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Population growth, regional connectivity, and city planning—international lessons for Australian practice



From the AHURI Inquiry: Inquiry into population growth, migration and agglomeration

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The logo for AHURi, featuring the text "AHURi" in a bold, black, sans-serif font. A red curved line arches over the letters "A", "H", and "U". The letter "i" is lowercase and has a red dot above it.

Title

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—international lessons for Australian practice

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Acronyms and abbreviations used in this report

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AGMA	Association of Greater Manchester Authorities
AHURI	Australian Housing and Urban Research Institute Limited
AWDC	Albury-Wodonga Development Corporation
ASIC	Australian Securities and Investments Commission
CBD	Central Business District
DIRD	Department of Infrastructure and Regional Development
EU	European Union
ERDF	European Regional Development Fund
ESPD	European Spatial Development Program
ESPON	European Spatial Planning Observatory Network
FAG	Financial Assistance Grant
GDP	Gross Domestic Product
GGH	Greater Golden Horseshoe
GMCA	Greater Manchester Combined Authority
ICT	Information and Communication Technology
LGA	Local Government Areas
NSW	New South Wales
OECD	Organisation for Economic Cooperation and Development
O2C	Oxford to Cambridge
PDC	Peel Development Commission
QLD	Queensland
REDS	Regional Economic Development Strategy
SA	South Australia
TSBE	Toowoomba and Surat Basin Enterprise
UGC	Urban Growth Centre
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
USA	United States of America
VIC	Victoria
WA	Western Australia

Executive Summary

Key points

- There is rising interest in the potential for Australia’s regional areas to attract and sustain population and economic growth. This study investigated this potential, examining international and Australian models for supporting development beyond capital city centres.
- Through a research evidence review and in-depth analysis of 12 international and Australian case study regions, the study found that there is no single model for regional planning, development, or governance. Rather, there has been a general trend towards place-based regional interventions, which focus on unique regional attributes and opportunities.
- While recognising the economic benefits of agglomeration in major cities, the international review highlighted opportunities for smaller centres to succeed by specialising on particular economic strengths or locational advantages, provided they are well connected to a larger city and/or regional network.
- Consequently, this research finds potential to better support regional areas through spatial planning and investment strategies, which recognise their unique place-based identity, fostering key specialist areas for growth while preserving and enhancing natural and cultural amenities and high quality of life.
- Australian and state governments can support these initiatives through funding and related strategies to attract and enable firms to locate and remain in second-tier cities and through decentralisation of public services. Strategies to foster regional governance and collaboration rather than competition would reduce the administrative burdens for local councils.

- **Transport and Information and Communication Technology (ICT) infrastructure are critical for strengthening connectivity within and between metropolitan and regional areas. Investment in major rail projects—such as the inland railway; as well as ongoing improvements to existing services and connectivity within regional cities are transformative.**
- **Regional planning policies and economic development strategies could catalyse on the growing interest in relocating to regional areas due to increased flexibility in location of work in the context of the COVID-19 pandemic, by publicising regional housing opportunities; and continuing programs which offer financial support or people who relocate.**

Key findings

There is rising interest in Australia's regions and their potential role as population centres and drivers of new economic activity, heightened by the COVID-19 pandemic but also reflecting long-term concerns about the problems of urban congestion and housing affordability pressures in Australia's capital cities.

This report presents the findings of a research project examining how Australian urban and regional governance frameworks address economic and population growth using research evidence, international and Australian case study analysis and interviews with key Australian, state, and local government informants.

The range of international cases reviewed highlighted that there is no single model for regional intervention, planning, or governance, with examples ranging from small city jurisdictions through to the multinational network established by the European Spatial Planning Observatory Network (ESPON). Overall, successful regions have benefited from sustained investment and strategic planning over time. Further, while recognising the economic benefits of agglomeration, the international case study review found that smaller centres can succeed by specialising in a particular economic strength or locational advantage, if it is well connected to a larger city and/or regional network. Potential economic specialisations include higher education, research and technology; entertainment and tourism; personal services and wellbeing; amenity and lifestyle.

The international cases reviewed are regarded to be exemplar case of regional planning and economic development. None of the cases have been unambiguously successful but collectively, they offer several insights of relevance to regional planning and development efforts in Australia. The cases demonstrate the importance of:

- Long-term regional planning and coordination, with success building over time (for example Marne-la-Vallée in France; and the Cambridge, Oxford, and Milton Keynes cases in England).
- Setting concrete, regional level targets for balanced housing and job development, and employing a diversity of economic strategies rather than a single 'silver bullet' or iconic item of infrastructure (for example investment in Manchester's sporting infrastructure in conjunction with strategies to attract culture, has led development and commercial investment in that city).
- Identifying industries that have long-term, high value potential, opportunities that can be outsourced from major cities to regional Australia, and where regions have advantages over international outsourcing (for example the high-tech sector in the Greater Golden Horseshoe (GGH) region of Ontario, Canada).
- Observing the role that strong transport networks have played in supporting polycentricity within high performance regions (for example, Cambridge, Oxford and Milton Keynes).
- Powerful research and knowledge sharing bodies, such as the functions performed by ESPON.

The analysis of regional planning and development approaches in a selection of case study regions of Australia highlights the importance of:

- Infrastructure, transport, and telecommunications infrastructure in attracting and sustaining employment and population in regional areas.
- Higher levels of government support through funding grants, decentralisation of government agencies, and investment in universities, hospitals, and other major facilities, which have helped diversify local economies and create high quality jobs.
- Strong, place-based strategies for regional areas which recognise and reinforce local decision-making processes and governance.
- The need to strengthen regional networks and provide deeper data to inform decision-making was also emphasised by interviewees. This assistance was likely to extend to technical support in planning and overcoming major blockages to development, such as water security.

Policy development options

Different spatial strategies for accommodating new growth used internationally are potentially instructive for attracting and sustaining economic population growth in Australia:

- New towns, such as Milton Keynes in the UK, can sustain economic and population growth with special purpose planning and development vehicles, and continued investment in infrastructure. However, developing existing regional towns is more likely a higher priority in Australia than developing entirely new cities.
- Satellite cities sustain economic and population growth by absorbing metropolitan spillover development. However, they are at risk of limited self-containment and economic diversity if skilled labour and employment are absorbed by the capital city. Therefore, improving internal transport within these cities, and strategies for supporting firms to locate within these cities should be prioritised.
- Regional renewal and growth centres should identify and foster key specialist areas for growth, while the wider employment opportunities associated with regional administrative offices and government decentralisation (relocation) of services would greatly support these initiatives.

There are potentially untapped opportunities for Australia's smaller cities and regional areas to attract and sustain higher levels of economic and population growth, by identifying and capitalising on relative competitive advantages. Strategic planning and funding interventions designed to catalyse economic and employment growth in regional Australia should focus both on specialisation opportunities as well as opportunities to establish and support network connectivity. In particular:

- Transport and ICT infrastructure are critical for strengthening connectivity within and between metropolitan and regional areas. Investment in major rail projects—such as the inland railway; as well as ongoing improvements to existing services and connectivity within the region are transformative.
- Strategies for delivering utilities, green space, and other urban infrastructure have been and will remain important for enabling and shaping patterns of growth and residential locational choice. However, local councils struggle to forward fund these infrastructure items. Funding to support new residential or employment generating development through contributions when applications are approved, is likely to be even more critical in the foreseeable future. Leveraging special purpose development infrastructure finance, potentially through the National Housing Finance and Investment Corporation (NHFIC) may assist.

There is potential to better support regional areas through strategies which recognise their unique place-based identity and governance. Strategies to foster regional collaboration rather than competition would reduce the administrative burdens for local councils.

The increased adaption of firms to working from home and remote working during the COVID-19 pandemic has created renewed interest in the potential for people to relocate to regional areas, due to the increased flexibility around the location of work. This interest may offer new opportunities for regional Australia, and regional development strategies could catalyse on this interest by publicising regional housing opportunities; continuing programs which offer financial, and ICT support for people who relocate; and supporting ongoing investment in digital infrastructure. There are likely to be new opportunities for industries such as data centres, back offices, and tele-services as well as specialist manufacturing opportunities, including the production of medical or protective equipment. Spatial planning strategies can enable these opportunities by ensuring suitably zoned and serviced land in well located areas.

A clear message emerging from the interviews was that population and economic growth are not on their own sufficient to drive sustainable and balanced employment outcomes. Some participants criticised what they saw as narrow growth assumptions and called for 'success' to be measured more broadly, by also looking into liveability, environmental impacts and the social impacts of growth. Policies designed to encourage and sustain population and economic growth should also incorporate these broader considerations.

The study

The project contributes to the wider AHURI *Inquiry into population growth, migration and agglomeration*. As part of this wider Inquiry which examines population growth, mobility drivers and the benefits and impacts of urban agglomeration, our focus is on the spatial strategies and supporting levers that governments have used to sustain and attract economic and population growth beyond the major metropolitan areas. We ask:

How are Australian urban and regional governance frameworks planning for and responding to economic and population growth, and what can be learned from international experience?

The evidence presented in this Final Report draws on recent practice in regional governance and planning. A research evidence review was conducted on metropolitan and regional governance and planning, to examine how spatial policy, planning and funding interventions can support economic and population growth.

Twelve case study regions from Europe and North America, and eight case study regions from Australia were selected to examine approaches to encouraging and sustaining population growth across different regional contexts:

- Europe and North America
 - European Spatial Development Program (ESDP) and ESPON
 - Manchester, England;
 - Cambridge, Oxford, and Milton Keynes, England;
 - Marne-la-Vallée, Île-de-France;
 - Dundee, Scotland; and
 - GGH Ontario, Canada
- Australia
 - Albury-Wodonga;
 - Ballarat;
 - Bendigo;
 - Geelong;
 - Mandurah;
 - Newcastle;
 - NSW Northern Rivers; and
 - Toowoomba.

These case study areas range from regions experiencing significant growth to those needing economic renewal, as well as satellite cities and 'lifestyle' regions, which have strong connectivity to primate metropolitan centres.

In addition to the research evidence review and case study analysis, 15 interviews were held with key informants from Australian (within regional development and infrastructure portfolios), state (metropolitan/regional planning units in New South Wales (NSW), Queensland (QLD), Western Australia (WA), and Victoria), and local government. The interviews explored existing or potential strategies, policy levers or funding models for accommodating and distributing population and economic growth within and between Australian cities and regions.

The outcomes of this research enhance understandings of Australia's regional governance and planning, and provide policy priorities for further growth and development.

1. Understanding regional growth and strategies for attracting and sustaining regional populations

- **This Report examines international and Australian strategies for regional planning and development, focusing on a series of exemplar cases.**
- **This introductory chapter sets out the policy context for the study and explains research approaches and data sources.**
- **A research evidence review on metropolitan and regional governance and planning examined how spatial policy, planning and funding interventions can support economic and population growth.**
- **Twelve case study regions from Europe, North America, and Australia were selected to examine approaches to encouraging and sustaining population growth across different regional contexts. These range from regions experiencing significant growth to those needing economic renewal, as well as satellite cities and ‘lifestyle’ regions, which have strong connectivity to primate metropolitan centres.**

There is rising interest in Australia’s regions and their potential role as population centres and drivers of new economic activity, which has been heightened by the COVID-19 pandemic. However, Australian’s regions have long been considered as alternative population and economic centres to alleviate urban congestion and housing affordability pressures in Australia’s capital cities, which have been a focus for population and economic growth for the past five decades.

This report presents the findings of a research project investigating these themes. It examines how Australian urban and regional governance frameworks address economic and population growth, and whether particular strategies for attracting or retaining population and economic activity, have been effective. It also examines key international cases which may prove instructive to the Australian context.

The project contributes to the wider AHURI *Inquiry into population growth, migration and agglomeration*. As part of this wider Inquiry which examines population growth, mobility drivers and the benefits and impacts of urban agglomeration, our focus is on the spatial strategies and supporting levers that governments have used to sustain and attract economic and population growth beyond the major metropolitan areas. We ask:

How are Australian urban and regional governance frameworks planning for and responding to economic and population growth, and what can be learned from international experience?

The evidence presented in this Final Report draws on recent practice in regional governance and planning, through a series of international and Australian case studies.

1.1 Policy context

The 'city-region' has always been an important concept and spatial unit in urban and regional research and practice (Hall 2009). Debates about metropolitan governance and regional planning have focused on the optimal size and spatial configuration of cities and city regions (Arnott 2004; Batty 2013); the risks and benefits of concentrated versus distributed patterns of economic and population growth (Hamidi and Zandiatashbar 2018; McLoughlin 1991; Randolph 2006); and the extent to which housing markets and new housing supply may enable or constrain labour market productivity (Glaeser et al. 2014; Maclennan et al. 2015). These debates have particular relevance for Australia where uneven patterns of economic and population growth and stagnation/decline have emerged over the past 40 years. In, NSW there was a manufacturing-based NSW decentralisation program in the 1950s and 60s and a brief flirtation with targeted regional development in the early 1970s. However opportunities to better distribute population and growth, such as through decentralisation strategies centred around contemporary economic drivers, remain largely unexplored. Rather, there has been increasing concentration of economic and population growth within the largest cities of Sydney, Melbourne, Brisbane and Perth, which collectively contribute around 60 per cent of the nation's gross domestic product (GDP) (DIRD 2015). Based on current trends, the majority of the nation's future population growth—75 per cent—is expected to continue in these core metropolitan areas (Infrastructure Australia 2018).

In this respect, Australia stands in stark contrast to comparable nations in the Organisation for Economic Cooperation and Development (OECD), with the highest population concentration of 41 OECD countries and around 40 per cent of the country living in Sydney and Melbourne alone (OECD 2013). The consequences of unbalanced population distribution patterns have been reflected in chronic capital city housing affordability pressures, traffic congestion, and infrastructure burdens, with flow on concerns for economic productivity and quality of life. At the same time, smaller rural towns have experienced steady decline while medium sized cities beyond peri-urban areas record more pronounced population ageing, with high proportions of younger people exiting for education or employment opportunities (DIRD 2015).

Policy responses to these trends have been mixed; focusing primarily on how to manage the disbenefits of concentrated population and economic growth within the major cities. The national Smart Cities Plan sets a framework to guide infrastructure investment and coordinated planning for Australia's capital and regional cities, using the '30-minute city' concept as an objective for urban areas (Department of the Prime Minister and Cabinet 2016). Recent metropolitan plans for Sydney and Melbourne reflect these ideas—with the *Greater Sydney Regional Plan—A Metropolis of Three Cities* emphasising connectivity within and across three distinct 'cities'; and *Plan Melbourne 2017—2050* aiming to implement '20-minute neighbourhoods' (State Government of Victoria, 2021). However, scenario modelling carried out for Infrastructure Australia and based on data to 2018, suggests that even if very concentrated levels of high density growth is focused on major employment centres, transport accessibility within Sydney and Melbourne will continue to decline (Infrastructure Australia 2018).

Policy responses geared towards reducing these pressures by shifting the geography of employment growth to regional areas have been limited—recognising the significant gravitational pull and economic advantages of urban agglomeration. Rather, the policy response has been to support urban agglomeration by focusing infrastructure investment on major population and employment centres while seeking to mitigate the disbenefits of congestion. This likely reflects the perceived failure of decentralisation efforts led by Gough Whitlam’s Labor Government in the early 1970s (Orchard 1999); as well as the influence of more recent regional theories around urban agglomeration (Searle 1974). For instance, there have been embryonic efforts to reduce commuting pressures through more flexible working arrangements, which reduce the need for workers to travel to central business districts (CBDs). Reported take up of telecommuting has remained relatively low in Australia (Dowling et al. 2020). However, there is growing speculation that profound changes in the context of the COVID-19 pandemic will result in much greater rates of ‘working from home’ and working near home, which in turn may open new opportunities for regional and rural areas seeking to attract and retain populations (Guaralda et al. 2020).

Other approaches to addressing Australia’s unbalanced population and economic growth include migration and settlement policies which seek to direct new migrants to regional areas (Department of Home Affairs 2019). Evidence of the efficacy of these schemes remains mixed; with success depending on the capacity to stimulate and sustain regional economic activity. Strategic place-based interventions such as the City Deal model, which is increasingly being used to fund catalytic infrastructure and related interventions in regional cities such as Geelong, Launceston, and Cairns offer a potential model for supporting this growth (Pill et al. 2020).

At state and often local levels, governments have developed programs to encourage businesses and individuals to relocate to regional areas, such as the ‘EVOcities’ program, which encourages business and household relocation to the Central West of NSW (EVOcities 2019). The extent to which such programs combined with other strategic policy or economic drivers, can foster regional population growth at scale in Australia, remains unclear.

1.2 Existing research

There is a large international literature on different aspects of regional population and economic growth and change, as well as a smaller body of Australian research. Overall, this work addresses:

- The spatial structure of urban systems, including optimal city size and population distribution.
- The types of economic activities and shifts which could support or enable economic and population growth outside of the major capital cities.
- Governance, strategic policy interventions, and infrastructure to support change.

Collectively, this existing research evidence points to a growing resurgence of international interest in regional governance and dynamics beyond the internal operation of cities to their role within and across the urban system.

Spatial structure of urban systems

The spatial structure of urban systems—for instance, whether a regional area is characterised by a single primate centre, a network of medium sized population areas, or a major city connected to second-tier ‘satellite cities’ has been found to influence the distribution of economic opportunities and benefits. Recent debates in Europe have pointed to the role played by second-tier cities, suggesting that regional policies which seek to spread investment beyond primate cities produce national benefits (Parkinson et al. 2015). Others use the dual notions of urban ‘primacy’ (fewer, large cities) versus ‘polycentricity’ (more cities of a similar size) to describe the spatial structure of urban systems which can then be compared against indicators of socio-economic performance (Brezzi and Veneri 2015). In the United States of America (USA) there has been a focus on the relationships between particular modes of urban and regional growth—for instance, compactness versus sprawl. These relationships between urban and regional growth have impacts on job density, accessibility (Ewing et al. 2016), the urban amenities attracting skilled migrants (Rodríguez-Pose and Storper 2020) and the role of megaregions in economic development (Hamidi and Zandiatashbar 2018, Nelson and Lang 2018).

Economic shifts and opportunities

Economic shifts from the 1970s created significant challenges for Australia's manufacturing and agricultural regions. Resource development industries remain significant in parts of regional Australia. Increasingly the practice of fly-in-fly-out means that mining, oil, and gas extraction industries are less likely to support or attract local population growth (Ellem and Tonts 2018; Measham et al. 2020). The rise of the so called 'knowledge economy' in the wake of these changes focused increasingly on the major cities with their concentrations of multinational headquarters and access to financial and advanced business services (Sassen 1991). Although regions beyond these central locations have struggled to sustain and attract population and economic growth, some sectors have offered new opportunities. Higher education has become a major industry in the knowledge economy and an opportunity for regional growth (Yigitcanlar et al. 2017; Youtie and Shapira 2008). Entertainment and tourism have also become growth industries over the past 50 years, particularly for high amenity regional and rural areas. In addition to the economic opportunities and employment that is directly associated with tourism, there has been a growing trend towards so called 'lifestyle' or 'retiree' migration whereby people move to these regions for lifestyle reasons (Argent et al. 2014). Personal services—like employment in health and related fields—has also become a growth industry particularly in retiree migration areas (Poudyal et al. 2008), although ageing populations also place pressure on regional health services as well (Winterton et al. 2019). Finally, the rise of freelance knowledge workers and or creative entrepreneurs able to work from home and opting to live in regional locations has supported modest population growth beyond the major cities (Argent et al. 2013; Verdich 2010).

Strategic policy interventions and infrastructure

There is a large body of research on approaches to regional governance, planning, and strategic interventions. Historically, debates have included whether governments should support spatially even outcomes, including by investing in declining or lower growth regions. Alternatively, whether it is best—or even possible—for governments to 'pick winners' as a basis for strategically focusing investment; or whether investment should 'follow the market' – which tends to reinforce the spatial primacy of Australia's major metropolitan areas. In recent years, the emphasis has shifted towards place-based strategies, which seek to identify and support endogenous strengths as a basis for competitiveness (van Staden and Haslam McKenzie 2019). This approach is regarded to be an extension of neo-liberal ideas in that the emphasis is not on lifting lagging regions, but it does provide a framework for strategic intervention and investment, even if limited to a very localised place-based scale. These investments typically seek to address infrastructure deficits, boost human capital, attract new investment, and/ or support the competitiveness of existing local firms (van Staden and Haslam McKenzie 2019). The trend towards this type of highly localised investment is apparent in the emergence of central and local funding models such as City Deals (Pill et al. 2020).

The research literature on approaches to supporting regional economic growth and renewal is discussed further in chapter two.

1.3 Research methods

To address these themes, the project used a mixed method approach, combining an international evidence review with policy analysis, case study research, and interviews with key state and local government personnel. The following research questions guided the study:

- What governance arrangements, spatial planning principles, infrastructure strategies, funding and policy levers underpin exemplar city regions, in selected international examples?
- What specific strategies for accommodating new growth—for instance, through new towns connected to major centres, expansion of proximate existing urban centres, or decentralisation and regional renewal efforts—are associated with particular social and economic outcomes?
- What are the lessons for Australian metropolitan and regional governance and planning, in terms of:
 1. The spatial distribution and form of new employment and housing development within and between metropolitan and regional areas.
 2. The role of transport and ICT infrastructure in strengthening connectivity within and between metropolitan and regional areas.

3. The significance of strategies for delivering utilities, green space, and other urban infrastructure in enabling and shaping patterns of growth and residential locational choice.
4. Criteria for monitoring and informing responses to population growth and change, labour market pressures; economic and technological disruption.

The following sections describe the specific research methods, data sources, and analytical techniques used to address these questions.

1.3.1 Stage 1: Research evidence review on metropolitan and regional governance and planning

First, a review of recent international research evidence on metropolitan/regional governance and planning, including Australia's own approaches to regional decentralisation and more recent approaches to regional policy was undertaken. Drawing on secondary historical sources and the research literature, the review examined evidence on urban and regional dynamics including how spatial policy, planning, and funding interventions can support economic and population growth as well as specific types of economic activities and transitions found to underpin regional development. This review highlighted the diversity of geographic, economic, and demographic conditions which shape regional economic opportunities and constraints. It also highlighted a range of spatial strategies for encouraging growth in response to these parameters; 'growth centres' which are a focus for specific infrastructure investment and economic incentives; 'satellite cities' which benefit from proximity to major metropolitan areas and 'regional renewal' areas which have experienced disadvantage or decline through to economic restructure.

Building on this review we developed a framework for selecting and comparing a set of international and Australian case studies.

1.3.2 Stage 2: Strategies for accommodating and distributing population and economic growth

Fourteen Australian and international case study regions were chosen to explore and test the typology of spatial models for attracting and accommodating population growth in more detail, and to include a variety of international and Australian examples (Table 1). The cases are 'exemplar' in the sense that they epitomise many of the features typically associated with each approach type.

Table 1: International and Australian case study regions

Type	Case	Description
Regional renewal	EU ESPON program	Continental scale attempt for member nations to cooperatively identify areas for growth outside the highly developed band called the 'blue banana' between London and Milan. Includes transportation and employment issues, and both regional renewal and regional growth cases.
	Manchester, United Kingdom (UK)	Renewal of regional city through targeted funding investments via City Deal model.
	Dundee, Scotland	Small post-industrial city, with strong transport connections but a history of economic struggle associated with the decline of manufacturing. Seeking to reposition as a cultural centre.
	Newcastle, NSW	Concentrated focus for regional renewal through targeted Federal/state/ local investment in central CBD; knowledge centre attraction strategies; regional connectivity/infrastructure.

1. Understanding regional growth and strategies for attracting and sustaining regional populations

Type	Case	Description
Regional growth centre	ESPON program (EU)	Regional growth centres identified as part of this program.
	Albury-Wodonga (NSW)	Original Growth Centre—ongoing efforts to attract economic investment and population growth. History of cross-border planning.
	Bendigo	Skill/Knowledge-based development strategy.
	Ballarat	Regional 'capital' Strong strategic planning emphasis.
Satellite city	Cambridge, Oxford, and Milton Keynes (UK)	Two different types of places—historical university cities that are now high-tech centres (Cambridge, Oxford) and a new town from the 1960s (Milton Keynes). These are now the fastest growing cities in the UK.
	Hamilton, Kitchener, and the GGH, Ontario, (Canada)	Satellite cities within commuting distance to major urban centre Toronto; benefiting from strong strategic regional planning for growth, transportation infrastructure, and university/technology-based development.
	Marne-la-Vallée, Île-de-France	Satellite new town in proximity to Paris, which has benefited from strong investment in transport infrastructure and achieved strong employment outcomes.
	Toowoomba Qld	Challenges in maintaining discrete, diverse economic base while accommodating metropolitan overflow metropolitan city.
	Geelong	Relatively rapid growth despite decline of some traditional employment sectors.
Coastal (lifestyle)	Northern Rivers (NSW)	Network of towns relatively close to metropolitan area but with inherent growth drivers.
	Mandurah WA	Accessible to metropolitan area with growth drivers including lifestyle and retirement.

Source: Authors.

In selecting international cases we sought regions which offer potential relevance to Australia while recognising inevitable differences in relation to governance, geography, and economic conditions. We also sought cases already documented in research literature (including previous work by members of the research team). The previous research on these cases was extended and validated within the context of contemporary policy/planning/ program sources.

As shown, the final selection of cases exhibits different spatial structures, governance arrangements, and objectives for policy intervention. Some of the cases—such as the flagship European Union (EU) ESPON Program—include a wide-ranging diversity of programs targeting regions in need of renewal as well as identified growth regions.

Others provide an opportunity to examine exemplar regional governance and funding models—such as Manchester, in the UK, and Dundee in Scotland which was one of the earliest recipients of City Deal funding.

Satellite city regions such as the Cambridge, Oxford, and Milton Keynes, which benefit from close connections to London, and which have been experiencing rapid growth were also selected because of their apparent success in attracting and retaining population and 'knowledge economy' employment opportunities. Several international cases provide examples of different satellite cities which have benefited from proximity to major centres but in many cases struggled to adjust to economic shocks associated with the decline in traditional manufacturing industries. Some—such as Marne-la-Vallée, and the GGH region in Ontario—have been a focus for major new urban development.

Our selection of Australian cases followed a two-stage process. First, we examined key population growth, economic, and geographic features of Australia's largest population centres (regions with a population of 80,000 people or more), excluding the major capital cities. We then identified a selection of regions and satellite cities of different sizes, economic compositions, and growth characteristics.

In some cases, the areas selected could be classified in multiple ways. For instance, Bendigo and Ballarat in Victoria have been identified as regional growth centres but also, through their proximity to Melbourne, might sometimes be considered as satellite cities. Other cases, like Geelong, also in Victoria, is considered an exemplar satellite city because of its very close transport and employment connections to Melbourne. Geelong offers an excellent example of a post-industrial region seeking to develop new growth, in part, around cultural and tourism activities.

The coastal regions of Mandurah in WA and the Northern Rivers in NSW provide an opportunity to consider challenges associated with economic development in context where lifestyle is a major factor in regional migration.

1.4 Framework for comparative analysis

Research on comparative housing and urban studies emphasises the ways in which policy ideas and models 'travel' and are transplanted, often in very different settings (Dolowitz and Marsh 2000). To avoid naïve policy transfer it is important to establish a valid basis for comparison, by paying attention to the contextual factors which shape particular models and their implementation in practice (Stead 2012). Historically evolved geographies of settlement, modes of development and urban governance can provide the contextual factors for urban environments; while wider social and economic systems provide the contextual factors within which particular housing policy approaches emerge and intersect (Stephens 2011).

We collected a range of contextual data to establish 'conceptual equivalence' between cases considered in this study (Quilgars et al. 2009). A full suite of data points was not available for all cases, but the framework provided a starting point for comparative analysis. As shown, we considered characteristics of the regional area, population growth trends, economic indicators, and housing market data.

Table 2: Framework for comparative analysis

Measure	Explanation
Regional size and population density	Indicator of regional spatial structure
Population growth, trends & drivers	Indicator of regional characteristics and growth trends
Internal migration	Indicator of regional population loss/retention/attraction
Main sectors of employment	Indicator of economic opportunities/challenges
Employment/participation rates	Indicator of economic exclusion/inclusion
New housing supply (development applications; approvals; commencements/completions)	Indicator of housing development/market trends
House price and rental affordability	Indicator of housing market and affordability trends

Source: Authors.

In addition to the measures shown in Table 2, we considered contextual factors such as the organisation of government and distribution of fiscal and policy responsibilities, like Australian, unitary systems and state, provincial or regional, and local levels of government.

1.4.1 Interviews

To validate and extend our analysis, 15 interviews were held with key informants from Australian (within regional development and infrastructure portfolios), state (metropolitan/regional planning units in NSW, QLD, WA, and Victoria), and local government. All interviewees currently held specific roles associated with the planning and development of one of the selected case study cities. The interviews were held via telephone/internet and were recorded and transcribed for analysis.

In a semi-structured format, the interviews explored the following themes:

- Australian governance arrangements relevant to regional planning and development, including the role of state/local governments, infrastructure agencies, and independent commissions or bodies and collaborative arrangements.
- Existing or potential strategies for accommodating and distributing population and economic growth within and between Australian cities and regions, and the likely benefits/disbenefits of these.
- Existing and potential funding and policy levers.
- Existing and potential indicators/criteria for monitoring and informing responses to population growth and change.

To analyse the interview data, key themes were identified, initially categorised in response to key interview prompts. Subsequent analysis revealed some themes that had not been anticipated by the researchers. Notably, as the interviews were conducted during the early months of the COVID-19 pandemic, many participants reflected on implications of the pandemic for their region. Interview data was analysed in relation to the individual case study regions as well as across the regional cases.

1.5 Limitations of the study

The research approaches and data sources used in this study have inevitable limitations. Firstly, case study research offers an opportunity for deeper investigation of complex phenomena, but insights are not directly transferrable to other contexts. As noted, there are particular issues associated with international comparative research, although these can be managed by recognising the contextual factors which make each case unique. Our sources of data in relation to each case are not always directly comparable, because of the different approaches to data collection and reporting in different jurisdictions. In many cases, policy documents produced by government or non-government agencies were our primary sources of data about particular case study regions, but this information is not always complete, current, or objective. Our Australian case studies are limited in number and not fully representative of the diverse range of regional areas. Similarly, resource and timing constraints limited the number of interviews conducted during this research.

We address these limitations by triangulating our data sources. We use both primary and secondary sources of information about particular case study regions where available, and drawing on the perspectives of policy makers and practitioners in Australia to validate and extend our understanding of particular cases. The interviews also add additional insights in relation to existing or potential strategies for regional planning and development more widely.

1.6 Structure of this report

The following sections of the report present the research findings and identify potential policy implications and opportunities. Section two reviews the international and Australian research evidence on strategic regional development approaches and opportunities. Section three presents the international case studies and identifies potential lessons for Australia. Section four presents the Australian case study research and the implications for supporting population and economic growth in regional areas beyond the primate cities. Section five summarises the key findings and identifies policy development options and priorities for further research.

2. Research evidence review

- **The main drivers of regional economic development and population growth have changed over the past 50 years, shifting from primary production and manufacturing to the ‘knowledge economy’.**
- **Larger urban conurbations able to benefit from agglomeration and connect to ‘global city’ networks have benefited from these trends.**
- **Smaller regional centres have been shown to thrive if they are well networked to other centres; have specialist functions; and are well supported by urban infrastructure.**
- **Australian policy interventions to support regional economic development have been inconsistent, but the recent emphasis on City Deals suggests a new interest in national intervention to support “place-based” development strategies beyond primate metropolitan areas.**
- **“Place-based” strategies emphasise local strengths and competitive advantages. They seek to catalyse new growth by addressing infrastructure deficits, supporting existing and attracting new firms, and developing human capital.**
- **Place-based development strategies are strengthened by strong connectivity to larger population centres and global markets.**

This chapter presents our review of the international and Australian research on the spatial structure of urban systems. It canvasses theoretical and empirical evidence on optimal city size and population distribution; as well as the types of economic activities and shifts which are associated with regional economic and population growth. It also looks at the range of infrastructure and strategic policy interventions that have been employed internationally and in Australia to sustain and encourage economic activity and populations beyond major cities. We begin the review with an overview of the economic development factors which drive population change.

2.1 Regional economic development and population change

City and regional population change cannot be understood without a parallel understanding of economic development factors that drive population change. These factors have kept evolving over the last century, although the role of city size has remained a central influence throughout. The most important of these factors is tradeable economic goods and services, which generate growth via exports to other regions. These are discussed below under manufacturing, knowledge economy activities, higher education, entertainment and tourism, and resource development. In addition, some areas with high amenity can also grow through in-migration of retirees, as well as in-migration of persons already in the labour force who then carry out both tradeable and non-tradeable activities—the latter is supported by increased population from the exogenous in-migration.

Regional economic development drivers in developed countries have changed significantly since the end of the post-WW2 long boom around 1974. Up to that time, regional development primarily depended on primary and secondary sectors. The principal driving force was manufacturing. The classic development model had innovative manufactures being developed in inner city areas where there was a supportive concentration of skilled labour (Vernon 1979). As new products captured market share, more routine production methods employing economies of scale such as assembly lines could be used, allowing production to shift to other areas with cheaper labour and land. Nevertheless, large cities still retained significant manufacturing sectors because of agglomeration economies such as labour pools that were wide and deep, large local markets, and an extensive range of supply firms.

This situation changed from the mid-1970s as air and sea transport improvements like wide-bodied jet planes and containerisation, better telecommunications, increased sophistication of the global financial system, and rising education levels allowed production to be more readily shifted. This ability to shift production led to the emergence of a New International Division of Labour, with production moving to locations in east and south Asia in particular (Wallerstein 1987).

Knowledge economy

Since this time, new economic imperatives have driven regional development. The principal one is the emergence of a 'knowledge economy'. This has produced a focus on goods and services, with increasing knowledge content as key to being competitive in the contemporary global economy in which transport and telecommunication advances have reduced disadvantages of locations distant from suppliers and markets. The hallmarks of the knowledge-based economy are high-tech, an innovation orientation, and decentralised production systems (Mykhnenko and Wolff 2019). Global cities have concentrations of multinational company headquarters, financial activities, and advanced business producer services (Sassen 1991). Global production chains extend across multinational spaces, trading off transport and labour costs in particular. This has led to a division between post-Fordist cities/regions where knowledge economy activities are concentrated, and Fordist cities and regions with traditional Fordist mass production and consumption systems (Brenner 1998; Brenner 2004).

A feature of the knowledge economy is the extent to which much new knowledge-based activity is generated in spatial clusters (Glaeser and Gottlieb 2009; Rosenthal and Strange 2004). This is associated with the concept of tacit knowledge, which is non-standardised and contextual, and requires face-to-face communication to be passed on. For key knowledge economy sectors, notably ICT, the transmission of new ideas to collaborators, potential financiers, etc., is fundamental to turning those ideas into new products and services. This has placed a premium on locations where there are greater densities of high-level knowledge workers offering more possibilities of face-to-face contact. With such workers preferring high amenity locations to live and work, the result has been a centralisation of knowledge economy jobs in major CBDs and adjacent inner suburbs (Rodríguez-Pose and Storper 2020). This is reinforced by the concentration of advanced business services in major CBDs where they can serve clients such as major company headquarters more easily as well as access highly skilled labour more readily. The higher levels of the finance sector have always favoured locations offering better face-to-face contact, traditionally CBDs, to build trust as well as exchange new tacit information. The expansion of the finance sector in association with widening and deepening of contemporary globalism has further reinforced the spatial centralisation of the knowledge economy (Baily and Montalbano 2018).

Higher education

The expanding knowledge economy has also generated ancillary expansion of higher education and associated research. This has seen significant growth of many traditional universities in major cities and old university towns, and the establishment of new universities (Forsyth 2014). The latter have been in new university areas such as outer suburbs and regional towns. In Australia's case, the national university system has been able to attract many international students from countries such as China. Nearly all such students have enrolled in major city universities, producing new economic activity in those cities. Rising domestic enrolments have contributed to growth in regional urban areas that have university campuses.

Entertainment and tourism

A second major sector that has largely emerged since the end of the long boom is global and major national entertainment, as capital has sought new opportunities for accumulation (Harvey 2002). The expansion of professional sport is an exemplar of this, but it also includes entertainment such as pop music concerts and major art exhibitions. At the global level, cities and regions compete for international events, mainly sport-related but also including cultural shows and exhibitions, to generate tourist income. Global events such as the Olympic Games and football World Cup are in turn used to create a global image for cities that is intended to generate greater flows of tourism and business investment. Tourism, more widely, has become a major economic sector for many cities and regions in developed countries as international air travel costs have declined in real terms and as rising living standards in growing economies such as China have produced a significant middle class. This has favoured cities and regions with high amenity value such as major central cities and areas with scenic and historic landscapes (Saarinen et al. 2017).

Personal services

Beyond the knowledge economy, most employment growth is coming from personal services involving non-routine interaction with people that cannot be easily automated. Rising demands for health and disability care, along with an ageing population, are generating a range of personal care jobs. These are tied to where the population lives, and thus cannot be regarded as an exogenous source of regional development. Nevertheless, such jobs can provide a growth stimulus where there are concentrations of those who have a high need for personal services, such as retirement destinations.

Independent growth sources: 'Amenity migration', 'tree' and 'sea changers'

This leads to consideration of regional development that is produced by population intakes that are more or less independent of production imperatives. The most notable such group are retirees who seek to move to higher amenity and/or less costly areas after their working lives (McIntyre 2009; Poudyal et al. 2008). The stimulus to local growth from influxes of 'sea changers' and 'tree changers' has been notable along coastal areas of Australia and warmer areas of western Europe and the USA (Gurran and Blakely 2007). In Australia, communities with high accessibility to the coast as well as to metropolitan centres, and an established or nascent tourism industry have been the most likely to experience net migration gains (Argent et al. 2014). The presence of service industries has also been central to regional employment growth and in-migration, in addition to amenity and proximity to metropolitan markets (Garnaut et al. 2001; Lawson and Dwyer 2002). Such growth has been a countervailing trend to economic centralisation forces. If longer life expectancies outrun increases in retirement age, this will accentuate such movements, as will a general increase in retirement age populations in Global North countries. However, a number of personal services including specialised health care have high threshold populations that mean only larger urban areas are attractive for many retirees. This has seen larger towns retain or gain retiree populations including local retirees who move from smaller towns, hamlets, and farms in need of local services (Argent et al. 2008). The lack of attraction of small town living for many health professionals has reinforced this phenomenon.

Related to this is regional growth from those in the work force who do not need to be in a city location. One such group are those in the 'creative' sector producing arts and crafts, writing, making music (Gibson 2006). City living costs have forced a number of such workers from the big cities in Australia and they can have a positive economic impact in their new locations. In addition, there is a slowly growing cohort of workers living outside big cities such as consultants who use telecommunication to carry out work for, and interact with, city clients. This new migration trend has been dubbed e-change (Glover and Lewis 2019). Advances in technology are likely to increase the potential for such work patterns. For both creatives and teleworkers, areas with high amenity, such as coastal zones, are favoured locations. Creatives and teleworkers may be attracted by smaller settlements and villages if well connected to a regional centre.

Resource development

Some contemporary advanced economy regions have generated significant growth from resource development. Regional development based on coal mining and oil and gas extraction has been significant in the US, Canada, and Australia, while minerals such as iron ore have also produced significant development in those nations. The population generated by resource development, however, is increasingly less likely to live where the resources are located unless resources are near a major urban area (Martinus et al. 2018). Otherwise, as in Australia, workers and their families prefer to live in cities and fly or drive in and out for spells of work. This also reduces infrastructure costs for mining companies. At extraction sites, automation of processes is becoming very significant. Conversely, other regions with longer histories of resource extraction have declined as deposits have become uneconomic to extract. The most common example comprises old coal mining and steelmaking districts, as found across much of Europe and eastern US.

Governments have sought to foster and encourage these regional economic opportunities and transitions in different ways.

2.1.1 Governance and planning

Regional governance and planning initiatives have attempted to enhance favourable economic development factors and offset factors that cause regional development to decline. In recent years these have been described as 'place-based' approaches as opposed to or 'place neutral' strategies which sought to maximise aggregate growth by concentrating in core areas (Barca et al. 2012).

Place-based models see potential growth and development in many areas:

'The place-based arguments imply that tapping into unused potential in intermediate and lagging areas is not only detrimental for aggregate growth but can enhance both growth at a local and a national level.... The place-based argument suggests that development strategies should thus focus on mechanisms which build on local capabilities and promote innovative ideas through the interaction of local and general knowledge and of endogenous and exogenous actors in the design and delivery of public policies' (Barca et al. 2012: 149).

These models have emerged as a product of a wider post-welfare state movement, whereby spatially undifferentiated government support has been replaced by spatially selective intervention (Brenner, 2004) and/or by withdrawal of top-down assistance as part of neoliberal governance. The latter approach has come to predominate in some western countries such as Australia, though modified somewhat in WA by the Royalties for the Region program (van Staden and McKenzie 2019). Its 'bottom-up' emphasis on mobilising local resources with limited support from higher level governments places constraints on the ability of less dynamic regions to escape slow or negative growth.

Assisting declining regions

Some of the most comprehensive policies are employed by the EU. General EU regional policies have incorporated a specific spatial element—the European Spatial Directive (Faludi and Waterhout 2006). This prioritises a network of urban nodes for investment, reflecting a recognition of the importance of urban agglomeration economies in the new knowledge economy. The development of an intercity fast train network in the EU is an expression of this concept. Nevertheless, to reflect development problems in rural areas of Sweden and Finland, a new EU structural fund applying to peripheral areas with extremely low population density was established after those countries joined the EU in 1995 (Lind 2013). Urban agglomeration economies are at the centre of French regional development strategy. This policy aims to support development in major urban ‘agglomerations’ such as Lyon and Bordeaux to counter the draw of the Paris metropolitan area.

In the UK, the Northern Powerhouse has been conceived as a collection of northern English cities, from Liverpool to Leeds and Sheffield, that would be stimulated by new transport connections, reallocation of science funding, devolution of central government, and arts and culture projects. The objective is to counter the agglomeration advantages of London. But this has been criticised as geographically fuzzy, insufficiently funded and generally a ‘mess’ (Williams 2018). Beyond this, the UK Government introduced a City Deal program in 2012 to create economic growth in major cities outside London by transferring some central government powers to city councils, so that the latter can have greater freedom in deciding how public money should be spent to help businesses grow (O’Brien and Pike 2015).

China has active policies to reduce the growth of the super-sized or tier-one cities (Beijing, Shanghai, Shenzhen and Guangzhou) and promote second and third-tier cities, all of which have a population of more than 1 million. Registration for those moving into lower tier cities, which gives access to various social services, has been relaxed (Morgan Stanley 2018). Connectivity to lower tier cities has been enhanced by investment in high-speed rail and airports. New rail links to Europe under China’s Belt and Road Initiative will help second-tier inland cities such as Wuhan and Chengdu. Nevertheless, the aim of maximising economic synergies between Guangzhou, Shenzhen and Hong Kong is also evidenced by the recent completion of a long connecting bridge across the Pearl River Delta.

Decentralisation, infrastructure and networked growth

In South Korea, about half the national population live in the Seoul capital region, and a range of policies have been in place since 1982 to promote equitable spatial development across the country (Kim and Jang 2014). A quota for the number of factories allowed in the capital region was introduced, university expansion in the region was halted, and an ‘overcrowding charge’ on capital region businesses was imposed. After 2003 came a government plan to relocate 13 ministries and 154 public agencies outside the capital region. A new public administration town was constructed, and public offices started relocating there in 2013. In addition, public agencies were to be relocated to 10 cities outside the capital region (Kim and Jang 2014).

In Europe, high speed rail has been used to stimulate development. For example, a station on the high-speed London to Paris line was built at Stratford to reinforce the economic boost to the brownfield lower River Lea area in east London that had been given by the 2012 Olympic Games development. At the same time, fast train services have enabled commuting from cheaper housing areas across south east England into London, a pattern repeated in other major cities such as New York and Tokyo.

Governance

Contemporary initiatives to enhance urban and regional development have often been accompanied by, or driven by, changes in governance. For example, in Norway, Sweden and Finland, ‘the overall trend [in regional development governance] is towards central-regional partnerships in policy making while the local and regional levels are taking over functions of implementation’ (Lind 2013). In the EU more generally, the introduction of EU regional policy has meant that the regional level has been strengthened or created at the loss of the state (Bachtler and Yuill 2001).

The wider governance trend here derives from a desire to make cities globally competitive, and insert them into global circuits of capital (Brenner 2004; Brenner and Theodore 2002). As a result, many metropolitan or city-regional levels of government have been reinstated or remade (Boudreau et al. 2007). Local governments in Auckland were also merged to create a mega city council, with a key aim being to produce governing capacity to compete as a global city (Mouat and Dodson 2013).

A range of specific governance approaches are also used to stimulate urban and regional development in advanced economies. Government redevelopment agencies and not-for-profit development corporations have been used for many decades in USA cities to generate area-based economic development. Similar models were used in major English cities in the 1980s to regenerate declining urban areas but have now been phased out. However, they continue to be used for regeneration governance in a number of other cities, such as Santiago and Singapore (Amirtahmasebi et al. 2016). Notably, beyond formal institutions and initiatives, informal networks and relationships are often critical to effective decision-making and development outcomes.

A further range of specific methods of financing necessary redevelopment infrastructure and encouraging private investment are widely used in the USA and elsewhere, such as developer exactions, betterment levies, tax increment financing, business improvement districts, special assessment districts, density bonuses, up-zoning, transferable development rights, government grants, low cost loans, and tax incentives (Amirtahmasebi et al. 2016). The EU Structural Funding mentioned above is an example of such government financial assistance.

Over the past decade the trend has been towards place-based funding interventions through City Deals (O'Brien and Pike 2015). These focus on addressing infrastructure gaps, building local human resources and capacity, as well as attracting new firms and investment into the area. The informal opportunities for collaboration and effective cross institutional and agency networking at the regional scale is regarded to be one of the positive benefits of City Deals in Australia (Pill et al. 2020).

2.2 Spatial models for regional economic growth

There are many spatial models for distributing urban and regional growth, depending on the economic base of the city/region and the relevant transportation and communications connections. For this study we are examining three specific types of growth involving freestanding urban areas as a way of attracting population away from the major cities.

- **Regional growth** centres are completely new developments in regional areas or very substantial expansions of a town or small city. They are self-contained and independent from a larger city but to reach a substantial size they need to have transportation and communications links that can support their economic activity. In Australia examples include Albury-Wodonga (NSW/Victoria) and Canberra (Australian Capital Territory). A future wave of such areas might build on some combination of the knowledge economy, entertainment tourism, or the service economy (e.g. smaller university towns like Armidale with substantial health care); they could also use inland rail connections.

In this study we include regional centres that have been historically designated for growth as well as cities which are recognised centres within the regional settlement hierarchy. In comparison to satellite cities (discussed below), regional centres are typically the largest conurbation within their settlement hierarchy.

- **Satellite cities** are also self-contained and free standing but in the orbit of a larger metropolitan area, tied to it economically. They may be built from scratch though commonly they are added to an existing town or city. Over time they may be absorbed into outer suburbs. These are useful for decentralising population. Australian examples include Elizabeth (South Australia) and Kwinana (WA) and arguably some of the outer growth corridors around major Australian cities, as well as Geelong (Victoria) or Wollongong (NSW). Towns and small cities close to major metropolitan areas can be the core of a larger satellite city if linked economically to the main city, and those along train lines are particularly relevant as the nuclei of satellites. However, such satellites can take decades to build and land is not always available.

- **Regional renewal** more modestly expands a regional town or city. While smaller in employment and population numbers, regional renewal can be part of a larger urban system. Regional renewal models may include significant restructuring of land use and economic activities, for instance from an industrial waterfront towards leisure or knowledge focused activities, including a change of use, generally from an employment-based use to mixed use or residential.

2.2.1 Regional development and optimal city size

There is often a sense in Australia that regional areas have limited potential because of their small size, while continued expansion of major urban conurbations like Sydney and Melbourne will maximise economic productivity and growth. However, the research evidence on optimal city size suggests that there is no one best size but rather a series of trade-offs.

One of the more comprehensive reviews of the topic of optimal city size is Capello and Camagni (2000). While there has been subsequent empirical work these authors provide a useful summary of the literature since the 1960s. Through this work, they compare theoretical approaches to understanding characteristics of the 'neoclassical' city, which evolves in a hierarchical structure through a cascading concentration of different urban functions; the 'network city' which is a specialised city linked to a larger urban system; and the quest for an 'optimal city size' defined by agglomeration economies.

Table 3: Comparing theories about optimal city size and structure

	Neo-classical city	Network City	Optimal city size
City specialisations	Diverse ('despecialised')	Specialised linked with a large urban system	Aggregations
Urban system	Hierarchical	Networked	Not defined
Urban efficiency	Functional economic 'upgrading'	Combined—agglomeration efficiencies/ network 'externalities', functional 'upgrading'	Agglomeration efficiencies
Urban policy aims	None—the urban system is 'in equilibrium'	Cost-benefit equilibrium via specialisation/network integration	Cost-benefit between agglomeration and congestion

Source: Authors, adapted from Capello and Camagni (2000), based on a work by Capello (1998) in French.

Capello and Camagni (2000) point out that there are benefits to larger cities despite the disadvantages of urban congestion. However, they argue that there is not one optimal size because cities have different functions and specialisations, which operate efficiently at different sizes, and because these differences are affected by the wider urban context (Capello and Camagni 2000). For instance, smaller, highly specialised cities can succeed if connected to a broader network. Instead of looking for an optimum size they suggest seeking an 'efficient' size where the benefits outweigh the costs. The authors assess 58 Italian cities using an econometric assessment of positive and negative externalities, including environmental ones, with different kinds of economic, physical/ environmental, and social arrangements. They show that cities with more 'high-order tertiary functions' can be larger (Capello and Camagni 2000: 1491). However, if cities are part of a network, they can be smaller. For example Zurich is a centre for international finance, which they put at about 300,000 people.

The idea of the city network has intrigued a number of European authors. For example, Parkinson et al. (2015) studied capital and second-tier cities (N=155) in 31 European countries (Parkinson et al. 2015). In Europe second-tier cities, as defined in the study, house nearly 80 per cent of the 'metropolitan urban' population (Parkinson et al. 2015: 1057). They found that in all countries except Germany and perhaps Italy, capital cities are dominant 'in terms of population, employment, and output' (Parkinson et al. 2015: 1059). However, in the boom up to the financial crisis, many second-tier cities did better than their capitals and, 'in Austria and Germany, all second-tier cities outperformed their capitals' (Parkinson et al. 2015: 1059). That is, large capital cities do well. Some, but not all, second-tier cities also do well. This implies that governments can strategically invest in second-tier cities to help avoid some of the problems of concentrating growth in only a few cities. However, it is not wholly clear whether all second-tier cities could perform well with resources or whether some more likely to do so than others.

Recent work by Frick and Rodriguez-Pose (2018) engages this topic from an international perspective looking at 113 countries from 1980–2010 and looking at which factors were growth enhancing—both city size and other dimensions (Frick and Rodriguez-Pose 2018). They found that in many countries, cities with a population up to 3 million are more conducive to economic growth (Frick and Rodriguez-Pose 2018: 4) than larger cities although the relationship between city size and growth is heavily influenced by the size of the country's urban population. Indeed, in smaller countries, with urban populations under 12.3 million, the highest growth is in cities under 500,000 (Frick and Rodriguez-Pose 2018: 19). They note the general finding that urban infrastructure, institutional or governmental capacity, and industrial makeup, company size, and network integration are generally thought of as more important than size (Frick and Rodriguez-Pose 2018: 8). Therefore, investment in smaller cities with demonstrable economic potential can be just as, if not more effective than investing in larger cities to further growth.

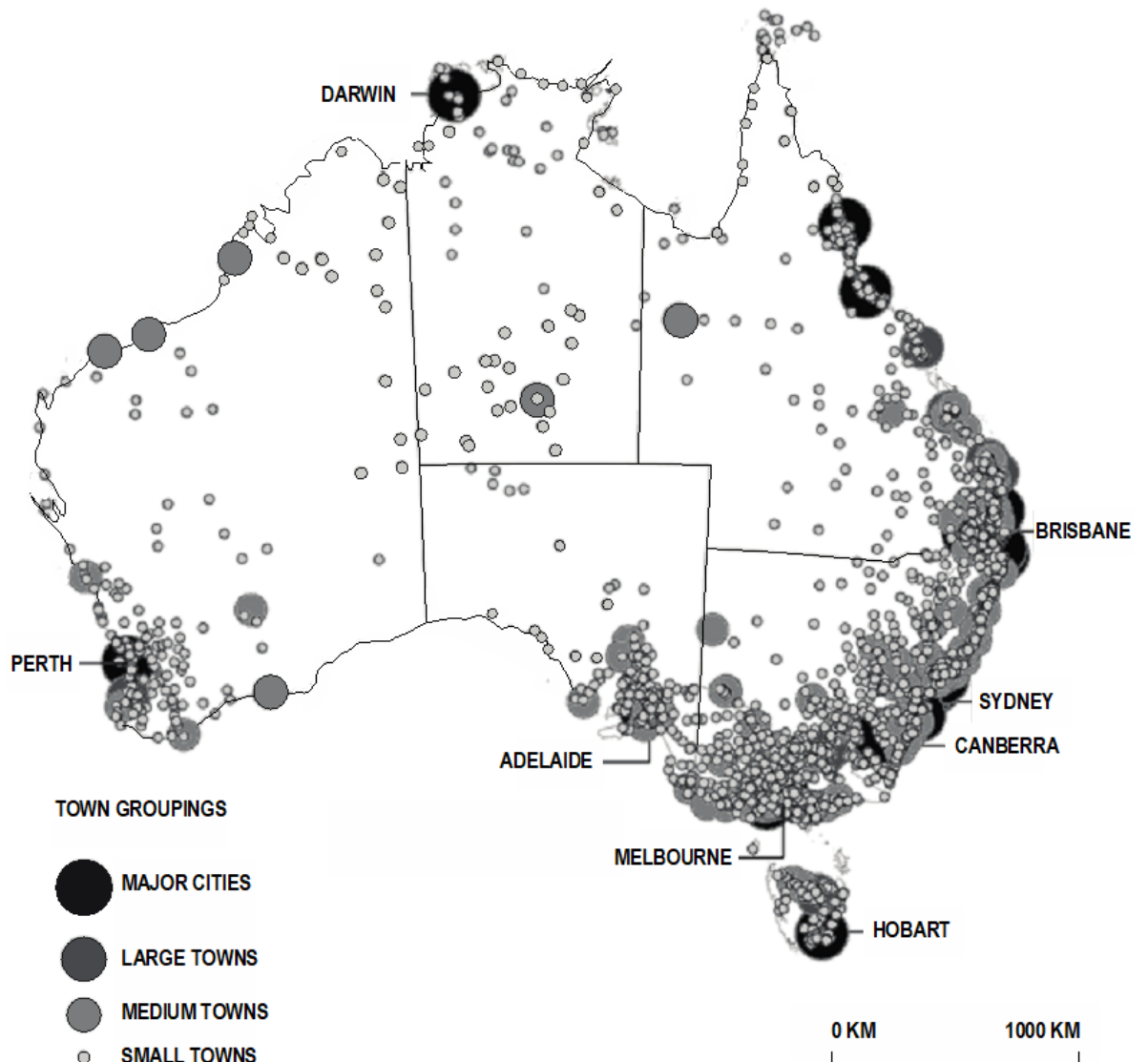
It is worth noting that city size debates have also considered whether some settlements are simply too small to sustain viable economic activity and ongoing populations. In the mid-1990s to early 2000s, there was considerable discussion in Australian regional policy over the role of regional 'sponge cities' which were thought to grow by absorbing populations from nearby rural towns and settlements rather than attracting new investment (McGuirk and Argent 2011). The implications of a 'sponge city' hypothesis are twofold. Firstly, that strategic interventions intended to support regional growth might simply alter the distribution of populations within regional areas rather than stimulating absolute growth. Second, that smaller settlements have little long-term viability and therefore financial support to assist their 'survival' is counter-productive. However, empirical analysis of growth trends in NSW regional centres Dubbo and Tamworth found little evidence of a 'sponge city' effect (Argent et al. 2008).

2.2.2 Distribution of urban settlements in Australia

There have long been debates about the optimum distribution of urban settlements in Australia, including whether the current pattern dominated by primate capital cities and much smaller regional centre is equitable or sustainable.

The next figure presents the urban structure of Australia, with an emphasis on smaller towns of under 10,000 people. Several points arise from this spatial pattern (Figure 1). Firstly, although 44 per cent of Australia's population lives in Sydney, Melbourne, and Brisbane, there are a large number of major cities with populations over 100,000 people, which could act like second-tier cities in Europe. Secondly, while much urbanisation is on the coast there are inland centres that could be part of a regional renewal strategy. Lastly, the clustering of towns and communities in coastal as well as inland parts of Australia offers clear potential to support nonmetropolitan networks through strategies for connectivity within, and between regional areas.

Figure 1: Major cities (100,000 plus), large towns (50,000–99,999), medium towns (10,000–49,999), small towns (under 10,000)



Source: ABS (2018).

2.2.3 Australia's evolving approaches to regional planning and development

During the 20th century a growing proportion of Australia's population became concentrated in the largest cities. This raised a number of social, economic, and political issues that eventually evoked policy responses. Sydney's dominance of NSW's growth and a desire to produce a more balanced settlement pattern across the state generated a demand for action after the Second World War. The motivating influences included a national regional development policy discourse after the war, the growing political predominance of Sydney (Harris 1948), the 'prohibitive' costs of dealing with traffic congestion (Spearritt 1978: 171), and air pollution (Searle 1981).

Decentralisation – the NSW experience

The NSW Government responded by setting up a Decentralisation Fund in 1958 to provide assistance to industries outside Sydney, Newcastle and Wollongong that had a locational disadvantage compared to metropolitan firms. The fund provided rail freight subsidies, funds for housing key personnel, and subsidies for labour training costs, water and gas charges (where above Sydney costs), and long distance telephone costs (Searle 1981: 30). After 1965 wholesaling and tourist projects became eligible, plant and machinery loans became available, government industrial estates were constructed, and from 1977 pay-roll tax rebates were introduced (Searle 1981).

However, Decentralisation Fund expenditure did not significantly alter Sydney's dominance. In 1969 a government advisory body, the Development Corporation of NSW, concluded after statistical analysis that existing lending and grants policies were 'not related to the significant town growth necessary to redirect sizeable population increases from the Sydney region' (Development Corporation of NSW 1969). The need for such redirection had become more urgent with the release of the 1968 Sydney strategy, which assumed that 500,000 people would be diverted from Sydney to non-metropolitan areas in order to limit Sydney's population by the year 2000 to five million (State Planning Authority 1968). The Development Corporation's report set out the arguments for concentrating decentralisation developments into a limited number of growth centres which would start to yield metropolitan advantages once they grew beyond a population of 100,000. This recommendation was taken up in the urban policy of the Australian Labor Party, which was elected to Australian Government in 1972. The new government justified a growth centre program by explaining the opportunities growth centres would give for improved access to urban amenities, a greater choice of residential locations and experimentation with city styles (Department of Urban and Regional Development 1973).

Growth Centres

To implement the growth centres program, development corporations responsible for planning and development of each growth centre were established. The corporations had wide planning powers, including compulsory acquisition of land and making statutory plans. It was intended that the corporations should consult with local councils and the public (Albury-Wodonga Development Corporation 1975), but ultimate decision-making powers rested with the corporations. The Australian Government provided land and infrastructure funding. Constitutional restraints meant that state government agreement was necessary (Scott 1978). The corporations were thus composed of a mix of Australian and state government appointees, operating under joint growth centres legislation. The first growth centre chosen for development was Albury-Wodonga, where a joint Australia-NSW-Victorian Development Corporation was responsible. Subsequent growth centres were chosen at Macarthur (south west Sydney, which had been nominated for urban expansion in the 1968 Sydney strategy), Bathurst-Orange (central western NSW) and Monarto (Adelaide Hills). The latter two centres were never developed, although land for centre development was bought in both places. In Bathurst-Orange, pressure from land owners caused land to be purchased well ahead of development need, resulting in severe negative cash flows for the Corporation and its winding up in 1985, with the Macarthur Development Corporation also shut down at the same time with a similar debt problem (Sydney Morning Herald 1985). The Albury-Wodonga and Macarthur Development Corporations both achieved a considerable level of development before being closed.

Regional self help and relocation efforts

Government intervention to stimulate non-metropolitan urban growth faded away after the growth centres program. Instead, emphasis was put on regional self-help programs with limited state support (McGrath-Champ and Searle 2005). An important exception to this has been WA's Royalty for the Regions program. This has used state resource extraction royalties to fund a place-based development strategy comprising funding for large-scale strategic regional infrastructure; funding to support local government including local infrastructure assistance; and funding to improve access to community services and retention of regional government employees (van Staden and Haslam McKenzie 2019).

Governments have attempted to support non-metropolitan development over the last few decades by relocating public sector office employment outside the capital cities. The Australian Taxation Office has set up fully autonomous branches in several small cities including Albury-Wodonga (Regional Capitals Australia 2017). The NSW Government shifted the head offices of the Departments of Agriculture, or Rural Assistance Authority, and local government to regional centres, along with the offices of State Water Corporation, State Emergency Service and WorkCover NSW—although the latter two were located in peri-metropolitan locations (NSW Business Chamber 2013). In Victoria, the state Transport Accident Commission and a branch of the Australian Bureau of Statistics (ABS) have been decentralised to peri-metropolitan Geelong (Regional Capitals Australia 2017). The Australian Securities and Investments Commission information-processing centre was established in Traralgon, Gippsland, in the early 1990s (Regional Capitals Australia 2017).

Attempts have also been made at the local level in recent decades to influence city dwellers and businesses to relocate to non-metropolitan areas. Financial incentives have included subsidised housing and access to online education so people can stay in their town to study (Standing Committee on Regional Development (SCORD) 2004). Local government incentives to attract businesses have included business incubators, providing rate relief, and easing planning regulations (Rural Councils Victoria 2013). The Australian Government has also set aside 25,000 skilled migrant places each year from 2019–20 for those who want to live, work and study in regional areas, and will provide an extra one to two years of additional post-study work rights in Australia for international students who live and study regionally (Australian Government 2020). Adelaide is included as a regional migrant destination because of its low rate of population growth.

City Deals

The Australian Government has returned to significant intervention in urban economic development beyond highway works with the City Deals program. The City Deals involve the development of collective plans for growth, and actions, investments, reforms, and governance needed to implement them, involving all levels of government, the private sector, and the community. The Australian Government's first City Deal was signed with the QLD Government and Townsville City Council in 2016. It aimed to revitalise the city centre and waterfront and create jobs with projects including a new stadium. Other City Deals have been agreed for Launceston, Western Sydney—which focuses on provision of land transport infrastructure for Western Sydney Airport—Darwin, Hobart, Geelong, and Adelaide (Infrastructure Australia 2019).

If the City Deal approach is to remain a primary vehicle for national involvement in local development, it will be important to consider their impact within wider regional areas or networks. Despite being a metropolitan case, the Western Sydney City Deal, which brings together six local government areas (LGAs), is an example of the potential network benefits that can be leveraged through place-based funding packages.

2.3 Summary and policy implications

This chapter has reviewed the research evidence on regional economic development and changing approaches to government intervention. It has charted the changing drivers of regional economic and population growth from primary production to the so called 'knowledge' economy, and the uneven spatial implications of this transition. Government interventions seeking to enhance regional economic growth have recognised the importance of urban agglomeration for the knowledge economy, but the research evidence shows that cities of different sizes can succeed. In particular, smaller cities that are specialised and well connected to wider urban networks may even outperform urban conurbations.

In Australia, approaches to regional planning and development have been inconsistent, reflecting the fact that urban policy and planning are largely state responsibilities. National efforts to support regional economic growth through strategic investment and decentralisation in the early 1970s gave way to more limited regional self-help schemes and federally funded highways. In recent years, the rise of place-based City Deals have signalled a renewed interest in regional economic development through place-based funding interventions.

Policy implications arising from our review of the research evidence on regional economic development approaches in Australia and internationally include:

- International research suggests that strategic planning that improves connections within regional networks, especially those with a first-tier city, can benefit smaller regional and second-tier cities, particularly when economic specialisations can be developed.
- Potential economic specialisations include higher education; research and development; entertainment and tourism; personal services and wellbeing; amenity and lifestyle.
- Locations closer to metropolitan cities are an advantage for smaller cities.
- There are potential untapped opportunities for Australia's smaller cities and regional areas to attract and sustain higher levels of economic and population growth, by identifying and capitalising on relative competitive advantages.
- Strategic planning and funding interventions designed to catalyse economic and employment growth in regional Australia should focus both on specialisation opportunities as well as opportunities to establish and support network connectivity.

The following sections examine these themes in more depth through our international and Australian case studies.

3. International models for regional growth, renewal, and connectivity

- **There are a variety of international models for supporting regional economic growth, ranging from multi-jurisdiction efforts in Europe through to single, localised City Deals.**
- **The EU has sought to foster polycentric development beyond its highly developed central core, through strategic regional planning, funding, and knowledge exchange.**
- **Developing economic specialisations around higher education, technology, or culture has been a strategy used by regional renewal and growth areas in Canada, the UK, and France.**
- **Particular governance structures are needed to ensure that strategic planning frameworks are closely aligned with funding and infrastructure investment.**

This chapter examines in greater detail a series of international case approaches to increase vitality beyond the dominant urban areas. These cases range from the metropolitan to the regional and even continental scale:

- EU ESDP and ESPON
- Hamilton, Kitchener, and the GGH, Ontario, Canada
- Manchester, England
- Cambridge, Oxford, and Milton Keynes, England
- Marne-la-Vallée, Île-de-France
- Dundee, Scotland.

The cases include a mix of regional growth or renewal models, as well as satellite cities or city networks situated in close proximity to a major urban conurbation.

In this chapter we first provide an overview of the key characteristics of each case, before discussing each in turn. Potential implications for Australia are highlighted in the conclusion.

3.1 Overview of international cases

As noted above, the international cases selected represent exemplar examples of regional development approaches, ranging from the international polycentric example of the EU and related programs through to smaller city regions such as Dundee (Scotland) and Manchester (England). The cases exhibit different trends in terms of population growth—with Milton Keynes in England exhibiting the strongest growth (3.6 per cent per year) between 2014–2019 but most recording increases of around 1–1.5 per cent per annum. Two of the cases (Cambridge, Oxford and Milton Keynes; Hamilton, Kitchener and the GGH), have leveraged development around higher education, universities, and technology; while others (Dundee, Manchester) have sought to reposition from industrial to cultural centres.

None of the cases offer perfect parallels to situations in regional Australia, or evidence of unambiguous economic success. Our data includes secondary sources as well as primary policy and program documentation, but these sources offer only limited evidence of impact, outcomes, or cost effectiveness of the initiatives. These qualifications notwithstanding, all the cases provide insights into the different strategies and experiences used internationally to foster development and populations beyond primate metropolitan centres.

3.2 EU ESDP and ESPON

The first case looks at a planning at a continental scale. The ESDP and ESPON were the early core programs of a loose initiative aimed at improving economic performance, social cohesion, population distribution, and sustainability in Europe. These have evolved over the years with mixed success, in large part because of the difficulties coordinating multiple member states in the planning domain, as well as lack of coordination between planning and spending agencies (Faludi 2018). However, the rationale to coordinate urban development, infrastructure, and conservation activities so that regions beyond Europe's most developed core could thrive remains.

This was to be achieved by progressing polycentric growth. Rather than concentrating activities in the highly developed band in central Europe often called the 'blue banana' (Kunzmann and Wegener 1991), the ESDP conceived of a polycentric European grape.

Established in 1999, the ESDP aimed to achieve three goals in all EU regions: economic and social cohesion; conservation and management of natural resources and cultural heritage; as well as 'balanced' competitiveness of the European territory (Committee on Spatial Development 1999). This signalled the first time the EU had engaged in spatial planning, although Faludi notes that it had no role allocating regional development or territorial cohesion funds needed to create spatially balanced development (Faludi 2018).

The companion, ESPON, was created as a network of researchers and research projects related to the ESDP, although it has had a wider focus (Bański and Ferenc 2014; van Gestel and Faludi 2005). The ESPON remains in place and includes the whole EU, which has been expanding in recent decades, as well as Switzerland, Norway, Iceland, and Liechtenstein (ESPON 2020), supporting transnational research and knowledge transfer.

More recently, the EU's approach has evolved to focus on 'Smart Specialisation Strategies'. These are place-sensitive approaches, which centre on the core specialisations of countries and regions (Iammarino et al. 2019). There are currently over 120 such strategies across 40 countries from within and beyond the EU. The strategies task regions with identifying their domain of specialisation, setting key priorities that emphasise innovation through stakeholder involvement, and creating a monitoring and evaluation system to assess the effectiveness of the strategy (European Commission 2020).

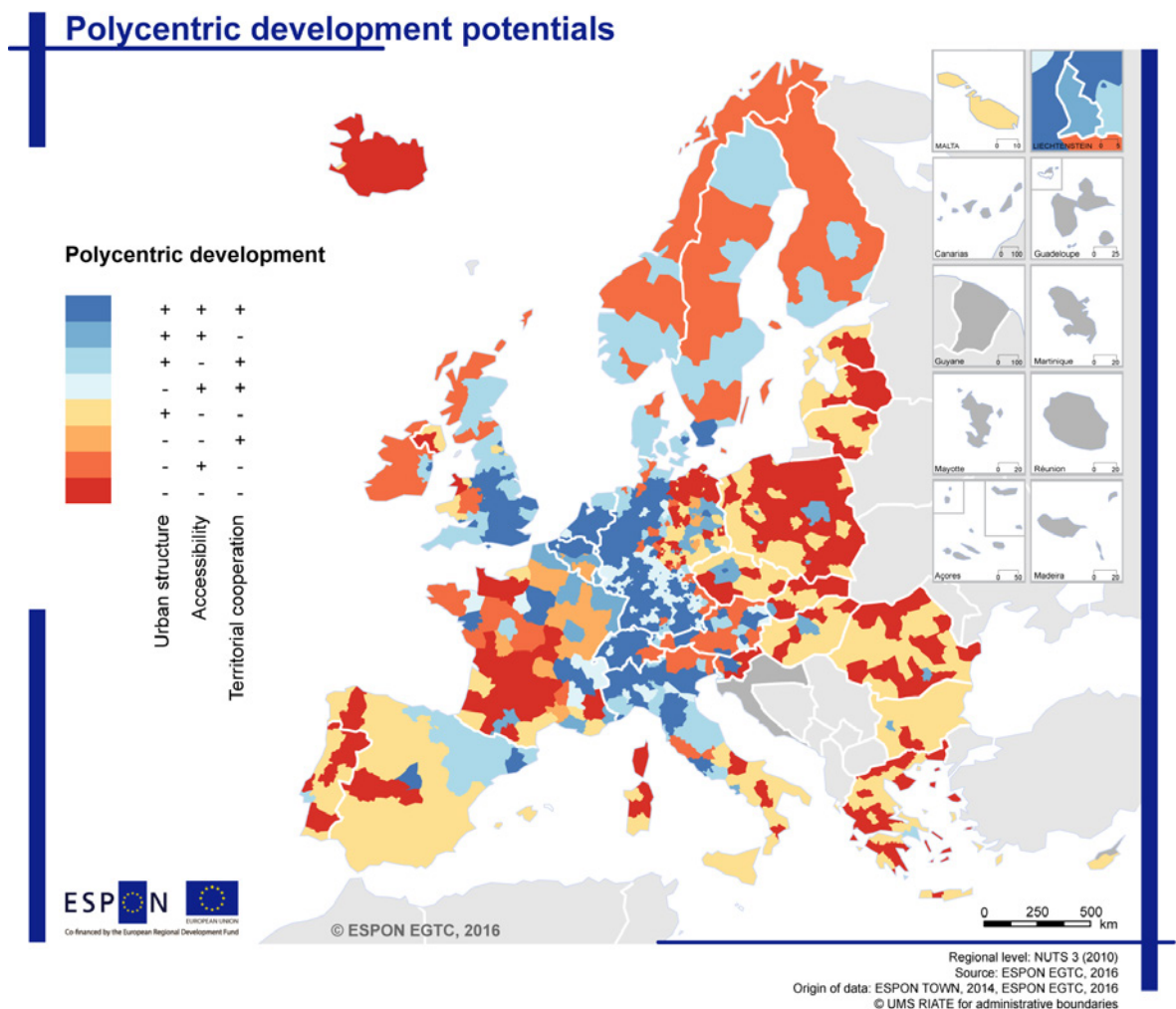
The approach is being borrowed by regions and countries outside the EU, with the first Australian smart specialisation strategy designed for Gippsland, Victoria. The strategy focusses on Gippsland's existing strengths in horticultural industries (Goedegebuure et al. 2020). A progress report conducted after the first three years of the strategy identified the difficulties of industry, government, research/training, and community collaboration, and a lack of clarity of government roles of different levels. However it identified further opportunities for innovation and strengthened international partnerships as future steps for the Gippsland region (Goedegebuure et al. 2020).

3.2.1 Key interventions

The ESDP, ESPON, and related initiatives have provided a framework for strategic resource allocation and knowledge sharing that aims to support balanced, polycentric development. However, the dispersal of EU Cohesion Policy funds to regional areas has shifted over the years towards support for economic competitiveness (rather than cohesion) and from weaker regions to cities. Recently, there has been a focus on cities with populations over 300,000 (Medeiros and Rauhut 2020: 121) in comparison to the early years of the program which supported balanced development between urban and rural areas. The program has faced challenges in the years following the Global Financial Crisis, with spatial inequalities persisting within individual countries (Medeiros and Rauhut 2020).

Urban structure, accessibility within and between regions, as well as connectivity/cooperation are regarded to underpin polycentricity in the EU (Figure 2).

Figure 2: Polycentric development potential across Europe



This figure highlights areas of existing high polycentricity and areas with potential to improve outcomes.

Source: ESPON (2016).

3.2.2 Potential lessons for Australia

In drawing potential lessons for Australia, the ESPD approach is an overarching framework for supporting regional development across different territorial boundaries, in favour of a polycentric urban structure over a focus on a single core region (i.e. the 'blue banana'). An Australian equivalent might be a national settlement strategy outlining overall objectives around balanced growth (e.g. for regional areas to thrive while also reducing pressure on the core), as well as specific interventions, for instance, to decentralise away from the coastal area from Brisbane to Melbourne.

Both central (national) leadership and strong 'buy in' from each of the jurisdictions (states, territories, and local government) would be needed along with closely aligned funding interventions. Further, the dialogue and knowledge exchange activities associated with the ESPON, provide a model for emulation. There is an opportunity to elevate and advocate for the work already undertaken by Australian national and state regional development authorities, such as the Regional Organisations of Councils, through a broader framework for regional research, policy development, and collaboration.

3.3 Hamilton, Kitchener, and the Greater Golden Horseshoe, Ontario

Part of a larger regional plan, Hamilton and Kitchener are satellite cities within commuting distance to Toronto, the capital city of Ontario province, Canada. Akin to Wollongong near Sydney or Geelong near Melbourne, these cases exemplify metropolitan and regional planning for a constellation of urban areas, with a combined population of 10 million people. The cities of Hamilton and Kitchener have been described as North America's second and third most 'up and coming' tech centres respectively, recording technology jobs growth of 52 per cent and 40 per cent respectively in the period 2014–19 (CBRE Research 2019). Overall, the wider Toronto area added 80,100 new tech jobs between 2013–19, the highest of any North American market, while also offering the lowest cost location for firms to operate in (CBRE Research 2019).

As in Australia, the Canadian Government hierarchy allows Canadian provinces to play a greater role in municipal governance and regional planning. In addition to legislative authority around urban planning, transport and environmental conservation, provincial governments are responsible for infrastructure provision and funding. The Province of Ontario has used its funding powers to underpin its regional policy (Jakar and Dunn 2019). This has enabled the Province of Ontario to interconnect different metropolises within the GGH to manage growth and create a residential-employment network, supporting the economic transition from manufacturing to technology.

3.3.1 Description and context

The satellite cities of Hamilton and Kitchener are located within the GGH area of Ontario, Canada. Legislatively defined by Ontario Regulation 416/05 under the *Places to Grow Act of 2005*, the GGH is in the Great Lakes region and bounded by Lake Ontario, Lake Erie, Lake Scugog, and Lake Simcoe. Anchored by the City of Toronto, the GGH accounts for roughly 25 per cent of Canada's GDP¹, establishing the area as the economic engine of the Province of Ontario (Government of Ontario 2019). In addition to the City of Toronto and neighbouring towns, cities, and counties, the GGH is home to the Greenbelt Area—a protected environmental land area that splits the GGH into an 'Inner Ring' and 'Outer Ring'. The City of Hamilton is in the 'Inner Ring', a heavily urbanised area adjacent to Lake Ontario, while the City of Kitchener is located within the larger region of Waterloo in the 'Outer Ring', a more diverse area with cities, small towns, and rural townships (Tomalty 2014).

¹ Calculated from Statistics Canada and Conference Board of Canada (Ontario 2019).

The City of Hamilton is located at the base of the Niagara Escarpment, mid-way between Toronto and the Canada-US border (Figure 3). The city's location on Lake Ontario allowed Hamilton to develop a strong industrial base, centred around Hamilton Harbor and supported by existing and future industrial business parks (Hamilton 2018). During the latter half of the 20th century, Hamilton's employment characteristics substantially changed from manufacturing and transportation employment to non-manufacturing employment. While many post-industrial cities in the rust belt saw a decrease in population during this time, Hamilton has experienced population growth, including from immigration (Jakar and Dunn 2019).

In addition to its industrial-based economy, Hamilton is home to various municipal offices, convention facilities, museums, and art galleries as well as various higher-education and health institutions such as McMaster University and McMaster Medical Centre. Strong city-run public transport as well as regional transportation networks provide high connectivity.

The City of Kitchener is located northwest of Hamilton along the Grand River and jurisdictionally sits within the Regional Municipality of Waterloo (City of Kitchener 2014). Kitchener has a local Grand River Transit system and is regionally connected through the VIA Rail station, King Street corridor, and Waterloo Airport. The city is home to municipal and provincial offices, the Centre in the Square performance centre, art galleries and museums, and Kitchener-Waterloo Hospital. Kitchener is also home to Sir Wilfred Laurier University, University of Waterloo, and Conestoga College. Kitchener has long been a focus for the region's high-tech centre, home of multinational enterprise BlackBerry, and continues to produce new jobs in the technology sector. The University of Waterloo is one of the top ranked universities for producing tech 'start up' firms, with 314 companies in the pipeline and \$US7.4 billion raised (CBRE Research 2019).

Table 4: Selected contextual data; Hamilton, Kitchener, and the Greater Golden Horseshoe

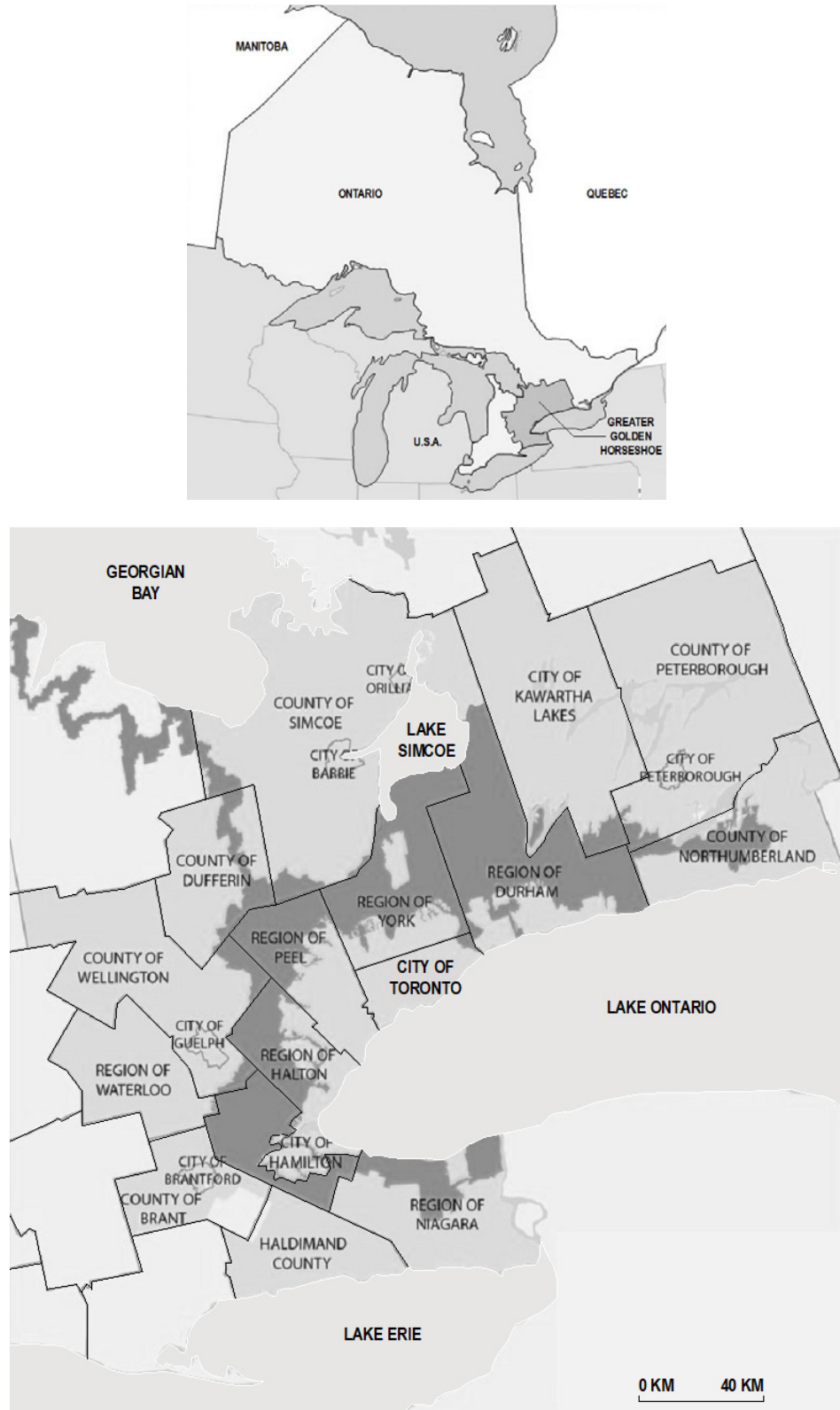
	Hamilton	Kitchener	Greater Golden Horseshoe
Population (2016)	536,917	233,222	9,693,000
Population Growth Rate over 5 years (2011 to 2016)	3.3%	6.4%	4.4%
Median Age	41.5	37.9	--
Median Household Income (2015 CAD)	\$69,024	\$70,774	--
Average House Price (2011 CAD) ²	\$343,367	\$317,549	--
Land Area (hectares)	111,729	13,677	3,200,000
Population Density per hectare	4.80	17.1	--
Nearest Metropolitan Centre	Toronto	Toronto	Toronto
Distance from Metropolitan Centre (km)	60.0	92.4	Not applicable

Sources: Statistics Canada (2017a, 2017b); Jakar and Dunn (2019); Hamilton Planning Division (2019); Region of Waterloo (2019); Government of Ontario (n.d.); Clayton (2015); Government of Canada (2013); Blais (2018).

² Average house price for Kitchener includes Kitchener, Cambridge, and Waterloo.

3. International models for regional growth, renewal, and connectivity

Figure 3: Golden Horseshoe context (top) and components (bottom)



Source: Adapted from Ontario (2019, 90 and 106).

3.3.2 Key interventions

A series of regional planning iterations have guided growth in the region over time. The latest *Growth Plan* (2019), developed by the Province of Ontario, establishes a long-range regional growth path promote, accommodate, and distribute a projected population of 13.5 million and job count of 6.3 million by 2041. Along with other longstanding provincial legislation, plans, and policies—including *Oakridge's Moraine Conservation Plan* (2002), the *Greenbelt Plan* (2005), the *Niagara Escarpment Plan* (2005), *Metrolinx Act* (2006)—*The Growth Plan* aims to protect the province's farmland and natural heritage from unchecked urban growth. In part this has been achieved by focusing on downtown revitalisation in mid-sized cities, rather than urban sprawl (Jamal 2018).

The planning framework has explicitly sought to transition from manufacturing and agri-food business towards knowledge-intensive, high value-added activities, by mandating population and job targets in each municipal area (Government of Ontario 2006). Transit considerations are closely tied with the Growth Plan's goals of population and economic distribution. With investments in a high-speed rail corridor, GO transit rail extensions, and highway extensions, the Province of Ontario has prioritised support for existing and new transit corridors and station areas (Government of Ontario 2019).

Another key strategy included the identification of 25 Urban Growth Centres (UGCs) in either historic downtowns or suburban downtowns in cities across the GGH. These UGCs were required to develop as high-density, mixed used nodes to attract employment, public/private investment, and residential growth as well as accommodate infrastructure improvements. Both downtown Hamilton and downtown Kitchener were designated as UGCs with density targets of 200 residents and jobs combined per hectare (Government of Ontario 2019: 17). This approach has continued, and each UGC has its own minimum density target based on current conditions and perceived capacity (Government of Ontario 2019). However, beyond this strategic framework, many of the area's 100 municipalities continue to pursue dispersed, low-density development patterns (Tomalty 2014).

3.3.3 Potential lessons for Australia

The Golden Horseshoe case provides a strong example of networked regional growth supported by strong connections to a primate city core. The sustained and consistent regional planning efforts of the Province, underpinned by infrastructure funding for transport connectivity, and boosted by support for key 'new economy' sectors such as higher education and technology, has resulted in balanced development outcomes over time. Satellite cities such as Hamilton and Kitchener provide examples of the ways in which economic transition can be supported through new specialisations in technology or innovation, providing new employment opportunities.

3.4 Manchester, England

Anchor of the Greater Manchester region, Manchester is an economic hub in England. With a population of 2.8 million, Manchester is centrally located in an intensely settled corridor including Liverpool, West Yorkshire, and Sheffield with a population of 8 million (UK Office for National Statistics 2016) (Figure 4). Benefitting from City Deal and a series of other government funding packages to support the economic development of areas outside Greater London and the advantaged south east of England, the Manchester case may offer insights for comparable second-tier city regions in Australia.

3.4.1 Description and context

Manchester is a city and metropolitan borough located within the Greater Manchester area in the northwest of England. With an industrial history, Manchester has reinvented itself and gained global recognition with its flagship developments, economic shifts, and world-renowned football teams (Ortiz-Moya 2015). Accessible to other cities in the UK and throughout the world, Manchester has intercity train links, the Manchester Airport—the largest airport outside the south east of England—and the M60 ring road. Within the city, there is a strong public and active transport network including a free bus within the city centre, bus services throughout the Greater Manchester area, a rail network, and cycle lanes (Transport for Greater Manchester 2019).

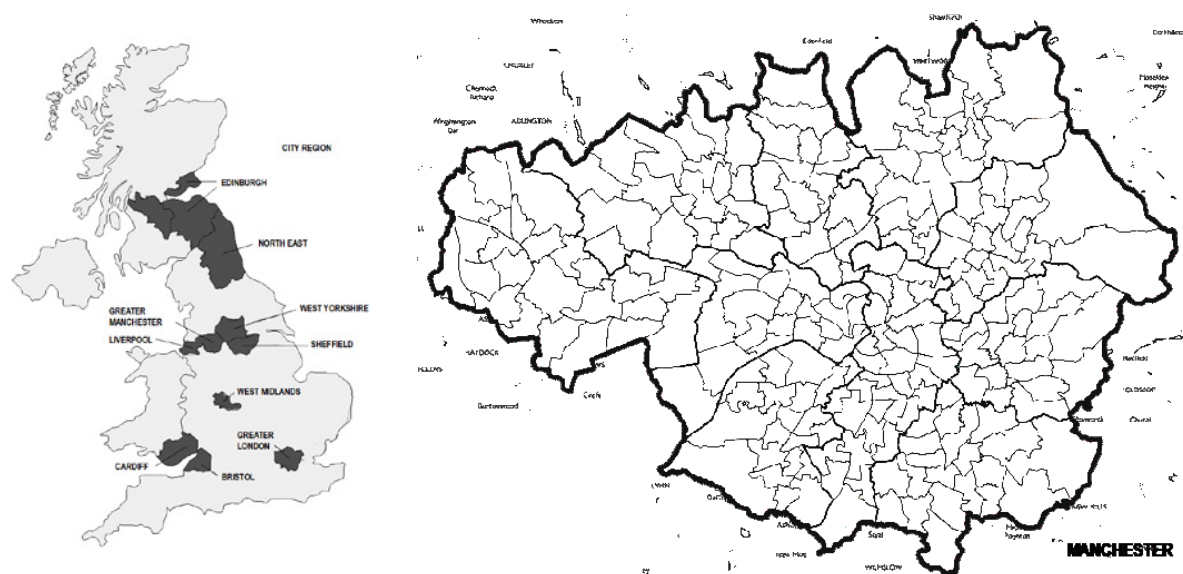
Manchester is governed by the Greater Manchester Combined Authority (GMCA), a strategic, corporate body with responsibility for transport, economic development, and regeneration.

Table 5: Selected contextual data, Manchester and Greater Manchester

	Manchester	Greater Manchester	UK
Population (2019)	552,900	2,835,700	66,796,807
Population Growth Rate over 5 years (2014 to 2019)	6.6%	3.9%	3.4%
Median Age (2019)	29	37	-
Median Household Income (2019 GBP)	£27,846	£28,100	£29,600
Average House Price (2020 and 2017 GBP, respectively)	£184,506	£164,000	£237,963
Land Area (hectares)	11,564	63,025	-
Population Density per hectare	43.5	40.5	-
Nearest Metropolitan Center	Manchester	Manchester	-

Sources: HM Land Registry (2020); Office of National Statistics (n.d.); Office of National Statistics (n.d.); Manchester City Council (2020); New Economy (2016); GMCA (2019).

Figure 4: Manchester context (left) and components (right)



Sources: Adapted from Office of National Statistics (2016); and MappingGM (2020).

3.4.2 Key interventions

Within the context of high unemployment and crime rates in the 1980s and 1990s, the Manchester City Council spearheaded rebranding the city around culture, tourism, and events (Williams 2003). By fostering the construction of a series of flagship developments, the Manchester City Council aimed to physically signal a shift from the manufacturing legacy to a new cultural and service industry image. Projects were spatially concentrated to give distinct characters to three different areas: East Manchester absorbed post 2002 Commonwealth Games sports facilities such as Manchester City Stadium; Salford Quays became a cultural focus with the Lowry Theatre and Gallery, the Imperial War Museum North, and the MediaCityUK; while the City Centre became the focus for office, leisure, cultural, and commercial venues (Ortiz-Moya 2015: 35).

In addition to new museum, stadium and headquarter facilities, Manchester also focused on neighbourhood renewal and urban regeneration programmes (Williams 2003).

At the regional scale, the GMCA produced the Greater Manchester Strategy (2009, 2013, 2017). This strategy provides a framework for progressing social, economic, and lifestyle objectives and contains measurable commitments around education, employment, jobs, transportation, housing, sustainability, and community outcomes (GMCA 2017).

Greater Manchester was awarded its first City Deal in 2012 (GMCA 2012). An agreement between central and local government to support economic growth, the Greater Manchester City Deal established a revolving infrastructure fund, as well as a series of initiatives around building human capital and attracting new investment. Subsequently a series of place-based 'deals' between central government and the GMCA have been negotiated as part of the UK's broader trend towards devolved governance, decentralisation, and approach to infrastructure funding (O'Brien and Pike 2015).

3.4.3 Potential lessons for Australia

Overall, the rebranding of Manchester has supported the successful economic transition from a manufacturing to a post-industrial economy defined by financial, technology, media, and creative sectors. After 70 years of constant population decline, the city of Manchester became the third fastest growing city in England and Wales between 2001–11, increasing by 19 per cent (Ortiz-Moya 2015: 33). However, this growth has moderated in the past decade (UK Office of National Statistics 2016).

Further, the new Manchester has also been criticised for uneven growth within the region. The results of many of the region's development policies—which have often concentrated on the city centre, and emphasised financial and banking sectors—have failed to improve living conditions of those most affected by the city's deindustrialisation (Ortiz-Moya 2015).

The lessons for Australia are complex. At its most positive it shows that it is possible to rebrand a city and change governance, and in doing so alter the trajectory toward growth. On the other hand, increasing the number of housing and job options within the city centre without increasing abilities to in-commute via public transport or private car encouraged concentration of people in the City of Manchester, promoting internal inequalities (Folkman et al. 2016). The larger implication might be that branding and growth are not enough. Rather, like the GGH, a regional approach to jobs and housing targets is needed to create more opportunities throughout a metropolitan region.

3.5 Cambridge, Oxford, and Milton Keynes, England

These cases, north of London, represent two different types of places. Two are historical university cities that are now high-tech centres (Cambridge, Oxford) and the other is a new town dating from the 1960s (Milton Keynes). All three are situated in the high growth area of south east England.

3.5.1 Description and context

From 2003 to 2009, the band of counties located approximately 80 kilometres north and northwest of London, between Cambridgeshire and Oxfordshire was actively marketed and branded as the Oxford to Cambridge (O2C) Arc (Lawton Smith 2012). The O2C Arc concept was funded by three regional development agencies with aims to increase collaboration between organisations in the region and to progress innovation-led, economic development (Miles 2008). Building upon an existing Golden Triangle of leading biotech clusters, the collaboration aimed to create a regional hub near London. The regional hub linked the two pole cities of Cambridge and Oxford—and its universities, high-tech companies, entrepreneurs, and skilled labour forces—to the innovation community of the central area, which includes Milton Keynes (Lawton Smith 2012).

At one end of the O2C Arc is Cambridgeshire, the county that contains the city of Cambridge. Located just north of London, along the River Cam, and with frequent rail service both south to London and north to the city of Birmingham, as well as a direct motorway to London and proximity to London Stansted Airport, Cambridge is well connected regionally. In addition to being home to the University of Cambridge (established 1209), Cambridge is at the heart of the ‘Silicon Fen’—a hub of high-tech businesses focusing on software, electronics, and biotechnology (Koepp 2003). Today the Cambridge cluster has around 1,000 technology and biotechnology companies, and 400 support organisations (Platt 2017).

Oxfordshire is situated at the other end of the O2C Arc, just northwest of London and well connected to London and Birmingham and the greater UK by rail, road, and air. Like Cambridge, Oxford is anchored by a renowned university, the University of Oxford, which was established 1096. It is one of Europe’s leading centres of innovation-led economic development. Home to a comparable number of high-tech companies, Oxford ranked sixth for the number of high-tech firms in the UK in 2007 (Lawton Smith 2012; Watkins 2010). Following the same timeline as Cambridge, Oxford began emerging as a high-tech cluster in the 1980s transitioning from a strong automotive manufacturing base (Lawton Smith 2012). The automotive industry acted as an early catalyst for collaborations between precision-engineering firms and high-tech manufacturing firms (Lawton Smith et al. 2013; Ward et al. 1993).

The City of Milton Keynes is in the central area of the O2C Arc, between Cambridge and Oxford. Milton Keynes is distinct from its neighbours, Cambridge, and Oxford; rather than being anchored by thousand-year-old universities, Milton Keynes is a planned ‘new town’, dating from 1967. In order to ease overcrowding in the economic powerhouses of London and Birmingham, Milton Keynes was intentionally placed halfway between the two cities in the M1 growth corridor with commuter links, rail options, and other amenities to make the town a viable alternate place to live (Gregory 2012). Instead of following an informal growth pattern over time, Milton Keynes’ urban footprint was master planned to be built upon a Grid Road System, with elements of a ‘Garden City’ model (Clapson 2004). As such, Milton Keynes was planned with a low density design, car centrality, wide streets that accommodated ‘redways’ for pedestrians and cyclists, and a strong focus on job-housing balance (Haseeb 2017). Economically, Milton Keynes has seen immense growth, with the highest percentage growth in employment of any UK city between 2010 and 2016 at 29 per cent (Milton Keynes Council n.d.).

Table 6: Selected contextual data for Cambridge, Oxford and Milton Keynes

	Cambridgeshire (Cambridge)	Oxfordshire (Oxford)	Milton Keynes	UK
Population (2019)	653,500 (124,800)	691,700 (152,500)	269,500	66,796,807
Population Growth over 5 years (2014 to 2019)	2.9% (0.9%)	3.3% (-1.4%)	3.6%	3.4%
Median Age	36.5	35.4	35.7	-
Median Household Income (2019 GBP)	£33,145	£32,807	£33,088	£29,600
Average House Price (2020 GBP)	£413,236	£395,746	£264,268	£237,963
Land Area (hectares)	4,214	3,738	6,252	-
Population Density per hectare	37.6	45.9	36.8	-
Nearest Metropolitan Centre	London	London	London	-
Distance from Metropolitan Centre (km)	80.0	82.4	74.6	-

Sources: HM Land Registry (2020); Office of National Statistics (n.d.); and Office of National Statistics (n.d.).

Figure 5: London Satellites Context (left) and Components (right)



Source: Adapted from 5th Studio SQW (2018).

3.5.2 Key interventions

Both Cambridge and Oxford also emerged as diversified high-tech clusters in the post-Second World War era and were well established by the turn of the new millennium, leveraging their locational advantages in proximity to London and as world leading universities. However, both have benefited from national and local government support which in recent years has been delivered through negotiated deals. For instance, the Oxford and Oxfordshire City Deal awarded in 2013 aimed specifically to '[a]ccelerate the growth of the city region's knowledge-based economy' (Lawton Smith et al. 2013: 665). Through a 'regional triple helix' lens, government, universities, and industry have greatly shaped the outcomes in Cambridge and Oxford. With entrepreneurship programs, a complement of incubators and science parks, and a number of formal networks established by governments and university-affiliated institutions, Cambridge and Oxford have been able to spur unprecedented entrepreneurial growth (Lawton Smith and Bagchi-Sen 2012).

The modern-day Milton Keynes is a result of direct national intervention, part of the UK towns program. The town has met or exceeded many of the strategic planning targets around population and economic growth and has a higher median income than the national average (Haseeb 2017). However, there had been criticisms over the financial costs of establishing Milton Keynes, which was developed by the government's New Town Development Corporation (Clapson 2004; Peiser and Chang 1999), and the significant investment in land acquisition and infrastructure provision is difficult to replicate in the context of government austerity.

3.5.3 Potential lessons for Australia

Anchored by some of the oldest and best universities in the world, Cambridge and Oxford are exceptional cases. In addition to providing outstanding strength, depth, and mobility of their highly skilled labour markets, the two universities contribute to the cities' attraction. Cambridge and Oxford show how regional cities with strong universities can provide a source of local innovation and specialist job growth, and that parallel governance structures at the regional level, combined with strong connectivity to larger centres could assist such development.

The city of Milton Keynes was formed in order to support growth from Birmingham and London and to bind economic activities of Oxford and Cambridge. Overall, Milton Keynes has emerged as a well-populated, economic node in the Greater London region. While successful by many measures, the Milton Keynes case does illuminate a number of urban design and fiscal missteps. With regards to urban design elements, mistakes in traffic planning, density controls, and initial plan conceptions resulted in a built city that is far from its intended form (Edwards 2001). Nevertheless, the Milton Keynes example demonstrates the capacity for planned growth centres to attract and sustain new population and job growth in alternative locations to primate cities, provided that they are well connected within and across a regional network.

3.6 Marne-la-Vallée, Île-de-France

Marne-la-Vallée is one of five satellite new towns in the Paris region started in the 1970s as an outcome of a regional planning process conducted in the prior decade (Aguilera and Voisin 2014; Desponds and Auclair 2017; Tuppen 1979). The new towns were created to help decentralise population and employment to help develop a polycentric urban region rather than a sprawling metropolitan area surrounding Paris (Desponds and Auclair 2017).

3.6.1 Description and context

Marne-la-Vallée is the only new town development to have continued to grow well into the 2000s (Bowie 2013). This was in part because it was slower to develop initially (Tuppen 1979). With a population of just over 85,000 in 1968, by 2010 it had reached over 290,000 (Desponds and Auclair 2017: 865, 875).

Table 7: Selected contextual data, Marne-la-Vallée

	Marne-la-Vallée
Population for the main 27 communes (2017)	350,452
Number of Jobs (2017, larger 44 commune area)	213,000
Median Household Income (2017, Euros)	23,470
Land Area (hectares)	15,000
Population Density per hectare	23.3
Nearest Metropolitan Center	Paris
Distance from Metropolitan Center (km)	30

Source: Epamarne/Epafrance (2018a, 2018b), Insee (2020).

As Figure 6 demonstrates, Marne-la-Vallée includes four sectors spanning approximately 25 kilometres from west to east, covering approximately 150 km², and including 44 municipalities, 17 of which were added in 2016 (Aguilera and Voisin 2014). The region benefits from an express railway (RER A) and the Chessy International TGV Station. Parts of the area, such as Noisy-le-Grand, are closely integrated with Paris while the eastern municipalities are quite far from the city centre (Touati-Morel 2015), which offers some parallels with satellite cities such as Geelong and Wollongong.

3.6.2 Key interventions

Within Île-de-France's distinctive urban planning and transport system, the new town's institutional environment is particularly complex. An overall new town development authority, Epamarne, has been in place since 1972 for areas of national interest, and operates alongside four intermunicipal bodies, three Départements, the Île-de-France Région, and other municipalities. Thus, it has had a consistent development advocate, the Epamarne.

Overall, the Marne-la-Vallée region has achieved strong job growth with between 0.85–1.0 jobs for every economically active person (Aguilera and Voisin 2014; Gaborit 2020). Euro Disneyland near Chessy in the fourth sector at the eastern end of the new town has provided a significant source of economic activity—based on leisure and tourism. Another specialisation has developed around 'Advancity', a sustainable city and transportation cluster hosted by Descartes University in sector two (Val Maubuée) (Business France 2020; Desponds and Auclair 2017; Gaborit 2020).

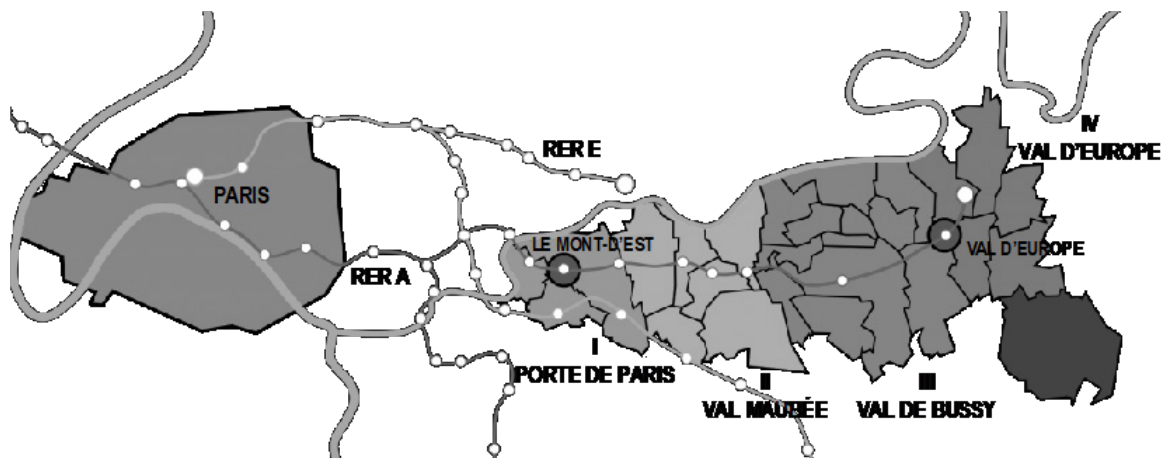
Marne-la-Vallée–Val-Maubuée is well connected to Paris by regional rail, but internal connections are not as strong, leading to car domination (Aguilera and Voisin 2014).

3.6.3 Potential lessons for Australia

Marne-la-Vallée is a new hybrid satellite town east of Paris with fast train connection and strong economic base. It demonstrates some of the long-term possibilities of developing a growth sector reaching to the edge of a major metropolitan centre. With multiple economic hubs—like the 'Advancity' area in the west to the Eurodisney in the east—the area is continuing to grow. Although well served by road and regional rail into central Paris, the area could be better connected by public transport within the area and radially.

The region's complex governance structure has provided a dedicated development program over several decades while still allowing a role for local governments. This has formalised coordination at a sub-regional level, supporting growth across the region rather than in a single concentrated centre.

Figure 6: Marne-la-Vallée context



Source: Adapted from Real Estate Development (2017).

3.7 Dundee, Scotland

Considered an archetypal small post-industrial city, Dundee has experienced successive waves of economic restructuring via community regeneration measures, development initiatives, and physical renewal (Peel and Lloyd 2008). Affected by decades of traditional manufacturing and industrial activity loss, social exclusion, population loss, poor housing, and troubled local government financial resources, Dundee has turned to re-imagining and repositioning the city away from industrial manufacturing (Lloyd et al. 2006; Peel and Lloyd 2008). Today, the city is a United Nations Educational, Scientific, and Cultural Organisation (UNESCO) City of Design and is home to historic ships, museums, theatres, arts centres, and distinctive architecture.

3.7.1 Description and context

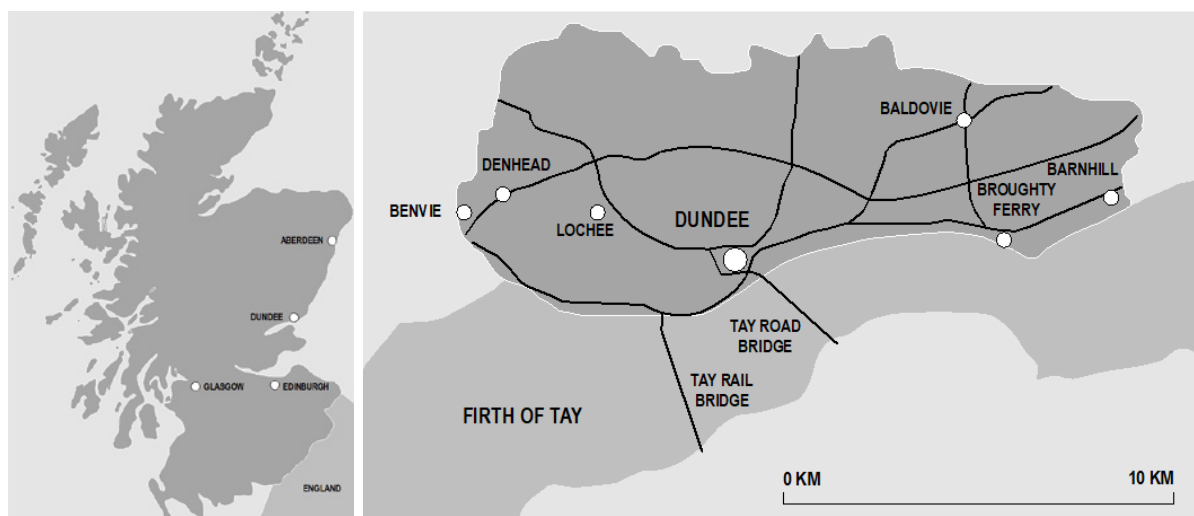
Dundee is in North East Scotland, on the north bank of the Firth of Tay, which feeds into the North Sea. Often presented as Scotland’s fourth city in terms of perceived strategic importance (preceded by Glasgow, Edinburgh, and Aberdeen), Dundee is also the geographically smallest local government jurisdiction in Scotland (Peel and Lloyd 2008). Dundee is connected through Dundee Airport, an extensive rail network (with rail operators: Abellio Scotrail, Virgin Trains, LNER), and an accessible road network.

Table 8: Selected contextual data, Dundee

	Dundee	UK
Population (2019)	149,320	66,796,807
Population Growth Rate per year over 5 years (2014 to 2019)	0.8%	3.4%
Median Household Income (2017 GBP)	£27,773	£29,600
Average House Price (2017 GBP)	£120,000	£237,963
Land Area (hectares)	6,000	-
Population Density per hectare	24.9	-
Distance from Edinburgh	90 km	-

Sources: National Records of Scotland (2020); and Dundee City Council and Dundee Partnership (2018).

Figure 7: Dundee context (left) and components (right)



Sources: Adapted from Cornell Brown Penn UK Centre (2017); and The Editors of The Gazetteer for Scotland (2020).

3.7.2 Key interventions

Attempts to rebrand Dundee from an industrial city began in the early 1980s with the launch of the ‘Dundee Project’ (Di Domenico and Di Domenico 2007). This evolved into the ‘Dundee Partnership’, which was comprised of Dundee City Council and local partners (Lloyd et al. 2006). These early initiatives based regeneration efforts on Dundee’s 19th century shipbuilding past, whaling, and merchant fleet (Lloyd et al. 2006). Other investments in tourism, sports, and Universities were also pursued, in order to attract more investment and population (Di Domenico and Di Domenico 2007).

In addition, Dundee established a ‘Cultural Quarter’ approach which clustered cultural attractions and connected culture-led economic development throughout the city (McCarthy 2006). Ultimately, Dundee is now home to a number of cultural sites and creative companies due to these government-led regeneration and rebranding efforts.

In 2014, the city was declared a UNESCO City of Design, and in 2018, the opening of the Victoria and Albert Museum of Design was another in milestone in the city’s culture-led urban regeneration (Dundee City of Design 2014).

The Dundee Cultural Strategy and Action Plan (2015–2025) provides a strategic framework for these initiatives.

3.7.3 Potential lessons for Australia

The case of Dundee shows the outcomes of sustained commitment to economic development using a variety of strategies from education to tourism and the arts. With clear leadership in the Dundee Partnership and Dundee City Council, Dundee has worked to rebrand itself at the local, national, and international scale through focuses on maritime-related tourism, economy diversification, and culture-led regeneration (Peel and Lloyd 2008).

However, despite economic advances in technology, tourism, and teaching, and income inequality remain a problem in Dundee, which continues to struggle economically (Dundee Partnership 2019). This highlights the need to include specific interventions to address the needs of disadvantaged groups within a region who do not necessarily benefit from wider economic growth.

3.8 Summary and potential policy implications

The international cases reviewed here are regarded to be exemplar of regional planning and economic development. None of the cases have been unambiguously successful but collectively, they offer several insights of relevance to regional planning and development efforts in Australia.

Firstly, the cases demonstrate the importance of long-term regional planning and coordination, with success building over time. The Marne-la-Vallée, and the Cambridge, Oxford, and Milton Keynes cases offer particular examples of the ways in which long-term planning supported by special governance arrangements and funding has enabled balanced growth and comparatively high economic performance.

Secondly, many of the cases demonstrate the importance of setting concrete, regional level targets for balanced housing and job development. Although this approach is standard in Australian metropolitan planning, there is potential for concrete population and jobs targets to focus efforts and investment in regional centres and regionally networked settlements.

Thirdly, the cases show that a diversity of economic strategies are more effective than a single ‘silver bullet’ or iconic item of infrastructure. For example, the investment in Manchester’s sporting infrastructure in the context of the 2002 Commonwealth Games has contributed to the city’s economic diversification around tourism and events, in conjunction with strategies to attract culture led development and commercial investment. Similarly, the Manchester case shows the importance of investment in major infrastructure as well as in human resource development.

Fourth, when selecting new opportunities for economic specialisation and growth it is important to identify industries that have long-term, high value potential. In the current period this would include those not susceptible to automation. It also means identifying opportunities that can be outsourced from major cities to regional Australia, and where regions have advantages over international outsourcing. The GGH case in Ontario Canada, provides strong evidence of this approach; whereby the high-tech sector has been able to grow rapidly in a location characterised by a highly skilled workforce supported by University research and development activity and relatively low business costs.

Fifth, it is important to observe the role that strong transport networks have played in supporting polycentricity within high performance regions such as Cambridge, Oxford and Milton Keynes as well as strong connectivity with primate city centres.

Finally, the powerful research and knowledge sharing functions performed by the ESPON example highlight the potential that similar regional development and capacity building initiatives could offer nonmetropolitan Australia. Such a body would draw on and extending the work conducted by government agencies such as Regional Development Australia; the advocacy activities of bodies such as Regional Organisations of Councils, and the development efforts of local councils.

4. Regional planning for economic and population growth in Australia

- **Regional areas beyond Australia’s major capital cities offer significant potential for population and economic growth, with 21 cities beyond the major capitals collectively accommodating nearly 3 million people.**
- **This chapter reports on interview data to highlight perspectives of state and local planners and stakeholders about regional growth prospects, focusing particularly on eight case study regions.**
- **All of the areas reviewed capitalise on unique locational advantages, in many cases benefitting from proximity to a capital city. The most rapidly growing areas have very strong transport connections to larger centres but have also fostered diverse and sustainable local economies.**
- **Local and state interviewees saw opportunities for increased Australian and state government assistance through funding for transport and local infrastructure and by decentralising firms to regional areas.**
- **Interviewees advised that relatively lower housing costs along with high amenity was also an attraction for people seeking to relocate to regional areas, some of whom made the decision to relocate before finding employment. However, diversifying employment opportunities and supporting the growth of higher skilled and paid jobs was seen to be a key challenge for regional areas.**

This chapter presents our analysis of regional planning models and opportunities in Australia, drawing on case study and interview data. The chapter first provides an overview of key population, economic, and housing characteristics of Australia’s largest population centres beyond the major capital cities, contextualising our case study regions. We then introduce key characteristics of each of our case study regions, focusing on strategies used to sustain, attract, and accommodate population and economic growth. In the final section of the chapter, we highlight potential wider lessons in relation to the ways in which particular governance arrangements, infrastructure funding and policy levers can support growth and connectivity within and between regional and metropolitan areas.

4.1 Australia's nonmetropolitan regions: a comparison of the major population centres

In 2019, the combined population of the eight Australian capital cities represented 67 per cent the country's total population, or just over 17 million. In the year to June 2019 this number had grown by more than 300,000 accounting for 79 per cent of national growth over the period (ABS, 2020b). Net overseas migration accounted for 60 per cent of total growth, and capital cities attract higher numbers of overseas migrants and therefore have higher rates of population growth. However, many medium sized cities outside of these metropolitan zones have still experienced lower but sustained population growth over the last decade without attracting high levels of overseas immigration. For this part of study, we focussed on urban centres with regional populations in the range of approximately 80,000–250,000 and exhibiting growth of approximately 1 per cent per annum or more over the five years to 2018 while the national population grew at 1.6 per cent. This selection excludes Logan and the Gold Coast, which form part of the large metropolitan conurbation of south east QLD and smaller capital cities of Canberra, Adelaide, Hobart, and Darwin.

Twenty-one non-capital urban centres were identified with populations within or close to the specified range, of which 13 displayed growth rates of between 0.95 per cent and 2.5 per cent per annum over five years to 2018 (highlighted in Table 9). Collectively these 21 centres are currently home to almost 3 million people and are growing at an average rate of more than 1 per cent. However, 13 faster growing centres currently house more than 2 million and are growing at 1.5 per cent, which means they have added collectively more than 150,000 people over the last five years.

Table 9: Regional Cities Growth Rates 2013–2018

Regional City	Regional Population 2018*	Annualised growth (2013–18)
Albury-Wodonga	137,384	1.40
Ballarat	109,492	1.79
Bendigo	99,122	1.84
Bunbury	104,892	0.49
Bundaberg	90,106	0.34
Cairns (SA4)	252,037	0.98
Coffs Harbour	89,860	0.98
Geelong	201,924	2.09
Launceston	83,867	0.36
Mackay	116,539	-0.39
Mandurah	102,031	1.58
Newcastle	173,251	0.95
Rockhampton	118,705	0.29
NSW Northern Rivers (Coastal)	83,758	1.42
Sunshine Coast	375,271	2.45
Tamworth	83,443	0.72
Townsville	194,114	0.81
Tweed Valley	96,108	1.30
Wagga Wagga	96,627	0.69
Toowoomba	156,757	1.11
Wollongong	136,763	1.24

* *Regional Populations are at SA3 level unless otherwise indicated.*

Source: ABS (2020a) Data by Region.

This group encompassed a wide range of cities and regions with varying geographical, demographic, and economic characteristics, and different degrees of connection and relationship with major metropolitan centres. The regional cities identified through this process fall across a number of broad categories:

- **satellite cities** whose growth is fuelled by overflow from capital cities and facilitated by proximity and quality transport infrastructure.
- **regional centres** that have a high level of economic interdependency with the surrounding region and resources, and that provide a central service and administrative hub for a large area; fulfilling a regional role that is similar to that of state capital cities.
- **growth centres** identified in external planning or funding schemes to have significant growth potential linked to strategic location on major transport routes or other specific advantages.
- **lifestyle driven growth centres**, usually located in coastal regions with reasonable access to well serviced metropolitan centres but where growth has been fuelled largely by tourism and retirement relocations.

While these groupings are neither distinct nor mutually exclusive, they can assist in the understanding and characterisation of key drivers of growth.

A small number of satellite cities are located within 80 kilometres of a major capital, however raw distance is not directly correlated with growth and the bulk of the growing centres lie between 120 and 320 kilometres from a metropolitan area. Unsurprisingly, connectivity, mainly in the form of road and rail links, is a key factor. According to data from the ABS, housing costs are significantly lower in all the centres identified than for Sydney or Melbourne but still fall across a broad range with some satellite cities showing higher house prices than the smaller capitals. With one exception, home ownership rates fell within two to three points above or below the national average of 65 per cent. Over a four-year period movement in house prices was generally lower in regional capitals than in large satellite cities and some coastal lifestyle centres where it approached capital city rates of increase. The proportion of renters experiencing housing stress appeared generally lower than in capital cities, with the exception of some coastal/lifestyle centres where rental stress is at similar levels to Sydney.

Despite the importance of specific industries underwriting particular regional economies, the largest employment sectors in almost all identified centres were the population-driven sectors of health care, social assistance and retail. In most centres, workforce participation rates were slightly lower than capital cities, and unsurprisingly tended to be lower again in some retirement/lifestyle centres.

One of the more marked demographic differences between regional cities and state capitals concerns diversity where regional centres have proportions of residents born overseas consistently lower than the national average, and in many cases one-quarter to one-third of the proportions found in most capital cities.

4.2 Regional City Profiles

In order to better understand the dynamics and management of growth at a city level, eight non-metropolitan urban regions were selected for further study. Strategic, economic and land use planning documents were examined and key informants covering a range of professional roles in city planning and development processes at the local authority and state level were interviewed as outlined in 1.4.1.

Each of these urban regions has a unique history, social and economic profile, and they lie across four different states with different governance arrangements and planning priorities impacting on their growth. The strategies and planning documents examined, and the interview responses reflect this diversity of experience. While they can be broadly grouped according to the categories outlined in 4.1 above, these categories frequently overlap as shown in Table 10.

Table 10: Australian Case Studies

Region/City	Population*	Category
Albury-Wodonga	137,384	Growth Centre
Ballarat	109,492	Regional Centre
Bendigo	99,122	Regional Centre
Geelong	201,924	Satellite
Mandurah	102,031	Satellite/Lifestyle
Newcastle	173,251	Regional Centre
NSW Northern Rivers (Coastal + Hinterland)*	154,881	Lifestyle
Toowoomba	156,757	Regional Centre

* Regional Populations are at SA3 level except where otherwise indicated. NSW Northern Rivers includes aggregated populations for Coastal and Hinterland SA3s.

Source: Authors and ABS (2020a) Data by Region.

Clearly cities of this size located in largely rural regions will always carry some functions of a regional service centre, and there is overlap and intersection between categories. In several of the cases selected, regional servicing functions have developed a critical mass and complexity that now sees, for example, even some state-level function being relocated there.

NSW Northern Rivers was included as a single urban region incorporating the coastal towns of Ballina and Byron Bay and the City of Lismore, since these centres represent a regional network, with Lismore being the major regional centre while the coastal towns are the sites of most population growth. In a similar way Albury and Wodonga function as a single urban centre and have been identified as a single growth centre for more than four decades.

In the following sections we describe each of the case studies in turn, before presenting the interview data.

4.2.1 Albury-Wodonga (NSW/VIC): Regional growth centre

Albury-Wodonga is a major regional centre located on both sides of the River Murray 320 kilometres from Melbourne, straddling the boundary between NSW and Victoria (Figure 8). It was established as a regional growth centre by the Australian and state governments in the early 1970s, for its central location and its position on the major road and rail lines connecting Sydney and Melbourne. To facilitate development, the special purpose Albury-Wodonga Development Corporation (AWDC) was created under an agreement between the Australian and the two state governments, with each forming a corporation under their own legislation and providing members to a common board. An ambitious population target of 300,000 to be achieved by the turn of the century was declared, but this was soon cut to 150,000 (Harris and Dixon 1976). Even this reduced target is yet to be achieved, although the region has continued to grow steadily over the past five decades.

Figure 8: Map of Albury and Wodonga SA3 regions (inset: Albury-Wodonga in relation to Melbourne)



Source: Adapted from ABS Data by Region (2020a) MapData Services Pty Ltd (MDS), PSMA Australia Limited.

Table 11: Selected characteristics, Albury-Wodonga

	Albury (SA3)	Wodonga (SA3)	Albury-Wodonga
Population (2018)*	64,188	73,196	137,384
Population Growth Rate 2013–18	1.26	1.51	1.40
Median Age	39.3	41.4	
Median Wage (2017) per annum	\$45,570	\$45,437	
Total persons employed	27,430	32,340	59,770
Largest employment sector	Health Care & Social (10.9%)	Health Care & Social (10.2%)	Health Care & Social (10.5%)
Unemployment rate	6.5	5.2	
Median Detached House Price 2018	\$320,000	\$340,000	
Annualised House Price Change 2014–2018	2.86	3.29	
Net Internal migration year to June 2018	218	283	501
Net Overseas migration year to June 2018	291	290	581
New dwelling approvals 2018	359	693	1052
Renters in housing stress	11.2%	8.7%	
Nearest Metropolitan Centre	Melbourne	Melbourne	Melbourne
Distance from Metropolitan Centre (km)	325	320	
Commuting more than 10 km (% of 15+ yrs)	33.83%	43.50%	
Commuting more than 50 km (% of 15+ yrs)	6.35%	8.40%	

All statistics as at 2016 Census unless otherwise indicated.

Source: ABS Data by Region (2020a).

Today the cities of Albury in NSW and Wodonga in Victoria have a combined urban population of 95,196, while the larger regional population (combined SA3 level) was 137,384 in 2018 (ABS, 2020b). The region has direct air flights to Sydney and Melbourne through Albury Airport. There are three daily rail services to and from Melbourne taking four hours. Road travel to Melbourne via M31 Motorway takes three-and-a-half hours.

The Development Corporation carried planning authority and operated amongst other things as a land developer. In 1991, planning powers were returned to the local government authorities and growth expectations were reduced to trend-based projections of around 106,000. The states transferred their interests in the corporation in the early 2000s and the Australian-owned corporation was wound up in 2014 (Australian Research Data Commons, n.d.). The Australian Government had continued to support regional development initiatives such as this in the Hawke Government's early term as part of a policy of helping communities to adjust to the impacts of economic and social change (Higgins and Savoie 1994: 7). But as economic conditions became more difficult, the three governments instructed the AWDC to begin repaying the original government loans and to wind down. This prevented the AWDC from taking a development role after 1990 (Stein 2012).

However, both Albury and Wodonga City Councils have maintained their own economic development activities over the period. They currently cooperate on a range of projects including destination marketing, digital economy strategy, regional waste contracts and associated waste reduction strategies, plus research and advocacy around shared infrastructure. The local governments formed a partnership and in 2017 adopted a Community Strategic Plan extending to 2030 that seeks to maximise economies of scale in infrastructure and services, share data and jointly engage key government and business stakeholders (Albury City and City of Wodonga 2017).

The Region's Economic Development Strategy developed in collaboration with the NSW Government Centre for Economic and Regional Development (2018) notes that while manufacturing employment in Albury-Wodonga has declined significantly over the last 15 years, some sub-sectors such as beverage products have grown strongly in more recent times. The newly developed 450 hectare industrial precinct known as Nexus Hub seeks to take advantage of the cities' strategic location on major intercity transport routes, to attract large scale and heavy manufacturing and logistics operations.

The Victorian and NSW governments have also successfully resolved cross border issues to deliver a unified health service to the region, Albury-Wodonga Health, which serves a catchment of more than 250,000 people. This critical mass gives the combined Albury-Wodonga region some competitive advantages over other centres. However, jurisdictional disparities such as differential state tax arrangements and planning policies including those covering state significant development and developer contributions impinge on business and contribute to a degree of competition for new investment between the two cities.

4.2.2 Ballarat (Victoria): Regional capital/growth centre

Ballarat is the third largest inland city in Australia, with an accelerating population of approximately 110,000. Exceeding the national growth rate, Ballarat is currently adding around 2,000 persons per annum. The city has been identified by the Victorian government as a major centre for future growth and is projected to grow to more than 160,000 by 2040. As a catalyst to growth, under the GovHub scheme, the Victorian government will relocate approximately 1,000 public sector jobs, including up to 600 moved from Melbourne, to a new development under construction in Ballarat's city centre.

Table 12: Selected characteristics, Ballarat

	Ballarat (SA3)
Population (2018)*	109,492
Population Growth Rate 2013–18	1.79
Median Age	37.4
Median Wage (2017)	46,202
Total persons employed	45,790
Largest employment sector	Health Care & Social Assistance 16.9%
Unemployment rate	7.0
Median Detached House Price 2018	\$350,000
Annualised House Price Change 2014–2018	3.32
Internal migration	886
New dwelling approvals 2018	967
Renters in housing stress	11.6
Nearest Metropolitan Centre	Melbourne
Distance from Metropolitan Centre (km)	116
Commuting more than 10 km	25.77%
Commuting more than 50 km	9.43%

All statistics as at 2016 Census unless otherwise indicated.

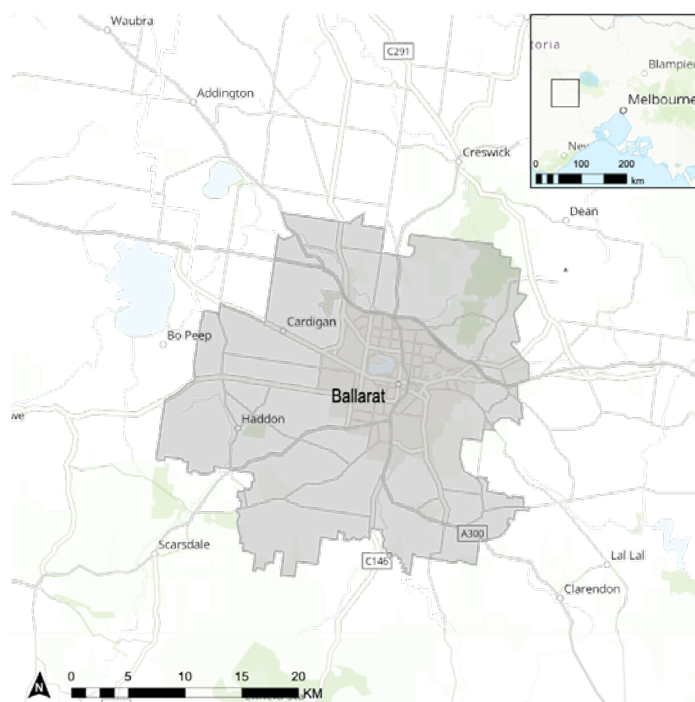
Source: ABS (2020a) Data by Region.

Ballarat is located 116 kilometres north west of Melbourne (Figure 9) and is connected to it by an hourly rail service taking one hour and 20 minutes, and by road via the M8 Western Freeway (one hour and 15 minutes). Rail connections to surrounding regional centres and to the port of Geelong have operated since the 19th century contributing to Ballarat's established role as a regional service centre for rural industries in western Victoria and an estimated catchment of up to 400,000 people. The largest regional university in Victoria, Federation University, has its main campuses in Ballarat, where Ballarat Base Hospital and Health Services is a teaching and research facility. The city's rich cultural and architectural heritage contributes to significant tourism while health care and social assistance generates the largest proportion of jobs.

Manufacturing remains the largest contributor to economic output with historically strong employment in motor vehicle and parts manufacture, and food processing. However, the City of Ballarat Economic Strategy (SGS 2010) projected a decline in this sector that could be offset by a shift to more advanced and sustainable manufacturing technologies.

A large industrial estate is currently being developed to the west of the city to accommodate new industrial investment, while in response to projected growth the City of Ballarat has developed a strategic plan extending to 2040 based strongly on the principle of the '10-minute city' and focused on environmental sustainability (City of Ballarat 2015). This encompasses land use and housing strategies emphasising a compact city, improved and less car-dependent intracity transport provision, and plans to protect the historic urban landscapes as well as preserving biodiversity and natural landscapes.

Figure 9: Map of Ballarat SA3 region (inset: Ballarat in relation to Melbourne)

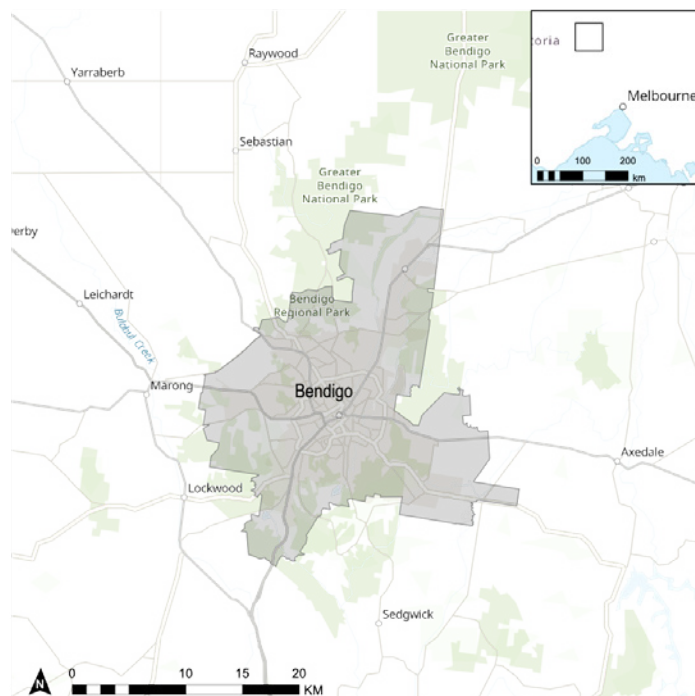


Sources: Adapted from ABS Data by Region (2020a) MapData Services Pty Ltd (MDS); PSMA Australia Limited.

4.2.3 Bendigo (Victoria): Regional centre

Bendigo in central Victoria is closely connected to both Melbourne and Ballarat (Figure 10). Its current population of 100,000 continues to grow at a rate higher than Australia as a whole. The Victorian Government has nominated Bendigo as a growth centre and will begin construction of a services hub close to the city centre in mid 2021, which will co-locate five state departments along with the offices of the City of Greater Bendigo (Regional Development Victoria, n.d). This will bring approximately 600 jobs to the city. Projection of current rates would see the population grow to 144,500 by 2031 and around 200,000 by 2050.

Figure 10: Map of Bendigo SA3 region (inset: Bendigo in relation to Melbourne)



Source: Adapted from ABS Data by Region (2020a) MapData Services Pty Ltd (MDS), PSMA Australia Limited

Table 13: Selected characteristics, Bendigo

	Bendigo (SA3)
Population (2018)*	99,122
Population Growth Rate 2013–18	1.84
Median Age	37.1
Median Wage (2017)	45,280
Total persons employed	41,593
Largest employment sector	Health Care & Social Assistance (17.1%)
Unemployment rate	6.6
Median Detached House Price 2018	340,000
Annualised House Price Change 2014–18	0.92
Net Internal migration year to Jun 2018	777
Net Overseas migration year to Jun 2018	481
New dwelling approvals 2018	711
Renters in housing stress	11.5
Nearest Metropolitan Centre	Melbourne
Distance from Metropolitan Centre (km)	152
Commuting more than 10 km (% of 15+ yrs)	24.64%
Commuting more than 50 km (% of 15+ yrs)	6.81%

All statistics as at 2016 Census unless otherwise indicated.

Source: ABS (2020a) Data by Region.

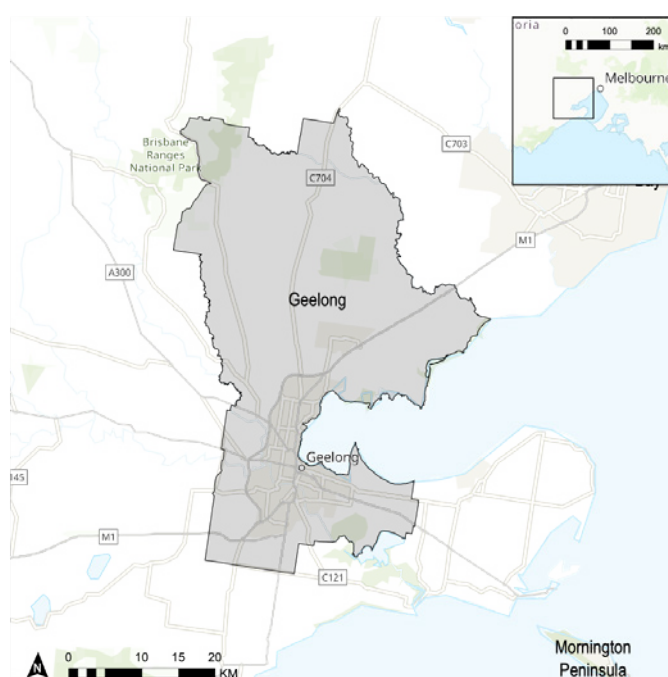
Since its explosive early growth as a gold mining town in the mid-19th century, Bendigo's economic fortunes have waxed and waned. As a rail hub connecting agricultural centres in northern Victoria to southern ports, the railway was the largest employer in Bendigo in the second half of the 20th century. Railway linkages also cast the city in a regional servicing role while the location of the Commonwealth Ordnance Factory in the mid-20th century in Bendigo underwrote a significant component of heavy manufacturing industry. The contemporary legacy can be seen in the Thales armoured vehicle plant, which includes the only remaining vehicle assembly line in Australia. Bendigo was the original home of Myer's retail operations and Australia's fifth largest bank, Bendigo and Adelaide Bank. Manufacturing continues to be the greatest contributor to economic output of the city, although health care and social assistance provides the largest proportion of jobs.

In 2019 the city council created the Greater Bendigo Economic Development Steering Committee, a cross sectoral partnership tasked with developing a comprehensive economic vision and strategy for the city. The strategy aims to be sustainable and inclusive, emphasising the need to address issues such as youth unemployment, housing, and inequality, climate change, and the circular economy. Bendigo's intracity connectivity has been improved in recent times by the opening of local stations on the main Melbourne rail line for local commuting. While intercity connections were strongly boosted by the inclusion of Bendigo as a stop on regular Qantas flights between Sydney and Melbourne. Both innovations have proved viable, although scheduled flights were suspended during the COVID-19 crisis.

4.2.4 Geelong (Victoria): Satellite city

Geelong is the second largest city in Victoria and the Greater Geelong area houses approximately 10 per cent of the state's population. Its sustained high growth rate in recent decades has been supported by proximity to Melbourne and improvements in transport infrastructure and services (Figure 11). Travel time to central Melbourne is approximately one hour by road and 80 minutes via a frequent rail service. Avalon Airport is approximately a 25-minute drive from Geelong CBD and has offered commercial passenger services since 2010 and commenced international services through AirAsia in 2018. The city has a long history as a manufacturing and industrial centre, and as the 'Gateway to the Great Ocean Road' has also benefited from tourism. Despite the recent loss of major employers including the Shell refinery in 2013, Ford engine plant in 2016, and national headquarters of Target in 2018, the city's coastal location, affordable housing and diversified economy all contribute to projected regional population of 500,000 by 2050.

Figure 11: Map of Geelong SA3 region (inset: Geelong in relation to Melbourne)



Sources: Adapted from ABS Data by Region (2020a) MapData Services Pty Ltd (MDS), PSMA Australia Limited.

Table 14: Selected characteristics, Geelong

	Geelong (SA3)
Population (2018)*	201,924
Population Growth Rate 2013–18	2.09
Median Age	37.6
Median Wage (2017)	46,656
Total persons employed	84,191
Largest employment sector	Health Care & Social Assistance (15.3%)
Unemployment rate	10.7
Median Detached House Price 2018	495,000
Annualised House Price Change 2014–2018	6.40
Net Internal migration year to Jun 2018	1,905
Net Overseas migration year to Jun 2018	1,685
New dwelling approvals 2018	2,284
Renters in housing stress	11.2
Nearest Metropolitan Centre	Melbourne
Distance from Metropolitan Centre (km)	75
Commuting more than 10 km (% of 15+ yrs)	39.70%
Commuting more than 50 km (% of 15+ yrs)	14.63%

All statistics as at 2016 Census unless otherwise indicated.

Source: ABS (2020a) Data by Region.

In anticipation of this rapid growth over the past decade the City of Greater Geelong has identified areas of land in close proximity to the Geelong’s central area to meet current and future demands for residential development and presently is investigating two major potential release areas to the north and west of the city to accommodate up to 110,000 new residents over the next 30 years. Planning standards are being put into place for ‘compact’ developments, which will include a mix of housing options and sustainable transport initiatives.

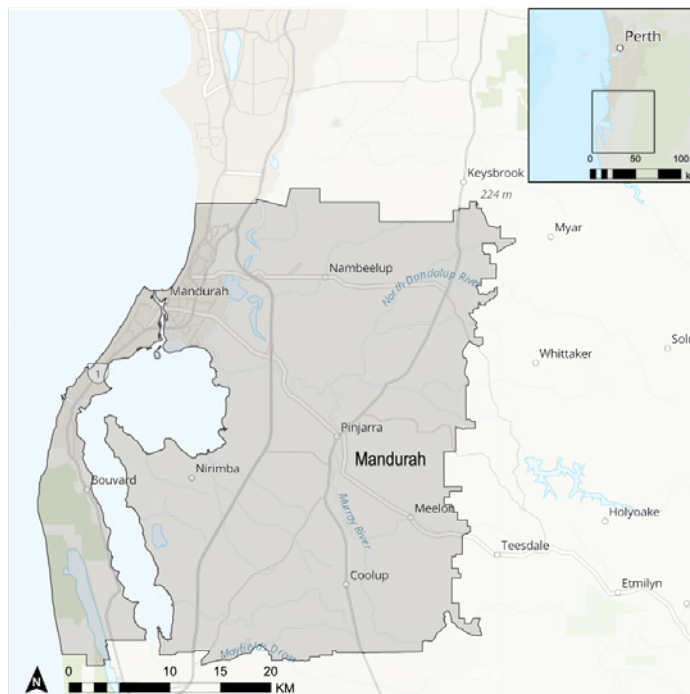
Geelong has benefited from a City Deal which sees some Australian and state government functions relocated there, including headquarters of the National Disability Insurance Scheme. Similarly, Deakin University has invested in support for local advanced manufacturing and new materials through collaborations with local businesses on its main Geelong campus.

The G21 Geelong Regional Alliance is a formal partnership of five local government authorities allied with business and community organisations. G21 (2014) has identified upgrading and expansion of port facilities, and further development of Avalon Airport as key priorities for continued economic growth of the region.

4.2.5 Mandurah (WA): Satellite/lifestyle city

Located less than one hour by rail or road from Perth, over the past six decades Mandurah has grown from a small fishing and fruit-growing community attracting seasonal tourists to be the largest regional city in WA. A new rail connection in 2007 and motorway opening in 2009 consolidated the city as a commuter satellite of metropolitan Perth (Figure 12). The City of Mandurah and the adjoining Shire of Murray form most populous parts of the Peel Region, which is the focus of the WA Government’s Peel Development Commission (PDC) tasked with coordinating and supporting the work of planning and development agencies in this rapidly growing area.

Figure 12: Map of Mandurah SA3 region (inset: Mandurah in relation to Perth)



Source: Adapted from ABS Data by Region (2020a) MapData Services Pty Ltd (MDS), PSMA Australia Limited.

Table 15: Selected characteristics, Mandurah

	Mandurah
Population (2018)*	102,031
Population Growth Rate 2013–18	1.58
Median Age	43.4
Median Wage (2017)	50,269
Total persons employed	37,124
Largest employment sector	Construction (12%)
Unemployment rate	10.7
Median Detached House Price 2018	380,000
Annualised House Price Change 2014–2018	-1.90
Net Internal migration year to Jun 2018	876
Net Overseas migration year to Jun 2018	273
New dwelling approvals 2018	867
Renters in housing stress	11.7
Nearest Metropolitan Centre	Perth
Distance from Metropolitan Centre (km)	72
Commuting more than 10 km (% of 15+ yrs)	56.77%
Commuting more than 50 km (% of 15+ yrs)	28.77%

All statistics as at 2016 Census unless otherwise indicated.

Source: ABS (2020a) Data by Region.

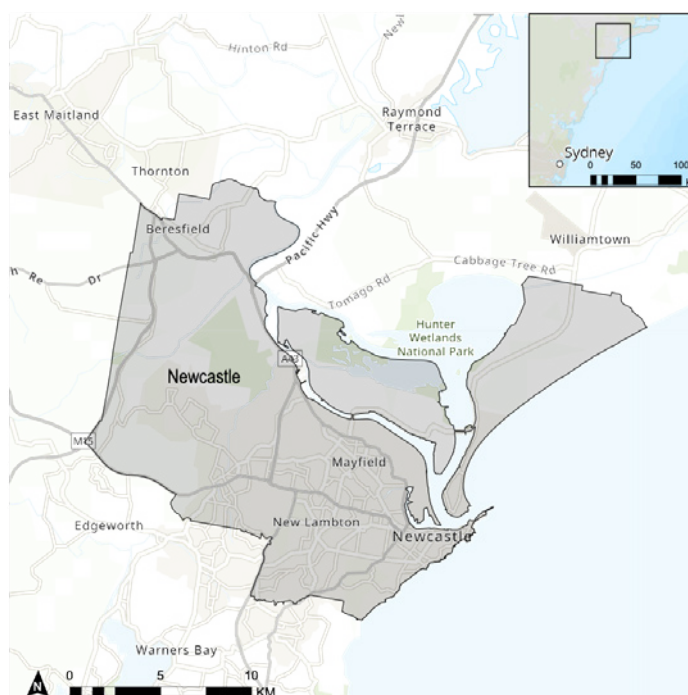
Its coastal location and lifestyle attractions make the region attractive to retirees and also fly-in-fly-out workers employed in distant mining operations. Mining and mining products also generate local jobs with Alcoa Aluminium being one of the largest local employers. However, reflecting its rapid population growth and regional tourism role, construction and retail are the largest employment sectors. Almost one in three workers leave the region for work each day with the majority travelling to metropolitan Perth.

The city's 20-year Strategic Community Plan (2017) highlights the need for infrastructure investment to match the needs of the large and growing population and also to support the development of existing and new industries that generate jobs within the region. The newly developed Peel Business Park and Peel Food Zone, developed in partnerships between local government authorities, PDC and relevant state government agencies, anticipate industries attracted to the region will include advanced mining and energy-related technologies (battery metals, hydrogen cells), as well as manufactured housing and food processing.

4.2.6 Newcastle (NSW): Regional centre

The Newcastle metropolitan area is the largest regional urban centre in NSW and continues to grow, albeit at a slower rate than comparable centres and the nation. The wider Hunter Region is predicted to experience higher than national average growth however (Newcastle City Council 2016). Newcastle is the economic hub of the Hunter Valley with major port and freight infrastructure and secondary processing facilities servicing large scale extractive and agricultural industries in the region. The city has strong connections to Sydney by rail or road (between 2–2.5 hours) while direct flights take around 45 minutes. However, metro-bound commuting is relatively rare because of these distances (Figure 13).

Figure 13: Map of Newcastle SA3 region (inset: Newcastle in relation to Sydney)



Source: Adapted from ABS Data by Region (2020a) MapData Services Pty Ltd (MDS), PSMA Australia Limited.

Table 16: Selected characteristics, Newcastle

	Newcastle (SA3)
Population (2018)*	173,251
Population Growth Rate 2013–18	0.95
Median Age	36.7
Median Wage (2017)	50,664
Total persons employed	76,144
Largest employment sector	Health Care & Social Assistance (18.2%)
Unemployment rate	7.5
Median Detached House Price 2018	625,000
Annualised House Price Change 2014–2018	7.78
Net Internal migration year to Jun 2018	-595
Net Overseas migration year to Jun 2018	1,882
New dwelling approvals 2018	1,731
Renters in housing stress	13.9
Nearest Metropolitan Centre	Sydney
Distance from Metropolitan Centre (km)	160
Commuting more than 10 km (% of 15+ yrs)	35.24%
Commuting more than 50 km (% of 15+ yrs)	6.14%

All statistics as at 2016 Census unless otherwise indicated.

Source: ABS (2020a) Data by Region.

While Newcastle's economy is seen to be highly productive and largely self-contained, it has historically been deeply connected to regional resources including in the past, steel production and currently coal for export, which appears to have an uncertain long-term future (McCarthy, P. 2021 2021). However, as Newcastle is the key service centre for a catchment of close to 700,000 people, recent decades have seen strong growth in service and knowledge sector jobs. The city is relatively well served by social institutions including Newcastle University, which is a highly regarded teaching and research institution, and the 800 bed comprehensive John Hunter Hospital, which includes the second busiest trauma centre in Australia.

The city council's recent Economic Development Strategy (2016) identifies a likely contraction in employment opportunities in manufacturing and energy utilities, which might be offset by growth in amongst other things, defence manufacturing and support, port services and logistics (including the coal chain), agribusiness; health and medical services and research; higher education and emerging creative industries. In partnership with Port Stephens Council and with the support of the NSW Government, Newcastle City Council is participating in the development of Williamtown Aerospace Centre at Newcastle Airport, which aims to create and facilitate commercial initiatives in aerospace and defence technologies.

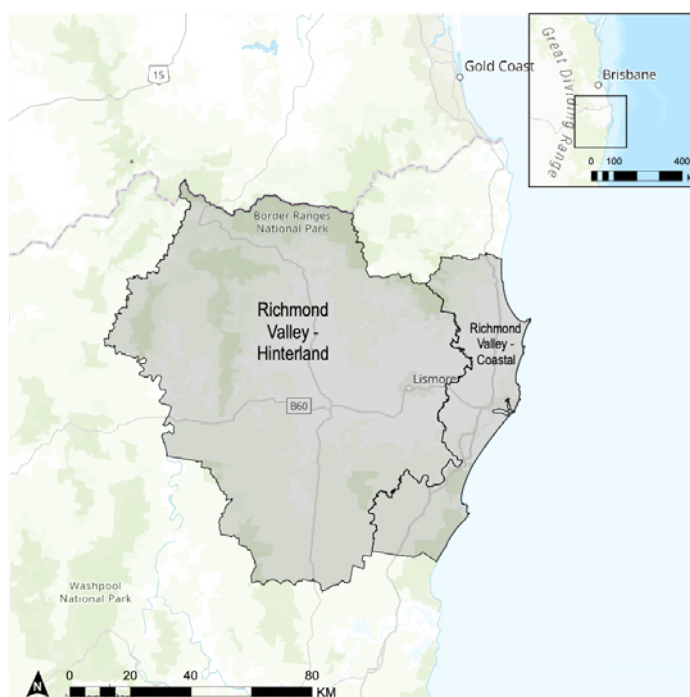
Revitalisation of the city centre is a key element of economic development plans for Newcastle. This includes construction of light rail and a new transport interchange, development of a city centre campus of the university, relocation of the city's administrative offices to the west end CBD, and renewal of retail, entertainment and leisure precincts designed in part to attract more commercial activity including offices and large retail tenants to the city centre. The City Council is also partnering with business groups in a digital connectivity strategy designed to enable growth in a range of smart sectors and digital technologies.

4.2.7 Northern Rivers (NSW): Lifestyle region

Situated within two hours of the Gold Coast and Brisbane, the Northern Rivers region is a popular lifestyle destination on the far north coast and hinterland of NSW (Figure 14). It is comprised of a network of coastal and hinterland towns and rural areas.

The Northern Rivers region includes the Richmond Valley, Lismore, Ballina, and Byron LGAs. Development is focused on the network of towns, notably Byron Bay and Ballina, with the City of Lismore functioning as the primary regional service centre. While the Tweed Shire and Clarence Valley are often also grouped with Northern Rivers, more northerly areas such as Tweed Heads are closely related to metropolitan south east QLD. The NSW government's Regional Economic Development Strategy (REDS) identified the area covered by Ballina Shire, Byron Shire, Kyogle Council, Lismore City Council and Richmond Valley Council as the 'Northern Rivers Functional Economic Region' because of the economic linkages they share across administrative boundaries, including 'only 10 per cent of the resident workforce traveling to another region for work' (NSW Government (2018)).

Figure 14: Map of Richmond Valley SA3 regions (inset: Richmond Valley in relation to Brisbane)



Source: Adapted from ABS Data by Region (2020a) MapData Services Pty Ltd (MDS), PSMA Australia Limited

Table 17: Selected characteristics, Northern Rivers

	Coastal (SA3)	Hinterland (SA3)	Northern Rivers (SA3 x 2)
Population (2018)*	83,758	71,123	154,881
Population Growth Rate 2013–18	1.42	-0.19	0.65
Median Age	45.9	44.20	
Median Wage (2017)	36,493	41,124	
Total persons employed	32,839	27,858	60,697
Largest employment sector	Health Care & Social Assistance 15.6%	Health Care & Social Assistance 16.3%	Health Care & Social Assistance 15.9%

4. Regional planning for economic and population growth in Australia

	Coastal (SA3)	Hinterland (SA3)	Northern Rivers (SA3 x 2)
Unemployment rate	6.2	7.9	
Median Detached House Price 2018	765,000	370,000	
Annualised House Price Change 2014–2018	10.75	5.33	
Net Internal migration year to Jun 2018	625	-452	173
Net Overseas migration year to Jun 2018	543	187	730
New dwelling approvals 2018	518	236	754
Renters in housing stress	14.7	12.1	
Nearest Metropolitan Centre	Brisbane	Brisbane	Brisbane
Distance from Metropolitan Centre (km)	166	197	
Commuting more than 10 km (% of 15+ yrs)	51.13	45.28	
Commuting more than 50 km (% of 15+ yrs)	7.24	5.89	

All statistics as at 2016 Census unless otherwise indicated.

Source: ABS (2020a) Data by Region.

This economic interdependency and complementarity contribute to very uneven distribution of investment and development across the network of urban centres in the region. Population growth is heavily focused in the coastal towns of Byron Bay and Ballina while the populations of Lismore and other hinterland centres are stable or contracting. Lismore provides approximately the same number of jobs as Ballina which has a 20 per cent greater population, which illustrates the trend for some residents to enjoy the amenity of coastal centres while commuting (30 minutes) inland for work. This preference for coastal living is also clearly manifested in dwelling approvals and prices.

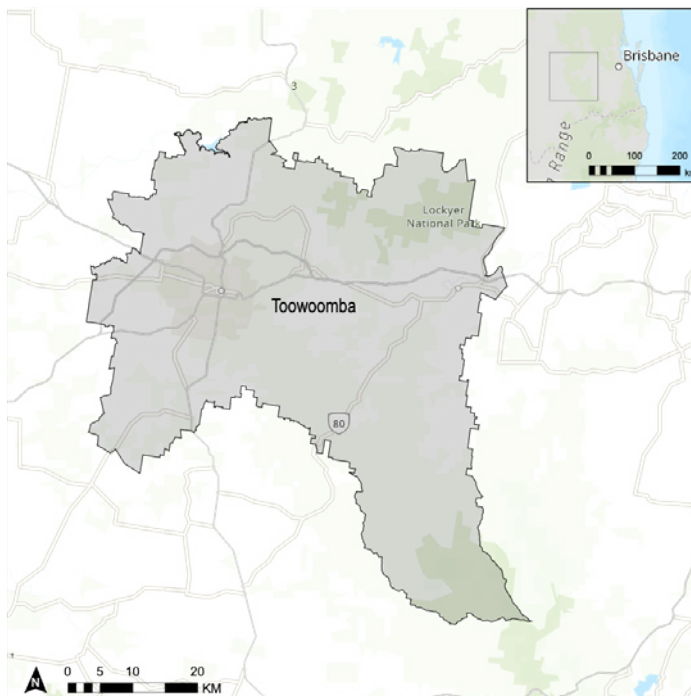
Ballina Airport offers a relatively high level of service to Sydney and other major cities underwritten by the region's attractiveness as a tourist destination. Connectivity has also been enhanced by major improvements to M1 Pacific Motorway linking Sydney and Brisbane.

While the largest contributor to regional output continues to be agriculture, population driven industries such as health care and social assistance, education, and retail are the largest employers by a considerable margin. Lismore Base Hospital is a level five hospital and the major regional referral centre. Southern Cross University has a campus in Lismore, although it is outside the city centre. The University was founded in the early 1990s and has since attracted a strong student population, including international students. The REDS report identified as expanding tourism, growing population, and internal markets, along with improving connectivity to global markets for regional products as key opportunities for economic growth.

4.2.8 Toowoomba (QLD): Regional centre

After Canberra, Toowoomba is Australia's largest inland city. As the major transport hub and service centre for the rich Darling Downs region, the city's economy has historically been strongly based on agricultural products and food processing, transport, and logistics, and this continues to be the case. More recently, significant regional investments in resource industries such as coal seam gas and the construction of the privately owned Wellcamp Airport, which provides domestic passenger services to major Australian destinations plus direct freight transport to major Chinese cities, have underpinned its development.

Figure 15: Map of Toowoomba SA3 regions (inset: Toowoomba in relation to Brisbane)



Source: Adapted from ABS Data by Region (2020a) MapData Services Pty Ltd (MDS), PSMA Australia Limited.

Table 18: Selected characteristics, Toowoomba

	Toowoomba (SA3)
Population (2018)*	156,757
Population Growth Rate 2013–18	1.11
Median Age	36.8
Median Wage (2017)	46,686
Total persons employed	66,386
Largest employment sector	Health Care & Social Assistance (15.1%)
Unemployment rate	7.0
Median Detached House Price 2018	645,000
Annualised House Price Change 2014–2018	8.04
Net Internal migration year to Jun 2018	248
Net Overseas migration year to Jun 2018	754
New dwelling approvals 2018	698
Renters in housing stress	11.8%
Nearest Metropolitan Centre	Brisbane
Distance from Metropolitan Centre (km)	126
Commuting more than 10 km (% of 15+ yrs)	34.64%
Commuting more than 50 km (% of 15+ yrs)	6.83%

All statistics as at 2016 Census unless otherwise indicated.

Source: ABS (2020a) Data by Region.

However, population increase is well below national and metropolitan growth rates and, reflecting Toowoomba's position as a regional service centre, almost 40 per cent of jobs are in health care and social assistance, education and training, and retail sectors. The city is home to a number of large boarding schools and the main campus of the University of Southern QLD with approximately 3,600 students. The university has a research focus and associated industry partnerships in agricultural technologies.

Toowoomba Regional Council's Economic Development Strategy (2018) notes that over the next two decades jobs growth in the region is expected to outpace population growth so the attraction and retention of skilled workers is a priority (Toowoomba Regional Council 2018). In 2012, the council established the Toowoomba and Surat Basin Enterprise (TSBE) as a membership-based organisation to promote and coordinate investment and economic development in the region. TSBE has identified the health and energy sectors as significant growth opportunities for the region. It has also organised a successful regional trade mission to Shanghai, as well as hosting many overseas investor groups with the aim of promoting export trade relationships at the city-to-city level.

4.3 Comparative analysis

In the sections that follow we compare key themes and perspectives from the case study interviews. We divide this discussion in relation to regional planning and governance, infrastructure, lifestyle, and key economic opportunities.

4.3.1 Key strategies for regional development

A number of similarities emerged across the case studies in terms of their comparative locational advantages. All have benefited from their locational proximity to either a larger state capital city, or, in the case of Albury-Wodonga, from being situated at an important transport and logistics interchange at the border between NSW and Victoria. All of the cases fulfill important regional service roles as administrative headquarters for local and sometimes state, services, and health, education, commercial, and retail services.

With few exceptions, beyond their regional servicing roles, the economic mainstays of most regional cities in this part of the study have historically been strongly linked to primary production in their regional hinterlands. These mainly comprise transport and logistics (including port facilities) and processing of agricultural products. These sectors continue to generate a significant proportion of the economic product, and in some cases have seen considerable new investment in facilities and infrastructure. However, these industries no longer figure as major employers and, in some cases, may have a limited future due to new technologies or even climate change.

All of the cases were pursuing economic diversification, although manufacturing remains important for Albury-Wodonga, Ballarat, Bendigo, Mandura and Newcastle. Participants recognised the economic challenges in shifting from a resource-based economy towards a service economy, which is often associated with lower skilled and paying occupations.

“The region has an economy firmly connected to its resources. Diversifying away from that is a challenging beast ... our other economic profile is the service industry. [which is] not as robust or as high level as some of the other economic sectors... it makes our economy quite vulnerable and quite complex.” (State Planning Agency Regional Director)

With the exception of Albury-Wodonga, regional university campuses have been important catalysts for growth in each of the case study regions. Four of the cases have benefited from new or upgraded investment in railway infrastructure, with Ballarat, Bendigo and Geelong benefiting from regular train services to Melbourne, and Mandurah well connected to Perth. Investment in cultural heritage and tourism has also featured in the economic strategies for the majority of the cases. Recent decentralisation of government services has supported new economic opportunities in the regional Victorian cases.

Diversifying employment opportunities

In virtually all of the regional cities examined, the largest industry sectors in terms of employment were health care and social assistance followed by either retail or education. This is unsurprising as health care and social assistance is amongst the largest and fastest growing sectors nationally. Participants in the study however, frequently expressed a view that while jobs in these sectors are generated by increasing population, they are not sufficient to support economic sustainability, especially if the services are provided to the non-working population.

“From our perspective it would be lovely if we had more [younger] and highly skilled population growth We have seen an explosion in retirement villages and whatnot, that's great from an employment perspective, construction and whatnot ... it just doesn't necessarily support what we would call our key industries.” (Local Government Economic Development Officer)

While acknowledging the importance of social and other services to attracting new residents, a number of interviewees believed that service and construction-oriented growth would be insufficient to establish a diverse and sustainable economy. Rather, they had begun to focus efforts on industries that might create a more diverse workforce including more managerial and professional roles.

“We focus on supporting what we think are key industries that have the greatest growth potential. They're generally ones that aren't population growth driven.” (Local Government Economic Development Officer)

Labour shortages for filling higher level, skilled positions were reported to be a factor inhibiting firms from investing in regional cities. The need to enhance the local skill base was recognised.

“We lack a lot of diversity, [we have a] highly Anglo-Saxon population, which limits the skill base from which we have and [we also have] also have lower than average tertiary skills compared to the rest of the state. So approaching economic development from a 'how do we enable our population to grow and to be more skilful' is the first step.” (Local Government Economic Development Officer)

Others reported the need for a critical mass of jobs to enable a diverse range of opportunities.

“We have a - basically, a big gap in the middle, of people in their 20s, 30s, 40s. They usually leave, once they've finished high school, and they don't come back until they retire. So, what we recognised, a couple of years ago ... is the need to diversify our industry base. Get away from just simply retail and construction, and the cyclical industries, and get into more emerging industries, and industries that, basically, have good career prospects and a bright future.” (Local Government Economic Development Officer)

Participants commented on the need for employment opportunities across a spectrum and to support dual career households rather than just a principal breadwinner. Local or relocated businesses can struggle to recruit staff for more highly qualified roles since partners and ultimately older children also want to be employed locally. One participant advised that the health industry has developed attractive strategies to enable medical practitioners with partners to relocate.

“Quite often, when staffing is happening, you're getting a package, you're getting a couple, so there's got to be work for both ... coming in. That's done very well by the health authorities. I think that they look at, when they're trying to attract medical practitioners to the area, they're looking at the couple and trying to get them both jobs. So, the larger cities have a lot more options than some of the smaller places.” (State Regional Development Agency Regional Manager)

Attracting new industries and proactive engagement with the private sector

Local economic development officers who were interviewed, frequently stressed the need to diversify the local economy through proactive engagement with the private sector. Many were specifically looking for ways to attract investment in emerging new technology sectors.

“The emerging industries [include] future battery metals, advanced manufacturing and prefabricated housing, hydrogen, and the circular economy. We are currently looking at pilot projects; [including] partnership with a hydrogen company; discussions with modular housing companies.” (Local Government Economic Development Officer)

Many of the cities have recently established new industrial or business parks often targeted at specific industry sectors such as advanced manufacturing, aerospace, and new energy technologies. These zones attempt to provide specific forms of infrastructure designed to facilitate investment from established and emerging industry leaders. While the facilities are intended to be commercially viable, they often require considerable front-loaded investment, which in turn requires participation by partners in other levels of government, usually State governments.

“[We have] a large parcel of industrial land that’s now been zoned and has been developed through state investment in infrastructure. We’re pushing for that to be an agri innovation precinct for food processing and high-tech food development, as well as light manufacturing in the hope to provide that start of a shift in the economy towards production, rather than just population service.” (Regional Development Agency Planner)

Such state funding has been critical to overcome infrastructure blockages.

“There are incentives for companies to move there and to establish there because it’s an infrastructure [roads, fill and power] that’s gone into it that’s being paid for by state government. So, there’s power out there but there’s also a microgrid that’s being established so alternative energy security, and we’re working on a program for construction incentive.” (Regional Development Agency Planner)

Despite these initiatives some participants felt that they would struggle to attract new industries without significant improvements in large scale infrastructure such as high-speed broadband internet, that could only be provided at a national level.

“Connectivity is another thing. Being able to have the NBN [National Broadband Network], but the NBN isn’t necessarily a solution, because it’s not a fast upload speed.” (State Regional Development Agency Regional Director)

Decentralisation and the relocation of government agencies

Those cities that have or are currently preparing to host relocations of government agencies, such as through the GovHub program in Victoria, described the potential catalysing effect of these moves and the expected benefits.

“A range of other jobs across different Victorian state government agencies and departments ... will be effectively moved out. It’s a net increase of about 1000 jobs in a multiagency and department model in a new office building. In a city of a little over 100,000 people, 1000 jobs and diverse professional jobs [is] a trigger potentially for people to move out there, but obviously it provides a more diverse range of employment opportunities for those that are already there as well.” (State Planning Agency Regional Director)

Despite having been designated as a growth centre or regional capital some interviewees expressed a view suggesting that their state government should be more active in promoting their growth through relocation of government jobs.

“If we had a large government department, for example, that relocated their operations [here] that would make a huge difference.” (Local Government Planner)

Participants in case study regions, which are not currently earmarked for government decentralisation activities, clearly saw potential in the strategy as a regional growth lever.

Role of universities

As noted, almost all of the cities in the study host a university campus, although in some cases this is not the main campus of the institution. Most interviewees saw this as a positive contribution to economic diversity, population retention, and attraction.

“The other thing we’re also getting in terms of population growth, ... we do have a university. We are relatively self-contained ... [this city] has a fairly strong technical, university-based [sector] - the equivalent of somewhere like I guess Armidale.” (Local Government Strategic Planner)

Universities are also seen to contribute to cultural identity and recognition of a city, although this factor relies on the visibility of physical facilities, student and academic activities. One participant spoke about the importance of a strong campus with a physical identity, which can be difficult to achieve if teaching and research facilities are dispersed across a region or physically separate from the CBD.

“The university is really important to [this city] and to its growth, and in the last few years it’s obtained funding to set up different centres. It’s an interesting one though because you’re almost not aware of it because of its physical location ... it doesn’t have that same physical presence because it hasn’t been a university town if you like.” (Local Government Planner)

Some participants saw opportunities for regional universities to play a stronger role in supporting other economic opportunities in their region.

“It’s great that we’ve got a university, but I mean if we’re realistic it’s certainly not a top tier university. It has some specialisations, and I think it does do good things for the agricultural sector, but I don’t know that it necessarily supports a lot of our other industries.” (Local Government Economic Development Officer)

4.3.2 Regional planning and governance: recognising the unique situations of regional cities

The interviews revealed a diversity of experience with regional planning arrangements and responsibilities, in part due to variation in state legislation and institutional structures but also related to the situation of particular cities. For example, while Victorian case study cities were experiencing steady growth and development of necessary infrastructure, interviewees described a strongly Melbourne-centric approach that might be promoting their growth mainly as a means of relieving pressure on the metropolitan area.

“It’s called Plan Melbourne, which is interesting because regional areas are still addressed as [part of] Plan Melbourne which annoys our political masters immensely.” (Local Government Strategic Planner)

Satellite city participants and those in larger cities referred to falling between the categories of metropolitan and regional, a situation that sometimes manifests as ineligibility for certain funding opportunities.

“In some state government funding we’re classed as metro, some we’re classed as regional, some federal [schemes] we’re regional, then there’s a couple of classifications at state government level where we’re not eligible for either. So actually starting to position what the role of cities [is] in this, we’re not the capital city, but we serve a significant population and serve connection points for other parts of the state as well, is how do we better fit into that mix.” (Local Government Economic Development Officer)

A common theme amongst interviewees was a lack of trust in local authorities to make planning decisions on major developments and the perception in some cases of bureaucratic or rule-driven decision-making at a state level. This was seen to undermine local knowledge and strategy. Constraints on the authority of local government to make local decisions on major projects was also seen by some as inhibiting investment, not only because of the delay this sometimes incurred by also because of reduced attention to local knowledge and relationships with investors.

Potential to support regional networks and cooperation rather than competitiveness

At the same time, some local government participants freely acknowledged the problems of parochialism and lack of expertise at the local level. Some called for a smaller number of larger LGAs as a way of fostering a more successful strategic approach at the regional scale.

“I don’t think council has done a good enough job of determining what our funding priorities might be and working on building the case for why they should be funded. So, we’re all over the shop in terms of - a funding stream might open and there’s not a lot of coordination or strategic intent behind what application [to go up today]. ... I just wonder how many fantastic parks we could need before we start pitching for more funding that would generate external investment as well”. (Local Government Economic Development Officer)

The situation of multiple centres and towns operating as a regional network illustrates another opportunity. Strategic efficiencies can be achieved through sharing of resources and infrastructure, but intracity competitiveness can hamper strategic decision-making.

“Our local government boundary doesn’t include [large neighbouring town] for example, so all the decisions unfortunately are made purely on the basis of the ratepayers you represent. At a planning level totally, yes, the network of towns is brilliant, but when councillors are making decisions, they go oh we just have to look within our local government boundary.” (Local Government Strategic Planner)

Thus, funding interventions and arrangements need to support greater regional network cooperation rather than competitiveness.

Some interviewees complained that discrepancies between state agency boundaries, which are often based on the administrative and resource constraints of individual agencies, frequently fail to take account of regional characteristics such as travel patterns. However, an outstanding exception to this was described in Albury-Wodonga where the health service boundary ignores the state border to treat the area as a single city region.

“You’ve actually got the Victorian Government investing in New South Wales (health) infrastructure to assist Victorian people.” (State Planning Authority Regional Director)

Regional partnerships and coordinating bodies

Almost all of the cities participate in some form of regional partnership organisation involving contiguous local government bodies and, in some cases, regional industry organisations, government service agencies and in one case business organisations as subscribers. Most of these organisations were reported by interviewees to focus primarily on networking and regional promotion with some examples provided of coordinated requests for funding of specific projects. Participants were generally enthusiastic about the benefits of these types of partnerships.

“In our region, there is a lot of buy-in. The [Organisation of Councils] is very pro-active. They’ve taken the lead with the engagement with the Commonwealth and have extended their partnership beyond the state and into the Commonwealth.” (State Planning Authority Regional Team Leader)

In the case involving business membership it was described by both local and state government interviewees as the effective economic development arm of council with significant multiplier effects from council’s outlay:

“The advantage ... is that they can operate outside of all of the rules that government is constrained by. We operate so slowly; we can’t adapt quickly. [The organisation] is a bit more nimble in the way that they can do things and probably a bit more industry focused and business friendly.” (Local Government Economic Development Officer)

Notably, regional planning bodies established by state governments won less praise, particularly from local government operatives, largely on the basis that they brought little or no new resources to bear and potentially duplicated effort.

“They’re very bureaucratic. They don’t actually have any money, themselves ...they’re meant to be the conduit between government and the people, but in reality, they become very bureaucratic, and they are just simply there to get their governments re-elected.” (Local Government Economic Development Officer)

Some participants observed that the Australian Government’s Regional Development Australia initiative was under-resourced, severely reducing its usefulness.

Regional growth targets

The question of regional growth projections and targets arose in interviews with many participants. Frequently projections were prepared by state agencies following a brief consultation process but were seen as mainly extrapolations rather than taking into account detailed local knowledge and plans including such things as new subdivisions, density changes or infrastructure needs or investments. According to participants, these state level projections then form the basis of plans and funding for services such as schools and health services. Participants were of the view that under-estimating population may limit their growth potential.

“The Department of Planning ... we found out by accident, issued some projections in December and these are the ones that say that our growth is modest. You can kind of see the rationale, but they did no local work or look at any local factors or did any of that sort of analysis, so I’m not really happy with those ... they certainly don’t come and do the consultation that they used to do with council to see what local factors might influence growth or no growth.” (Local Government Strategic Planner)

The use of, and access to, administrative data provoked a number of comments from interviewees who contend that wider access could improve their planning capability.

“I think the problem with planning is forecasting. The data’s only as good as the data and the way in which you use it to forecast. But in terms of looking backwards and then thinking forwards, I think that there is a real opportunity to use data to do that better.” (Regional Development Agency Planner)

“In the past we’ve got access to WorkCover data from the state government, which was really fascinating because I guess depending on what they’re paying WorkCover, you can make some assumptions about the size of the business that they are, industry and whatnot. Unfortunately, we only ever got access to that for one year... our requests for subsequent access have been denied, unfortunately.” (Local Government Economic Development Officer)

“We’ve requested from the state and feds is data on applications to their support programs. So that we can try to map if there are particular industry sectors that have applied for some of the COVID support more over others, or if there are any particular geographic locations. Getting that information, unfortunately, has proved unsuccessful so far.” (Local Government Economic Development Officer)

4.3.3 Infrastructure, transport connectivity, and funding

Unsurprisingly interviewees from both local government and state agencies had much to say about the importance of connectivity to major markets through metropolitan cities, ports, and airports. The current inland rail project in the eastern states feature strongly in the planning of a number of regional cities with expectations of a boost to local investment in sectors including processing of agricultural products and freight and logistics.

“We’ve got an Inland Rail office here and Federal agency representatives ... So I think they’re working hard to build that project, build local capacities for that project, whether it’s in the construction phase or the operations phase, and we will get more freight onto it.” (Local Government Economic Development Officer)

Faster rail links in cities closer to metropolitan areas are also credited by some for expanding labour markets and enhancing business networks while some cities are hoping to see that potential realised in the future.

“Definitely the faster rail business centres that are underway at both the state and the federal level are of interest. That balancing, as I mentioned, we’re close to [capital city] but we’re not commutable ... So, what would a decrease in the distance ... offer for employment opportunities, or population growth, or economic growth - that type of infrastructure is quite transformative.” (Local Government Economic Development Officer)

Several of the cities have benefited from major improvements in airport infrastructure and air services in recent years, the most significant being the privately constructed and operated Wellcamp Airport in Toowoomba, which provides regular direct freight connections to Asia. Bendigo interviewees also reported business investment benefits from the city’s inclusion on regular Qantas Melbourne to Sydney flights.

Some faster growing regional cities reported having for the first time to focus on intracity transport planning and infrastructure as a key element of managing growth, and argued that this needs greater emphasis. This includes the use of existing intercity links to facilitate intraregional commuting.

“Council ... [have] decided to do... an integrated approach to transport and land use, how can ... we reduce the need for traffic growth? How can we look at employment being linked to where people live? How can we better use our existing walking/cycling/public transport network, and how can we latch onto what was the existing rail network?” (Local Government Sustainability Manager)

Commuting and population growth

Participants from satellite cities outlined the importance of commuting as a growth factor, and the role of transport links in allowing this. Interestingly, this does not only refer to regional city residents commuting to capital city workplaces but also to some extent (mainly managerial) staff travelling in the opposite direction when companies relocate operations to regional centres.

“Peri urban growth pressures at play in regional centres ... is in part driving growth. The respective growth rates of some of those regional centres that are more strongly connected to Melbourne with interurban reasonably frequent rail, solid freeway connections within that one- to two hour commuter bracket from Melbourne. A lot of what’s driving that growth is the growth of Melbourne.” (State Planning Agency Regional Director)

“You do get a bit of reverse commuting. I can’t remember what the numbers are off the top of my head. That’s certainly a good option ... if you’re in outer Melbourne, coming towards [this city] for health services is a good option.” (Local Government Strategic Planner)

While some of those in more distant cities called for faster rail links and improved roads to allow more commuters to live there, others recognised that barriers to commuting might contribute to economic and social sustainability.

“We do have people commuting, but that three or more hour commute a day tends to put a lot of people off. Which means that there’s a need to provide our own employment to lean on ... and provide the housing there as well. That brings obvious challenges, but it’s also a good thing as it allows us to create our own independence and identity to some extent. So that means we’ve got to also be fairly strong in the advocacy space.” (Local Government Economic Development Officer)

Commutability can be a mixed blessing. Improving transport connectivity between regional cities and capital cities can make them more desirable places to live, but this can push up the price of housing without necessarily attracting jobs or contributing to the local economy.

“There’s a fair proportion of the population that is still reliant on jobs that are actually based in the capital city. In terms of contribution to the local economy it can be quite limited ... in terms of the working age population, most of them are actually commuting over the border for employment.” (State Planning Agency Regional Manager)

Fly-in-fly-out is another form of commuting that has contributed to population growth in some coastal/lifestyle centres. While this has brought benefits and jobs in areas such as construction and retail, it was not seen as a sustainable strategy by those participants who raised it.

“It’s not the ideal situation. What you want is, basically, a situation whereby people can live and work in their local government area, where they don’t have to spend two, three weeks away at a time, from their families. That’s what we’re chasing.” (Local Government Economic Development Officer)

Financial Assistance, City Deals and Value Capture

Securing funding for infrastructure and services to support population growth and attract private investment drew extensive commentary from interviewees. While variation between jurisdictions in the size and allocation methods for state financial assistance was an issue for some, in general untied grants (made under the Australian Government’s Financial Assistance Grant scheme) were seen as important for planning and growth management.

“Even though the distribution model is poor, the actual notion of FAGs [Financial Assistance Grant] is really good, because it basically says, okay, local government, we trust you enough to do the right thing by your community, because you are the level of government that’s closest to the community. You know better than us what your community needs. We trust you to spend this money wisely.” (Local Government Economic Development Officer)

Strongly growing cities attempting to keep up with the need for physical and social infrastructure reported that they had borrowed against future development contributions to provide the local infrastructure needed to support growth.

“Council has had a history of playing perhaps a stronger role in looking to forward-fund the provision of critical enabling infrastructure in support of greenfield growth, so they have borrowed against their future income projected through development contributions plans to bring forward the provision of infrastructure to help unlock some of that growth.” (Local Government Strategic Planner)

However, a number of interviewees called for a more reliable and extensive distribution based on return of value generated by local planning and the resultant growth

“We’re making planning decisions that are essentially escalating the value of land by a factor of two or three overnight ... the council then would like to drag some of that back and reinvest it in infrastructure that serves the development of that land at a later stage.” (Local Government Strategic Planner)

“I think that the land values that external developers are seeing, the returns that land developers are seeing and the strong population growth that we’ve seeing as a trend over the last decade has driven that level of investment. That obviously puts pressure on us in council to respond in terms of governance, management, decision-making and, particularly in development, the provision of and the funding of infrastructure.” (Local Government Strategic Planner)

Several of the regional cities have already benefitted from City Deals arrangements involving Australian and state partners while others were hoping to be involved in the future. However, interviewees also criticised the ‘project-driven’ aspect of City Deals and the multiple levels of influence over funding and planning.

Water security and limits to growth

Interviewees, especially those from inland cities, were very concerned about the limits to growth imposed by water supply, infrastructure and management. Regardless of developments in transport and communications and business investment, inland cities are unable to support significant population growth without major improvements in water security.

“This is probably the number one issue that comes up across this community, is the future sustainability around water issues and how do you create sustainability around water... There are a number of industry players who want to set up here—we’ve got a number of developments that potentially could happen here - but one of the inhibitors is water.” (State Planning Agency Regional Director)

In particular, state agencies recognised the weight of this constraint on regional development and called for a series of actions to address it at all levels of government.

“Most of the regional cities’ issues revolve around water security. If we’re serious as a state of getting more regional growth, then we need better water infrastructure or water security for those regional growth centres.” (State Planning Agency Regional Director)

4.3.4 Amenity, lifestyle and housing

Most interviewees assigned considerable importance to the presence and quality of social infrastructure, and especially educational institutions and health services to the ability of their city to attract and retain population, and especially a skilled workforce.

“When people move to town, the first thing they do is they look at schools for their kids. Professionals [it’s] not so much the job that I’m going to. It’s what’s the schooling like in that town?” (State Planning Agency Regional Manager)

Services and cultural amenities

Participants were keenly aware of the need to plan and fund a range of local services and facilities that foster community life and social inclusion.

“We’ve probably been a bit deficient in the building of—I’ll call them community facilities which encompass quite a range of things, ...so some of that organised recreation and sport, some of it’s things like neighbourhood houses, community health centres, gathering places for groups and organisations, consolidating them into a limited number of places around the city.” (Local Government Sustainability Manager)

In addition to social, educational and health services, interviewees commented on the need for richer cultural opportunities in regional cities. These includes sporting and entertainment facilities but also a diversity of retail, dining, and recreational venues. This was generally understood to be linked to growing demographic diversity but is also strongly linked to attracting a diverse workforce including professional and managerial occupations.

Lifestyle

Location and so called ‘lifestyle’ amenities emerged in interviews as an important factor explaining the population growth in some of the regional cases we reviewed. Coastal areas such as the Northern Rivers region have attracted population for their lifestyle and amenity rather than for economic or employment opportunities. Rapid growth dominated by retirees and other lifestyle seekers, combined with second home ownership and tourism demand has led to infrastructure deficits and expensive housing in some cities.

“We had this constant game of trying to catch up with the infrastructure, trying to build infrastructure, trying to fund infrastructure, to meet our community needs.” (Local Government Economic Development Officer)

On the other hand, some inland and hinterland cities that are within (even extended) commuting distance of the coast, but not on it, struggle to attract new residents even when diverse employment opportunities are on offer. In turn this reduces the rate revenues required to fund new infrastructure development to support growth.

Housing and Demographic Diversity

Regional cities have always offered relatively more affordable housing than the major cities, and this was regarded by some participants to be a comparative advantage. Recent improvements in connectivity and social infrastructure meant that some regional centres were being viewed as a viable option for working age people moving out of capital cities, even prior to the COVID-19 pandemic.

“There’s that young urban professional looking for lifestyle, or increasingly satisfied that there’s a lifestyle on offer there that they perhaps didn’t think was the case 15, 20 years ago. There’s an affordability element that goes hand in hand with that.” (State Planning Agency Regional Director)

The opportunity to escape urban congestion was also seen to play a part in relocation decisions. Interviewees reported that the decision to seek more affordable housing and an easier way of life was motivating people to seek to move to the region, even before having established an offer of employment.

“There is certainly a lifestyle factor that is an important part of why [this city] is an attractive place to live. Affordability aspects and amenities and ease of getting around the city; we’re not impacted by congestion to the same extent ... we get a number of enquiries for people that - through our economic development team for people looking to move [here] for lifestyle factors and then look for a job rather than the other way around.” (State Planning Agency Regional Director)

As mentioned previously, in relation to the attraction of coastal locations, the interviewees noted that more affordable housing alone is insufficient to attract and retain new arrivals from major cities who also seek lifestyle features.

Some cities that have attracted higher rates of population growth are attempting to deal with land use pressures and sprawl. This entails a new emphasis on residential infill development and increased densities in selected locations, however all the faster growing cities continue to identify greenfield sites for new residential subdivisions. Increased diversity in housing types is also seen to be necessary to support the increased economic and workforce diversity that underwrites a more sustainable local economy.

“One of our key things that we work on is diversity, so whether it's diversity in housing stock or diversity in the economy, I think they're both really important to being able to weather changes in one sector or another and it's something that [this city] certainly, from an economic perspective, has been able to achieve over the last five or six years.” (Local Government Strategic Planner)

In considering the demographic characteristics of people likely to move to regional areas, it is important to acknowledge that retaining local populations of young adults may also be a long-term strategy for larger regional centres and satellite cities. Traditionally, younger school leavers have left regional areas for education or employment opportunities in the major cities. Improving higher educational facilities and diversifying local economies will assist in retaining this important cohort. Similarly, diversifying housing options available for young single professionals who often seek smaller rental units may also be an important consideration for regional towns and cities characterised by homogenous housing and limited rental markets.

Regional marketing

A number of participants commented on an apparent suspicion amongst city dwellers that regional cities are less well provided in this regard and the need for local agencies to avoid fuelling the negative perception.

“[They say] we haven't got enough teachers. We've got blue green algae in the rivers, that sort of stuff. They don't understand, or they don't seem to realise the effect of their publicity to try and get them more funding to solve the problem actually makes the place sound like a tip. It just leads to a perception for city people to think, I won't get a job, or my children won't get a job or, you know, things are going downhill.” (State Regional Development Officer)

Thus, efforts to counter negative perceptions about regional areas and the lifestyle and employment opportunities they provide, was also seen to be an important strategy.

4.4 Reflections in relation to the COVID-19 pandemic

The interviews for this study were conducted early in the COVID-19 pandemic during the first lockdown period, which affected all Australian jurisdictions. Participants were almost universally working from home in regional cities at the time. Many commented that they felt well prepared for remote working, although they and their employing agencies were all deeply involved in assisting the public and employers to understand and develop COVID-safe practices at the local level.

While the topics and questions for the interviews did not mention the pandemic, its long-term implications for regional cities were often spontaneously raised by interviewees. Perhaps predictably, a number saw the current circumstances as presenting a positive opportunity for regional cities, as urban dwellers and their employers begin to understand the possibilities for remote or even just more flexible working in many fields.

“It will be interesting to see post COVID, and the much greater adoption of flexible working or imposition of flexible working, the degree to which there is actually a response in terms of people realising that they can telecommute and the like.” (State Planning Agency Regional Manager)

Whether this shift is realised and sustained in the longer term remains to be seen. Several interviewees advised that the sustainability of remote working is conditional on improvements in digital infrastructure.

“If we can offer fast internet speeds and the right connectivity that people are looking for then I think there’s a lot of industry that would more seriously consider regional relocation.” (Local Government Strategic Planner)

Improving the digital infrastructure of regional cities is likely to support the development of industries such as data centres, back offices, and tele-services as well as specialist manufacturing opportunities, including medical or protective equipment.

4.5 Summary and potential implications

In examining regional planning and development approaches used in a selection of case study regions of Australia, this chapter has highlighted successful strategies as well as key challenges and opportunities for policy intervention. The analysis highlights the importance of infrastructure, transport, and telecommunications infrastructure in attracting and sustaining employment and population in regional areas. It shows that higher levels of government support through funding grants, decentralisation of government agencies, and investment in universities, hospitals and other major facilities have helped diversify local economies and lead to high quality job creation. The analysis also shows the importance of strong, place-based strategies for regional areas that recognise and reinforce local decision-making processes and governance. The need to strengthen regional bodies networks and provide deeper data to inform decision-making was emphasised by interviewees. This assistance was likely to extend to technical support in planning and overcoming major blockages to development, such as water security.

Finally, a clear message to emerge from the interviews was that population and economic growth are not on their own sufficient to drive sustainable and balanced employment outcomes. Some participants criticised what they saw as narrow growth assumptions and called for ‘success’ to be measured more broadly:

“Maybe we need broader value measures in terms of what we think of a success in growth. Is growth actually a measure of success in itself or do we need to look broader into liveability, environmental impacts and social impacts of growth?” (Regional Development Agency Planner).

5. Catalysing and sustaining Australia's regional populations, economic growth, and connectivity

- Drawing on international and Australian practice, there is opportunity in Australia to leverage population and economic growth in smaller regional centres. Supportive strategies would prioritise investment in transport connectivity, development infrastructure, and human resources, seeking to retain local firms and foster new investment.
- In Australia and internationally, there is a resurgence in regional intervention policies which focus on place-based strategies, seeking to maximise economic growth by exploiting locational advantages and fostering new opportunities in under-utilised areas. These strategies complement rather than compete with ongoing growth through agglomeration in the major cities.
- Supportive governance structures, investment in research and knowledge sharing institutions, and strategic decentralisation of public services would capitalise on and maximise these opportunities.
- There has been renewed interest in the potential for people to relocate to a regional town in the context of the COVID-19 pandemic and increased flexibility around the location of work. This interest may offer new opportunities for regional Australia but has also been associated with increased housing demand and rising prices.
- Regional planning policies could catalyse on this interest by publicising regional housing opportunities; and continuing programs that offer financial support for people who relocate. However, there is also an ongoing need to maintain and extend housing assistance for lower income renters and to encourage diverse and sustainable local economies.
- This final section of the report highlights these conclusions and their implications for policy development and further research.

This report has examined urban and regional governance frameworks and the range of strategies for attracting or retaining population and economic activity. It has focused on key international cases that may prove instructive to the Australian context, and eight Australian regional cases, drawing on interview data, primary policy, and secondary sources. In this final section of the report we summarise the key findings in relation to our research questions and identify priorities for further research and policy development.

5.1 Summarising the evidence: supporting regional population and economic growth

This study was structured by three overarching research questions. The first asked which governance arrangements, spatial planning principles, infrastructure strategies and policy levers, underpin exemplar city regions in selected international examples. The second examined spatial strategies in greater detail, looking at the ways in which different types of urban configuration and settlement structure support economic prosperity and population wellbeing. The third question sought specific lessons for Australian metropolitan and regional governance arrangements. In summarising the findings in relation to these research questions here we focus on policy options and implications. Key 'lessons' from the cases are summarised in Table 19.

1. What governance, planning, infrastructure, funding, and policy levers underpin exemplar city regions?

The range of international cases reviewed highlighted that there is no single model for regional governance, with examples ranging from small city jurisdictions through to the multinational network established by the ESPON. However, successful regions have benefited from sustained investment and strategic planning over time—often a 20 to 30-year timeframe. Further, while recognising the economic benefits of agglomeration, the international case study review found that smaller centres can succeed by specialising in a particular economic strength or locational advantage, if it is well connected to a larger city and/or regional network.

There has been a broader trend towards place-based rather than 'place-blind' regional strategies, which seek to build on under-utilised potential by addressing infrastructure blockages, or skill shortages.

2. What spatial strategies for accommodating new growth—for instance, through new towns/ development of second-tier or satellite cities, or decentralisation and regional renewal efforts—have delivered social and economic outcomes?

In reviewing international and Australian case study regions, all three spatial strategies demonstrated potential success in attracting and sustaining economic and population growth:

- New towns, such as Milton Keynes in the UK, supported by sustained investment in infrastructure and special purpose planning and development vehicles have been successful over time. However, capitalising on latent infrastructure and potential in existing regional towns in Australia is likely to be a higher priority than developing entirely new cities beyond metropolitan growth areas.
- Satellite cities with strong links to state capitals have been able to absorb metropolitan spillover growth and have additional capacity. However, this connectivity to capital city can undermine local self-containment and economic diversity, if skilled labour and employment opportunities are absorbed by the capital city. To address this risk, strategies for supporting firms to locate and remain in these second-tier cities and for improving internal transport connectivity within these cities, as well as to the major capital should be prioritised.
- Regional renewal and growth centres should identify and foster key specialist areas for growth, while the wider employment opportunities associated with regional administrative offices and government decentralisation (relocation) of services would greatly support these initiatives.
- There has been renewed interest in the potential for people to relocate to a regional town in the context of the COVID-19 pandemic and increased flexibility around the location of work (Guaralda et al. 2020). This interest may offer new opportunities for regional Australia but has also been associated with increased housing demand and rising prices.

- Regional planning policies could catalyse on this interest by publicising regional real estate opportunities; and continuing programs that offer financial support for people who relocate. However, there is a concern that increased interest in telecommuting could increase housing prices in desirable regional areas, without adding local jobs or contributing to the local economies. With these issues in mind, there is an ongoing need to maintain and extend housing assistance for lower income renters and to focus on building sustainable and diversified local economies.
3. What are the lessons for Australian metropolitan and regional governance and planning?
- Transport and ICT infrastructure are critical for strengthening connectivity within and between metropolitan and regional areas. Investment in major rail projects such as the inland railway; as well as ongoing improvements to existing services and connectivity within the region are transformative.
 - Strategies for delivering utilities, green space, and other urban infrastructure have been and will remain important for enabling and shaping patterns of growth and residential locational choice. However, local councils struggle to forward fund these infrastructure items. Funding to support new residential or employment generating development through contributions when applications are approved, is likely to be even more critical in the foreseeable future. Leveraging special purpose development infrastructure finance, potentially through the NHFIC, may assist.
 - Australian and state government support for expanding the supply of social and affordable housing in growing regional centres and satellite cities, would address existing need and help offset any impacts associated with increased housing demand arising from population growth.
 - There is potential to better support regional areas through strategies that recognise their unique place-based identity and governance. Strategies to foster regional collaboration rather than competition would reduce the administrative burdens for local councils.

Table 19: International and Australian case study regions—key lessons

Type	Case	Key lessons
Regional renewal	EU ESPON programs	The dialogue and knowledge exchange activities associated with the ESPON provide a model for emulation. There is an opportunity to elevate work already undertaken by Australian national and state regional development authorities through a broader framework for regional research, policy development, and collaboration.
	Manchester, UK	Manchester highlights the long-term potential of a City Deal framework and ongoing place-based intervention. However, strategies to address underlying social inequalities within a region need to be considered alongside interventions to attract new investment and growth.
	Dundee, Scotland	Dundee has had strong economic advances in technology, tourism, and teaching, however, like Manchester, economic disparities and income inequality remain a problem. This highlights the need to include specific interventions to address the needs of disadvantaged groups within a region who do not directly benefit from overall economic growth.
	Newcastle, NSW	Newcastle's economy has historically been deeply connected to regional resources that have an uncertain long-term future, however the economy is seen to be highly productive and largely self-contained. Strong growth in service and knowledge sector jobs have buoyed the economy despite the decline of other sectors, showing the positive potential of diversification strategies underpinned by strategic government investment.
Regional growth centre	Albury-Wodonga (NSW)	Both Albury and Wodonga City Councils have maintained their own economic development activities, but cooperate on a range of projects such as destination marketing and digital economy strategies. This cooperation maximises economies of scale in infrastructure and services, enables the sharing of data, and engages key government and business stakeholders jointly.
	Bendigo (Victoria)	Bendigo opened local stations on the main Melbourne rail line for local commuting and is a stop on regular Qantas flights between Sydney and Melbourne. This intracity transport connectivity provides strong metro-regional connections and has underpinned economic growth, along with key regional infrastructure such as the La Trobe University.
	Ballarat (Victoria)	In response to projected growth the City of Ballarat has developed a strategic plan extending to 2040 based strongly on the principle of the '10-minute city' and focused on environmental sustainability. This encompasses land use and housing strategies emphasising a compact city, improved intracity transport including active transport, and plans to protect the historic urban landscapes as well as preserving biodiversity and natural landscapes.
Satellite city	Milton Keynes, Cambridge, Oxford, and (UK)—O2C Arc	The O2C highlights the potential for strategic government support for investment in technology and knowledge-based development to support entrepreneurial growth. Further, the Milton Keynes new city demonstrates the capacity for planned growth centres to attract and sustain new population and job growth in alternative locations to primate cities, if they are well connected within and across a regional network.
	Hamilton, Kitchener, and the GGH, Ontario, (Canada)	The Golden Horseshoe case provides a strong example of networked regional growth supported by strong connections to a primate city core, and support for key 'new economy' sectors such as higher education and technology. Satellite cities such as Hamilton and Kitchener provide examples of the ways in which economic transition can be supported through new specialisations in technology or innovation.
	Marne-la-Vallée, Île-de-France	The region's complex governance structure has provided a dedicated development program over several decades while still allowing a role for local governments. This has formalised coordination at a sub-regional level, supporting growth across the region rather than in a single concentrated centre.
	Toowoomba Qld	TSBE, a partnership organisation initiated by local government involving local business and service providers, has identified the health and energy sectors as significant growth opportunities for the region. It has organised a successful regional trade mission to Shanghai as well as hosting may overseas investor groups with the aim of promoting export trade relationships at the city-to-city level.
	Geelong, Victoria	Geelong has benefited from a City Deal as well as state and Australian Government decentralisation/relocation. Deakin University has supported economic development efforts through investment in local advanced manufacturing and new materials through collaborations with local businesses on its main Geelong campus.

Type	Case	Key lessons
Coastal (lifestyle)	Northern Rivers (NSW)	Population driven industries such as health care and social assistance, education, and retail are the largest employers by a considerable margin in Northern Rivers, helped by major regional hospital and university campuses that attract strong domestic and international student populations. Expanding tourism, growing population, and internal markets, along with improving connectivity to global markets for regional products are opportunities for economic growth, although the area still struggles with social disadvantage and unemployment.
	Mandurah, WA	Mandurah has a growing population, however the City's 20-year Strategic Community Plan (2017) highlights the need for infrastructure investment to match the needs of the growing population, and also to support the development of existing and new industries that generate jobs within the region.

Source: Authors.

5.2 Limitations of this study and priorities for future research

There are inevitable limitations in this study. As a qualitative study that has focused on a limited number of case study regions, wider generalisations need to be treated with caution. In particular, we recognise the difficulties in transferring lessons from international cases to the Australian context. Nevertheless, we have attempted to highlight potential implications for Australia while acknowledging these differences. Further, our empirical, Australian based research involved a limited number of interviewees, primarily from the public sector. However, the rich interview data obtained through this study, provides a strong basis for understanding existing and historical approaches to regional economic development and planning in Australia.

Future work should extend these insights through engagement with a wider range of private sector and community-based organisations. Finally, the timing of this study has been both a constraint and an opportunity. Despite the increased difficulties associated with obtaining interview data, conducting the interviews during the COVID-19 pandemic has allowed us to gather early and immediate perspectives on its implications for regional centres in non-metropolitan Australia. Follow up research on the potential to catalyse opportunities associated with flexible employment and 'work from home' practices, as well as to offset any regional housing market impacts, should be undertaken as a priority.

A key potential research focus could be the quantitative analysis of success of regional Australian and international cities based on key factors and characteristics of cities identified within this report. For example, an analysis of the relative importance of factors such as distance from the capital city, urban size, local and international transport connectivity, presence of universities and airports, relative housing costs, business creation indicators, amenity indicators, and demographic characteristics. Such a multivariate analysis could assist in identifying success factors that are amenable to policy influence. For example, locational factors emerging as significant will identify types of places where policies are likely to be more effective.

5.3 Final remarks

This study commenced during a period of sustained concern regarding over-congestion and housing affordability pressures in Australia's major metropolitan areas and uneven development between urban and regional areas. Since this time, the spread of the COVID-19 pandemic, and the consequent shift for many people to remote work, has lessened the pressure on metropolitan areas for the immediate period but at the same time has increased interest in the potential for regional areas to attract new population. There are likely to be new opportunities for industries such as data centres, back offices, and tele-services as well as specialist manufacturing opportunities, including the production of medical or protective equipment. Spatial planning strategies can enable these opportunities by ensuring suitably zoned and serviced land in well located areas. In any case, with firms increasingly recognising the potential for more flexible working arrangements, Australia's regional areas may prove increasingly popular with aspiring first home buyers who seek relative affordability along with higher amenity. In turn, this movement will place pressure on regional housing markets, notwithstanding the local economic benefits associated with increased population. To address and offset these impacts, strategies to preserve and produce affordable housing should be embedded within regional and local development plans.

It is likely that concerns about economic recovery may again weaken the case for fostering regional development beyond the major metropolitan areas. Indeed, there is a danger that in seeking to return to 'business as usual' interventions may seek to favour CBD recovery at the expense of the new potential being demonstrated in suburban and regional centres. However, the international and Australian evidence reviewed in this study suggests that economic and social benefits will be maximised by dual strategies, which recognise the continued importance of agglomeration in the major cities, while also fostering regional areas in their own right.

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