BARNZ assessment of AIAL's PSE3 pricing decision against Part 4 criteria

Introduction

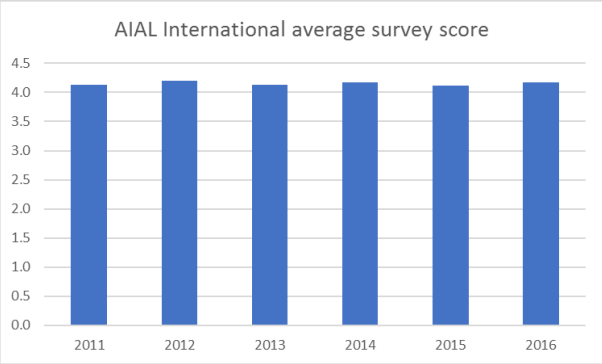
On 8 June 2017, Auckland International Airport Limited (AIAL) published its final decision on standard aeronautical charges that will apply from 1 July 2017 until 30 June 2022 (known as Price Setting Event 3, or PSE3).

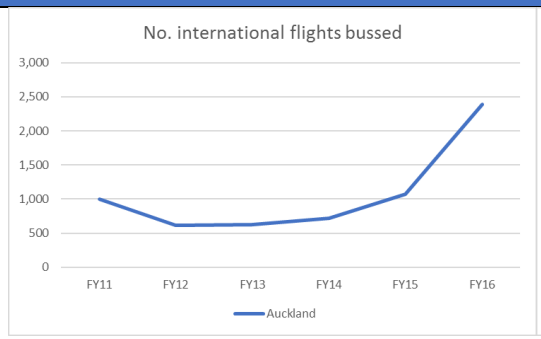
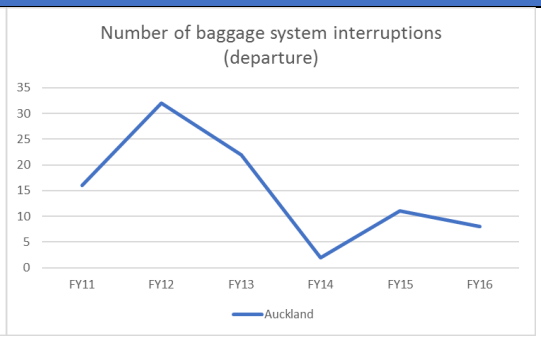
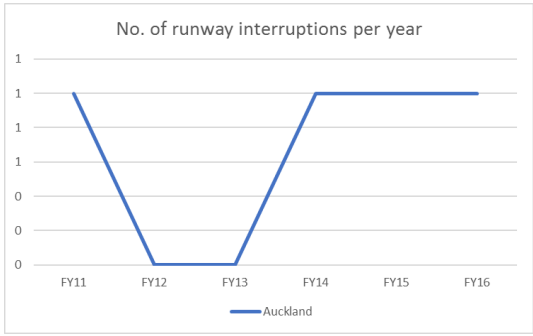
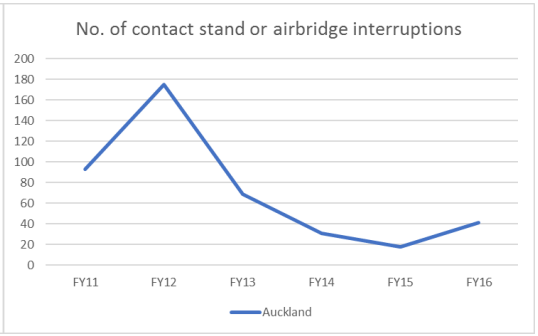
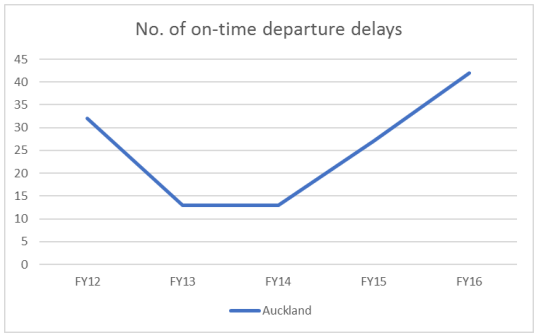
The Board of Airline Representatives of New Zealand (BARNZ) has reviewed the pricing decision against the Part 4 Purpose and the questions posed by the Commerce Commission in its reviews, carried out under section 56G of the Commerce Act 1986, into the airport pricing decisions for Price Setting Event 2 (PSE2). Our findings and conclusions are set out in this document, which we trust will be of assistance to the Commission as it carries out its own reviews of AIAL's pricing decisions for PSE3.

Analysis

Question	Assessment
1) Is the Airport innovating appropriately?	**Broadly yes, although some collaborative structures could be more effective.**
a) What evidence is there of innovation at the Airport?	AIAL seeks to deliver innovative solutions in some areas, to either improve passenger experiences or avoid capex; eg: • Aviramps to improve bussing product • Kiosks to reduce space needed for check-in (although some airlines are not convinced this will work) • Intending to trial an Airport Operations Centre (APOC). It is not clear whether the Airport has a systematic method for seeking out innovative approaches (and several of the innovations have been suggested by airlines), but it has introduced useful innovations where a pressure point has emerged.
b) Does the Airport enable or facilitate innovation through collaboration?	In principle, yes. More could be done to ensure the collaborative structures in place (COGs) are more effective – this is a responsibility of all parties involved, not just the Airport, but the Airport has a leadership role. Recently the Airport has indicated that it is looking to strengthen these collaborative groups.

Question	Assessment
	The Airport works well with Airways and BARNZ to develop new SMART track aircraft routes. The Airport also seeks to support government agencies with their efficiencies, for example supporting the introduction of Smart Gates and has also proposed a combined digital strategy with its agency partners.
c) Is the Airport receptive to airline-led innovation?	In principle yes, though in practice this will be subject to cost, space and time constraints. As an example, kiosks were first introduced in part at the request of a new airline.
d) Is ID promoting appropriate innovation at the Airport?	ID does not appear to have any notable effect on innovation at the Airport (ie the Airport would probably be doing what it is doing in any case).
2) Is the Airport delivering services at the quality consumers demand?	**Performance is mixed. The Airport has experienced poor service quality issues recently due to growth and current KPIs are not being met. However, the customer survey scores are reasonable and the Airport has said it is willing to work with airlines and agencies to deliver improvements.**
a) What is the Airport's definition of quality? Are SLAs in place and agreed?	No SLAs are in place with the Airport. In the Airport's final pricing decision for PSE3 it said it would work with stakeholders to develop SLAs. This work has not yet started, but we understand it is on the Airport's work plan. Two key performance metrics presented to the Auckland Airport Collaborative Operations Group (COG) relate to the percentage of international departing and arriving passengers to be processed within specified timeframes. These KPIs are consistently not met and performance is generally not improving. However, the Airport appears open to refreshing the COG to improve its effectiveness in promoting quality improvements.
b) Is the Airport willing to respond to customer concerns and help partners deliver better services?	Generally, yes. The Airport listened to airline concerns over the bussing product and has made changes in response (bringing forward contact gate investment, investing in Aviramps and better-quality busses). The Airport has introduced ground power at international gates and stands, which assists aircraft efficiency. BARNZ is keen to see a stronger continuous improvement culture in place at the Airport, with sufficient and timely investment being made to improve passenger experience. In some areas, such as the introduction of kiosks, better communication of the proposals could have allayed customer concerns, which are still present.

Question	Assessment
c) What are the results of consumer satisfaction surveys?	The results of the standard survey of international passengers have been consistent over time: either 4.1 or 4.2 (out of 5) in each year since 2011. The 3 items where survey scores were highest in 2016 were: 'feeling of being safe and secure', 'passport and visa inspection waiting time' and 'cleanliness of airport terminal'. The 3 items where survey scores were lowest in 2016 were: 'check-in waiting time', 'walking distance within and/or between terminals' and 'comfort of waiting/gate areas'.  *Source: AIAL FY11-FY16 disclosures, Schedule 14*
d) How reliable is the service and what trends can be observed (eg airbridge outages, runway interruptions, baggage system interruptions)?	In the past 12 months airlines have reported issues with the reliability of the baggage handling system, which has had increased outages due, in part, to the effect of the airport capital works. The Airport has taken steps to resolve these issues, although leaks in some areas are still being experienced. The reported numbers up to FY16 show a decline in interruptions and an increase in on-time departure delays and bussing operations (bussing operations are an area of particular concern to airlines, given the substantial impacts they have on delays and on passenger experience, particularly in relation to passengers that use wheelchairs). Based on anecdotal information from airlines, when FY17 figures are available, we expect they will show an increase in baggage system interruptions and the number of bussed flights relative to FY16.

Question	Assessment
	     *Source: AIAL FY11-FY16 disclosures, Schedules 11 and 16.*

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<tr><th>Question</th><th>Assessment</th></tr>
<tr><td>e) Is the right level of capacity being provided and utilised?</td><td>Not at present. The Airport has significant capacity constraints, which cause challenges in managing peak demand– these problems have been driven by investment that has not kept pace with the levels of passenger growth. Some of these constraints are a joint responsibility between the Airport and one or more partners (ie border agencies) to manage. The Airport has put forward an investment programme to address these constraints, which airlines mostly support, but the investment has not happened soon enough to meet demand.

The table below summarises disclosure data on utilisation % at key points in the Airport for the FY16 year. These data will be out of date as volumes at the Airport have grown significantly since the FY16 peak. However, these data are consistent with anecdotal reports from airlines – that there are particular capacity constraints in the biosecurity processing area and outbound security screening.

A new security screening area is under construction and should be available for the next summer peak. However, a new MPI biosecurity area is not expected to be commissioned until FY21.

<table><tr><th>Processing area</th><th>% of processing capacity utilised during busy hour (FY16)</th></tr><tr><td>International outbound baggage</td><td>67%</td></tr><tr><td>International outbound passport control</td><td>78%</td></tr><tr><td>International outbound security screening</td><td>121%</td></tr><tr><td>International inbound passport control</td><td>61%</td></tr><tr><td>International baggage reclaim</td><td>86%</td></tr><tr><td>International biosecurity</td><td>121%</td></tr></table>
Source: AIAL FY16 disclosures, Schedule 13</td></tr>
<tr><td>f) To what extent are customers willing to pay for better quality?</td><td>Airlines that operate at AIAL have a range of business preferences (eg some are low-cost services and some provide a more premium service). Some airlines may be happy to receive a lower quality of service in some areas if their charges were lower. Others may be willing to pay more for a better service.

The Airport does not provide a standard charge offering of this nature (ie it does not offer a menu of standard charges based on different service offerings). However, although BARNZ has no involvement in such discussions, we understand the Airport is willing to discuss offering different prices to individual airlines that are interested in receiving a different level of service.</td></tr>
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Question	Assessment
g) Is ID promoting services at the quality consumers demand at the Airport?	It is not clear that ID has any material effect on the quality of service provided by the Airport.
3) Is the Airport's price structure efficient?	**Broadly yes, with the exception of the runway land charge and some aspects of cost allocation and check-in charging.**
a) Does the price structure promote optimal use of scarce resources?	The Airport has introduced new parking charges that should encourage airlines to use less apron space and new check-in charges to promote the use of kiosks (which the airport considers to be more efficient, although some airlines do not agree with this view and the structure of the kiosk charges is likely to reduce flexible use of check-in space during peak times). However, the runway land charge involves charging for an asset that is not being used; and applies to all passengers, not just peak passengers. This charge does not promote optimal use of the scarce runway resource.
b) Does the pricing methodology create cross subsidisation?	We understand that the Airport has set prices equal to the costs of each area (eg airfield prices recover the full amount of airfield costs).[1] Where a more direct allocator is not available, the Airport tends to use its 'company-wide rule', which allocates 75% of the cost or asset value to aeronautical customers and then 89% of that cost to international aircraft. BARNZ has concerns that this methodology passes on too much cost to international airlines in particular. BARNZ reviewed the range of potential proxy allocators available to the Airport – these are summarised in the table below (drawn from Auckland Airport's FY16 disclosures). ITB terminal space is an allocator that is favourable to the Airport in that it directs more shared costs to aeronautical customers than most other plausible proxy allocators.

[1] AIAL, Price Setting Disclosure commentary paper, page 84.

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<tr><th>Question</th><th>Assessment</th></tr>
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<tr><th>Proxy allocator</th><th>% to aeronautical</th></tr>
<tr><td>AIAL headcount</td><td>78.2%</td></tr>
<tr><td>ITB terminal space</td><td>75.0%</td></tr>
<tr><td>AIAL opex</td><td>68.2%</td></tr>
<tr><td>AIAL property, plant and equipment</td><td>50.2%</td></tr>
<tr><td>AIAL revenues</td><td>50.0%</td></tr>
<tr><td>Net operating surplus</td><td>31.2%</td></tr>
<tr><td>Average</td><td>58.8%</td></tr>
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<tr><td>c) How stable and certain is the pricing methodology?</td><td>The Airport is free to change its pricing methodology for each price setting event. However, the methodology appears relatively stable and the changes being made to it for PSE3 are mostly incremental.

The runway land charge is not very stable as it is not clear whether it will continue if demand drops after FY21. Importantly, runway timing is very sensitive to demand changes. Airlines are generally upgauging, which will defer the point at which the current runway reaches capacity. If demand drops after FY21 and the runway is delayed, airlines are concerned that they could end up paying the charge for many years before the runway is commissioned.

We also do not believe the new check-in charges will be very stable in that they require airlines to pay for check-in desks whether or not they are used, which will reduce the flexibility of airlines to use check-in desks in the most efficient way.</td></tr>
<tr><td>d) Do prices have regard to the demand responsiveness of consumers?</td><td>The Airport claims to set prices with regard to Ramsey pricing principles.[2] What this seems to mean in practice is that the Airport allocates more shared costs to international rather than domestic. While international charges are generally higher, we note that domestic travel is usually less elastic than international travel. Due to the allocation methodology for shared costs, BARNZ is not convinced that prices truly reflect the demand responsiveness of passenger groups as more shared costs are being allocated to the more price elastic group of consumers.

Additionally, the Airport argues the runway land charge is necessary to smooth prices and thus avoid a price shock for consumers when the runway is commissioned. However, airlines will pay the prices and</td></tr>
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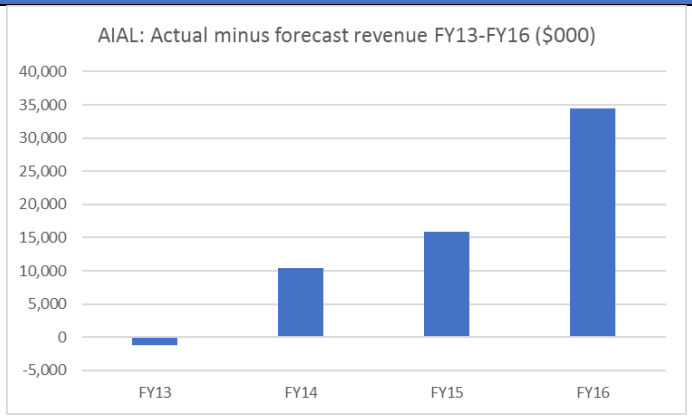
[2] AIAL, Price Setting Disclosure commentary paper, page 12.

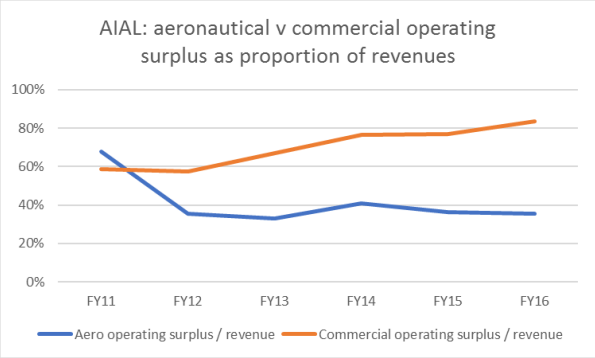
Question	Assessment
	they have a strong preference for the step up when the runway is commissioned. If the charge is truly NPV neutral to the Airport, airlines consider that the Airport should take heed of customer preferences not to pay in advance of the asset being commissioned.
e) Do prices enable consumers to make price-quality trade-offs?	The new parking and check-in charges will enable price-quality trade-offs in relation to the amount of time aircraft are parked at the airport and the amount of check-in space used. The pricing methodology does not provide broader price-quality trade-offs on other issues (eg remote or contact stand; allocation of departure gates), but price signals for such items may well be unduly complex to implement. The runway land charge does not promote price-quality trade-offs as it applies to all passengers so off-peak travel could not avoid it.
f) Is the price development process transparent?	The process is transparent to substantial customers. The Airport consults extensively on its prices with substantial customers and provides descriptions and explanations of its proposals. The Airport does not fully consult stakeholders other than the substantial customers. However, it would have been helpful if the Airport's pricing model provided a direct link between changes in input costs and changes in prices. CIAL's pricing model had this functionality but AIAL's did not.
g) Does the Airport try to improve price structure efficiency over time?	Except for the runway land charge, the evidence appears to support this. For PSE3, the Airport has removed subsidisation between different charges and costs; and introduced new charges that are intended to encourage efficient use of apron space and check-in space (although airlines are unsure that the check-in charges will work as intended).
h) Is ID promoting an efficient price structure at the Airport?	There is no evidence of an effect either way. ID may be encouraging the Airport to consider the justifications for its pricing methodology in more detail and thus encouraging the Airport to remove cross-subsidies. However, the particular price incentives created for PSE3 (parking and check-in) have been developed based on current pressures at the Airport, not due to ID. AIAL appears to believe that the design of Schedule 18 of the disclosures is essentially a 'green light' from the Commission to apply the runway land charge.

Question	Assessment
4) Is the Airport targeting excessive profits?	**Yes. The Airport's target WACC is too high and may be well in excess of its true WACC.**
a) How does the target return compare with the Commission's estimate?	The Airport's target return for priced services is 6.99%. The Airport's target return for disclosure services is 7.06%.[3] The Commission's most recent mid-point estimate of WACC for specified airport services is 6.41%. 6.99% is the 65th percentile of the 6.41% estimate. The implications of using 6.99% rather than 6.41% is $65m higher revenue from aeronautical customers over PSE3 (in nominal terms). Forsyth Barr considers that AIAL's true WACC is between 5% and 6% and that the Airport's decision is "pushing the boundaries"[4] (notably, the 5%-6% WACC estimate will apply to AIAL as a whole, including its higher risk unregulated business units, so the true aeronautical WACC would be even lower than this).
b) Are the calculations of the Airport's estimate valid?	BARNZ interprets this question to mean "are the inputs to the target return calculation robust?". If the inputs are not, then that would imply that a different return from the target return may be expected. In terms of opex, as discussed in section 5, the Airport's forecast opex seems inefficiently high and there are some very large capital costs that we have had limited ability to scrutinise, but do seem very high (eg the costs of northern runway construction and Gate 19 construction). If these costs are unjustifiably high, they will be inflating the Airport's cost forecasts. In terms of capex, as discussed in section 6, we understand the Airport recently told investors that its PSE3 capex forecasts were "at the ceiling of its needs", which implies they may commission fewer assets than forecast and thus earn a higher return. BARNZ considers that the Airport's volume forecasts for PSE3 appear reasonable. We note that in PSE2 AIAL over-forecast revenues in FY13 but under-forecast revenues in all subsequent years, driven by higher than forecast growth in passenger volumes. The chart below shows the difference between forecast and actual revenues in those years.

[3] AIAL, Price Setting disclosures, Schedules 18 and 19.
[4] Forsyth Barr, Auckland Airport: Aero Repricing – Pushing the Boundaries, 17 August 2017.

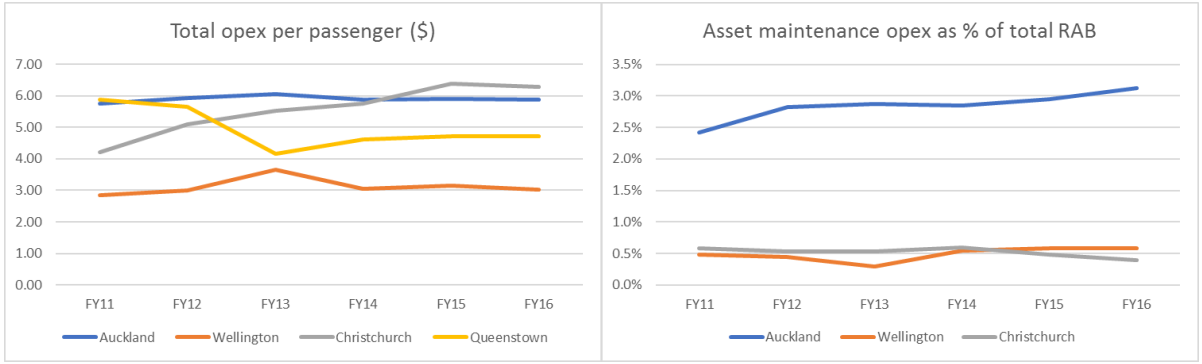
Question	Assessment
	 *Source: BARNZ analysis, AIAL PSE2 disclosure and FY13-FY16 disclosures* In addition, AIAL applies standard depreciation rates of 4% to forecast commissioned asset values for runways, taxiways, aprons and buildings. This indicates an expectation that these assets will last for 25 years on average. BARNZ has been told by the Airport that the 4% depreciation rate is correct and reflects the average asset life of the group of assets within each asset category (eg a terminal building includes the building, which has a long life, and shorter life assets such as display screens). However, the numbers presented to BARNZ during the consultation process did not demonstrate a 4% average depreciation rate for each asset class (which may be because we only saw partial information).
c) What is the context / justification for the target return?	The context/justification for the higher target return is that AIAL is investing a large amount of capex over the next 5-10 years and this is increasing their operational leverage and therefore their risk. As such, AIAL considers that it has higher risk that the airports in the Commission's comparator sample set and a beta set using the average of those airports' values is too low. The Airport asked NERA to estimate its actual WACC range and has set its target return near the bottom of NERA's range.[5] However, the following factors imply that setting a WACC above the Commission's mid-point would not promote the long-term interest of consumers:

[5] AIAL, Price Setting Disclosure commentary paper, section 4.3.

Question	Assessment
	• The operational leverage argument is a terrible precedent to set (and incentive to create) for monopolies in NZ – if a company borrows and spends more it will get a higher beta, and therefore WACC, on all sunk and forecast asset values. • Energy companies making large scale investments (Orion, Transpower, Powerco) have not sought a higher WACC to do so. Orion's WACC was lower during its CPP than it would have been if it had remained on the DPP. • The Airport did not set a lower WACC in PSE2 when its operational leverage was lower and has not undertaken to set a lower WACC in future pricing periods. • The rationale put forward by AIAL for a higher WACC is inconsistent with the rationale put forward by CIAL. CIAL, which is not facing a capex step change in PSE3, has not considered operational leverage as a factor in setting its target WACC and has used a different rationale (the, in their view, greater risk of operating an airport with a higher proportion of leisure travel) to justify its own WACC uplift. BARNZ is concerned that the regulatory framework is producing a situation where each airport finds their own reason to justify an uplift, but those reasons are not consistent over time or with each other. • Dr John Small has reviewed NERA's analysis and identified problems and inconsistencies within it. • The Airport operates under a dual till and most of the capex will drive expenditure through the commercial till, so it already has strong incentives to undertake the investment programme irrespective of the regulatory WACC. As the chart below shows, AIAL's second till is highly profitable.  *Source: BARNZ analysis, AIAL FY11-FY16 disclosures, Schedule 8*

Question	Assessment
d) Is a higher return the result of superior performance?	The Airport itself does not justify the higher target return on the grounds of superior performance. The Airport has recently succeeded in growing demand at the Airport, but this has been reflected in the passenger and aircraft volume forecasts within the pricing model. Additionally, the growth has resulted in quality of service challenges. So we do not consider that the higher return is the result of superior performance.
e) Does the Airport's conduct imply it is targeting an excessive return? (eg did it reduce its target return in response to submissions?)	The Airport has recently announced (for FY17) a 9.7% increase in revenues (to $629m) and a 16.5% increase in underlying profit (to $248m).[6] In 2014 the Airport undertook a capital return of $454m to shareholders.[7] The Airport has also indicated that it intends to maintain its policy of passing on 100% of profits to shareholders as a dividend; thus shareholders are not being asked to share the cost of the airport expansion, even though they will benefit from the increased passenger and freight volumes. Similarly, the Airport wants to maintain its A- credit rating. [8] It is not clear that this is in the long-term interest of consumers – ie the cost of higher prices to support the credit rating may well exceed the increased borrowing costs that would result from a credit rating downgrade. However, the Airport did reduce its target return in response to submissions and also provided a substantial amount of justification for its target.
f) Is ID limiting the Airport's ability to extract excessive profits?	ID is somewhat limiting the excessive profits, but not nearly enough. The Airport has stated that its target return is below where it thinks it should be, but has been set there due to submissions from customers and the regulatory threat.[9] The percentile targeted is lower than in PSE2, which we assume is due to the recent changes to the WACC IM. However, the Airport continues to target a WACC above the Commission's best estimate of the necessary return. If the airport's standard depreciation lives are too short and the expenditure forecasts too high, then the actual return will be higher than the stated target.

[6] AIAL, FY17 Annual Report.
[7] AIAL, FY14 Annual Report.
[8] AIAL, Price setting disclosure presentation, slides 4 and 16.
[9] AIAL, Price Setting Disclosure commentary paper, page 32.

Question	Assessment
	Additionally, the runway land charge is being treated as revenue outside of the building blocks allowance, so we see all of this revenue as excessive. The Airport has argued that the charge is NPV neutral, but BARNZ's calculations indicate that it is not NPV neutral for airlines, who are worse off in NPV terms with the charge even over a very long timeframe (40 years +).
5) Is the Airport operationally efficient?	**No. The evidence indicates a lack of efficiency and the Airport has indicated that it expects to see 'diseconomies of scale' in PSE3.**
a) How does the Airport's opex trends compare to other NZ airports', including total values, category values and expenditure per unit (eg passenger or aircraft movement)?	As the charts below show (all charts were developed by BARNZ using data from the Airports' FY11-FY16 disclosures): • AIAL's opex per passenger is second highest of the four airports assessed and is around double that of WIAL. Also, CIAL forecasts that its opex per passenger will decline back towards FY12 levels over PSE3; if this happens (which is not certain) it would leave AIAL as the outlier; although we note CIAL has a much newer terminal asset to maintain. • AIAL's asset maintenance opex as a percentage of RAB is around 5 times higher than at CIAL or WIAL. This variance may be partly due to higher maintenance requirements at Auckland, but it is not clear to BARNZ whether this is the case.  • AIAL's corporate overheads opex per passenger is also higher than CIAL and more than double that at WIAL. Meanwhile, AIAL's asset management and airport operations opex per passenger is lower than at CIAL or WIAL. It is not clear how much of this relates to different expenditure profiles and how much to the airports allocating expenditure to different categories.

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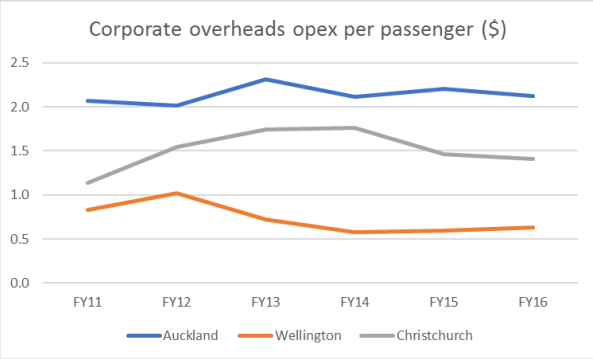
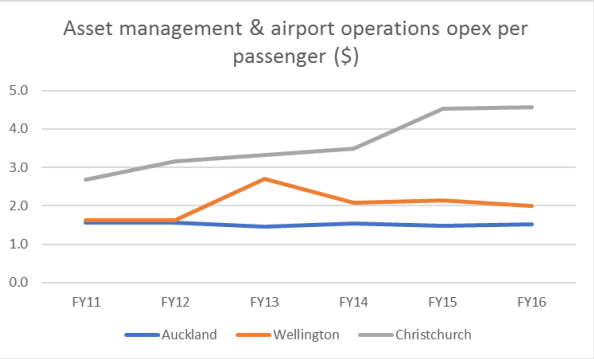
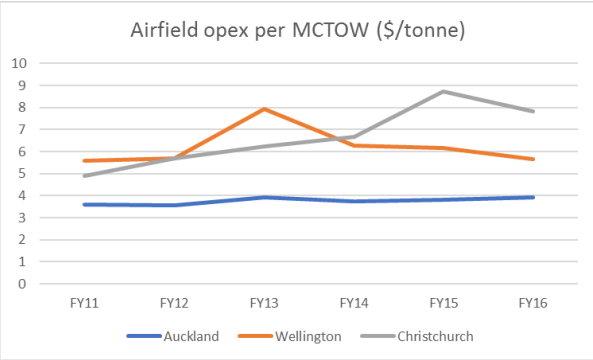
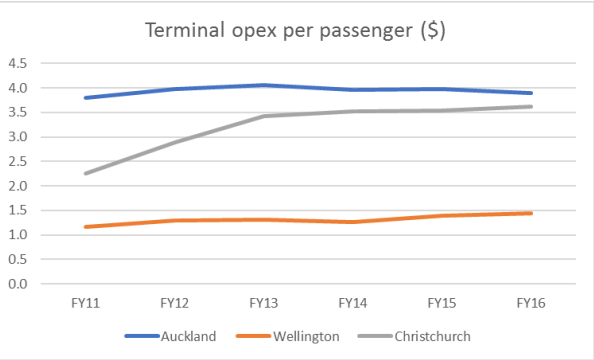
	  • AIAL is spending less on airfield opex per MCTOW landed than WIAL or CIAL, but is spending more on terminal opex per passenger than WIAL or CIAL. It seems that the terminal is driving AIAL's higher opex spend, which could reflect the older nature of the buildings and/or additional cost associated with expansion.   • AIAL has substantially higher remuneration and benefits costs[10] per FTE than WIAL or CIAL. It is not clear if this is due to higher salaries being paid or AIAL including additional costs within this disclosed item.

[10] We use "Human resource costs" as disclosed in schedule 16 as equivalent to 'remuneration and benefits cost'. The definition of Human resource costs in clause 1.4 of the ID Determination is "means the remuneration, including the value of benefits, that is payable to employees".

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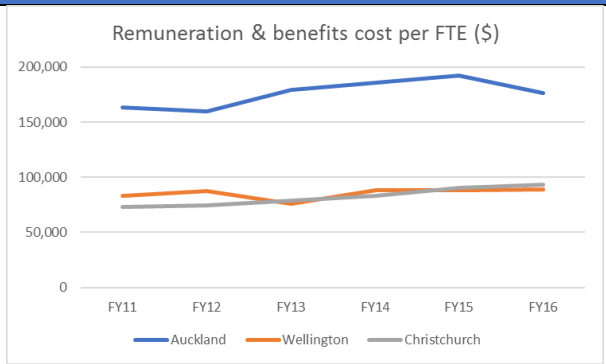
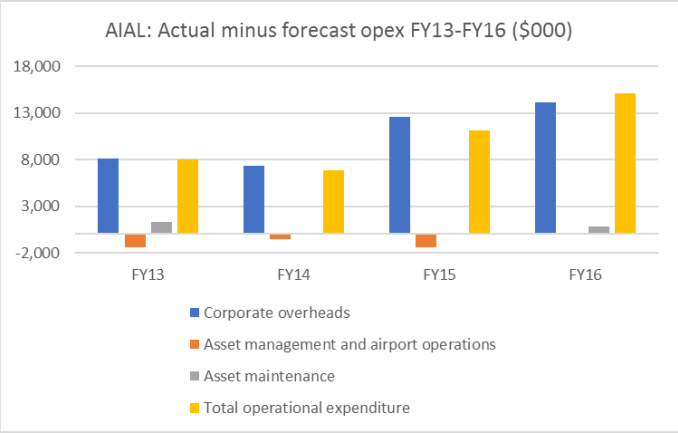
	
b) Did the Airport improve opex efficiency in the previous pricing period?	Total opex grew from $85m in FY13 to $98m in FY16. As shown in the chart in the response to question 5)a), AIAL's opex per passenger decreased from $6.06 in FY13 to $5.87 in FY16, representing an efficiency improvement. During this time, quality of service problems increased within the Airport and it may be that increasing congestion meant the Airport could not spend enough to maintain service quality for the increased passenger volumes.
c) What were the reasons for increased or decreased opex in the previous pricing period?	See question 6)e).
d) What are the reasons for forecast increased or decreased opex in the next pricing period?	The Airport has stated that: some diseconomies of scale with increasing passenger growth are likely to be seen in the near-term as we cater for this additional growth while simultaneously addressing legacy constraints in the existing facility.[11] We note Figure (7) on page 40 of AIAL's PSE3 disclosure commentary paper, which shows improving opex efficiency over PSE3 relative to PSE2. However, BARNZ has not been able to replicate the real opex values shown in Figure (7) and real opex per passenger looks like it is increasing from FY17, indicating that any recent efficiency gains are not going to be sustained. The Airport forecasts total opex to increase from $114m in FY18 to $137m in FY22. Nominal opex per passenger is forecast to increase from $5.85 to $6.19 over the same period.[12]

[11] AIAL, Price Setting Disclosure commentary paper, page 44.
[12] BARNZ calculations using data in AIAL, Price Setting Disclosure Schedules 18 and 20.

Question	Assessment
	We understand the Airport considers that it can no longer achieve further efficiencies from the existing footprint. This may be due to insufficient expenditure to date on infrastructure to handle the growth the Airport is experiencing.
e) How did actual opex compare to forecast opex in the previous pricing period?	Disclosed opex over FY13-FY16 was 13% higher than forecast ($360m in actual spend compared to $319m forecast in those four years). The size of the annual spend above forecast increased over time, from $8m in FY13 to $15m in FY16 – this is likely to reflect increased spending by the airport to address issues caused by growth. We understand that reasons for the variance include $17.6m of unforecast expenditure on route development activities, personnel costs and repairs and maintenance. As shown in the chart below, the majority of the spend above forecast was in the corporate overheads category, with some in the asset maintenance category. AIAL underspent its forecasts in the asset management and operations category.  *Source: BARNZ analysis, AIAL PSE2 and FY13-FY16 disclosures*
f) Could variances between actual and forecast opex have been controlled by the Airport?	The Airport will always have the ability to control how much it spends. The growth experienced by Auckland Airport in recent years was not forecast and it is reasonable for the Airport to spend more to address the implications of the growth.

Question	Assessment
	The growth in volumes will have been a major reason why the Airport's revenues were significantly higher than what was forecast and the additional revenue received from the extra passengers should have been sufficient to fund necessary investment to manage the growth.
g) Is the trend in opex per unit going up or down over time?	The trend is steadily increasing over time. Opex per passenger was $4.23 in FY06 (the earliest year for which disclosure data is available) and is forecast to be $6.19 in FY22.[13] This implies an average growth rate of 2.4% per annum over FY06-FY22, compared to average inflation (actual and forecast) over this same period of 1.9% per annum[14]. If opex per passenger was growing only at the rate of inflation from FY06, it would reach around $5.68 per passenger in FY22. Given the passenger numbers forecast to pass through the Airport in FY22, this would imply a cost difference of $11.3m in the FY22 year compared to a situation where opex per passenger had only grown at the rate of inflation since FY06. Importantly, given the growth of the airport, we would expect to see opex per passenger decline over PSE3 rather than increase.
h) How does the Airport's opex trends compare to Australian airports'?	It appears that operating costs per passenger in Australian airports have also been growing significantly. Extract from ACCC Airport Monitoring Report 2015-16, March 2017:[15] "over the past decade... All airports have reported increases in aeronautical costs per passenger in real terms. The biggest increases have been at Perth Airport with 50.9 per cent and Melbourne Airport with 48.9 per cent, followed by Brisbane (32.5 per cent) and Sydney (14.4 per cent) airports. Such large increases in costs—despite some possible downward pressure as a result of economies of scale—raises questions about whether the airports have sufficient incentive to maintain cost control rather than simply passing on costs to airlines." "One airport told the ACCC that very high demand from airlines for the same timeslots during peak periods had resulted in the need for investment in duplicate facilities, which represents higher costs than if flights could be spread more evenly across the day. The airport also said that its

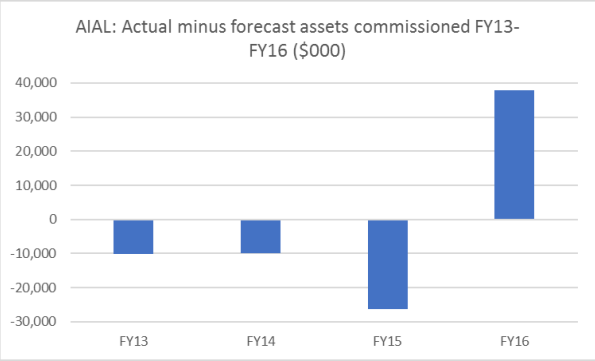
[13] BARNZ analysis of AIAL disclosures FY06-FY16 and PSE3 Schedule 20.
[14] BARNZ analysis of Statistics New Zealand CPI data and RBNZ CPI forecast.
[15] https://www.accc.gov.au/system/files/2015-16%20AMR%20revised%206%20March_0.pdf

Question	Assessment
	increasing costs per passenger were due to factors such as passenger volumes not growing at the level they expected and the higher cost of running an airport in a more security-sensitive environment." It seems the reasons given for growing opex inefficiency in Australian airports differ from the reasons given for opex inefficiency in New Zealand airports.
i) Do the current opex forecasts indicate reasonable future efficiency gains? (eg is unit opex forecast to decline over time? Are economies of scale apparent?)	The forecasts indicate increasing opex per unit, and opex per passenger from FY17 to FY22 appears to be growing at more than the rate of inflation. Therefore it does not appear that future operating efficiencies have been built into the forecast.
j) Does the Airport's conduct indicate that it will seek to improve efficiency over time? (Transparency, consumer engagement, etc)	BARNZ has concerns that the Airport is insufficiently focused on cost efficiency and considers that it is appropriate to pass diseconomies of scale directly on to airlines. The Airport engages well with consumers on operational matters and on capital planning, but we have seen less engagement on operational efficiency.
k) Is ID promoting improvements in operating efficiency at the Airport?	No. Operating efficiency is not improving at Auckland Airport, and Auckland Airport has high opex per passenger compared to other NZ airports, so it cannot be concluded that ID has promoted improvements in this area. It is not clear that the pricing / regulatory framework provides any meaningful incentives for airports to seek out operating efficiencies.
6) Is the Airport investing efficiently?	**The Airport appears to be investing in the right projects but some of this investment is too late. We are not confident that the capital cost estimates are as efficient as they could be.**
a) Does the Airport have an efficient capex plan?	The projects included in the capex plan are generally supported by airlines and considered to be necessary to meet demand at the Airport. Some investment is happening too late. For example, the current primary constraint at the international terminal is the biosecurity processing area. AIAL is building a new biosecurity area which will provide more

Question	Assessment
	capacity but this is not expected to be ready until 2020, while the area already has insufficient capacity at peak times. Our concerns that Auckland Airport set prices for PSE3 based on a high capex forecast that it may not be able to deliver have now increased, based on recent information. According to Forsyth Barr's report of the Airport's Investor Day, the Airport seems to have set its capex forecasts at the upper end of the potential range rather than the mid-point. The report of what Auckland Airport said was:[1] "Capex assumptions used for AIA's recent aeronautical repricing were at the ceiling of its needs for the next 5–10 years. The company suggested that there was some flexibility to the programme, albeit any change would be lower rather than higher capex." However, the BARNZ represented airlines and Auckland Airport share the objective of achieving the capital projects through an ongoing capital planning consultation process. We acknowledge that airlines have a part to play in supporting the airport deliver fit-for-purpose and efficient capital investments. BARNZ has limited visibility of whether the proposed costings are efficient – see question 6)c). However, the statements above do imply that the forecast costs are at the higher end of likely cost outcomes for the various projects.
b) Does the Airport consult on major capex projects appropriately?	Yes. Auckland Airport's consultation on capex projects is probably the best of any airport in New Zealand. There is some inconsistency in approach between projects, but overall the Airport engages well. The Airport has introduced a suitable governance framework for its upcoming capital projects and BARNZ and other airlines are participating in this.
c) Are investments delivered at the lowest possible cost, while still delivering required outcomes and not compromising quality?	The Airport is forecasting capital expenditure of $1.7b over PSE3, compared to an actual spend of $319m over FY12-FY16 (the most recent five years for which data is available). BARNZ cannot say for certain whether projects could be delivered at a lower cost. Some projects seem very expensive (eg $1b+ for the northern runway and $50m for Gate 19). We note the recent analysis that suggests the northern runway costs per km look excessive:[16]

[1] Forsyth Barr, *Auckland Airport Investor Day – Capex is Key*, 20 November 2017

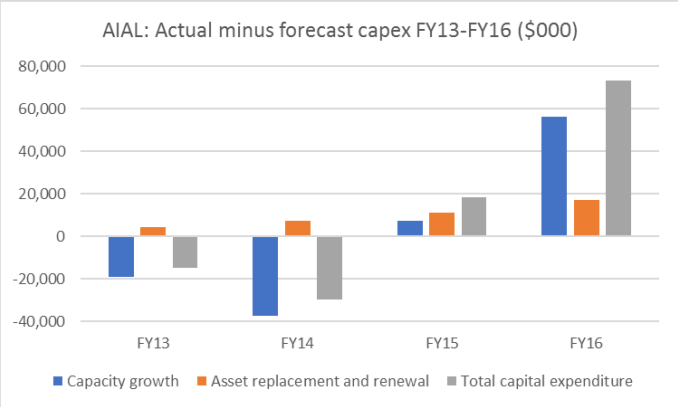
[16] Forsyth Barr, Auckland Airport: Aero Repricing – Pushing the Boundaries, 17 August 2017, page 6.

Question	Assessment
	Figure 1. Runway build cost estimate comparison Source: Forsyth Barr analysis
d) Is there evidence of planned over- or under-investment?	The Airport forecast commissioned asset values totalling $236m over FY13-FY16. The Airport's actual commissioned asset values over these years was $228m. It therefore appears that the Airport only slightly underspent. However, the pattern of asset commissioning, as in the chart below, provides a different view:  *Source: BARNZ analysis of AIAL PSE2 and FY13-FY16 disclosures* There are two plausible interpretations of this trend: 1) the Airport delayed building and commissioning assets until the end of the pricing period and then commissioned them, but still earned the benefit of the forecast return on and of capex based on the forecast commissioning dates – this is a profit maximising strategy under the pricing framework. 2) the Airport had to spend more in FY16 due to rapid passenger growth. However, this does not explain why the commissioned asset values were so much lower than forecast in FY13-FY15.

Airport	Project	Completion	Estimated cost	Length	Unit cost	Comments
Auckland	Proposed new runway	2028	NZ$1.74bn	2.3km	NZ$750k/m	
Wellington	Proposed runway extension	?	NZ$343m	354m	NZ$970k/m	Mostly reclaimed seabed into Cook Strait.
Christchurch	Proposed runway extension	?	NZ$12m	250m	NZ$50k/m	
Brisbane	Runway under construction	2020	A$1.35bn	3.3km	A$400k/m	360ha of soft marshland reclaimed, 12km of taxiways, sand dredging costing A$400m.
Perth	Proposed new runway	?	A$600m	3.0km	A$200k/m	
Dublin	Runway under construction	2020	€320m	3.11km	€100k/m	

Question	Assessment
	In itself, this is not evidence of planned under- or over-investment, but it does raise questions as to whether the Airport sought to maximise profits by deferring investment until later in the pricing period, which would be consistent with the incentives faced by AIAL in the pricing framework.
e) Does investment occur at the right time?	The evidence presented in the answer to 6)d) implies that some investment occurred too late, and/or that the forecast of earlier commissioned asset requirements was wrong.
f) What is the Airport's conduct when planning and delivering capex projects?	See answer to 6)b). Additionally, BARNZ proposed that the Airport include a capex wash-up in its pricing decision to ensure customers only had to pay for assets that were actually commissioned (our primary concern was in relation to the deliverability of such a major step-up in capital projects). The Airport rejected this approach and claimed that it bears the risk and reward of actual performance in PSE3.[17] We disagree that the Airport bears all of the risk and reward – where the Airport includes the recovery of a return on and of commissioned asset values in its pricing but does not commission the assets in question, it is airport customers that bear the risk of paying for assets that are not built, or are built later than forecast.
g) Were projects delivered above or below forecast in the previous pricing period?	A review of the 23 projects listed in the PSE2 Schedule 18 disclosure indicates that:[18] • Four projects have had zero capex spent on them in FY13-FY16 when, in total, they were supposed to have $30.7m spent on them in those four years. These four projects all seem similar to projects that are now included in the PSE3 capex plan. • There was a very large (>30%) underspend in five projects: check-in, stand 1, stand 2, Pier B, Taxiway Lima. • There was a greater than 30% overspend in one project: asphalt apron replacement. • Nine projects have had zero capex forecast or spent on them in FY13-FY16. The Airport's project forecast extends for ten years, so these projects had forecast capex in or after FY17. • There has been substantial unforecast expenditure on projects not included in the PSE2 capex plan, totalling $69m in FY15 and FY16. • 'Other capital expenditure' was forecast to be $71m over FY13-FY16, but was actually $114m over those years.

[17] AIAL, Price Setting Disclosure commentary paper, page 72.
[18] AIAL PSE2 and FY13-FY16 disclosures.

Question	Assessment
	Overall, in most projects it seems that the amount budgeted was ultimately underspent or not spent at all, so the actual by-project forecasting seems to include too much capex. However, there was a very large amount of expenditure on 'other capital expenditure' and non-forecast projects that was greater than in the PSE2 forecast. In part, this will reflect the difficulty in forecasting capex requirements for five-year periods in a changing commercial environment and we support changes to the capital plan when circumstances necessitate this. However, we are concerned that the Airport's capital expenditure can vary so much from the forecasts used to set prices.
h) What is the comparison between actual and forecast total capex and capex by category?	As can be seen from the chart below: • In total, the Airport spent $47m, or 20%, more than forecast over FY13-FY16. This overspend was concentrated in FY15 and FY16. • There was consistent spend above forecast in the asset replacement and renewals category. • Capex was below forecast in FY13 and FY14 but above forecast in FY15 and FY16.  *Source: AIAL PSE2 and FY13-FY16 disclosures* Note: the values in the answer to this question will not line up with the values in question 6)d) as that question related to commissioned asset values, while this question relates to capex.

Question	Assessment
i) Are major capex projects appropriately included in prices?	Yes, except for the northern runway. Almost all capex is included in prices from the forecast date of commissioning. For the new domestic processor, the Airport has decided to exclude it from PSE3 pricing even though it is expected to be commissioned at the end of FY22, to avoid over-recovery of the costs (as the pricing model assumes all assets are commissioned mid-year) – this is a very reasonable approach by the Airport. However, for the Northern Runway, the Airport will (subject to certain conditions) introduce a charge to start recovering the costs of the land on which the runway will sit from FY21, seven years before the runway is expected to be built. Airlines do not accept that it is appropriate for passengers to pay for an asset before they can use it.
j) Is ID promoting incentives to invest efficiently at the Airport?	We consider that passenger demand, reputation and customer pressure are the key factors pushing AIAL to invest in necessary infrastructure at the Airport. As it seems that some investment is being undertaken too late, we question whether ID is sufficiently promoting efficient capital investment incentives.
7) Does the Airport share efficiency gains with consumers?	**No. If the airport achieved efficiencies these would eventually find their way into prices. However, the Airport is not delivering opex efficiencies.**
a) Do prices reflect efficiency gains achieved in the previous pricing period?	It does not seem that any lasting efficiency gains were achieved in the previous pricing period as opex per passenger is forecast to increase over PSE3 relative to FY17.
b) Do prices reflect forecast efficiency gains during the current pricing period?	No. The Airport is forecasting opex per passenger to increase and argues that 'diseconomies of scale' should be expected, and accepted by its customers.
c) Does the Airport have explicit mechanisms for sharing efficiency gains with consumers?	Not that we are aware of, other than the standard price setting process. If the Airport did find long-term opex efficiencies, we expect these would be reflected in lower opex forecasts and thus lower prices at future price setting events.
d) Have efficiency gains been passed on in improvements to service	At present, operating costs per passenger are forecast to increase while service quality is, at best, not improving, and probably declining due to congestion and the impact of the capex programme on airport operations.

Question	Assessment
quality or asset investment at no cost to consumers?	
e) Is ID promoting the sharing of efficiency gains with consumers at the Airport?	No.