Colonial First State Global Asset Management

Infrastructure market review

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The Australian airport sector: overview and outlook on airport demand

- **Passenger demand for Australian airports has slowed in line with a general weakness in global and domestic economic conditions. The current slowdown is relatively mild in comparison to the previous downturns of the early 1990s and early 2000s, because growth in Australian passenger traffic remains positive.**
- **To gauge the short to medium term outlook for passenger demand, we have developed in-house econometric forecasting models. Key drivers of domestic passenger traffic include real GDP growth and the price of economy airfares. We have constructed indicative forecasts for international passenger activity at the national level, spanning 2009 to 2015.**
- **Our forecasts suggest a cyclical softening in the short-term and a stronger growth path over the medium term towards trend growth, resulting in an average 4.3% pa growth rate over the forecast period. This assumes a continuing short-term impact from the global financial crisis (GFC), followed by a recovery in the global and domestic macro-economies in the medium term.**
- **Further, we conducted sensitivity analysis to gauge variations in passenger growth rates with changes in real GDP growth assumptions. Sluggish GDP growth (of 1.5% pa over the short term) results in a revised average domestic passenger growth forecast of 4.0% pa over the forecast period.**
- **The current weak market conditions and the relatively softer pricing climate may be viewed by investors (new and existing) with a medium to long term horizon as an attractive opportunity to invest in the sector.**

1. Introduction

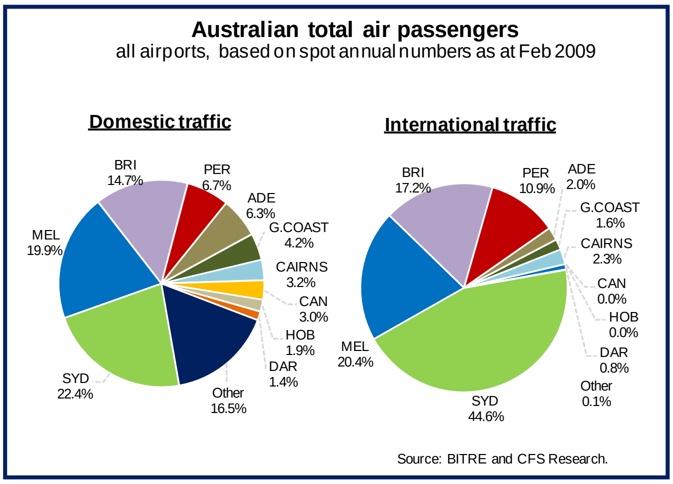
A key driver of airport investment return is the growth in passenger traffic. Across Australian airports, domestic passengers comprise the bulk of total passenger traffic. Passenger demand has softened recently due to two main shocks: the adverse impact of the global financial crisis (GFC) and concern over the spread of swine flu (influenza H1N1).

This report provides an overview of passenger demand for Australian airports in light of recent global shocks. In particular, the report discusses key demand drivers in an effort to provide a short to medium term outlook for growth in passenger traffic.

2. Historical air passenger traffic

Domestic passenger travel in Australia is the largest component of passenger demand, with a share of about 80% (international comprises 20%), as reported by the Bureau of Infrastructure, Transport and Regional Economics (BITRE). Passenger traffic is concentrated in the larger capital city airports. As shown in Figure 1 the top five domestic airports capture almost 70% of total internal passenger traffic.

Figure 1



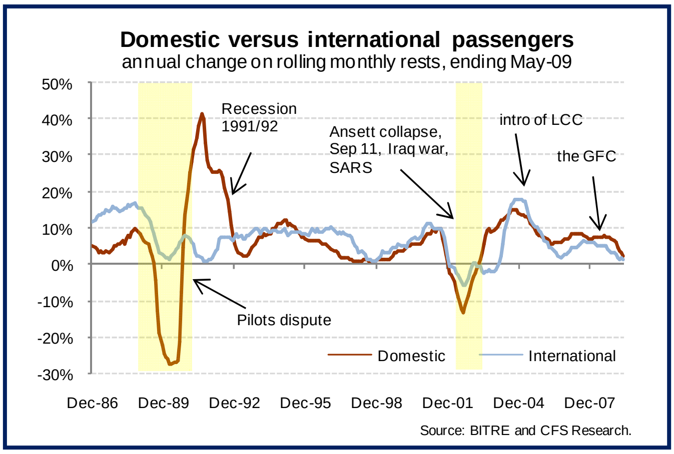
In international traffic terms, the top five airports account for 95% of passenger volumes. Notably, Sydney, Melbourne and Brisbane airports dominate the market with a combined share of 82%. Sydney Airport is by far the largest player, with a market share of 45%. Across regions, passenger traffic to and from Asia accounts for about 50%, followed by Europe (18%) and North America (11%).

Figure 2 shows rolling annual growth for domestic and international passengers over time. The chart highlights that growth in Australian domestic passenger traffic has gone through periods of relatively stable growth but also experienced periods of significant cyclicality associated with distinct event-driven shocks.

- In 1989, domestic passenger traffic plummeted as a result of planes being ground due to the pilots' dispute.
- In the early 1990s, domestic passenger movements deteriorated as Australia's economy contracted and unemployment rose.
- In 2001-02, domestic passenger traffic recorded negative growth, impacted by the September 11 terrorist attacks, the collapse of Ansett Airlines and (a distant third) the slowdown in macroeconomic activity.
- Between 2003 and 2005, intra-Australian passenger movement rose sharply with greater competition from the introduction of low cost carriers (LCCs) on domestic routes.

In recent times, growth in total passenger traffic has slowed in line with a general weakening in global and domestic economic conditions. However, it appears that **the current downturn is relatively mild in comparison to the previous two downturns** experienced in the early 1990s and early 2000s.

Figure 2



3. Forecasting air passenger traffic

In forecasting national passenger growth for Australian airports, we develop econometric models which consider key drivers of domestic passenger volume[1]. We develop separate forecasting models for domestic and international passenger traffic.

[1] Note: This doesn't necessary translate into a proportional impact on airport profitability due to differences in landing and terminal charges, as well as spending between domestic and international passengers.

Drivers of domestic air passenger traffic

Historically, domestic air passenger traffic growth has been affected by a variety of factors including macroeconomic conditions (such as economic growth) and airfare pricing (represented by real economy airfare). Each of these is briefly discussed in turn.

Key drivers: economic activity and airfare pricing

A key driver of domestic passenger traffic is economic growth because it reflects the impact on incomes and consumption. Figure 3A depicts growth in domestic air passengers versus real GDP growth over time. While air passenger movements generally follow growth in real GDP (when lagged three quarters), the chart highlights distinct phases in this relationship. The two series display a high positive correlation over the period from 1993 to 2003. This is highlighted by the synchronised downturn in 2000/03 which coincided with a number of unprecedented events such as the September 11 terrorist attack, SARS, and the Iraq War. The distinct change in the co-movement across series since 2003 reflects a structural break in the relationship associated with the introduction of low cost carriers (LCCs) and competitive airfares[2].

Figure 3A

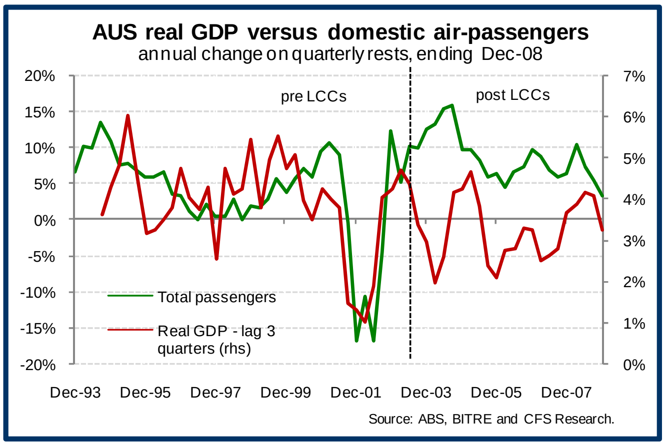
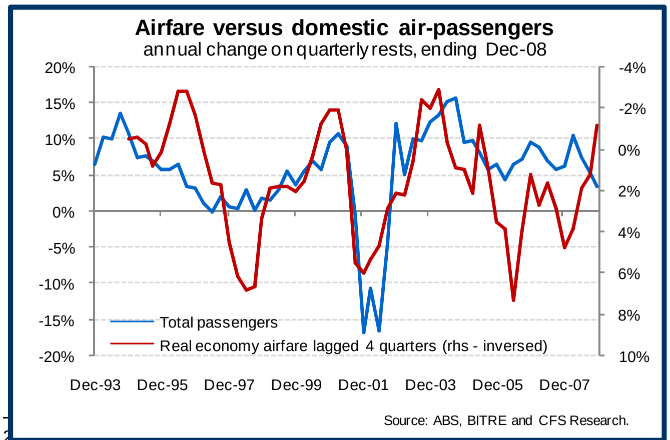


Figure 3B



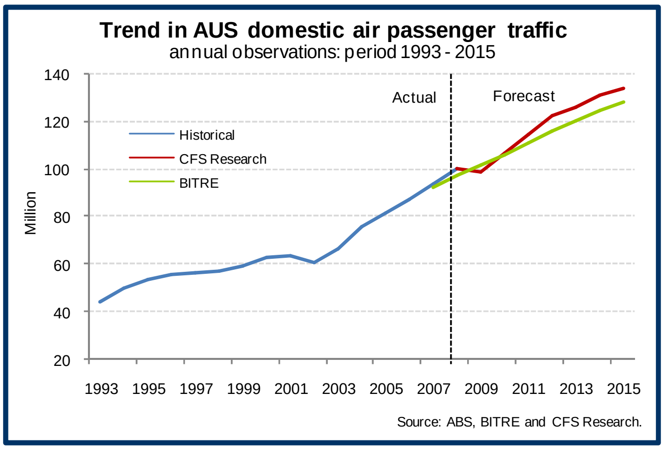
2 Refer to BITRE Working Paper 72, page 60.

Another factor influencing domestic passenger traffic is airfare pricing. Figure 3B shows annual growth in domestic air passenger traffic versus real economy airfare (lagged four quarters). The lag structure reflects the lead time in passengers' travel planning. As expected, the chart shows a strong inverse relationship.

Forecasting domestic passenger traffic

Using an in-house econometric model[3], CFS Research forecasts for national domestic passenger traffic spanning 2009 to 2015. These are compared to those produced by the Bureau of Infrastructure, Transport and Regional Economics (BITRE) as shown in Figure 4.

Figure 4



CFS Research forecasts domestic passenger growth to increase by an average 4.3% per annum (pa) over the forecast period. While this growth rate forecast is slightly above that of BITRE (4.1%), it's worth noting that passenger forecasts differ across calendar years. CFS Research is forecasting a mild deterioration over the short-term in line with a 'U-shaped' profile in economic activity followed by a steady recovery supported by stronger domestic macroeconomic activity and the positive lagged effects of airfare discounting. Back-end forecasts for both CFS Research and BITRE adopt trend growth, although the deviation between the two forecasts series reflects different starting points[4] and the absence of the GFC from BITRE's forecasts.

Forecast sensitivity

As mentioned, a key driver of our forecasts is the underlying assumption regarding real GDP growth. The

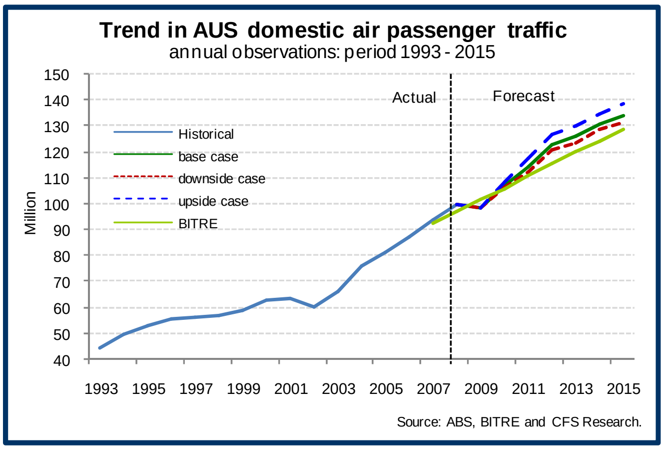
3 Model specifications and estimated results were omitted from this report due to their technical content and for brevity. Results are available on request.
4 BITRE's forecast for 2008 was below that of actual passenger numbers.

base case forecasts assume short-term (i.e., two-year period) growth of about 2% pa and then reverting to a 3% pa growth trend[5].

While our short-term prospects for the economy are plausible, a sensitivity analysis was conducted to gauge variations in passenger growth rates due to changes in real GDP growth assumptions.

We considered two alternative scenarios for our forecast period. The first scenario, 'upside case', assumes a 'V-shape' recovery in growth towards 3% pa over the short-term. The second scenario, "downside case", assumes sluggish economic activity (with growth of 1.5% pa over the short-term), giving rise to a prolonged recovery trajectory towards trend growth. These are presented in Figure 5. Revised passenger growth rates range between 4.8% pa (for the upside case) to 4.0% pa (for the downside case).

Figure 5



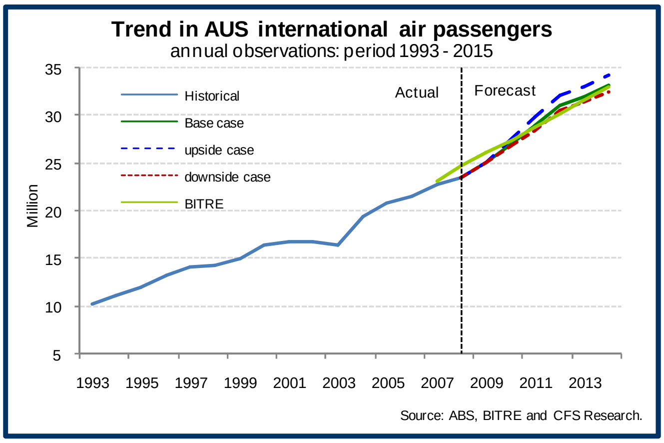
Forecasting international passenger traffic

As shown in Figure 1, there is a positive correlation between domestic and international passenger growth. Using this relationship and assuming the mix between domestic and international passengers remain constant we derive an indirect forecast for international passenger traffic.

Annual forecasts for international passenger growth are shown in Figure 6. CFS Research forecasts growth in international traffic to average 5.5% pa. This is slightly above BITRE's forecast of 4.8%. While both forecast series converge towards the back-end of the forecast period, the divergence over the short-term reflects the adverse impact of the GFC (which is absent from BITRE's forecasts), the positive spill-over effects from lower airfares and recovery phase in the global macro-economy beyond the short term.

Once again a forecast sensitivity analysis was conducted for international passenger forecasts. Passenger growth rate forecasts range between 5.9% pa (for the upside case) to 5.2% pa (for the downside case).

Figure 6



4. Summary remarks

A key driver of airport return performance is the growth in passenger traffic. Across Australian airports, domestic passengers make up the bulk of total passenger traffic. Recently, passenger growth has slowed in line with a general weakness in the macro-economy, although annual growth remains positive. This slowdown is considered to be a relatively mild cyclical downturn in comparison to previous downturns experienced in the early 1990s and early 2000s.

The influence of swine flu type events are considered to be temporary in nature. Our forecasts for total Australian air passenger growth suggest a cyclical softening in the short term and a return to trend growth in the medium term.

Sensitivity analysis was conducted to gauge variations in passenger growth rates with changes in real GDP growth assumptions. Variations in GDP assumptions translated into material deviations in passenger growth forecasts from the base forecast. Such growth forecast deviations should be considered by investors when making investment decisions.

Investors with a medium to long-term investment horizon are likely to view the current weak market conditions and softer pricing climate as an opportunity to enter the sector.

[5] Trend growth is based on historical long-term growth. For Australia, this growth rate is in the range of 3-3.5% pa, depending on the time period observed.

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CFS Research has a global reach and the expertise to tailor research to your needs.

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