New Funding Options for Urban Renewal

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1 Introduction

Australia is unquestionably a great place to live. The OECD Better Life Index ranked Australia near the top in 13 of 14 quality of life indices in its 2012 report (Organization of Economic Co-operation and Development 2012). In terms of overall life satisfaction, Australian's rated themselves 7th highest among 36 OECD countries, equal with New Zealand and ahead of Ireland, United Kingdom and the United States. For good reason, Australia has earned its reputation as "the Lucky Country".

Despite these favorable OECD rankings, Australia is experiencing growing pains that are seriously threatening its enviable quality of life. Due to its geography and settlement patterns, Australia's six widely dispersed mainland capital cities hug its coastal fringe and have absorbed a large portion of internal and external migration. Over the last decade, for example, Australia's two largest cities, Sydney and Melbourne, have attracted nearly 40 per cent of the country's population growth, yet housing production has not kept up with this pace (Major Cities Unit, p.16). Rising construction costs, aging infrastructure, protracted government regulatory processes and a cultural preference for low density living have conspired to drive up housing costs and push new housing production to the urban edges. "Since 1996, house prices in Australia have increased faster and for the longest period since 1880" and outright home ownership has dropped from 60 percent to 46% (Major Cities Unit, p.4). These trends have resulted in a seemingly endless cycle of urban sprawl, increasing worker commuting times and unsustainable demand for all forms of urban infrastructure.

State governments have belatedly responded by shifting their focus to urban renewal and public transport to address housing affordability and road congestion issues. In 2013, the New South Wales (NSW) state government created UrbanGrowth NSW from Landcom, the traditional greenfield land development agency. UrbanGrowth's new mandate is to unblock obstacles to housing within the existing metropolitan footprint by consolidating fragmented brownfield sites close to city centres. After years of resistance, Transport for New South Wales (TfNSW), the state's transport agency, is working with Sydney City Council to extend the Sydney light rail network opened in 1997 from 7.2km to 12.8km. A planned 13km extension will link southeastern suburbs, sports venues and the University of New South Wales with the CBD (Parsons Brinckeroff Australia Pty Ltd 2013). Similar schemes combining urban renewal and new light rail networks are in planning or implementation stages throughout Australia, including:

- East Perth urban redevelopment in Western Australia (WA) (East Perth Redevelopment Agency, 20008)
- Perth light rail network
- Gold Coast light rail project in Queensland
- Melbourne's grade separated junctions project in Victoria
- Newcastle urban renewal and light rail plan in NSW
- Sunshine Coast Council's light rail project in Queensland

While progress is being made by these and other initiatives, the cost and pace of retrofitting Australia's urban centres is far outstripped by the demands for housing and public transport. Urban renewal and public transport are inextricably linked, and the common obstacle confronting these schemes is funding. Infrastructure Australia's (IA) 2013 infrastructure

priority list includes 79 proposals with an estimated cost of over $80 billion, representing the most productive investments needed to maintain Australia's competitive position in the global economy. Australia's competitiveness and the quality of life of its citizens will decline if these and other critical infrastructure investments are not made (Infrastructure Finance Working Group, 2012). Despite spending more than $22 billion in transport infrastructure engineering and construction in 2009-10, IA projects that Australia has an infrastructure funding deficit of approximately $300 billion (Infrastructure Australia 2012, p.6). There is simply not enough funding under current Commonwealth and state government arrangements to fill this funding gap.

A proven means of filling the gap in urban renewal and public transport funding can be found in greater involvement by the private sector and in reforms in the way funding is sourced. The Australia Bureau of Infrastructure, Transport and Regional Economics (BITRE) states that the Australian Government's investment in highways, interstate rail networks and urban public transport systems delivers a return of $2.65 for every $1 invested (Infrastructure Finance Working Group, p.1). This being the case, the Commonwealth Government and peak industry associations, including Infrastructure Partnerships Australia (IPA), the Property Council of Australia (PCA) and Consult Australia, have advocated the use of value capture funding methods to contribute to Australia's funding shortfall. Although used extensively in the North America for over 40 years and recently introduced to the UK, value capture methods are not well understood in Australia and have been studiously rejected by some state treasuries.

This paper examines the potential use of value capture to contribute to Australia's urban renewal and public transport funding shortfall. Obstacles and opportunities to this funding method are examined based upon recent pilot studies, government and private sector reports, and urban renewal and public transport projects proposed or under construction throughout the country. Successful value capture programs in North America are presented to illustrate how such programs could be implemented given Australian governance and legislative frameworks. Recommendations are made concerning how value capture methods should be considered and implemented in this country.

2 What is Value Capture?

2.1 Background

Value capture funding methods arose in California in the 1960s as a means of kick-starting urban renewal programs in economically depressed urban areas. Early state legislation required local government to classify these areas as "blighted" urban renewal districts as a precondition putting a value capture program in place. Specific projects and programs were then planned within the blighted district to attract new investment, housing and jobs. These programs were called Tax Increment Financing programs (TIF) because they were funded by the increase (increment) in local property tax revenue resulting from the renewal district improvement programs.

In the US, TIF programs allow local councils and development authorities to sequester increases in property tax revenues above a base year generated within the urban renewal district for a set period of time, usually 20 to 25 years. The sequestered funds are combined with traditional local, state and federal government funds, such as local public works budgets, development levies and state government grants, to fill funding gaps for predetermined urban renewal programs and projects. Complementary private sector housing and commercial developments are identified and actively promoted as part of the scheme. In most cases, TIF funding fills the gap between what the public sector can afford and what the private sector will invest, thereby serving as the catalyst for economic development. TIF

revenues underwrite bonds or loans which ensure stakeholders that key public elements of urban renewal programs will be put in place, demonstrating the public sector's commitment to the program and attracting complementary private sector investment.

TIF programs have evolved considerably over the past 50 years and now exist under state enabling legislation in 49 of the 50 US states and the District of Columbia (Council of Development Finance Agencies, p. 1). It is the most widely used local government program for financing economic development in the US (Briffault 2010). TIF programs are also legislated in Canada and Puerto Rico. In 2012, the UK government introduced TIF legislation which allows local authorities to borrow against future growth in business rates to fund infrastructure, attract private sector investment and create jobs. The UK Government initially earmarked £150 million for TIF projects from 2013-14. A program focusing on four key development sites in Newcastle and Gateshead Councils using the TIF scheme is expected to initiate "a £92 million investment programme, creating 2,000 permanent jobs within five years, and 13,000 within 25 years"(Sanford 2013).

2.2 Definition

There are a number of funding models in use in Australia and internationally to contribute to urban infrastructure and transport planning, and each has advantages and disadvantages that must be tailored to local circumstances and objectives. A Canadian study on smart growth identified 15 different funding methods currently used in North America (Tomalty 2007). Over-use or misapplication of any of these methods can have unintended consequences and have actually discouraged complementary private sector investment. Over-reliance on upfront development levies in NSW is widely acknowledged as having stalled economic growth, diminished housing affordability and reduced employment in the mid to late 2000s (Allen Consulting Group 2003)(O'Flynn 2011). These findings forced the NSW government to reduce upfront developer levies by $64,000 per lot (NSW Department of Premier and Cabinet 2008). Clearly, understanding how various funding models work is critical in implementing effective urban renewal programs.

In Australia and New Zealand, the value capture funding model is not well understood and has taken on a variety of meanings, not all of which are consistent or appropriate. This can result in less effective program design, delayed implementation or premature rejection of value capture as a potential funding method for urban renewal and transport projects. For example, a report for the New Zealand Transport Agency incorrectly defines value capture mechanisms as user charges applied to recover general funds, and concludes that only *perceived* benefits would be recovered from its use (Kemp et al. 2012). Lessons learned from the Gold Coast light rail project in Queensland include the need to clearly articulate what value capture is to key stakeholders and to develop a robust and early stakeholder consensus based upon non-transport "city building" objectives (Gold Coast Rapid Transit 2012). The funding shortfall is too great to limit viable options due to poor design and a lack of understanding. It is therefore important to clearly define what value capture methods are and how they are best implemented, or risk limiting their effectiveness or missing the opportunity to use them altogether.

For the purposes of this paper, value capture refers to funding methods that are closely tied to increases in public tax revenues from private property. The method relies on establishing a revenue benchmark prior to program commencement that can be monitored against specific planned investments in transport infrastructure and urban renewal. Revenues above the benchmark are then sequestered into dedicated accounts and used to repay bonds or loans which fund projects and programs, while revenues below the baseline continue to flow to taxing authorities. Examples of potential value capture revenue streams include;

- Improved property values resulting from infrastructure investments, land rezoning, and density controls

- Increases in property transfer taxes, local government rates, business rates, land taxes and related local government charges
- Sale of additional development rights over and above those permitted under existing zoning, also called sale of “bonus floorspace”
- Sale of under-utilised government land beside public transport corridors and stations
- Sale of air rights over public land and transport corridors and stations.

2.3 How is value created and captured?

Numerous studies demonstrate that well-planned urban renewal programs which integrate land use and transport infrastructure produce significant increases in land values. A 2006 study of 89 TIF districts spread across 67 municipalities in the Chicago metropolitan area found that mean annualised property values in TIF districts increased by 35% between 1983 and 1993, compared with a 6% increase in overall municipal property values (Byrne, P 2006). Industrial and CBD districts experienced the highest median increases, growing by 32% and 26%, respectively. These increases are caused by improved access to jobs and housing, more efficient and productive uses of land and infrastructure, and the ability of employers and employees to specialise to produce high value services and products.

Value capture programs provide an equitable means of reinvesting a portion of the benefits created by urban renewal and transport infrastructure programs. The chart in Figure 1 provides an illustration of the TIF conceptual funding model, which is the basis of value capture. The key features of the model are:

- Focuses on generating funds from *incremental* revenues above a predetermined baseline, as opposed to imposing additional upfront costs on development
- Establishes a clear nexus between public infrastructure investment and the captured revenue sources
- Captured revenue streams are dedicated to repayment of specific public infrastructure projects and programs for a set timeframe, typically 20 to 25 years
- Full revenue stream is returned to original taxing authorities at the end of the repayment period
- Captured revenue streams provide a long term source of revenue to underwrite loans and / or bonds which fund initial infrastructure and urban renewal investments

2.4 Common Uses of Value Capture Funds

Uses of TIF funds in the US vary from state to state depending upon enabling legislation. The most common uses of funds are:

- Studies, surveys and plans of existing land uses and infrastructure assets
- Professional services, such as architectural, engineering, legal, property marketing and financial planning
- Property acquisition and site consolidation
- Demolition and site preparation
- Rehabilitation and renovation of existing buildings
- Construction of new or improvements to existing infrastructure
- Affordable housing programs for new or displaced residents.

- Enhanced security services, job training program and day care services to promote employment opportunities for low income residents
- Relocation costs for businesses or residents affected by redevelopment

While not all of these uses would be appropriate in the Australian context, they demonstrate the flexibility of value capture programs in addressing local needs in the US system.

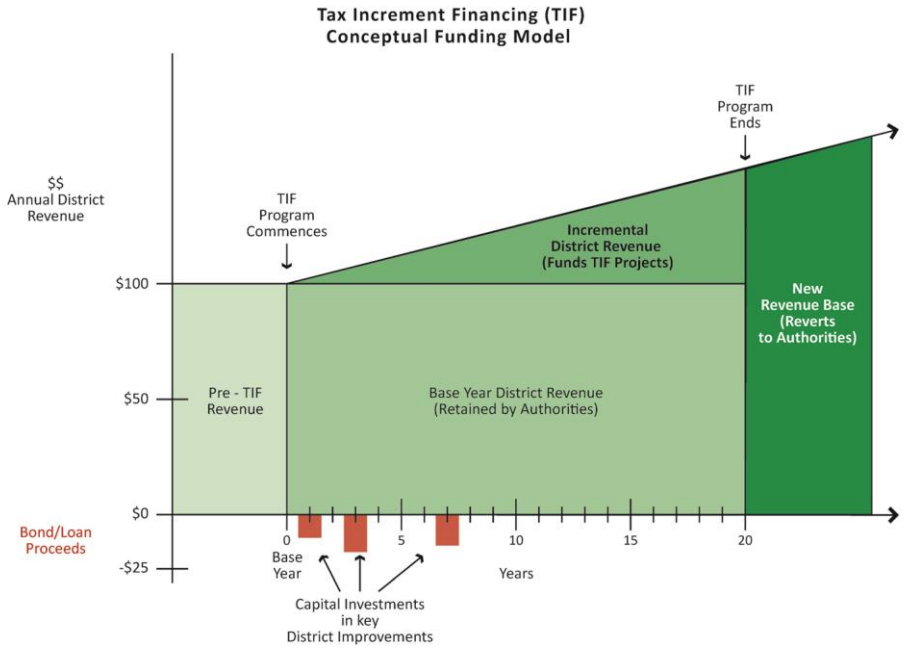

Figure 1: Tax Increment Funding Model

Source: SKM

3 10 Key Success Factors

Experience with public – private partnership programs in Australia and internationally demonstrates that a number of important factors are essential in successful value capture programs. Ten key factors are outlined below as a prelude to identifying the opportunities and obstacles to the use of value capture methods in Australia.

3.1 Develop a comprehensive, long term plan

Value capture programs typically rely on the successful implementation of a number of mutually supportive and coordinated public and private investments to lift economic activity over a sustained period. As was found in the Gold Coast light rail example, city building must be a key driver that extends a project's objectives "beyond its transport function" to embrace high quality, higher density, mixed uses (Gold Coast Rapid Transit 2012). The absence of a comprehensive, long term strategy at the start of stakeholder consultation was later recognized a weakness in the Gold Coast light rail network by its proponents, resulting in missed opportunities for fully leveraging the benefits of the network. These strategies also need to extend 20 or more years into the future so that the benefits of a fully mature program, which tend to occur at its back end, can be captured to underwrite financing.

3.2 Embrace genuine and robust stakeholder consultation.

Stakeholder consultation has evolved into an established and essential component of public transport and urban planning programs at the national, state and local levels in Australia. The NSW government recognizes this by mandating four levels of stakeholder consultation in new draft planning legislation, with separate and independent consultation required at the strategic, regional, sub-regional and local levels (NSW Government 2013). The Urban Land Institute recommends that such programs consider a full spectrum of participation, as developed by the International Association for Public Participation. This will ensure that differing needs of community interests groups for different levels of information will be addressed and regulatory delays can be avoided (Corrigan 2005).

3.3 Carefully select the improvement district

Successful value capture districts in North America vary from small downtown improvement districts in rural communities covering several city blocks to large industrial precincts covering hundreds of hectares, such as the 345 ha Pilsen industrial TIF district in Chicago (Trkla, et al 1998). In setting the boundaries of an improvement district, consideration needs to be given to the nature and cost of physical improvements needed to create value uplift, catalytic projects that are likely to kick-start development activity, and the attitudes of business and residential property owners to the proposed activities. Assuming financial objectives can be met, it may be better not to include staunch opponents in the scheme in order to keep the program moving forward smoothly. Once the program's success is evident, attitudes may change and boundaries can be extended.

3.4 Create a shared vision

A shared vision involving all stakeholders requires building early consensus among residents, property owners, community groups, hospitals, educational institution, employers and businesses, even those opposed to the scheme. A widely scoped stakeholder consultation program involving all stakeholders and the media will assist in getting the message out and building alliances (Corrigan 2005). It is far better to have robust debate and informed opponents than an information vacuum and misinformation about the program.

3.5 Establish a clear and balanced governance framework

Value capture programs rely on establishing and maintaining good will among a wide range of public and private interest groups. Government agencies and commercial interests invest hard capital to create value, but as a form of public – private partnership operating within a democratically elected system of government, the success of these programs often relies heavily on the non – financial contributions and support from other interests, such as neighborhood associations, educational institutions, local health and social service agencies and various other special interest groups. This often requires a widely supported and collaborative process, and mechanisms to provide appropriate involvement from all groups, such as the use of task forces, facilitators and intermediaries (Corrigan 2005).

3.6 Understand the risks and rewards for all stakeholders

The high profile failures of several large public – private transport projects in Australia, including the Cross City Tunnel ($700 million) and Lane Cove Tunnel ($1.1 billion) in Sydney and the Clem7 ($3.2 billion) and Airport Link ($4.8 billion) in Brisbane, highlight the need for all parties to understand the risks and rewards of public – private projects. Although unsustainable toll revenues in each instance were a major factor, community opposition, pressure on proponents to inflate traffic volumes and unpopular road closures and diversions by transport agencies also contributed to these failures. Such failures cost private sector investors lost billions of dollars, but the general public also loses because future opportunities to involve much needed private sector investments will be more costly and

harder to secure. Understanding and valuing the risks and rewards of all stakeholders is therefore critical in public – private projects.

3.7 Use incentives to attract private investment and better design

Local government planning and development controls are increasingly turning to incentives rather than prescriptive standards to achieve better development outcomes and reduce costs. For example, the NSW Government is following the lead of Queensland and Victoria in moving to merit assessment processes supported by development guidelines in urban renewal areas to enable greater innovation in design, reduce approvals timeframes and lower costs (NSW Government 2013). Incentives such as reduced car parking requirements near public transit stations can significantly improve housing affordability and encourage public transport ridership. Specifically- tailored precinct zoning and development controls, such as planned unit developments (PUD) and transferable development rights (TDR), are often required to achieve higher density residential and commercial development while maintaining public open space standards. These and other incentives should be explored and encouraged.

3.8 Secure consistent and coordinated leadership

Studies of high speed railway stations in Europe and Asia found that a major factor in successful station precinct development programs is the presence of strong and consistent local leadership (AECOM 2013). Persistent local leadership by Mayor Clover Moore was a major factor in overcoming NSW government resistance to the Sydney light rail extension currently being delivered. While political leadership is important, sustained leadership that transcends administrative and political change and maintains a consistent vision for the project is essential given the long term nature of urban renewal and public transport investments.

3.9 Secure the ability to influence outcomes

A major obstacle in urban renewal programs is land fragmentation. In Australia, local and state government agencies have the power of compulsory acquisition, but this tool is used sparingly due to limitations in the ability of the agency to repackage and resell the land for other than narrowly defined public uses. In NSW for example, the compensation payable is based upon the market value of the property, disregarding increases in value caused by the carrying out or the proposal to carry out a public purpose (Land Acquisition (Just Terms Compensation) Act 1991). Lack of clear authority by Parramatta City Council under NSW law to acquire private land for redevelopment resulted in a four year delay of Civic Place, a major urban renewal project. Planning controls and compulsory acquisition powers need to provide urban renewal authorities with the ability to undertake widespread urban renewal programs where necessary or desirable in the broader public interest. The ability to repackage and sell land varies by jurisdiction, so it is important to obtain current and accurate legal advice on any limitations that may exist on land acquired through compulsory acquisition.

3.10 Build trust as a core value

Trust is an overriding value in public – private partnerships. Building and maintaining trust can be established through small efforts that evolve into larger efforts but require continual effort and commitment to be maintained. Other factors already discussed, including genuine stakeholder consultation and clear and balanced governance, are mutually supportive of this value (Corrigan 2005).

4 Obstacles and Opportunities for Value Capture in Australia

Value capture methods have been a subject of some discussion but little concrete action in Australia for many years. Given the overwhelming level of its success in other countries and

the significant need for new sources of funds to maintain economic prosperity and productivity, why hasn't value capture been implemented in Australia?

This section examines the major obstacles to its acceptance and identifies some of the benefits to its implementation in Australia. Since there are no existing programs to evaluate and little critical research on this subject in this country, these observations are drawn from the personal experiences of the author based upon 30 years in property development and urban planning consultancy in Australia, New Zealand and the United States.

4.1 Institutional Resistance to Hypothecation

Obstacles. Perhaps the biggest obstacle to value capture in Australia is institutional resistance by Commonwealth and state treasury officials. Public treasury officials don't like the idea of hypothecating future revenue streams for any purpose. Discussions with current and former treasury representatives generally produces a list of potential drawbacks, some of which are valid but others which are due to a misunderstanding of the method or an apparent professional bias against this approach. These views persist in government after years of effort by professional associations, academics (McIntosh 2011) and knowledgeable practitioners urging government treasuries to give serious and objective consideration to this funding model.

Opportunities. The weight of government opinion has recently shifted as government bodies such as IA and the Department of Infrastructure and Transport's Major Cities Unit have tallied up the national backlog of infrastructure investment, highlighted housing affordability and production problems, and forecast a decline in national productivity. Initiatives are either underway or recommended for Commonwealth and state treasuries to examine how value capture funding can help solve these problems. Examples include:

- The Commonwealth Government's study into high speed rail concluded that value capture programs could generate significant revenue and productivity gains if coordinated with a comprehensive urban renewal program around Sydney's Central Station (AECOM 2013).
- The Victorian Department of Treasury and Finance engaged technical advisors in April 2013 to provide advice on a value capture initiative to fund a reconfiguration of grade-level train crossings in commercial centres in Melbourne.
- IA has rated the $4.4 billion Brisbane Cross River Rail project "ready to proceed" in its June 2013 national infrastructure report subject to an independent review of its land value capture proposal (Infrastructure Australia 2013).
- In May 2013, the NSW Parliament's Standing Committee on Transport and Infrastructure instructed the NSW Treasury to "examine ways to implement value capture mechanisms for transit oriented development precincts, in order to generate funding for future infrastructure projects" (Legislative Assembly Standing Committee on Transport and Infrastructure 2013).
- The Western Australian Department of Transport is studying the use of value capture funding methods to support implementation of its MAX light rail network.

These new initiatives are very promising. However, they do not have an overarching national perspective or coordination that would allow the sharing of research and findings into this method.

4.2 Value versus Cost of Renewal

Obstacles. A fundamental characteristic of this funding model is its focus on the *value* created by a public sector investment as opposed to the *cost* of the investment.

Many public and private sector practitioners in planning, finance, property and economic development assume that development levies, betterment taxes and other imposts are value

capture methods if they are applied to properties or areas experiencing value uplift. While such levies should be considered and if appropriate applied to an urban renewal or transport precinct, they rarely if ever are applied in a manner that reflects differences in the value uplift from one property to another.

The Gold Coast light rail funding model, for example, applies a flat rate to all properties equally within a defined transport district. This is certainly a valid method for generating funding, but a property owner next door to a light rail station under this system is charged at the same rate as a property owner some distance from the station. Windfall profits can be made in these cases by property owners or speculators. In effect, property owners farther away from the station subsidise the property value increase of those closer to the station.

Opportunities. Under a value capture method, revenue streams are primarily captured from incremental growth in public revenue streams that are directly attributable to the investment, such as a light rail station or public domain improvements. Examples of revenue streams which would increase as a result of these investments include:

- Recurring revenue, such as state and local taxes, stamp duty and development levies
- Non-recurring revenue, such as the sale of government assets (surplus land) or development rights (air rights, bonus zoning).

In setting up a value capture funding scheme, the sponsoring agency, such as an urban renewal authority, works with all stakeholders and taxing authorities to decide what projects or programs will be funded under the model, what revenue streams will be captured, to what extent and for how long. An agreement is reached to sequester those public revenue streams into special purpose funds to pay for specific projects and programs. These characteristics provide a degree of consultation, transparency and long term commitment that is not widely practiced in public sector spending.

4.3 Gross Benefits versus Net Benefits

Obstacles. Some observers object to value capture on the grounds that growth within a value capture precinct will draw commercial activity, jobs and housing from other areas. They argue that these schemes don't create value within a wider region, they simply move economic activity from one neighborhood, precinct or municipality to another.

Opportunities. This is a frequent criticism of TIF programs in the US, where few states have state – wide land use planning and local governments compete fiercely at times for commercial and residential development to increase their tax bases. This objection is valid in the US, but it fails to acknowledge a number of pressing problems in Australia's capital cities, including housing production shortfalls, the need for more efficient land use patterns and declining economic productivity.

Housing production in NSW in particular has been chronically weak for many years and housing affordability has declined significantly as a result. A 2009 study reported that the underlying demand for new dwellings in the State was around 50,000 per year, but new housing was 31,500 in 2007/08; 24,600 in 2008/09; and 31,000 in 2009/10 (BIS Shrapnel 2008, p.16). This represents a shortfall of nearly 20,000 new dwellings per year. An increasing proportion of families are unable to afford to purchase a home, in spite of government efforts to reduce costs through stamp duty relief and other concessions. Australia needs more and cheaper houses everywhere.

Well-planned urban renewal provides more efficient and productive uses for urban land. The NSW Government created UrbanGrowth in 2013 and has focused its role on unlocking stalled housing production on low density, fragmented brownfield sites. UrbanGrowth will do this by working across government agencies to consolidate land in urban activation precincts for higher density development served by improved public transport. By providing a new source of funds for UrbanGrowth, value capture programs will contribute to improved land use efficiencies, a frequently stated national and state planning objective.

In its *2013 State of Australian Cities* report, the Commonwealth Government's Major Cities Unit identified a decline in national productivity from previous years as a key issue. Industrial sectors experiencing increasing productivity are "located in city centres and rely on increasing job densities to drive productivity" (Major Cities Unit 2012). This finding highlights the need for greater density and improved public transport to maintain Australia's global competitiveness. Value capture programs are designed to address the need for higher density, transit – oriented development to improve national productivity.

4.4 Council Financial Capacity

Obstacles. The financial capacity of local government in Australia is frequently cited as a reason for the declining quality of urban centres. Councils, it is claimed, are hampered by high operating deficits, restrictions on borrowings and infrastructure backlogs.

Opportunities. Limitations on local councils' management and financial capacities are real but solvable problems. A 2013 report by the NSW Treasury Corporation (TCorp) found only 54% of local councils in the State achieved a financial sustainability outlook of moderate or better, and that 46% were weak, very weak or distressed (NSW Treasury Corporation 2013). Solutions to these shortcomings include improved management training and skills, better long range planning, and more productive use of financial assets. For example, some councils have low or no debt and strong cash flow, but large infrastructure backlogs. The report recommends that local government make more effective use of borrowing and debt management to improve financial performance. Urban renewal programs undertaken in accordance with this research paper are well aligned with TCorp's recommendations and would provide the economic development underpinnings for improved financial health of many councils.

4.5 Use of Debt

Obstacles. Government agencies at all levels are justifiably resistant to assuming unsustainable debt and are well advised to be prudent financial managers. The requirements to maintain AAA credit ratings and limit consolidated state government financial obligations are common arguments against value capture programs.

Opportunities. The most effective urban renewal programs use value capture to bridge the gap in the timing between investments in public infrastructure and the flow of tax revenue resulting from those investments. They supplement, but do not replace, existing funding sources, such as Commonwealth and state grants, development levies and rates revenue. Large early lead-in public infrastructure investments, such as transport interchanges, public domain improvements, land consolidation and urban drainage systems are common uses of these funds. These investments, if properly planned and implemented with other public and private sector investments, create long term social, economic and financial benefits for government that increase public revenues (GFOA Executive Board 2008). They also provide a clear commitment and needed catalyst to investment for the private sector, and serve to de-risk public and private financial underwriting.

Financing for key program elements could be arranged through short term treasury guarantees until revenue sources stabilise, or through infrastructure bonds issued and administered through state financing bodies, such as TCorp. Bonds with varying maturities and risk levels can be matched with appropriate program elements and investor needs. Once revenues from program elements are stabilised, the bonds can be retired and funds recycled for other projects and programs. Strong bond underwriting standards administered by TCorp and ASIC would provide the financial rigor needed to attract institutional and retail investors, allowing small superannuation funds to tap into a new investment vehicle (PricewaterhouseCoopers 2008).

5 Denver Union Station Redevelopment Case Study

The Denver Union Station redevelopment project (DUS) is a $500 million public – private partnership formed to create a modern multi-modal transport hub and urban renewal precinct in Denver, Colorado in the United States. The project was approved Denver voters in 2004, and will be completed in 2014 (Denver Union Station Project Authority 2008). The project's major transport elements are:

- An eight track commuter rail station connecting Denver international airport, the national passenger line (Amtrak), and the cities of Boulder and Golden.
- A three track light rail station connecting to the southeast, southwest and west lines
- 22 bay regional bus facility
- Free CBD shuttle bus

The public infrastructure components are being developed by a dedicated, special purpose public transport and renewal authority, which will hand over the transport elements to existing transport agencies upon their completion and will be dissolved. Two private sector property development consortiums will develop five parcels within the 20 ha improvement district. The development will contain 125,400 square metres (1.35 million square feet) of retail, residential, hotel and commercial office uses with heights up to 61 metres (200 feet). A 685 space parking garage is also provided in the master plan (Denver Union Station Project Authority 2008, p.35).

A key feature of the redevelopment is the renovation and reuse of Denver's historic Union Station constructed in the late 19th century. The station will be the focal point of an extensive public domain connecting the precinct to nearby sports stadia, the "LoDo" entertainment precinct, central business district and the Platte River open space network.

Funding for the transport elements is provided by a combination of federal and state government grants, loans and local tax increment financing. Sources of funding and repayment are shown in the Table 1 below.

Funding	**$M**
Federal & State Grants	$109.30
Property sales	$37.40
Federal Loans	$300
Total	$446.7M

Repayment	**Terms**
Loan Repayment	$165M - $12M/pa, 15yrs, 5.65%
TIF revenue	$135M for 30 yrs.
Loan guarantee City of Denver	Up to $8M/pa to cover shortfalls TIF revenue

Table 1: Denver Union Station Redevelopment Funding and Repayment

Sources: Denver Union Station Project Authority

A key enabling source for funding DUS is the US Transport Infrastructure Finance and Innovation Act (TIFIA) program. This program provides up to $10 in credit assistance for each dollar of Federal funds for state and local transport infrastructure investments. TIFIA allows projects using TIF and other innovative funding sources to secure favorable financing rates in the private market during early "ramp-up" periods for new projects (Department of Transportation 2012). DUS embodies the 10 Key Success Factors described in Section 3, and provides a working model for urban renewal and transport infrastructure projects.

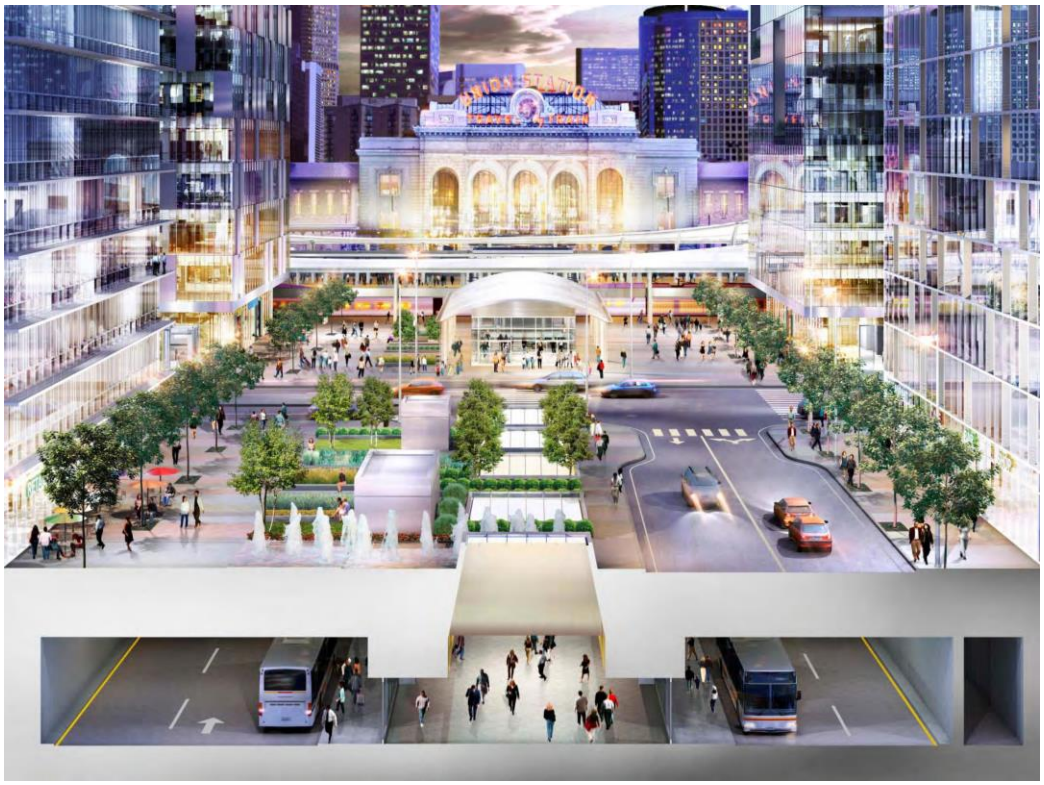

Figure 2: Denver Union Station Redevelopment
Image source – Denver Union Station Project Authority

6 Conclusions and Recommendations

Value capture methods have provided an equitable, transparent and prudent means of supplementing traditional sources of government and private sector funding for urban renewal and transport infrastructure in the North America for over 40 years. Studies in Australia by government agencies (AECOM 2013), industry associations (PricewaterhouseCoopers 2008) and academic institutions (McIntosh 2011) support the introduction of this funding model. There are few legislative or regulatory barriers that would prevent value capture methods from being implemented now on a limited scale at the state and local levels. There are significant public benefits, commercial opportunities and national productivity gains that would arise from more systematic structural and legislative reforms in support of value capture methods at federal, state and local levels.

On the basis of the research undertaken for this paper, it is recommended that:

1. The Commonwealth Government should take a stronger leadership role in the development of Australian cities, such as through the establishment of an urban infrastructure fund and the strengthening of the Major Cities Unit (Urban Coalition 2013).
2. There is a pressing need for the Commonwealth to coordinate the various initiatives underway and planned on value capture research, funding and financing, procurement and implementation. This should include the development of national guidelines and standards, and co-funding pilot studies of planned urban renewal and public transport programs in the states.
3. Commonwealth and state treasuries and other relevant agencies should act on market innovations and reforms which support value capture and other initiatives to reduce Australia's infrastructure backlog, such as those proposed by IA in its *2013 National Infrastructure Plan*.

4. State treasuries should take a proactive role in supporting financial and regulatory innovations and reforms which are being pursued by their sister agencies in the areas of urban planning, urban renewal and public transport.
5. State and local agencies should investigate how value capture methods can be applied as part of metropolitan land use planning, transport planning and urban renewal programs.

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