



The Impact of Aircraft Noise on Brisbane Residential Property Sectors: 1988-2014

2014 BRISBANE RESIDENTIAL PROPERTY
INVESTMENT PERFORMANCE UPDATE

QUT, School of Civil Engineering and Built Environment
and the Air Transport Innovation Centre (ATIC)



qut.edu.au

Professor Chris Eves and Andrea Blake
November 2015

Commissioned by
Brisbane Airport
Corporation



1. Introduction

This updated report summary includes the addition of 2014 residential property sales transactions. The following Tables are based on the capital returns and investment performance developed in the original major report. These tables follow the same sequence as the original report with an additional column showing the 2014 capital returns for each of the various analysed sectors. The 2014 results are included in the overall analysis (ie period 1988 to 2014).

The Impact of Aircraft Noise on Brisbane Residential Property Sectors: 1988-2013 is available for download from the Brisbane Airport website, bne.com.au.

2 Suburb Comparison

High, Moderate and Minimal/ No noise complaints

Table 1: Capital Return and Investment Performance: Median Price 1988-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
High Noise	10.43	8.73	9.30	1.07
Moderate Noise	22.74	9.06	9.13	1.01
No/Low Noise	-0.88	7.59	8.47	1.12
Brisbane LGA	6.13	7.66	8.19	1.07

Table 2: Capital Return and Investment Performance: Average Price 1988-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
High Noise	10.31	8.83	9.52	1.08
Moderate Noise	30.59	8.67	10.26	1.18
No/Low Noise	-3.22	7.47	8.62	1.15
Brisbane LGA	6.13	7.66	8.19	1.07

3 Suburb Comparison: Houses

High Noise Complaint Suburbs v Middle Socio Economic Suburbs

**Table 3: Capital Return and Investment Performance:
Median Price 1989-2014: HNC v Middle Socio-economic suburbs**

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
High Noise Suburbs	10.43	8.73	9.30	1.07
Middle socio Economic Suburbs	8.04	8.42	9.35	1.11
Brisbane LGA	6.13	7.66	8.19	1.07
Brisbane LGA	6.13	7.66	8.19	1.07

**Table 4: Capital Return and Investment Performance:
Average Price 1990-2014: HNC v Middle Socio-economic suburbs**

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
High Noise Suburbs	10.31	8.78	9.49	1.08
Middle socio Economic Suburbs	5.97	7.60	8.70	1.14
Brisbane LGA	6.13	7.66	8.19	1.07
Brisbane LGA	6.13	7.66	8.19	1.07

**Table 5: Annual % Variation between HNC Suburbs and Middle Socio-economic suburbs:
Median Price and Average Price: 1988-2014**

Year	Median Price Comparison (%)	Year	Average Price Comparison (%)
1988	-1.23	1988	-19.27
1989	3.06	1989	-12.88
1990	-2.54	1990	-10.79
1991	-6.92	1991	-8.90
1992	-3.70	1992	-4.76
1993	1.45	1993	3.40
1994	0.69	1994	2.55
1995	2.13	1995	0.00
1996	-6.00	1996	-11.05
1997	4.83	1997	3.73
1998	-4.91	1998	-5.46
1999	0.00	1999	-1.10
2000	7.27	2000	0.00
2001	7.50	2001	5.86
2002	7.69	2002	8.57
2003	6.81	2003	9.57
2004	3.54	2004	3.41
2005	3.51	2005	6.31
2006	2.50	2006	2.48
2007	7.37	2007	5.50
2008	3.70	2008	4.53
2009	1.89	2009	-2.46
2010	3.15	2010	2.54
2011	3.88	2011	2.52
2012	4.70	2012	2.00
2013	4.46	2013	2.04
2014	6.78	2014	6.22
Average Annual Difference	+2.28	Average Annual Difference	-0.20

4 Suburb Comparison: Units

High moderate and minimal/ no noise complaints

Table 6: CapCapital Return and Investment Performance: Median Price 1988-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
High Noise	3.08	6.71	8.35	1.24
Moderate Noise	2.59	6.56	7.38	1.13
No/Low Noise	5.26	6.80	9.21	1.35
Brisbane LGA	-3.80	6.33	9.04	1.43

Table 7: Capital Return and Investment Performance: Average Price 1988-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
High Noise	4.67	6.28	6.54	1.04
Moderate Noise	-3.81	6.24	6.40	1.03
No/Low Noise	4.30	5.27	13.47	2.55
Brisbane LGA	-3.80	6.33	9.04	1.43

Flight Path Comparisons



5 Suburb Street Comparison:

Southern Flight Path: Varying Distances

Table 14: Capital Return and Investment Performance: Median Price 1990-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
Camp Hill	19.52	9.91	13.61	1.37
Coorparoo	20.10	9.51	13.38	1.41
Tarragindi	15.25	8.83	10.36	1.17
Mt Gravatt East	16.28	8.25	9.55	1.16
Brisbane LGA	6.13	7.66	8.19	1.07

Table 15: Capital Return and Investment Performance: Average Price 1990-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
Camp Hill	-0.75	9.51	13.02	1.37
Coorparoo	0.66	9.75	14.57	1.49
Tarragindi	5.27	8.84	10.59	1.20
Mt Gravatt East	13.29	8.11	10.28	1.27
Brisbane LGA	6.13	7.66	8.19	1.07

6 Suburb Street Comparison:

Northern Flight Path: Varying Distances

Table 16: Capital Return and Investment Performance: Median Price 1990-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
Bulimba	28.34	13.06	19.85	1.52
Gordon Park	28.80	10.09	10.31	1.02
Albion	70.60	10.63	20.75	1.95
Chermside West	10.53	6.82	11.71	1.77
Ashgrove	-0.98	8.81	9.70	1.10
Bardon	10.95	9.09	11.12	1.22
Brisbane LGA	6.13	7.66	8.19	1.07

Table 17: Capital Return and Investment Performance: Average Price 1990-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
Bulimba	16.14	12.31	17.86	1.45
Gordon Park	20.00	9.75	9.55	0.98
Albion	52.24	10.02	18.64	1.86
Chermside West	6.02	6.57	11.05	1.68
Ashgrove	6.25	8.95	10.07	1.13
Bardon	6.25	8.95	10.07	1.13
Brisbane LGA	6.13	7.66	8.19	1.07

7 Suburb Street Comparison: Proposed New Flight Path

Table 18: Capital Return and Investment Performance: Median Price 1990-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
Hamilton	-20.68	11.54	22.92	1.99
Stafford	16.08	8.74	11.07	1.27
Annerley	19.44	8.66	10.34	1.19
Brisbane LGA	6.13	7.66	8.19	1.07

Table 19: Capital Return and Investment Performance: Average Price 1990-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
Hamilton	-18.96	9.85	18.65	1.89
Stafford	18.36	9.11	11.28	1.24
Annerley	15.33	8.92	12.94	1.45
Brisbane LGA	6.13	7.66	8.19	1.07

8 Suburb Street Comparison: No Flight Path

Table 20: Capital Return and Investment Performance: Median Price 1988-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
New Farm	9.98	11.97	15.23	1.27
Woolloowin	-3.95	8.69	10.66	1.23
Mitchelton	10.92	8.76	10.46	1.19
Mansfield	-9.91	7.58	12.34	1.63
Brisbane LGA	6.13	7.66	8.19	1.07

Table 21: Capital Return and Investment Performance: Average Price 1988-2014

Location	2014 Capital Return (%)	Average Annual Capital Return (%)	Average Annual Volatility (%)	Risk return Ratio
New Farm	15.24	12.18	15.29	1.25
Woolloowin	-2.95	8.53	9.07	1.06
Mitchelton	13.96	9.11	11.68	1.28
Mansfield	-19.88	7.65	12.32	1.62
Brisbane LGA	6.13	7.66	8.19	1.07

