



VALUE CAPTURE ROADMAP

The purpose of this report is to raise awareness and stimulate discussion of value capture as both an alternative infrastructure funding method and a decision-making tool to help fill the infrastructure funding gap in Australian cities.

About the author



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About this document

Value Capture Roadmap is published by Consult Australia and AECOM. The Roadmap builds on the October 2013 publication, *Capturing Value*, by Consult Australia and Sinclair Knight Merz, which highlights opportunities and challenges to the introduction of value capture funding methods in Australia. This document utilises NSW as a case study to demonstrate the national case for value capture. The views expressed in this publication are the author's and do not necessarily represent the views of AECOM, Consult Australia or Consult Australia's members.

Table of Contents

Introduction	2
Purpose and focus of this report	2
Organisation of this report	3
What is value capture?	4
Background	4
Value capture as a funding method	5
Value capture as a decision-making tool	6
Value capture's potential contribution to capital costs	7
Revenue sources	7
Evaluating funding options	10
Why we must consider value capture now	12
Advocates of value capture	12
Global context	13
State context	14
Urbanisation	15
Population, Productivity and Participation	16
Key success factors	18
Comprehensive, long term planning and funding strategies	18
Genuine and robust stakeholder consultation	18
Precinct-based planning and funding	19
Transparent and balanced governance frameworks	19
Understand and balance risks and rewards	20
Use incentives to attract private investment and better design	20
Stronger urban renewal powers	21
Recognise and incorporate wider economic benefits	22
Focus on value rather than cost	23
Secure consistent and coordinated leadership	23
Value capture road map	24
Pilot study programs	24
Program objectives	24
Relationship to a business case	25
Precinct selection	25
Precinct characteristics	26
Value uplift opportunities	27
Project scenarios	28
Legislative pathways	28
Key findings and recommendations	29
Key findings	
What is value capture?	29
Why we must consider value capture now	29
Key success factors	30
Value capture road map	31
Recommendations	31
References	32

Introduction

Well-planned and maintained public infrastructure is the foundation of modern society. It supports productive enterprises, enhances quality of life and underpins economic prosperity.

Smart infrastructure investment, however, is challenging. Governments throughout the world struggle to balance their investment in building and maintaining the “right” infrastructure. Investing too much or in the wrong kinds of infrastructure can hinder economic growth for many years by foreclosing more productive investments options. Investing too little or in the wrong places can strangle private sector initiative and result in lost opportunities. These challenges are compounded by rising expectations among the public for more and better quality services, and diminishing funding sources for infrastructure investment, maintenance and renewal.

Like other states, New South Wales (NSW) has limited capacity to invest in new infrastructure, and the opportunities to make step changes in infrastructure investment are rare. The asset recycling program proposed from the sale of the State’s electricity assets provides a once in a century opportunity to reinvest those funds in long-life, economically productive infrastructure. Smart infrastructure investment will ensure the people of NSW receive an appropriate rate of return on the asset recycling program.

This report examines the potential use of value capture to contribute to smart infrastructure decision-making and investment. Although the report draws heavily from experiences in NSW, the examples, key findings and recommendations are relevant throughout Australia and internationally.

Value capture supports smart decision-making by focusing on **self-supporting** and **synergistic** infrastructure investment.

- Infrastructure can be **self-supporting** by incorporating methods that capture some portion of the value it creates to help fund the investment.
- Infrastructure investment can be **synergistic** by targeting and attracting other complementary public and private sector investments, thereby generating wider benefits to stakeholders and the surrounding community.

Purpose and focus of this report

The purpose of this report is to raise awareness and stimulate discussion of value capture as both an alternative infrastructure funding method and a decision-making tool to help fill the infrastructure funding gap in Australian cities. The report contributes to the need for a broader civic dialogue and deeper understanding about managing and sustaining urban growth.

The audience for this report is elected officials, government agencies, policy-makers, industry associations, the business community and the general public - in short, all those who contribute to the costs of - and enjoy the benefit from - modern, well-planned infrastructure.

This focus of this report is on urban transport infrastructure and its role in supporting smart urban development. When carefully integrated with land use planning, transport infrastructure has the potential to leverage the public’s infrastructure investment to achieve other complementary benefits. Some of the benefits of integrated transport – land use planning – include:

- Reduced traffic congestion and more travel options
- Increased housing options created by new residential development
- Lower housing construction costs and a greater supply of housing
- Improved public transport services and reduced journey-to-work times
- Increased jobs opportunities for employees and a larger pool of workers for companies
- More compact urban form and improved urban amenity
- More efficient use of existing urban land and public infrastructure.



Organisation of this report

- Chapter 2 – **What is value capture?** – provides an overview of this funding method. It describes how value capture is used as a funding method and as an aide in decision-making for urban renewal and infrastructure investment. It gives an indication of value capture’s potential contribution to these investments and the types of revenue sources used in successful programs.
- Chapter 3 – **Why we must consider value capture now** – examines global, state and metropolitan trends and conditions that should compel Commonwealth, state and local government agencies to consider this funding method. International examples are used to highlight key issues.
- Chapter 4 – **Key success factors** – describes a number of key success factors and guiding principles for value capture programs.
- Chapter 5 – **Value capture road map** – proposes that Commonwealth and state governments undertake practical research into value capture methods, and proposes key elements of a pilot program for this purpose.
- Chapter 6 - **Key findings and recommendations** – summarises key conclusions and recommendations for progressing value capture as a funding method for transport infrastructure and urban renewal in Australia.

What is value capture?

Considerable confusion exists in Australia concerning value capture. Although value capture has been widely used in North America since the 1960s and is expanding as a funding method in the UK and other countries, it is not well understood or practiced in Australia. This is partially due to differences in how state and local jurisdictions operate and have evolved over time, as well as differing relationships between local, state and national tiers of government between countries. There remain significant opportunities for federal and state treasuries to progress further funding and financing reforms and innovations, such as those recommended by the Productivity Commission, Infrastructure Australia and business associations.

Evidence from around the world demonstrates that well-conceived infrastructure investment creates new economic activity, some of which can be captured and returned to the public. Led by a number of research and public interest organisations, value capture programs are being introduced in both developed and developing countries to address infrastructure and urban renewal challenges. For example, the Lincoln Institute of Land Policy's 2015 conference is taking place in Brazil and will feature presentations on urban renewal and value capture from Chile, Panama and Brazil. The Washington DC based Urban Land Institute has published a guide to this funding model for its European members.

An Australian value capture program would need to respond to Commonwealth, state and local procurement, taxation, land use, town planning and other relevant policies and legislation. However, there are many drivers to support the adaption of this funding method to Australian conditions, not least that it presents the potential to provide a significant source of funds for infrastructure. The section provides an explanation of the key characteristics and objectives of value capture programs drawn from international examples and research.

Background

It is now widely accepted that investment in well-conceived transport infrastructure generates economic benefits that exceed costs. A recent study by the Australian Bureau of Infrastructure, Transport and Regional Economics (BITRE) estimated that public's investment in 128 road and rail projects in Australia returned \$2.65 for every \$1 invested and had a present value of net benefits of \$62 billionⁱ. In the UK, London's Crossrail project – an eight station, 21km addition to the metropolitan area's underground commuter rail network currently under construction – is expected to generate a benefit - cost ratio (BCR) of between 3.05:1 and 4.91:1 as a result of its impact on:

- Sustainable economic development and population growth by increasing transport capacity and reducing congestion on the transport network
- Improved transport connectivity through journey time savings
- Enhanced accessibility (including those with restricted mobility) thereby improving people's access to jobs, schools and other facilities
- Improved transport safety with reduced road accidents
- Environmental improvements, including a reduction in CO₂ emissionsⁱⁱ from cars.

Working with UK transport agencies and local businesses, the City of London introduced innovative funding methods to capture these benefits to help pay for the project, including direct contributions to capital costs and a Business Rate Supplement (BRS). The BRS collects 2% of the value of non-domestic properties in London having a rateable value of over \$102,950. These funds will be collected over 30 years and used to finance \$7.6 billion (26%) of the \$29.6 billion project.

Unlike in London and other global cities, Australian transport agencies have not adopted value capture appraisal procedures or funding mechanisms. Funding sources for infrastructure projects in NSW are typically funded from Commonwealth grants, state taxes, council rates, user charges and development levies. These sources have several shortcomings:

- Commonwealth grants, state taxes and council rates apply to all taxpayers within a given jurisdiction, so there is no nexus between the investment and its beneficiaries.
- User charges and fare-box revenues are generally insufficient to cover the large capital costs of long life infrastructure assets, such as light rail projects.

- Development levies are generally paid by developers as a lump sum, up-front payment, thereby increasing housing costs, reducing affordability and diminishing intergenerational equity.
- Investments in transport infrastructure and urban renewal are long term propositions, require large upfront costs, and may take years or even decades to fully amortise and recoup the initial investments.
- None of these methods target the indirect benefits of infrastructure projects.

The indirect benefits of infrastructure projects, referred to as "positive externalities" by economists, include increased tax revenues received by public agencies and financial windfalls received by property owners and businesses located near a transport project. For example, recent improvements to Sydney's suburban rail network around Epping station nearly tripled the value of nearby single dwelling properties from an average of \$1.2 million to over \$3 million eachⁱⁱⁱ.

Studies of the Mandurah Line expansion in Perth found that increased property values and tax revenues from similar commuter rail projects there were also substantial. In that study, increased tax revenues over 30 years resulting from the Mandurah Line amounted to 42% of the project's capital costs. If land use planning had been fully integrated with the expansion, tax revenues would have exceeded 60% of the capital costs of the project^{iv}.

While the financial windfalls from these examples were the direct result of the public's investment in transport infrastructure, no equitable mechanism exists in NSW, Western Australia or any Australian state or territory to capture indirect benefits to help pay for the infrastructure or related costs associated with the improvements. Rather than obtaining a financial benefit from its infrastructure investments, the Australian public is in effect paying an inflated price for land around transport infrastructure as a result of its investment, and the uplift in value solely benefits nearby property owners. This inflated cost is then passed on in the form of higher taxes, high housing costs and higher public transport fares. This is occurring throughout Australia despite an increasing gap in infrastructure funding.

Value capture as a funding method

Value capture funding methods identify and collect an equitable portion of the value released through new zoning and other public improvements so the communities that create this value share in the wealth it generates. There are a number of proven approaches that help reach the goal of sharing outcomes equitably with the public, investors and developers. The funds thus collected are deposited into dedicated accounts for a set time period and are used to contribute to both the cost of projects and to other public improvements to the civic realm.

Value capture is not a new tax. It allocates the uplift in benefits from public investments in ways that do not affect current or future tax rates. The "beneficiaries pay" principle lies at the heart of successful value capture programs. Importantly, these programs capture revenues that would not otherwise exist without the public investment, and can permanently increase the levels of revenue to the taxing authorities^v.

Figure 1 illustrates how tax revenues increase over time as well-planned capital investments are developed within a value capture precinct. As capital investments are made within the precinct, tax revenues increase above Base Year revenues as existing businesses expand and new businesses and residents are attracted into the precinct. The increases in revenue above the Base Year are collected for a set time period, say 20 – 25 years, and used to repay loans or infrastructure bonds which pay upfront for site improvements and infrastructure. At the end of the program, the full tax revenue stream is returned to the taxing authorities.

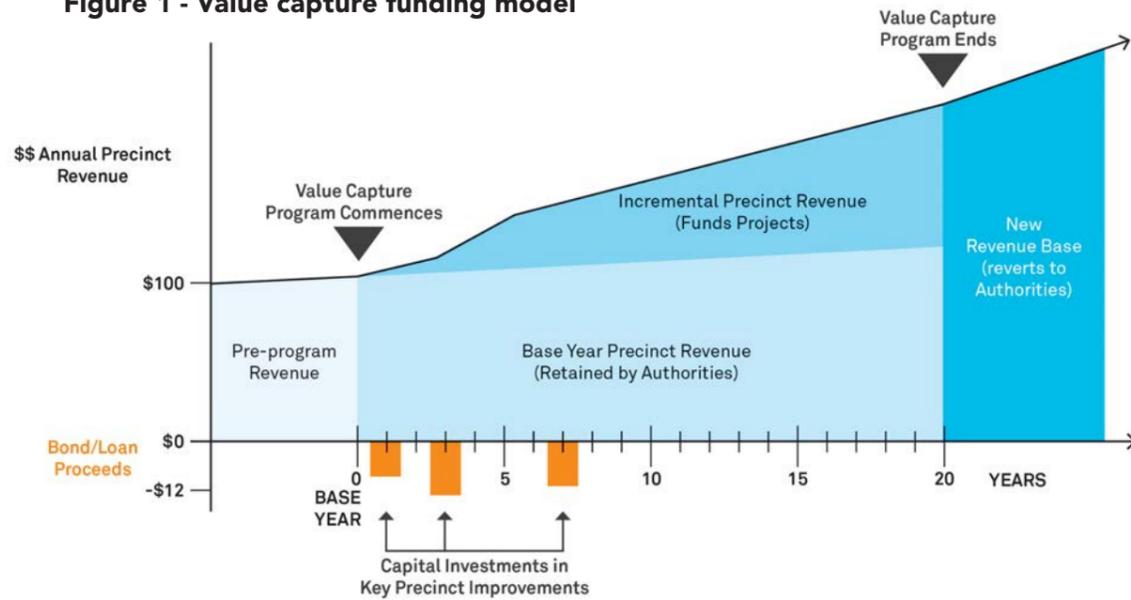
The New Revenue Base shown in Figure 1 combines Base Year Precinct Revenue plus Incremental Precinct Revenue generated by the infrastructure. The Incremental Revenue is directly attributable to the infrastructure it funds, and would not have been generated or collected without the infrastructure investment combined with a value capture program.

In addition to being used for transport infrastructure investments, value capture revenues have been used to pay for a variety of costs associated with unlocking the development potential of urban renewal sites, including:

- Environmental remediation of contaminated sites
- Property acquisition and site consolidation
- Demolition and site preparation
- Rehabilitation and renovation of historic structures
- Construction of new or improvements to existing civil infrastructure

Although new revenues from a public investment might extend beyond its immediate location, such as the wider community benefits of light rail or road improvements, value capture programs are carefully limited to high impact locations. This simplifies the process of identifying beneficiaries and equitably capturing project-related revenues. Spreading taxable activities over too wide an area reduces the overall efficiency and effectiveness of the program.

Figure 1 - Value capture funding model



Value capture as a decision-making tool

Value capture has evolved to become both a funding mechanism and a decision-making tool for public infrastructure. As a decision-making tool, the key objectives of value capture programs are to:

- Maximise property value uplift within a designated improvement precinct and,
- Contribute to an investment strategy that attracts complementary public and private sector investment.

Value capture programs contribute to public infrastructure decision-making by promoting “smart growth” principles. “Smart growth means managing urban development patterns and transportation networks to minimise environmental impacts and maximise the social and economic health to the community while making prudent use of capital and operating expenditures”^{iv}. Smart growth principles include:

- Stemming the spread of urban areas
- Concentrating growth in already urbanised areas
- Making better use of existing infrastructure
- Revitalising central business districts
- Enhancing transit facilities
- Shifting the emphasis to green buildings and energy sources, and
- Creating affordable, walkable and bike-able neighbourhoods.

Smart growth increases land value, the major source of the incremental tax revenue growth illustrated in Figure 2 by:

- Recognising the value creation potential of integrated transport and land use planning; and
- Driving changes in land use and transport within a defined improvement precinct to leverage the public’s infrastructure investment.

Numerous studies demonstrate^{vii} that well-planned urban renewal programs which integrate land use and transport infrastructure produce significant increases in land values. A 2006 study of 89 value capture districts

spread across 67 municipalities in the Chicago metropolitan area found that mean annualised property values in these districts increased by 35 per cent between 1983 and 1993, compared with a six per cent increase in overall municipal property values^{viii}. Industrial and CBD districts experienced the highest median increases, growing by 32 and 26 per cent, 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 in order to produce high value services and products. In essence, urban renewal programs not only revitalise our cities but also enhance public tax revenue over the long term.

Value capture’s potential contribution to capital costs

International experience demonstrates that well planned public transport can increase land market values by up to 50%^x. The extent of value uplift varies depending upon the nature of the infrastructure, the distance of property from the infrastructure, accessibility and urban design amenities, and numerous other factors. Value capture programs hypothecate a portion of this land value increase to help pay for the infrastructure.

The contribution that value capture programs can make to a project’s capital cost as a result of value uplift varies, depending upon the nature of the project, the value capture methods used and their complexity. For example:

- A study by KPMG for the Sunshine Coast light rail project indicated that a “well designed and articulated value capture strategy” could contribute in the order of 10% to 20% of that project’s \$1.8 billion cost.
- The Denver Union Station redevelopment project in the US State of Colorado, which serves as the transport hub for Denver’s light rail network, captured \$135 million of its \$446 million cost through value capture^x, or roughly 30% of the project’s capital cost.
- Hong Kong’s MTR (Mass Transit Rail) transit system is fully funded by property development gains. In this example, MTR acquires land for stations at values based on a no-rail scenario and improves the land with infrastructure, including transit stations. Development sites around the station are then leased at higher values with the infrastructure in place^{xi}.
- In Paris, the metro system is undergoing a major 200km extension costing €30 billion. The vast majority of funding will be from a regional tax on commercial buildings allocated directly to the project.

Clearly, value capture’s potential contribution has a wide range. Using a fully integrated transport operating and property development model in a densely developed urban environment, Hong Kong’s public transport system pays for itself. Given international experience in less densely developed cities in North America and Europe, it is reasonable to assume that a well-conceived and managed value capture program in Australia could contribute between 10% and 30% of directly related infrastructure costs within a defined improvement district. The actual contribution could be higher or lower, depending upon a number of key success factors which are considered in later sections.

Revenue sources

A wide variety of value capture methods exist to help pay for infrastructure and urban renewal. These programs originated in California in the 1960’s as a means of revitalising blighted commercial centres. Traditional value capture programs:

- Establish a clear nexus between the beneficiaries of the investment and the charges applied to those beneficiaries.
- Hypothecate only the *increase or some portion of the increase* in property values and public revenues attributable to public investments, and are therefore cost-neutral to property owners because increases in taxes paid are offset by a corresponding increase in property values.
- Pay for only predetermined urban renewal projects and programs for a fixed time period, usually 20 to 30 years, thereby allowing their return on investment to reach full maturity.
- Provide investments that would not have been made but for a clearly documented public need, such as urban blight.

After over 40 years of use in the US and other countries, value capture methods have expanded and evolved to include methods that do not always adhere to the objectives and characteristics in the original legislation. For example, legislation in Queensland refers to some forms of additional property taxes used to fund infrastructure as “value capture”, when in fact they are simply additional taxes and have no stated or implied nexus to value. The Gold Coast light rail transport levy, a \$111 annual charge against all ratepayers, is an example. This distinction is important because infrastructure funding methods tend to be regressive unless:

- They capture additional value over and above a “without investment” scenario; that is, they are based upon a net increase in surrounding property value or tax revenues created by the infrastructure, and
- They hypothecate only the resulting increase in tax revenues to fund the infrastructure, not the underlying pre-investment tax revenue.

Funds come from a variety of sources in overseas value capture programs. The following list describes common funding sources, some of which are currently in use in traditional Federal, NSW and local government funding programs. Not all of these sources would be appropriate or supported in a NSW value capture program, but are listed for completeness:

1. Retail sales taxes (GST)

Modest increases or partitioning of retail sales taxes, similar to GST, are frequently used in overseas value capture programs at the local government level for a variety of public purposes, including for light rail projects and general revenue. These often require voter approval via a public referendum. In NSW, the equivalent of retail sales tax is the GST, which is administered at the national level in Australia and is redistributed to the states and territories.

2. Transfer (stamp) duties^{xiii}

Stamp duty is applied to all property transfers and some other transactions in NSW. In 2014-15, stamp duty is expected to generate \$7.2 billion (31%) of NSW tax revenue. Changes in legislation would be required to use this source in a value capture program.

3. Payroll taxes

In NSW, companies with payrolls exceeding \$750,000 per annum incur payroll taxes. The current payroll tax rate is 5.45% above this level. Payroll tax is expected to generate \$7.8 billion (30%) of NSW tax revenue in 2014-15.

4. Property taxes

Property taxes are the most commonly used source of value capture programs in North America and are typically based upon the combined value of land and improvements on a given parcel of land. In NSW, land tax does not apply to a principal place of residence. In some jurisdictions, including NSW, unimproved land value only is used in calculating land tax. Land tax is expected to contribute \$2.7 billion (10%) of the State’s tax revenue in 2014-15. Legislative changes would necessarily be required to use land tax as a value capture mechanism.

5. Council rates

In NSW, council rates generally apply uniformly throughout a local government area (LGA), as opposed to a specific benefitted area within the LGA, which is a characteristic of value capture programs overseas. Council rates are set and strictly controlled by the NSW Government based on the cost of administering the LGA. Local councils have little control over this revenue source as annual rate increases are capped and any increase in rates requires state government approval. Council rates are therefore not well suited to value capture methods without the approval of NSW Government and changes to current legislation.

6. Section 94 development contributions

Councils in NSW have the ability to levy developers for contributions towards local infrastructure under Section 94 or Section 94A of the Environmental and Planning Assessment Act (EP&A)^{xiv}. Section 94 contributions plans must identify specific public improvements and their costs, and the funds collected must be held in a separate account and applied only to those public improvements.

7. Voluntary Planning Agreements

Voluntary Planning Agreements (VPAs) may be accepted as an alternative to development contributions. A VPA is an agreement entered into by council and a developer during council’s consideration of a rezoning application (planning proposal) or development application. VPAs can either be in lieu of or in addition to a development contribution payment. This is negotiated as part of the VPA^{xv}.



Gold Coast light rail Stage one, photo courtesy of the GoldLinQ consortium

8. Special rates

The NSW Local Government Act permits local councils to apply special rates in certain circumstances, such as to extend water supply networks and drainage systems. Using this Act for value capture purposes would require minor changes to the current legislation.

9. Sale of bonus gross floor area (GFA)

Some local government councils in NSW enter into Voluntary Planning Agreements (VPA) under which additional development rights above existing zoning are sold to developers and the proceeds used to fund community infrastructure. The sale of GFA is a common funding mechanism overseas and is a logical source of additional infrastructure funds where transport and other infrastructure capacities exist to support the additional demand for services. However, there are examples in NSW where state and local authorities have lifted development rights without the additional services capacity being available, leaving infrastructure providers with no means of augmenting services to meet the increase in demand. The most evident result of the mismatch between approved development and lack of infrastructure capacity is traffic congestion.

10. Sale and / or lease of air rights

Government agencies frequently sell or lease air rights above publicly-owned land, such as for development over road reservations and railway corridors. The St Leonards railway station on Sydney’s north shore is a good example of air rights development. This method is widely used in Hong Kong, Japan, the US, France and the UK to fund metropolitan transport systems but is not used for this purpose in NSW.

11. Sale or lease of surplus development sites

The sale or lease of surplus public land has been frequently recommended as a source of revenue for infrastructure and desirable policy reform by the Productivity Commission, Infrastructure Australia and the NSW Parliament. UrbanGrowth NSW is pursuing this option in a number of instances. However, Government agencies and community groups often resist the sale of government assets, delaying or preventing projects from proceeding.

12. Parking levies

Parking levies are used by North Sydney Council and City of Sydney Council as a revenue source and as means of controlling congestion. In Perth, parking levies are used to fund free public transport in the city centre.

13. Hotel taxes

Some city and state governments in North American impose hotel occupancy taxes that are hypothecated to value capture funds. These examples are common in large cities that have significant convention and tourists trades, but are not used in NSW.

14. Capital Gains Tax (CGT)

Under current provisions, owner-occupiers of residential properties do not pay CGT upon the sale of their properties. A proposal has been put forward at the Federal level to introduce CGT on owner-occupied properties experiencing a sharp increase in value as a result of a public infrastructure investment. The CGT would only apply to "super" profits from property sales attributed to the public infrastructure investment.

Under this scheme, owner-occupiers would be entitled to the CGT-free, Base Case market value proceeds from the sale and / or compulsory acquisition of their homes; this is, the value as determined prior to the infrastructure's influence on property values. Proceeds above the Base Case market value, the "super" profit, would be split between the owner-occupier and the infrastructure funding agency. This would allow a portion of the value created by the public infrastructure investment to be used to fund it.

15. Property development

State and local government land holdings frequently include surplus or under-utilised land that can be either sold or developed to provide a source of revenue, and can be incorporated into an infrastructure or urban renewal project. For example, a 2013 inquiry into rail corridors by the NSW Legislative Assembly directed the state Treasury to implement value capture mechanisms to generate funding for infrastructure projects^{xvi}.

Evaluating funding options

When considering value capture methods that would be appropriate for NSW, a number of factors need to be considered. Table 1 provides a list of criteria and measures which could form part of a value capture evaluation framework.

Table 1 Value capture evaluation framework

Category	Criteria	Measures
Equity and efficiency	Economic Development	Achieves targeted economic development objectives Attracts significant levels of complimentary investments Promotes productivity, job creation and housing affordability
	Efficiency	Ease and expense of administration Existing systems equipped to implement without significant cost
	Effectiveness	Ratio of revenue captured versus cost of administration.
	Equity	Clear, direct nexus between beneficiaries and charges
Revenue character	Net revenue generated vs administrative costs	Probability of significant positive return on investment
	Certainty of revenue streams	Confidence that revenues will meet or exceed forecasts
	Reliability of revenue streams	Stability and predictability of revenue
Acceptability	Public acceptance	Stakeholders support
	Council acceptance	Councillors' support
	State agency support	State agency support
	Treasury support	Treasury support
Revenue Quantum	Contribution to the value capture program	Potential level of funding generated

In addition to applying rigorous evaluation criteria, successful value capture programs employ detailed financial modelling of revenue sources under various scenarios to forecast future revenues with and without the infrastructure investment. Figure 3 provides an example of output from a value capture financial model from the east coast High Speed Rail (HSR) feasibility study undertaken by AECOM for the Department of Infrastructure and Regional Development.

The model estimated the potential revenue generated from an urban renewal program undertaken around Sydney' Central Station without (Base case) and with an HSR station.

Figure 2 illustrates the potential impact on public revenues of an urban renewal program integrated with an HSR station around Central Station. Columns above the Base case are estimates of incremental revenue generated within a transport improvement district from increased residential and commercial density and economic activity made possible by the HSR station. The HSR value capture study concluded that under an integrated urban renewal program, revenues under a medium growth rate scenario would increase by \$6.3 billion over 30 years, as detailed in Table 2.

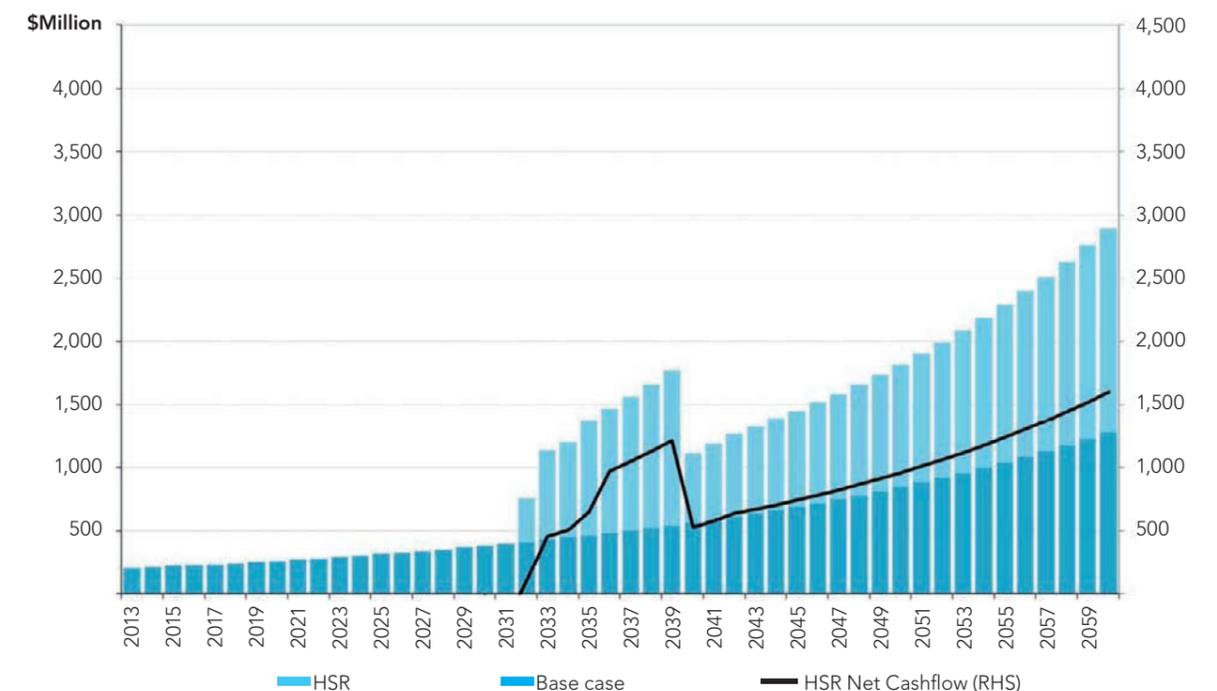
Table 2 Sydney Central Station - value capture revenue streams

Potential revenue streams	Present value (\$2012, billion)
Stamp duty	\$1.49
Land tax	\$.18
Parking levy	\$0.24
Special rate	\$1.29
Government asset sales	\$2.11
Bonus floor space sale	\$1.29

Source: Department of Infrastructure and Regional Development, *High Speed Rail Phase 2 Feasibility Study*, 2013

In undertaking value capture financial modelling, conservative treatment of future cash flows is used to account for the peaks and troughs in revenue and multiple revenue sources are combined to spread funding and financing risks. This explains the very low failure rate of US municipal bonds, which had a 10 year cumulative default rate of 0.04% between 1970 and 2000^{xvii}. Municipal bonds are the primary source of financing for local government infrastructure in the US. Although Australia does not currently have a municipal bond market, it could adopt similar underwriting standards to back worthy infrastructure financing programs to achieve similar results in NSW and other jurisdictions.

Figure 2 High Speed Rail value capture revenue projection, medium scenario



Source: Department of Infrastructure and Regional Development, *High Speed Rail 2 Feasibility Study*, 2013

Why we must consider value capture now

There are a number of compelling reasons why value capture funding methods should be considered now. Fundamental changes are occurring in the global economy that will influence the Australian economy and society well into the future. The daily evidence of these changes can be seen around us, but we remain as complacent as a frog in a slowly heating saucepan. In order to grasp the magnitude of changes that are occurring and begin to undertake the significant reforms required to deal with those changes, we need to act now or be willing to accept a steadily diminishing quality of life for future generations.

Australia's future economic well-being will be heavily influenced by three factors;

- Economic alignment with global growth sectors
- The productivity of our cities
- Demographic changes affecting our workforce.

These factors will have an increasing impact on state budgets, the shapes of our cities and our ability to compete successfully with our international trading partners. Infrastructure will play an important role in meeting these challenges. As competition for limited budgets increases, it is important for public agencies to consider how additional funding can be equitably generated from infrastructure to meet the public's expectations for improvements in service quality. This section examines these issues.

Advocates of value capture

The potential of value capture methods to contribute funds for infrastructure is widely acknowledged but rarely practiced in Australia. NSW Premier Mike Baird spoke to the possibilities of value capture methods while serving as shadow treasurer^{xviii}, and Federal MP Malcolm Turnbull flagged the benefits of their use to fund public transport in order to achieve social equity goals^{xix}.

The Infrastructure Finance Working Group (IFWG), an expert advisory panel established to provide advice to Infrastructure Australia, has urged government agencies to tap into the value created by infrastructure. In its 2012 report, IFWG said;

"Critical to successfully tackling the infrastructure deficit is for all stakeholders to recognise that productive infrastructure is an investment, not a cost. It will contribute to wealth generation and a consequent improvement in our quality of life.

Conversely, a failure to make timely investment in infrastructure will reduce our productivity, reduce our global competitiveness, and lead to a reduction in living standards^{xx}.

Value capture programs such as Tax Increment Financing (TIF) have been directly and indirectly proposed as potential new funding sources in Australia by international organisations, Commonwealth and state government agencies, professional associations, the property development industry and urban planners. Examples include:

- The Business Council of Australia (BCA): "Value-capture initiatives should also be expanded so that wider beneficiaries of a project, such as local landholders and businesses, also make a contribution. The federal government could look to reprioritise the federal budget to spend more on infrastructure out of recurrent expenditure. Use dedicated infrastructure funds to ensure money goes to projects that have proper assessment behind them^{xxi}.
- PwC: "The scope of TIF could be extended to transport and economic infrastructure projects procured at State level. Railway and road extensions (similar to the Northern Line extension in London) could be financed through TIF".

"The success of this application lies in creating an effective link between the cost of infrastructure provision and those who benefit from it. Social equity issues tend to be addressed where this link is legitimate^{xxii}.

- Productivity Commission; "The...discussion of user charges and value capture options indicates that there is merit in requiring governments to utilise opportunities for users and other beneficiaries to fund a project before resorting to government funding...It is recommended that this be part of a package of best practice arrangements that governments adhere to for the provision of public infrastructure^{xxiii}.

Despite these recommendations and endorsements, Commonwealth, state and territory governments continue to resist efforts to introduce new funding strategies in Australia. As a result, government at all levels may be grossly underestimating the benefits that could be generated by infrastructure investments and missing an important supplement to traditional funding sources.

Global context

The global economy has grown significantly over the past decade, with output more than doubling from US\$30 trillion to US\$74 trillion between 2000 and 2013. Growth in Australia's Gross Domestic Product (GDP) has generally been above three per cent per annum since 1993, except during the Global Financial Crisis, when it dipped to 1.5 per cent^{xxiv}.

In the near term, the major world economies, excluding China, are projected to return to a 3.6 per cent average GDP growth rate by 2014-15. Beyond 2019, global economic growth is expected to taper off to around three per cent per annum. China's GDP is expected to stabilise from a high of 13 per cent to around seven per cent, before steadily declining to around six per cent by 2031^{xxv}.

Significant shifts in global markets will affect Australia's economy in the future. Past domestic growth has been driven by numerous large-scale resource projects, particularly those supplying raw materials and energy to China. As China's economic growth has declined, new suppliers from South American and Africa have entered the global resources market. This means that global resource suppliers, including Australia, will be competing for a diminishing demand for raw materials. Australia's growth in the future is therefore expected to be less influenced by China's energy and resource needs, and relatively more affected by wider global economic trends.

The Australian economy is projected to grow at around three per cent per annum over the next two decades. If Australia is going to achieve or exceed this rate of growth, it will need to become more productive, exploit its natural advantages and continue to transition away from sectors where it no longer holds a competitive advantage.

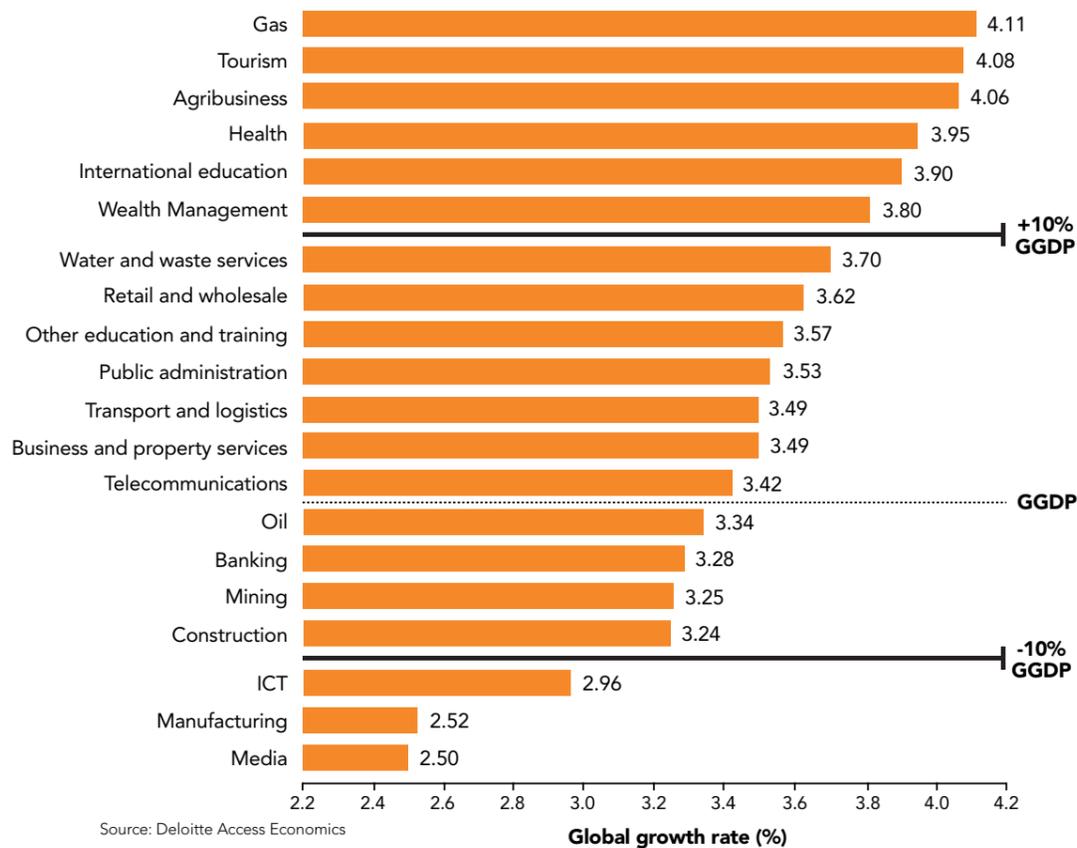
A recent study by Deloitte Access Economics^{xxvi} highlighted five advantages Australia's has when compared with its trading partners:

- World-class resources in land, minerals and energy
- Proximity to the world's fastest growing markets in Asia
- Use of English, the world's business language
- A temperate climate
- Well-understood tax and regulatory regimes.

Based on the forecast growth in global gross domestic product (GGDP), the study identified the following industry sectors offering Australia the most promise in the future:

- Gas
- Tourism
- Agriculture
- Health
- International education
- Wealth management

Figure 3 Global GDP Growth Rate 2013-2033



As shown in Figure 3, these sectors are expected to grow by over 10 per cent globally in the future. Four of the top six growth sectors – tourism, health, international education, and wealth management – are sectors where Australia currently holds a competitive advantage over some Asian competitors. However, this advantage is slipping as countries throughout east Asia transition from “developing” to “developed” economies, and their social and economic infrastructure begins to compete with slower growing developed countries, including Australia, Japan, the US, the UK, and the EU. In contrast, mining and manufacturing, Australia’s traditional sources of growth, are expected to grow by less than four percent.

These trends require Australia to realign infrastructure investment at the intersection of our natural advantages and future global growth sectors^{xxiv}. Improvements in international freight, internet bandwidth and manufacturing technology will enable lower cost overseas providers to compete directly with local suppliers for high value products and services. An unproductive investment in one location will negatively affect our ability to make productive investments elsewhere. As explained below, urban centres generate 80 per cent of Australia’s economic activity and are the main locations for four of the six fastest growing sectors listed above. Investment decisions in these areas will significantly influence Australia’s economic growth trajectory in the future.

State context

States and territories throughout Australia are ramping up infrastructure investment to build new infrastructure, maintain and repair deteriorating assets, support population and employment growth, and boost economic performance. For example, in its 2014/15 budget, the NSW State Government announced a record \$61.5 billion program of transport and urban renewal projects across the Sydney metropolitan area.

In contrast, large scale infrastructure spending in the resource sector across Australia is projected to experience a pronounced decline. This will put more pressure on state governments to make better use of alternative measures to fund major projects, such as asset recycling, improved procurement practices, and funding and financing reforms. Gaining acceptance from the electorate for some of these measures will take time and is not assured, as evidenced by the 2015 Queensland and 2014 Victorian state elections.

The 2014-15 NSW budget proposes a four year infrastructure expenditure plan of \$61.5 billion on productive infrastructure^{xxvii}, including \$1.63 billion in the current year for:

- North West Rail Link - \$863 million
- South West Rail Link - \$103 million
- CBD South East Light Rail - \$265 million
- WestConnex motorway - \$398 million

The NSW Government expects to fund some of these costs from the leasing of 49 per cent of its electricity distribution assets, which will be recycled into the Rebuilding NSW program^{xxviii}.

These commitments by the NSW Government will generate long-term benefits to the national, NSW and metropolitan economies. But as shown from examples in other countries, opportunities remain for the NSW Government to capitalise on these investments. If just 10% of the value on the four projects listed above could be captured from passive beneficiaries and dedicated to an infrastructure fund, \$163 million would be available to offset infrastructure costs to NSW taxpayers. If value capture methods could be applied in a similar manner with similar results to the four year infrastructure investment plan, NSW taxpayers would recoup \$6 billion over the coming decades to help fund infrastructure investments. Given these examples, Commonwealth and state government agencies should be encouraged to seriously consider value capture funding methods.

Urbanisation



A 350 km/h high speed train awaits passengers at Shanghai Hongqiao station. Photo credit: Joe Langley.

“Cities” according to the World Economic Forum, “are the lifeblood of the global economy”^{xxix}. In 2010, over half of the world’s population lived in urban areas and 80 percent of global GDP was derived from urban areas. It is estimated that an additional 2.5 billion people will move to urban areas by 2050. In order to maintain their competitiveness, cities need to improve their productivity against their global peers.

Urbanisation is a worldwide phenomenon, with the fastest growth in cities occurring among Australia’s Asian trading partners. Currently, over 80 per cent of Australians live in urban areas and over 80 per cent of economic activity takes place in cities.

Globally, over 50 per cent of the world’s population resides in urban areas, but this is rapidly changing, particularly in Asia. Seven out of 10 cities over 5 million people are in China; and China’s biggest cities are growing at 3.9 per cent, twice the rate of the rest of the world. Among the 100 fastest growing cities, 66 are in Asia and 33 are in China.

Because of their faster rates of growth and larger scale, Asia cities are expanding rapidly in greenfield locations, allowing their governments to build at higher densities and with modern public transport and civil infrastructure. For example, Taiwan’s major population centres are now linked by a new high speed rail line between the national capital in Taipei and the southern city of Kaohsiung, a 340km, 96 minute trip^{xxx}. The line eliminated commercial air travel between these cities within five years of commencing service. Australia’s slower rate of urban growth is taking place primarily in existing capital cities, requiring redevelopment of the existing urban footprint and upgrading of commuter rail networks first constructed in the 1890s.

As Asian cities grow and become more advanced, they will increasingly compete with Australian cities as providers of high value products and services, eroding our historic competitive advantages. In order to offset the decline mining and manufacturing, Australia must make its cities more competitive on a global scale. High density employment centres, accessible and affordable housing, modern infrastructure and efficient transport systems will play critical roles in this effort.

Population, Productivity and Participation

The 2015 *Intergenerational Report*^{xxxii} identifies the key drivers of the economy as population, participation and productivity. Following a long and steady increase in these factors over past 40 years, the Australian economy is entering a period of slightly lower growth over coming decades. For example:

- Population growth will drop to an average annual rate of 1.3 percent from 1.4 percent
- The participation rate, which measures the working status of persons aged over 15, will drop from 64.6 per cent in 2014-15 to 62.4 per cent in 2054-55
- Australia's productivity will decline to an average annual rate of 1.5 per cent from a high of 2.2 per cent in the 1990's.
- Australia's global competitiveness ranking fell from 21st in 2014 to 22nd in 2015, compared with New Zealand, which rose from 18th to 17th and the UK, which rose from 10th to 9th during the same period^{xxxiii}.

Slight changes in these trends over the next 40 years will have major impacts on Australia's economy and competitiveness. Value capture funding methods help address a number of challenges in making Australian cities more competitive, including:

- Increasing productivity
- Closing the infrastructure funding gap
- Integrating land use and transport planning
- Improving the return on investments from infrastructure

Demographic trends, including an aging workforce and increasing dependency ratios will become an increasing drag on the Australian economy. Many economists believe the best way to respond to these trends "is to support strong, sustainable economic growth. Economic growth will be supported by sound policies that support productivity, participation and population — the '3Ps'"^{xxxiii}.



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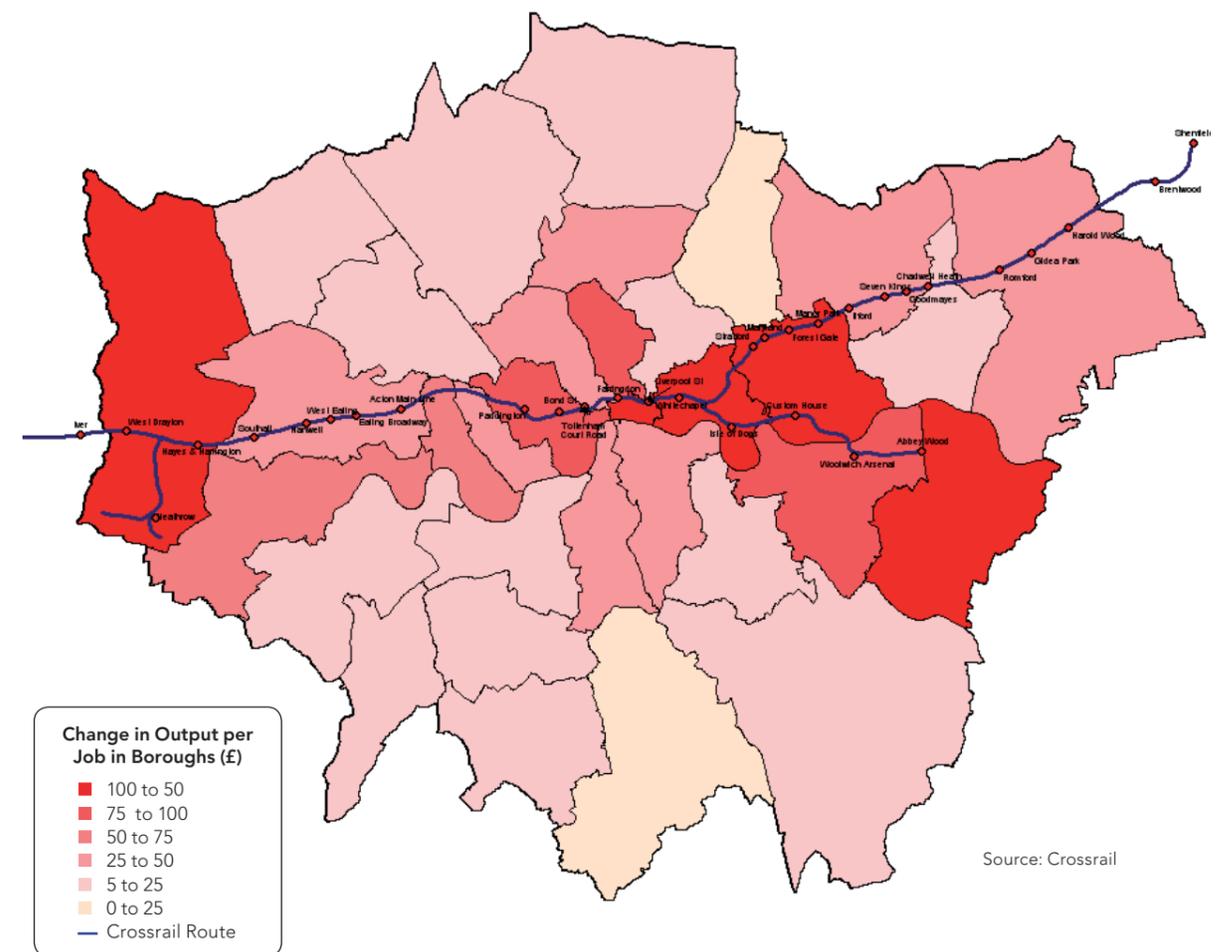
In the UK, the City of London and transport agencies are investing in Crossrail to support the country's sustained economic growth by improving access to jobs. Crossrail is Europe's largest construction project, costing \$29.6 billion. The first services through central London will start in late 2018, eventually serving 200 million annual passengers.

Crossrail will increase London's transport capacity by 10%. It will bring an additional 1.5 million people to within 45 minutes of central London and link London's key employment, leisure and business districts – Heathrow, West End, the City, Docklands. This will allow more workers to find jobs and companies to deliver more specialised, higher value services.

The business case for Crossrail is being underwritten by capturing increased property values in locations served by the project and by transport benefits generated for business and commuters, including:

- Faster journeys
- Less congested trains and stations
- Reduced need to interchange
- Improved quality of services

Figure 4 Crossrail outputs per job (£s)



Source: Crossrail

London's transport benefits arise from the pure agglomeration effects of Crossrail, which captures the increase in productivity workers will experience from improved accessibility to jobs and housing.

These benefits are measured as Gross Value Added - the additional value of output generated by organisations resulting from employees' increased productivity. The London boroughs which are projected to experience the most significant changes in accessibility to jobs will have the highest change in output per job (see Figure 4).

Australia will confront major challenges in the coming decades as global markets for goods and services become more competitive, infrastructure budgets become squeezed by competing demands, and demographic changes ripple through the national and state economies. The UK's Crossrail project offers a world's "best practice" case study on how these challenges can be met.

Key success factors

Experience with infrastructure investment in Australia and internationally demonstrates that a number of factors would be essential in successful value capture programs in this country. Drawing from Australian and international examples^{xxxiv}, this section identifies key issues facing the development of an Australian value capture funding model and proposes guiding principles that should be applied in designing and implementing a value capture program.

Comprehensive, long term planning and funding strategies

Issue

It makes sense that infrastructure assets that last 50 years or more should also be based upon long-term comprehensive planning and funding strategies. NSW needs infrastructure funding options that go beyond election cycles and tap into the demand for stable, long-term investments by private sector institutional investors, such as insurance companies and superannuation funds.

Governments must do more and better long term planning. For example, the recently released metropolitan strategy for Sydney has a 20 year time horizon and forecasts 1.6 million new residents by 2031. However, the planning strategy is not linked to a funding strategy. This leaves future long-term, billion dollar infrastructure investment decisions to be determined by the political considerations of the day. As identified by the Productivity Commission, infrastructure planning and decision making must be supported across the states and territories by independent, expert and transparent advice.

Guiding principle

Infrastructure and urban renewal projects and programs supported by value capture methods should be based upon a minimum time horizon of 20 years to allow for funding sources to realise their full potential. Projects and programs should be fully costed, conservatively underwritten and include detailed financial modelling. Funding sources should be locked in for the life of the program to provide stable and secure revenue sources.

Genuine and robust stakeholder consultation

Issue

Genuine stakeholder engagement is essential in order to successfully implement the legislative, funding and financing, and governance reforms necessary to build and maintain world-class infrastructure and competitive cities in Australia. New infrastructure funding and delivery methods will require public policy reform, which itself requires patient and extensive public education and engagement so that informed decisions can be made by tax-payers and elected officials.

A common shortcoming of past failed infrastructure projects in NSW, such as the Cross City Tunnel and West Metro rail proposal in Sydney, can be traced back to some degree to compressed timeframes and poorly implemented or disingenuous public engagement programs. In contrast, the stakeholder consultation program undertaken by the Sunshine Coast Council for its light rail proposal includes a realistic timeframe for community engagement, a dedicated website, and an extended public education program including public displays and community meetings^{xxxv}.

Consult Australia's *Guide to Procuring Engagement Services*, available to download at www.consultaustralia.com.au explores the benefits and risks associated with effective engagement, and explains the procurement process for engagement services in detail across eight steps.

Guiding principle

A genuine and robust stakeholder engagement program, developed and implemented by specialists in that field, is an integral part of successful value capture programs. Business and community participation and membership at various levels in consultative committees and boards and in the decision-making process should be encouraged.

Precinct-based planning and funding

Issue

Precinct-based planning and funding allows stakeholders to focus on specific infrastructure needs, develop tailored solutions, clearly identify beneficiaries and better define funding options. It also allows sponsors and program managers to track results earlier and make program improvements. Pilot projects with well-conceived funding guidelines and objectives are excellent means of testing and improving concepts and techniques before full program rollout occurs.

The location and boundaries of value capture improvement precincts should be carefully selected to include existing and potentially new complementary commercial and public activities and investments that can be further levered by the primary infrastructure investments. Smart growth principles discussed earlier provide excellent planning frameworks to leverage public sector investments in our cities.

The NSW Department of Planning and Environment (DPE) and UrbanGrowth NSW employ precinct-based planning frameworks, including the DPE's Urban Activation program, Priority Precincts program and Local Infrastructure Growth Scheme^{xxxvi}. However, these frameworks are almost exclusively based on traditional zoning and related regulatory practices and solutions, and traditional funding methods. There are no provisions for investigating or proposing alternative funding arrangements, in spite of the fact that traditional funding methods are widely regarded as inadequate to meeting current and future funding needs. Planning without funding erodes public confidence in urban renewal agencies.

Guiding principle

Value capture programs should be carefully ring-fenced within a defined precinct. The precinct should encompass complementary community activities and assets that would benefit from the infrastructure investment and that could be leveraged to generate wider economic benefits. Typically, these precincts are contained within a kilometre radius of the transport improvements.

Transparent and balanced governance frameworks

Issue

NSW continues to struggle under suboptimal governance arrangements at the local and state government levels. The potential for local government to contribute to infrastructure delivery remains bogged down in unfulfilled government reform proposals, strangled by state government bureaucratic processes, and stifled by over-reach into decisions better made at the local level.

The Productivity Commission's 2014 report found that "institutional and governance arrangements for the provision of much of Australia's public infrastructure are deficient and are a major contributor to unsatisfactory outcomes"^{xxxvii}. The Commission recommended that all governments put in place best practice arrangements for "transparent, innovative, and competitive processes for the selection of private sector partners for the design, financing, construction, maintenance and/or operation of public infrastructure".

According to United Nations study of world urbanisation, "successful sustainable urbanisation requires competent, responsive and accountable governments charged with the management of cities and urban expansion. There is a need for building institutional capacities and applying integrated approaches so as to attain urban sustainability"^{xxxviii}. Rather than continuing to retool existing governance arrangements, NSW needs to consider adopting successful international models to make step-change improvements in this area.

The current local government devolution program underway in the UK demonstrates the benefits of transferring greater authority to local councils. According to a report to Parliament on its progress, "devolving and decentralising power and enabling local people make decisions in these areas creates the conditions for sustainable growth, better public services and a stronger society". The program includes funding models for long-term transport and growth that rewards cities for demonstrating economic benefits and impacts made under the scheme^{xxxix}. Similar wholesale reforms are needed in Australia.

Guiding principle

Local government in NSW should become a key partner in precinct-based infrastructure and urban renewal planning, decision-making, funding and delivery. A general transfer in responsibilities and powers from state agencies to larger, financially stronger and better resourced local governments for planning, decision-making, funding and geographically delivery of urban infrastructure should be pursued as a mid to long-term policy objective.

Understand and balance risks and rewards

Issue

The importance of a shared understanding and equitable balancing of the risks and rewards in public-private partnerships (PPP) is critical given the magnitude of future infrastructure investment in NSW and the need for private funding. The failure of two major PPPs in Sydney, the Cross City Tunnel and the Lane Cove Tunnel, are recent examples where those qualities were lacking. For example, as the Cross City Tunnel approached financial collapse in 2006, the then Minister for Roads said that “any financial loss to the present operators of the Cross City Tunnel is strictly that of the private sector, it does not come back onto the taxpayers of this state”^{xl}.

Of course, taxpayers do pay when financing becomes too expensive, conditions too onerous or government contracts too unreliable for cost-effective private financing and delivery of major infrastructure projects. Current negotiations over the cancellation of the \$6.8 billion East West Link project in Victoria, at a cost to taxpayers of up to \$1.2 billion paid to the consortium PPP, will surely add to private sector anxieties in this area.

According to a recent report by ANZ Bank, state governments have responded to past PPP failures by taking on higher risks for some greenfield projects, providing financing to attract private sector capital and introducing processes for unsolicited infrastructure proposals^{xli}, such as the NorthConnex project connecting the F3 Freeway to the M2 toll road in north Sydney. While these initiatives are welcome, federal and state government agencies need to continue the reform agenda, accepting and implementing recommendations well made by the Productivity Commission and other stakeholders.

Guiding principle

NSW Government should accelerate its infrastructure reforms as outlined by the Productivity Commission and Infrastructure Australia, and seek genuine partnerships with the private sector based upon an equitable balancing of risks and rewards.

Use incentives to attract private investment and better design

Issue

The NSW Environment and Planning Act 1979 is cumbersome and process-oriented legislation that stifles innovation and good urban planning and design. Reforms proposed under the 2013 Planning Reform White Paper, which failed to gain approval from the NSW Parliament, were intended to address many of the Act’s failings, including its complexity, lack of early and effective community engagement, limited scope for strategic planning, and the absence of infrastructure funding provisions. The revised act’s greater emphasis on merit-based planning and integrated planning and funding of infrastructure would have addressed many of these issues.

Value capture programs require close integration with local planning and development controls. Value capture programs incorporate incentives within local government planning controls to attract private investment, promote economic development and capture revenue for infrastructure. Complementary programs developed with urban renewal and other agencies can also achieve social outcomes, such as affordable housing, thereby leveraging the public sector investment on multiple fronts.

In Colorado, the Denver Urban Renewal Authority (DURA) has operated a number of innovative value capture programs to promote low and moderate income housing close to city-centre jobs. DURA’s housing rehabilitation program provides very low interest loans for qualifying low and moderate-income homeowners in urban renewal precincts to make emergency repairs or needed improvements to homes. The program has been in place for over 30 years and to date more than 15,000 Denver homeowners have used these loans to improve the value, safety and living conditions of their homes. The resulting increase in property value is captured and recycled back into the program^{xliii}.

Similar programs in Denver and other cities use revolving funds to improve and standardise building facades of retail and commercial buildings, upgrade public plazas and amenities, and provide high standards of maintenance and security in designated commercial centre improvement precincts.

Guiding principle

Successful value capture programs use financial and other incentives to attract private investment and engage businesses and residents in related programs that improve property values, neighbourhood amenity and economic activity. In this way, value capture programs can generate broadly-based community benefits and become self-funding.

Stronger urban renewal powers

Issue

Urban renewal efforts in NSW are hamstrung by weak urban renewal powers. The resulting lack of progress has caused broad community scepticism regarding the need for and benefits of urban renewal.

Planning controls and compulsory acquisition powers need to provide urban renewal authorities with the ability to undertake timely and sometimes widespread urban renewal programs where necessary or desirable in the broader public interest. The 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. The continuing shortfall in housing production in the Sydney metropolitan area, estimated to be 56,000 approvals over the past 10 years^{xliii}, is in part due to the lack of effective urban renewal powers. Some of the common limitations that apply in NSW and other states include:

- Narrowly defined limits apply to compulsory acquisition. Under the NSW Land Acquisition (Just Terms Compensation) Act 1991, there is no specific reference to urban renewal as a public purpose, reflecting the traditional purposes of the Act for site-specific infrastructure (roads, utility easements, public buildings, etc.). Stronger powers are needed to rebuild Australia’s 200+ year old urban infrastructure and sustain its economic growth.
- There is no recognition of the value created by the public investment. The compensation payable under compulsory acquisition is based upon the market value of the property, disregarding increases in value caused by carrying out the proposed improvement.
- The ability to consolidate, improve and on-sell urban renewal sites is limited. NSW urban renewal agencies cannot acquire private land at current market value, invest in replanning and site improvements, and on-sell urban renewal sites, with resulting profits used to fund the redevelopment. There is no financial incentive to carry out value-creating urban renewal.
- Lack of priority given to urban renewal among state agencies. NSW state agencies controlling urban renewal sites, such as Transport for NSW and Sydney Water Corporation, are not compelled under the current Act to turn over land for urban renewal, even with clear mandates from the NSW Premier. Interagency competition for control of urban renewal sites is causing major delays in Sydney’s urban renewal program.

In part due to different historical circumstances, strong urban renewal powers are evident in - and a major reason for - the success of urban renewal and transport projects overseas. Large-scale urban renewal projects, such as the Bays Precinct and Central to Eveleigh, will require strengthened powers to achieve world-class status at the pace needed to maintain Sydney’s global competitiveness.

Guiding principle

Local government and urban renewal agencies need stronger powers if they are going to make meaningful improvements in housing approvals and affordability, infrastructure upgrading and renewal, and broad scale regeneration of industrial precincts, commercial centres and neighbourhoods. This will require:

- Concerted public education and engagement efforts to bring the voting public along with necessary changes
- Changes to existing planning and local government legislation to strengthen urban renewal powers
- New legislation to expand funding and financing options for local government and urban renewal agencies.

Recognise and incorporate wider economic benefits

Issue

Australian Commonwealth and state treasuries, unlike their counterparts in the US, Canada the UK and other countries, do not appropriately recognise wider economic benefits (WEB) when assessing major infrastructure projects. This situation still exists despite the NSW Government's 2010 post assessment of the M7, Cross City Tunnel and Lane Cove Tunnel projects, which concluded "that the economic contributions of Sydney's toll roads had been underestimated by approximately 15%" and that "only limited external benefits had been taken into consideration" in the assessments of those projects^{xiv}. At a combined capital value of over \$3 billion, those unrecognised benefits amounted to over \$450 million.

According to the NSW Government's report, WEB's include:

- Facilitation of new residential and employment areas through enhanced capacity and connectivity
- Increased urban density and unlocking the development potential of 'brown field' sites.
- Urban amenity improvements including urban design enhancements
- Enhanced agglomeration benefits
- Greater competition in labour markets
- Impacts on property prices for existing residential and commercial areas
- Increased reliability of deliveries for businesses with improved productivity from reduced travel times.
- Reduced costs of goods and services
- Greater access to services such as educational facilities and hospitals.



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In recognition of these potential benefits, the report recommended the "development of a framework to assess wider economic benefits on a pilot project to analyse the contribution of this assessment to project decision making".

Guiding principle

It is recommended that Commonwealth and state governments collaborate to develop a common framework and commission pilot projects to assess the wider economic benefits of infrastructure and urban renewal projects. Pilot projects should be undertaken in partnership with state and local government agencies, professional associations, research institutions and the private sector to develop the legislative and financial arrangements needed to harness these benefits.

Focus on value rather than cost

Issue

An issue related directly to the absence of wider economic benefits in infrastructure appraisal is strict adherence to the cost of infrastructure as a primary criterion, as opposed to the value that can be generated by an infrastructure investment. In its 2013-14 budget statement, the NSW Treasury notes it is important that infrastructure is built at the "lowest possible cost". But as can be seen from the discussions in this paper on WEBs and Crossrail, a focus on the lowest possible capital costs misses other important economic benefits that generate direct and indirect values that can be captured.

According to Infrastructure NSW, better value in infrastructure investment and delivery is achieved by "getting the right infrastructure built at the right time for the right cost. The emphasis on achieving better value is not simply about achieving lower cost or short term efficiency gains. Value is maximised through the delivery of long term improvements and enhancements to our infrastructure systems such that service levels are augmented and life cycle costs are optimised. Achieving better value from infrastructure spend will in turn improve productivity, drive economic growth and provide better public amenity"^{xlv}.

Guiding principle

Commonwealth, state and local agencies with the responsibilities for funding, developing, evaluating and delivering infrastructure and urban renewal should incorporate value for money guidelines in project appraisals as proposed by Infrastructure Australia^{xlvi} and Infrastructure NSW.

Secure consistent and coordinated leadership

Issue

The successful delivery of large infrastructure and urban renewal projects depends on building community and political support over many years. Previously cited examples, including Sydney's Cross City Tunnel, Melbourne's East West Link and the proposed West Metro linking Sydney to Parramatta, demonstrate that large public projects can fail at any stage of implementation, including after a project has been delivered and public money spent. Since political leaders change, elected representatives, policy makers and delivery authorities must take the steps necessary to ensure that the momentum of political and community support extends beyond election cycles.

A proven way to build consistent leadership is to establish oversight committees composed of community leaders and experts to guide a project for all or at least most of its intended 15-25 year life. This is critical to ensure that probity, financial integrity and long term expert guidance is maintained over time. Things change over a 20 year horizon, but smart people can take early actions to mitigate potential downfalls. The key success factors described in this section provide the guideposts to achieve this end.

Guiding principle

Consistent and coordinated leadership is non-partisan, evidence-based and in the long-term public interest. The leadership model for a given project must be tailor-made and established before the project is introduced. By definition, the leadership team must be small, but have a broad mandate and be composed of high calibre and proven experts.

Value capture road map

In previous sections, this paper describes value capture methods and some of the reasons for their adoption to supplement existing sources of infrastructure and urban renewal funding in Australia. Key success factors are explained to guide stakeholders in understanding the conditions needed for this funding method to serve as a catalyst for sustainable urban economic growth and development.

State and local government agencies in Victoria, Western Australia, New South Wales, Queensland, and the central government in New Zealand, have investigated and in few cases employed elements of value capture funding for transport and urban renewal projects and programs. The Commonwealth Government has examined the use of value capture methods to contribute to a high speed rail network on the east coast of Australia. However, none of the examples reviewed for this paper have resulted in the adoption of these methods.

Some of the reasons for the lack of progress in giving serious consideration to value capture funding in Australia include:

- Institutional resistance by Commonwealth and state agencies to this funding method
- Misunderstanding and / or misapplication of key value capture concepts, methods and success factors
- The need for new enabling legislative and governance arrangements at the state and local government levels

While a number of local and state agencies have undertaken value capture studies, the results have been inconsistent and have not been widely shared. In addition, the Commonwealth Government's decision in 2013 to close the Major Cities Unit in the Department of Infrastructure and Regional Development has left a leadership vacuum on urban issues at the federal level. At the state level, planning reforms have either failed to gain bipartisan support, as in NSW, or have become stalled in state re-elections, as in Queensland. There is a pressing need for Commonwealth, state and territory, and local government to refocus attention on investing in our cities.

Pilot study programs

It is proposed that the Commonwealth and state government undertake practical research into value capture methods as a funding supplement for state and local infrastructure projects. This could be accomplished by establishing pilot study programs to be undertaken by local government councils, urban renewal authorities and other state agencies to fully explore the opportunities and obstacles to this funding method. The key components of a value capture pilot program are described below.

Program objectives

Value capture pilot studies should be designed to provide the following information to elected officials, policy makers, community members and other stakeholders:

- A description of the project or program requiring funding, ideally drawn from a preliminary business case for an infrastructure project, an urban renewal program, or a detailed master plan for a commercial centre revitalisation project, including
 - o Clearly articulated goals and objectives
 - o A well-defined improvement precinct
 - o Concept-level plans for land use and development, buildings and infrastructure in sufficient detail to allow project costs to be determined
 - o Current supply and demand estimates, projections, market information and demographic data for potential uses and users within the precinct
- An explanation of the goals, objectives and key elements of the funding program. For example, is the goal of the program to fill a funding gap for a light rail project, or is it designed to provide on-going funding to revitalise a declining commercial centre? What is the magnitude of the project's funding need, what funding sources are currently available, and what is the funding gap?
- A detailed funding model showing sources of revenue and capital expenditures over the life of the program, typically 20 years or more.



Ballina Bypass – Tevern Road Bridge photo courtesy of SMEC Australia, AECOM & Coffey Geotechnics on behalf of the Ballina Bypass Alliance

- A value capture funding program for the pilot project. Previous sections on this paper identify potential applications, revenue sources, key success factors and other considerations for this purpose.
- An proposed implementation strategy describing legislative and policy issues, funding and financing considerations, governance and procurement arrangements and timeframes.

Relationship to a business case

The pilot study should reflect and, where appropriate, comply with established public sector planning and procurement guidelines and practices, such as those available from Commonwealth and state treasuries and infrastructure agencies^{xlvii}. These guidelines set minimum standards for estimating costs and benefits, evaluating and mitigating risks, and considering other factors which will be important as the program progresses through review and approval gateways.

Precinct selection

Ideal pilot study precincts would include one of the following;

- An area in transition but with the potential for commercially-viable changes in land use and / or density, such as a former defence site, an obsolete commercial or industrial precinct or a designated urban renewal site
- In single ownership, or by a limited number of owners, who are receptive to considering value creating projects and programs for their properties.
- Characterised by inadequate transport access, obsolete or deficient civil infrastructure and / or little or no urban amenity
- Decontamination, demolition or other clean-up and redevelopment costs that render the site non-commercial under typical commercial or government funding arrangements.

Value capture precincts vary considerably in size, depending upon the nature of the project or program. Transport improvement precincts around metro stations typically extend between 800 and 1000 metres from the station. Numerous studies have demonstrated that the measureable benefits of metro stations are generally contained within this distance. Downtown improvement districts in regional cities and small towns in North America are typically contained within several blocks of the commercial core. Each location will have different needs and characteristics and must be individually determined.

Precinct characteristics

Value capture funding methods will not in themselves create a market for commercially-viable activities. In fact, studies of major infrastructure projects and regional development programs have generally concluded that infrastructure investments alone do not generate economic growth in areas without innate complementary assets or characteristics. Even major transport improvements that provide a step-change in accessibility, such as high speed rail stations, do not turn around economically flat or declining regional centres, according to studies undertaken by the Commonwealth Government for high speed rail.

Precincts must have inherent attributes that are underutilised and can be leveraged by new investment to unlock their full potential. Proponents must therefore select pilot study locations carefully and plan how to integrate key land use, transport, employment, housing and other drivers that will stimulate and sustain the economic growth.

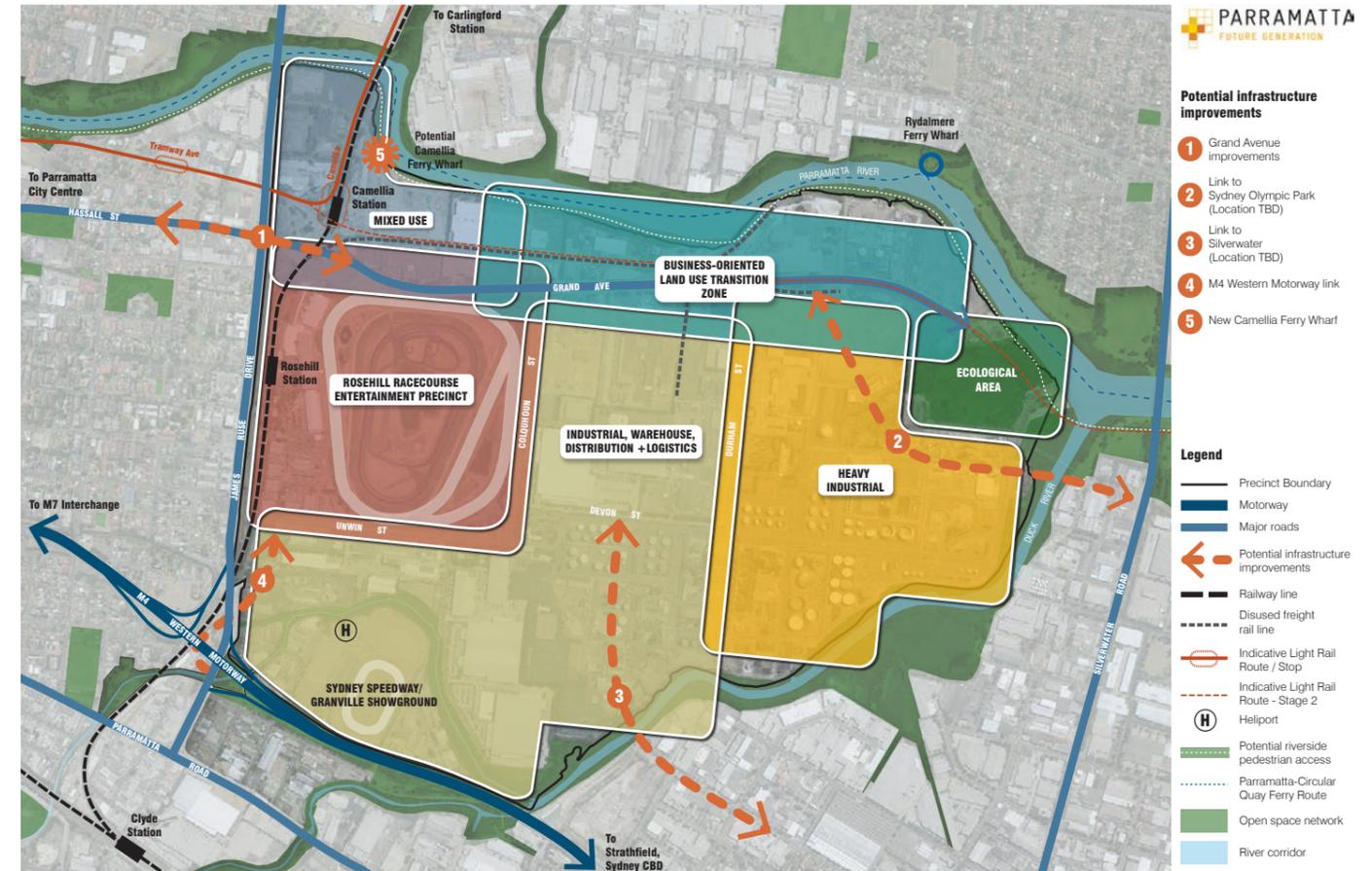
Appropriate locations for transport or urban renewal pilot studies are locations that:

- Are not fully capitalising on their potential to generate affordable housing, jobs and economic activity
- Have an unfunded need for transport, civil infrastructure, public domain or other improvements.

Table 3 lists common categories, characteristics and examples of potential pilot study precincts in NSW.

Table 3 Precinct categories and characteristics

Category	Characteristics	Examples
Commercial precincts	Traditional town centres and commercial precincts that have become physically dysfunctional and / or commercially unviable	Newcastle city centre
Specialised precincts	Major medical, education, high tech or similar facilities	Westmead hospital campus, Parramatta
Cultural and cultural precincts	Cultural, sporting and / or civic facilities with the potential for increased pedestrian activation and retail activities	Sydney Olympic Park, Sydney
Urban renewal precincts	Neglected, obsolete, blighted or undercapitalised industrial, maritime or defence land with proximity to jobs and transport	Camellia, Parramatta
Transport interchange precincts	Major transport hubs and / or regional transport networks with land available for development	Central to Eveleigh precinct
Lifestyle	Regionally attractive lifestyle, tourism and / or recreational amenities	Bondi Beach, Sydney



Source: Camellia Discussion Paper, Parramatta City Council

Value uplift opportunities

Potential value capture revenue sources are listed in Table 4 and described in detail a previous section (see **Revenue Sources**). Table 1 provides a framework that can be used to evaluate these sources for a given location.

Table 4 Potential value capture revenue sources

Retail sales taxes (GST)	Transfer (stamp) duty	Payroll taxes
Property taxes	Council rates	Development contributions
Voluntary planning agreements	Special rates	Sale of bonus gross floor area
Sale / lease of air rights	Sale / lease of development sites	Parking levies
Hotel taxes	Capital gains taxes	Property development

Table 5 shows an example of an evaluation summary for property development revenue from a completed value capture study. In this example, the funding method is rated from -2 to +2 and coloured to highlight differences between methods. Each method is also rated in terms of its potential score in the short term (1 – 3 years), medium term (3 – 5 years) and long term (5+ years). The timing reflects the likely time frame for implementing a given method, taking into consideration such matters as:

- Compatibility with existing legislation
- Community acceptance
- Revenue raising potential
- Acceptance by state agencies

The revenue sources and evaluation methods presented are partial examples. Pilot studies should be tailored to individual circumstances and conditions, and supported by detailed financial modelling of options and scenarios.

Table 5 Example of evaluation framework summary

Funding method	Assessment criteria	Short term	Mid term	Long term
FUNDING OPTION 1 PROPERTY DEVELOPMENT	Equity and efficiency	0.5	1.50	1.88
	Revenue character	0.17	0.71	0.83
	Acceptability	1.13	1.50	1.75
	Revenue quantum	0.75	1.25	2.00

Project scenarios

Value capture methods require detailed descriptions and financial models to be prepared for “Base Case” and “With Project” scenarios. Scenario testing of these alternatives as a minimum is necessary to demonstrate the impact of the value capture intervention programs on a variety of financial and built environment parameters.

Base Case scenarios forecast conditions within the improvement precinct based upon current and expected future trends, investments and programs. Project scenarios evaluate the proposed interventions of the value capture program for comparison against the Base Case, including:

- Changes to zoning and development controls made possible by project investments, such as additional public transport capacity enabling higher density development
- Increases in public revenues from increased retail and business activity, residential and commercial property development, and employment growth
- Improvements to the public domain designed to attract pedestrian activity and access, such as commercial centre revitalisation programs

Since urban renewal and transport improvement programs can take many years to reach their full potential, scenarios should extend for as long as necessary to fully capture the programs benefits. For example, value capture programs in North America typically forecast expenses and revenues at least 20 years into the future.

Legislative pathways

Limited value capture programs can be developed under existing legislation in many jurisdictions. In NSW for example, voluntary planning agreements (VPA) are being used to extract payments from developers for additional floor space in some local government areas. In Queensland, the Economic Development Act (2012) allows Planned Development Areas (PDA) to be created around transport improvement projects and special taxes to be applied specifically within and for those areas.

In order to realise the full benefits of the value capture methods listed in Table 4, changes to existing legislation and the introduction of new funding and financing legislation would be required. Examples of existing legislation that would likely require consideration are compulsory acquisition acts, transport planning and delivery acts, economic development acts, and planning and development control acts. The pilot study would need to consider the appropriate funding sources to pursue depending upon the proponent’s funding needs, current legislation, community willingness to secure long term funding and financing reforms, the responsible government funding and delivery agency, and other factors.

Key findings and recommendations

What is value capture?

- Value capture funding methods originated in the North America in the 1960s. They are finding increasing use around the world in both developed and developing countries to supplement transport and urban renewal projects and programs.
- Investments in well-conceived and delivered transport infrastructure projects generate direct and indirect benefits that exceed costs; Australian infrastructure funding methods are not as effective in capturing these benefits as value capture methods used in other countries.
- Under current arrangements, the indirect beneficiaries of infrastructure projects in Australia, such as property owners located close to new train stations, can receive substantial unearned and untaxed financial windfalls which are effectively subsidised by the public.
- Value capture funding methods have evolved to become both effective decision-making tools and funding mechanisms for transport infrastructure and urban renewal projects.
- Value capture methods promote “smart growth” principles, which aim to manage city development patterns and transport networks to improve environmental, social and economic outcomes.
- A wide variety of value capture methods are used around the world to fund transport infrastructure and urban development, including programs supporting the Hong Kong metro, Crossrail in London, and Denver’s Union Station redevelopment. Based upon these and other examples, it is estimated that a well-conceived and managed value capture program could contribute between 10% and 30% of the cost of directly related infrastructure in Australia.

Why we must consider value capture now

- Value capture methods have been recommended by political leaders, government inquiries, business groups and professional associations for many years, but have not been systematically tested or applied in Australia.
- Crossrail, Europe’s largest construction project, is funding one-third of this \$29.6 billion cost with value capture methods. Major infrastructure investments are also underway or under consideration in Australia, including \$61 billion in NSW alone. However, value capture methods are not being used to help fund these projects.
- Changes in the global economy, urbanisation and demographic trends point to the urgent need for Australia to become more productive if it is to remain internationally competitive. Australia can address these future challenges by making its cities more competitive and by focusing infrastructure investments on its natural advantages, including wealth management, tourism, health and international education.
- Currently, 80 per cent of Australia’s population resides in urban areas, and an equal and growing share of national GDP is produced in our cities. Decisions about infrastructure investment, urban development, and infrastructure funding and delivery reforms will play important roles in Australia’s future economic performance.

Key success factors

Key success factors and guiding principles for an Australian value capture program are:

Key success factors	Guiding principles
Comprehensive, longer term planning and funding strategies	Infrastructure and urban renewal projects and programs supported by value capture methods should be based upon a minimum time horizon of 20 years to allow for funding sources to realise their full potential. Projects and programs should be fully costed, conservatively underwritten and include detailed financial modelling. Funding sources should be locked in for the life of the program to provide stable and secure revenue sources.
Genuine and robust stakeholder engagement	A genuine and robust public consultation program, developed and implemented by specialists in that field, is an integral part of successful value capture programs. Business and community participation and membership - at various levels in consultative committees and boards - and involvement in the decision-making process should be encouraged.
Precinct-based planning and funding	Value capture programs should be carefully ring-fenced within a defined precinct. The precinct should encompass complementary community activities and assets that would benefit from the infrastructure investment, and be leveraged to generate wider economic benefits. Typically, these precincts are contained within a kilometre radius of the transport improvements.
Transparent and balanced governance frameworks	Local government in NSW should become a key partner in precinct-based infrastructure and urban renewal planning, decision-making, funding and delivery. A general transfer in responsibilities and powers from state agencies to geographically larger, financially stronger and better resourced local government councils for planning, decision-making, funding and delivery of urban infrastructure should be pursued as a mid to long-term policy objective.
Understand and balance risks and reward	NSW Government should reinvigorate infrastructure reforms as recommended by the Productivity Commission and Infrastructure Australia, and seek partnerships with the private sector based upon an equitable balancing of risks and rewards.
Use incentives to attract private investment and better design	Successful value capture programs use financial and other incentives to attract private investment and engage businesses and residents in related programs that improve property values, neighbourhood amenity and economic activity. In this way, value capture programs can generate broad community benefits and become self-funding.
Stronger urban renewal powers	Local government and urban renewal agencies need stronger powers if they are going to make meaningful improvements in housing approvals and affordability, infrastructure investment, and broad scale regeneration of industrial precincts, commercial centres and neighbourhoods. Achieving such stronger powers will require: <ul style="list-style-type: none"> • Concerted public education and engagement efforts to bring the voting public along with necessary changes • Changes to existing planning and local government legislation to strengthen urban renewal powers • New legislation to expand funding and financing options for local government and urban renewal agencies.

Recognise and incorporate wider economic benefits	It is recommended that Commonwealth and state governments collaborate to develop a common framework and commission pilot projects to assess the wider economic benefits of infrastructure and urban renewal projects. Pilot projects should be undertaken in partnership with state and local government agencies, professional associations, research institutions and the private sector to develop the legislative and financial arrangements needed to harness these benefits.
Focus on value rather than cost	Commonwealth, state and local agencies with the responsibilities for funding, developing, evaluating and delivering infrastructure and urban renewal should incorporate value-for-money guidelines in project appraisals as proposed by Infrastructure Australia and Infrastructure NSW.
Secure consistent and coordinated leadership	Consistent and coordinated leadership is non-partisan, evidence-based and in the long-term public interest. The leadership model for a given project must be tailor-made and established before the project is introduced. By definition, the leadership team must be small, but have a broad mandate and be composed of high-calibre and proven experts.

Value capture road map

- Value capture methods are not well understood or widely practiced in Australia. Some of the reasons for this include:
 - o Institutional resistance by Commonwealth and state agencies
 - o Misunderstanding and / or misapplication of key value capture concepts, methods and success factors
 - o The need for new enabling legislative and governance arrangements at the state and local government levels
- Urban issues have lost traction at the Commonwealth and state government levels. There is a pressing need for the Commonwealth Government provide leadership on urban issues and to refocus attention on the important roles played by cities in the national economy.
- Pilot programs provide a practical, low-cost approach for government agencies and stakeholders to consider value capture methods as a funding supplement to transport infrastructure and urban renewal projects. Pilot programs are proposed as a means of assessing the potential opportunities and barriers to value capture programs on existing and proposed projects in Australia.

Recommendations

1. The Commonwealth Government should establish a Minister for Cities and Urban Development in recognition of the key role that cities play in the national economy. The Ministry should work with state planning and infrastructure agencies to set national standards and guidelines, support research on national urban policy issues, and develop model legislation for state, territory and local governments.
2. Commonwealth and state governments should undertake practical research into value capture methods as a funding supplement for transport infrastructure and urban renewal projects. Such research could involve the establishment of pilot programs in conjunction with state agencies, local councils, professional associations, research institutions and the private sector. The aims of the pilot program should be to:
 - Provide a consistent approach and common guidelines for considering and evaluating value capture and related funding and financing reforms.
 - Develop a national forum and database for sharing research and information on urban funding and financing reforms.
 - Develop model enabling legislation to assist state and local governments, urban renewal authorities and other stakeholders considering value capture methods.
3. Commonwealth and state treasuries should redouble efforts to implement infrastructure funding and financing reforms recommended by the Productivity Commission in its 2014 Public Infrastructure Report and by Infrastructure Australia in its 2013 National Infrastructure Plan to maintain Australia's global competitiveness and reduce its growing infrastructure backlog.

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