

WHY HAS MELBOURNE CLOSED THE GAP ON SYDNEY SINCE 2000?

Glen Searle¹ and Kevin O'Connor²

¹School of Geography, Planning and Environmental Management, University of Queensland

²Faculty of Architecture, Building and Planning, University of Melbourne

Abstract: Since 2000 Melbourne has grown faster than Sydney in population and employment. This is despite Sydney's advantages in 2000 in having greater prominence as a global city, with stronger finance and advanced producer services sectors, and high visibility from hosting the Olympic Games. The paper examines a number of hypotheses as to why Melbourne grew more despite such initial Sydney advantages. Depressed global conditions for Sydney's global sectors, especially finance and tourism, are the basis of an initial hypothesis. Higher housing and land costs in Sydney are also hypothesised to have reduced housing construction and land-intensive activities such as manufacturing and logistics, and reduced growth in immigration, tourism and international student intakes, relative to Melbourne. Sub-hypotheses as to why there were higher housing and land costs in Sydney are examined, together with the notion of a possible Melbourne housing 'bubble'. Lower state spending on tourism and inward investment in Sydney, coupled with less effective state development administration and complacency, are also incorporated into hypotheses. Differences between the cities in transport performance are additionally considered as a causative factor. Finally, the potential influence of a mooted more complex planning system in Sydney is examined. The paper uses ABS 4-digit employment data and housing price data, airline traffic trends, Productivity Commission reports and newspaper reports, inter alia, to test hypotheses.

INTRODUCTION

National urban systems evolve and change in response to external and local influences. This is apparent in the case of Melbourne and Sydney. Since 2000 Melbourne has grown faster than Sydney in population and employment. Between 2001 and 2011, Sydney's population grew by 10.8 per cent to 4.429 million, while Melbourne's grew by 17.6 per cent to 4.015 million. This is despite Sydney's advantages in 2000 in having greater prominence as a global city, with stronger finance and advanced producer services sectors, and high visibility from hosting the Olympic Games. Why the Sydney-Melbourne gap has closed is therefore an intriguing question. This paper examines a number of hypotheses as to why Melbourne grew more after 2000 despite such initial Sydney advantages.

Changes in inter-city growth trajectories have become a focus for academic research and for policy with the recognition of inter-city competition as the locus of the global neoliberal stage. This research has included the development of indicators of global status (Taylor et al 2002; Taylor et al 2010) and quality of life indicators (Rogerson, 1999). Such indicators have become central to city competitive benchmarking and economic development policy-making (Huggins, 2010). In particular, benchmarks of global city status have become important for policy legitimisation and framing for cities such as Sydney. The 2005 Sydney metropolitan strategy, for example, centred its economic development policies on Sydney's status as a global city as demonstrated by the work of Taylor's GaWC group. Nevertheless such measures are generally too coarse to provide detailed policy guidance for addressing competitive shortcomings. In particular, detailed comparisons of changes in industry structures are generally lacking. This paper is intended to contribute to a nuanced and more detailed understanding of how and why recent trends in inter-city competition between Sydney and Melbourne have happened.

The limitations of the paper in this regard need to be made clear. The paper's focus is on understanding why there were different growth rates in population and employment between the two cities after 2000, rather than an understanding that might be based on a more general notion of 'competition' and associated gaps. Furthermore, the paper is limited in the extent to which the causes of the relative changes can be explored, due to length limitations and to the lack of causal evidence on a number of aspects of the changes. Nevertheless the paper has attempted to identify causal factors where possible, notably in regard to housing and planning costs.

METHODOLOGY

The paper compares shares and percentage changes in Sydney and Melbourne across a range of data on population and economic activity, mainly sourced from ABS, to identify those changes that might help explain why Melbourne has grown more. The data used have been, firstly, employment at 4-digit level for all industries in Melbourne and Sydney Statistical Divisions from the ABS 2001 and 2011 Censuses of Population and Housing and, secondly, data specifically chosen to test a series of hypotheses about reasons for Melbourne’s faster growth.

The 4 digit industry employment data is used to test hypotheses where possible, and also to identify significant differences in industry changes between the two cities that seem to lie beyond explanation by the prior hypotheses. The ABS 4-digit industry descriptions changed for a large number of industries between 2001 and 2011. For such industries, industries from the year 2001 classification were subjectively matched with industries in the year 2011 classification on the basis of ABS aggregation or disaggregation of the industry between the two dates where resulting employment totals appeared logical, or on the basis of name changes where this seemed to match employment totals at the respective dates. Where such matching was not possible, the industries were excluded from the analysis. 4-digit industry employment changes in the two cities were analysed, except for industries with less than 1,000 employees in both cities in both years, agricultural and mining industries, and population-related consumer services with likely insignificant impacts from visitors/tourists such as supermarkets and general practitioners. Significant differences in changes between the two cities were identified by comparing individual industry changes with total employment changes between the two cities. For industries with over 10,000 employees in both cities in either year, industry changes were identified as significantly different if their change in one city was more than 4 per cent different than that in the other city. Greater differences were required to be considered significant for smaller industries: 8 per cent for industries with 5,000 – 9,999 employees; 12 per cent for industries with 2,000 – 4,999 employees, and 16 per cent for industries with 1,000 – 1,999 employees. The results effectively constitute a modified shift-share analysis.

In addition to this 4-digit employment data, the paper uses time series data on air transport, logistics, student enrolments, tourism, and housing costs to help to understand the employment changes. This other data is used without any need for preliminary sorting or filtering (unlike the 4-digit data), and requires no specific methodological discussion.

The analysis of reasons for Melbourne catching up to Sydney is carried out at two levels. The first level investigates changes in the global context. The second looks at the extent to which national-level factors have produced differences between the two cities.

THE GLOBAL CONTEXT

The global role of a city can change over time for a range of reasons. That change can mean one city can become more dominant, or maybe a second city exerts a stronger global role. One place to start is to explore the rankings of cities that have now been done at intervals over the past twenty years, led by the work of the GaWC group. An initial analysis used attributes (based on producer service location) of 55 cities, to create a four-class hierarchy, as outlined by Beaverstock et al (1999). This early view had Sydney as a second ranked global city, and Melbourne in third rank. In subsequent research the ranking methodology was changed to measure the relationships between producer service firms located in the cities, rather than simply their attributes. The first output of this new approach was produced for 2000 (Taylor et al, 2002). As indicated in Table 1, that 2000 classification routine had both Sydney and Melbourne as first ranked global cities. A recent version of that classification, using more cities and more firms, retains both cities in the first rank, only now they are separated by two sub-groups. Sydney has been recognised as an A+ top ranked city while Melbourne is in the A- class. In effect it seems the gap between the two cities has widened over this period; indeed, in a commentary on these results the analysts refer to the ‘the rapid elevation of Sydney’ (Taylor et al, 2010).

Table 1. A Comparison of Global City Rankings of Melbourne and Sydney, 2000 and 2010

Source of rank in GAWC analysis	Data base	Melbourne	Sydney	Difference in rank
GaWC (2009): <i>The World According to GaWC 2000</i>	316 cities 100 firms	First rank, third sub group (<i>Alpha -</i>)	First rank, second sub group (<i>Alpha</i>)	1 sub group
GaWC (2010):	525 cities	First rank, third	First rank, top sub	2 sub groups

<i>The World According to GAWC 2010</i>	175 firms	subgroup (<i>Alpha -</i>)	group (<i>Alpha +</i>)	
---	-----------	-----------------------------	--------------------------	--

However it is important to recognise that there are additional measures of the global role of a city beyond those captured by the (admittedly very important) business functions. O'Connor (2002) suggested that global linkages in tourism and tertiary education for example, along with the connections associated with trade may not necessarily reflect the global business links, and so create space for the lower ranked city in a nation. That idea is explored below by comparing the scale of activity of Melbourne to that of Sydney in a number of global activities.

International Air Transport

An important general measure of the global role of a city is the scale and diversity (i.e. destinations served) of its air service. In the Australian context, Sydney has long been the main focus of international air transport. In fact, in 1971 it accounted for 73 per cent of the inbound international passengers (Bureau of Transport and Communication Economics, 1994). That focus emerged as a critical explanatory factor in consideration in O'Connor and Edgington's (1991) comparisons of the commercial functions of the two cities in the 1980s. Hence any change in the relative importance of Melbourne in international air transport could play a part in shifting its global role relative to that of Sydney.

Data in Table 2 provide insight on that aspect. In 2000 Melbourne's international traffic was a little over a third of that at Sydney. By 2013 this was over a half.

Table 2 Melbourne's international air passengers as a share (per cent) of Sydney's, 2000 to 2012

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
36.9	40.3	41.4	40.3	40.0	44.4	43.5	44.0	44.8	48.2	51.3	55.0	55.1

Source: BITRE. Scheduled International Traffic by City Pairs, in *International Airline Activity*. Annual Publication. Accessed at http://www.bitre.gov.au/publications/ongoing/international_airline_activity-. February 2013-May 2013.

The significance of that shift is underscored by the analysis of the main city pairs in Australia's international air traffic. There has been a big shift in the role that Sydney plays in this group, from having six of the nation's busiest routes in 2000, to four in 2012. Melbourne retains two of the main links, and these are higher ranked in 2012. More significantly, its share of traffic on these major links has increased over the time period, while the share recorded at Sydney has fallen.

Table 3 The Top Ten Australian International Air Traffic City Pairs, 2000 and 2012.

Rank	City pair		2000	City pair		2012
1	Sydney	Auckland	936850	Sydney	Auckland	1 366 947
2	Sydney	Singapore	869802	Sydney	Singapore	1 271 410
3	Sydney	Los Angeles	810777	Melbourne	Singapore	1 064 277
4	Sydney	Hong Kong	668700	Perth	Singapore	1 013 007
5	Perth	Singapore	622886	Sydney	Hong Kong	943 037
6	Melbourne	Singapore	582318	Melbourne	Auckland	935 400
7	Brisbane	Auckland	463496	Sydney	Los Angeles	879 391
8	Melbourne	Auckland	435309	Perth	Denpasar	849 201
9	Sydney	Bangkok	419370	Brisbane	Auckland	836 145
10	Sydney	Tokyo	410337	Brisbane	Singapore	802 124
Significance of the top ten routes						

Sydney Share of top ten (%)	66		45
Melbourne Share of top ten (%)	16		20

It is important to acknowledge that Sydney remains the dominant international airport in the country, still with traffic levels that are almost double that of Melbourne. However, over a relatively short period of time that dominance has been reduced, first as the role of other cities has expanded, and second as Melbourne's role in this activity has expanded. It is possible that some of that gain has been associated with Melbourne's strong role as a location for international tertiary students, as analysed below.

International Freight and Logistics

International freight and logistics is a very important element in the operation of the global economy, yet is not a dimension that is commonly included in the analysis of global city activity. However it is a fundamental reflection of the way that global production networks shape the regional impacts of global trade, as explored by Coe et al (2009). A major container terminal and air freight facilities are central to the role that cities and regions can play in the global economy. Recent research on this role by O'Connor (2010) showed a close association between a city's global city rank and its global share of sea and air freight logistics activity. However, his results also identified some cities that were prominent in logistics activity though ranked well below the commonly cited global cities. So logistics can provide a city with an opportunity for an important global role even though it may not be highly ranked in global city analyses.

In Australia, that outcome can be seen in Melbourne's role as a container terminal. The data in Table 4 show the relative size of measures of this activity in Melbourne compared to Sydney.

Table 4 Ratio of Logistics and Transport Activity in Melbourne compared to Sydney, 2001 to 2012

Activity	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Sea freight: Number of TEUs moved (%)	134	141	137	135	139	134	129	127	121	116	118	127
Air freight: Total weight moved (%)	59	63	63	60	59	57	55	54	53	55	56	57

Sources: Sea freight: Ports of Australia. *Trade Statistics*. Annual. Accessed at <http://www.portsaustralia.com.au/tradestats/?period=12>. May 12, 2013. Air Freight: BITRE. Scheduled International Traffic by City Pairs, in *International Airline Activity*. Annual Publication. http://www.bitre.gov.au/publications/ongoing/international_airline_activity-. Accessed February 2013-May 2013.

These data show that the Melbourne container terminal is between one third and one half busier than that in Sydney, as measured by the number of containers moved. That dominance seems to have weakened a little toward the end of this period, with the lead of Melbourne over Sydney settling down to around 20 per cent, whereas it had been over 30 per cent earlier. A downward trend is also apparent in air freight where the dominant role of Sydney in passenger traffic seen earlier shapes the outcome, as much air freight moves in passenger aircraft. Melbourne's activity is a little less than two-thirds that of Sydney. However it is important to acknowledge that this ratio is higher than would be expected given that Melbourne has only recently begun to attract a half of the number of the air passengers that move through Sydney. In effect it seems Melbourne's role in Australia's global air freight business has been much more important than would be expected given its air passenger activity. Along with its container business it is clear that freight and logistics underscore a very important global role for Melbourne which could have an important influence upon its competitive position vis a vis Sydney.

Part of that effect can be detected in the change in employment in transport related activities, as air transport, freight and logistics operations all provide employment across a wide array of skills. Data in Table 5 shows, for transport industries where percentage changes in the two cities have been

significantly different, that total employment tends to be roughly similar in road freight and courier services, but much larger in Sydney in the other two activities. However growth in the latter has been faster in Melbourne. The scale and the growth in these activities is also influenced by a wide array of other national and local forces, and the global dimension may be especially relevant only in air transport.

Table 5. Employment 2011 and Employment Change 2001-2011 in Transport and Logistics Activities, Sydney and Melbourne

	Sydney 2011	Sydney change 2001-2011 (%)	Melbourne 2011	Melbourne change 2001-2011 (%)
Road freight transport	31,963	57.2	31, 629	84.6
Rail transport	12,541	51.2	5,022	104.6
Air transport	14,881	7.8	8,096	65.3
Couriers	4,371	-26.3	4,120	0.4

International Education

One of the significant changes in the global context of Australia has been the emergence and rapid growth of fee-paying education, targeted at international students (O'Connor, 2005). This now spans a wide array of activity from tertiary education to vocational training and English language classes; tertiary education is the largest sub-category, and data on it is the most straightforward. Table 6 focuses on tertiary students and has been constructed by summing the international student enrolments in Melbourne and Sydney universities; this approach underestimates the scale of this activity as many smaller universities have campuses in one or both of these cities. However, the data is indicative of the role of Melbourne and Sydney. It shows this activity has been around one third larger in Melbourne compared to Sydney. As commented above it could be associated with growing air travel into Melbourne; it is also associated with significant high rise inner city apartment development which has been greater in Melbourne than Sydney (one in every 16 persons living in the City of Sydney is an international student whereas for the City of Melbourne it is one in five) (Department of Infrastructure and Transport, 2013).

Table 6. Ratio of International Students in Melbourne Universities to those in Sydney Universities, 2004 to 2010

	2004	2005	2006	2007	2008	2009	2010
Enrolments in Melbourne as a share of those in Sydney (%)	135.6	118.3	118.0	125.9	130.7	127.6	122.7

Source: Australian Education International. International Student Data. *Commencing and All Overseas Students(a) by State, Higher Education Provider and Onshore/Offshore Status*. Annual Statistics. Pivot table Available at: <https://aei.gov.au/research/International-Student-Data/Pages/International-StudentData2011.aspx#1> Accessed May12-16, 2013.

Although Melbourne's share of international students in universities has kept ahead of Sydney's to around the same extent since 2004, the total number of international students has risen significantly since then. Melbourne's greater share of this increase means that its actual number of international students has increased by more than that of Sydney.

Tourism

International tourism into Australia, especially from the Asia Pacific region, has grown steadily with rising incomes in that region and falling relative air fares. In Australia it has long been acknowledged that Sydney is the major international tourist destinations and the iconic images of that city are the most frequently used in globally focused advertising. However, the experience of lower-ranked global cities across the world suggests that if Melbourne has some special attributes it may attract a larger than expected share of international tourists. One special attribute might be the major sporting events that are held in Melbourne as part of its major events strategy.

Exploring the relative position of Melbourne and Sydney in this context needs to rely upon a very general measure of tourist activity. The measure used here is the answer that departing tourists give on their embarkation card to the question 'in what state did you spend most time'. This is available monthly, and for the purposes of analysis here data has been tabulated for January and July and averaged (Table 7).

Table 7. Ratio of International Tourists to Australia Reporting 'Time Most Spent' in Victoria versus NSW (per cent of NSW total).

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January	32	36	37	37	51	43	42	44	43	44	46	51	55
July	31	32	36	36	39	36	40	43	32	48	49	57	55
Average	31.5	34	36.5	36.5	45	39.5	41	43.5	37.5	46	47.5	54	55

Source: ABS *Overseas Arrivals and Departures*. Annual Publication Number 3401.0 Table 11.

The data show a very steady rise in Victoria's share of where tourists have spent most of their time, confirming a steady rise in Melbourne's global role in this industry over the decade. It is possible this changed role may be associated with the larger gains in employment in the four industries of the tourism service sector shown below where percentage changes in the two cities have been significantly different.

Table 9. Employment 2011 and Employment Change 2001-2011 in Eating and Drinking Establishments and Taxi Industry, Sydney and Melbourne

	Sydney 2011	Sydney % change 2001-2011	Melbourne 2011	Melbourne % change 2001-2011
Cafes/restaurants	38,117	-11.3	37,502	0.7
Takeaway food	38,747	56.4	38,343	74.3
Pubs, bars	10,601	32.4	10,190	52.4
Taxis, etc.	6,214	-20.1	5,709	4.8

The comparison of the roles of Melbourne and Sydney carried out above suggests there have been two broad forces at work that are re-shaping the role of the two cities. The first can be seen in two activities where Melbourne has had national leadership over Sydney, largely because of first mover advantages (Melbourne was the first port to adopt containerisation, and Monash and RMIT were the first institutions to vigorously seek international students following a shift in government policy in that sector). On both indicators the advantage has been retained over the decade, although Sydney is 'catching up'. The second outcome relates to the two areas (air transport and tourism) where Sydney has long been the acknowledged leader within Australia. Here too the leadership has been retained, but on both indicators Melbourne has moved from an index equivalent to just a third of that of Sydney to just over a half over the decade. In short, Melbourne was drawing upon the influence of global connectivity to a much greater extent in 2012 than it did in 2000, which would lay a firm foundation for the changes in performance of the two cities. The data in Table 9 also suggest that Melbourne City Council's 'bar and laneways' strategy, in addition to the state's special events tourism strategy, played a part in generating extra employment.

Manufacturing

The global context has also been to the fore in the recent fortunes of the manufacturing sector in each city. Intensified competition from developing countries coupled with a stronger Australian dollar since 2000 has seen much local production closed down and replaced by imports. Melbourne has traditionally been Australia's most important manufacturing centre, but its dominance over Sydney has decreased since 2001. The share of manufacturing in Melbourne's total employment declined from 15.5 per cent in 2001 to 10.8 per cent in 2011, compared with Sydney's decline from 11.4 per cent to 8.5 per cent. In essence, the most import-sensitive industries have seen major job reductions, and industries with natural protection (because of weight, perishability, bespoke demand, etc.) are becoming more dominant in each city's manufacturing sector. Thus manufacturing employment in each city is becoming more reflective of the population-based demand in each.

However this broad trend is not particularly apparent at the 4-digit industry level. Table 10 shows those manufacturing industries where there was a significant difference in the rate of change 2001-2011 between the two cities. Melbourne has three integrated car production plants that have received

significant government assistance to compete with imports, and this is reflected in relatively constant employment there in motor vehicle production. Melbourne has also traditionally been Australia's main centre of clothing production, but government assistance here has been less effective in combating imports, with Melbourne falling behind Sydney during the decade as the industry focused more on high end fashion. But Melbourne almost caught Sydney in pharmaceutical employment as the industry achieved greater growth from local R&D, led by Melbourne's Parkville precinct and the rapid expansion of CSL, spun off from the former Commonwealth Serum Laboratories, itself established by the Commonwealth Department of Health that had its original head office in Melbourne from the days when Melbourne was the national capital (1901-1927). However Sydney closed the gap on Melbourne in 'manufacturing – other', which encompasses emerging industries, presumably including new types of high tech firms: Sydney's leadership in the IT sector (Searle, 2009) might thus help to explain this trend.

Table 10. Employment 2011 and Employment Change 2001-2011 in Selected Manufacturing Industries, Sydney and Melbourne

	Sydney 2011	Sydney % change 2001-2011	Melbourne 2011	Melbourne % change 2001-2011
Fruit/vegetable processing	1,147	7.6	2,122	85.0
Confectionery	1,527	21.6	2,203	-28.0
Clothing	4,844	-2.8	4,652	-27.1
Paperboard containers	1,381	174.6	2,196	430.1
Pharmaceuticals	5,798	-6.1	5,663	19.4
Motor vehicles	1,238	-29.5	10,537	-2.3
Motor vehicle bodies	992	27.8	4,053	90.6
Manufacturing - other	19,528	17.4	22,013	5.9

Finance Industries

Sydney's national commercial leadership over the latter part of the last century allowed it to become Australia's main financial centre. This in turn allowed Sydney to become Australia's global financial centre when the nation's financial system was opened up and the currency floated in the early 1980s. The rapid growth of financial flows across the globe thereafter provided a foundation for strong growth in Sydney's financial sector and extension of Sydney's lead over Melbourne in that sector. This lead has extended since 2001 in accordance with the widening global city rankings, with the share of Sydney's total employment in the finance sector rising from 6.1 to 6.6 per cent, compared with an increase in Melbourne's finance sector share from 4.6 to 4.8 per cent. This is despite depressed international conditions since the global financial crisis of 2008, and increasing out-sourcing overseas of routine activities by banks and insurance companies.

The 4-digit industry changes do not indicate any particular financial activity standing out as a cause of the widening gap here. Sydney's lead appears to have strengthened across most of the sector. Indeed, the only 4-digit finance industries showing significantly different 2001-2011 growth rates both grew much more rapidly in Melbourne (Table 11).

Table 11. Employment 2011 and Employment Change 2001-2011 in Health Insurance and Superannuation Funds Industries, Sydney and Melbourne

	Sydney 2011	Sydney % change 2001-2011	Melbourne 2011	Melbourne % change 2001-2011
Health insurance	2,588	-4.0	3,249	82.7
Superannuation funds	3,049	7.1	3,795	56.1

Melbourne's employment growth in both these industries has path-dependent influences. Australia's biggest health insurance company, Medibank Private, has its headquarters in Melbourne, and was originally a Commonwealth Government agency that had been spun off from the national Health Insurance Commission, itself a spin-off from the Commonwealth Department of Health originally

headquartered in Melbourne. It acquired several other insurers after 2000 and centralized their head office functions. There was rationalisation in MBF, the second biggest health insurer, with headquarters in Sydney, when it merged with Bupa (UK) in 2008. The biggest growth in superannuation funds has been in industry funds. These have drawn predominantly on trade union members. Most trade union head offices are in Melbourne, again a product of Melbourne’s former national capital role when the new union movement sought to be near the Department of Labour head office and the national government generally. Other such national level influences are discussed next.

THE NATIONAL CONTEXT

The national context can shape inter-city competitiveness in several ways. The most relevant one for the present analysis is relative development costs between the two cities. We argue that Melbourne’s lower costs have helped generate its significantly higher level of development since 2000. Differing state government policies have also played a role.

Housing costs

If the availability of jobs in each city is similar, the relative cost of housing will be crucial in determining housing demand in each. Melbourne has significantly lower housing costs than Sydney. Its greenfield housing costs are only two-thirds those of Sydney, while its infill housing costs are also significantly less (Table 12). Sydney’s higher land costs – mostly due to its more constrained geography for urban expansion – are the main cause. Higher government taxes and charges in Sydney are also a significant cause of housing cost differences.

Table 12. Greenfield and Infill Housing Costs, Sydney and Melbourne 2010 (\$).

	Sydney greenfield	Melbourne greenfield	Sydney infill	Melbourne infill
Raw land	151,875	50,000	85,000	32,184
Government taxes & charges	130,048	71,195	91,486	83,177
Professional fees	9,773	2,050	24,071	16,609
Construction	211,146	212,911	282,137	301,846
Development costs & interest	57,869	38,600	70,927	55,707
Total cost	560,711	374,756	553,621	489,523

Source: National Housing Supply Council (2010).

The significant differences in housing costs have almost certainly been a key reason why there was much greater out-migration to interstate destinations from Sydney compared to Melbourne between 2001-2011. Between 2001 and 2011, Sydney lost 249,000 persons to other locations in Australia, as against only 41,000 in Melbourne’s case (Hugo, Feist and Tan, 2013).

Housing construction

The lower cost of housing development in Melbourne appears to have contributed to a significantly higher level of dwelling construction there compared to Sydney. The number of dwelling commencements in NSW (as a proxy for Sydney) between 2000 and 2011 as a four quarter moving average were below those in Victoria (as a proxy for Melbourne) despite its larger population (National Housing Supply Council, 2011).

While Melbourne’s higher level of housing construction reflected its greater population growth, it is possible that it could have had an element of speculative building that led, rather than followed, population growth. Between 2001 and 2011, the number of private dwellings in NSW increased by 11.4 per cent while the population in private dwellings increased by 9.0 per cent (National Housing Supply Council, 2013). In Victoria, the equivalent figures were 19.0 per cent and 14.8 per cent. Given fairly stable household sizes in each state in that period, the data suggest that housing construction in Melbourne moved ahead of population growth over the decade. Other data, however, indicate that this was not the case, and that Victoria experienced a supply deficiency of 17,600 dwellings in relation to underlying demand between June 2001 and June 2010 (National Housing Supply Council, 2012). But NSW’s deficiency over the same period was 73,700, indicating that housing construction in Sydney fell significantly short of population growth.

The result of Melbourne’s higher level of construction over the 2001-2011 period has been a significantly higher growth rate in construction-related industries compared to Sydney. Table 13

shows changes in such industries where there was a significant difference in the rate of change between Sydney and Melbourne. In all cases, Melbourne had significantly higher growth (or less contraction) than Sydney.

Table 13. Employment 2011 and Employment Change 2001-2011 in Construction-related Industries, Sydney and Melbourne

	Sydney 2011	Sydney % change 2001-2011	Melbourne 2011	Melbourne % change 2001-2011
Building construction n.e.c.	7,054	-43.5	6,610	-25.5
Residential construction	32,651	47.6	36,051	129.6
Non-residential building construction	9,208	112.3	10,325	203.0
Other construction services	4,395	-8.3	4,505	31.7
Real estate services	20,539	20.6	15,918	39.4
Architectural services	8,492	8.0	9,085	38.0
Engineering services	16,595	40.3	16,559	61.3

High order services

High order services oriented to national markets are a significant component of the economies of both cities, although they tend to be a relatively more important part of Sydney's economy by dint of its commercial leadership and concentration of large company headquarters. A central question, therefore, is whether Melbourne's greater growth between 2001-2011 is partly due to a narrowing of this high order services gap. Table 14 shows changes in high order service industries where 2001-2011 rates of change were significantly different between the two cities.

Table 14. Employment 2011 and Employment Change 2001-2011 in High Order Service Industries, Sydney and Melbourne

	Sydney 2011	Sydney % change 2001-2011	Melbourne 2011	Melbourne % change 2001-2011
Newspaper publishing	6,160	2.6	3,688	-17.1
TV broadcasting	8,427	12.0	3,022	-12.1
Telecommunications	20,511	-21.0	19,054	-9.1
Legal services	28,669	2.5	21,641	17.4
Advertising services	12,828	31.1	7,838	20.8
Market research services	6,950	40.3	6,639	93.9
Management consulting	19,277	4.1	16,408	16.8
Computer systems design	47,886	32.0	38,417	45.1
Recruitment services	12,494	-1.1	10,266	11.7

The data indicate that there has been job centralisation to Sydney in newspaper publishing, television, and the related advertising industry, Sydney having all the main newspaper and television company head offices. This has probably been facilitated by electronic communication advances. However, in the other advanced producer services in Table 14, Melbourne grew significantly faster than Sydney. The reasons for this are not clear, but it is possible that with improved electronic communications such as Skype as well as low air fares, Melbourne firms can now more easily capture non-Sydney domestic markets while having housing cost advantages over Sydney in the recruitment and retention of highly skilled personnel.

State government policies

State government policies are likely to have contributed to Melbourne's greater growth rate since 2000. Space does not allow an adequate analysis of this, but the following state policy areas are suggested as potentially relevant:

- Poorer NSW government investment attraction performance, with lower tourism expenditure, no special events policy for most of the decade, and a smaller main exhibition centre;
- A relatively worse transport system in Sydney, with major greenfield development constrained by lack of public transport infrastructure;
- A more complex planning system in Sydney (NSW has more development applications determined by elected representatives, with potentially less objective merit assessment);
- Higher state charges on developers (see Housing Costs above).

CONCLUSIONS

Melbourne has closed the gap on Sydney since 2000 by becoming more competitive globally and nationally. Its greater share of Australia's international air traffic has generated jobs and allowed it to increase its share of tourism, supported by effective state policies such as special events. Its lower housing costs have contributed to greater construction, the generation of extra building-related jobs, and a very low internal migration out-flow in comparison with Sydney. There is also evidence that Melbourne is reducing Sydney's lead in advanced producer services, although Sydney is building on its national financial sector advantage.

More generally, it seems that Melbourne's underlying geography is now starting to be an advantage in competition with Sydney. Its less expensive and more easily developed urban fringe reduces land costs for housing, logistics and other uses. Melbourne airport's location does not necessitate a curfew, unlike Sydney's. The European quality of the built form of Melbourne's central areas, such as its laneways and trams, has also captured the zeitgeist of Generation Y and helped make it Australia's preferred destination for aspirational young professionals. These are all significant features that will keep Melbourne very competitive with Sydney.

REFERENCES

- Beaverstock, J.V., Smith, R.G and Taylor, P.J. (1999) A roster of world cities, *Cities*, 16, 445-458.
- Bureau of Transport and Communication Economics (1994) International aviation: trends and issues. *Report No. 86* (Canberra, BTCE).
- Coe, N. M , Dicken, P., Hess, M. and Wai-Cheung Yeung, H. (2009) Making connections: global production networks and world city networks, *Global Networks*, 10, 138-149.
- Department of Infrastructure and Transport (2013) *State of Australian Cities 2013* (Canberra, DIT).
- GaWC (2009) *The World According to GaWC 2000*. Available at <http://www.lboro.ac.uk/gawc/world2000t.html>. Accessed 10 June 2013.
- Huggins, R. (2010) Regional competitive intelligence: benchmarking and policy-making, *Regional Studies*, 44(5), 639-658.
- Hugo, G., Feist, H. and Tan, G. (2013) Internal migration and regional Australia, 2006-11, *Australian Population & Migration Research Centre Policy Brief*, 1(6), University of Adelaide.
- National Housing Supply Council (2010) *2nd State of Supply Report* (Canberra, Australian Government).
- National Housing Supply Council (2011) *State of Supply Report* (Canberra, Australian Government).
- National Housing Supply Council (2012) *Housing Supply and Affordability – Key Indicators, 2012* (Canberra, Australian Government).
- National Housing Supply Council (2013) *Housing Supply and Affordability Issues 2012-13* (Canberra, Australian Government).
- O'Connor, K. (2010) Global city regions and the location of logistics activity, *Journal of Transport Geography*, 18, 354-362.

- O'Connor, K. (2002) Rethinking globalisation and urban development: the Fortunes of second -ranked cities, *Australasian Journal of Regional Studies*, 8(3), 35-48.
- O'Connor, K. and Edgington, D. (1991) Producer services and metropolitan development in Australia, in P. Daniels (Ed.) *Services and Metropolitan Development: International Perspectives* (London, Routledge), pp. 204-225.
- Rogerson, R. J. (1999) Quality of life and city competitiveness, *Urban Studies*, 36(5-6), 969-985.
- Searle, G. (2009) The spatial division of labour in the Sydney and Melbourne information technology industries, *Australasian Journal of Regional Studies*, 15(1), 115-129.
- Taylor, P. J., Catalano, G. and Walker, D. R. F. (2002) Measurement of the world city network, *Urban Studies*, 39, 2367-2376.
- Taylor, P. J. in association with Ni, P., Derudder, B., Hoyler, , M., Huang, J., Lu, F., Pain, K., Witlox, F., Yang, X., Bassens, D. and Shen, W.-(2010) Measuring the world city network: new results and developments. *Research Bulletin* 300. GaWC, Loughbrough University. Available at <http://www.lboro.ac.uk/gawc/rb/rb300.html>. Accessed 10 June 2013.