Activity Centres Policy Benefits

Final Report

Shopping Centre Council of Australia

April 2011

SGS Economics & Planning

Shopping Centre Council of Australia

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Introduction

Against the background of a growing domestic policy literature covering the issue of planning and its impact on retailing competition the Shopping Centres Council of Australia (SCCA) prepared a brief for the preparation of a paper to:

> 'enable the benefits of activity centres policies to be better understood and applied by policy makers and accordingly, enable the adverse impacts of out-of-centre development to be better understood by policy makers.'

SGS Economics and Planning (SGS) is an independent consulting firm and was commissioned to prepare this paper based on its own reading of the evidence and opinions.

As the SCCA notes in its brief, reforms to planning systems in the name of economic growth through greater retailing competition – without due regard to the role of planning in correcting for market failure - run the risk of compromising long standing planning settings for more compact, competitive and sustainable cities, and the associated benefits. The paper articulates and provides evidence in support of this contention. Recommendations to strengthen activity centres and to more effectively respond to out of centre proposals are included.

Planning and competition

Planning works to reconcile competing interests in the built and natural environment, to deliver settlement patterns which can be shown to be efficient and sustainable; that is, capable of meeting today's community needs without limiting options for future generations. Sound planning considers a range of social, economic and environmental issues, and is undertaken in the context of governance and legislative frameworks.

Competition and investment are at the heart of an effective market economy. Planning systems affect competition by regulating the supply of land for particular uses, facilitating or impeding access to information and it by reducing or raising barriers to entry. However, planning is fundamentally about the broader public interest and, in pursuing and serving this higher order aim, may at times be 'anti-competitive' in the context of these market characteristics.

Activity centres policy

Across Australia there is considerable convergence in planning strategies and policies for major metropolitan areas. This is at its most obvious when it comes to activity centres policies which form a part of almost all metropolitan spatial plans. An activity centres policy provides direction for development of a metropolitan area characterised by the concentration of employment and population within a network or hierarchy of activity centres, well serviced by transport infrastructure, particularly public transport.

Activity centres vary in size and diversity within a hierarchy ranging from higher-order activity centres to lower order activity centres to serve regional to local geographic spheres of affiliation.

While similar in their spatial planning strategies, there are notable variations in the urban form of Australia's major cities. These reflect factors that include the eras of development and the historical enforcement of activity centres policies. This can be demonstrated by a comparison between two capitals, Sydney and Melbourne.

While Melbourne retains a large concentration of high density employment activity in and around its central business district, other higher order employment activity is relatively dispersed across the remainder of the metropolitan area. Retailing opportunities are located in 'stand alone' and 'main street' clusters punctuating the suburbs. Genuinely mixed use activity centres with retailing, office, education and higher density residential uses are not yet a feature of the Melbourne urban landscape. In contrast, Sydney has evolved as a genuinely poly-centric city with a strong CBD as well as major regional and subregional activity centres containing a range of uses (though some 'single' or limited use clusters of activity have emerged).

When considering density in the context of an activity centres policy the important consideration is the concentration of development in a select number of locations, that is activity centres, rather than the concentration of development across a metropolitan area.

Retail floorspace is the principal attractor of people; hence the clustering of retail outlets is the 'glue' which holds vibrant activity centres together. Community and cultural facilities are ideally located in conjunction with core retail attractors for the benefit of users and to achieve acceptable rates of utilisation. A sound retail base is also essential if activity centres are to attract mutually supportive commercial and residential development.

Benefits of activity centres policies

Although most Australian state capital cities have adopted an activity centres policy within their metropolitan planning framework, the benefits of such an approach are not frequently articulated.

The benefits include the following.

- More sustainable travel including:
    - reduced passenger Vehicle Kilometres Travelled (VKT) per year per capita
    - greater physical activity.
- Enhanced agglomeration economies including:
    - labour productivity enhancement
    - increased human capital.
- Concentrations of development density leading to:
    - Greater housing diversity
    - Efficient utilisation of infrastructure and resources
    - Avoided consumption of rural and agricultural land.

These benefits directly address the challenges faced by Australia's major cities and contribute towards the Council of Australian Governments (COAG) objective of making our major cities more productive, sustainable and liveable.

By encouraging development that supports the concentration of employment and population within a hierarchy of activity centres, activity centres policies provide the framework through which these benefits can be realised.

More Sustainable travel

Activity centres play a critical role in promoting sustainable travel behaviour across a metropolitan area by providing access to goods, services and activities. Lower order activity centres provide for the day-to-day needs of residents while higher order activity centres encourage multi-purpose trips and create viable markets for public transport networks.

These factors contribute to the following benefits:

- reduced passenger vehicle VKT per year per capita which can be broken down into the following benefits:
    - reduced travel time (this may provide greater time for social and family activities)
    - reduced vehicle operating costs
    - reduced vehicle accidents
    - reduced vehicle congestion
    - reduced greenhouse gas emissions and other pollutants such as noise.
- greater physical activity.

Transport mode shifts in favour of public transport can also divert private resources from non-productive car ownership/ parking provisions to more productive investments.

While the relationship between urban form and travel patterns is complex, international and Australian evidence suggests that sustainable travel behaviour is encouraged by an activity centres-based urban form.

- In Portland, Oregon urban form characterised by public transport based, mixed use activity centres, are associated with greater public transport use (11.5 percent) and reduced vehicle miles travelled (9.8 miles per capita) compared to elsewhere in the region (1.2 percent and 21.8 miles per capita respectively)[1].

- Sydney, with its strengthening polycentric character, has a higher share of motorised trips for retailing by public transport (6.9 percent) and a much lower average length shopping trip (4.5 kilometres) compared to Melbourne (5.9 percent and 6.3 kilometres respectively)[2].

A study published by Victorian Department of Transport[3] suggests that an urban form that is developed along the principles of activity centres and supported by necessary investments in public

[1] G Ohland and S Poticha, *Street smart*: *Streetcars and Cities in the 21st Century*, Reconnecting America, 2006.

[2] Transport Data Centre, Unpublished data, 2009 and Victorian Department of Transport, Unpublished data, 2011.

[3] G Alford and J Whiteman, *Macro-Urban Form, Transport Energy Use and Greenhouse Gas Emissions: An Investigation for Melbourne,* Department of Transport, February 2009.

transport (to alleviate any capacity constraints) will lead to higher public transport mode share and lower transport energy consumption and greenhouse gas emissions, relative to the base case/ current trend urban form scenario.

In 2005 SGS prepared a preliminary cost benefit assessment[4] of moving from the projected 'business as usual' form of urban development across Melbourne to that aspired to in the metropolitan strategy *'Melbourne 2030'*. The assessment included an assumption that 20 percent of total trips would be undertaken by public transport by 2020. In combination with the planned shift towards more activity centre based development, this assumption resulted in 300 million fewer vehicle trips being undertaken in 2030 compared to base case projections. VKT would be lower in 2030 by some 5.5 billion kilometres, suggesting major productivity savings.

The benefits of greater physical activity can also be quantified. Using a 'cost of illness' approach it has been estimated that the present value of the economic health benefits for a development of 1,000 dwellings in an 'active travel' neighbourhood ranges between $4.2 million and $5.8 million. In this context, an 'active travel' neighbourhood was defined as one that 'is conducive to both cycling and walking, which in daily life activities could lead to most able bodied people engaging in at least 30 minutes of active travel per day'[5].

Enhanced agglomeration

The most widely recognised competition and investment benefits associated with improved accessibility are those relating to agglomeration economies. An activity centres policy can enhance agglomeration by enabling greater concentrations of employment in designated activity centres and providing transport to these activity centres. This benefits firms through:

- economies of scale
- economies of scope
- deep and diverse pool of clients and skilled labour
- technological / knowledge transfer
- innovation.

The benefits of agglomeration that accrue to firms can be expressed through increased labour productivity. SGS[6] estimated productivity enhancements in Melbourne associated with improvements in 'effective job density', where this defined as the 'time' taken by workers to access the pool of jobs available via different modes of travel. The analysis found that overall, a doubling of effective density leads to an 8 percent improvement in productivity, with labour intensive industries showing much stronger relationships than non-labour intensive industries.

Greater concentrations of employment in designated activity centres and providing transport to these activity centres also benefits individuals as they are able to maximise their acquisition of

[4] SGS Economics and Planning, *Economic Benefits of Improved Accessibility; Implications for Melbourne's Metro II*, Victorian Department of Planning and Community Development, 2009.

[5] R Trubka, P Newman, and D Bilsborough, *Assessing the Costs of Alternative Development Paths in Australian Cities*, Report for Parsons Brinckerhoff Australia, 2008, p18.

[6] SGS Economics and Planning, *Economic Benefits of Improved Accessibility; Implications for Melbourne's Metro II*, Victorian Department of Planning and Community Development, 2009.

skills and experience. A doubling of effective job density typically generates a 19 percent to 24 percent lift in lifetime labour income for persons who hold a bachelor degree.

Development density leading to more efficient resource use

An activity centres-based urban form implies variable densities across the urban area with concentrations of employment and population in a hierarchy or network of activity centres. In the absence of an approach or policy which concentrates dwellings and employment mainly in activity centres, housing and jobs would need to be accommodated within existing urban areas and/ or beyond the urban fringe (in greenfield developments).

If housing and jobs are located in dispersed locations within existing urban areas this would lead to less housing diversity, more extensive investment to service development (thereby greater cost) and less opportunity to develop a critical mass for innovative infrastructure investment.

If housing and jobs are located beyond the urban fringe, the above would also occur. In addition, there would be greater consumption of loss of valuable rural and agricultural land.

- An activity centres-based approach to land use planning encourages greater housing diversity by providing high density accommodation near employment, services and transport hubs. In Sydney, 72 percent of dwellings in out-of-centre locations are single detached dwellings. By contrast, only 28 percent of dwellings in in-centre locations are single detached dwellings. Compared to other Australian cities with a lesser focus on activity centres based development Sydney has much greater housing diversity (36 percent of housing in flats or terrace forms compared to 23 percent in all the other capital cities combined).[7]

- Economic modelling of the social, economic and environmental costs and benefits of alternative growth paths for Sydney was conducted by the Centre for International Economics[8]. It showed that for Sydney a 50:50 split would cost an additional $6,641 per dwelling or 7.5 percent compared to the 70:30 infill to greenfield split target in the Metropolitan Plan.

- Another study, combining overseas examples, showed that overall infrastructure servicing costs are much lower in inner-city redevelopment locales (about $61,000 per dwelling) than in urban fringe areas (about $165,000 per dwelling)[9].

- Unchecked growth of Sydney's urban area would consume a large portion of Sydney's arable basin. The targets for growth in the established areas and in the Growth Centres in the Metropolitan Strategy and subsequent Metropolitan Plan will save 850 square

[7] Australian Bureau of Statistics, Census Basic Community Profiles, 2006.

[8] Centre for International Economics, *The benefits and costs of alternative growth paths for Sydney: Economic, social and environmental impacts*, NSW Department of Planning, December 2010.

[9] R Trubka, P Newman and D Bilsborough, *Assessing the Costs of Alternative Development Paths in Australian Cities,* Report for Parsons Brinckerhoff Australia, 2008.

kilometres of land compared to the rate of growth of fringe areas if 1975 to 2005 rates were allowed to continue[10].

Economic benefits of aggregated impacts

When the individual benefits of an activity centres policy are aggregated, the impact on a state or country's gross output is significant. The economic impacts of two recent metropolitan strategies, both with a strong activity centres emphasis, have been modelled by SGS.

In 2005 SGS prepared a preliminary cost benefit assessment of moving from the then current form of urban development across Melbourne to that aspired to in Melbourne 2030[11]. The study found that reinvestment of the resources 'released' by achievement of a more efficient urban form would generate a boost to Victoria's GDP of about 3 percent by 2030.

Also in 2005, SGS undertook a preliminary and partial cost benefit assessment of the Sydney Metropolitan Strategy[12]. Elements of the Sydney Metropolitan Strategy assessed through this process, i.e. compared to the 'without' scenario, include its provisions for Strategic Bus Corridors, Ports Freight Plan, BASIX energy and water target programs, as well as its improved management and coordination of Sydney's growth areas, its activity centres policies and its travel demand management initiatives.

The Net Present Value (NPV), using a discount rate of 6 percent, of the strategy was estimated to be in the order of $7.72 billion over the 2006-2021 evaluation period. This strong result is reflected also in a Benefit Cost Ratio (BCR) of 2.4:1 and an estimated return on community capital (EIRR) of 39 percent.

Challenges to activity centres policy

Activity centres policies have been the subject of challenge in recent debates. Most claims ignore the many public benefits outlined above and the negative externalities associated with out-of-centre development. The claims addressed here are that:

- there is insufficient floorspace for growing retail sales
- activity centres policies results in poor retail productivity
- people do not shop via public transport
- activity centres restrict opportunities for new format retailers
- laissez faire planning supports competition.

[10] Elton Consulting, *Sydney's Agriculture – Planning for the Future*, NSW Department of Planning, 2009.

[11] SGS Economics and Planning, 'Costs & Benefits of Urban Form', October 2005

[12] SGS Economics and Planning, 'Sydney Metropolitan Strategy: The Economic Case', September 2005.

Provision of retail floorspace

It is argued that there is a shortage of retail floorspace in Australia and that this shortage can be attributed to planning systems which are considered to be overly restrictive in regards to locations where retailing is permitted.

In response, the following points indicate there is sufficient retail floorspace in Australia and little evidence that planning in Australia has intrinsically put a break on supply.

- Retail floorspace per capita is at the higher end of the range compared with other countries (excluding the United States which shows evidence of oversupply and resulting negative impacts). This is indicative that floorspace provision is at least adequate if not optimal.

- Retail floorspace per capita in Australia has increased significantly between 1991 and 2006, outstripping population growth and prime office space growth.

- Occupancy cost ratios appear to be somewhat higher in Australia than the United States however the most likely cause is not a concentration of ownership, but a tendency to oversupply in the United States market and more open air centres with lower operating costs.

- Retail property returns are relatively similar in various countries which is not indicative of a shortage of retail space (and abnormally higher rents) in countries with more restrictive planning regulation.

- Planning regulation allows for expansion of retail floorspace, planned expansion of activity centres and new activity centres to service growth areas. Therefore any shortage of land for retail development is a fault of local government not planning for future growth rather than a problem with the planning system per se.

Retail productivity

It is argued by some commentators and industry advocates that the restriction on retail development caused by planning controls results in poor levels of retail productivity and higher consumer prices.

However, retail productivity in Australia is at the high end of productivity across various industry sectors and while higher retail productivity gains may be possible through more flexible planning regulations (as in the United States), this is paid for by significant negative impacts and possible productivity declines in other areas.

Use of public transport for shopping

It is argued that retail development does not need to be located in activity centres with public transport because people do not use public transport to shop. This argument is particularly used

by bulky goods retailers whose customers it is claimed cannot reasonably transport goods home via public transport.

Data of actual travel pattern to shopping centres reveals that many consumers use public transport for shopping trips.

It must also be acknowledged that despite the prevalence of the private motor vehicle there are a range of community members who do not have access to a private motor vehicle for a number of reasons. The concept of locating retailing in activity centres serviced by public transport provides a realistic alternative transport choice for these people. It also supports choice in the reduction in private motor vehicle use with the benefits of reduction in road congestion, reduced environmental impacts, reduced travel distances, and improved public realm through less cars and parking areas.

Opportunities for new format retailers

It is argued that the planning system and its focus on activity centres restricts the opportunities for new format retailers to become established. This is supposedly because large format stores require large floorplate areas, in buildings with a large footprint and large car parking areas. Preferred locations include low land value locations such as industrial areas, fringe of centre and highway frontages.

In most cases those arguing for special treatment as a new format do not have any difference in retail goods, and have the same servicing and car parking requirements as any other retailer. The main difference is allowing for larger floorplates and co-location of similar retailers (for example, factory outlets), however, these outcomes are already achieved in activity centres throughout the country and therefore do not support the argument for allowing out-of-centre development.

Laissez faire planning supports competition

It is argued that laissez faire planning (i.e. allowing retailers freedom to locate where they choose) would result in increased retail competition. This is based on the belief that retailers establishing where they choose would result in a much greater amount of retail floorspace and support various innovative retail forms. It is argued that this would provide more choice for consumers, greater competition for retail spending, and therefore lower costs to the consumer.

However, while laissez faire planning may allow for additional retail development, this does not necessarily translate into a more competitive retail environment, or more specifically, benefits for consumers. The current planning framework of a network or activity centres supports retailers locating near competitors, therefore supporting comparison shopping and giving customers greater choice. Dispersal of retail floorspace would make comparison shopping much more time consuming and create more vehicle trips, therefore potentially limiting customer choice, convenience and competition.

New directions for activity centres planning

To reap the multiple benefits of an activity centres based urban form it is necessary to re-invigorate the activity centres policy agenda. A pro-active agenda for improved activity centres

planning, while also addressing the agenda of enhancing competition, is outlined in summary below.

Improve representation and governance for metropolitan areas and their major activity centres

- Encourage governance and institutional reform to establish a metropolitan wide representative agency with responsibility for planning in strategic activity centres and monitoring and reporting on implementation of the activity centres policy.

Enhance clarity on objectives and directions for activity centres and retail planning

- Prepare a retail or activity centres policy with a clear set of parameters, objectives and performance measures for by local government.

Improve planning for activity centres and retailing

- Establish central 'retail development programs' with supply and demand analysis at state level (or in a Metropolitan Agency).

Review development contributions to clearly and transparently account for the benefits and costs of development

- Review infrastructure charging regimes to ensure that
    - they isolate and distinguish between user pays, impact mitigation and betterment levies
    - strict disciplines are applied to their calculation and extraction.

Enable activity centres to expand and grow

- Catalyse development in existing activity centres through targeted rezoning and modifications to controls, pro-active assistance to councils, landowners and developers, use of government or council sites, and selected use of site assembly initiatives.

- Reform strata title laws to facilitate redevelopment of ageing housing stock.

- Ensure that land is reserved in new activity centres to enable them to expand and accommodate small, independent retailers and other businesses.

- Establish precinct parking garages funded by development contributions.

- Free up parking standards but explicitly cost provision.

- Unbundle the cost of parking in residential projects.

- Encourage innovations in relation to shared parking.

- Promote and facilitate car sharing arrangements.

Ensure retail use definitions support effective planning for activity centres

- Refine retail use definitions to better reflect the operating and strategic roles of different formats, and to enhance the statutory planning tools available to implement activity centres policy.

Better manage proposals for out of centre development

- Apply a consistent and transparent 'Sequential Test' for Out of Centre Proposals based on:
    - Strategic fit
    - Net community benefit
    - Place quality.

1 Introduction

This paper has been commissioned by the Shopping Centres Council of Australia and prepared by SGS Economics and Planning.

The SCCA's brief for the paper was to *'enable the benefits of activity centres policies to be better understood and applied by policy makers and accordingly, enable the adverse impacts of out-of-centre development to be better understood by policy makers.'*

This paper is being prepared against the background of a growing domestic policy literature covering the issue of planning and its impact on retailing competition generated by the Australian Competition and Consumer Commission (ACCC), the Business Regulation and Competition Working Group (BRCWG) of the Council of Australian Governments (COAG) and the Productivity Commission amongst others.

Spatial planning by its nature entails some form of market regulation. In its early incarnations, planning regulation was required to establish systems of sanitation, clean water, open space, and effective land use separation in our cities. While the contemporary planning challenge is still about managing 'externalities' from development, and their impacts on urban efficiency, there is also a complex range of additional considerations about making cities economically competitive including the positive role of agglomeration economics, and the effective and efficient deployment of resources.

Indeed, effective planning is a pre-requisite for optimal economic performance, because it is needed to correct for obvious and substantial market failures and to create positive externalities, including metropolitan forms which are demonstrably more robust and competitive. Planning can act as an unwarranted drag on economic performance, but only when it is poorly designed, imposes excessive transaction costs, or has failed to keep up with adaptation in markets.

As the SCCA notes in its brief, reforms to planning systems in the name of economic growth through greater retailing competition – without due regard to the role of planning in correcting for market failure - run the risk of compromising long standing planning settings for more compact, competitive and sustainable cities, and the associated benefits.

SGS is an independent consulting firm and has prepared this paper based on its own reading of the evidence and opinions.

The paper articulates and provides evidence of the multiple benefits of an activity centres approach to planning. In particular, it demonstrates the essential role of retail activity as the 'glue' which holds strong activity centres together. Recommendations to strengthen activity centres and to more effectively respond to out of centre proposals are included.

2 Planning and the role of activity centres

2.1 A planning system

Planning works to reconcile competing interests in the built and natural environment, to deliver settlement patterns which can be shown to be efficient and sustainable; that is, capable of meeting today's community needs without limiting options for future generations. Sound planning considers a range of social, economic and environmental issues, and is undertaken in the context of governance and legislative frameworks.

Planning is characterised by:

- a focus on the long term, recognizing the long lived nature of the urban fabric once built
- effectively zero discount rates on long term benefits, recognizing the 'sustainability' imperative
- a commitment to resolving tensions between competing objectives through community consultation and input, as well as consideration of technical or 'evidence based' analysis.

2.2 Planning and competition

Arguments that competition (particularly in the grocery retailing sector) is effectively stifled by adherence to activity centres policies provide the backdrop to recent reviews of the role of planning in the market.

An introduction to this issue follows below, while a direct response to particular claims is included in section 4.

Competition and investment are at the heart of an effective market economy. Competition underpins a number of economic benefits. It can help drive efficiency in firms and deliver greater choice, higher quality and cheaper goods and services for customers. It may also spur innovation and enterprise as incumbent firms seek to maintain their market position or new firms seek ways to enter the market. Indeed, in a review of the *Trade Practices Act 1974* it was noted that '[g]reater competition in Australian markets and higher productivity have been an essential part of strong growth in the economy over the past decade'[13].

In the language of economics, a perfectly competitive market is characterised by:

- A large number of companies where no single company has substantial market share and can therefore individually affect the market price or quantity of goods produced;
- Homogenous products using identical production processes;
- Perfect information;
- No barriers for firms wishing to enter or exit the market.

[13] Trade Practice Act Review Committee, *Review of the Competition Provisions of the Trade Practices Act*, 2003.

Planning systems can influence the first, third and fourth of these characteristics. It can influence market share outcomes by regulating the supply of land for particular uses, it can facilitate or impede access to information and it can reduce barriers to entry or can itself create barriers to entry.

However, planning is fundamentally about the broader public interest and, in pursuing and serving this higher order aim, may at times be 'anti-competitive' in the context of these market characteristics.

From this perspective the scrutiny of planning needs to go beyond costs and outcomes at the transaction level, which sets up a tension or trade-off between planning and economic growth. It is important not to overlook the broader macro-economic benefits that planning delivers. The Barker review in the United Kingdom looked at a broad range of issues in the relationship between planning and economics, and ultimately acknowledged the positive 'macro' impact of planning:

> *'By addressing deficiencies in the free market for land use and development the planning system can work towards the delivery of sustainable development objectives that maximise net welfare to society'*. [14]

This was recognised in the past, at the time of the National Competition Policy (NCP) reforms in the late 1990s, and the macro, or public benefit, test was a key reference at that time. The states were required to review their legislation (including planning legislation) to identify whether it was anti-competitive. From the Queensland review material this process was summarised as follows.

> *The need to carry out the review of legislation recognises that government regulation can sometimes create unwarranted barriers to entry or other restrictions on business which limit consumer choice, stifle innovation and reduce incentives to achieving better efficiency. However, the review of legislation does not imply a need to introduce or ensure competition for its own sake nor imply that competition objectives should take precedence over other important public policy objectives.*
>
> *The guiding principle for these reviews is that legislation should not restrict competition unless it can be demonstrated that:*
>
> - *the benefits of the restriction to the community as a whole outweigh the costs; and*
> - *the objectives of the legislation can only be achieved by restricting competition.*
>
> *The Public Benefit Test is the mechanism for carrying out this review process.*[15]

Notwithstanding the strains and challenges they face, Australian cities are a testament to the public benefit aims that strategic and statutory urban planning serve. The major capitals of Sydney, Melbourne and Brisbane regularly appear amongst the top ten or twenty in world city comparisons against liveability, quality of life or economic competitiveness indicators. Planning has successfully managed potential conflicts between land uses, encouraged clustering of like uses to create lively urban precincts and established the direction for efficient investments in transport and other public

[14] K Barker, Barker Review of Land Use Planning, Interim Report, July 2006, p.5.

[15] Queensland Treasury, *Public Benefit Test Guidelines*, 1999.

infrastructure. The general amenity of Australian suburbs is also a tribute to the tradition of planning.

While those challenging planning conventions and activity centres policies make their points from the perspective of particular retail segments or prospective market entrants, they are yet to effectively articulate how their suggested alternatives (for example, a 'loosening' of activity centres policies to facilitate new supermarkets or retail formats, and a greater use of merit tests for individual proposals) more effectively serve the broader public interest.

2.3 Activity centres policy

2.3.1 Key elements of an activity centres policy

Across Australia there is considerable convergence in planning strategies and policies for major metropolitan areas. This is at its most obvious when it comes to activity centres policies which form a part of almost all metropolitan spatial plans.

An activity centres policy provides direction for development of a metropolitan area characterised by the concentration of employment and population within a hierarchy of activity centres.

Achieving an activity centres-based urban form requires activity centres which, ideally:

- contain **mixed use** development including retail, commercial at different scales, residential and other uses;
- contain **higher density** development, especially in the centre's core;
- include public spaces; and
- are well serviced by **transport** infrastructure, particularly public transport infrastructure.

Activity centres vary in size and diversity within a **hierarchy** ranging from higher-order activity centres to lower order activity centres to serve regional to local geographic spheres of affiliation.

Typically, though not always, metropolitan plans will be implemented through planning instruments which interpret state level directions at the local level through setting out the types of uses which are permissible within various zones and the conditions under which they might be permitted. Conditions may be prescribed, or they may be contingent upon policies adopted by the responsible authority. Proponents of particular projects or land uses must demonstrate compliance with these conditions. This occurs through a development assessment (or planning permit approvals) process.

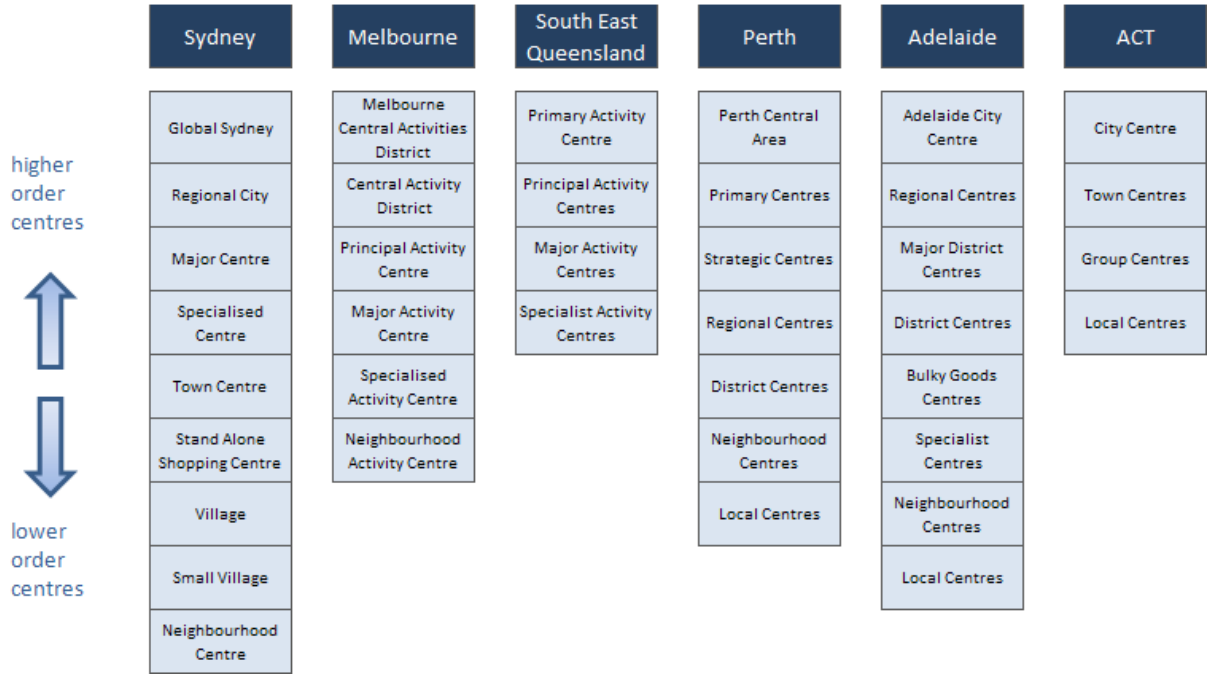
2.3.2 Hierarchies and networks of activity centres

An activity centres hierarchy reflects typical citizen perceptions of 'community'. That is, the sense of local, district and regional identity is often defined by reference to the activity centres serving these various geographic spheres of affiliation. Regional activity centres, at the higher end of the hierarchy, are typically the focus for large-scale private and public investment. They also serve a

broad market catchment for recreation, services and retailing opportunities. At the other end of the hierarchy, local activity centres provide for the day to day needs of nearby resident populations.

A snapshot of the various levels within the activity centres hierarchy planned for Sydney, Melbourne, South East Queensland, Perth, Adelaide and the Australian Capital Territory is shown in Figure 1. Generally they contain a range from higher order activity centres through to lower order activity centres. Categories such as specialised activity centres and stand-alone shopping centres do not fit this conventional hierarchy, but are a recognition that new types of activity clusters have emerged.

Figure 1. Activity centres hierarchies in Australia



Source: SGS Economics and Planning

While similar in their spatial planning strategies, there are notable variations in the urban form of Australia's major cities. These reflect factors that include the eras of development and the historical enforcement of activity centres policies. This can be demonstrated by a comparison between two capitals, Sydney and Melbourne.

Early development in both Sydney and Melbourne, prior to the influence of the private motor vehicle, was in higher density forms concentrated around the inner city. A network of trams established corridors of retail and commercial development. The suburban train network, radiating out from the central business districts, influenced the next wave of development with development focussing around rail stations.

Through the latter half of the 20th century Sydney's adherence to activity centres policies, building on the pattern established by the suburban train network, has been greater than its southern counterpart.

This is particularly apparent with regards to the location of retail development. Although first introduced through the 1954 Melbourne Metropolitan Board of Works Planning Scheme, activity centres policy in Melbourne has been compromised by the development of major suburban shopping facilities located away from principal public transport, particularly in the 1960s and 1970s, and lack of government support through the 1990s[16].

In Sydney, an activity centres-based approach to planning and investment was maintained through the implementation of the 1968 Sydney Region Outline Plan (SROP) which contained a policy of locating new major commercial and retail developments (including US style enclosed shopping activity centres) within established suburban activity centres and only those served by rail. Every subsequent metropolitan plan has contained a strong activity centres policy, including the recently released Metropolitan Plan for Sydney 2036.

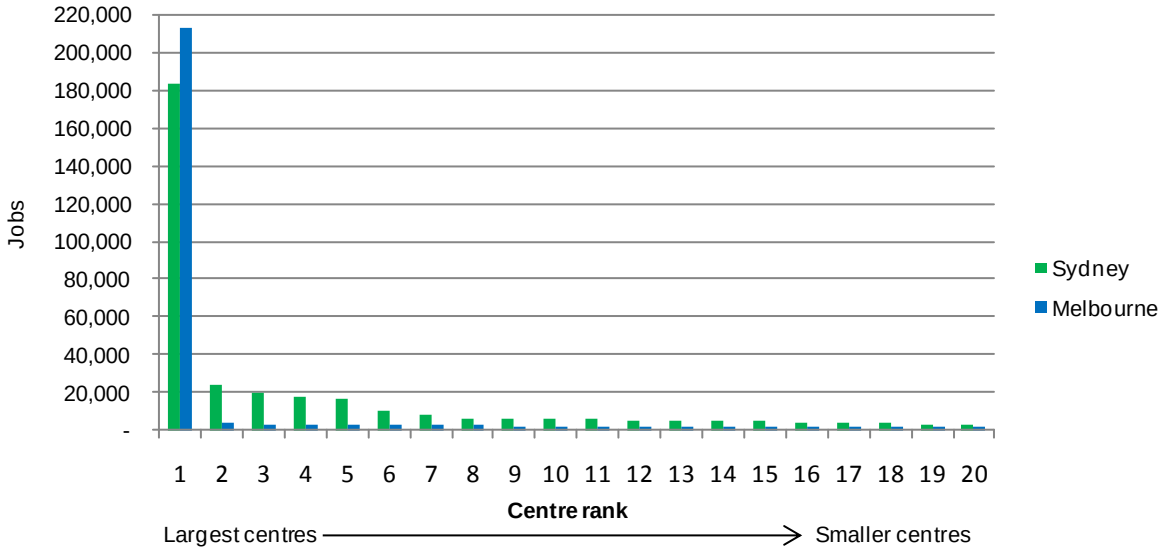
The nexus between the concentration of activities (retailing in particular) and transport within a hierarchy of activity centres and overall metropolitan structure can be illustrated by contrasting the 'form' of urban development in Melbourne and Sydney. While Melbourne retains a large concentration of high density employment activity in and around its central business district, other higher order employment activity is relatively dispersed across the remainder of the metropolitan area. Retailing opportunities are located in 'stand alone' and 'main street' clusters punctuating the suburbs. Genuinely mixed use activity centres with retailing, office, education and higher density residential uses are not yet a feature of the Melbourne urban landscape.

In contrast, Sydney has evolved as a genuinely poly-centric city with a strong CBD as well as major regional and subregional activity centres containing a range of uses (though some 'single' or limited use clusters of activity have emerged). The legacy of Sydney's consistent approach to activity centres planning is that has been, until very recently, uncontested by state governments of the left and the right.

Figure 2 shows that both Sydney and Melbourne have a high concentration of jobs in their respective CBDs. Although the number of jobs in activity centres other than the CBD is far lower in both cities, the 'next biggest' activity centres have many more jobs in Sydney than in Melbourne. In Sydney, major concentrations of jobs outside of the CBD are found in Parramatta, North Sydney, Macquarie Park and Westmead.

[16] Municipal Association of Victoria, *Melbourne 2030: Activity Centres – Historical Overview Member Brief*, 2005.

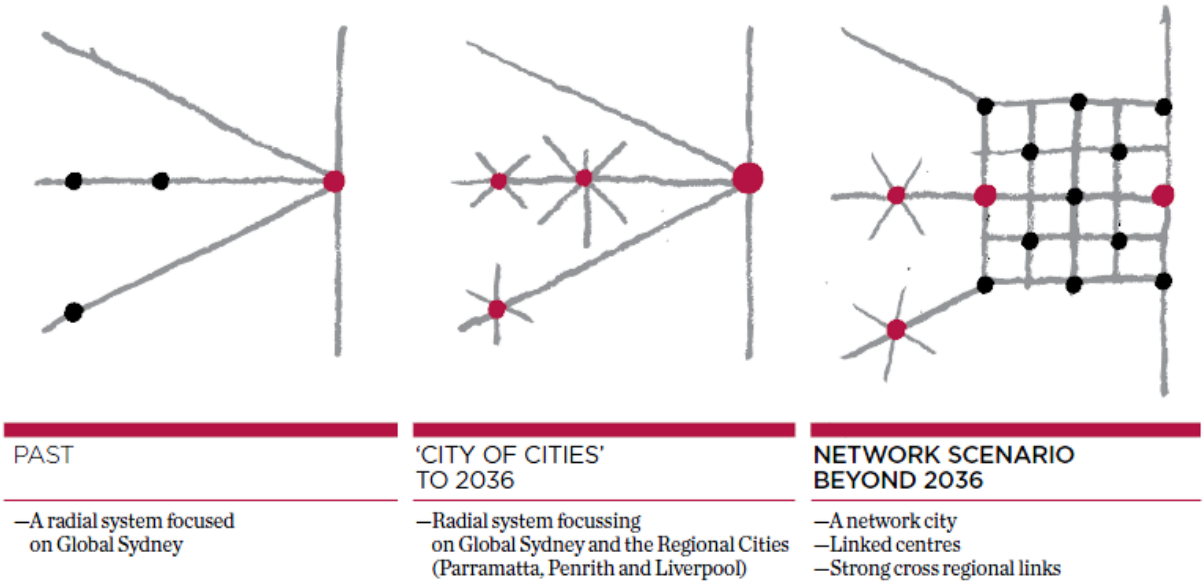
Figure 2. Distribution of jobs, 20 largest activity centres, Sydney and Melbourne.



Source: SGS Economics and Planning based on ABS Census data 2006

Metropolitan areas can move through an evolution of urban forms towards a structure which concentrates employment and population within a hierarchy or network of activity centres supported by transport systems. Sydney is further along this evolutionary path than Melbourne and the other capital cities. The Metropolitan Plan for Sydney 2036 shows the idea of a progression of Sydney from a radial city, focused on the Sydney CBD, through to a networked scenario with strong cross regional links (see Figure 3). The plan contains a strategic direction to strengthen the city of cities concept articulated in the 2005 Sydney Metropolitan Strategy but foreshadows the future evolution to a strong 'networked' city core.

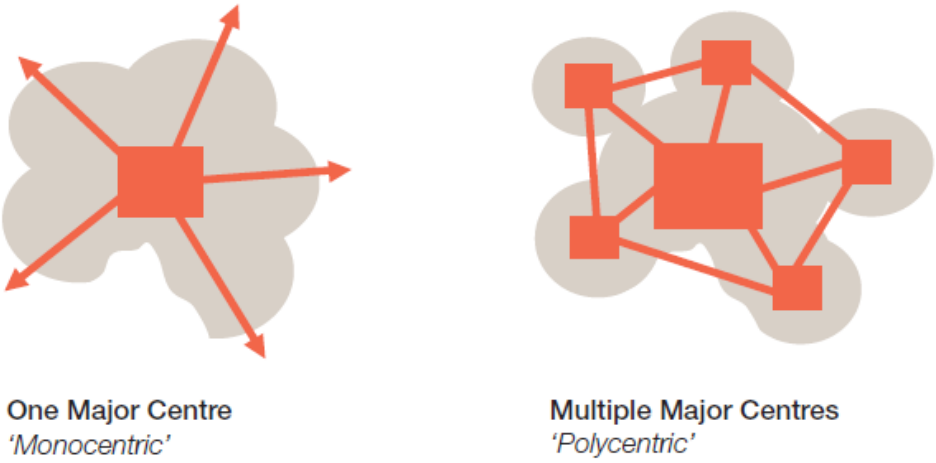
Figure 3. Sydney towards a network city



Source: NSW Government, *Metropolitan Plan for Sydney 2036*, 2010.

Somewhat similar thinking is revealed in Melbourne @ 5 million, where a graphic is included (see Figure 4) which shows Melbourne growing its networked core and better connecting its subregional activity centres – both to the CBD core and to each other.

Figure 4. Single centre versus multi-centre city structure



Source: Victorian Government, *Melbourne @5 million*, 2010.

2.3.3 Activity centres and density

In a recent article, Mees [17] discusses common faults in measurements of density. Namely, the calculation of densities based on the whole area within a geographic boundary, which often includes large areas of non-urban land. Thus, densities in outer urban areas, and some entire cities have often been understated. Mees outlines the importance of using consistent definitions which count only urbanised land and count all the urbanised land when comparing the densities of different cities, or parts of cities.

When cities are compared on this basis, the results may be surprising to some. For example, Los Angeles has the highest density of the (American, Canadian and Australian) cities included in the analysis; more than double that of Portland, Oregon. When compared to the shares of public transport use in these cities, there appears to be no correlation between overall density and public transport use, which is often claimed and used to justify 'high density' cities.

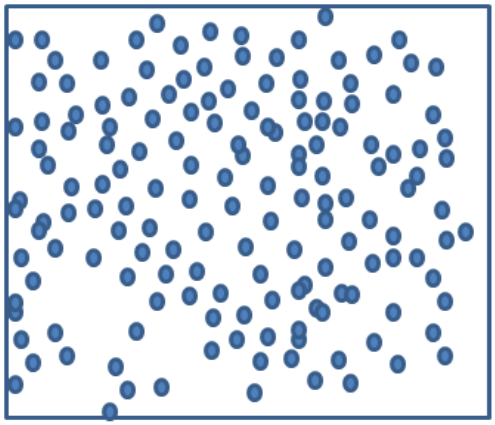
However, when talking about density in the context of an activity centres policy the important consideration is the concentration of development in a select number of locations, that is activity centres, rather than the concentration of development across a metropolitan area. This can be demonstrated by the following example.

[17] P Mees, 'How dense are we? Another look at urban density and transport patterns in Australia, Canada and the USA', *State of Australian Cities Conference*, Perth, 25 November 2009.

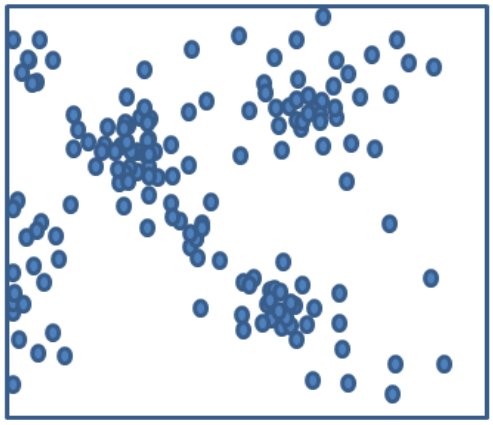
Activity centres and density

Two urban form scenarios are represented in the boxes below. Scenario 1 is a dispersed pattern of development while Scenario 2 is a centres-based pattern of development. Each of the boxes represents the same area of urbanised land and contains the same number of jobs and people (each dot within the boxes represents an equivalent 'unit of activity', that is jobs or people). Therefore, the urban density in each scenario is the same. However, in Scenario 2 activity is concentrated around centres, resulting in areas of relatively higher density compared to out-of centre locations.

Scenario 1: dispersed development



Scenario 2: centres-based development



Activity centres, density and efficient transport

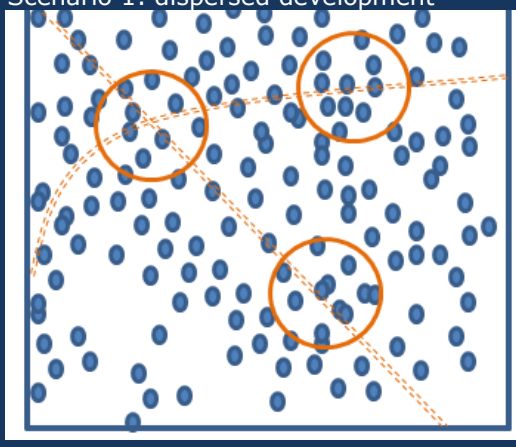
The two urban form scenarios shown above are again represented in the boxes below. The orange circles indicate a one kilometre buffer around a heavy rail station. The number of jobs or people (represented by the blue dots) within the one kilometre buffer is greater in Scenario 2, which represents a centres based pattern of development, than Scenario 1, which represents a dispersed pattern of development.

This has implications for:

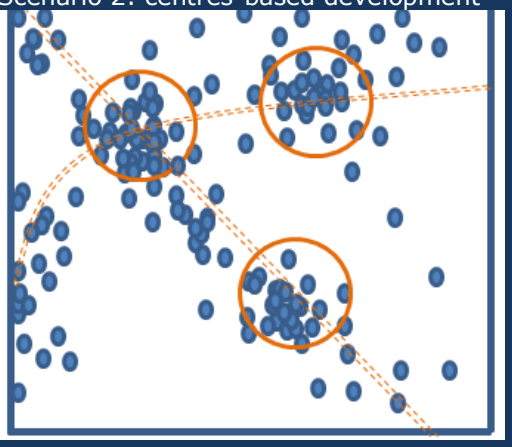
- promotion of sustainable travel behaviour (see section 3.2)
- efficiency of infrastructure provision (see section 3.4)

Consistent with the data on urban density presented in the Mees article, it is possible for a city to be densely populated, yet lack a structure which promotes public transport use. Conversely, a city which may be equally, or even less densely populated across the entire metropolitan area, yet concentrates employment and population within a hierarchy of networked activity centres, can encourage such benefits. It is precisely the role of an activity centres policy to promote development of the latter kind.

Scenario 1: dispersed development



Scenario 2: centres-based development



2.3.4 The role of retailing in activity centres

Retail floorspace is the principal attractor of people; hence the clustering of retail outlets is the 'glue' which holds vibrant activity centres together. Community and cultural facilities are ideally located in conjunction with core retail attractors for the benefit of users and to achieve acceptable rates of utilisation. A sound retail base is also essential if activity centres are to attract mutually supportive commercial and residential development.

In undertaking detailed planning for centres the definition of the centre boundary and its component parts is a necessary starting point. The broad location of the 'retail heart', where key retail anchors such as supermarkets will be located, is also a primary consideration given the importance of foot traffic patterns when designing the public domain and relationships to transport and parking facilities. This retail, community and cultural focus supports the surrounding proposed residential and commercial developments. This planning, which broadly defines the distribution of uses and the location of transport and other investments, contributes to certainty for investors and public agencies in forward planning.

The pattern of retail provision across a hierarchy varies. More frequent, short distance and low spend trips are made to a local centre versus occasional high spend trips to more distant activity centres offering a wider range goods and services. It should be noted that lower order functions can also nest within higher order activity centres.

3 Benefits of activity centres policies

3.1 Overview of the benefits of activity centres

This section provides detailed descriptions of the benefits associated with an activity centres approach to planning versus a non-centres approach. Although most Australian state capital cities have adopted an activity centres policy within their metropolitan planning framework, the benefits of such an approach are not frequently articulated.

This section not only outlines the benefits, it also provides strong evidence of each benefit, drawing on a body of research that has been undertaken by SGS and others.

The following benefits are addressed:

- Sustainable travel
    - reduced passenger vehicle kilometres travelled (VKT) per year per capita
    - greater physical activity
- Agglomeration economies
    - labour productivity enhancement
    - increased human capital
- Development Density
    - housing diversity
    - efficient utilisation of infrastructure and resources
    - avoided consumption of rural and agricultural land.

These benefits directly address the challenges faced by Australia's major cities and contribute towards the COAG objective of making our major cities more productive, sustainable and liveable.

By encouraging development that supports the concentration of employment and population within a hierarchy of activity centres, activity centres policies provide the framework through which these benefits can be realised.

3.2 Sustainable travel

Activity centres play a critical role in promoting sustainable travel behaviour across a metropolitan area by providing access to goods, services and activities.

Lower order activity centres provide for the day-to-day needs of residents, often within walking distance from where people live, reducing the need for car-based travel.

Higher order activity centres provide a greater mix of uses in one location and thereby encourage multi-purpose trips, reducing the number of trips to and from destinations. While the overall number of trips may not be impacted, an activity centres policy encourages more within-centre trips. These within-centre trips are typical walking trips. For example, a variety of retailing

opportunities in the one location could result in one trip to a shopping centre and then multiple walking trips within the shopping centre to other retail activities. This is significantly different to 'dispersed' retail development which tend to result in one vehicle trip to the retail activity and then another vehicle trip to another dispersed retail activity. Combining retail opportunities with other economic activity similarly encourages within-centre trips.

Additionally, higher order activity centres, as focal points for investment, create viable markets for public transport networks, also reducing the need for car based travel.

In summary, lower order activity centres provide for the day-to-day needs of residents while higher order activity centres encourage multi-purpose trips and create viable markets for public transport networks.

These factors contribute to the following benefits:

- reduced passenger vehicle kilometres travelled (VKT) per year per capita which can be broken down into the following benefits
    - reduced travel time (this may provide greater time for social and family activities)
    - reduced vehicle operating costs
    - reduced vehicle accidents
    - reduced vehicle congestion
    - reduced greenhouse gas emissions and other pollutants such as noise.
- greater physical activity.

Transport mode shifts in favour of public transport can also divert private resources from non-productive car ownership/ parking provisions to more productive investments.

3.2.1 Evidence of reduced VKT and greater physical activity

The relationship between urban form and travel patterns is complex. This is largely due to the difficulty in controlling for socio-economic factors and the interrelatedness of land use characteristics[18]. The use of public transport is also influenced by the quality of service and the ease with which people can access the service, usually by walking but also bicycle or car[19].

Nevertheless, attempts have been made to demonstrate the relationship between travel behaviour and an activity centres-based urban form which entails a concentration of employment and population within activity centres that are accessible by public transport. For example, the table below from indicates that transit activity centres, particularly mixed use activity centres, are associated with a reduction in vehicle miles travelled and a diversified travel mode split for residents of Portland, Oregon[20].

[18] D Stead and S Marshall, *The relationships between urban form and travel patterns*, University College London, United Kingdom, 2001.

[19] T Littman 2011, *Land Use Impacts on Transport; How Land Use Factors Affect Travel Behaviour,* 6 January 2011

[20] G Ohland and S Poticha, *Street smart: Streetcars and Cities In The 21st Century,* Reconnecting America, 2006.

Table 1. Relationship between vehicle ownership and travel, Portland

Land Use Type	Auto Ownership	Daily Vehicle Miles Travelled	Mode Split				
	Per Household	Per Capita	Auto	Transit	Walk	Bike	Other
Good transit/Mixed use	0.93	9.8	58.1%	11.5%	27.0%	1.9%	1.5%
Good transit only	1.5	13.28	74.40%	7.9%	15.2%	1.4%	1.1%
Remainder of region	1.93	21.79	87.30%	1.2%	6.1%	0.8%	4.0%

Source: G Ohland and S Poticha, *Street smart*: *Streetcars and Cities in the 21st Century*, Reconnecting America, 2006.

Australian examples showing the relationship between travel behaviour and an activity centres-based urban form are discussed below.

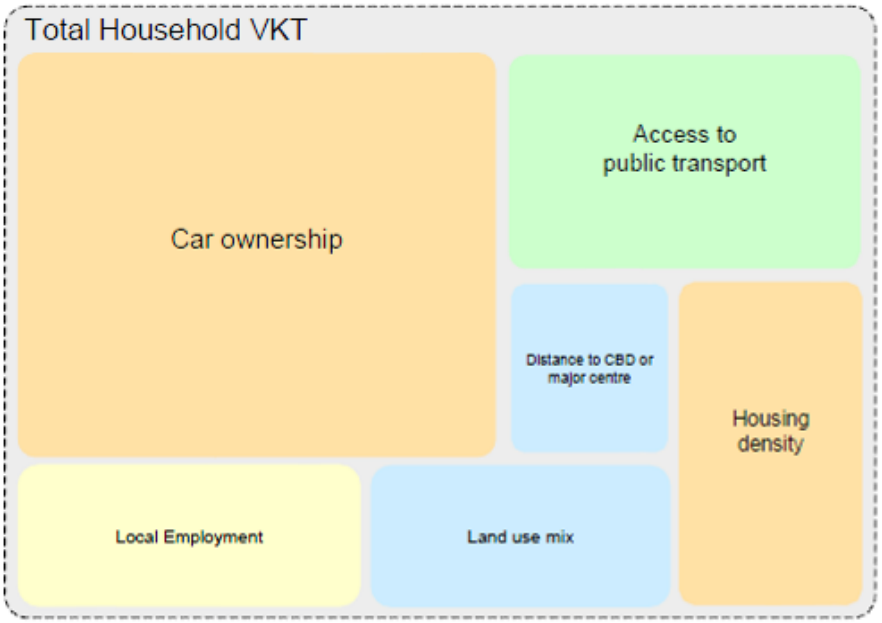
VKT modelling by the NSW Transport and Population Data Centre

VKT modelling conducted by the Transport and Population Data Centre (TPDC)[21], now the Bureau of Transport Statistics, supports an activity centres based approach for land use planning as means of reducing VKT. The modelling drew on data assembled in the Household Travel Survey which monitors broad travel patterns and trends for the metropolitan area of Sydney. Using variable regression analysis, socio-demographic, location and urban form variables were analysed to determine each variable's influence on VKT. Figure 5 visually outlines the results from the research. The size of each variable's box indicates the importance of each variable in influencing household VKT.

Car ownership (number of vehicles in the household) showed the greatest influence on VKT in Sydney households. The variable 'car ownership' was highly correlated with other variables excluded from the final model, such as household income. Access to public transport and housing density were also showed to have a significant impact on car use, with local employment, land use mix and distance to the nearest major centre or CBD showing a smaller influence on VKT.

[21] D Holden, 'The relationship between land use and car dependence and its application for land use planning policy in Sydney', *29th Australasian Transport Research Forum*, 2006.

Figure 5. A visual explanation of the influence of each variable on household.



Source: D Holden, 'The relationship between land use and car dependence and its application for land use planning policy in Sydney', *29th Australasian Transport Research Forum*, 2006.

Shopping trips and mode of travel

Analysis of shopping trip data from the NSW Household Travel Survey and the Victorian Integrated Survey of Travel shows that Sydney has a higher share of motorised trips for retailing by public transport (6.9 percent) and a much lower average length shopping trip (4.5 kilometres) compared to Melbourne (5.9 percent and 6.3 kilometres respectively). This is indicative of Sydney's stronger implementation of activity centres policy, particularly with regards to the location of retail within activity centres served by public transport.

Table 2. Shopping trips, Sydney and Melbourne

	Private vehicle share of motorised shopping trips	Public transport share of motorised shopping trips	Average shopping trip distance (km)
Sydney	93.1%	6.9%	4.5
Melbourne	94.1%	5.9%	6.3

Source: Transport Data Centre, 2009 and Victorian Department of Transport, 2011.

Sydney has a higher share of motorised trips for retailing by public transport (6.9 percent) and a much lower average length shopping trip (4.5 kilometres) compared to Melbourne (5.9 percent and 6.3 kilometres respectively). This is indicative of Sydney's stronger implementation of activity centres policy, particularly with regards to the location of retail within activity centres served by public transport.

Metro-wide transport examples

A study published by Victorian Department of Transport[22] examined the relationship between ten different urban form scenarios and transport energy efficiency and greenhouse gas emissions. The ten urban form scenarios examined in the study include:

1	Current Trend/Base Case	Continued urban development according to current patterns, with no change to existing policy or implementation programs.
2	Non-Intervention	Current policy and implementation programs are reversed and development occurs without high-level planning intervention or Urban Growth Boundary (UGB).
3	Activity Centres (AC) Growth Plus	Strong infrastructure investment, and high-level planning interventions as espoused in Melbourne 2030, including development of urban fringe growth areas.
4	Activity Centres (AC) only	Strong infrastructure investment, and high-level planning interventions focussed on Principal and Major Activity Centres (as identified in Melbourne 2030) only.
5	Super CBD	Half the future population growth and all future employment growth to be concentrated in an enlarged CBD area.
6	Super CBD – Parking	As above, but with no new off-street parking permitted

[22] G Alford and J Whiteman, *Macro-Urban Form, Transport Energy Use and Greenhouse Gas Emissions: An Investigation for Melbourne,* Department of Transport, February 2009.

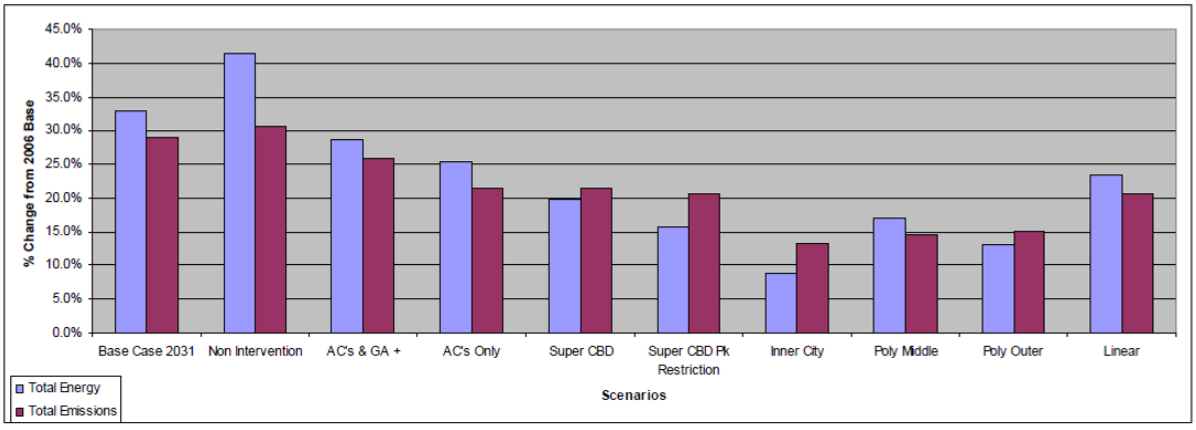
	Prohibition Variant	in this larger CBD area
7	Inner City	Future growth to be directed to the inner-city, 'transport-rich' areas of Melbourne, including the CBD
8	Polycentric City: Outer Centres	Urban growth directed toward major outer suburban activity centres, while primacy of CBD maintained
9	Polycentric City: Middle Centres	Urban growth directed toward major middle ring suburban centres, while primacy of CBD maintained
10	Linear Development	Large-scale residential and employment development to be confined to within 400 metres of a railway station or tram stop, with expansion in public transport capacity

Source: Department of Transport, 2009.

The analysis shows that from a transport energy and emissions perspective, the ideal urban form would be to concentrate all activities within a defined inner region; clearly a hypothetical and impractical scenario. Urban forms that are based on activity centre principles but do not disperse activities too 'thinly' across numerous activity centres (for example, Activity Centres only and Activity Centres Growth Plus scenarios) are the next best in terms of transport efficiency. Consequently, a polycentric city structure was found to generate most efficient transport patterns.

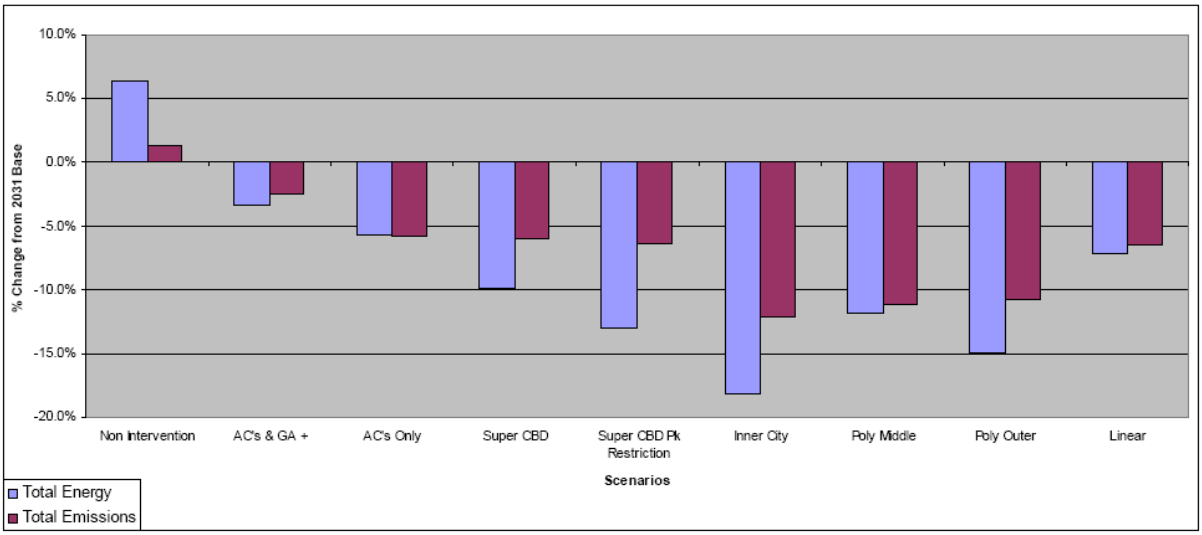
The study suggests that an urban form that is developed along the principles of activity centres and supported by necessary investments in public transport (to alleviate any capacity constraints) will lead to higher public transport mode share and lower transport energy consumption and greenhouse gas emissions, relative to the base case/ current trend urban form scenario.

Figure 6. Changes in Total Transport Energy and Emissions Compared to Base Case, 2031, Melbourne SD



Source: Source: Department of Transport, 2009.

Figure 7. Changes in total emissions and energy compared to 2031 base case, Melbourne



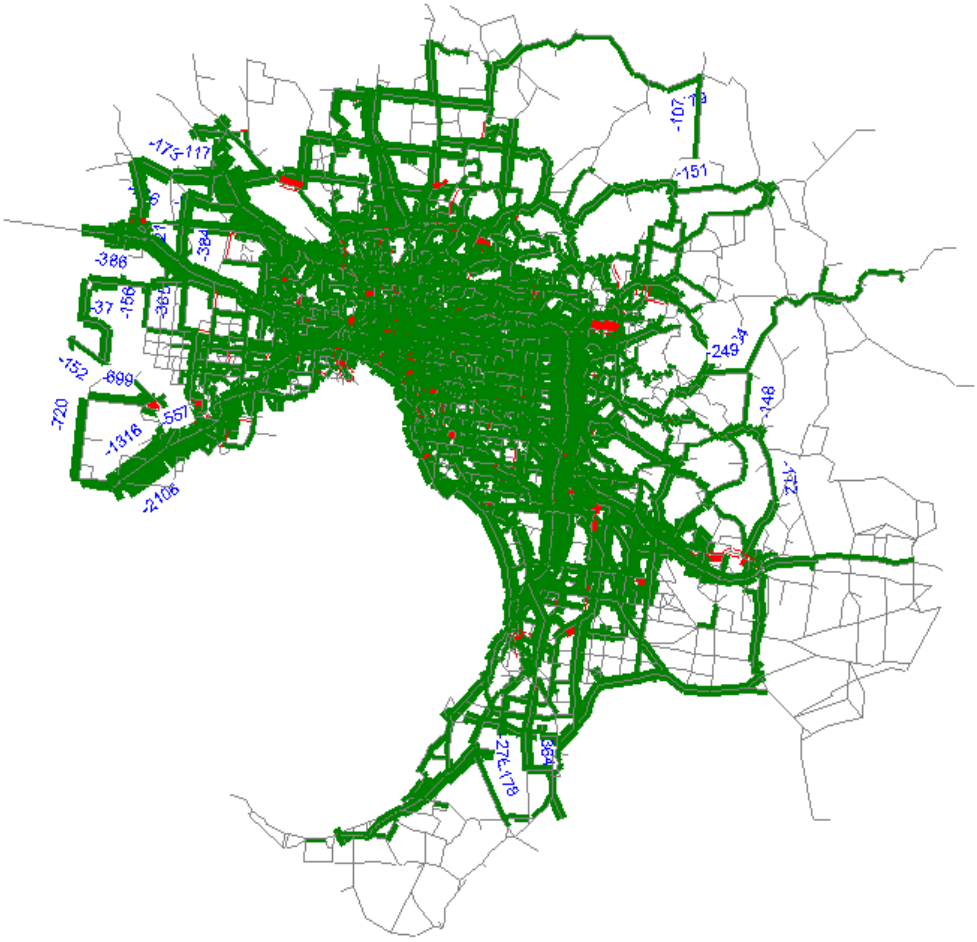
Source: Source: Department of Transport, 2009.

In another example, SGS prepared a detailed cost benefit assessment of moving from the then current form of urban development across Melbourne to that aspired to in Melbourne 2030[23].

Hyder Consulting were commissioned to model the impact on road traffic flows of moving from the base case to the Melbourne 2030 scenario. The assessment included an assumption that 20 percent of total trips would be undertaken by public transport by 2020. In Figure 8, red shading indicates an increase in flow and green shading indicates a reduction in flow. The figure shows an overwhelming reduction in flow along most roads.

[23] SGS Economics and Planning, 'Costs & Benefits of Urban Form', October 2007

Figure 8. Change in road traffic flow as a result of Melbourne 2030



Source: Hyder Consulting, 2005 in SGS, 2005

The planned shift towards more activity centre based development, and the assumption in relation to a 20 percent public transport mode share, resulted in 300 million fewer vehicle trips being undertaken in 2030 compared to base case projections. VKT would be lower in 2030 by some 5.5 billion kilometres, suggesting major productivity savings.

An activity centres based approach to planning encourages the use of public transport by creating viable markets. If the 20 percent of trips by public transport target established by the Victorian Government is realised in combination with the planned shift towards more activity centre based development, VKT would be lower in 2030 by some 5.5 billion kilometres.

Economic value of greater physical activity

The benefits of greater physical activity can also been quantified. For example, Trubka Newman & Bilsborough[24] quantify the health benefit of refocusing future development to inner-city areas where transit and active means of travel can make for a healthier population. Using a 'cost of illness' approach they estimate that the present value of the economic health benefits for a development of 1000 dwellings in an 'active travel' neighbourhood ranges between $4.2 million and $5.8 million. In this context, an 'active travel' neighbourhood was defined as one that 'is conducive to both cycling and walking, which in daily life activities could lead to most able bodied people engaging in at least 30 minutes of active travel per day'[25].

[24] R Trubka, P Newman & D Bilsborough, *Assessing the Costs of Alternative Development Paths in Australian Cities,* report was commissioned by Parsons Brinckerhoff Australia, 2008

[25] R Trubka, P Newman & D Bilsborough, *Assessing the Costs of Alternative Development Paths in Australian Cities,* report was commissioned by Parsons Brinckerhoff Australia, 2008, p18.

3.3 Agglomeration

The most widely recognised competition and investment benefits associated with improved accessibility are those relating to agglomeration economies.

The term agglomeration is used in spatial economics to describe the benefits which flow to firms and workers from locating in areas which are able to achieve a higher density of economic activity.

Locating in an area which has a higher density of economic activity (as measured by employment) allows firms to achieve economies of scale via the large customer base. Within that large customer base, the opportunity for economies of scope is presented to firms. That is, with more clients, firms will be able to specialise in a particular field and hence gain improved efficiencies through specialisation.

Agglomeration also provides opportunities for firms to access a deep and diverse pool of skilled labour. With so many firms located together there will be a high level of technological / knowledge transfer between firms, which will help bolster innovation. This innovation is vital for firms to survive in a very competitive market place. Much of the knowledge transfer is provided by skilled labour moving between firms.

The benefits of agglomeration that accrue to firms can be expressed through increased labour productivity.

Agglomeration also helps to improve the quality of labour inputs available by increasing the stock of human capital. Economic literature provides an explanation of the pattern of human capital development in Matching Theory, which is also described as Search Theory[26]. These theories suggests that if there are a large range of jobs on offer, a worker can search through the available jobs and best match their skills to the available job and maximise their acquisition of skills and experience. They have the opportunity to work in a number of different jobs and hence gain a range of experiences (which can be seen as on-the-job investment in their education) which will also translate into higher productivity.

Urbanisation (the increasing relative share of population in cities) is also cited by Mincer[27] as a contributing factor in the development of human capital in the United States. This helps to confirm the Matching Theory explanation for higher human capital development.

The human capital component of the agglomeration benefit accrues to individuals, as the owners of the human capital 'asset', rather than firms and can be expressed through increases in individuals' lifetime labour incomes.

[26] G J Stigler, 'Information in the labor market', *Journal of Political Economy* Vol. 70, No.5, Part 2, 1962, pp. 94-105 and

J J McCall, 'Economics of information and job search', *Quarterly Journal of Economics*, Vol. 84, 1970, pp. 113-126.

[27] J Mincer, Economic Development, Growth of Human Capital, and the Dynamics of the Wage Structure, *Journal of Economic Growth*, 1995, pp. 29–48.

The benefits of agglomeration that accrue to firms can be expressed through increased labour productivity.

The benefits of agglomeration that accrue to individuals can be expressed increases in individuals' lifetime labour incomes

Measuring agglomeration through effective job density

Literature related to agglomeration can be traced back to the work of Marshall[28]. Marshall's work, despite the passage of a century, still provides an excellent description of the conceptual benefit which firms can gain by locating in a particular place. Since that time agglomeration has been measured in a number of ways including city population[29] , industry employment[30] , the number of industrial plants[31] and effective job density[32].

A simple measure such as looking at the number of jobs in an area does not effectively demonstrate the phenomenon of agglomeration. A firm located on the edge of a city in a relatively low employment area could potentially capture agglomeration benefits by being within easy reach of other very dense employment nodes. Thus a measure of agglomeration must 'incorporate both proximity and the scale of the economic activity'[33].

SGS[34] recently extended Graham's work across metropolitan Melbourne and estimated productivity enhancements associated with improvements in effective job density, where effective job density is the 'time' taken by workers to access the pool of jobs available via different modes of travel.

The effective job density for Statistical Local Areas (SLAs) across Melbourne SD is shown in Figure 9. It reveals the mono-centric nature of Melbourne, with effective job density far greatest for the

[28] A Marshall, Principles of Economics, Macmillan, London, 1920.

[29] Y Aaberg, 'Regional productivity differences in Swedish manufacturing', *Regional and Urban Economics*, Vol. 3, 1973, pp. 131–56.

T Tabuchi, 'Urban agglomeration, capital augmenting technology, and labour market equilibrium', *Journal of Urban Economics*, Vol. 20, 1986, pp. 211–28.

[30] R Nakamura, 'Agglomeration economies in urban manufacturing industries: a case of Japanese cities', *Journal of Urban Economics,* Vol. 17, 1985, pp. 108-124.

JV Henderson, 'Efficiency of Resource Usage and City Size', *Journal of Urban Economics*, Vol. 35, 1986, pp. 83-104.

[31] JV Henderson, 'The Urbanization Process and Economic Growth: The So-What Question' *Journal of Economic Growth,* Vol. 8, 2003, pp. 47-71.

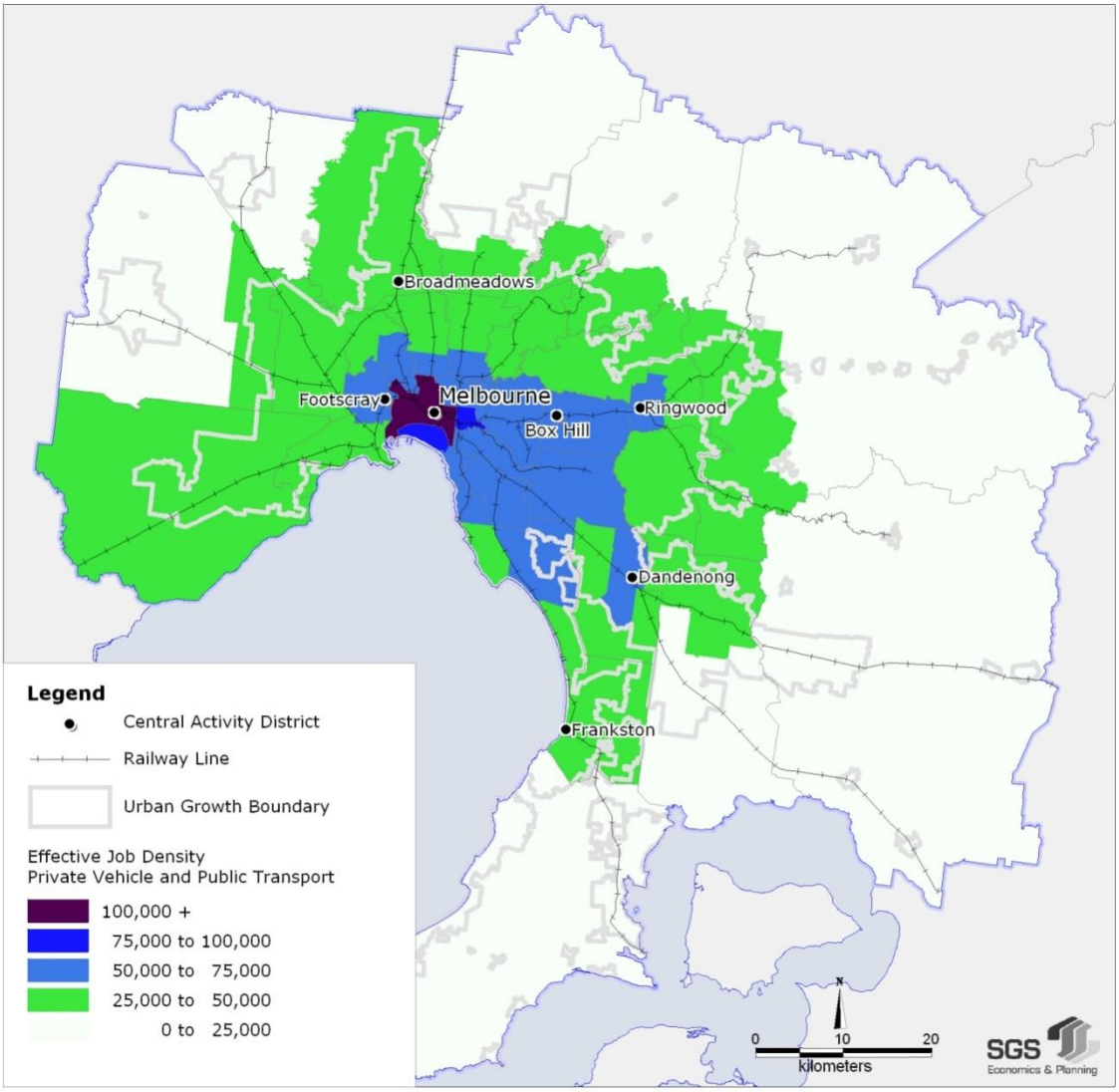
[32] DJ Graham, *Wider Economic Benefits of Transport Improvement: Link Between Agglomeration and Productivity, Stage 2*, London Department for Transport, London, 2006.

[33] ibid.

[34] SGS Economics and Planning, *Economic Benefits of Improved Accessibility; Implications for Melbourne's Metro II*, Victorian Department of Planning and Community Development, 2009.

Melbourne Local Government Area where around 21 percent[35] of the metropolitan's employment is located and which is serviced by major public transport infrastructure.

Figure 9. SLA effective job density, Melbourne, 2006



Source: : SGS Economics & Planning, *Economic Benefits of Agglomeration: Methodological Overview*, Victorian Department of Transport, 2010

Poor accessibility to jobs, combined with greater reliance on cars, for residents of middle and outer metropolitan areas is reflected in poor performance of these areas on indicators of social and economic well-being.

Dodson and Sipe[36] explain the relationship as follows:

[35] SGS Economics & Planning based on various ABS Census Data, 2010

[36] J Dodson and N Sipe, 'Unsettling Suburbia: The New Landscape of Oil and Mortgage Vulnerability in Australian Cities', *Urban Research Program*, Research Paper No.17, Griffith University, Brisbane, 2008.

> *In general, households in middle and outer suburbs face higher levels of car dependence and fewer alternative travel options than those in the inner areas – a result that is, in part, due to lower incomes and thus housing purchasing capacity. This means that the costs of higher fuel prices will be borne most heavily by those with the least capacity to pay.'*

Dodson and Sipe[37] also identify compounding pressures including the high concentration of households with mortgages in outer suburban zones and the association between higher fuel prices, inflation and higher mortgage interest rates.

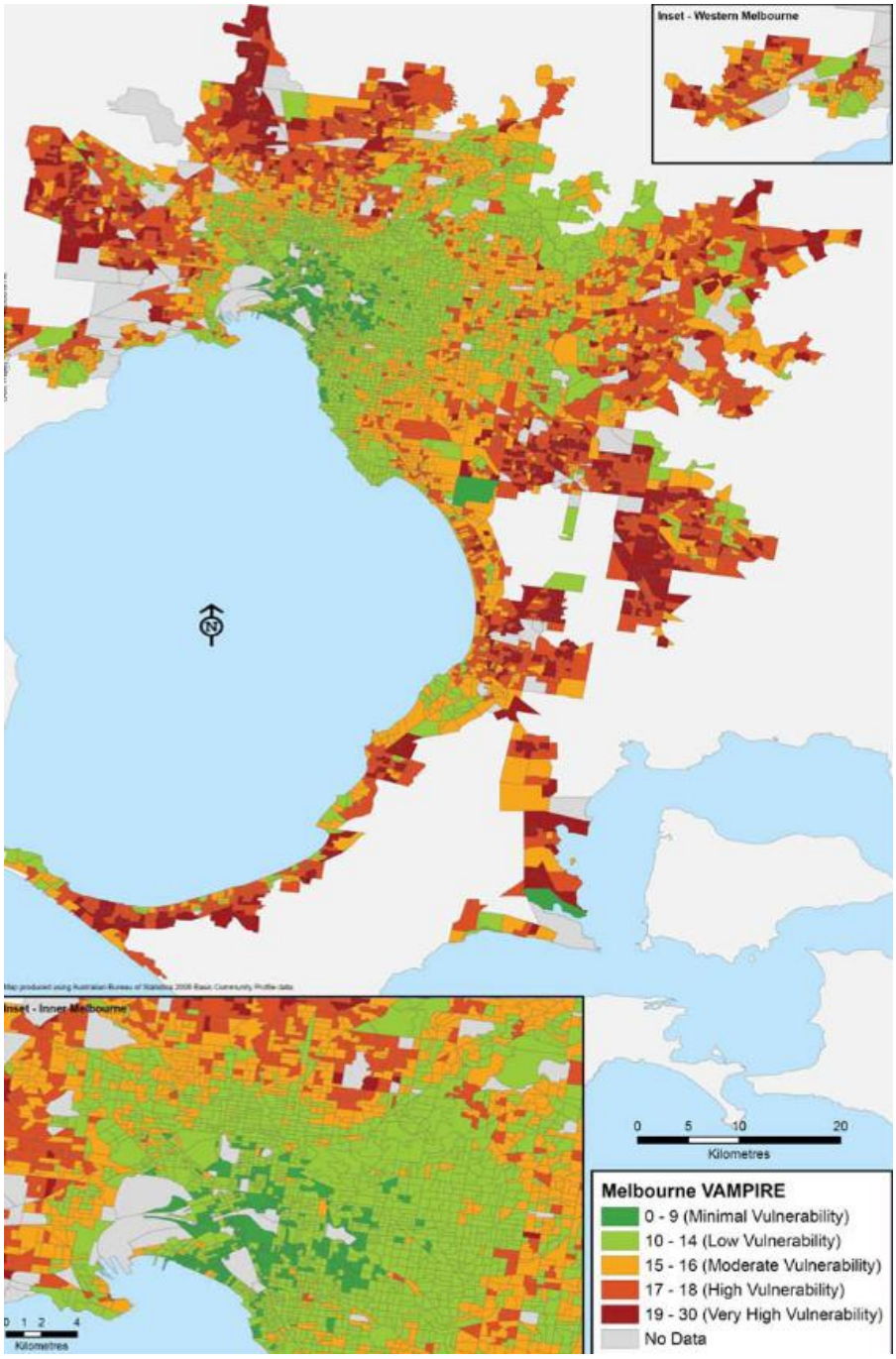
The vulnerability assessment for mortgage, petroleum, and inflation risks and expenditure (VAMPIRE) index, developed by Dodson and Sipe[38], assesses the exposure of households to economic and environmental changes such as rising mortgage, petrol and inflation costs. Again, it indicates that Melbourne's outer or fringe suburbs are typically more vulnerable to such changes than the inner areas. (see Figure 10). High oil vulnerability suburbs cover Sunshine, Lilydale, Werribee and South Morang.

The Socio-Economic Indexes for Areas (SEIFA) is a broader indicator developed by the ABS to assess the ranking of areas based on social and economic well-being. Areas of relative disadvantage (as shown in Figure 11) follow a similar pattern to high oil vulnerability areas as indicated by the VAMPIRE index. Poorly accessible areas in are shown to experience the greatest disadvantage.

[37] J Dodson and N Sipe, 2008, p.6.

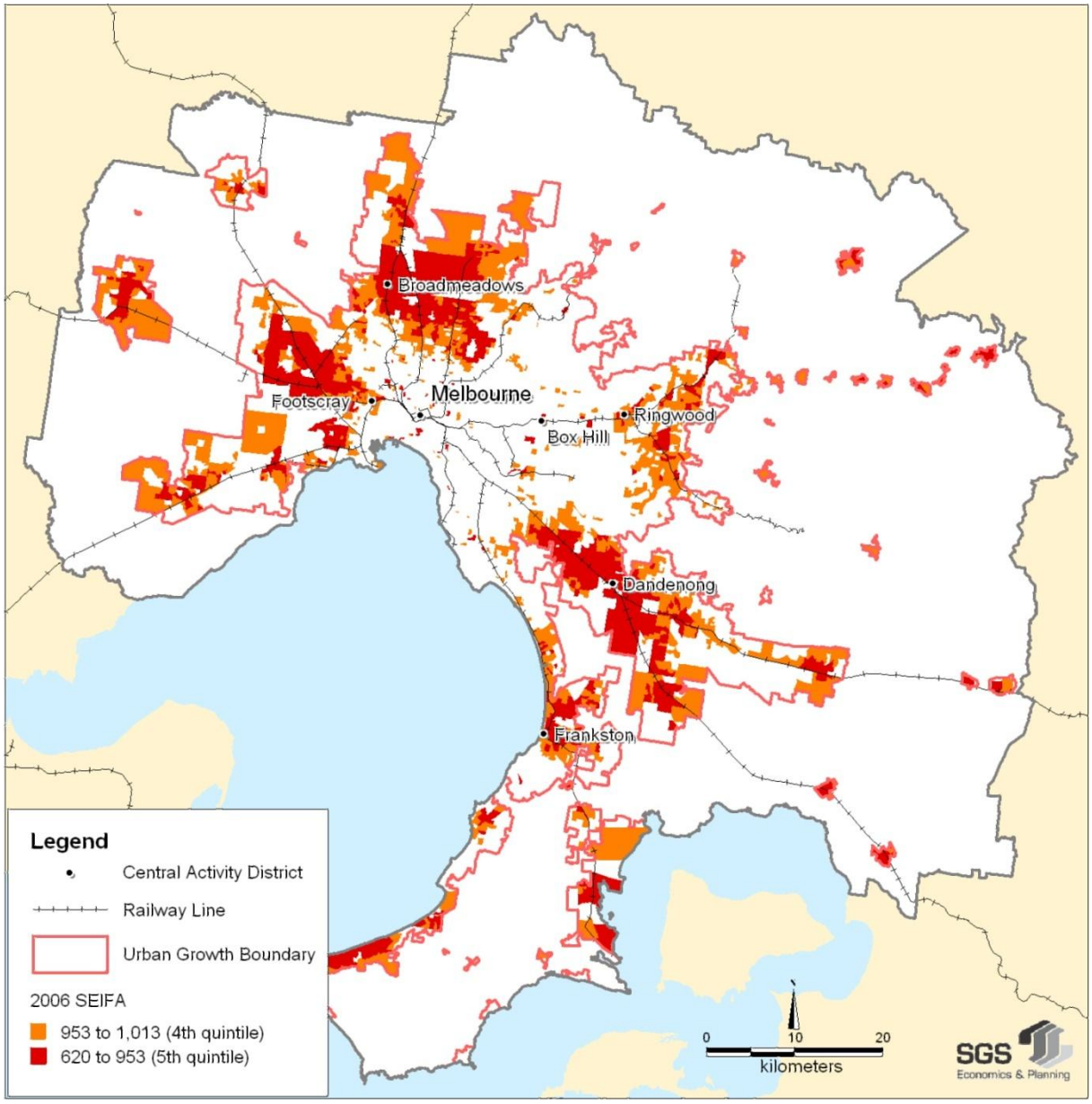
[38], J Dodson and N Sipe, 'Shocking the Suburbs: Urban Location, Housing Debt and Oil Vulnerability in the Australian City', *Urban Research Program*, Research Paper No. 8, Griffith University, Brisbane, 2006.

Figure 10. VAMPIRE index, Melbourne, 2006



Source: J Dodson and N Sipe, 'Unsettling Suburbia: The New Landscape of Oil and Mortgage Vulnerability in Australian Cities', *Urban Research Program*, Research Paper No.17, Griffith University, Brisbane, 2008.

Figure 11. SEIFA Index, relative socio-economic disadvantage, Melbourne, 2006



Source: SGS Economics and Planning based on ABS Socio-Economic Indexes for Areas (SEIFA), 2006

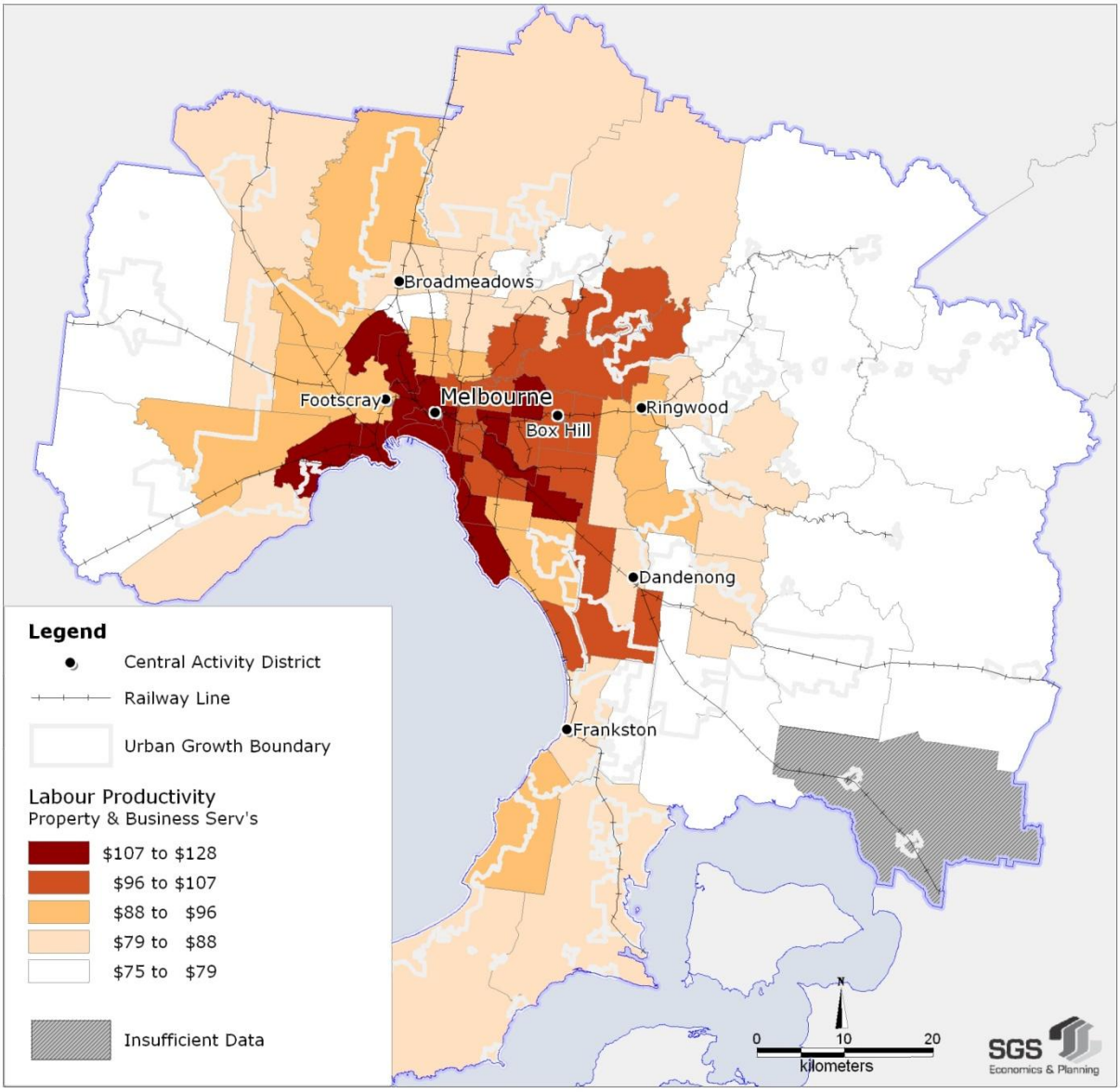
Effective job density can be enhanced by either improving the transport connections or by improving the concentration of jobs in locations that are well served by existing transport networks.

Metropolitan strategies' agendas for 'polycentric cities' are highly relevant in this context. The aim is for greater rates of employment self containment within sub-regions, to underpin the compact city and enhance the accessibility to opportunities for residents in the rapidly growing parts of the city. Growing jobs at the same or a faster rate than population in outlying areas is a significant challenge for all Australian cities.

3.3.1 Evidence of labour productivity enhancement

The benefits of agglomeration that accrue to firms can be expressed through increased labour productivity. This can be demonstrated by observing labour productivity across the city for a particular industry. Figure 12 shows that a worker in the Property and Business Services industry located in the central area of Melbourne (where there is high agglomeration) has a higher labour productivity than a worker in the same industry located on the fringe of Melbourne (where there is low agglomeration).

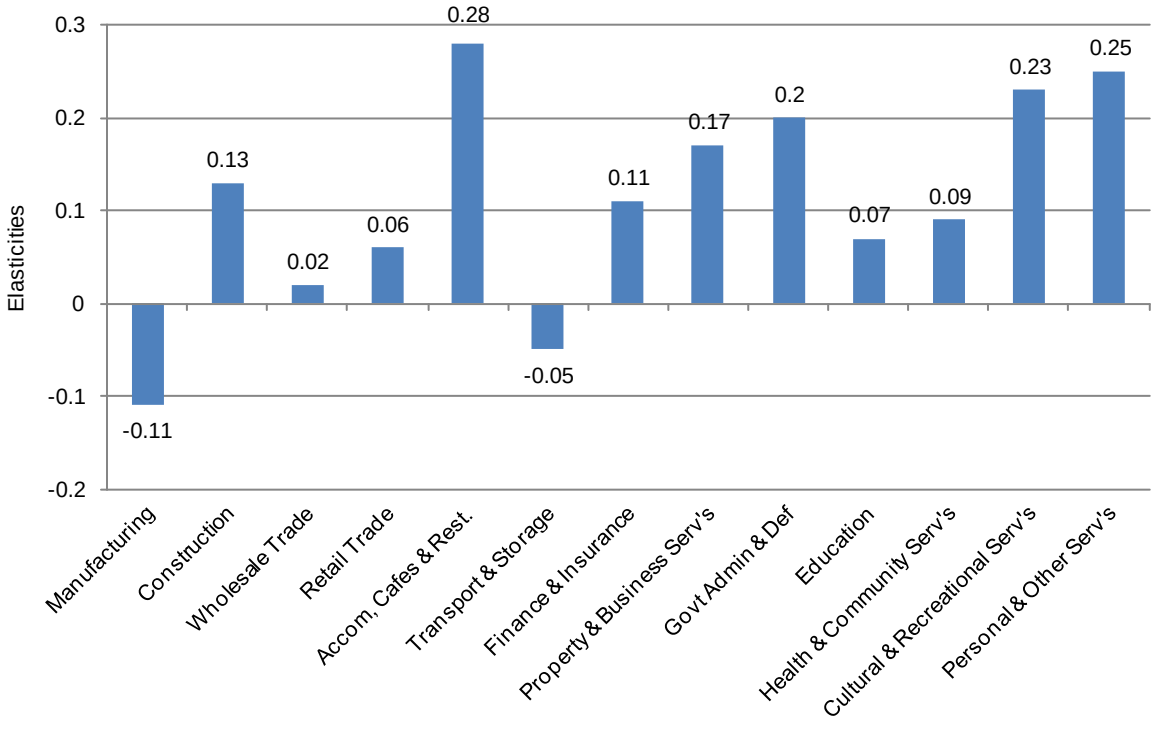
Figure 12. Selected SLA Property and Business Services log labour productivity (gross value added ($) per hour worked), Melbourne SD



Source: SGS Economics & Planning, *Economic Benefits of Agglomeration: Methodological Overview*, Victorian Department of Transport, 2010.

The degree to which agglomeration affects labour productivity for each industry has been estimated by SGS using a translog regression where the natural log of labour productivity levels for the respective industry is regressed against the natural log of effective job density by SLA. The evidence generated is summarised in the figure below. In this figure each industry's labour productivity is scaled against a doubling[39] of effective density. This suggests that overall, a doubling of effective density leads to an 8 percent improvement in productivity, with labour intensive industries showing much stronger relationships than non-labour intensive industries.

Figure 13. Elasticities of labour productivity by industry, Melbourne SD



Source: SGS Economics & Planning, *Economic Benefits of Agglomeration: Methodological Overview*, Victorian Department of Transport, 2010.

SGS's finding is within the range of results from international studies of agglomeration using some measure of effective job density as the explanatory variable. A selection of these results is presented in the table below.

[39] This follows the convention within international literature in this area which has referred to the impact of doubling effective job density on labour productivity as the elasticity.

Table 3. Elasticity of other studies

Author	Elasticity	Location of Analysis
Mare and Graham (2009)	0.07	New Zealand
Trubka (2009)	0.07	Australia
Graham (2006)	0.13	United Kingdom
Ciccone (2000)	0.06	United States of America
Ciccone & Hall (1996)	0.05	European Union

Source: SGS Economics & Planning, *Economic Benefits of Agglomeration: Methodological Overview*, Victorian Department of Transport, 2010.

An activity centres policy can enhance agglomeration (measured by effective job density) by enabling greater concentrations of employment in designated centres and providing transport to these centres. This benefits firms through:

- economies of scale
- economies of scope
- deep and diverse pool of clients and skilled labour
- technological / knowledge transfer and
- innovation

A doubling of effective density leads to an 8 percent improvement in labour productivity, with labour intensive industries showing much stronger relationships than non-labour intensive industries.

3.3.2 Evidence of increased human capital

In addition to the labour productivity benefit, agglomeration helps to improve the quality of labour inputs available by increasing the stock of human capital. Human capital comprises the knowledge and skills which enable a worker to contribute to a firm's production and to earn a wage.

The ABS has measured human capital in Australia for 1981-2001 and published the estimates in *Measuring Human Capital Flows for Australia: A Lifetime Labour Income Approach*[40]. Using the methodology outlined by the ABS, SGS has extended the estimates of human capital to include 2006. These estimates were prepared for each Statistical Local Area (SLA) within Melbourne.

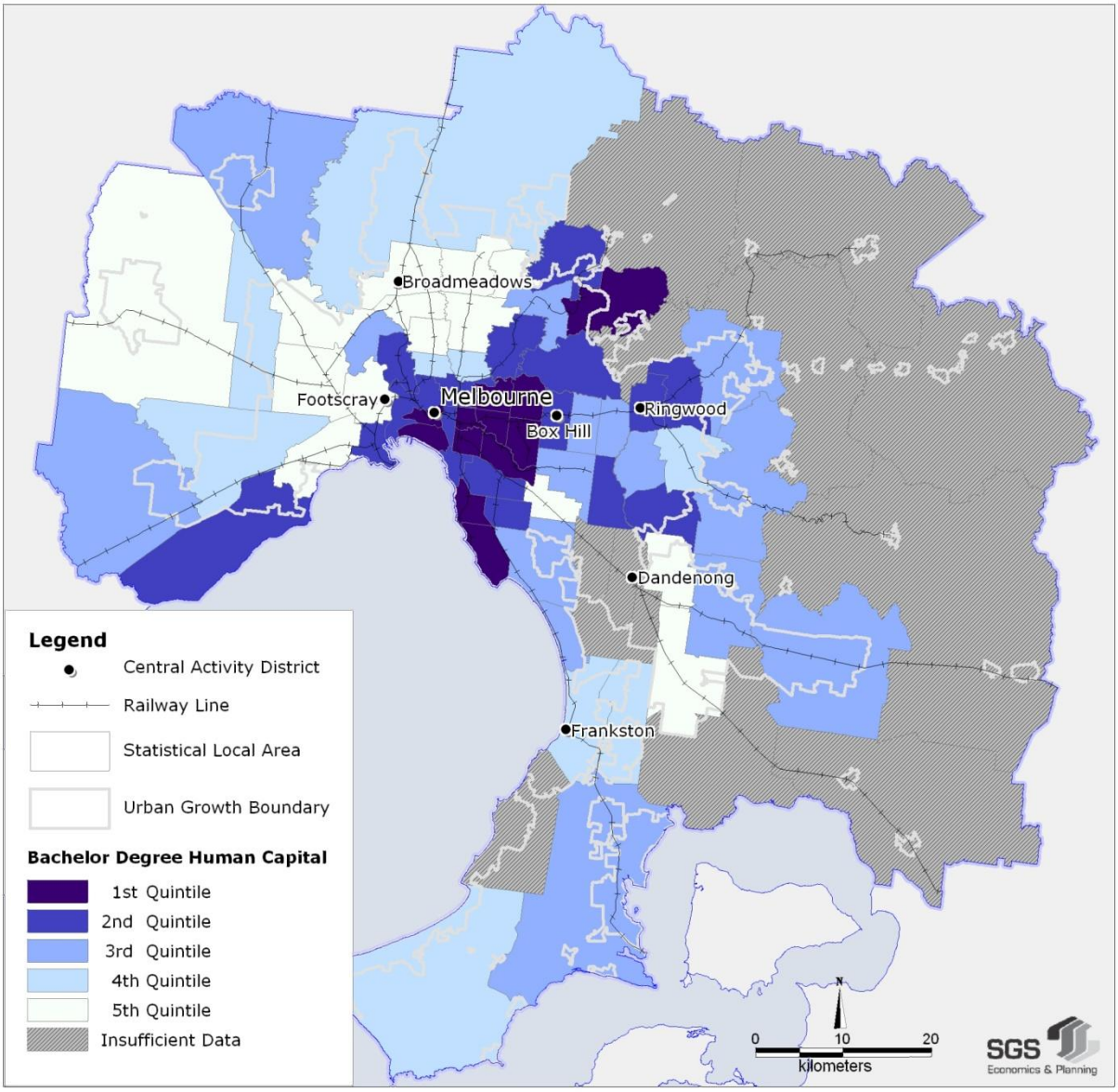
Figure 14 presents the 2006 human capital quintiles[41] for residents with a Bachelor Degree in each SLA in Melbourne. Comparing this figure with the map of effective job density by SLA (Figure 9) shows that areas with higher access to employment have higher levels of human capital.

[40] ABS catalogue no. 1351.0.55.023, 2011.

[41] There is roughly a 10 percent increase in human capital between each quintile. That is, a person at the same age and with same level of qualifications (in this case unqualified) in the second quintile would over the course of their lifetime earn roughly 10 percent more than someone in the lowest quintile.

The composition of people holding a bachelor degree by main field of study in several SLAs showed that while each SLA exhibits some natural variation in the distribution of degree holders by field of study, there is no clear bias in the composition which could explain the variation observed in the lifetime labour incomes.

Figure 14. Bachelor degree, human capital 2006



Source: SGS Economics & Planning, *Economic Benefits of Agglomeration: Methodological Overview*, Victorian Department of Transport, 2010.

Using regression analysis the relationship between the effective job density and the human capital group for each SLA has been established. To maintain consistency with the agglomeration analysis the same functional form of equation is used. Separate regressions have been done for each education level / age / sex grouping. As well as the effective job densities variable a Socio

Economic Index For Areas (SEIFA) variable has been included. The index of Economic Resources has been included to account for the level of resources which are available to households for initial investments in education.

Table 4 below presents the results of the regression for the bachelor degree educational group. It indicates that a doubling of effective job density typically generates a 19 percent to 24 percent lift in lifetime labour income for persons who hold a bachelor degree.

Table 4. Bachelor degree regression results

	Elasticity	Intercept (B0)	Slope (B1)	B1 p-value	SEIFA (B2)	B2 p-value	R-Squared
Male							
20-24	0.192	6.37	0.25	0.00	0.04	0.00	0.696
25-29	0.214	6.02	0.28	0.00	0.04	0.00	0.701
30-34	0.208	5.99	0.27	0.00	0.04	0.00	0.688
35-39	0.194	6.02	0.26	0.00	0.04	0.00	0.682
40-44	0.175	6.07	0.23	0.00	0.04	0.00	0.660
45-49	0.163	5.99	0.22	0.00	0.04	0.00	0.647
50-54	0.172	5.56	0.23	0.00	0.04	0.00	0.613
55-59	0.194	4.80	0.26	0.00	0.04	0.00	0.580
60-64	0.220	3.72	0.29	0.00	0.04	0.00	0.476
Female							
20-24	0.220	5.80	0.29	0.00	0.01	0.00	0.624
25-29	0.243	5.43	0.31	0.00	0.01	0.00	0.628
30-34	0.240	5.33	0.31	0.00	0.01	0.00	0.587
35-39	0.199	5.69	0.26	0.00	0.01	0.00	0.502
40-44	0.164	5.96	0.22	0.00	0.01	0.00	0.455
45-49	0.145	5.98	0.20	0.00	0.02	0.00	0.432
50-54	0.153	5.55	0.21	0.00	0.02	0.00	0.432
55-59	0.177	4.75	0.24	0.00	0.02	0.00	0.450
60-64	0.204	3.60	0.27	0.00	0.02	0.01	0.387

SGS Economics & Planning, *Economic Benefits of Agglomeration: Methodological Overview*, Victorian Department of Transport, 2010.

An activity centres policy can enhance agglomeration (measured by effective job density) by enabling greater concentrations of employment in designated activity centres and providing transport to these activity centres. This benefits individuals as they are able to maximise their acquisition of skills and experience. This component of the agglomeration benefit accrues to individuals, as the owners of the human capital 'asset', rather than firms and can be expressed through increases in individuals' lifetime labour incomes.

A doubling of effective job density typically generates a 19 percent to 24 percent lift in lifetime labour income for persons who hold a bachelor degree.

3.4 Development density

As stated earlier in this paper, an activity centres-based urban form implies variable densities across the urban area with concentrations of employment and population in a hierarchy or network of activity centres (for more detail on density and activity centres policy see section 2.3.3). In the absence of an approach or policy which concentrates dwellings and employment mainly in activity centres, housing and jobs would need to be accommodated:

- within existing urban areas; and/ or
- beyond the urban fringe (in greenfield developments).

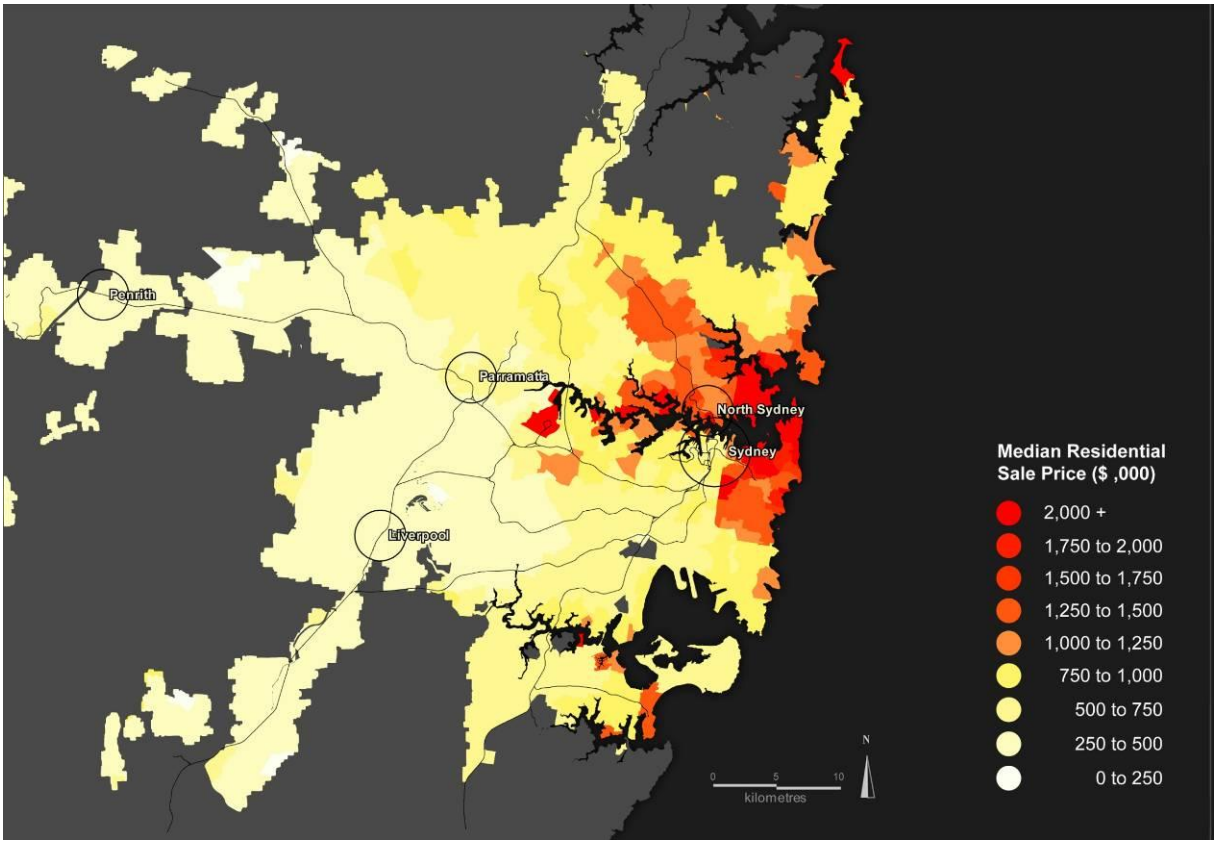
If housing and jobs are located in dispersed locations within existing urban areas this would lead to less housing diversity, more extensive investment to service development (thereby greater cost) and less opportunity to develop a critical mass for innovative infrastructure investment.

If housing and jobs are located beyond the urban fringe, the above would also occur. In addition, there would be greater consumption of loss of valuable rural and agricultural land.

Housing diversity

With a limited stock of locations with good natural amenity (such as riverside, harbour and beachside locations) activity centres play a critical role in offering amenities and services to support higher density housing forms. Figure 15 shows the median residential sales price in Sydney. It reveals that there is a correlation between sales prices and natural amenity. At a more fine grain level, there is likely to be a relationship between land values and proximity to activity centres, particularly those serviced by heavy rail (man-made amenity). While there are finite locations with natural amenity planning policy, via an activity centres approach, provides an opportunity to create locations with man-made amenity.

Figure 15. Median residential sales price, Sydney, 2009



Source: SGS Economics and Planning based on RP data, 2011.

For a city which already contains an abundance of low density development forms, increasing the locations where higher density development is possible will increase the diversity of housing stock provided to the market. This is appropriate in light of anticipated growth in demand for higher density housing options. In its 2nd State of Supply Report the National Housing Supply Council[42] has projected that demand for separate houses will grow proportionally less than demand for other types of dwellings, including semi-detached dwellings and flats (see Table 5 below).

Improved housing choice contains economic benefits. The provision of more housing variety will expand the set of consumption possibilities for home buyers and renters.

[42] National Housing Supply Council, *2nd State of Supply Report*, Department of Families, Housing, Community Services and Indigenous Affairs, April 2010.

Table 5. Cumulative additional households projected under low, medium and high household growth scenarios ('000 households), from June 2009, selected years

Dwelling structure	Year, as at 30 June						Per cent increase 2009-29
	2009	2011	2014	2019	2024	2029	
Separate house	7,146.1	7,398.7	7,785.0	8,445.0	9,110.5	9,761.3	36.6
Semi-detached	577.3	602.3	640.3	701.8	762.6	824.6	42.8
Flat	694.2	726.6	776.3	852.4	923.2	1,001.2	44.2
Other	112.6	118.1	126.7	141.7	157.1	172.8	53.5
Total	8,530.2	8,845.7	9,328.4	10,140.9	10,953.4	11,760.0	37.9

Note: 'Other' includes caravans, cabins, houseboats, improvised homes, tents, sleepers-outs and houses or flats attached to a shop, office, etc. Figures are rounded to the nearest '00. Numbers may not sum to totals due to this rounding.

Critics of urban consolidation point to the decline in housing affordability which may result from a more compact city, arguing that limiting the release of new land on the urban fringe constrains the housing supply pipeline[43]. Certainly, housing prices loom as a serious on-going issue in metropolitan Sydney. However, evidence of affordability pressures per se does not necessarily represent a robust critique of activity centres policies or, more broadly, urban consolidation strategies. Rather it underlines the need for more innovative and purposeful mechanisms to ensure that the housing capacity which has been identified in established areas is released in timely fashion. Arguably, Australian cities have only scratched the surface in this regard. Key reforms in terms of planning governance (for example, strategic sites being controlled by a metropolitan authority rather than local councils) and more extensive use of government owned development corporations to assemble and 'de-risk' major infill opportunities, continue to lag.

Efficient utilisation of infrastructure and resources

Urban development that is based on activity centre principles can make a contribution to maximising efficiencies from existing infrastructure facilities (transport infrastructure, including roads and public transport, as well as community infrastructure, including schools and sporting facilities) and generate significant infrastructure resource savings due to the reduced need to extend radial infrastructure services such as arterial roads, water and sewerage, gas and other trunk utilities. There are also savings on the reticulation networks.

By concentrating development in a limited number of locations, an activity centres policy can also provide the critical mass for investments in innovative technologies by making it more viable.

Further, an activity centres approach to infrastructure planning can reduce the planning costs across branches of government by providing a more certain planning environment.

[43] A Beer, 'Housing affordability and planning in Australia', *Paper presented to the Housing Studies Association Spring Conference Belfast*, 2004 and E Burton, 'The compact city: just or just compact? A preliminary *analysis'*, *Urban Studies*, Vol. 37, No. 11 (1969-2006), 2000.

Avoided consumption of rural and agricultural land

The containment of the urban footprint, facilitated by an activity centres based approach to land use planning, can reduce the overall consumption of land. In particular, a more compacted urban extent can reduce the consumption of rural and good quality agricultural land at the urban fringe.

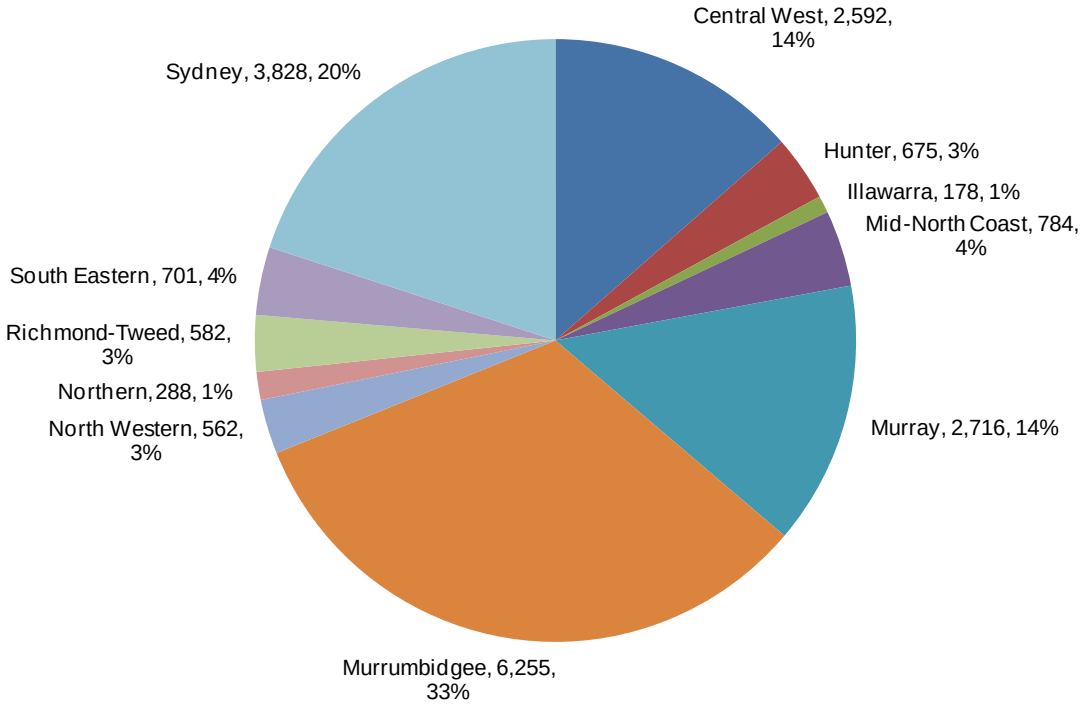
In the past, there was less concern about land for horticulture being 'turned over' to new urban development, as this was generally considered an economically efficient outcome. Today, however, the external benefits of a proximate and accessible food supply (future cost savings from reduced need to transport food) are increasingly a consideration in weighing up the merits of urban development versus protecting agricultural production.

As the cost of transport rises it will be advantageous for food to be produced closer to population concentrations, subject to the opportunity costs involved. For example, the Sydney basin has excellent soil and climatic conditions for vegetable growing. It contains 20 percent of the total area in NSW being utilised for vegetable growing for human consumption (see Figure 16) and around a third of NSW's vegetable production by weight (see Figure 17)[44].

The community also places a value on intact and accessible rural landscapes at the edge of the city.

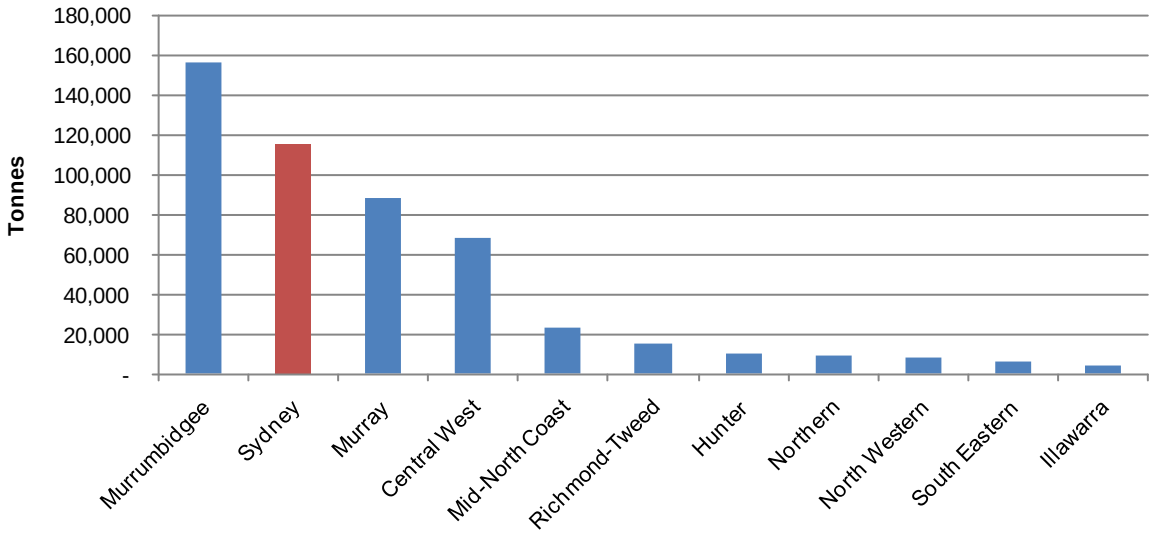
[44] ABS, 2006-7 Agricultural Commodities: small Area Data, *Cat. No. 71250D0005_200506*, 2008.

Figure 16. Vegetables for human consumption, NSW by area 2006-07 (ha, % of NSW total)



Source: ABS, 2008.

Figure 17. Vegetables for human consumption by NSW region by weight 2006-07



Source: ABS, 2008.

3.4.1 Evidence of housing diversity

The table below shows the proportion of single detached dwellings in in-centre versus out-of centre locations across Sydney. Census Collection Districts (CDs) were used to spatially represent the ABS dwelling data across Sydney. These CD boundaries were deemed to be 'in-centre', when they fell within a radial Metrix Centre catchment defined by the Department of Planning. For the purpose of this analysis, the three smallest activity centres definitions (Neighbourhood Centres, Small Villages and Villages) were excluded from being classified as 'in-centre'.

Table 6. Dwelling stock, Sydney Statistical District

	Total Dwellings	Single detached	Semi-detached, terrace or row house	Flat or unit	Other
In Centre	317,575	32%	14%	53%	1%
Out of Centre	803,222	73%	11%	15%	1%

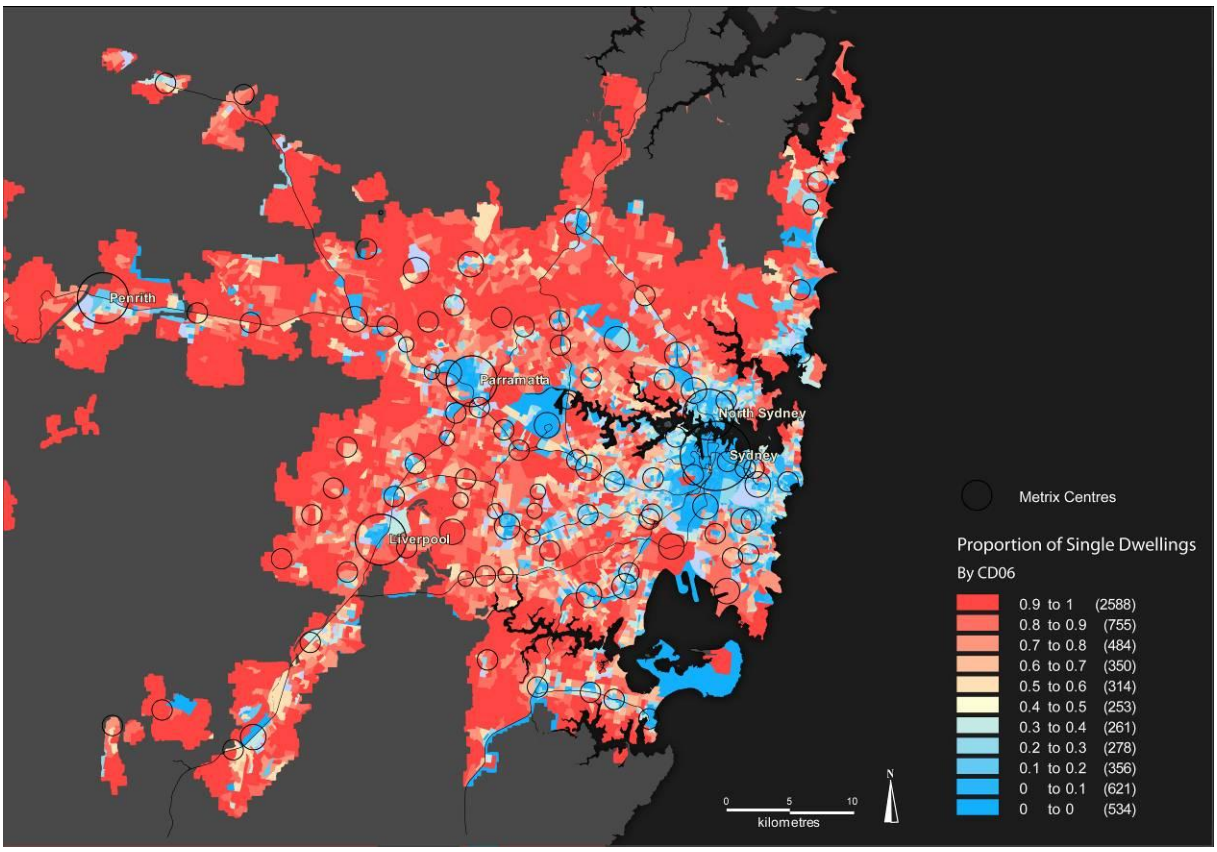
Source: SGS Economics and planning calculations based on ABS Census 2006.

It reveals that 72 percent of dwellings in out-of-centre locations are single detached dwellings. In contrast, only 28 percent of dwellings in in-centre locations are single detached dwellings. The remainder of the dwelling stock in in-centre locations is comprised of alternative dwelling types including semi-detached dwellings and apartments.

The data is also displayed, at the small area level, in Figure 18. The areas shaded blue indicate a lower proportion of single detached dwellings (indicating a greater share of alternative dwelling types) and correspond with areas designated 'in-centre', as shown by the centre buffers.

An activity centres-based approach to land use planning encourages greater housing diversity by providing high density accommodation near employment, services and transport hubs. In Sydney, 72 percent of dwellings in out-of-centre locations are single detached dwellings. By contrast, only 28 percent of dwellings in in-centre locations are single detached dwellings.

Figure 18. Proportion of single detached dwellings and location of activity centres 2006



Source: SGS Economics and Planning, based on ABS Census 2006 and Metrix Centres.

The robustness of Sydney's centres policy, compared to other state capitals, is also evident when comparing the share of different dwelling types between jurisdictions. Sydney has both the highest total number and the highest proportion of flat/unit dwellings. Flat or unit dwellings make up 24 percent of Sydney's dwelling stock, considerably higher than Melbourne at 15 percent and Brisbane at percent.

Table 7. Dwelling type profile in the capital cities in Australia (Statistical Districts)

City	Single Detached	%	Semi-Detached	%	Flat/Unit	%	Other or not stated	%	Total	%
Adelaide	331,336	77%	*52,049*	12%	*45,696*	11%	1,443	0%	**430,778**	100%
Brisbane	502,674	80%	*45,586*	7%	*74,295*	12%	5,433	1%	**628,216**	100%
Canberra	89,142	76%	*15,661*	13%	*11,790*	10%	*210*	0%	**116,842**	100%
Darwin	23,504	67%	*3,709*	11%	*6,812*	19%	*1,121*	3%	**35,176**	100%
Hobart	63,584	83%	*4,594*	6%	*7,929*	10%	*373*	0%	**76,492**	100%
Melbourne	937,621	73%	*145,395*	11%	*193,577*	15%	*6,448*	1%	**1,283,301**	100%
Sydney	905,635	64%	*168,433*	12%	*339,782*	24%	*8,646*	1%	**1,423,535**	100%
Perth	418,165	79%	*62,252*	12%	*45,060*	9%	*2,819*	1%	**528,533**	100%

Source: SGS Economics and planning calculations based on ABS Census 2006.

3.4.2 Evidence of efficient utilisation of infrastructure and resources

Greenfield development

While there are, of course, costs associated with intensification of established areas, in general terms the net cost of public infrastructure required for a new 'infill' dwelling is lower than that for a new greenfield dwelling.

An argument often raised to oppose urban infill is that existing infrastructure is either run down dilapidated or has no spare capacity and is expensive to replace[45]. On the first point the rejoinder is that run down infrastructure must be replaced in any event. Therefore this cost should not be ascribed to infill development. Moreover, the marginal cost of creating new capacity when infrastructure is replaced is quite low; much lower than creating new capacity in a greenfield area. Claims of capacity constraints are often factually incorrect. For example, drainage studies in some areas have revealed that problems are constrained to a minority of areas and the nature of the problems is often over-stated, amounting to infrequent nuisance events rather than threats to health and safety.

Economic modelling of the social, economic and environmental costs and benefits of alternative growth paths for Sydney was conducted by the Centre for International Economics[46]. Per dwelling costs of providing transport, electric, water and social infrastructure were shown to be lower for the scenario which focused growth on urban renewal rather than fringe areas. For example a 50:50

[45] R Tony, 'Urban Consolidation - Sound Policy or Fad', *National Trust Suburbia Conference*, 25 February 2002.

[46] Centre for International Economics, *The benefits and costs of alternative growth paths for Sydney: Economic, social and environmental impacts*, NSW Department of Planning, December 2010.

split would cost an additional $6,641 per dwelling or 7.5 percent compared to the 70:30 infill to greenfield split target in the Metropolitan Plan. This comparison is shown in Table 8.

Table 8. Infrastructure costs of alternative growth paths, Sydney ($ per dwelling)

Category	2005 Metropolitan Strategy	Focused on fringe/Greenfield	Focused on urban renewal
Ratio – Infill/Greenfield	**70/30**	**50/50**	**90/10**
Transport			
Connecting transport	5 422	9 387	3 062
Major Infrastructure/congestion	24 506	25 708	23 904
Total	**29,928**	**35,095**	**26,966**
Physical Infrastructure			
Electricity	4 219	4 254	4 207
Water and sewerage	13 103	14 672	11 535
Total	**17,322**	**18,926**	**15,742**
Social Infrastructure			
Primary education	4 574	4 259	4 845
Secondary education	2 765	2 579	2 877
Health	19 173	19 184	19 161
Other social infrastructure	228	219	240
Local council	14 470	14 839	14 226
Total	**41,210**	**41,080**	**41,349**

Source: Centre for International Economics, *The benefits and costs of alternative growth paths for Sydney: Economic, social and environmental impacts*, NSW Department of Planning, December 2010.

Trubka, Newman & Bilsborough[47] have also conducted research in to the costs of infrastructure provision, including social infrastructure services such as emergency services, education and health services. This work, which was the result of a literature review of 22 studies from the US, Canada and Australia, is summarised in Table 9. It suggests that overall infrastructure servicing costs are much lower in inner-city redevelopment locales than in urban fringe areas, i.e. about $61,000 and $165,000 respectively.

[47] R Trubka, P Newman and D Bilsborough, 'Assessing the Costs of Alternative Development Paths in Australian Cities '2008.

Overall infrastructure servicing costs are much lower in inner-city redevelopment locales than in urban fringe areas, i.e. about $61,000 and $165,000 respectively.

Table 9. Inner vs. outer residential development servicing costs, per dwelling

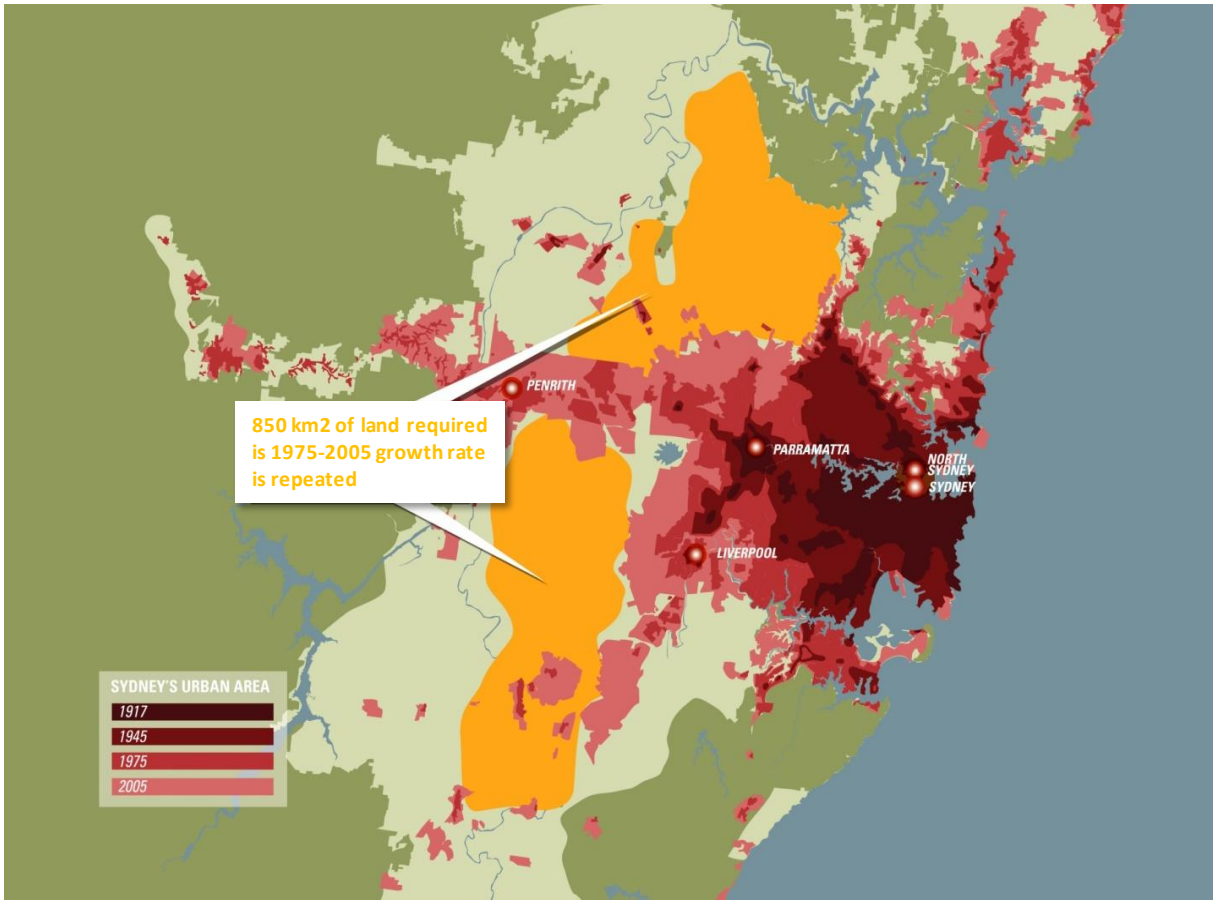
	Inner	Outer
Roads	$6,140	$36,736
Water and Sewerage	$17,805	$27,015
Telecommunications	$3,070	$4,502
Electricity	$4,912	$11,768
Gas	-	$4,502
Fire and Ambulance	-	$409
Police	-	$512
Municipal Services	Not reported	Not reported
Education	$4,707	$40,113
Health	$24,354	$39,089
Total	**$60,988**	**$164,646**

Source: R Trubka, P Newman and D Bilsborough, 2008.

3.4.3 Evidence of reduced consumption of land

As Figure 19 shows the unchecked growth of Sydney's urban area would consume a large portion of Sydney's arable basin. The aggressive targets for established area growth in the Metropolitan Strategy and subsequent Metropolitan Plan aim to 'check' the rate of outward growth of the metropolitan area to, amongst other things, protect valuable arable land.

Figure 19. Extent of Sydney urban area – with and without the Sydney Metropolitan Strategy



Source: Elton Consulting, *Sydney's Agriculture – Planning for the Future*, NSW Department of Planning, 2009.

3.5 Combined impacts

When the individual benefits of an activity centres policy are combined, the impact on a state or country's gross output is significant. The economic impacts of two recent metropolitan strategies, both with a strong activity centres emphasis, have been modelled by SGS.

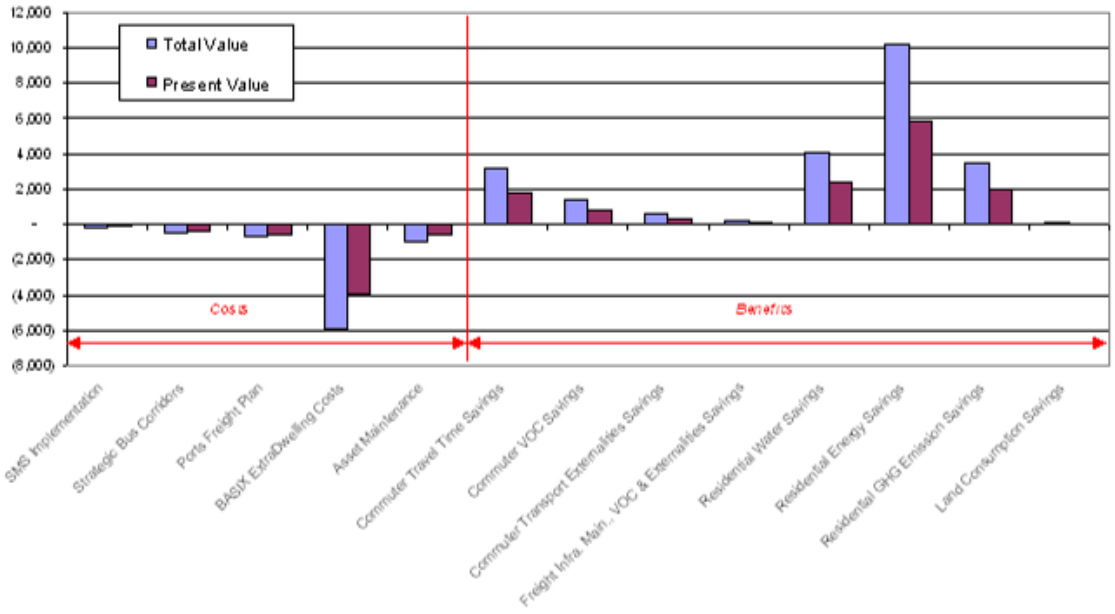
In 2005 SGS prepared a preliminary cost benefit assessment of moving from the then current form of urban development across Melbourne to that aspired to in Melbourne 2030. That is, the broad costs and benefits that would accrue to the Victorian community assuming Melbourne 2030 were fully implemented. The study found that reinvestment of the resources 'released' by achievement of a more efficient urban form would generate a boost to Victoria's GDP of about 3 percent by 2030.

Also in 2005, SGS undertook a preliminary and partial cost benefit assessment of the Sydney Metropolitan Strategy. The study considered the benefits which would be delivered to the community through a better structured, more liveable Sydney, and what economic dividend this might provide for NSW

Elements of the Sydney Metropolitan Strategy assessed through this process, i.e. compared to the 'without' scenario, include its provisions for Strategic Bus Corridors, Ports Freight Plan, BASIX energy and water target programs, as well as its improved management and coordination of Sydney's growth areas, its activity centres policies and its travel demand management initiatives.

The Net Present Value (NPV), using a discount rate of 6 percent, of the strategy was estimated to be in the order of $7.72 billion over the 2006-2021 evaluation periods. This strong result is reflected also in a Benefit Cost Ratio (BCR) of 2.4:1 and an estimated return on community capital (EIRR) of 39 percent. Figure 20 highlights the major cost and benefit items that contribute to these results.

Figure 20. Selected Sydney Metropolitan Strategy cost & benefit items ($M)



Source: SGS, *Sydney Metropolitan Strategy: The Economic Case*, September 2005.

It should be noted that the evaluations of Melbourne 2030 and Sydney Metropolitan Strategy do not include agglomeration benefits. As such, the magnitudes of the economic impacts identified are likely to be conservative.

4 Challenges to activity centres policies

This section addresses some of the commonly raised challenges to centres policies. This section outlines the details of each claim and a critique of each claim. It should be noted at the outset that most claims ignore the many public benefits of activity centres as outlined above and ignore the negative externalities associated with out-of-centre development. It should also be noted that these arguments are used to justify the location of retail development in out-of-centre locations that provide cheaper land and less competition with the immediate environment. The claims addressed here are that:

- there is insufficient floorspace for growing retail sales
- centres policies result in poor retail productivity
- people do not shop via public transport
- centres restrict opportunities for new format retailers
- laissez faire planning supports competition.

4.1 Provision of retail floorspace

It is argued that there is a shortage of retail floorspace in Australia and that this shortage can be attributed to planning systems which are considered to be overly restrictive in regards to locations where retailing is permitted.

The amount of retail floorspace can be measured in a number of ways. Common measurements include:

- Retail floorspace per capita
- The rate of retail floorspace that is being developed compared with other industries, and compared with population growth
- The cost of retail space and returns on retail property investment.

Australia's performance against each of these measures is addressed below.

Retail floorspace per capita

The measurement of retail floorspace per capita varies from country to country, but should be used with caution as many factors influence the supply of retail floorspace (availability of land, existing patterns of development, retail trends, and available household incomes).

Nevertheless, this is a commonly adopted indicator by those who claim there is insufficient retail floorspace in Australia.

0 provides a summary of retail floorspace per capita. The claim that there is a shortage of retail floorspace in Australia is often made with reference to the United States. Yet, the provision of floorspace in the United States far exceeds that in other countries listed in the table below. The provision of floorspace in Australia is shown to exceed that in other countries such as the United Kingdom, Hong Kong, South Korea, Singapore or Japan.

Table 10. Retail floorspace per capita

	Shopping Centre Floor Space (sq m per capita)	Total Retail Floor Space (sq m capita)
United States (2003)	**1.88**	**3.64**
New Zealand (2000)	0.40	2.40
Australia (2003)	**0.59**	**1.90**
United Kingdom (2000)	0.30	1.30
Hong Kong (2003)	n/a	1.20
South Korea (2002)	n/a	1.20
Singapore (2003)	0.40	1.00
Canada (2003)	1.19	n/a
Japan (2002)	0.30	1.00

Source: M Baker, 'Shopping Centre Industry Benchmarks—An International Perspective On The Collection, Analysis And Dissemination Of Operating Statistics', *ISSC White Paper,* October 25, 2004.

Looking in more detail at retail floorspace in the United States reveals symptoms of oversupply. For example, a recent article in The Economist[48], attributes vacancy rates of 10.9 percent in once highly popular malls to 'rampant overbuilding'. The negative effects of oversupply can include the loss of downtown activity, loss of valuable land, environmental impacts, and loss of sense of place[49].

Furthermore, unplanned provision of retail can lead to excessive trip making as discussed earlier. Data from the US Department of Transportation shows that shopping trip lengths grew by about 50 per cent between 1991 and 2001 in the US. In Sydney, between 1999 and 2006, they grew by about 6 per cent, roughly the same as population growth. Americans travel more than 10 kilometres on average for shopping trips, compared to around six kilometres or less in Sydney.

When considering an adequate level of retail floorspace in Australia there should also be consideration of the quality of retail development in terms of its contribution towards successful and sustainable retail activity centres. Future retail development and redevelopment should be encouraged to achieve better urban outcomes and more efficient land use through appropriate planning regulation and focus on activity centres, rather than supporting inefficient land use and poor urban design outcomes.

Rate of retail development

It is also worth looking at the rate of retail development over recent years in Australia compared with office space development and population growth, as summarised in the following table.

[48] The Economist, 'Stripped; Once the heart of the suburbs, many strip malls are struggling', 17 February 2011.

[49] S Mitchell, 'Abandoned Malls, Suburban Blight', *Miami Herald*, 20 December 2000.

Table 11. Australian retail floorspace development 1991/92-2005/06

	1991-1992	2005-2006	Percentage Increase
Shopping Centre Retail Floorspace	9.2 million sqm	17.3 million sqm	47%
Non Shopping Centre Retail Floorspace	23.6 million sqm	27.5 million sqm	14%
Total Retail Floorspace	32.9 million sqm	44.8 million sqm	27%
Population	16.76 million	20.70 million	19%
Shopping Centre Floorspace per Capita	0.53 sqm	0.84 sqm	37%
Total Retail Floorspace per Capita	1.88 sqm	2.18 sqm	14%
Prime Office Floorspace			19%

Sources: ABS Census Data, Property Council Research, and Mapinfo Dimasi Research, 2007.

This shows that between 1991 and 2006 the rate of retail floorspace development has outstripped population growth and exceeded the rate of growth for prime office floorspace (which was at the same rate of growth as population). During this period there have not been any significant changes in the approach to planning for retail space in Australia. This indicates that there have been ample opportunities for the development of new retail floorspace (particularly shopping centre floorspace) in Australia and floorspace provision per capita has been increasing. This is not indicative of an overly restrictive planning system.

The cost of retail space and returns on retail property investment

Rental rates for floorspace could be expected to be higher where there is a shortage of retail floorspace. It is difficult to directly compare rents between different countries due to varying types of retail development (and associated costs), turnover densities that are achieved, and the domestic economic factors. This can in part be overcome by looking at rents relative to retail sales, known as occupancy cost ratios (rent and service costs as a percentage of retail sales). Occupancy cost ratios in Australia have remained relatively constant over the last ten years across a range of different shopping centres[50] which indicates that supply has kept pace with demand over this time.

According to a recent study, occupancy cost ratios are lower in the United States where planning regulation is much less restrictive[51]. Baker reports that 2008 occupancy cost ratios were 17.1 percent for Australian Regional Shopping Centres compared with 13 percent for US Super Regionals and 13.4 percent for US Regionals. However, it is noted by Baker that this is likely to be explained by two factors:

- Much higher retail space per capita in the United States, with lower rents caused by oversupply and lower occupancy rates
- Many United States shopping centres (compared with Australian shopping centres) are open air with lower utility and common area charges.

[50] Shopping Centre Council of Australia, *Productivity Benchmarking of Australian Business: Planning, Zoning and Development Assessment*, SCCA, 2010.

[51] M Baker, *US and Australian Shopping Centre Performance Comparison,* Michael Baker Independent Retail Consulting, 2009.

It is worth noting that in their 2009 Annual Report the Westfield Group identify a strategy in the United States of entering into shorter term leases to achieve higher levels of occupancy, which supports the first of the two factors outlined above[52]. It therefore appears that occupancy costs in Australia are not higher than other countries due to planning regulations.

Another method of examining whether supply of retail floorspace is restricted is examining retail property returns. If retail floorspace is being restricted owners should be able to charge a premium to tenants and therefore boost their returns. Comparing rate of returns for shopping centre owners in different countries should reveal if the planning system in Australia is limiting the supply of retail floorspace and allowing owners to charge excessive rents. A comparison prepared by Urbis[53] showed that returns over the period 1993-2007 were:

- Australia – 12.5 percent
- Canada 12.2 percent
- New Zealand 14.5 percent
- United Kingdom 11.4 percent
- United States 11.4 percent on one set of data and 14.5 percent on another set (which they noted may exaggerate total returns).

As can be seen there is little difference in the figures with no clear evidence of planning policies impacting on shopping centre returns. The Westfield Group Annual Report from 2009[54] also shows little difference in returns between its shopping centres in Australia, New Zealand, United States and the United Kingdom.

Summary

Local governments (as the zoning authority,) are responsible for ensuring that zoning for retail uses allows for new or expanded activity centres to meet community needs. This can be done through a variety of means including:

- Examining retail needs on a local government basis and zoning an appropriate amount of land for retail uses
- Ensuring that planning codes do no limit an appropriate intensity of use (i.e. site cover, height, floor space ratios)
- Allowing for changes in zoning on the edges of existing activity centres, through the provision of appropriate evidence of need
- Designating new activity centres in growth areas where strategically needed, first at a strategic level, and as development proceeds, at a zoning level.

If a local government is not taking these actions it is not the planning system per se that is at fault but rather the local government authority not being adequately proactive in rezoning land to allow for future growth in activity centres (existing or new) to meet community needs. It should also be noted that there needs to be a balance between providing enough capacity for new retail development and maintaining the integrity of activity centres with all the advantages they offer.

[52] Westfield Group, *Westfield Group Annual Report*, 2009, p.10.

[53] Urbis, *Planning System Fact Finding Report*, 2008, p. 24.

[54] Westfield Group, *Westfield Group Annual Report*, 2009.

In summary there are a number of factors which need to be considered together that show that there is sufficient retail floorspace in Australia.

- Retail floorspace per capita is at the higher end of the range compared with other countries (excluding the United States which shows evidence of oversupply and resulting negative impacts). This is indicative that floorspace provision is at least adequate if not optimal.

- Retail floorspace per capita in Australia has increased significantly between 1991 and 2006, outstripping population growth and prime office space growth. This indicates that the planning system has allowed for growth in retail development.

- Occupancy cost ratios appear to be somewhat higher in Australia than the United States however the most likely cause is not a concentration of ownership, but a tendency to oversupply in the United States market and more open air centres with lower operating costs.

- Retail property returns are relatively similar in various countries which is not indicative of a shortage of retail space (and abnormally higher rents) in countries with more restrictive planning regulation.

- Planning regulation allows for expansion of retail floorspace, planned expansion of activity centres and new activity centres to service growth areas. Therefore any shortage of land for retail development is a fault of local government not planning for future growth rather than a problem with the planning system per se.

4.2 Retail productivity

It is argued by some commentators and industry advocates that the restriction on retail development caused by planning controls results in poor levels of retail productivity and higher consumer prices. A key document in this argument is Choice Free Zone published by Urban Taskforce Australia in 2008, and written by Concept Economics[55] . The central argument put by Fels et al[56] is that planning regulations in NSW (and Australia generally) dampen competition and retail innovation so that productivity in the sector is lower than it could be and consumer prices are higher than they need be.

Fels et al[57] believe that a 1 percent to 1.5 percent improvement in retail labour productivity could be achieved in Australia by removing most locational and format controls on retail developments. Fels et al[58] claim that if a more flexible and transparent land use planning system were introduced in Australia it could result in productivity gains of between 1 percent and 1.5 percent per annum (over a 1.8 percent base case from 2004 to 2024), based on international experience. However

[55] A Fels, S Beare and S Szakiel, *Choice Free Zone*, Urban Taskforce Australia Limited, 2008.

[56] ibid.

[57] ibid.

[58] ibid.

research by SGS demonstrates that the Australian retail sector is, in fact, one of the better performed Australian industries in terms of productivity growth. Using data from the ABS Australian System of National Accounts, in the cycle 2003/04 – 2006/07, labour productivity in the retail sector has increased at an average annual rate of 2.3 percent whereas the market sector[59] generally has grown at 1.0 percent. In terms of multifactor productivity (measuring a range of productivity factors including labour, capital, economies of scale, technological change, and other efficiency gains), retail has grown at 0.9 percent whilst the market sector as a whole has experienced declining productivity at negative 0.3 percent. It is difficult to reconcile this superior productivity of Australian retailing with claims that it is weighed down by burdensome and unnecessary planning regulation. Given the historical rate of labour productivity growth in the retail sector (most recently 2.3 percent per annum), a further increase of 1 percent-1.5 percent per annum is considered unlikely.

Comparisons of retail productivity (and other indicators) are often made with the United States as an example of a country with minimal planning regulation of retail development. However it should be noted that there are many variables that make direct comparisons problematic. Nevertheless SGS[60] has estimated that retail trade labour productivity growth in the United States is double that of Australia on the latest available figures (4.4 percent versus 2.1 percent). Such a difference could be explained by the variation in market scale and more even distribution of population, with the United States market more than 10 times that of Australia. However the planning flexibility that allows such productivity in the retail section also causes significant negative impacts that result in decreased productivity across a number of other sectors, as well as a number of negative environmental externalities.

The claimed higher productivity of countries (such as the United States) with generally less restrictive planning regulation is paid for by costly externalities such as sprawling cities, greater car dependence and higher greenhouse gas emissions. Estimates by SGS[61] show that changing Sydney to a United States style planning system and changes in retailing distribution would result in:

- The average length of car based shopping trips increasing from 6.8 km to 10.8 km
- An additional 2 billion vehicle kilometres of travel per year, using 2005 population figures
- An additional $1 billion in vehicle operating costs for shoppers
- Greenhouse gas emissions higher by some 500,000 tonnes per year
- Approximately $1.9 billion per year in additional travel costs
- Reduction of between $9.8 billion and $19.6 billion from NSW's GSP growth over a 20 year period (diverted consumer spending to the additional travel, plus the drag caused by higher payments for emissions and other externalities).

In summary:

- Retail productivity in Australia is at the high end of productivity across various industry sectors.

[59] Note: The market sector is the wider economy but excludes industries that have no market for goods or services (such as government administration) which makes measuring output problematic.

[60] SGS Economics and Planning, Unpublished Research, SGS, 2008.

[61] ibid.

- While higher retail productivity gains may be possible through more flexible planning regulations (as in the United States), this is paid for by significant negative impacts and possible productivity declines in other areas.

4.3 Use of public transport for shopping

It is argued that retail development does not need to be located in activity centres with public transport because people do not use public transport to shop. This argument is particularly used by bulky goods retailers whose customers cannot reasonably transport goods home via public transport.

It should be acknowledged that despite the prevalence of the private motor vehicle there are a range of community members who do not have access to a private motor vehicle for a number of reasons. These include:

- Youth and the aged (too young and too old to drive)
- Some persons with a disability
- Low income groups
- People who have lost a licence.

The concept of locating retailing in activity centres serviced by public transport provides a realistic alternative transport choice for these people. It also supports choice in the reduction in private motor vehicle use with the benefits of reduction in road congestion, reduced environmental impacts, reduced travel distances, and improved public realm through less cars and parking areas.

Data provided by the SCCA[62] from selected shopping centre operators showed that the percentage of people coming to the shopping centres by public transport (all modes) varied considerably from 1 percent up to 31 percent. The average rate of public transport (all modes) access was 10 percent across the various shopping centres.

Where well integrated train services (within a 5 minute walking distance) and bus services existed together the level of public transport use rose to an average of 15 percent for all public transport with an average of 8 percent using bus and 7 percent using train. The rate of public transport use could be expected to vary significantly with the quality of the public transport and its integration with the shopping centre. It could also be assumed that in multi-purpose activity centres (including office, recreation, and community uses) there would be more people travelling via public transport to those uses, who would also combine shopping in the same trip. The figures show that significantly high rates of public transport access to retailing is possible if this is provided as an attractive alternative.

It is also interesting to note that a significant percentage of shoppers came to the shopping centres by walking all or most of the way. This rate ranged from 23 percent to 1 percent which indicates that highly accessible mixed use activity centres surrounded by sufficient residential density can be

[62] Shopping Centre Council of Australia, Unpublished Travel Mode Data of Selected Shopping Centres, 2010.

accessed without a car or public transport and therefore limit negative transport related externalities.

It should also be noted that many shopping trips do not involve a large amount of goods and therefore can be easily accommodated by public transport. These include leisure based retailing, visits to a cinema, or gift buying. It should also be noted that those purchasing bulky goods have the option of home delivery if public transport to the shops is their only option. Indeed, even those with vehicles will often arrange for home deliveries.

4.4 Opportunities for new format retailers

It is argued that the planning system and its focus on activity centres restricts the opportunities for new format retailers to become established. This is supposedly because large format stores require large floorplate areas, in buildings with a large footprint and large car parking areas. Preferred locations include low land value locations such as industrial areas, fringe of centre and highway frontages.

It appears that this claim is often used to justify special treatment for retailers claiming a "new" format. When these claims are examined further, it appears that the claim may be for allowing out-of-centre location, and that with little trouble the "new" format could be accommodated in an activity centre, like other retailing and shopping centres. It is to the advantage of retailers to locate out of centre due to cheaper land prices and less competition within the immediate environment. Factory outlets are an example of how retailers may argue for an out-of-centre location, bypassing normal planning regulation and giving themselves a competitive advantage. Taken store by store each of the tenancies of a factory outlet are generally not bigger than a normal store and could easily establish in an activity centre. However, by banding together under a factory outlet label they can give more support to their argument that they need a large format centre that cannot be accommodated in an activity centre. In most cases those arguing for special treatment as a new format do not have any difference in retail goods, and have the same servicing and car parking requirements as any other retailer. The main difference is allowing for larger floorplates and co-location of similar retailers (for example, factory outlets), however, these outcomes are already achieved in activity centres throughout the country and therefore do not support the argument for allowing out-of-centre development.

Costco's location in Melbourne Docklands shows that such a warehouse type retailing store can set up within a designated mixed used/ retail precinct. Aldi are another retailer which has argued for special treatment, however, they have been able to expand at a rapid rate along the eastern coast of Australia. In many cases Aldi have successfully located within a centre, modifying their standard design where necessary, and also successfully located within existing shopping centres.

Examples of Aldi Stores located in shopping centres include:

- Gosford CBD, NSW (Imperial Shopping Centre)
- Carindale, Qld (Westfield Carindale)
- Sunnybank, Qld (Sunnybank Shopping Centre)
- Lutwyche,Qld (Centro Lutwyche).

Examples of Aldi Stores modified from their standard design include:

- Gympie, Qld (built on piers over steep slope)
- Caloundra, Qld (two level with car parking beneath)
- Tingalpa, Qld (two level with car parking beneath).

This indicates that there are options for development within activity centres, provided retailers and developers are prepared to work within the existing framework, and adopt some flexibility.

In many cases, planning schemes have responded to the needs of bulky goods type retailing by allowing their development in dedicated bulky goods zones, although in some cases these have been accommodated by the expansion of existing centres. This can create issues however, as a broader range of retailing often establishes in bulky goods centres giving them a competitive advantage and restricting the space that should be set aside for bona fide bulky goods retailers.

4.5 Laissez faire planning supports competition

It is argued that laissez faire planning (i.e. allowing retailers freedom to locate where they choose) would result in increased retail competition. This is based on the belief that retailers establishing where they choose would result in a much greater amount of retail floorspace and support various innovative retail forms. It is argued that this would provide more choice for consumers, greater competition for retail spending, and therefore lower costs to the consumer.

Laissez faire planning may allow for additional retail development, however, this does not necessarily translate into a more competitive retail environment, or more specifically, benefits for consumers. The current planning framework of a network or activity centres supports retailers locating near competitors, therefore supporting comparison shopping and giving customers greater choice. Dispersal of retail floorspace would make comparison shopping much more time consuming and create more vehicle trips, therefore limiting customer choice, convenience and competition.

As outlined in the previous section it is possible under current planning regulations for a broad range of retail formats to establish within activity centres thereby allowing for a full range of retail choice and competition. As also outlined in previous sections there are a number of indicators which show that the level of retail floorspace in Australia is at a good level and not creating excessive higher costs for retail tenants (and therefore consumers).

5 New directions for activity centres planning

This section provides a pro-active agenda for improved activity centres planning, while also addressing the agenda of enhancing competition within the accepted framework of activity centres policies.

As set out in section 3, there are significant societal gains that can be realised through successful implementation of activity centres policies, including quantifiable economic benefits. However, within planning systems across Australia there are a number of problems which inhibit the full potential of these benefits being realised. This section describes these problems and offers solutions. Importantly, the problems are not with activity centres policies per se, rather, they result from insufficient recognition and understanding of activity centres policy objectives and poor implementation of policies.

The solutions offered include reforms to governance and implementation mechanisms. They are summarised as follows:

- Improve representation and governance for metropolitan areas and their major activity centres.
- Enhance clarity on objectives and directions for activity centres and retail planning.
- Improve planning for activity centres and retailing.
- Review development contributions to clearly and transparently account for the benefits and costs of development.
- Enable activity centres to expand and grow.
- Ensure retail use definitions support effective planning for activity centres.
- Better manage proposals for out of centre development.

While each of the directions is important in its own right, the maximum return on investment will be achieved through their implementation as a suite rather than picking and choosing particular directions. This is because of the interrelationship between directions. For example, establishing a metropolitan governance authority will provide the vehicle for oversight of activity centres capacity to grow in the context of metropolitan trends and drivers.

5.1 Improve representation and governance for metropolitan areas and their major activity centres

5.1.1 Problem

As described earlier in this report there is a strong nexus between activity centres policies and overall metropolitan structure. However, there is presently no agency that has the role or mandate to facilitate, manage or coordinate development in key activity centres at the metropolitan scale. All of Australia's major cities suffer to varying degrees from this 'governance deficit' meaning, 'an absence of clear and effective institutional arrangements for the planning of urban development and the coordination of urban services, including infrastructure'[1].

The problem takes two forms:

- a lack of planning insight and responsibility at the most appropriate and 'organic' governance level, the metropolitan region (the 'planning deficit')
- the lack of a responsible forum for the expression of collective planning will in metropolitan regions (the 'democratic deficit').

The case for renewing metropolitan governance is compelling. There is a need to establish metropolitan governance frameworks that best suit the unique physical, social and environmental qualities of our capital cities.

There are a number of universal imperatives for metropolitan governance, including:

- the immediate need to improve structure planning in Australia's metropolitan regions and to give meaningful effect to the goal of decentralised concentration as part of strengthening activity centres
- vast improvements in the planning and functioning of neglected public transport systems to ensure realisation of the mutually reinforcing goals of urban accessibility and equity
- acceleration towards the vision of compact cities requires smarter approaches to urban design, particularly at the precinct level and the distribution of high density development at the level of urban structure
- states are likely to be better served if their governments are able to concentrate on state-wide issues rather than what are essentially regional or local issues
- local governments will be able to focus on local planning matters.

In summary, underscoring the national importance of metropolitan governance reforms is the need to plan for strengthened activity centres. This will create more sustainable and economically efficient cities, and provide a significant boost to regional productivity.

[1] B Gleeson, J Dodson and M Spiller, 'Metropolitan governance for the Australian city: The case for reform, *Urban Research Program,* issues Paper 12, March 2010

The planning deficit

The planning deficit relates mainly to the complexity and fragmentation of the mechanisms that guide and control urban development.

While matters of urban form can generally be addressed or influenced through state planning policies, local residential codes and design guidelines, addressing matters of urban structure are more problematic. Structural matters such as the functioning and relationship of major activity centres and major infrastructure elements such as transport links, require integrated planning frameworks that apply at a metropolitan scale and must be backed by the required financial investments[63].

Key factors include the following.

- The disconnection between metropolitan strategy plans (where they exist) and the patchwork of local government plans that govern urban development and the many public and private sector agencies that design and deliver urban infrastructure and services.
- A disconnect between the state's government's responsibility for implementing strategy plans and competing priorities for expenditure on health, education and policing.
- State infrastructure plans can sometimes improve the coordination of state spending in metropolitan areas, but they often fail to generate the consistent, strategically oriented long term funding needed to address rapidly mounting structural problems arising from inaccessibility, congestion, excess energy consumption and service shortfalls (which effective activity centres focussed planning and investment would address).
- State infrastructure plans are also no substitute for comprehensive structural planning which deals with other spatial factors, such as activity or business centres, an economic strategy focussed on employment and service planning, or other supplementary strategies utilising funding/charging or other means to encourage different forms of development.

These factors in the 'planning deficit' arise from the lack of sustained metropolitan governance frameworks charged with the responsibility for creating and implementing workable strategies for urban development, particularly the pursuit of an activity centres based urban form.

The democratic deficit

Ideally, state planning ministers set the policies that guide urban development and the settlement system generally, and Ministers should not be involved in the everyday development assessment or decision making processes. This separation between public policy setting and implementation is necessary to avoid conflict of roles and to safeguard against corruption, nepotism and ad hoc, reactive decision making that inordinately compromise policy objectives and strategic planning directions.

Too often, state political and administrative involvement in cities is characterised by the reverse situation with political involvement in exercising their legislative powers to intervene in development assessment processes that may have been better left to local authorities or assessed

[63] ibid., p. 2.

on their merits against metropolitan or regional planning strategies. These interventions only help to overheat development debates at the local level with often unhelpful results for policy making and policy consistency. Metropolitan planning and development should be driven by sound strategic planning, and not by reactive and opportunistic political debate and ambition[64].

Our metropolitan regions are extensive but closely linked communities of interest and the planning of these urban regions requires complex allocation decisions that guide the pattern of private and public investment and service delivery[65]. The push for stronger activity centres, including a commitment to facilitating or dispersing population and economic development opportunities to subregional activity centres, requires a metropolitan wide view and understanding of economic geography. Federal, state and local governments have to make resource allocation decisions within and between the communities that comprise our metropolitan regions.

The pertinent observation that can be drawn from this discussion is that our metropolitan communities have no status or voice in the Australian government system. Australia has a highly urbanised population, yet in the developed world Australia is one of few countries that is without some form of metropolitan government. This is a major policy limitation and perhaps explains the increasingly polarised and anguished debates around such issues as urban consolidation, transport links and the sustainability of our major cities. There are no major institutions at the metropolitan level that can lead, capture and translate these debates into democratically supported planning policy embedded in metropolitan strategic plans[66].

There is a need for some kind of recognition and democratic expression at the metropolitan level. Notwithstanding urban local government amalgamations in Victoria and Queensland there are still some significant impediments to regional level decision making and coordination in urban planning and development, especially in relation to settlement planning and development.

5.1.2 Initiatives

Encourage governance and institutional reform to establish metropolitan wide representative agencies with responsibility for planning in strategic activity centres and monitoring and reporting on implementation of the activity centres policy.

The imperatives for metropolitan governance support the establishment of regional planning authorities or planning commissions for each of the major capital cities with clear responsibility for those places and issues of metropolitan significance, including:

- all the principal activity centres in the metropolis
- all the public transport corridors which have major intensification potential
- all the economic drivers including key employment nodes, including the CBD, the airport zone
- all development proposals above a threshold size or value.

[64] ibid., p. 7.

[65] ibid., p. 7.

[66] ibid., p. 7.

Outside these areas and issues, local governments would have greater independent discretion than they have today to pursue localised planning solutions.

The subsidiarity principle should apply. That is, that each level of decision making should focus on the areas that are their immediate responsibility. It is essential that any regional planning authority or commission be seen to have an independent, albeit subsidiary, mandate to that of the state government. 0 shows how the principle of subsidiarity can be applied to the reorganisation of planning governance in our major capital cities. This model of governance best meets the tests of independence, accountability and representation without going so far as to impose another electoral layer on the three tiered system of government we already have in Australia.

The states can pursue unilateral reform to their metropolitan governance arrangements. A Commonwealth 'way in' would be via COAG where a framework for the metropolitan governance of our capital cities could be developed and adopted, similar to the national objective and criteria for the future strategic planning of our capital cities. Subsequent work between the Commonwealth, states and local governments would be required to achieve reform.

While there are many technical solutions available to support the reshaping and restructuring of our cities, these solutions will not go far enough in the absence of sound and decisive governance arrangements. As Gleeson[67] observes, our present urban governance systems are deeply compromised and under resourced. It is time to reconsider our mechanisms for city governance.

[67] ibid., p. 14.

Table 12. Subsidiarity and planning governance

Level	Examples of activities or decisions for this level
National level	▪ Improving national consistency of planning and building regulation. ▪ Resolving cross-border issues such as water supply, ports and transport connections. ▪ Environment, heritage issues of national significance.
State/territory level	▪ Maintaining state-wide land use and development regulation system. ▪ Maintaining administrative and judicial review processes. ▪ Overseeing planning institutions. ▪ Development planning and development determinations for sites or projects of state-wide significance.
Regional/metropolitan level	▪ Prioritising and investing in strategic infrastructure of metropolitan significance. ▪ Designating major activity centres and facilitating development in these centres. ▪ Designating and managing major transportation corridors. ▪ Identifying and developing key economic strategies including employment nodes. ▪ Formulating land release schedules in growth areas. ▪ Protecting environmental and cultural assets of regional significance. ▪ Maintaining efficient land supply for housing.
Local level	▪ Neighbourhood structure planning. ▪ Regulating housing development and redevelopment within applicable state and regional guidelines. ▪ Regulating development in all lower order activity centres.

Source: B Gleeson, J Dodson and M Spiller, 'Metropolitan governance for the Australian city: The case for reform, Urban Research Program, issues Paper 12, March 2010, p14

5.2 Enhance clarity on objectives and directions for activity centres and retail planning

5.2.1 Problem

Planning controls typically operate within a 'cascading' regulatory regime where higher order strategic directions set by state or territory planning agencies are refined and implemented by local governments.

It is important to properly reflect local circumstances and priorities when it comes to the application of state and territory government policies for the built environment. However, there is, in these cascading arrangements and provisions for delegated planning authority, scope for fundamental regional or state policy directions to be diluted or usurped in the local interpretation. This can manifest itself in decisions to deny access for would be entrants to particular areas. The remedy in many jurisdictions is for 'call-ins' by the Planning Minister, to reassert state/territory policy. This may be effective in the near term, but it burdens the planning system with excessive uncertainty and costs.

The 'first line of defence' against divergent local interpretations of state and territory government policy directions is clearer articulation of these directions in the first place. In other words, the limits to local discretion would be more clearly defined, both to approval and review authorities.

The planning frameworks across the Australian jurisdictions show great consistency with respect to the adoption of 'activity centres policy'. However, documentation and justification of these policies varies greatly. This opens the door for unnecessary and costly disputation at the local level.

In this context, activity centres policy as a whole and competition in the grocery retailing sector in particular, could be assisted were state and territory governments to issue nationally consistent or harmonised policy statements on the planning of retail land use.

5.2.2 Initiatives

Prepare a retail or activity centres policy with a clear set of parameters, objectives and performance measures.

The policy would include the following elements.

1. Identification of the relevant economic regions across the metropolitan area, within which communities might contemplate shopping opportunities and most retail expenditure is contained (not therefore extending to the metropolitan CBD which will generally 'serve' most if not all metropolitan residents). These economic regions will typically be equivalent to labour market and housing market regions which have shaped perceptions of community boundaries.

2. Definition of the existing and proposed retail hierarchy in each economic region by reference to the scale and geography of the catchment, any retail specialisms, frequency of visitation and time and money spent per visit. Hierarchies will be more or less orthodox (inner city areas are likely to diverge from the orthodoxy).

3. Documentation of any shortfalls or other weaknesses in the retail network or system of activity centres for each economic region, identified following regular reviews and monitoring of trends in new retail formats and consumer shopping patterns (for example, the ongoing impact of e-shopping). This would be undertaken by a planning authority with an appropriate 'supra-municipal' perspective (see section 0). The whole retail supply chain would need to be monitored, having regard to:
   - particular consumer demands which may not be evident in demonstrated spending patterns (for fresh, healthy food, for example)
   - travel patterns within the economic region
   - the role of and synergies between retailing and other services including clinics (for example doctors, dentists, physiotherapist), libraries, postal services, education (formal and informal), entertainment (for example, cinemas) and fitness / recreation centres (for example, gyms, swimming pools).

4. A set of objectives for the ongoing development of the retail system within each economic region, drawing on established and local variations to typical planning directions such as:
   - maintain a healthy level of retail competition and customer choice
   - enhance or preserve local food security for all communities in the region
   - maintain a strong small business community and a vibrant retail employment market
   - reduce or limit the growth of vehicle travel required to secure household goods and services
   - reduce or limit the growth of vehicle travel required to deliver goods to retail outlets for on-selling
   - reduce or limit the growth of waste generated in the retail distribution process;
   - reduce or limit the growth in total energy consumption involved in the retail distribution process
   - enhance the role of activity centres, be they local, district, regional or specialised in character, as places of community interaction and engagement in non-retailing activity;
   - avoid or contain the imposition of traffic, noise, light and building mass nuisance to surrounding activities
   - preserve and enhance the heritage and cultural values of the locality.

5. Performance criteria for each of the objectives (see possible criteria in Figure 13)

Table 13. Possible objectives and performance criteria for the regional retail system

Ongoing development of the retail system should…..	*Performance criteria*
1. Maintain a healthy level of retail competition and customer choice	A. All metropolitan communities (and other communities with sufficient regional population) should have access to at least 2 full line supermarkets within a 15 minute drive or 30 minute public transport ride. B. Service gaps identified in the regional retail system are addressed, without detrimental effect to existing levels of retail competition and customer choice.
2. Enhance or preserve local food security for all communities in the region	C. All households in the region should have a shop selling basic food and groceries within walking distance (approx. 400 m).
3. Maintain a strong small business community and a vibrant retail employment market	D. Per capita retail employment in the Region should not fall below 90 percent of the metropolitan or non metropolitan average, as the case may be.
4. Reduce or limit the growth of vehicle travel required to secure household goods and services	E. All new retail developments should be located within or alongside a designated activity centre and with access to public transport. F. Retail developments which cater to higher order needs (that is, customers will typically come from a relatively large catchment) shall be located in designated activity centres which already draw from a similar catchment or which are expected to do so in the regional retail system.
5. Reduce or limit the growth of vehicle travel required to deliver goods to retail outlets for on-selling	See criteria E and F.
6. Reduce or limit the growth of waste generated in the retail distribution process	G. All new retail developments should feature a whole of life-cycle waste management strategy, including on-site waste recycling facilities, covering the materials used in the building structure and the construction process, as well as the goods distributed through the store.
7. Reduce or limit the growth in total energy consumption involved in the retail distribution process	H. All new retail developments should meet relevant policy or legally mandated energy consumption targets.
8. Enhance the role of activity centres, be they local, district, regional or specialised in character, as places of community interaction and engagement in non-retailing activity	I. All new retail developments should comply with the Structure Plan and Urban Design Framework for the activity centre in question. J. Wherever possible, new retail developments should demonstrate synergies with local 'non retail' activities, including library, entertainment, fitness and health, medical and civic services.
9. Avoid or contain the imposition of traffic, noise, light and building mass nuisance to surrounding activities	See criterion I
10. Preserve and enhance the heritage and cultural values of the locality	See criterion I

5.3 Improve planning for activity centres and retailing

5.3.1 Problem

It is vital that activity centres policies are up to date and that sufficient land is set aside in planning schemes to accommodate forecast demand for new development.

Insufficient resources are devoted to this task at state level. While it varies between jurisdictions councils and developers and their consultants typically 'battle it out' regarding the relative merits of retail proposals in and out of centre. Considerable resources are devoted to contesting statistics and numbers rather than the strategic substance of the proposals. In its Draft Centres Policy NSW suggests that councils should do their own retail supply and demand assessments but this would further entrench uncoordinated approaches.

In the same way that NSW's Metropolitan Development Program (MDP) or Victoria's Urban Development Program (UDP)or Queensland's Planning Information and Forecasting Unit (PIFU) has taken much of the controversy out of tracking and planning for new housing development there is a strong case for a state (or metropolitan) level activity centres and retail planning function. As part of the framework for activity centres and retail planning outlined above (see the third element) retail demand and supply patterns and trends would be monitored at a supra-local level.

5.3.2 Initiatives

Establish central 'retail development programs' with supply and demand analysis at state level (or in a regional planning authority or commission as discussed in section 0).

Jurisdictions would regularly publish forecasts of demand for retail floorspace on a regional and sub-regional basis, analyse trends in demand and monitor supply (consistent with the policy framework described above). Such a system would provide a regular (and potentially statutory) prompt to local authorities to update their plans. The availability of authoritative data on regional supply and demand would also expose local councils to greater scrutiny by planning review bodies should applications go to appeal.

It is also important that future floorspace requirements are assessed using floorspace turnover rates and provision ratios geared to a competitive market. There is some evidence that standard planning models may result in underestimation of retail floorspace requirements in greenfield areas, in particular. For example, location quotients for retail employment in outer areas in Melbourne are typically well below parity.

5.4 Review development contributions to clearly and transparently account for the benefits and costs of development

5.4.1 Problem

Within the development industry there is considerable frustration at what are often viewed as random development contribution systems and levies that seem to endanger the viability of otherwise warranted investments, particularly within activity centres.

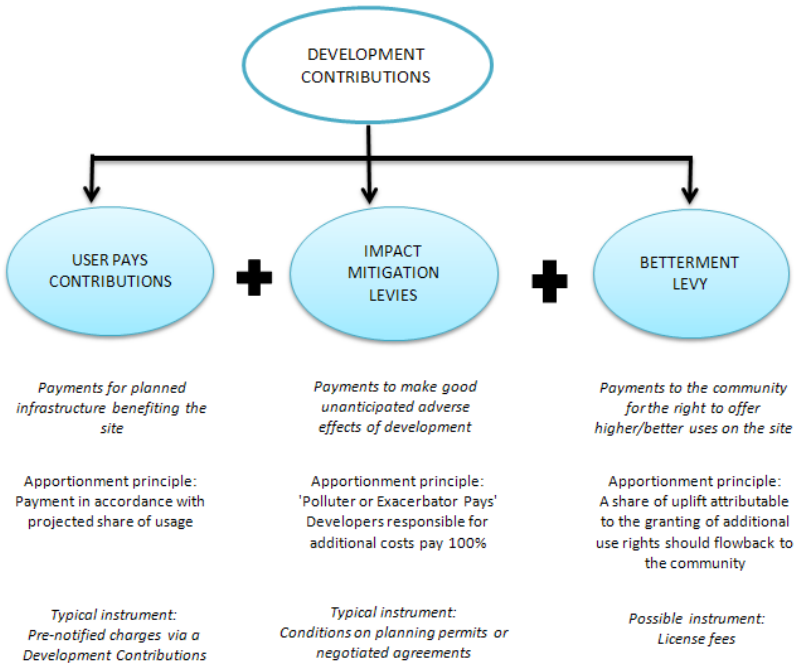
There is a need to disentangle the different types of development contributions that are commonly levied and the principles underlying each of these. This should lead to greater certainty and greater transparency of levies.

There are three legitimate types of development contributions:

1. User pays contributions for planned infrastructure
2. Compensation payments for unanticipated impacts on infrastructure
3. 'Betterment' levies to capture a share of value uplift created by infrastructure funded by the wider community (public transport, schools, hospitals etc) and regulation of development rights across a city or region.

The three types of development contributions are described in 0 and the text following this figure.

Figure 21. Types of development contributions



User pays contributions for planned infrastructure cover the cost of infrastructure benefiting development that was anticipated at the time of preparing a contributions plan. Items included in a contributions plan would typically include local roads, stormwater management systems, and land for open space or community facilities.

Compensation payments for adverse impacts on infrastructure, sometimes known as impact mitigation levies, apply to developments that were not foreseen when a contributions plan was being prepared and where the development has a disproportional impact compared to the range of uses initially expected. This type of contribution charge could include off-site traffic intersection upgrades where the development is expected to generate high traffic volumes or heavy vehicle movements not anticipated at the time a local contribution plan was developed.

'Betterment' levies reflect the right bestowed by the community to offer higher value and better uses on the site from rezoning or being granted higher order development rights. In effect a betterment levy when applied to retail may be seen to be a form of 'development licence fee' which would acknowledge the way the planning system in Australian jurisdictions grants a quasi exclusive licence for some retailers in particular to trade over a given catchment area, reflecting the generally hierarchical nature of shopping behaviour.

There is an important distinction between user pays contributions and betterment levies. User pays contributions are, in principle, based on the direct demand or impacts generated by the development and are independent of underlying land values. In contrast, betterment levies are

directly related to changes in underlying land values brought about by the (warranted) regulation of development rights.

Regrettably, current arrangements often conflate these three types of development contributions to the great cost of the community, let alone shopping centre or other developments. Betterment charges can be hidden in so called user pays schemes. For example, an approval authority may seek to collect contributions to pay for libraries or affordable housing or community facilities not related to the development in question.

Requirements for user pays contributions to adhere with principles which include recognition of the need to establish a direct nexus between a development and resultant demand for facilities go some way to resolving the problem. An additional aid is the recognition of betterment as a separate yet legitimate levy. This is discussed further in the following sub-section.

The principles that underpin development contributions systems should apply equally to residential and retail/commercial development. However, the systems of development contributions in most states tend to focus on residential development and there is little guidance on contributions for retail/commercial development. One exception is the recent commitment of the Queensland Government to introduce maximum standard charges for non-residential development. While caps on charges by no means guarantee a fair and transparent development contributions system, it is at least encouraging that the need for greater certainly regarding retail/commercial development has been recognised. The Victorian Government also has long standing guidelines on the application of 'equivalence ratios' to non residential development, so that, for example, shopping floorspace can be expressed in terms of an equivalent number of households with respect to traffic generation, drainage etc.

It should also be acknowledged that development contributions are not the only method available for raising revenue to pay for community infrastructure or for capturing a share of the benefit bestowed by the community of higher value uses through rezoning. Any reforms to development contributions should also consider alternative revenue raising mechanisms that promote a fair and equitable distribution of costs and benefits.

5.4.2 Initiatives

Review infrastructure charging regimes to ensure that

- **a) they isolate and distinguish between user pays, impact mitigation and betterment levies**
- **b) strict disciplines are applied to their calculation and extraction.**

Recognition of the principles relating to each of the different contribution types will assist in isolating and distinguishing between user pays, impact mitigation and betterment levies.

For example, recent changes to the system of levying user pays development contributions, largely spurred by a focus on minimising cost barriers to housing supply, have emphasised the importance of establishing a nexus between the proposed development and the demand for facilities. In NSW this had led to a reduction in the scope of items which can be included in a s94 contributions plan

and resulted in a 'leaner' system of user pays based levies for residential development. A similar principle for residential user pays contributions is well established in Victoria. A principle which recognises development nexus in the levying of user pays contributions should be extended to all states and territories to all types of land use.

A refined contributions system would isolate betterment – where it exists – as a legitimate subject for a levy. In principle, a proponent could fairly be required to pay a betterment levy, plus a user based charge for planned works, plus a user based charge to mitigate adverse impacts of the development. However, this regime would require the end of 'planning gain for facilities' negotiations that add to the uncertainty of development.

Although the notion of charging for betterment is well established in planning theory, there has been little work done on implementation issues and these should be investigated further.

One way of capturing betterments is through a licensing system. Procedurally, a development licence fee need not add complexity to the approval process. This could work much as it does now. The proponent would need to purchase the relevant development licence before they could act on their approval. Any such licence could be sunsetted; that is, granted on the basis of use or lose within a period of, say, two years. The licence could be tradable within this period.

The drawback with any licensing system is that Governments may have a revenue incentive to limit the number of development opportunities in any given region. Independent monitoring of supply and demand (as outlined above) becomes critical in this context.

The proceeds of licence fees could assist in land assembly, infrastructure or public domain within designated higher order activity centres.

One jurisdiction in Australia, the ACT, already charges for the right to develop retail floorspace (and other higher order land uses), under its 'Change of Use Charges (CUC)' regime. This is facilitated by the Territory's leasehold system, but is not contingent upon it. Similar arrangements could be implemented in other jurisdictions. CUC's currently operate on the basis of site by site valuations (before and after approval of the higher order land use in question), but the ACT Government is contemplating moving to a much simpler 'schedulised' arrangement whereby a standard fee per square metre would be charged within different sub-regions of the Territory (see Macroeconomics Pty Ltd (2010) *Draft Report on the Review of the Change of Use Charges System in the ACT*).

5.5 Enable activity centres to expand and grow

5.5.1 Problem

Lack of suitably zoned land in activity centres

Consistent with the activity centres policy framework mentioned above, accurate assessments of supply and demand and responsive local planning frameworks, there needs to be more active interventions to enable activity centres to grow or new activity centres to develop.

In many cases there are appropriate sites in activity centres to accommodate new retail developments but the timing or the 'matching' of existing owners with proponents is difficult to achieve. Developers are often prepared to modify formats to be in activity centres if the opportunity exists (or is required). Where sites are not available strategic land assembly may be necessary.

Alternatively, physical or infrastructure constraints may limit development opportunities but integrated, targeted activity and interventions may be able to address these.

The widespread strata titling of residential flat buildings surrounding activity centres is often identified as a physical constraint to centre expansion. Reforms to strata title laws may unlock opportunities for redevelopment.

New activity centres in outer urban and greenfield areas tend to be sized to strictly match the estimates of floorspace supportable from the expenditure associated with the anticipated incoming population. Adjacent residential subdivisions are not designed for future change. Where the subsequent shopping centres are in a 'big box' format, owned by institutional investors or developers, it is difficult for the activity centres to expand or accommodate small, independent retailers and other businesses. In this way the system and controls can limit 'non-anchor' floorspace in activity centres.

Figure 22. Examples of constrained activity centres in outer urban Sydney

Claremont Meadows, NSW

The local centre at Claremont Meadows is zoned 3C (Local Business). It is surrounded completely:

- To the North and West by land zoned 6A (Public

Glenmore Park, NSW

The local centre at Glenmore Park is zoned 2 (Urban Zone). It is surrounded completely:

- To the North and West the land is zoned 2B

Recreation)
- To the South and East land zoned 2B (Residential)

(Residential)
- To the East the land is zoned 6A (Public Recreation)
- To the South the land is zoned 5A (Special Uses)

Source: Google Maps, 2011.

Evidence of supply patterns which illustrate this limit to a range of retail opportunities may be found in a comparison of rent ranges in two situations.

The Property Council database shows the rental profile within single (or limited) ownership, enclosed shopping centres. As shown in Table 14, the rental profiles for specialty retail floor space typically range between $700 and $1,700 per square metre and low vacancy rates are generally maintained in these enclosed shopping centres.

Table 14. Rents per sqm and vacancy, specialty retail in enclosed centres Melbourne

Centre Type	Estimated Rents psm	Vacancy Rates
Neighbourhood	700-1500	1.02%
Sub Regional	700-1100	1.22%
Major Regional	720-1700	0.37%
Regional	720-1620	0.46%

Source: Property Council, 2010.

Secondly, there is the 'mainstreet' retailing (in Melbourne) with a wide rent range from very high to very low reflecting a lack of constraints on supply relative to demand.

As shown in Table 2 the rents per square metre range between $290 and $1,500 across the following selected prime street retail precincts across Melbourne, and vacancy rates are significantly higher than the enclosed centres. This reflects the fact that the supply of floor space is not limited as is the case in enclosed shopping centres, and prices are a closer reflection of true market rents.

Table 15. Rents per sqm and vacancy, specialty retail in main street activity centres, Melbourne

Shopping Precinct	No. Of Shops	Vacancy Rate	Rent ($/sqm)
Bridge Rd	366	8.2%	800-1,100
Burke Rd	212	4.2%	800-1,200
Centre Rd	215	3.7%	300-600
Chapel St, Windsor			500-700
Chapel St, Prahran	631	4.0%	800-1,000
Chapel St, South Yarra			1,300-1,500
Church St	176	1.7%	400-800
Glenferrie Rd	188	6.9%	500-900
High St	246	4.5%	400-600
Puckle St	145	2.8%	400-600
Toorak Rd, Toorak	168	8.3%	600-800
Toorak Rd, South Yarra	298	15.1%	500-900
Werribee Town Centre	98	6.4%	290-330

Source: Valuation data for Werribee Town Centre provided by VicUrban and Savills, Melbourne Prime Street Retail, 2009

Early planning to provide opportunities for future change and centre growth is required.

Car parking controls

In some instances the prevailing approach to parking in activity centres can lead to undesirable outcomes including the following.

- **Creating excess parking:** Minimum parking requirements are usually set arbitrarily by city planners from standardised transportation planning manuals, which typically measure parking and trip generation rates in suburban areas at peak periods with ample free parking and no public transit. These parking standards can cause an oversupply of parking – taking up valuable land and lowering the price of parking below cost. By generating more car trips, inefficient parking requirements contribute to increased air pollution and reduced physical activity.

- **Limiting development potential:** On the other hand, where car parking rates are highly constrained (on the assumption that public transport provides alternative access), some investors may be deterred from investing in activities which depend on car based access from a wide catchment area.

- **Increasing the cost of development:** Requiring developers to provide large amounts of off-street parking significantly adds to the cost of new development, especially in urban areas where land costs are high. These costs may unnecessarily deter new entrants and smaller investors and developers who are critical to centre diversity and growth.

- **Requiring on-site provision constrains redevelopment for many sites:** Many smaller sites in activity centres are physically unable to provide the on-site parking rates required upon redevelopment. Circulation space is not available or design and amenity considerations at street level preclude the provision of crossovers. This is a major barrier to growth in many activity centres.

5.5.2 Initiatives

Catalyse development in existing activity centres through targeted rezoning and modifications to controls, pro-active assistance to councils, landowners and developers, use of government or council sites, and selected use of site assembly initiatives.

Metropolitan authorities (discussed in section 0) or state governments could provide much more active assistance to councils in facilitating growth in existing activity centres (or planning for new activity centres). In parallel or as an alternative, the states could establish Development Authorities with powers to act in designated activity centres (identified in Metropolitan Plans) beyond merely rezoning land for higher density or retail developments. Relevant interventions, beyond conventional planning, include:

- preparing structure plans and related controls that minimise planning related costs (for example, in relation to car parking, minimum lot sizes)
- identifying strategic development sites and assisting landowners and developers with advice on design, development and finance opportunities (on a 'no guarantee of approval' basis)
- utilising state owned land (or negotiating in relation to council land) to catalyse development
- selective site purchase and site assembly to provide sites able to accommodate anchor or catalysing retail developments.

It is in this area of pro-active planning that much more needs to be done in support of activity centres planning. In the United Kingdom where the sequential test for retail development requires a consideration of whether sites are available in-centre*, 'local authorities have been widely criticised for their lack of proactive planning in terms of identifying and procuring suitable sites for retail and leisure development'*[68].

Reform strata title laws to facilitate redevelopment of ageing housing stock that constrains centre expansion.

Reforms to strata title laws need to focus on how to dissolve strata schemes (which currently require 100 percent of owners to agree). The Property Council of Australia has suggested that strata schemes should be dissolved if 75 percent of owners agree[69]. Guidelines on how to provide

[68] CBH Parker and Cardiff University*, Policy Evaluation of the Effectiveness of PPG6,* Office of the Deputy Prime Minister, January 2004*.*

[69] Property Council of Australia, *The Urban Renewal Lifeline, 2009.*

an effective and transparent process should be prepared and made available to accompany any reform.

Ensure that zoning and development controls in new activity centres enables them to expand and accommodate small, independent retailers and other businesses.

Small scale commercial/ business zoned lots in new activity centres should be protected in subdivision patterns, to provide for small developers of shops and local niche based enterprises. Provision of low-cost premises may encourage small business start-ups and result in spin-off benefits for workforce participation in the area.

In addition, where adverse off-site impacts can be managed and amenity is not otherwise affected there should be no artificial constraint on future vertical expansion of either the enclosed shopping centre or surrounding retail.

Establish precinct parking garages funded by development contributions

Greater use of precinct parking facilities will be fundamental to reforms in activity centres which facilitate redevelopment of small sites for higher intensity and potentially lower car usage activities.

Free up parking standards but explicitly cost provision

Urban planners need to re-examine parking demand in urban areas where land and parking costs are higher such as in activity centres, and where transportation alternatives provide high levels of accessibility. Reduced minimum standards could apply to retail, commercial and business developments but without a maximum. Development proponents would be free to provide the minimum, or any amount of parking – provided the full cost of provision was met and 'central' or precinct approaches are in place (and where parking garages or stations are convertible to alternative uses).

Unbundle the cost of parking in residential projects

Typically, the cost of parking is included in the home price or rent of an apartment. Unbundling the cost of parking from housing costs allows off-street parking to be priced in response to the actual demand for parking, and lets consumers pay the cost of their transportation choices. This approach will be fundamental to activating activity centres using residential development, and will be underpinned by central or precinct based provision of parking garages, as discussed above.

Encourage innovations in relation to shared parking

Shared parking – recognising different day and night time demands - is an effective tool for reducing the number of parking spaces needed for a project or neighbourhood. Shared parking strategies can be implemented within a new mixed-use development, through simple agreements between adjacent, or through central or precinct based plans. Precinct based districts can also encourage pedestrian activity by encouraging people to park once and walk from destination to destination.

Promote and facilitate car sharing arrangements

Car sharing programs allow many individuals to share access to a vehicle. Located within a housing development, car sharing can lower the average household vehicle ownership rate, reducing the demand for parking. Several car sharing companies are starting to partner with housing developers to include car sharing programs within their new developments.

5.6 Ensure retail use definitions support effective planning for activity centres

5.6.1 Problem

One of the challenges of activity centres planning is translating strategic intent into statutory controls. In particular how to use planning controls (land use zoning and permitted land uses in particular) to harness the people pulling and traffic generating power of large retail anchors (particularly supermarkets where around 40 percent of retail expenditure is directed), to underpin successful activity centres.

Retail use definitions in planning instruments do not typically differentiate between retailers with a strategic role, or with different operating impacts, and this can make them a clumsy tool.

Centre size is often used as a control to maintain relativities between activity centres in a legitimately planned subregional or district hierarchy of activity centres. In some jurisdictions limiting the size of particular retail developments is used to manage impacts outside activity centres.

This mechanism is used in Victoria whereby a Schedule to the Business 1 Zone can be altered for a 'shop' to give effect to the condition in the Table of Uses which states: *"The combined leasable floor area for all shops must not exceed any amount specified in the schedule to this zone."* Gross Floor Area (GFA) limits are also used in the Queensland jurisdiction to regulate floorspace quantum and distribution in accordance with an activity centres typology.

Planning instruments are sometimes criticised as being anti-competitive where they have such restrictions. However, retailing has a critical role in activity centres planning, and while it is not 'size' per se that is the issue, the different roles of activity centres in retail hierarchies and the effective 'anchoring' role of particular retailers, is critical. It is for this reason that an explicit reference to size is often included in planning instruments.

Defining retail land uses, including 'anchor retail'

New South Wales, Queensland, Victoria and Tasmania have standard definitions for land uses to be adopted in local planning schemes. Local government in NSW is in the slow process of reviewing existing LEPs to adopt these standard definitions. Western Australia and South Australia do not have standardised definitions for retail or other land uses.

In those states with standardised definitions, common definitions for retail land uses include:

- Shop/retail premises
- Bulky goods retailing
- Take away food premises

No 'standard' definitions exist for retail anchors, though the Perth and Peel Activity Centres (State Planning Policy number 42) makes explicit reference to 'anchor retail' as one of a number of 'travel-intensive uses' which should be in accessible locations within activity centres and 'within easy walking distance' to public transport hubs. The Appendix to the policy classifies high trip generating uses to include shops of greater than 1,000 sqm and non-food retail of greater than 2,500 sqm.

The City of Sydney's Draft City Plan includes a clause which limits out of centre retail development to 'no greater than 1,000 square metres' (Draft City Plan, Clause 7.23).

Ultimately, planners need to have refined 'tools' to follow through strategic intent at the statutory level. They need to be able to make effective decisions on the retailing that should go in activity centres and that which legitimately should be allowed to go 'out of centre', to ensure a range of retailing is provided to meet customer demands at competitive prices.

Retail use definitions need to be appropriate to this task.

5.6.2 Initiatives

Refine retail use definitions to better reflect the operating and strategic roles of different formats, and to enhance the statutory planning tools available to implement activity centres policy

A refined system of land use definitions for retail would recognise different retail formats only to the extent that they could be distinguished on the basis of their role as anchor developments or operating impacts that demand particular land use response.

Refining the definitions should aim to promote greater flexibility within centres whilst limiting the grounds for out-of-centre retail proponents to claim they are a 'special case'.

For example, the important role of retail anchors such as supermarkets would be recognised by controls and definitions which encourage these land use to locate in activity centres. The framework would simultaneously remove location restrictions on convenience retailing in most areas, reducing the need for car travel to access day-to-day products.

Except where off-site operating impacts are akin to industrial uses, such as building and timber retailers, the refined system of land use definitions for retail would also exclude retailing from industrial zoned areas. This would preserve industrial areas for the uses which genuinely require these sites as well as discouraging (often single purpose) trips to out-of-centre retail stores.

5.7 Better manage proposals for out of centre development

5.7.1 Problem

Some jurisdictions including NSW, Queensland and Victoria have either adopted, or plan to adopt, state level guidelines which explicitly allow for flexibility in the interpretation of activity centres policy. Specifically, these jurisdictions propose some form of sequential test for out-of-centre retail proposals, whereby proponents are encouraged to find centre or edge of centre locations, or failing that, demonstrate a clear net community benefit from an outright out-of-centre location. The idea of a 'sequential test' emerged from the United Kingdom.

However, there is scope for greater consistency across the country as to when the sequential test might be available and how it should be applied.

Land supply for retail development also needs to be rendered more 'elastic', and the sequential test for out of centre development has a key part to play in this. Following the recently adopted 'Gateway Process' in NSW, COAG could promote the preparation and promulgation of similar formal guidelines for the consideration of 'non compliant' projects across all jurisdictions.

One of the major concerns expressed by some development proponents is that assessments of out of centre or non policy compliant (but discretionary) proposals are not properly considered from a social cost benefit analysis perspective. They suggest that evaluation of these proposals has effectively turned into a ban on competition. To a large extent this issue could be resolved by improving the transparency of the sequential test or net community benefit test for non-complying proposals and reducing its associated transaction costs.

5.7.2 Initiatives

Implement a consistent sequential or net community benefit test for non-complying proposals with a comprehensive policy framework for retail planning.

To operate effectively, a sequential test needs to be situated within a comprehensive policy for retail planning, as discussed at Section 5.2.

Broadly speaking, whether a proposal is in the community's interest or not will depend on:

- the capacity of the proposal to add to overall retail service in the region (competition and choice) including addressing shortfalls or weaknesses in the retail network as identified in the policy;
- the capacity to deliver quality spaces and places for retail trade and community interaction;
- the capacity to strengthen community identity and social sustainability in other ways, including improvements in skills and employment outcomes; and
- maintenance or improvement in sustainable customer travel and retail distribution patterns.

These factors need to be measurable in order to clearly demonstrate the degree to which benefits from a retail development proposal flow to the community. Given a framework of policy objectives along the lines of that shown earlier, non-compliant proposals would be subject to a sequential assessment process, including rigorous cost benefit analysis.

Three tests would be applied;

- Strategic fit;
- Net community benefit; and
- Place quality

Test 1 – 'Strategic fit'

Any development proposal should improve levels of retail service across the community in a sustainable way, and contribute to quality places and spaces which act as focal points for social interaction.

Such objectives need to be properly articulated and enshrined in policy as noted above.

The first test would be a broad brush qualitative assessment of the extent to which the proposal in question aligns with stated policy.

If the proposal fully and unambiguously aligns with the policy objectives and associated assessment criteria, it may proceed directly to Test 3.

If it is not clear that the proposal fully meets the policy objectives and criteria, or if it meets only some of the criteria but is nonetheless deemed to have the potential to produce a development which is in the community's interest, the proponent may be invited to modify or further develop the proposal to improve policy alignment. These modifications could include:

- Working with appropriate authorities, such as the local council or a government development corporation to secure a better site for the facility;
- Urban design changes to make the proposal more compliant with the relevant Structure Plan and Urban Design Framework;
- Arranging for the provision of improved public transport services to the site in question;
- Making parallel investments in other activity centres to meet the policy objectives for the retailing region, for example, boosting convenience shopping elsewhere to enhance food security; and
- Combining the proposal with other retail investments with the effect of creating an activity centre which meets the policy objectives.

If, following these modifications, the proposal is found to align with the policy objectives and assessment criteria, it may proceed directly to Test 3. If, on the other hand, the proposal still does not fully align with the policy objectives and criteria but is deemed to have potential to deliver a net community benefit, it may proceed to Test 2.

Test 2 - Net community benefit

This would be a quantitative ($) appraisal of merit. It would follow the standard rules / disciplines of social cost benefit analysis.

Whether a retail proposal will, on balance, create a 'net community benefit', can only be judged against a 'Base Case'. The Base Case might be assumed to be continuation of the activity centre network 'as is' for the duration of the evaluation period. Two cost benefit analyses against this Base Case would then be called for:

Option 1 Approval of the (policy non-compliant) floorspace and/or services as sought by the proponent;
Option 2 Allocating the floorspace and/or services in question in a manner compliant with policy, albeit that this provision might occur with some delays

In most cases, an assessment of whether the retail proposal (Option 1) leads to a net community benefit versus Option 2 should be able to be satisfactorily resolved by considering a relatively limited set of core impacts, relating to consumer choice/competition, centre vitality and travel sustainability. These are indicated in the following chart.

There may well be additional impacts in special cases, for example, the creation of jobs in areas of chronic unemployment or underemployment. Where they arise and where they are likely to be substantial, such additional impacts may be valued using customised shadow pricing or other well documented techniques. Alternatively, they may be noted qualitatively.

Benefits

	quantified by…
1. Improvement in retail choice and customer satisfaction	• the marginal additional cost of travel (time and vehicle operating expenses) for shoppers accessing the new offering in Option 1[70].
2. Improved place amenity at the location receiving the investment	• uplift in land value (both on the subject land and the surrounding areas)

Costs

	quantified by…
1. Loss of retail vitality and place quality in other parts of the network	• loss in land value in impacted activity centres
2. Additional travel externalities - customers	• modelled increase in Vehicle Kilometres Travelled per year, multiplied by standard externality rates per kilometre.
3. Additional travel externalities – supply chain	• modelled increase in Vehicle Kilometres Travelled per year for delivery vehicles, multiplied by standard externality rates per

[70] The extra time and cost incurred by shoppers in accessing, say, a new out of centre retail facility, can be taken as a measure of willingness to pay for this offer. In terms of the net community benefit analysis set out here, the estimated willingness to pay for the out of centre location would be equally applicable to the facility located within or beside an existing centre.

	kilometre.
4. Additional travel – supply chain	• modelled increase in Vehicle Kilometres Travelled per year for delivery vehicles, multiplied by standard operating costs per kilometre.

This assessment may reveal that a superior net community benefit could be achieved under Option 2. If so the evaluation may need to focus on the likelihood that the retail service in question can be absorbed into the existing network, according to approved policy. This may include consideration of what the public sector needs to do to facilitate this outcome (e.g. land consolidation – see below).

Pending the results of this assessment, the project proponent may wish to further modify the development to address any major externality. It should be noted this evaluation approach does not focus on the redistribution of (future) sales in the system and other transfer effects (e.g. employment). Rather net community benefit as outlined above focuses on resource efficiency effects, namely customer outcomes, place quality and travel sustainability.

Test 3 – Place quality

If the proposal fully meets Test 1, or if it returns a positive result on Test 2, the final appraisal of the proposal will focus on ***design quality***, and whether the proposal delivers a place that works well both from a trading and community interaction point of view.

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