



The Impact of Aircraft Noise on Brisbane Residential Property Sectors: 1988-2018

2018 BRISBANE RESIDENTIAL PROPERTY
INVESTMENT PERFORMANCE UPDATE

FULL SUBURB SUMMARY

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1. Introduction

The following tables represent the investment performance of 53 geographically diverse suburbs across Brisbane based on all residential property sales over the period 1988-2018, with the analysis showing the 2018 capital returns as well as the long-term capital returns from 1988-2018. These 53 suburbs are subject to varying exposures to the flight paths for the existing runway at Brisbane Airport, as well as the revised flight paths when the second runway at Brisbane Airport commences operations.

Suburbs have been grouped based on geographic location in Brisbane, as follows, and are subject to a range of exposure to aircraft noise from the existing and future runway operations at Brisbane Airport:

- » Brisbane northern suburbs
- » Brisbane southern suburbs
- » Brisbane eastern suburbs
- » Brisbane western suburbs
- » Brisbane inner-city suburbs

Each of these groupings contain a range of suburbs based on socio-economic status and current impact from the existing runway flight paths from high exposure, moderate exposure and limited (no) exposure to aircraft noise. With the start of operations on the new runway, several of the suburbs that are currently defined as limited or no exposure will be subject to increased exposure to aircraft noise.

With the addition of the 2018 residential property sales transactions, the investment performance analysis now covers the years 1988 to 2018, a 31-year period. Over these thirty-one years, the Brisbane residential property sector has been subject to periods of housing booms and recessions; therefore, the results reflect an accurate overview of the investment performance of each of the suburbs in the study. The analysis over the period 2016 to 2018 has also covered the period of oversupply of residential units in Brisbane, particularly in the inner-city suburbs of Brisbane.

This summary report now covers a total of 53 Brisbane suburbs and over 40,000 sales transactions. These 53 suburbs represent:

- » 33% of the Brisbane inner-city suburbs
- » 26% of northern Brisbane suburbs
- » 20% of southern Brisbane suburbs
- » 52% of eastern Brisbane suburbs
- » 24% of western Brisbane suburbs

Overall these 53 suburbs represent most of the Brisbane suburbs that are currently exposed to aircraft noise from the existing runway operations and a considerable number of suburbs that will be exposed to aircraft noise when the new runway commences operations.

These groupings allow the investment performance for Brisbane suburbs to be compared on both a geographic and socio-economic basis.

In addition to the investment performance analysis based on suburb exposure to aircraft noise, the update also compares the investment performance for individual suburbs located under the current existing and future flight paths, suburbs that will be subject to future flight paths when the existing and new runway operations commence in tandem and suburbs that are currently not affected by aircraft noise and will remain so when the new runway opens.

In total 53 suburbs of Brisbane have now been analysed to determine their average annual capital returns and investment performance based on median and average house prices. An alphabetical listing of these suburbs and their investment performance is also included as appendices 1 and 2 of the report.

In all cases, the analysis is based on both the annual median house price and the annual average house price for each of the suburbs analysed. The investment performance analysis comprises:

- » 2018 capital return (median house price)
- » 2018 capital return (average house price)
- » 1988-2018 capital return (median house price)
- » 1988-2018 capital return (average house price)
- » 2018 capital return (inner-city unit median price)
- » Average annual volatility (median and average house and unit price)
- » Risk/Return ratio

2. Major Findings 2018

The most significant result from the 2018 data is the considerable variation in property investment performance in 2018. A number of the better performing suburbs in 2017 showed a reversal in returns in 2018, with the poorer performing suburbs in 2017 being the better performing suburbs in 2018. As was the case in 2017, the median and average house investment return for the full Brisbane region has been higher than the investment return for a range of suburbs across the study area. In 2018, the capital return for all of the inner-city suburbs showed a return less than the Brisbane median house price return of 2.34%, this is now the second time in the study period that this has occurred. A similar result also occurred across the other geographic locations in the study. For the study suburbs in the western location, 60% recorded 2018 capital returns less than the Brisbane average, an improvement on the 2017 result of 80%. For the other locations 80% of the southern suburbs recorded returns less than the Brisbane median capital return, northern suburbs 61% and eastern suburbs 85%. Again, this has been due to the very high returns for suburbs in the outer, lower socio-economic suburbs of Brisbane compared to the majority of middle to high inner and middle ring suburbs.

2017 also saw a continuing decline in the investment performance of units and apartments across Brisbane. The oversupply of inner-city apartments has again resulted in negative returns for the majority of suburbs in 2018.

Suburbs recording the highest capital growth in 2018 were Dutton Park (19.33%), Nudgee Beach (16.67%), Graceville (12.79%), Norman Park (12.75%), Kenmore (8.76%), Toowong (7.80%), Gordon Park (7.59%), Bardon (7.26%) and Tingalpa (5.66%).

These 2018 results continue to support the previous analysis for 1988-2017, that exposure to aircraft noise is not the only factor that influences buyer choice and subsequent impacts on the investment return for residential property in Brisbane. Even when analysing on an annual basis, suburbs subject to aircraft noise can still outperform suburbs with minimal or no aircraft noise affect due to overriding value factors such as quality of services and recreation facilities, proximity to the CBD and good transportation.

The full 31-year analysis also confirms that the suburbs under the existing runway flight paths and within the inner-city and middle ring locations of Brisbane are still showing higher average annual capital returns compared to other less well-located suburbs of Brisbane. This is still evidenced by the 31-year average annual returns for Brisbane suburbs under existing flight paths showing average annual returns over 31 years in excess of 8% per annum, well above the Brisbane average of 6.79%. If aircraft noise was the main driver of values in these suburbs it would be expected that the average annual returns would be lower than the Brisbane median house price average capital return.

The base data for the years 1988 to 2013 can be found in the full QUT/BAC report released in 2013, with the 2014, 2015, 2016 and 2017 data update available in separate reports.

3. Individual Suburb Performance

Median and Average House Prices 1988-2018

This suburb comparison has been initially broken down on the basis of geographic location in Brisbane. The classifications are:

- » Inner-city suburbs
- » Northern suburbs
- » Southern suburbs
- » Eastern suburbs and
- » Western suburbs.

For each of these suburbs the investment performance is recorded in respect to the capital return for 2018, based on the change in median and average house prices from 2016 to 2018, as well as the long-term investment performance of houses in these suburbs over the period from 1988 to 2018. In addition to the capital returns, the volatility and risk return ratios for these suburbs are analysed.

4. Individual Suburb Performance: Inner-City

Table 1: Inner-City Houses: Median Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%)1988-2018	Average Annual Volatility (%)	Risk Return Ratio
East Brisbane	2.17	9.22	14.06	1.52
Highgate Hill	-0.97	8.43	12.98	1.47
Kangaroo Point	-17.45	10.26	24.58	2.40
New Farm	-1.94	11.28	14.09	1.30
Teneriffe	-28.07	13.49	26.09	1.93
Woolloongabba	-7.68	8.84	12.66	1.43
Greater Brisbane	2.34	6.79	7.92	1.17

2018 saw a significant change in median house prices for the inner-city suburbs of Brisbane. Table 1 shows that during 2018, only East Brisbane had a positive capital return of 2.17% based on median house prices, with all the other inner-city suburbs in the study showing a decrease in median house prices over 2018. These falls in median house prices ranged from -0.97% for Highgate Hill to -28.07% for Teneriffe. These 2018 results followed some very significant capital returns in 2017 for these suburbs, particularly Kangaroo Point and Teneriffe that had capital returns in excess of 30% in 2017. The -0.97% return for Highgate Hill was a significant improvement in 2018 compared to the -18.84% decrease in 2017. Again, the small number of house sales per annum in these inner-city suburbs, that are predominately unit based, can result in significant annual house price variations. However, the longer-term investment performance provides a more accurate measure of the average annual capital returns for houses in these suburbs. All of these suburbs had significant decreases in the capital return for houses based on average prices in 2018. These decreases in capital

returns ranged from -1.9% for Highgate Hill to -32.91% for Teneriffe. These average and median house price falls in 2018 are based on a greater number of lower priced houses being sold in these locations and not the higher value properties that dominated these markets in 2017. For the second successive year these inner-city suburbs have shown a capital return less than the median Brisbane house price return of 2.34%.

Tables 1 and 2 also show that the longer-term investment performance of houses in these inner-city suburbs of Brisbane has been well above the Brisbane median house price return for the period 1988-2018 of 6.79%. Across all these suburbs the average annual capital return over the 31 years continues to be slightly higher than the returns based on median house prices (refer to Table 2).

Despite the relatively higher levels of risk, the higher returns for these suburbs off set the volatility to show similar risk return ratios compared to outer Brisbane suburbs with lower returns and less risk.

Table 2: Inner-City Houses: Average Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%)1988-2018	Average Annual Volatility (%)	Risk Return Ratio
East Brisbane	-3.36	10.25	17.93	1.75
Highgate Hill	-1.39	8.86	16.92	1.91
Kangaroo Point	-24.31	11.94	39.45	3.30
New Farm	-4.95	11.54	14.79	1.28
Teneriffe	-32.91	14.17	32.60	2.30
Woolloongabba	-11.89	8.84	13.23	1.50

5. Individual Suburb Performance: Northern Suburbs

Table 3: Northern Brisbane Suburbs: Median Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%) 1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Albion	1.32	9.65	19.52	2.02
Ascot	4.33	9.19	15.60	1.70
Chermside West	1.91	6.12	10.48	1.80
Clayfield	4.75	8.51	12.19	1.43
Gordon Park	7.59	8.96	10.31	1.15
Hamilton	0.00	10.37	21.57	2.08
Mitchelton	2.66	8.04	9.47	1.18
Northgate	-0.57	8.57	11.94	1.39
Nudgee Beach	16.67	15.99	45.52	2.60
Pinkenba	1.37	9.58	26.04	2.72
Stafford	0.00	7.83	10.62	1.36
Virginia	-6.00	8.05	11.26	1.40
Wooloowin	-5.68	8.61	14.46	1.68
Greater Brisbane	2.34	6.79	7.92	1.17

Tables 3 and 4 show the capital returns and investment performance for a range of suburbs located in areas north of the Brisbane CBD.

In 2018 the capital growth across these 13 northern Brisbane suburbs has been very varied ranging from a low of -6.00% for Virginia to a high of 16.67% for Nudgee Beach. Unlike the inner-city suburbs, the northern suburbs predominately showed positive capital gains in 2018. These tables show that the northern suburbs closer to the Brisbane CBD tended to have the negative and lower capital returns based on median house prices, compared to the middle value, middle ring suburbs north of Brisbane CBD (Gordon Park 7.59%). Only Ascot, Clayfield, Gordon Park, Mitchelton and Nudgee Beach showed a median house price capital gain in 2018 greater than the Brisbane median house price return.

Despite the lower capital returns in 2018, all these northern suburbs (apart from Chermshire West 6.12%) have achieved long term average annual capital returns greater than the Brisbane average of 6.79%.

When the 2018 capital return for the northern suburbs is based on average house prices, there is a noticeable difference in the returns compared to the median house price analysis. Based on median house prices three suburbs had negative capital returns in 2018 (Northgate, Virginia and Woolloowin). However, based on median house prices Albion, Ascot, Northgate, Pinkenba, Stafford, Virginia and Woolloowin had negative capital growth in 2018.

Table 4: Northern Brisbane Suburbs: Average Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%)1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Albion	-0.36	9.39	17.59	1.87
Ascot	-11.62	8.16	12.87	1.58
Chermshire West	1.17	6.16	10.36	1.68
Clayfield	0.40	8.04	12.75	1.59
Gordon Park	6.45	8.91	9.29	1.04
Hamilton	6.90	9.35	17.40	1.86
Mitchelton	2.53	8.38	10.92	1.30
Northgate	-8.10	8.47	12.34	1.41
Nudgee Beach	6.81	15.39	35.81	2.33
Pinkenba	-6.86	14.91	46.53	3.12
Stafford	-0.77	8.03	11.00	1.37
Virginia	-7.58	7.94	10.91	1.37
Woolloowin	-8.15	8.36	13.22	1.58

The most significant variation from median to average house prices was Ascot (4.33% median house price and -11.62% average house price). This confirms that in Ascot in 2017 the majority of house sales were in the higher price brackets and the majority of sales in 2018 more at the lower price range in Ascot.

The northern suburbs closer to the Brisbane CBD still maintain long term average annual capital returns greater than the middle and outer ring suburbs of Brisbane

(Albion 9.39% and Hamilton 9.35%). The very high average annual returns for Nudgee Beach and Pinkenba are also reflected in the high volatility of 35.81% and 46.53% respectively, due to the relatively small number of actual properties and sales transactions that take place annually in these suburbs. Based on both median and average house prices the best performing northern suburb on a risk/return basis is Gordon Park.

6. Individual Suburb Performance: Southern Suburbs

Table 5 shows the 10 suburbs classified as southern Brisbane suburbs in the study. All these suburbs are currently located under or adjacent to the current Brisbane Airport runway and southern flight paths.

Table 5: Southern Brisbane Suburbs: Median Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%) 1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Annerley	-1.52	7.84	9.90	1.26
Dutton Park	19.33	9.31	13.06	1.40
Fairfield	0.86	8.28	11.03	1.33
Forest Lake	4.42	4.56	12.97	2.84
Holland Park West	-0.86	7.73	10.14	1.31
Mansfield	0.00	7.04	9.42	1.34
Moorooka	0.16	7.77	9.37	1.21
Mt Gravatt East	-0.76	7.73	9.18	1.19
Rocklea	-4.13	7.89	14.06	1.78
Tarragindi	1.03	8.31	9.77	1.17
Greater Brisbane	2.34	6.79	7.92	1.17

The 2018 capital return for these suburbs based on median house prices there has been a similar result in 2018 to the inner-city suburbs, with capital returns for these suburbs being generally lower in 2018 compared to 2017. In 2017 Dutton Park and Forest Lake were the only southern suburbs recording no or negative capital growth. In 2018 these suburbs actually recorded positive capital growth of 19.33% and 4.42% respectively (Refer to Table 5). All the other southern suburbs in the study recorded

positive capital gains in 2017 ranging from 11.99% for Mount Gravatt East and 0.72% for Holland Park West. However, Table 5 shows that the capital returns for these suburbs in 2018 were lower than 2017, with seven of the suburbs recording minimal or negative capital growth in 2018 based on median house prices. Rocklea recorded a negative growth of -4.13%, with the other negative growth southern suburbs ranging from 0.00% for Mansfield and -1.52% for Annerley.

Table 6: Southern Brisbane Suburbs: Average Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%)1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Annerley	2.51	8.28	12.16	1.47
Dutton Park	20.17	10.22	22.12	2.16
Fairfield	-13.29	7.92	14.17	1.79
Forest Lake	4.21	4.59	12.40	2.70
Holland Park West	-2.71	7.60	10.16	1.34
Mansfield	1.19	7.34	11.30	1.54
Moorooka	0.00	7.81	10.75	1.38
Mt Gravatt East	-0.29	7.62	9.83	1.29
Rocklea	3.77	8.85	18.37	2.08
Tarragindi	3.33	8.39	9.97	1.19

When the investment performance of these southern suburbs is based on average house prices the results for a number of the southern suburbs is different to the median house price analysis. Table 6 shows that the best performing suburb in 2018 was Dutton Park with a 2018 capital return of 20.17%, again this increase is based on a relatively small number of house transactions. Fairfield (-13.29%), Holland Park West (-2.71%) and Mt Gravatt East (-0.29%) recorded negative returns in 2018 based on average house prices.

The only suburb that continues to record lower capital returns, less than the Brisbane median house price returns, is Forest Lake which is also the only outer ring suburb in this suburb grouping. All of the other southern suburbs, particularly those close to the Brisbane CBD, such as Annerley, Dutton Park and Fairfield, have higher average annual capital returns for the period 1988-2018, compared to the Brisbane median house price growth.

On a risk return basis, the better performing suburbs in this grouping are Tarragindi, Mt Gravatt East and Moorooka. Forest Lake has one of the lowest capital returns and high level of volatility resulting in a high risk/return ratio of 2.70.

7. Individual Suburb Performance: Eastern Suburbs

The eastern suburbs of Brisbane analysed comprise a range in socio-economic status from high value suburbs such as Bulimba, Hawthorne and Balmoral, through to some lower value suburbs including Murarrie and Tingalpa. The majority of the suburbs in this classification are subject to varying degrees of aircraft noise. Table 7 and 8 show a very similar trend in 2018 to the inner-city and southern suburbs, with most suburbs recording minimal or negative capital returns in 2018. Based

on median house prices the only eastern suburbs to record significant positive capital returns in 2018 were Norman Park (12.75%) and Tingalpa (5.66%). Five suburbs in this grouping recorded 2018 capital returns ranging from 0.93% (Carindale) to 1.94% (Bulimba). Morningside and Seven Hills recorded significant negative capital returns in 2018 of -10.19% and -10.62% respectively. Both these suburbs also had the highest positive capital returns in 2017 based on median house prices.

Table 7: Eastern Brisbane Suburbs: Median Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%) 1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Balmoral	1.16	9.30	12.60	1.35
Belmont	1.03	8.69	23.70	2.73
Bulimba	1.94	11.80	19.63	1.66
Camp Hill	-4.83	9.02	13.19	1.45
Cannon Hill	-6.50	8.80	11.50	1.31
Carindale	0.93	6.63	11.45	1.73
Coorparoo	-4.18	8.65	12.75	1.47
Hawthorne	-4.17	9.95	10.86	1.09
Morningside	-10.19	8.75	10.95	1.25
Murarrie	0.00	8.46	11.56	1.37
Norman Park	12.75	9.18	10.10	1.10
Seven Hills	-10.62	8.92	13.62	1.53
Tingalpa	5.66	7.27	11.16	1.54
Wynnum	1.56	8.26	11.45	1.39
Greater Brisbane	2.34	6.79	7.92	1.17

Table 7 also shows that over the full 31-year period of the study, the average annual capital return for all the eastern suburbs, apart from Carindale (6.63%) have been well above the Brisbane median house price return of 6.79%, with the best performing suburbs in this grouping being the higher value suburbs of Bulimba, Balmoral, Hawthorne and Camp Hill. This is reflective of the change in socio-economic status of these suburbs over the study period.

Table 8: Eastern Brisbane Suburbs: Average Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%) 1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Balmoral	-6.69	9.28	12.12	1.31
Belmont	-0.78	7.21	13.19	1.83
Bulimba	-2.92	10.96	18.31	1.67
Camp Hill	-2.82	8.95	12.46	1.39
Cannon Hill	-16.99	9.16	13.50	1.47
Carindale	1.55	6.91	11.71	1.70
Coorparoo	-8.80	9.13	13.99	1.53
Hawthorne	-12.35	10.59	14.47	1.37
Morningside	-8.16	8.87	11.14	1.26
Murarie	-4.89	8.87	13.78	1.55
Norman Park	11.72	9.73	14.03	1.44
Seven Hills	-11.78	8.99	13.48	1.50
Tingalpa	-5.42	7.63	14.59	1.91
Wynnum	1.01	8.18	11.56	1.41

When the analysis of the eastern suburbs is carried out on the basis of average house prices, only Carindale, Norman Park and Wynnum recorded a positive capital return in 2018. All the other suburbs in this grouping had a negative capital return based on average house prices. The most significant negative returns for 2018 were Cannon Hill (-16.99%), Hawthorne (-12.35%) and Seven Hills (-11.78%). All three of these suburbs had very high capital returns based on average house prices in 2017, all in excess of 20% increases. This suggests that the high prices in 2017 were due to a greater number of high value sales in these suburbs in 2017 and more sales at the lower value range in 2018 (Refer to Table 8).

Although the majority of these suburbs are located under existing flight paths, the returns based on both median and average house prices are still significantly higher when compared to the Brisbane median house price and similar socio-economic suburbs with no or limited exposure to aircraft noise. Volatility of house price change across the eastern suburbs has been consistent across all suburbs, with the high value suburbs showing higher levels of risk/return compared to lower value suburbs.

8. Individual Suburb Performance: Western Suburbs

Like the previous suburbs east of Brisbane CBD, the suburbs located west of the Brisbane CBD comprise a range in socio-economic status from high value suburbs such as Toowong to lower value suburbs such as Jindalee and Kenmore. When these suburbs are analysed there is a very similar trend to the previous suburb analysis, with a number of suburbs recording capital growth and others with negative returns in 2018. Four suburbs in the study have significant capital returns in 2018 based on median house prices ranging from 12.79% for Graceville to 7.26% for Bardon. Again, these suburbs had negative or very low capital returns in 2017, replicating the results for other suburbs in the 2018 analysis, where high returns in 2018 offset poorer performance in 2017.

The suburb recording the most significant median house price negative returns in 2018 was Chapel Hill (-12.45%), with Chelmer, Jindalee, Sherwood, and The Gap all recording negative 2018 returns from -0.17% to -1.50% (Refer to Table 9).

Table 9 also shows that only the outer ring suburb of Jindalee had average annual capital returns over the 31 years less than the Brisbane median house price average of 6.79%. Kenmore returns from 1988-2018 match the Brisbane median house price of 6.79%. All other western Brisbane suburbs in the study have shown average annual capital returns greater than the Brisbane average.

When the investment performance is carried out based on average house prices, Table 10 shows that six (Ashgrove, Chapel Hill, Graceville, Jindalee, Kenmore, and Toowong) of the 10 suburbs have a higher capital return 2018 compared to their performance based on median house prices. Chapel Hill and Sherwood recorded the highest negative returns of -5.54% and -3.91% respectively. Based on average house prices, Graceville and Toowong had the highest average house price capital growth in 2018 (12.42% and 23.30% respectively).

Table 9: Western Brisbane Suburbs: Median Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%)1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Ashgrove	1.60	8.17	9.19	1.13
Bardon	7.26	8.37	10.55	1.26
Chapel Hill	-12.45	7.30	12.11	1.66
Chelmer	-1.50	9.18	16.81	1.83
Graceville	12.79	8.86	10.76	1.21
Jindalee	-0.53	6.94	16.01	2.31
Kenmore	8.76	6.79	9.21	1.36
Sherwood	-0.57	8.37	9.56	1.14
The Gap	-0.15	7.21	10.36	1.44
Toowong	7.80	7.92	12.26	1.55
Greater Brisbane	2.34	6.79	7.92	1.17

Table 10: Western Brisbane Suburbs: Average Price 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%)1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Ashgrove	4.55	8.14	9.59	1.18
Bardon	6.35	8.55	10.34	1.21
Chapel Hill	-5.54	7.50	10.88	1.45
Chelmer	7.42	8.27	14.10	1.70
Graceville	12.42	9.15	11.65	1.27
Jindalee	-3.62	5.82	9.17	1.58
Kenmore	8.97	6.92	10.65	1.54
Sherwood	-3.91	7.62	9.65	1.27
The Gap	-0.53	7.47	11.01	1.47
Toowong	23.30	9.74	21.90	2.25

The risk return performance of these suburbs is in line with the other 43 suburbs in the analysis.

9. Individual Suburb Performance: Inner-City Units

The inner-city unit market in Brisbane has been in oversupply for the past four years. Again in 2018, most inner suburbs with high unit percentages have suffered a negative return. In 2018 three inner-city suburbs recorded a positive capital return, with the highest capital return being Woolloongabba at 8.69%, compared to a negative return of -7.42% in 2017.

Table 11: Inner-City Suburbs: Median Unit Price Analysis 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%) 1988-2018	Average Annual Volatility (%)	Risk Return Ratio
East Brisbane	-7.08	5.88	12.27	2.09
Highgate Hill	-1.47	5.76	12.95	2.25
Kangaroo Point	0.97	5.86	15.83	2.70
Teneriffe	-5.08	7.75	9.64	1.24
Toowong	5.87	6.06	11.15	1.84
Woolloongabba	8.69	8.30	26.51	3.19

East Brisbane, Highgate Hill and Teneriffe still continue to record negative price growth in 2018, following similar trends in 2017 and 2016. This has also seen the long-term investment performance for units in these suburbs decrease over the past three years. Over the past two years the average annual capital return (1988-2018) for units in East Brisbane has decreased from 6.32% to 5.88%,

Highgate Hill 6.01% to 5.76% and Teneriffe 8.20% to 7.75%. Although Kangaroo Point and Woolloongabba recorded a capital gain in 2018, long-term investment performance also decreased in these suburbs (refer to table 11). The performance of the inner-city unit market has been influenced by an oversupply over this period.

10. Summary

When the capital returns for a range of suburbs are analysed on a single year basis, there is always greater variation in the annual returns. This has again been the case with the change in price and the capital return from 2017 to 2018. The results for the 2018 year show a range in capital returns with more variation in 2018 compared to 2017.

In 2018 the inner-city suburbs and those closer to the CBD generally showed reductions in both median and average house prices. However, these higher value Brisbane suburbs are still showing longer term investment performance well above the returns for the middle and outer ring suburbs of Brisbane. The 2018 trends in the higher value suburbs follow similar low or negative returns in 2017.

In 2018, the better performing suburbs based on median and average house prices were Dutton Park, Norman Park, Gordon Park, Nudgee Beach, Graceville, Kenmore and Toowong. The poorer performing suburbs in 2018 were Seven Hills (-10.62%), Morningside (-10.19%), Virginia (-6.00%), Woolloowin (-5.68%), and Rocklea (-4.13%). All of these low performing suburbs in 2018 recorded some of the most significant positive returns in 2017. Several of the study suburbs that recorded significant positive returns

in 2018 showed negative returns in 2017 (Dutton Park, Norman Park, Graceville and Kenmore). This suggests that these particular 2018 results reflect a market correction rather than a trend. The better and poorer performing suburbs in 2018 include a range of suburbs across varying socio-economic status and levels of exposure to current and future flight paths.

Analysis over the 31-year study period (1988-2018) shows that the highest price growth has occurred in the suburbs located close to the Brisbane CBD, with investment returns lower as the distance from the CBD increases. Inner-city suburbs located under the current flight paths are still recording average annual capital returns between 8 and 10%. This is well above the Brisbane median house price average annual return of 6.79%.

The most prominent value driver in 2018 appears to be location in the fringe CBD in suburbs such as Norman Park, Bardon and Toowong. The outer Brisbane suburbs that recorded high capital gains in 2017, did not show the same level of returns in 2018. It would appear that external factors such as housing and unit supply, availability of finance and affordability are the main value drivers for the 2018 Brisbane housing markets.

Appendices



Appendix 1: Alphabetical Suburb Listing: Median House Price Capital Returns (%): 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%) 1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Albion	1.32	9.65	19.52	2.02
Annerley	-1.52	7.84	9.90	1.26
Ascot	4.33	9.19	15.60	1.70
Ashgrove	1.60	8.17	9.19	1.13
Balmoral	1.16	9.30	12.60	1.35
Bardon	7.26	8.37	10.55	1.26
Belmont	1.03	8.60	23.70	2.73
Bulimba	1.94	11.80	19.63	1.66
Camp Hill	-4.83	9.02	13.19	1.45
Cannon Hill	-6.50	8.80	11.50	1.31
Carindale	0.93	6.63	11.45	1.73
Chapel Hill	-12.45	7.30	12.11	1.66
Chelmer	-1.50	9.18	16.81	1.83
Chermside West	1.91	6.12	10.48	1.80
Clayfield	4.75	8.51	12.19	1.43
Coorparoo	-4.16	8.65	12.75	1.47
Dutton Park	19.33	9.31	13.06	1.40
East Brisbane	2.17	9.22	14.06	1.52
Fairfield	0.86	8.28	11.03	1.33
Forest Lake	4.42	4.56	12.97	2.84
Gordon Park	7.59	8.96	10.31	1.15
Graceville	12.79	8.86	10.76	1.21
Hamilton	0.00	10.37	21.57	2.08
Hawthorne	-4.17	9.95	10.86	1.09
Highgate Hill	-0.97	8.43	12.98	1.47
Holland Park West	-0.86	7.73	10.14	1.31
Jindalee	-0.53	6.94	16.01	2.31
Kangaroo Point	-17.45	10.26	24.58	2.40
Kenmore	8.76	6.79	9.21	1.36
Mansfield	0.00	7.04	9.42	1.34
Mitchelton	2.66	8.04	9.47	1.18
Moorooka	0.16	7.77	9.37	1.21
Morningside	-10.19	8.75	10.95	1.25
Mt Gravatt East	-0.76	7.73	9.18	1.19
Murrarie	0.00	8.46	11.56	1.37
New Farm	-1.94	11.28	14.09	1.30
Norman Park	12.75	9.18	10.10	1.10
Northgate	-0.57	8.57	11.94	1.39
Nudgee Beach	16.67	15.99	45.52	2.60
Pinkenba	-1.37	9.58	26.04	2.72
Rocklea	-4.13	7.89	14.06	1.78
Seven Hills	-10.62	8.92	13.62	1.53
Sherwood	-0.57	8.37	9.56	1.14
Stafford	0.00	7.83	10.62	1.36
Tarragindi	1.03	8.31	9.77	1.17
Teneriffe	-28.07	13.49	26.09	1.93
The Gap	-0.15	7.21	10.36	1.44
Tingalpa	5.66	7.27	11.16	1.54
Toowong	7.80	7.92	12.26	1.55
Virginia	-6.00	8.05	11.26	1.40
Woolloongabba	-7.68	8.84	12.66	1.43
Woollowin	-5.68	8.61	14.46	1.68
Wynnum	1.56	8.26	11.45	1.39
Greater Brisbane	2.34	6.79	7.92	1.17

Appendix 2: Alphabetical Suburb Listing: Average House Price Capital Returns (%): 1988-2018

Suburb	2018 Capital Return (%)	Average Annual Capital Return (%) 1988-2018	Average Annual Volatility (%)	Risk Return Ratio
Albion	-0.36	9.39	17.59	1.87
Annerley	2.51	8.28	12.16	1.47
Ascot	-11.62	8.16	12.87	1.58
Ashgrove	4.55	8.14	9.59	1.18
Balmoral	-6.69	9.28	12.12	1.31
Bardon	6.35	8.55	10.34	1.21
Belmont	-0.78	7.21	13.19	1.83
Bulimba	-2.92	10.96	18.31	1.67
Camp Hill	-2.82	8.95	12.46	1.39
Cannon Hill	-16.99	9.16	13.50	1.47
Carindale	1.55	6.91	11.71	1.70
Chapel Hill	-5.54	7.50	10.88	1.45
Chelmer	7.42	8.27	14.10	1.70
Chermside West	1.17	6.16	10.36	1.68
Clayfield	0.40	8.04	12.75	1.59
Coorparoo	-8.80	9.13	13.99	1.53
Dutton Park	20.17	10.22	22.12	2.16
East Brisbane	-3.36	10.25	17.93	1.75
Fairfield	-13.29	7.02	14.17	1.79
Forest Lake	4.21	4.59	12.40	2.70
Gordon Park	6.45	8.91	9.29	1.04
Graceville	12.42	9.15	11.65	1.27
Hamilton	6.90	9.35	17.40	1.86
Hawthorne	-12.35	10.59	14.47	1.37
Highgate Hill	-1.39	8.86	16.92	1.91
Holland Park West	-2.71	7.60	10.16	1.34
Jindalee	-3.62	5.82	9.17	1.58
Kangaroo Point	-24.31	11.94	39.45	3.30
Kenmore	8.97	6.92	10.65	1.54
Mansfield	1.19	7.34	11.30	1.54
Mitchelton	2.53	8.36	10.92	1.30
Moorooka	0.00	7.81	10.75	1.38
Morningside	-8.16	8.87	11.14	1.26
Mt Gravatt East	-0.29	7.62	9.83	1.29
Murrarie	-4.89	8.87	13.78	1.55
New Farm	-4.95	11.54	14.79	1.28
Norman Park	11.72	9.73	14.03	1.44
Northgate	-8.10	8.47	12.34	1.41
Nudgee Beach	6.81	15.39	35.81	2.33
Pinkenba	-6.86	14.91	46.53	3.12
Rocklea	3.77	8.85	18.37	2.08
Seven Hills	-11.78	8.99	13.48	1.50
Sherwood	-3.91	7.62	9.65	1.27
Stafford	-0.77	8.03	11.00	1.37
Tarragindi	3.33	8.39	9.97	1.19
Teneriffe	-32.91	14.17	32.60	2.30
The Gap	-0.53	7.47	11.01	1.47
Tingalpa	-5.42	7.63	14.59	1.91
Toowong	23.30	9.74	21.90	2.25
Virginia	-7.58	7.94	10.91	1.37
Woolloongabba	-11.89	8.84	13.23	1.50
Woollowin	-8.15	8.36	13.22	1.58
Wynnum	1.01	8.18	11.56	1.41

