosure the revenue requirement for the 2012 pricing decision did not include Other Regulated Activities, such as aircraft and freight activities and certain terminal services activities such as identified tenancy leases, collection facilities for Duty Free goods and licence fees for the use of the integrated check-in counter services.

Revenue Outlook

In establishing the price path, CIAL's starting point was the economic principle that it will achieve an NPV = 0 outcome over the life of the assets. However, in order to contribute to the economic recovery of the region, CIAL has made the following decision consisting of two components:

- *Due to the delay in the completion of the ITP, new prices will only commence from 1 December 2012, representing the substantial completion of the new terminal. As a result, new prices will only apply to 4 years 7 months of the 5 year period*
- *Our expected revenue for the period falls short both of the revenue requirement for the period, and of the revenue that would have been possible if the levelised constant price (the LRMC price) was introduced on 1 December 2012. While we have some expectation of recovering some of the shortfall relative to the revenue requirement in future periods, we accept the shortfall relative to the LRMC revenue path as being non-recoverable (in other words, we have no expectation of increasing our pricing in the future above the LRMC level in order to compensate for the fact that our initial prices are below the LRMC level). This expected under-recovery accepts a permanent under-recovery, estimated at $16 million in present value terms.*

Below we explain our approach to setting the revenue strategy. There are three key parameters in any cost recovery strategy: timing, volume and risk.

Timing of cost recovery

There are many different "price paths" (combinations of prices over time) that would recover CIAL's efficient costs. CIAL advised airlines that it was open minded about the most appropriate timing of price rises. All price paths consistent with the cost building blocks model should give CIAL an expectation of recovering its efficient costs over the life of the ITP. However, timing of cost recovery determines the underlying risk. The greater the deferral of recovery, the higher the risk to CIAL compared to the risk of recovering the costs as they are incurred. Since the WACC used in calculating our efficient costs assumes timely cost recovery (i.e. recovering the costs as they are incurred), airlines needed to recognise that any deferral, without a corresponding recognition of risk in our rate of return, represents an economic cost to CIAL.

The effect of volume uncertainty on cost recovery

Volume forecasts are an important component of the building blocks model, since they translate the required revenues into prices. All demand forecasts are risky, and CIAL accept that under normal circumstances, once the best effort to forecast volumes is made, CIAL bears the risks associated with such forecasts for the duration of the pricing period. Prior to commencing the consultation process CIAL produced initial demand forecasts for the pricing period, which were provided to the airlines for initial comment.

CIAL also noted that the current circumstances are obviously not normal. The effects of the 2010 and 2011 earthquakes on volumes over the next two years are highly uncertain, so that the demand forecasts pose greater than usual risks. This volume risk further increases the risks associated with any deferral of cost recovery.

How to share the risks generated by the cost recovery strategy

A cost recovery strategy that involves deferring price increases generates risks which are not covered by CIAL's cost of capital. Any under-recovery in revenue over the next five years will require an over-recovery in the subsequent pricing periods if CIAL is to recover its efficient costs. There is a risk that CIAL will be prevented from over-recovering revenue in the future. Since CIAL is not remunerated for this additional risk, it needs to be shared with the airlines.

Overall, our pricing strategy seeks to balance the desire to minimise both demand distortions and price shocks:

- ***Minimise demand distortions.*** *A key pricing benchmark is the price which, if implemented today, would allow full cost recovery over the life of assets without subsequent price shocks. Such a price reflects the long-run cost of providing the airport service, taking into account the expected future volumes. This price is a good benchmark against which to test other prices, because such levelised prices (LRMC) minimise demand distortions.*

  Pricing below or above this long-run cost of providing airport services creates demand distortions by sending inappropriate signals to users, and hence may lead to inefficient outcomes. Pricing below the full cost-recovery level may appear attractive because it would encourage demand in the short term. However, because CIAL requires costs to be recovered in full in the long run, pricing below full cost recovery today leads to prices that need to be above the full-cost recovery level in the future. In this way, the consequence of encouraging demand now will be to suppress demand in the future.

- ***Minimise price shocks.*** *CIAL understands that price shocks are likely to be difficult for airlines to manage because it is difficult to achieve a sudden increase in revenue to meet increased costs. CIAL is also aware that a price shock would be particularly difficult for airlines to manage in the current economic climate, so in developing the proposed pricing reset CIAL aimed to keep the price rises in 2012-2017 to a manageable level.*

  LRMC pricing is considered a useful benchmark because it minimises demand distortions, and results in constant real prices. However, achieving this result would require a large initial price increase, and for this reason, CIAL intended to offer airlines "deferrals" on the initial price increases required to achieve LRMC. This would have meant that CIAL will "under-recover" required revenue relative to the revenue generated by LRMC pricing. Airlines were aware that this under-recovery needed to be balanced out by future periods of over-recovery to enable CIAL to cover its efficient costs over the lifetime of the ITP.

  Offering a deferral introduces some demand distortions in order to lessen the price shock in 2012. An important part of the pricing consultation was deciding on the appropriate balance: the larger the deferral, the bigger the demand suppression when prices rise above LRMC in the future.

CIAL's initial proposal proposed a significant deferral on the price rises in the LRMC benchmark, to lessen the price shock to airlines in the 2013-2017 period. This deferral on price rises would have resulted in a significant under-recovery of revenue relative to the LRMC benchmark. To ensure that CIAL recovered its efficient costs over the remainder of the economic life, an under-recovery of revenue from the 2012-2017 periods would have needed to be balanced by an equal and opposite level of over-recovery of revenue in a future pricing period or periods.

The proposal submitted to the airlines for this carry forward recovery was a concept titled DVA (Deferred Value Account). This concept would have allowed CIAL to defer part of the required price increases until subsequent pricing periods. By securing agreement from the airlines on the amount to be carried forward, the DVA would have reduced CIAL's regulatory risks and would have allowed us to recover more than our efficient costs in future periods to compensate for the lower recovery proposed in this period.

In the submissions by BARNZ and the airlines our proposal was rejected on the grounds that:

- *The DVA is not necessary because there is no under recovery; and/or*
- *They do not agree with the concept.*

While CIAL rejected these reasons, the strong opposition from BARNZ and the airlines led CIAL to abandon the concept in its revised proposal.

The revised pricing proposal reduced the expected under-recovery relative to LRMC to $16 million in present value terms. The final pricing decision:

- *Reduced the under-recovery by introducing an intermediate price step in variable airfield and domestic terminal charges from 1 January 2015 in addition to the charges detailed in our original pricing proposal;*
- *The extension of the eligible passengers category for the application of the International Passenger Services Charge to infants in the 2-11 year age group as suggested by BARNZ; with*
- *The remainder being absorbed by CIAL—that is CIAL will not pursue this under recovery from the 2013 to 2017 period in any later period.*