The Olympics And Regional Movements In The Price of Residential Property: A Comparative Analysis Of Two Rapid Growth Regions In Sydney

by

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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. This research looks at the process of rapid inner urban development in Sydney and compares price growth rates in South Sydney in relation to the results of our previous research. South Sydney development is reviewed in the context of the residential, cultural, commercial and infrastructural development in the region. This research provides a further opportunity to look at the so-called Olympic effect in the broader context of rapid urban development, globalization and consolidation in the city.

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 sections 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 on 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). In that paper we 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. We concluded that gains could not be attributed solely to the Olympic effect. In this paper we compare property appreciation in the Olympic Corridor with that in the South Sydney, an area of similar age and industrial history which appears to be attracting a similar form of medium density development
and demographic. Here we argue that it is not simply the Olympics but the general gentrification and redevelopment of brown field sites together with global economic restructuring that is driving a new residential character and composition in both areas.

The Olympic Corridor 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. By contrast, South Sydney is a single LGA that lies to the immediate south and east of the 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, both the Olympic Corridor and South Sydney exist presently as zones in transition. Both 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.

The Olympic Corridor and South Sydney, of course, are not identical in all respects. The Olympic Corridor may be thought of as two sub regions: the inner-west and the outer-west.
While the outer-west 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.

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 to aging baby boomers looking for investment or retirement properties. The effective demand for investment property 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 there is, as yet, no tangible sign that it is being propelled by the Olympics. 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).

Multi unit development has proceeded unabated for the past decade within the Olympic Corridor and South Sydney (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 have move 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
A 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 both regions. 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 $1147 m, 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 infrastructural 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, the 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 the inner west, especially Leichhardt, as they lack the cinemas and coffee circuits, the strip shopping centres and the restaurant rows. They will quickly acquire these lifestyle accoutrements, however, and what they will then have beyond the inner west will be jobs and transport.

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 revitalization from the Federal Government’s Better Cities@ program, as has Pyrmont/Ultimo, a fringe area of the CBD, nor does it have the funds of Olympic revenues to support its rehabilitation. It is reliant on its natural advantages maximizing the opportunities of infrastructure location and commercial and residential development to realise residential growth.
METHODOLOGY

In comparing South Sydney with the Olympic Corridor, we undertook both visual and statistical analysis. Visual analysis presented us with a broad picture of the movements in house and unit prices over the past two decades. Statistical analysis allowed us to test for the specific effect of the Olympic announcement on the price of houses and units in each region.

Visual analysis

Figures 1 and 2 record the movements in the Residex Capital Growth Index in houses and units for South Sydney and the Olympic Corridor, as well as for Leichhardt and the Sydney Statistical Division (SSD) over the past two decades. 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. An index for Leichhardt has been included in the analysis since it represents that part of the Olympic Corridor that most approximates the socio-economic history of South Sydney. The SSD, which encompasses the total geographical area of Sydney (some 43 LGAs), in essence represents the Sydney average and is included for comparative purposes. The movements are taken over seventy-four successive quarters between June 1979 and December 1997.

Figures 1 and 2 show that South Sydney and Leichhardt have easily outperformed both the
Olympic Corridor average and the SSD average 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 Leichhardt's 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).

Taken together, Figures 1 and 2 record: the slow and steady, if unspectacular, rise in Sydney's house and unit prices between 1979 and 1987; their rapid rise and correction over 1988-89; and their steady though divergent rise since then. They also demonstrate that house prices have performed better than unit prices.
Statistical analysis

We can draw only limited conclusions from the visual analysis. It shows clearly that house and unit prices in both South Sydney and Leichhardt (that part of the Olympic Corridor closest into the CDB) are moving faster than the Olympic Corridor average and the Sydney average. But it does not show clearly any Olympic effect on house or unit prices. The divergence in the indexes appears to have begun from 1989, well before the announcement of the Olympics in September 1993.
To test whether or not the Olympics announcement has had a statistically significant effect on house and unit prices, we undertook two forms of statistical analysis: ordinary least squares (OLS) regression analysis and a comparison of growth rates. Because of the structural break in prices over 1988-89 (determined in our previous paper), we only tested the post 1989 period data for this paper. Presumably, the structural break is due to the October 1987 stock market crash with the consequent easing of monetary policy and redirection of investment portfolios into the Sydney property market (Bounds, Dwyer and Mallik 1999).

The results of OLS regression (see Table 1) indicate that house and unit prices in South Sydney (as in the Olympic Corridor, Leichhardt and the SSD) have shifted following the Olympic announcement of 1993. The coefficients for both the shift and the slope variables are significant, 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. We believe, however, that this cannot be attributed solely or predominantly to an Olympic effect. The degree of the movement in South Sydney, distant as it is from Olympic facilities and Olympic related investment, indicates that this shift is a product of other factors, predominantly those characteristics shared in common by the region. These are brownfield renewal, medium density development and gentrification.
Table 1: OLS regression statistics for the Post 1989 period (June 1989 to Dec 1997)

<table>
<thead>
<tr>
<th></th>
<th>constant</th>
<th>t</th>
<th>D&lt;sub&gt;2&lt;/sub&gt; Sept 1993 shift</th>
<th>D&lt;sub&gt;2&lt;/sub&gt; t Sept 1993 slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lnSouth Sydney</td>
<td>1.185*</td>
<td>0.008*</td>
<td>0.018</td>
<td>0.019*</td>
</tr>
<tr>
<td>lnOlympicCorridor</td>
<td>1.137*</td>
<td>0.008*</td>
<td>0.019</td>
<td>0.012*</td>
</tr>
<tr>
<td>lnLeichhardt</td>
<td>1.171*</td>
<td>0.009*</td>
<td>0.023</td>
<td>0.015*</td>
</tr>
<tr>
<td>lnSSD</td>
<td>1.186*</td>
<td>0.005*</td>
<td>0.032</td>
<td>0.009*</td>
</tr>
<tr>
<td>Units</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lnSouth Sydney</td>
<td>1.051*</td>
<td>0.005*</td>
<td>-0.002</td>
<td>0.012*</td>
</tr>
<tr>
<td>lnOlympicCorridor</td>
<td>1.155*</td>
<td>0.002***</td>
<td>-0.015</td>
<td>0.008*</td>
</tr>
<tr>
<td>lnLeichhardt</td>
<td>1.063*</td>
<td>0.005</td>
<td>-0.017</td>
<td>0.013*</td>
</tr>
<tr>
<td>lnSSD</td>
<td>1.089*</td>
<td>0.002***</td>
<td>0.013</td>
<td>0.010*</td>
</tr>
</tbody>
</table>

* t-statistic significant at 1%
*** t-statistic significant at 10%

\[ \ln X = \alpha + \beta_1 t + \beta_2 D_2 + \beta_3 D_2 t + \epsilon_t \]

To test better for any Olympic effect, we divided the post stock market crash period into two subperiods: the pre Olympics announcement subperiod (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 subperiod (September 1993 to December 1997 - the time frame subject to potential Olympic speculation). This allowed us to compare growth rates between the periods. The growth rates are 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).

Table 2 records the statistics associated with the growth rates. The figures reinforce our
observations that the movements in price are not exclusively Olympics driven. Within each subperiod, for both houses and units, Leichhardt and South Sydney have experienced faster price growth 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 the major effects driving prices throughout Sydney are local conditions rather than Olympic hype. House and unit prices are appreciating relatively faster in Leichhardt and South Sydney because of the industrial restructuring and gentrification taking place.

Table 2: Growth rates for the post 1989 period
### Growth rate (%) per quarter

<table>
<thead>
<tr>
<th></th>
<th>Pre Olympic announcement period</th>
<th>Post Olympic announcement period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(June &gt;89 to June &gt;93)</td>
<td>(Sept &gt;93 to Dec &gt;97)</td>
</tr>
<tr>
<td></td>
<td>(n = 17 quarters)</td>
<td>(n = 18 quarters)</td>
</tr>
<tr>
<td><strong>Houses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Sydney</td>
<td>0.79*</td>
<td>2.74*</td>
</tr>
<tr>
<td>Olympic Corridor</td>
<td>0.78*</td>
<td>2.02*</td>
</tr>
<tr>
<td>Leichhardt</td>
<td>0.89*</td>
<td>2.39*</td>
</tr>
<tr>
<td>Sydney Statistical Division (SSD)</td>
<td>0.55*</td>
<td>1.47*</td>
</tr>
<tr>
<td><strong>Units</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Sydney</td>
<td>0.49*</td>
<td>1.69*</td>
</tr>
<tr>
<td>Olympic Corridor (OC)</td>
<td>0.22**</td>
<td>1.11*</td>
</tr>
<tr>
<td>Leichhardt</td>
<td>0.53*</td>
<td>1.85*</td>
</tr>
<tr>
<td>Sydney Statistical Division (SSD)</td>
<td>0.22**</td>
<td>1.25*</td>
</tr>
</tbody>
</table>

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

\[
\ln X = \alpha + \beta_1 t + \varepsilon_t
\]

where:
\[
\ln X = \text{the log of the appropriate house or unit price index (South Sydney, Olympic Corridor, Leichhardt and the SSD)}
\]
\[
t = \text{time}
\]
\[
\varepsilon_t = \text{error term}
\]

### Conclusion

Research using ordinary least squares regression and growth rates suggests that the upcoming Sydney Olympics have been influencing local residential property prices. But, as evidenced by the findings, the major influence is the ongoing process of redevelopment and gentrification. Our comparison of South Sydney with the Olympic Corridor demonstrates that residential desirability and the relation between industrial restructuring and residential development in inner urban areas are the major engines of price appreciation in residential property. A more detailed analysis would reveal the particular cultural and environmental characteristics which advantage South Sydney and
Leichhardt over other areas. Evidently the significant infrastructural investment in South Sydney is a significant factor. For now, our research supports the contention that the Olympic effect is of limited significance in property values.

References


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