# AUSTRALIA'S CHANGING ECONOMIC GEOGRAPHY REVISITED

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**ABSTRACT:** For some time Australia has been exhibiting the hallmarks of a 'two speed economy' in which the sun-belt states are surging ahead fed by internal migration and the resources boom. But the nation has always been one in which marked regional differences economic performance have been evident, with the nature and magnitude of those differentials changing according to the level of aggregation/disaggregation used in analysis and modelling and also over time. This paper provides an overview of Australia's changing economic geography over the last two to three decades, highlighting the changing nature of the socio-economic divides that have occurred, and speculating on what might lie ahead.

#### 1. INTRODUCTION

In 2002, Oxford University Press published a book written by Kevin O'Connor, Robert Stimson and Maurice Daly, *Australia's Changing Economic Geography: A Society Dividing*. It told the story of changes that had occurred in the economic geography of the nation in the context of globalization and the processes of economic restructuring and population change that had been occurring over the decade 1986 to 1996. It was noted how the nation's economic geography is "volatile" and how the "impacts of that volatility can be both profound and uneven as it differentially affects both people and places" (O'Connor et al., 2002, p.1). In the preface to that book O'Connor *et al.* (2002, p. xvii) had this to say:

"... Geography plays a crucial role in the operation of economic and social processes, a dimension ignored in much current Australian public policy development and program implementation. The fundamental rearrangement of spatial patterns of activity presents major challenge for the people, businesses, and politicians of Australia's cities and region. What we have is a society dividing on many dimensions, with some people and some places as winners while others are losing."

This paper revisits Australia's changing economic geography. The objective is to see how the trends and patterns evident in the decade 1986 to 1996, as discussed in the O'Connor *et al.* book, have persisted or changed over the subsequent decade 1996 to 2006.

The O'Connor *et al.* (2001) analysis covered an important period that followed (and partly encompassed) a series of landmark macro-reforms initiated by the Hawke-Keating Labor Government. The Australian dollar was floated; the financial system was deregulated and opened to foreign banks; tariff barriers were dismantled to liberalise trade; foreign investment controls were relaxed;

competition policy was introduced; and there was corporatisation and privatisation of public utilities and services. It was a landmark period of massive reform and deregulation.

The implications of those changes were profound, and the regional impacts were most varied as Australia was transformed from a long era of protectionism and tight regulation to an open economy era of deregulation and having to compete internationally. The era was one of a shift from what O'Connor *et al.* (2002, p. 13) described as the "old economy" to a "new economy" which was a "services-dominated economy utilising knowledge-based, information-intensive processes of production".

While Australia as a nation was to become more competitive, the benefits of that era of reform were spread unevenly. There were clear winners and losers – both for people and for places. For some regions the pain of enforced economic restructuring was severe, while other regions boomed. The 'recession we had to have' (as former Federal Treasurer Paul Keating put it) in the early 1990s was to exacerbate those divides.

The subsequent decade, 1996 to 2006, saw an electoral change from 13 years of Federal Labor Government to 11 years of the Howard Coalition Government. This coincided with the 'long boom' and including significant labour market reforms and deregulation. But the spatial patterns of 'winners' and 'losers' was also to change.

# 2. REVISITING THE DECADE 1986-1996

Reviewing the decade 1986 to 1996, the O'Connor *et al.* (2002) book provided an analysis of changes in the spatial patterns of performance evident across Australia's cities and regions in terms of where people lived and worked, and where investment was being directed.

# 2.1 Fundamental Structural Shifts

What were some of the fundamental structural shifts that occurred in the Australian economy? They included the following:

- The share of employment in producer services increased from 16.33 per cent to 18.36 per cent between 1986 and 1998.
- Tourism increased from 3.36 to 4.71 per cent.
- The proportion of jobs in population-related services increased from 48.44 per cent to 50.34 per cent.
- The employment in the resources sectors declined from 13.51per cent to 10.80 per cent.
- There was an absolute and a relative share decline in manufacturing jobs.
- There was a 34.3 per cent increase in the number of workers in symbolic analyst occupations over the decade 1986 to 1996, with their work force share increasing from 23.1 per cent to 26.4; the share of in-person service workers had increased from 37.8 per cent to 40.5 per cent; but the share of routine production workers had declined from 36.5 to 30.5 per cent.
- Two-thirds of the new jobs created between 1986 and 1993 were part-time and by 1996 part-time jobs accounted for 25 per cent of all jobs.

The structural shifts were reflected in the rise in the value of services sector stocks in the All Ordinaries Index on the Australian Stock Exchange from 15 per cent in 1988 to 26 per cent in 1998. The share of financial services stocks financial increased from 18 per cent to 36 per cent. But at the same time the value share of manufacturing stocks had declined from 28 to just 12 per cent.

There were marked shifts in the value of construction activity across sectors of the economy. For example:

- The share factories declined from 34.34 per cent in 1989/90 to 7.70 per cent in 1997/98.
- For shops it was up from 12.26 per cent to 17.28 per cent.
- For hotels it was up from 4.63 per cent to 7.89 per cent.
- The share of investment in office construction had peaked at 34.46 per cent in 1990/91 but it declined to 15.99 per cent in 1997/98.

O'Connor *et al.* (2002, p. 59) suggested that, by the mid- to late-1990s, Australia's economy was:

"... anchored in the intersection of telecommunications and computing, so that much of its activity involves information storage, transmission, and analysis along with work in the business services sector. The restructuring of the Australian economy is associated with these activities and has created new types of work, new arrangements for employment, and new ways of doing business ... and results in a powerful set of forces acting on the geography of the nation."

They went on to say (p. 60):

"... it seems those regions which provide attractive locations for business service firms will experience an increase in their share of all employment. In contrast, the relative decline in the share of work in the mining- and resource-based sectors, as well as in most areas of manufacturing, may mean that communities relying on those activities will record slower job growth or job losses. As the Australian economy and society generate more jobs for 'symbolic analysts ' in activities like computing, research and development, product design, industrial design, and marketing, the old geography of work and opportunity that reflected the importance of labour costs, transport costs, and access to raw materials will be replaces by one dependent upon contacts and linkages between firms."

# 2.2 Population and Demographic Shifts

Net migration first increased and then declined rapidly between 1986 and 1993; but it then recovered. There had been a shift in emphasis in the immigration program to family reunion. Sydney and Melbourne dominated as the initial destination of immigrants.

Australians had become among the most mobile in the world with patterns of net internal migration displaying a huge focus on movements from New South Wales and from Victoria to Queensland, with strong streams also from Victoria to New South Wales and from South Australia to Queensland. There were also net flows to Western Australia from Victoria, New South Wales and South Australia. These patterns reflect the 'sun-belt' migration phenomenon. As a

#### result:

- Queensland's share of the nation's population had increased to 18.8 per cent by 1996, up from 15.7 per cent in 1981.
- The share of Western Australia had increased from 8.7 per cent to 9.6 per cent.
- New South Wales lost share from declining from 35.1 per cent to 33.8 per
- Victoria' share declined from 26.7 per cent to 24.4 per cent.
- South Australia down from 8.8 per cent to 8.8 per cent.
- Tasmania went down from 3.0 per cent to 2.6 per cent.

But O'Connor *et al.* (2002, p. 103) noted the continuing importance of the Sydney-Melbourne corridor with its dominant market share, but the shift in the centre of gravity nation's population was shifting north pulled by the rapid growth of the Brisbane-SEQ region.

By the mid-1990s it was evident that non-metropolitan Australia had smaller shares of people aged 20 to 40 years, while that age group was over-represented in all the capital cities except Hobart. Brisbane and Perth had larger shares of the young adult age group than Sydney and Melbourne. The share of the Northern Territory increased from 0.8 per cent to 1.1 per cent, as did the ACT from 1.5 per cent to 1.7 per cent. In business activity New South Wales led and Sydney boomed.

Despite the emergence of the 'sun-belt' migration phenomenon, it was evident that New South Wales and Sydney in particular, was the dominant location of concentration of the nation's globally-focused business activity, followed by Victoria and Melbourne.

O'Connor et al. (2002, pp. 105-7) showed that New South Wales had 42.8 per cent of national employment in the activities core to the 'new economy', and Victoria had 26.2 per cent. The agglomeration forces attracting those wealth generating activities to Sydney and Melbourne is thus particularly strong. That wass also reflected in the marked spatial concentration (40 per cent) of the value of non-residential construction, particularly in New South Wales. However, Queensland was starting to emerge on this indicator, but its national share was below its increasing share of population. It was also evident that New South Wales' share of residential construction was not falling despite its declining share of national population, and its role as the prime destination for immigrants underpinned that. New South Wales consistently had lower unemployment rates, while Tasmania and South Australia consistently had high unemployment rates relative to the national average.

### 2.3 The Metropolitan Cities

The historically high degree of metropolitan primacy in Australia has continued with almost 70 per cent of the nation's population concentrated in just five mega-metropolitan regions (Sydney, Melbourne, Brisbane, Perth and Adelaide). Across the key services industries, in 1996 the national shares of the metropolitan cities employment ranged from 59.7 per cent for tourism to 79.9 per cent for finance and property services.

O'Connor *et al.* (2002) directed specific attention to analysing the fortunes of the big cities and trends in patterns of population and housing, work and investment in economic activity, commuting and the links between jobs and housing, and spillover growth in the context of the emergence of mega-metro regions. Implications of the stark variations in patterns of 'community opportunity' and 'community vulnerability' within the big cities – as outlined in detail in research by Baum, Stimson, O'Connor, Mullins and Davis (1999) – were discussed, as were the marked differences in the roles of the five megametro regions.

O'Connor et al. (2002) suggested that it was no longer sufficient to discuss the differences between the big cities of Australia just in terms of their size differences. For some time Brisbane and Perth had moved well ahead of Adelaide in population size, and in the 1980s the gap between Sydney and Melbourne had widened. Hobart was struggling to maintain its past rates of growth, while Canberra was growing rapidly. Sydney had emerged as the standout city for concentration of national activity in advanced producer services especially in the banking and finance sector and in media and telecommunications - and the location of major corporate organizations, and it was the boom city for investment if office construction. Sydney dominated in finance, computing, media, advertising, and tourism. As Murphy (1999) showed, the global dimension of these activities was grafted onto a strong domestic base. Sydney's national role as Australia's 'global city' was cemented. All that was reflected in the surge in house prices in Sydney for it to be far ahead of the other capital cities. House prices in 1998 Sydney were one-third ahead of Melbourne, and Perth was ahead of Brisbane, while Adelaide languished.

Between them Sydney and Melbourne accounted for 56 per cent of total corporate sales in Australia in the mid-1990s, and that ranged even higher from 63 per cent in manufacturing to 85 per cent in finance, insurance and real estate. But Melbourne's relative slip vis-à-vis the upward surge of Sydney was, however, tempered by Melbourne's importance in the national economy in economic activity focused on elaborately transformed manufactures, some business services and R&D, and transport and logistics in particular as it became the distribution hub of the nation (as discussed by O'Connor, 1999). Thus Melbourne seemed to be becoming more specialised while Sydney was diversifying.

But the roles of the other capital cities were also changing. Strong internal migration flows to the 'sun-belt' fueled population-led consumption growth in the Brisbane-South East Queensland region. While smaller than Brisbane, Perth also had some 'sun-belt' migration growth, but its driver was the global demand for resources and the location of mining-related services in that city (O'Connor and Kershaw, 1999) - traditionally Melbourne was the national centre of mining services. Meanwhile, Adelaide and Hobart illustrated "the problems created for cities that lack economic functions that are linked to the global and national markets" (O'Connor *et al*, 2002, p. 127). Adelaide in particular suffered the collapse of much of its manufacturing base grown under the post World War II protectionist era.

## 2.4 Within the Big Cities

Within Australia's five big cities, one transitional phenomenon of particular note was the turn-around in long-standing population decline in the inner city areas as gentrification, renewal and urban consolidation policies began to take hold and population and household numbers in particular increased. Apartment building boomed. At the same time there had been a boom in inner city commercial building and construction activity.

But even so, by the mid- to late- 1990s the core and inner suburbs of the big metropolitan areas still only housed 11.3 per cent of metropolitan populations, and the actual share of metropolitan dwelling approvals 1988-96 was just 8.1 per cent. Thus, while the inner city 'renaissance' – attracting the 'yuppies' and some 'empty nesters' – was under way, there is no doubt that the middle and outer suburbs were dominant, with the outer suburbs of the metropolitan cities having a 28.6 per cent share of metropolitan populations and 34.4 per cent of dwellings, and the outer suburbs captured up to 50 per cent of metropolitan growth (O'Connor *et al*, 2002, p. 142).

On the jobs front, by 1991 the core parts of the metropolitan cities accounted for only 24 per cent of total metropolitan employment, with that share varying from high of 24 per cent in Melbourne to a low of 18 per cent in Adelaide (Gipps, 1996). The scale of suburbanisation of the location of employment was increasing, characterised by both dispersal and concentration in regional/subregional centres and business nodes. The 'edge city' phenomenon was well and truly emerging in some of the big cities, and especially Sydney and Melbourne. In Sydney, an analysis of corporate sales (using Dunn and Bradstreet data) revealed a geography that spread out from the CBD along corridors to the airport and across the harbor through the North Shore, and with suburban concentrations as well such as that focusing on Parramatta-Bankstown (Daly, 1999).

Using Australian Bureau of Statistics (ABS) data, O'Connor *et al.* (2002, p. 153) showed that by the mid-to late- 1990s:

"... perhaps the most important insight into the geography of business locations within the big cities is that when the core and inner areas are taken together, these broad parts of the metropolitan areas account for around 17 per cent of Australia's 980,000 business locations. ... But the share in the outer suburbs is approaching twice that level. This confirms the economic significance of the suburban parts of the metropolitan areas in the modern metropolitan economy."

Not surprisingly, over the period 1988-1998, the core and inner suburbs of the five big cities accounted for 78.4 per cent of investment in office building and 79.2 per cent of investment in building hotels. But for investment in factory construction the share of the middle suburbs was 41.5 per cent and the share of the outer suburbs was 45.3 per cent, and their shares of investment in retail building were 29.9 per cent and 40.2 per cent respectively. The middle and outer suburbs were also attracting increasingly larger shares of investment in building education and health facilities (O'Connor *et al.*, 2002, p. 153). There was also a suburbanization trend occurring in the location of jobs in the information technology industries.

All of this was generating greater complexity in commuting patterns and increasing the trend towards greater car dependency in the big cities.

### 2.5 Regional 'Hot Spots' and 'Cold Spots'

Research by Stimson, Shuaib and O'Connor (1998) identifying regional 'hot spots' and 'cold spots' in the shares of both population and employment over the decade 1986 to 1996 showed the emergence of the Brisbane-SEQ region as a leading 'hot spot'. Perth was another metropolitan 'hot spot'. But Melbourne was a loser on both counts.

Across Australia there were 21 Statistical Divisions that suffered loss of share in both population and jobs, and the loss of share in jobs was greater than the loss of share in population. In a further nine Statistical Divisions the loss of population share was greater. O'Connor *et al.* (2002) tell how these 'cold spots' made up much of inland rural Australia:

"... they cover[ed] the regions of Victoria and the Riverina given over to wheat cultivation and sheep farming, as well as the sheep farming areas of New South Wales and Queensland ... most of South Australia, the northern wheat belt, Tasmania, and the region surrounding the Pilbara in Western Australia. That indicates the primary sector of Australia has shed labour as it adopted capital-intensive production systems." (p. 115-6)

Many of the old mining and traditional farming regions, plus some regions that had suffered manufacturing decline, were also among the 'cold spots'.

But there were regional 'hot spots' of population and employment share growth located along the coast of New South Wales and Queensland related to tourism and retirement migration, and in the south-west of Western Australia. Some of the remote mining regions were also 'hot spots'.

O'Connor *et al.* (2002, pp. 126-8) looked at the top 50 ranking cities and towns in the Australian settlement system and highlight the significant shifts since the 1960s that had been occurring in their rank order position by population size. That research showed that by the mid-1990s:

- Brisbane and Perth had surged well ahead of Adelaide which, like Hobart, lost rank position.
- Places on the edge of the big capital cities had varying fortunes as Wollongong, Newcastle and Geelong dropped rank while Maroochydore, Caloundra-Mooloolaba, Gold Coast, Melton, Rockingham and Mandurah moved up in rank (all located within the mega-metropolitan regions).
- Coastal places like Cairns, Townsville, Mackay, Gold Coast-Tweed Heads, Hervey Bay, Nowra-Bomaderry, Port Macquarie, Lismore and Albany shot-up in rank position, as did Darwin.
- Some inland places like Wagga Wagga, Orange, and Toowoomba also improved their rank position.
- Places like Launceston, Devonport, Burnie-Somerset, Ballarat, Bendigo, Warnabmbool, Mt Gambier, Armidale and Rockhampton lost rank position.
- Big but isolated mining towns and some manufacturing centres lost rank, often substantially, like Broken Hill, Lithgow, Whyalla, Port Pirie, and

the La Trobe Valley towns.

More widely across the national settlement system, quite a preponderance of the smaller towns were suffering population stagnation or decline, with their losses sometimes being at the expense of growth in nearby larger regional centres – the so-called 'sponge city' effect.

But the analysis of regional cities and towns across Australia by Beer, Bolam and Maude (1995) warned about stereotyping trends. They suggested that the non-metropolitan places displayed four features:

- As a group their industry structure was similar to Australia as a whole.
- There was considerable variation between individual cities and towns.
- Their economies had experiences profound change over the previous two decades.
- They are often central to Australia's export performance.

Beer and Maude (1995) and Beer (1999) produced a functional classification of cities and towns across Australia over the period 1961 to 1996 and found that an increasing degree of functional specialization had emerged:

- Back in 1961 there were just nine categories of functional specialization.
- By 1991 that had increased to 12 categories.
- By 1996 there were 16 categories of functional specialization.

That was indicative of a trend towards substantial fragmentation in the character of Australia's regional cities and towns.

The Beer (1999) research showed how the towns comprising some of the functional economic categories that were highly specialized (especially the 'very high mining', 'very high manufacturing', government administration' and 'financial services and utilities' categories) had experienced population and work force declines between 1991 and 1996. In contrast, the categories with the highest rates of population and work force growth were 'high tourism', 'tourism and community services', 'regional service', 'manufacturing and government services', and 'agricultural and forestry' functional categories.

Research by Baum, Stimson, O'Connor, Mullins and Davis (1999) investigating dimensions and patterns of community 'opportunity' and 'vulnerability' across Australia's cities and towns over the decade 1986-1996 found that there was a mixed picture. Certainly it was not all 'gloom and doom' across regional Australia as had been widely suggested in much media reporting and political rhetoric in which it was suggested all things economic were favouring the big cities at the expense of rural and regional Australia. The modelling by Baum et al. (1999) looked separately at the large and the small non-metropolitan cities and towns across Australia. The picture for the large cities and towns with populations of more than 10,000 was one where 'opportunity' was quite widely spread across both coastal and inland urban centres, and often that was related to diversified economic activity as regional service centres, often in which government funded functions (spreading across public administration, community services, health and education) were particularly important. But there was also a significant incidence of 'vulnerability' spread quite widely across inland urban centres, but as well along the rapidly growing in population terms coastal towns.

The Baum *et al.* (1999) modelling also highlighted how population decline and jobs loss was occurring across the smaller towns as people by-passed them and as functions concentrated in the larger urban centres. Their research revealed that three-quarters of the nation's 136 small towns with populations between 4,000 and 10,000 in 1996 could be classified as 'vulnerable communities' while only one-quarter of them were displaying characteristics of transition that rendered them 'places of opportunity', most of the latter being mining towns or towns with functions servicing agricultural (especially viticulture) or pastoral hinterlands. In the former places, "loss of population triggers a loss of economic functions which creates a downward spiral" (O'Connor *et al.*, 2002, p. 135).

#### 3. TURNING TO THE DECADE 1996-2006

I now turn to consider Australia's changing economic geography during the decade 1996 to 2006, which coincided with the 'long boom' presided over by the Howard Coalition Government in Canberra. During that time Sydney hosted the 2000; internationally there was the Asian Crisis and the 'dot-com' collapse; the resources sector — especially mining — went from strength-to-strength; and the nation suffered one of the worst droughts on record.

But this decade threw up some remarkable changes in the fortunes of some the nation's cities and regions that were to contradict some of the trends of the previous decade. The divides remained but were to take on some new dimensions.

## 3.1 The Decline of Sydney and New South Wales

Of particular significance – and of national concern – is the decline in the performance of Sydney as the largest city in Australia. Especially since the Sydney Olympics, New South Wales as a State has slipped backwards in economic growth compared with the rest of Australia. The State's population over the last 15 years increased by just 17.3 per cent compared with an increase of 25.3 per cent in the nation's population. The New South Wales economy (with 7.2 million of the nation's 22.5 million people) has grown at just 17.5 per cent while the nation has grown by 32 per cent. Its building industry grew by only 45 per cent in the last 15 years compared to growth nationally of 164 per cent. In housing there have been 15 per cent fewer dwellings built in the last year than there were in 1995, while in Victoria the number doubled. Commercial construction in New South Wales has lagged only doubling in the last 15 years while it has tripled nationally.

Research by Robson (2011) shows how, over the period 1996 to 2006, a decline in the share of national real Gross Domestic Product (GDP) was recorded in New South Wales (down 1.4 percentage points to 34 per cent), South Australia (down 0.5 of a percentage point to 7 per cent), Victoria (down 0.3 of a percentage point to 24 per cent), and Tasmania (down 0.2 of a percentage point to 2 per cent). Increases in the share were recorded in Queensland (up 1.9 percentage points to 18 per cent) and Western Australia (up 0.6 of a percentage point to 12 per cent).

The shifts in production over this period are largely replicated in the shifts in

employment. The states losing national share of employment were New South Wales (1.6 percentage points), South Australia and Tasmania (both 0.2 of a percentage point). The states recording an increase in their share of national employment were Queensland (1.6 percentage points), Western Australia (0.3 of a percentage point), and Victoria (0.2 of a percentage point).

Writing in the *Inquirer* section of *The Weekend Australian* (25-25 September, 2010, p. 1), David Uren and Imre Salusinszky had this to say:

"What has mugged NSW, which calls itself the Premier State, in the new century? It is not just the resources boom, which has fuelled extraordinary growth in Western Australia and, until recently Queensland. Most galling is the comparison with Victoria, which has no resource industry but has outstripped NSW on every key economic indicator, from business investment to new housing and jobs growth, since 1995. Even Tasmania, which has little going for its economy, has boosted its output per person by more than NSW has."

Despite the drought and the impact of the 'dot-com' crash of 2001which hit Sydney hard with its high concentration of information technology and financial services workers, what might underlie that poor performance? Uren and Salusinszky (ibid, pp. 1-2) put forward the following:

- The prohibitive cost of housing and housing affordability problems.
- Turmoil in leadership and poor performance of the long-term Labor State Government with its emphasis on 'spin'.
- The mixed experience with privatization initiatives and the lack of outcomes in reforming the electricity industry.
- Urban congestion in Sydney and delayed investments in public transport and transport infrastructure.
- Poor governance and lack of confidence as a result of the 'revolving door' of ministers.
- A lack of follow-through in implementing plans that are announced, particularly relating to metropolitan transport infrastructure.
- Higher levels of business taxation, especially in payroll tax despite some reduction.

While incomes are higher in New South Wales compared to other states, taxes and costs are higher. Uren and Salusinszky (ibid) also refer to the potential deleterious effect of former Premier Bob Carr's proclamation that "Sydney is full."

# 3.2 The Changing Fortunes of the Big Cities

Compared to the previous decade when Sydney boomed, the Brisbane-SEQ region had further emerged as a 'sun-belt' growth metropolis, and Melbourne and Adelaide had struggled under the weight of ineffective governance and painful economic restructuring, the decade 1996 to 2006 was marked by a remarkable turn-around in the fortunes of the capital city regions.

Robson (2011) has investigated the endogenous regional employment performance of the five largest capital city metropolitan areas over the decade 1996-2006 as measured by the regional shift component derived from a shift-

share analysis of employment change standardised by the size of the city's labour force ( $R_S$ ). That work reveals the following:

- In aggregate the 5 capital cities recorded a *negative*  $R_S$  effects in employment of -15,668 or -1 job per 100 change in working age population.
- But most of that was attributable to Sydney which recorded a negative  $R_S$  effect of -113,034 (or -37 jobs per 100 increase in working age population).
- Adelaide recorded a much smaller negative  $R_S$  effect of -17,193 jobs (or 37 per 100 increase in working age population).
- In contrast, *positive R<sub>S</sub>* effects were recorded in Brisbane (+66,832 or 29 jobs per 100 increase in working age population), Melbourne (+22,948 or +7 jobs per 100 increase in working age population), and Perth (+24,714 or +17 jobs per 100 increase in working age population).

What is remarkable here is the poor performance (negative) of Sydney and the rebound of Melbourne, reversing the fortunes of those cities in the previous decade. Indeed, when the decade 1996 to 2006 is segmented into the two intercensus periods, 1996-2001 and 2001-2006), the following results are evident:

- Most of Sydney's *negative*  $R_S$  effect over the decade 1996 to 2006 occurred in the five year period 2001 to 2006. There was a noticeable acceleration in the negative  $R_S$  effect in Sydney from -7 jobs per 100 increase in the working age population to -85 jobs.
- Melbourne recorded a *positive*  $R_S$  effect in the 1996 2001 period of +17 jobs per 100 increase in working age population, which was followed by a negative  $R_S$  effect of -5 jobs per 100 increase in working age population.
- Adelaide's  $R_S$  effect over these two periods was *negative*, but marginally less negative in the later period at -32 jobs per 100 increase in the working age population compared with -39 jobs per 100 increase in population in the period 1996 2001.
- Both Brisbane and Perth recorded accelerating positive  $R_S$  effects over the two periods (Brisbane with +14 jobs per 100 increase in the working age population in the 1996 2001 period to +40 jobs in the 2001 2006 period; Perth with +5 jobs per 100 increase in the working age population in the 1996 2001 period to +26 jobs in the 2001 2006 period).

Commenting on the results of his analysis, Robson (2011, p. 265) makes the following points:

"Given its size, the impacts of Sydney's relatively poor regional employment shift effects are important to the employment performance of the nation as a whole. Most of the negative regional shift effect in Sydney over the period was attributable to the Manufacturing, Construction and Retail trade industry sectors. Comparatively, most of the positive regional shift effect in Brisbane – the nation's rapidly growing "sub belt" metropolis – has been attributable to the Manufacturing, Health care and social assistance industry, and the Retail trade industry sectors."

"The national economy has experienced significant changes in its industrial structure in recent decades. This is also true for employment in the 5 capital

cities (those with populations in excess of 1 million) of Australia. One of the key determinants of change in employment for capital cities has been regional shift effects (i.e., due to endogenous factors)."

#### 3.3 Changing Industrial Structure of the Big Cities

There was some change in the industrial structure of the big cities over the decade 1996-2006:

- By 2006, the Manufacturing industry sector recorded some relatively large falls in share of employment In Melbourne, its share fell by 3.7 percentage points over the decade to 2006 the largest percentage share fall of any industry by capital city region.
- The share of employment in the Manufacturing industries sector also fell in Sydney (by 2.2 percentage points), in Adelaide (by 2.1 percentage points), Brisbane (by 0.5 percentage points), and Perth (by 0.4 percentage points).
- The share of employment in the 5- capital cities increased the most in the
  construction industry (up 1.4 percentage points). The largest share
  increases were in Perth (up 2.0 percentage points) and Adelaide (up 1.9
  percentage points).
- The most prominent changes in the share of national employment over the decade 1996 to 2006 were in the Manufacturing industries (down 1.6 percentage points), and in both the Agriculture, forestry and fishing industries and the Wholesale trade industries (down 1.2 percentage points).
- In contrast there were increases in the share of national employment over the same period in the Construction industry (up 1.6 percentage points), the Retail trade industry (up 1.2 percentage points), and the Health care and social assistance industries (up 1.1 percentage points).

# 3.4 Regionalised labour markets within the big cities

Research by Mitchell and Flanagan (2009) has developed a new national geography for Australia based on Functional Economic Regions (FERs). Those regions are demarcated so as to maximise the within-region self-containment of workers living in a FER commuting to jobs that are located within that region, thus minimizing commuting flows to jobs located elsewhere.

What that new FER geography reveals is that there is a distinct regionalisation of labour markets within all but one of the five big capital city regions. There are seven FERs in and around Sydney, six in and around Melbourne, five in and around Brisbane in the South East Queensland region, four in and around Perth in Western Australia, but only one FER covering all of Adelaide. These findings demonstrate that there is increasing complexity within the big cities and a spatial sorting out of labour and housing markets.

# 3.5 The Non-metropolitan Regions: Patchy Patterns of Growth and Decline

Widespread across the non-metropolitan LGAs there has been loss of population over the decade 1996-2006. The population loss places are

predominantly in the inland regions and the incidence of population loss seems to increase with the degree of remoteness. The incidence of population loss also is greater for smaller places.

In general the population loss places are also characterized by a hollowingout of the working age population and of younger people at school, while there is an increase in older age groups. This is dramatically illustrated in Queensland with the pattern of population gain and loss for the 0-17, 23-24, and year age groups across non-metropolitan LGAs in Queensland over the decade 1996-2006. In general across Australia the coastal regions are characterised by significant levels of population gain, and that is also the case in regions in closer proximity to the big metropolitan regions. That is indicative of the continuing strength of the so-called 'sea change' and 'tree change' phenomena.

It is also evident that the places with the lowest proportion of incidence of people not living at the same address in 2006 as they did five years previously in 2001 is greatest across the inland regions and that lack of mobility appears to increase with the degree of remoteness of a place. In contrast, some of the places with the highest level of mobility seem to be around Melbourne as well as many mining regions.

# 3.6 Endogenous Regional Employment Performance

Stimson and Robson (2008) have modelled non-metropolitan endogenous regional employment performance of non-metropolitan Local Government Areas (LGAs) across Australia over the decade 1996-2006. Across Australia there is a preponderance of regions with negative scores (N=298), representing 60 per cent of the non metropolitan LGAs that have been experiencing negative endogenous processes. 305 of the regions have been experiencing strong negative performance. Thus, only the minority 40 per cent of non-metropolitan LGA regions (N=195) have been experiencing positive endogenous processes, and only 20 per cent have been experiencing strong positive endogenous experiences.

Stimson and Robson (2008, p. 10) identify a number of characteristics that seem to be apparent from that pattern of performance:

- The incidence of negative endogenous regional performance is most heavily concentrated in those places down the settlement hierarchy in LGAs with smaller populations.
- The incidence of positive endogenous regional performance is more associated with larger population LGAs.
- There is a greater incidence of negative endogenous regional employment performance across the inland areas of Australia, and in particular in the smaller remote places.
- However, positive endogenous regional employment growth is associated with a number of remote locations and in particular with mining towns.
- Some of the larger LGAs across the wheat-sheep belt of inland Australia the rural heartlands - have positive endogenous regional employment growth.
- There is a mixture of both positive and negative endogenous regional performance along the coastal areas of Australia; it appears that positive

growth is more associated with larger population places.

• It seems to be the case that close proximity to a metropolitan state capital city is associated with positive endogenous employment growth performance.

Results of a spatially weighted regression model run by Stimson and Robson (ibid) reveal the following:

- 1. Across the non-metropolitan regions a stronger endogenous regional employment growth performance might be enhanced as result of a change in regional industry specialization and will be influenced by the structural change index of a region. It will be enhanced by a change in population (that is, growth) and a change (increase) in the incidence of workers with a bachelor degree or with technical qualifications. And it will be enhanced by a higher initial incidence of workers in symbolic analyst occupations.
- 2. In contrast, an initial higher level of unemployment, an initial higher concentration of workers in professional, scientific and technical services industries, and a change in the incidence of unemployment (increase), and an initial higher incidence of workers with bachelor degree qualifications, and a change in the incidence of people in symbolic analyst occupations all seem to have a detrimental effect on endogenous regional employment performance.

#### 3.7 Regional Specialisation

Across regional and rural Australia it is evident that there is a relatively high degree of specialization over the decade 1996-2006. Using the Herfindal-Hischman Specialisation Index of employment in industry sectors, Stimson and Robson (2008) show that it is evident that the degree of specialisation tends to increase with remoteness and in relation to mining towns. But what is particularly interesting is the pattern of dynamics that is occurring across Australia's non-metropolitan regions over the decade 1996-2006 in the degree of industry employment specialisation. There has been a positive shift in specialisation, especially along coastal regions. In contrast, it is predominantly the inland regions across the rural heartlands where there has been a negative change in the degree of specialisation.

# 3.8 Rural Australia: Drought and the Murray-Darling Basin

During the last decade the long-time mismanagement of the Murray-Darling basin as a result of ineffective collaborative arrangements between the Commonwealth and the State governments has become a significant and pressing public policy issue, exacerbated by the recent prolonged period of drought. The impacts of the drought have been severe, with a dramatic reduction in sheep numbers to a level last seen at federation; the wool clip was reduced by 40 per cent; dairy cow numbers fell by 25 per cent while production per cow increased; cotton production reduced dramatically; and rice production collapsed to the lowest level ever to then rebound somewhat.

But despite the prolonged drought from the turn of the 21st century, Australia's farmers seem to have survived relatively well through the rapid

uptake of scientific farming methods, including new cropping technologies and minimum tillage, which has had a substantial positive impact, according to the Australian Farm Institute. As reported in *The Weekend Australian* (13-14 November, 2010, on-line), according to the Australian Farm Institute's Michael Keogh, Australia's farmers have proved to be innovators and fast adapters: "taking up new enterprises, adopting new technologies and more sophisticated marketing, trading water and working off-farm."

For much of the country the drought has now broken. Government assistance during the drought seems to have been more effectively and efficiently targeted that in past droughts, with weaker and inefficient producers being less encouraged to remain in farming. Prices for many commodities have held up well, and for many they are now increasing strongly, including for wheat, cotton, young lambs, cattle and wool, with forecast increases for barley, oilseeds and dairy products. In addition off-farm income (through leasing, share farming and contracting) has increased. Overall ABARE is predicting the value of farm exports to increase by 10 per cent to \$31.4 billion in FY 2010/11. All of this is fortunate as the A\$ has appreciated and as farm debt doubled from \$30.2 billion in 2000/01to \$63.5 billion by 2009/10.

According to the National Water Commission there has been an almost exponential increase in water trading that has lifted production by about \$370 million in the southern Murray-Darling Basin. As reported in *The Weekend Australian* (13-14 November 2010, on-line) while water storages in the Basin in 2009 were at only 32 per cent of capacity, that has increased to 80 per cent by September 2010.

Mick Keogh, from the Australian Farm Institute, thinks that the recent prolonged drought will be a catalyst for major structural changes in farming (as reported in *The Weekend Australian*, ibid). He refers to three categories of farms:

- the 40 per cent of broad-hectare farms with gross sales of under \$100,000 and produce 6 per cent of total production, and 93 per cent of net incomes comes from off-farm sources
- the top 25 per cent of farms that are big producers mainly generated farm business profits throughout the drought
- in between the 'mum and dad' farms that are too small to get economies of scale and are too big to leave farm work received the bulk of the \$4 billion allocated to drought aid since 2001.

The areas at risk identified by Keogh include the soldier-settler cropping areas, such as between Forbes and Finley in New South Wales, where there are a lot of farms less than 100 hectares.

It is noteworthy that farm numbers have been declining on average by 1.5 per cent annually since the 1960s, but paradoxically it was the years after bumper harvests (such as 2001/02) that saw the biggest exodus. Now the average age of farmers is the late 50s, and Keogh says those without children interested in taking over are likely to sell-up and leave the industry or retire in the path of another drought.

The Murray-Darling Basin produces 40 per cent of the nation's farm production and about 2 million people live there. It is widely acknowledged it

faces a long-term crisis. How to better manage the Basin presents an unresolved challenge for co-operative federalism in Australia and the outcomes will have profound long-term implications for the settlement and production systems of Australia's rural heartlands. It involves an almost impossible trade-off between a pressing environmental agenda and a sustainable agricultural production system agenda. The scale of the water reductions being proposed is immense, with the Murray-Darling Basin Authority recommending a 27 to 37 per cent average reduction in water consumption, and up to 40 to 45 per cent in some areas. Loss in agricultural production could be as much as \$800 million a year, the equivalent of 13 per cent of national farm production. So far the Commonwealth government has suggested an allocation of \$3.1 billion to purchase water rights from irrigators, and \$5.8 billion to upgrade infrastructure – something the Productivity Commission has questioned.

The Authority's recent report identifies regions of relatively higher risk of suffering substantial social and economic impacts. They are: in the northeast of the basin, the border rivers, Gwydir, Namoi and Macquarie-Castlereagh regions; and, in the southern basin, the Lachlan, Loddon, Murrumbidgee and Murray regions. Some communities could be devastated with thousands of jobs being shed. As suggested recently by columnist Paul Kelly (*The Australian*, 13 October, 2010, on-line):

"... Superimposed on Labor's plan to price carbon this term, the Murray-Darling crisis will deepen the schism in Australian politics between better-off city-based voters ready to impose economic hardship for environmental virtue and the pro-Coalition regional, resource state and suburban battler voters hostile to income sacrifices for uncertain environmental gains."

# 4. POLICY AND GOVERNANCE ISSUES

In the O'Connor *et al.* (2002) book there was a detailed discussion of the policy and governance issues the nation and its component cities, towns and regions faced in addressing the implications of the 'multiple divides' that the analyses cited in the book had revealed. Particular attention was directed to discussing the implications of globalisation and economic and population change for production and industry policy, the implications of competition policy and market regulation/deregulation, the implications of innovation and human capital investment, and the importance of investment in infrastructure. The challenges of managing the continuing concentration/agglomeration of people and much economic activity in the mega-metro regions were discussed, as were the particular problems of how to manage decline in many regional areas. In particular, O'Connor et al. highlighted the tensions arising from the apparent conundrum in the 'people prosperity' versus the 'place prosperity' policy debate. In the conclusion to their book O'Connor *et al.* (2002, p. 176) had this to say:

"... A major challenge for Australia as a nation – for Commonwealth, state, territory and local governments, for business, and for local communities – is how to develop and implement systems of government and mechanisms of governance that are appropriate for meeting the challenges faced by Australia in the twenty-first century. These challenges emerge from the way

globalization and technological, economic and social change in Australia will continue to impact upon the nation's people living in its cities, towns, and regions."

The agenda for public policy and programs, they argued, should begin with (idem.):

"... the fundamental need for governments to facilitate the competitiveness of the nation. This can be done through enhancing the opportunities for cities, towns, and regions (as well as for businesses and people) to realize their potentials in a strategic fashion, by achieving sustainable growth through development and planning that encompass the principles of economic viability, social equity, and ecological sustainability."

O'Connor *et al.* (2002) suggested that a crucial issue facing governments was "how to manage regional differentials in population growth and economic and social performance" (p. 176). Inevitably the concentration of growth in the large metropolitan city regions carried negative externalities which required "public policy responses on issues such as air and water quality, traffic congestion, and other environmental impacts resulting from urban growth" (pp. 176-7). But at the same time it was evident that "spatial concentration and specialisation in the mega-metropolitan regions brings with it advantages resulting from economies of agglomeration" (p.277). O'Connor *et al.* (2002, p. 177) suggested that:

"... differentials in the distribution of wealth across social groups in the nation, and the economic performance of places, have particular significance. Fundamentally these will determine whether Australian society will remain cohesive in the future, In addition to managing the social challenge, governments have to plan for, fund, implement, and manage the 'strategic' and 'smart' infrastructure that is required for Australia's integration into the global economy."

# 4.1 The Resources Led Boom and the 'Two-speed' Economy

For some time now there has been much talk of Australia's 'two speed' economy. It is claimed that this being driven by the resources boom. Not surprisingly mining has been driving growth with a 16 per cent increase in jobs in the sector in the year ending in August 2011, and jobs in construction increased by 3 per cent. Meanwhile jobs in manufacturing had declined by about 22,000, down 2.2 per cent over the year. And jobs in the arts and recreation sector (which incorporates tourism) declined by 4.3 per cent over the year to August 2010.

There is little doubt that the resources boom largely shielded Australia from the ravages of the Global Financial Crisis (GFC). The slide in the value of the Australian dollar to US\$0.60 had helped cushion its impact. A technical recession was avoided, and it seems that the growth outlook for Australia is good, forecast at 3.6 per cent for the current financial year. As reported in *The Australian* (19 November, 2010, p. 1 and p. 6), the Reserve Bank of Australia has forecast that the current resources boom could last for at least a couple of decades, led by exports to China and India and buoyant commodity prices, especially iron ore and coal. There are resource projects with firm commitments

worth about \$133 billion, while another \$250 billion in projects are "on the drawing board" (ibid, p. 6). The Australian Bureau Agricultural and Resource Economics (ABARE) has identified 38 new resource-related projects have been announced in the past six months. Of course it is not surprising that some 70 per cent of the advanced projects are located in Western Australia, followed by 21 per cent in Queensland with 5 per cent in New South Wales.

The 'two-speed' economy is thus expected to continue. However, the first quarter 2010/11 national accounts figures presented some regional surprises. They showed Western Australia had a 4.3 per cent growth rate, more than double the next ranking state of Victoria with 2 per cent. New South Wales, Queensland and South Australia had growth rates between only 1.5 and 1.7 per cent. Tasmania's growth rate was only 0.45 per cent. In Victoria growth is being driven by financial services and professional services, while in South Australia it is manufacturing and social services that are the drivers.

#### 4.2 Some Economic Risk Factors

The remarkably strong economic performance of the national economy since the recession of the early 1990s has generated prosperity largely due to the luck of high export prices in commodities, especially minerals. However, the data somewhat alarming shows that virtually none of the growth in real national income that occurred during the 2000s came from multi-factor productivity growth, which in fact has declined to about the weakest level on record. That contrasts markedly with the strong multi-factor productivity performance in previous decades, and especially in the 1980s and even the 1990s. During the 2000s it has been labour and capital inputs first, and terms of trade second, that have been the contributors to growth in real domestic income.

Despite the impact of the GFC, currently labour shortages and what might be excessive growth in some sectors of the economy could spell the danger of inflation, and keeping that in check (at 2.75 to 3 per cent) may be the big policy challenge to come, despite there being some spare capacity. There has been anticipation that the Reserve Bank will likely raise interest rates again in 2011. The appreciation of the Australian dollar, which has breached parity with the US dollar, means that imported goods are cheaper and is promoting a surge in Australian tourism abroad. But the double-edged sword is that the higher value A\$ means that manufacturers, farmers, tourist operators and education providers are less competitive, exacerbating the 'two speed' economy effect.

In its 'red book' delivered to the minority Labor Government formed after the August 2010 federal election, the Federal Treasury issued this warning: "It is sobering to reflect on the fact that we have not managed previous commodity booms well" (reported in *The Weekend Australian*, 25-26 September, 2010, p. 16). In past booms before the important reform almost two decades ago by the Hawke Labor Government of floating the currency, failure to let the Australian dollar appreciate had meant that more money was encouraged to flood into the economy and spill-over into inflation, thus generating a loss of competitiveness and placing pressure on interest rates to rise. History tells us (consider the Whitlam Labor and the Fraser Coalition governments) how dangerous it would

be for 'agrarian protectionist' tendencies among some of the Independents supporting the minority Gillard Labor Government to hold sway.

In an address in Shepparton, Victoria cited in *The Weekend Australian* (25-26 September, 2010, p. 15), Reserve Bank Governor Glen Stevens referred to research showing Australia's regional differences for both inflation and unemployment are much less than in the Eurozone countries and in the U.S. In Australia the variations in the regional unemployment rate are from a high of about 9 per cent in north Queensland to a low of almost zero in parts of the Hunter Valley coal region in New South Wales. In the Eurozone the 'stretch' in regional unemployment is as high as 20 per cent in Spain, while it is only about 4 per cent in Australia. As discussed by Michael Stutchbury (*The Weekend Australian*, 25-26 September, 2010, p. 15):

"... mine sites may be concentrated in remote Western Australia and Queensland. But some of the construction fabrication will be done in Melbourne's factory suburbs. Some of the mine workers fly in and fly out form Perth or even other states.

... The mining boom profits are spread nationally to shareholders. The mining royalty and company tax revenue is spread, say, from remote mine sites to fund unemployment benefits for less prosperous areas. And Australia's federation tradition deliberately redistributes tax revenue from richer states to poorer states, or now from WA and Queensland to South Australia and Tasmania."

Stutchbury (idem) made the following telling point: "Some regions and industries will be squeezed so the mining boom can attract enough workers without sparking inflation. But this won't hurt that much because the economy is flexible enough to adapt and because budget spending will even out the differences."

But with the potential policy weakness inherent in the minority government situation federally, there is a danger now with what Stutchbury (idem) aptly calls the "politically re-empowered rural lobby" that can "no longer prevent a strong dollar", but which is "now demanding more money, through health, education, transport and broadband spending. This could end up weakening the budget bottom line just as treasury's red book warns Labor of the need for 'structurally tighter fiscal policy'."

#### 4.3 The Mining Regions

While the mining boom is generating substantial economic growth for the nation, there are many challenges for some of those regions. For example, in the remote Pilbara region in Western Australia, the nation's biggest mining and energy investment boom is "ratcheting up again with massive iron ore expansions capped by our largest single development, the \$43 billion Gorgon liquefied natural gas project" (*The Weekend Australian*, 30 October - 1 November, 2010, accessed on-line).

There are about another \$28.8 billion of projects being planned by another five the major resource companies that dominate the region. This is the sort of investment that is underpinning Western Australia's economic growth that is

forecast to reach 6.25 per cent by 2012-13 as the region ships close to one-fifth of Australia's exports as the heart of the iron ore and LPG industries.

But, as reported in *The Weekend Australian* (ibid), there are many downsides in local communities to this resources-based growth as seen in the northwest of Western Australia:

- "... don't expect to find a bakery or a commercial laundry. Bread and sometimes even sandwiches for functions is flown from Perth 2,300 km away. Bed linen for thousands of mine workers similarly is sent south to be washed.
- ... Outside Woolworths and Coles, there's no butcher in the two main Pilbara towns with populations of 15,000 to 18,000, depending on where you draw the line. There's no private legal practice in Karratha, only a pricey 'fly-in, fly-out' lawyer.
- ... Tourism has crashed, not just because the high dollar puts off foreigners but because there's more money working in the mines than in motels and because the caravan parks are filled with escapees from the high-cost housing market.
- ... The big resource companies have been racing to keep up with the China boom, building their own power plants, desalination plants, railway lines, ports and accommodation and by hiring thousands of fly-in, fly-out workers from Perth and even from Brisbane, Sydney and Melbourne.
- $\dots$  At present, an estimated 12,000 local workers are dwarfed by 18,000 flyin, fly-out workers in the Pilbara.
- $\dots$  There are 124 flights a week from Perth into Port Hedland and Karratha and direct flights to other capitals. Air traffic into the Pilbara has jumped from 350,000 passengers in 2005 to 1.2 million.
- ... The Pilbara is easily Australia's most expensive housing market, with the median weekly rent rising 275 per cent during the past five years to \$1,500, according to research firm RP Data.
- ... State government workers get a \$10,000 allowance to help cover the skyhigh housing costs."

Combined these put extreme pressures on sustainable development and can squeeze out businesses.

The Pilbara is the heart of Australia's iron ore and LPG industries (ibid): It "defies the simple categorisation of fast-lane mining squeezing out other regions reliant on manufacturing or tourism. Instead, the two-speed pressures evident around the national economy are compressed and magnified in the epicentre of the region that underpins Australia's modern prosperity."

Estimates for the growth of the region suggest that Karratha and Port Hedland could grow within decades to 50,000. That would be double or more than the present population of Queensland's regional centres like Gladstone and Mount Isa. As reported in *The Australian*, all this poses two big challenges (ibid):

"The first is to ensure that the two-speed bottlenecks don't cause Australia to lose its dominant market share of China's booming iron ore demand. The second is to secure a lasting development legacy in Australia's north."

The implication of this is that perhaps the Pilbara region needs to be elevated to one of national economic importance with a co-ordinated approach to planning its development and providing services and facilities needed to underpin sustainable development. That is in fact proposed in a Pilbara Cities initiative. Public policy needs to address how to overcome intense labour shortages, high cost labour, infrastructure bottlenecks, high cost housing and inadequate provision of water and electricity.

#### 5. GEOGRAPHY DOES MATTER

Australia's isolated position on the world with long distances to markets is an inherent comparative disadvantage. The OECD has estimated that for the period 2000-2004 this reduced per capita income by 10.6 per cent relative to the OECD average. Economist Judith Sloan is reported (*The Australian*, 6 October, 2010) as suggesting that this distance isolation almost halves the gap in labour productivity levels between Australia and the United States. Australia's resource endowment – especially in minerals – does create a positive contribution to per capita income, but it is still only 1.7 per cent higher than the average for all OECD countries.

In line with the 'new economic geography' literature (cf. Paul Krugman, 1991), the high concentration of population and of economic activity in just five big cities in Australia provides substantial agglomeration economies with backward and forward linkages potentially contributing to productivity growth, despite externality costs such as those associated with congestion and pollution. Sloan (2010, p. 4) notes that this has "important implications in the context of the current political scene in Australia. Promoting the regions, particularly where this is at odds with the natural pull towards larger cities and the attendant benefits of agglomeration, [and is] likely to subtract from per capita income rather than add to it."

The big cities in Australia are producing an increasing proportion of the jobs, and in many ways they are key drivers of GDP growth. They are the places where there needs to be a marked ratcheting-up of investment in infrastructure, especially transport (both public and road and rail), water and energy. And they are the places where there are considerable institutional inefficiencies that restrict land release for the provision of affordable housing.

Thus, as Sloan (2010, p. 40) outlines, a challenge for Australia is:

"... to ensure that policy settings are optimized to reduce spatial transaction costs where possible and to implement measures that are conducive to productivity growth, including taxation, regulation, competition policy and flexible labour markets. And by reducing congestion costs and investing in urban infrastructure, larger Australian cities may also play a role in meeting this challenge."

## 6. CONCLUSION

What general conclusions might be drawn regarding Australia's changing economic geography? The following are suggested.

- 1. The nature of Australia's economic geography continues to change, often quite dramatically through the selective nature of economic development and how it engages or disengages both people and places.
- 2. A one-size-fits-all or a population trends approach should not be the sole basis for the allocation of funds through regional policy and programs.
- 3. There is no 'typical' city or town or region; rather, they perform both specialized and diverse roles; some are growing others are in decline.
- 4. There remains little evidence of the emergence of a comprehensive and coherent national strategy for regional policy.
- 5. Policy needs to build on success: infrastructure and services to enhance continued strong performance of well-performing places.
- 6. Improving transport and communications linkages to the metro cities and between the well performing large regional centres would enhance the efficiency of rural and regional Australia.
- 7. It is not productive to prop up places in long-term population and economic decline.
- Policies and programs are needed to help people and businesses
  voluntarily to relocate from small places in decline to move to larger
  places with diversified job opportunities and which provide better life
  chances.
- 9. It is inevitable that regional differentials will continue to exist and will take on new dimensions.
- 10. For many rural, and especially remote, regions the future for strategy will be to plan for strong economic output with fewer people.
- 11. Population growth *per se* does not equate with strong socioeconomic performance.
- 12. Despite the resources boom it would seem that agglomeration forces are reinforcing the dominant roles of the big cities as centres of concentration of much economic activity and of population.
- 13. The booming mining regions require a co-ordinated approach to urban development, planning and infrastructure provision.
- 14. Sustainable outcomes will mean different things for different places.

It is inevitable that sharp socio-economic divides will continue to exist across the national settlement system, but the nature and spatial incidence of those divides will be dynamic. That will provide a continuing challenge for governments at all levels to fashion and implement an appropriate mix of 'people based' and 'place based' policies and programs. The experience so far is that as a nation we still have a long way to go in that regard.

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#### REFERENCES

- Baum, S., Stimson., R., O'Connor, K., Mullins, P. and Davis, R. (1999) Community Opportunity and Vulnerability in Australia's Cities and Towns: Characteristics, Patterns and Implications. University of Queensland Press for the Australian Housing and Urban Research Institute, Brisbane.
- Beer, A. (1999) Regional cities within Australia's evolving urban system, 1991-96. *Australasian Journal of Regional Studies*, 5, pp. 329-48.
- Beer, A. and Maude, A. (1995) Regional cities within the Australian urban system, 1961to 1991. *Urban Policy and Research*, 13, pp. 135-48.
- Beer, A., Bolam, A. and Maude, A. (1994) *Beyond the Capitals: Urban Growth in Regional Australia*. Australian Government Publishing Service, Canberra.
- Daly, M. (1999) *Monitoring Sydney*, University of Queensland Press for the Australian Housing and Urban Research Institute, Brisbane.
- Gipps, P., Brotchie, J., Hensher, D., Newton, P. and O'Connor, K. (1999) Journey to work: Employment and the changing structure of Australia's cities. Research Monograph No. 3, Queensland University of Technology for CSIRO and the Australian Housing and Urban Research Institute, Melbourne.
- Kelly, P. (2010) Mighty river of trouble heading Gillard's way. *The Australian*, 13 October (on-line).
- Krugman, P. (1991) Geography and Trade. MIT Press, Cambridge, MA.
- Mitchell, W. F. and Flanagan, M. (2009) *The CofFEE Functional Economic Regions*, First Edition. Centre of Full Employment and Equity, Newcastle.
- Murphy, P. (1999) Sydney now: Going global in the space of flows. In K. O'Connor (Ed), *Houses and Jobs in Cities: Research in Honour of Chris Maher*, University of Queensland Press for the Australian Housing and Urban Research Institute, Brisbane, pp. 167-78.
- O'Connor, K. (1999) *The Capital City Report, 1998*. Centre for Population and urban research, and School of Geography and Environmental Science, Monash University, Melbourne.
- O'Connor, M. and Kershaw, L. (1999) Outsourcing, producer services and shifts in the geography of the Australian mining industry. *Australasian Journal of Regional Studies*, 53, pp. 73-86.

- O'Connor, K, Stimson, R. and Daly, M. (2002) *Australia's Changing Economic Geography: A Society Dividing*, Oxford University Press (Meridian Series), South Melbourne.
- Robson, A. (2011) Endogenous regional employment growth and decline in Australian capital city statistical divisions. In R. J. Stimson, R. R. Stough and P. J. Nijkamp (Eds), *Endogenous Regional Development: Perspectives, Measurement and Empirical Investigation*. Edward Elgar, Cheltenham, pp. 237-67.
- Sloan, J. (2010) New economic geography vital. *The Australian*, 6 October, p. 40.
- Stimson, R. J., Shuaib, F. and O'Connor, K. (1998) *Population and Employment in Australia: Regional Hot Spots and Cold Spots, 1986 to 1996*. University of Queensland Press, for the Australian Housing and Urban Research Institute, Brisbane.
- Stimson, R. J. and Robson, A. (2008),\ Modelling non-metropolitan regional performance in Australia: Seeking explanation of spatial variations in endogenous growth and decline. Paper presented to the 55th North American Regional Science Conference, New York, Brooklyn, November.
- Stutchbury, M. (2010), Dollar must rise to contain boom. *The Weekend Australian*, 25-26 September, pp. 16-15.
- Sutchbury, M. (2010) Gillard at forefront of the slide back to the bad old days of regulation. *The Weekend Australian*, 20-21 November, p. 11.
- The Weekend Australian (2010) The strains of the two-speed economy are showing clearly at the spearhead of the nation's growth in exports, *The Weekend Australian*, 30 October 1 November (on line).
- The Weekend Australian (2010) Mine boom biggest shock: Henry. The Weekend Australian, 20-21 November, p. 8.
- Uren, D. (2010) Farmers have changed their farming practices to allow them to survive droughts. *The Weekend Australian*, 13-14 November (on-line).
- Uren, D. and Salusinszky, I. (2010) Premier state left in the shade, *The Weekend Australian Inquirer*, 25-26 September, pp. 1-2.