The Olympics and Residential Property Prices: A Comparative Analysis of Two Sydney Sub Regions

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Abstract

Prior research by the authors on the anticipated rate of growth in house prices flowing from the Olympics indicated a mixed response in the immediate region of Olympic development using ordinary least squares regression and comparison of growth rates for Sydney housing. The present research compares residential property price movements in Leichhardt and South Sydney in relation to the results of our previous research. Analysis takes place in the context of the ongoing residential, cultural, commercial and infrastructure redevelopment occurring in the two sub regions. The present research provides a further opportunity to look at the so-called Olympic effect in the broader context of rapid urban development and consolidation in Sydney.

Introduction

As it is in San Francisco, so it may soon be in Sydney. Proving the exception to the established theory that people live in the suburbs and work in the city, San Franciscans each night block the freeways of the bay city as they commute from their Silicon Valley workplaces back to their inner city homes. Similarly, Sydney, the harbour city, has become a living city and many Sydneysiders, enticed by the lifestyles offered by the revitalised city heart as mirrored in every good weekend and real estate section of the Sydney broadsheet, are opting to settle in the new medium density developments occurring close in to the city centre and to commute to the "silicon valley" of the north shore running from North Sydney to North Ryde.

This paper follows from an earlier study on the impact of the Olympics on the price of residential property in the Olympic Corridor (Bounds, Dwyer and Mallik 1999). That paper tested the commonly held assumption that residential property prices in the Olympic Corridor were appreciating on the back of Olympic promotion and the development of Olympic infrastructure. It concluded that price gains could not be attributed solely to the Olympic effect. The present paper extends the previous study by comparing residential property price appreciation in Leichhardt, a sub region of the Olympic Corridor, with that in South Sydney, an area of similar age and industrial history which appears to be attracting a similar form of medium density development and demographic. The paper contrasts price appreciation in these two sub regions with price appreciation in the Olympic Corridor and in the Sydney Statistical Division. The paper finds that the approaching Olympics do appear to be having a positive influence on Sydney residential property prices. However, it suggests that, since movements in property prices are demonstrably not uniform across Sydney, factors such as gentrification and the redevelopment of brown field sites (as evidenced in Leichhardt and South Sydney) are more likely to be exerting greater influence on Sydney's residential property prices than Olympic hype.

The Olympic Corridor, Leichhardt and South Sydney

The Olympic Corridor lies to the immediate west of Sydney's Central Business District (CBD) and encloses the space between the two main venues designated to accommodate the bulk of Olympic events and tourist activity; viz, Darling Harbour, a harbour side location abutting Sydney's CBD to the west and the Olympic Village/stadium complex at Homebush Bay, ten kilometres west of the CBD. The Olympic Corridor covers seven local government areas (LGAs), viz Ashfield, Auburn, Burwood, Concord, Drummoyne, Leichhardt and Strathfield. While it is the westernmost part of the Olympic Corridor that contains the marshalling yards and other heavy industry land now being converted into Olympic complexes, it is the light industrial inner-west, especially Leichhardt, that most approximates the social and economic history of South Sydney. South Sydney, for its part, is a single LGA that lies to the immediate south and east of Sydney's CBD.

The transformation of Sydney into a global service oriented city has reduced much of the need for secondary industry to be located in the central industrial area of Sydney. As a consequence, South Sydney, Leichhardt and much of the Olympic Corridor in general exist presently as zones in transition. They have experienced falling levels of employment and increasing numbers of abandoned industrial sites as industry has moved outwards to cheaper land on the periphery of the city.

Within Leichhardt and South Sydney, old factories are being converted into medium density and high density residential apartments and old wharfs are being turned into tourist venues and shopping precincts. The former working class neighbourhoods are being slowly supplanted by younger professional enclaves. There is an increasing popularity with this particular style of apartment market, which is fuelled by sales off the plan to overseas investors and aging baby boomers looking for investment or retirement properties. The effective demand for investment property in Sydney by the 45-49 year demographic is enormous and is spurred on by high levels of home ownership and vast increases in property values and equity over the past two decades. Redevelopment and gentrification has been occurring in Leichhardt and South Sydney for some years now and it is apparent that these dual processes are replacing marginal populations and the welfare facilities that once catered to the aged, the homeless, and the disabled (Bounds and Searle 1996).

Leichhardt is the LGA of the Olympic Corridor that is most proximate to Sydney's CBD. With suburbs running down to the harbour foreshore, large areas of 19th century terrace housing and close proximity to Australia's oldest and most prestigious University, Leichhardt municipality was one of the first of Sydney's inner city areas to begin the process of gentrification in the late 1960s. Terrace houses in the run down municipal suburbs of Glebe, Annandale, Balmain and Leichhardt were bought by the new middle classes and the post war immigrant population of the areas were gradually displaced and pushed to the outer suburbs of Sydney. By the 1970s, the process of gentrification was thriving in the Leichhardt municipality (Wild 1981) and in the 1980s it became one of the first areas to be subject to the second wave gentrification of the apartment boom which has swept Sydney in the 1990s. Industrial waterfronts in Balmain and old factories in Annandale have been converted to high priced apartments and the main street of the traditional Italian suburb of Leichhardt buzzes with coffee shops and ice cream parlours. Today, the centre of Leichhardt features a genuine Italian piazza surrounded by fountains and restaurants only 10 minutes form the city centre. Adjacent to Leichhardt, the harbourside suburb of Pyrmont/Ultimo contains former docks transformed into the place of the spectacle, Darling Harbour, a recreation of Baltimore Harbourside in the US.

Multi unit development has proceeded unabated for the past decade within the sub regions (as it has in the CBD and other areas of Sydney) in spite of predictions that new dwelling construction is well above estimated long term housing requirements. The state government has noted that the relative percentage of multi unit dwellings in Sydney has moved upwards since the 1980s reaching 52% of all dwellings in 1994-5, the highest proportion since statistics have been available. The Department of Urban Affairs and Planning has predicted the proportion of multi unit dwellings will reach 65% by 2021 (NSW Department of Urban Affairs 1996).

State infrastructure development has been a major factor contributing to recent growth within South Sydney and the Olympic Corridor. As a rough guide to the level of state infrastructure investment, the projected infrastructure spending by the New South Wales State Government in 1998/9 in the Sydney West region was $1147m, including $489.2 million by the Olympic Coordination Authority (OCA). Approximately 16% of the total ($172.7m) was earmarked for transport, roads and rail. By comparison, the Sydney East region, which includes South Sydney, had a total projected spending of $1207m, 45% ($498.3m) of which was for transport, roads and rail (Urban Infrastructure Management Plan 1998, pp17-24).

While much of the OCA infrastructure investment in the Olympic Corridor has been aimed at fashioning Homebush Bay into Australia's premier sporting complex, in South Sydney it has been directed to enhancing the area's strategic advantage for public transport, commercial development and automobile access. It may well be the case that the strategic advantages of South Sydney for commercial and residential location may encourage cross-city commuting. Despite master plans that encourage local concentration, residential supply, transport connections, and time lags on urban centre development may turn South Sydney into a commuter region. Again, unlike the Olympic Corridor, continuing economic restructuring and the buoyant economy have also increased demand for niche industry land in the South Sydney area as supply continues to decline with the development of multi unit residential dwellings (Cummins 1999). The garment industry in particular, is relocating from the CBD into South Sydney.

The largest of the South Sydney developments are at Green Square, on industrial sites at Alexandria and Zetland and across the desirable areas released by the redevelopment of industries abutting Moore Park and South Dowling Street. These areas do not quite yet offer all the virtues of lifestyle associated with Leichhardt, as they lack the cinemas and coffee circuits, the strip shopping centres and the restaurant rows. They should quickly acquire these lifestyle accoutrements, however.
The development of the Airport Rail Link, the Eastern Distributor and the M5 Motorway puts South Sydney (Green Square) at the nodal point of the private and public transport infrastructure of Sydney. With the completion of these links, residents will be in an ideal position to access the outer south-west, the outer-west and the upper north shore of Sydney by car or public transport with ease.

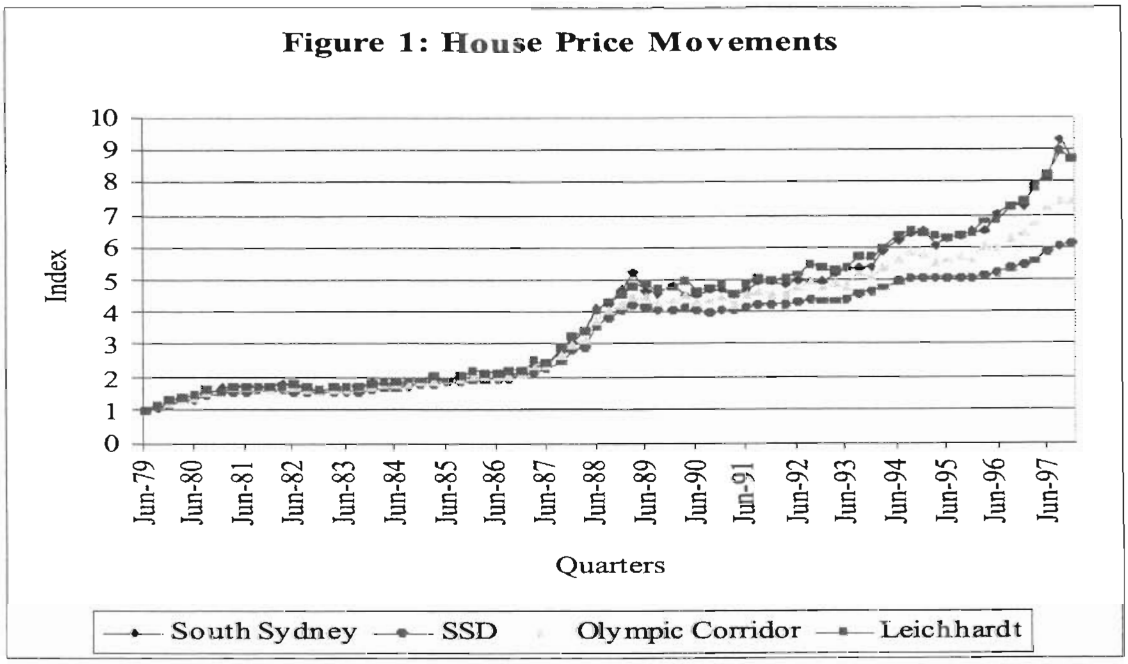
All of these factors are contributing to a rapid process of redevelopment in South Sydney largely driven by state government infrastructure investment and the interests of several large landholders in the area. South Sydney has not been blessed with large-scale investment in revitalisation from the Federal Government's "Better Cities" program, as has Pyrmont/Ultimo, nor does it have the funds of Olympic revenues to support its rehabilitation. It is reliant on its natural advantages maximising the opportunities of infrastructure, location and commercial and residential development to realise residential growth.

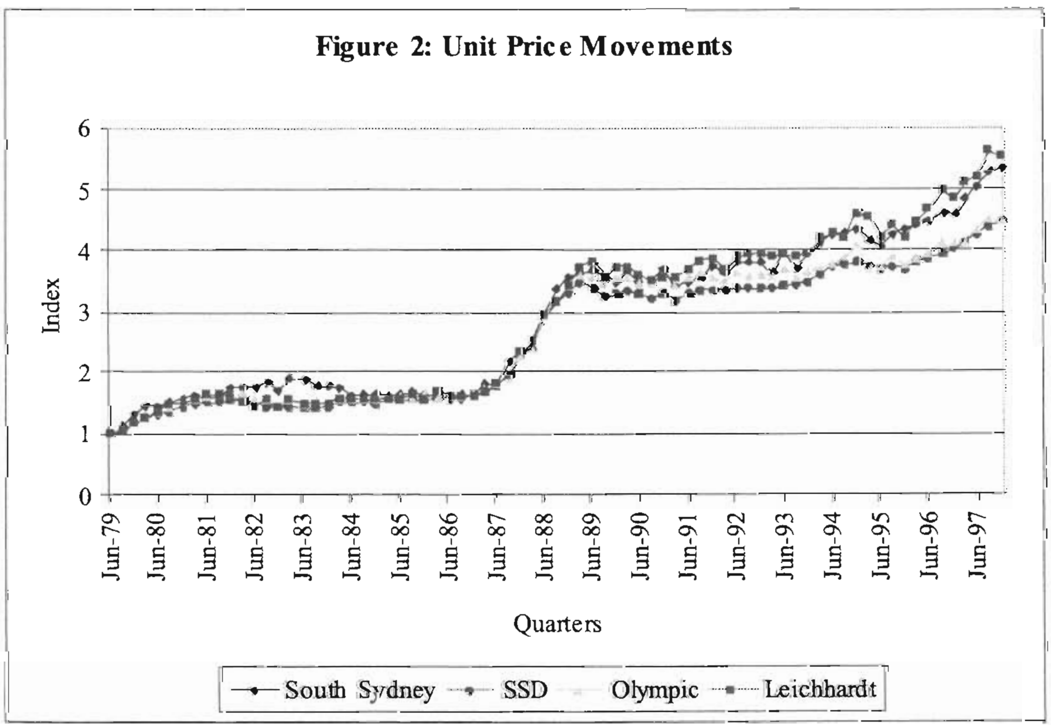
METHODOLOGY

In its comparison of Leichhardt and South Sydney with the Olympic Corridor and the Sydney Statistical Division, this paper undertakes both visual and statistical analysis. Visual analysis presents a broad picture of the movements in house and unit prices over the past two decades. Statistical analysis allows testing of the Olympic announcement for its specific effect on the price of houses and units in each sub region.

Visual analysis

Figures 1 and 2 record the movements in the Residex Capital Growth Index in houses and units over the past two decades for each of Leichhardt LGA, South Sydney LGA, the Olympic Corridor and the Sydney Statistical Division (SSD). The Residex Capital Growth Index is a commercially available quarterly database, based on repeat sales. It is formed by calculating the individual rate of capital growth for each house or unit and then, for whatever geographical area is required, averaging the individual rates via a simple linear regression to attain a growth rate index for the chosen area.





The SSD, which encompasses the total geographical area of Sydney (some 4 LGAs). In essence represents the Sydney average and is included for comparative purposes. The movements are taken over 74 successive quarters between June 1979 and December 1997. Taken together, Figures 1 & 2 record the slow and steady, if unspectacular, rise in the average price of Sydney's houses and units between 1979 and 1997 (as shown by movements in the SSD index); their rapid rise and correction over 1988-89; and their steady rise since then. The two figures also demonstrate that house prices have performed better than unit prices.

Figures 1 and 2 show that Leichhardt and South Sydney have easily outperformed both the Olympic Corridor average and the SSD in nominal house and unit price growth. Figure 1 shows that, for the period, South Sydney house prices have risen 772% (1.00 to 8.72) while those of Leichhardt have risen 769% (1.00 to 8.69). This compares well with the Olympic Corridor average of 636% (1.00 to 736) and the Sydney average of 510% (1.00 to 610). Figure 2 shows that, for units, Leichhardt at 451% (1.00 to 5.51) performed slightly better than South Sydney at 433% (1.00 to 5.33). The comparable increase for both the Olympic Corridor and Sydney was 343% (1.00 to 4.43).

Statistical analysis

Only limited conclusions can be drawn from the visual analysis. Clearly, house and unit prices in both South Sydney and Leichhardt are moving faster than the Olympic Corridor average and the Sydney average. However, no clear Olympic effect can be seen. The divergence in the indices appears to have begun from 1989, well before the announcement of the Olympics in September 1993.

Table 1: OLS regression statistics for the Post 1989 period (June 1989 to Dec 1997)

	constant	t	D_2 Sept 1993 shift	D_2t Sept 1993 slope
Houses				
lnLeichhardt	1.171*	0.009*	0.023*	0.015*
lnSouth Sydney	1.185*	0.008*	0.018*	0.019*
lnOlympicCorridor	1.137*	0.008*	0.019*	0.012*
lnSSD	1.186*	0.005*	0.032*	0.009*
Units				
lnLeichhardt	1.063*	0.005	-0.017*	0.013*
lnSouth Sydney	1.051*	0.005*	-0.002*	0.012*
lnOlympicCorridor	1.155*	0.002***	-0.015*	0.008*
lnSSD	1.089*	0.002***	0.013*	0.010*

* t-statistic significant at 1%

*** t-statistic significant at 10%

$$\ln X = \alpha + \beta_1 t + \beta_3 D_2 + \beta_4 D_2 t + \varepsilon_t$$

To test whether or not the announcement of the Olympics has had a statistically significant effect on house and unit prices, two forms of statistical analysis were undertaken: ordinary least squares (OLS) regression analysis and a comparison of growth rates. Given the structural break in prices that occurred in the Sydney property market over 1988-89, only the post 1989 period data have been tested in this paper (c/f Bounds, Dwyer and Mallik 1999). Ostensibly, the structural break was due to the October 1987 stock market crash and the consequent easing of monetary policy and redirection of investment portfolios into the Sydney property market.

The results of OLS regression (see Table 1) indicate that house and unit prices have shifted following the Olympic announcement of 1993. The coefficients for the shift and the slope variables marking the September 1993 announcement of the Olympics are significant at 1%, indicating that from the third quarter of 1993, house and unit prices have shifted upwards and have been subjected to a more pronounced and sustained upward movement.

To test more closely for any Olympic effect, the post stock market crash period was divided into two sub periods: the pre Olympics announcement sub period (June 1989 to June 1993 - the time frame between the end of the structural break at June 1989 and the September 1993 Olympics announcement); and the post Olympics announcement sub period (September 1993 to December 1997 -

the time frame subject to potential Olympic speculation). This allowed for the comparison of growth rates between the periods. The growth rates were found by regressing the relevant house price index on time. Since time is the only variable, growth rates paint a broad picture of house price movements over a given time frame (Gujarati 1995)
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Table 2: Growth rates for the post 1989 period

	Growth rate (%) per quarter	
	Pre Olympic Announcement period (June '89 to June '93) (n = 17 quarters)	**Post Olympic announcement period (Sept '93 to Dec '97)** (n = 18 quarters)
Houses		
Leichhardt	0.89*	2.39*
South Sydney	0.79*	2.74*
Olympic Corridor	0.78*	2.02*
Sydney Statistical Division (SSD)	0.55*	1.47*
Units		
Leichhardt	0.53*	1.85*
South Sydney	0.49*	1.69*
Olympic Corridor (OC)	0.22**	1.11*
Sydney Statistical Division (SSD)	0.22**	1.25*

* the t statistic is significant at 1%
** the t statistic is significant at 5%

$\ln X = \alpha + \beta_1 t + \varepsilon_t$

where:

$\ln X$ = the log of the appropriate house or unit price index (South Sydney, Olympic Corridor, Leichhardt and the SSD)

t = time

ε_t = error term

Table 2 records the statistics associated with the growth rates. The figures suggest that the appreciation in prices is not exclusively Olympics driven. Within each sub period, for both houses and units, Leichhardt and South Sydney have experienced faster price appreciation than either the Olympic Corridor or the SSD. The figures for growth rates in house prices for the pre Olympic announcement period and for the post Olympic announcement period are, respectively: Leichhardt 0.89% and 2.39%, South Sydney 0.79% and 2.74%, Olympic Corridor 0.78% and 2.02% and the SSD 0.55% and 1.47%. For units, the respective growth rates are: Leichhardt 0.53% and 1.85%, South Sydney 0.49% and 1.69%, Olympic Corridor 0.22% and 1.11% and the SSD 0.22% and 1.25%. The figures suggest that it is more likely that the major influences driving prices throughout Sydney are local conditions rather than Olympic hype. In the case of Leichhardt and South Sydney, those local conditions are industrial restructuring and gentrification.

Conclusion

Research using ordinary least squares regression and growth rates suggests that the advent of the Olympics have had a positive influence on the price of Sydney residential property. However, the exact magnitude of this influence is difficult to quantify. Given the differential growth rates in Leichhardt and South Sydney when compared to the Olympic Corridor and the Sydney Statistical Division, it is suggested that local conditions, especially the ongoing process of redevelopment and gentrification, are more likely to be driving prices in the Sydney property market rather than Olympic hype.

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