Newhaven
WEALTH

Investing in our future

Infrastructure Finance and Land Value Capture

Presentation to the

House of Representatives

Standing Committee on Infrastructure, Transport and Cities

28 October 2016. Sydney

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Our Case Study

High Speed Rail and Regional Development

- Seed funded and helped manage start up private group looking to promote high speed rail and associated real estate development investments in regional towns between Sydney Canberra and Melbourne.
- One of three private sector groups in the market at the time looking to bring infrastructure and real estate investment together to provide a private sector solution using Land Value Capture.

Australian Prime Minister's Comments

"Whatever benefits employees may secure through negotiation or arbitration will be immediately eroded by the costs of living in their cities.

Increasingly, a citizen's real standard of living… (is) determined not by his income, not by the hours he works, but by where he lives.

While land prices vary from city to city, and State to State, the leap in land prices in Sydney is an indication of what will happen in every Australian city if the national government fails to act.

Spiralling land costs are depriving many young people of any opportunity to acquire their own home.

We shall co-operate with the States, local government and semi-government authorities in a major effort to reduce land and housing costs.

After land and housing, there is a third basic element of the city – its transport.

Australia must overcome the tyranny of the motor car, or face the destruction of its major cities as decent centres of our culture, our community, our civilisation.

The national government must now accept a share of responsibility for the public transport systems of Australian cities."

Transport & The Economy

Long run impacts of transport connectivity – CityLink and Western Ring Road, Melbourne

City shaping power.

"The research has emphatically endorsed arguments… that major infrastructure projects can, quite literally, re-sculpt the pattern of metropolitan development."

(SGS Economics & Planning, Long run economic and land use impacts of major infrastructure projects, Final Report, Dept. of Transport)

SUMMARY OF BENEFITS TO METROPOLITAN MELBOURNE, 2011 ($MILLION)

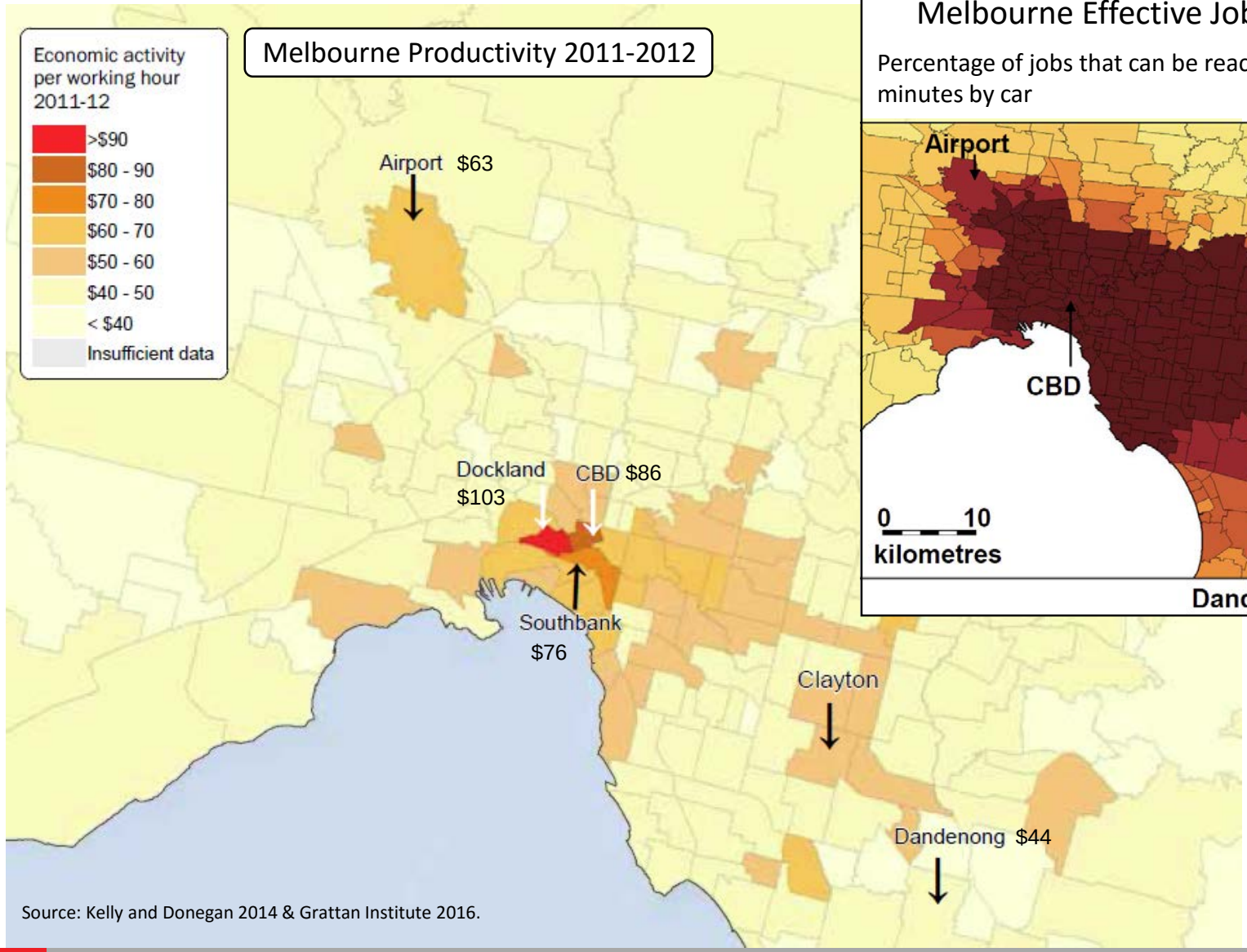
Benefit	CityLink	Western Ring Road
Project Conceptualisation	1969	1954
Project Completed	2000	1999
Productivity Improvements	$1,395	$228
Move to More Productive Jobs	$7,547	$2,216
Total GVA Uplift	**$9,023**	**$2,593**
New Jobs	70,300	24,900
New Households	58,200	17,400
Freight Improvements	$81	$149
Freight Travel Time Savings	-0.8%	-1.6%
Human Capital	$14	$5
Land Value Improvements	$29,646	$10,174

Source: SGS Economics & Planning

CityLink grew population and land values in Prahran, Hawthorn, Southbank most.

WRR grew population and land values in Whittlesea, Moonee Valley, Craigieburn most.

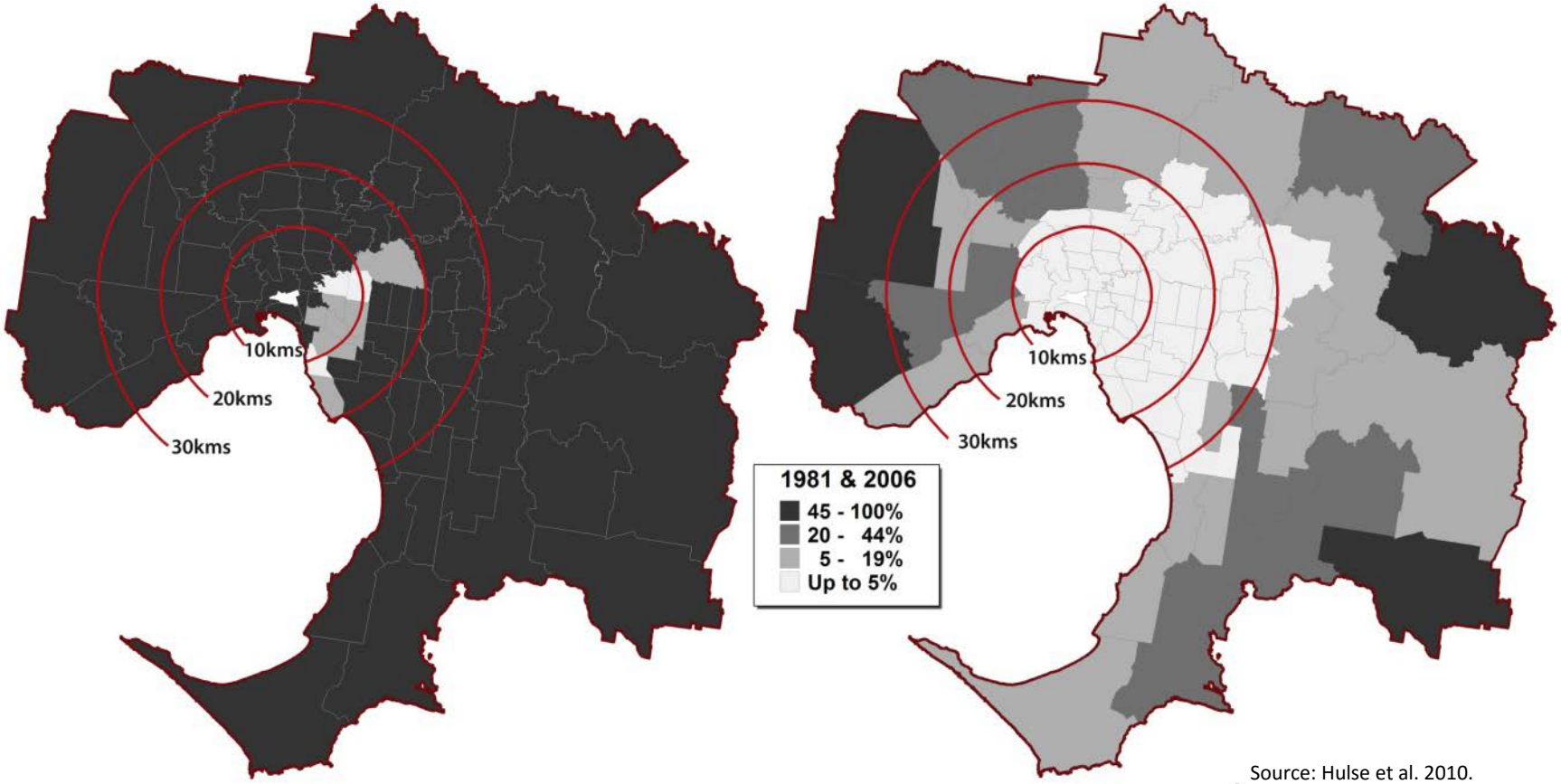
Transport Connectivity aides agglomeration benefits



Source: Kelly and Donegan 2014 & Grattan Institute 2016.

Downside of agglomeration – housing affordability

Percentage of houses sold which were affordable by low-moderate income purchasers
Melbourne, 1981–2006



Source: Hulse et al. 2010.

Funding Transport Infrastructure
Land Value Capture

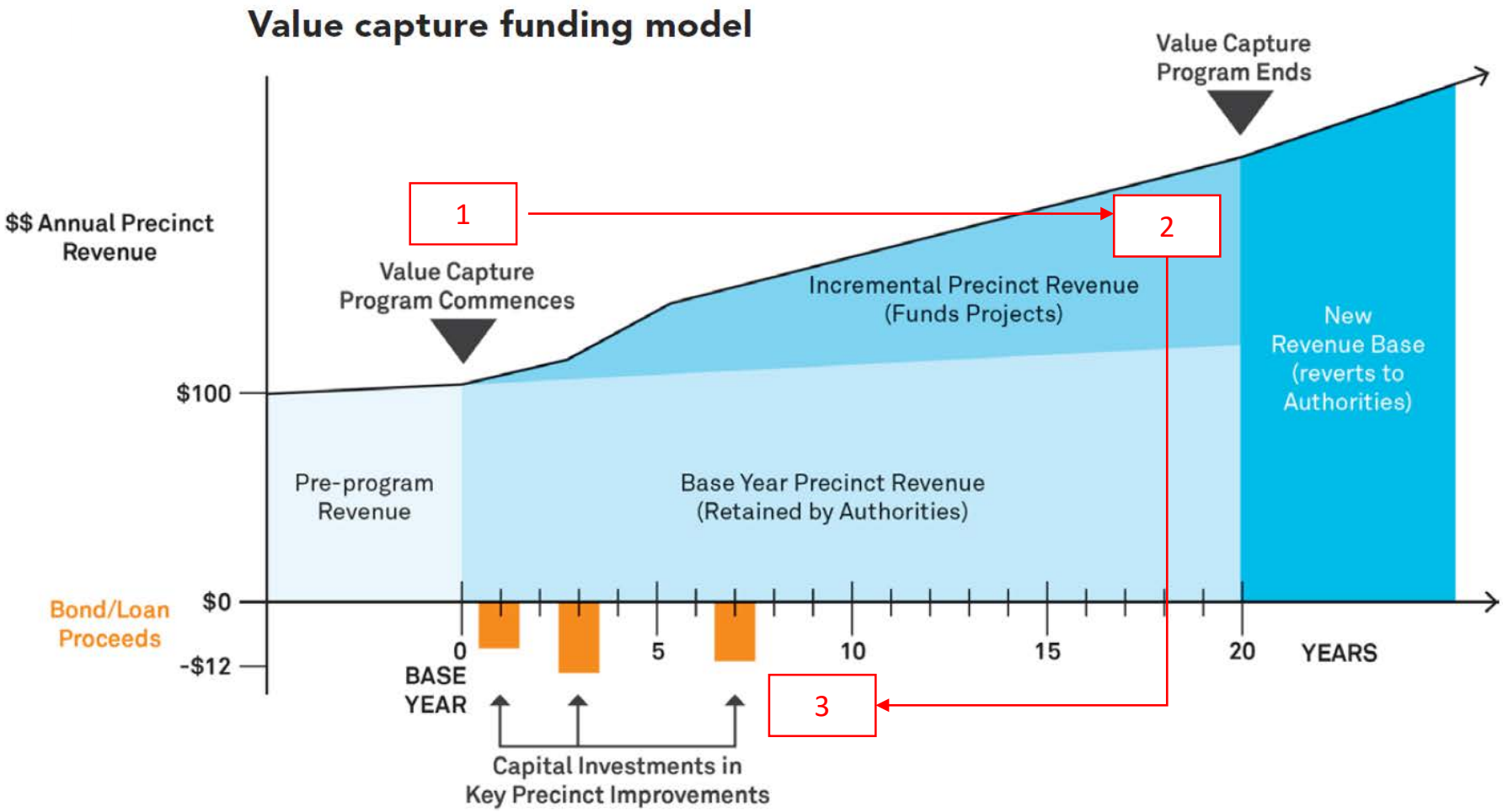
Land Value Capture (LVC)

What is it really?

It has three distinct criterion:

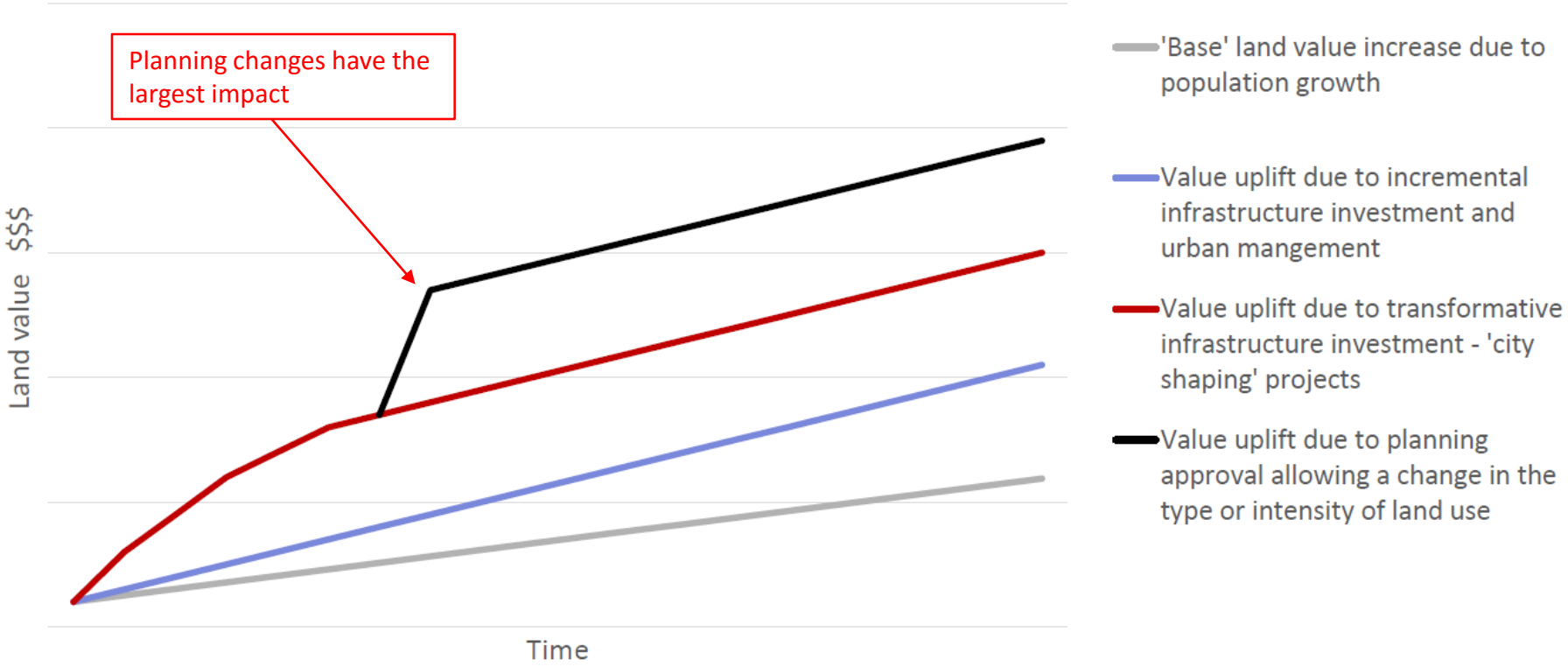
1. It is infrastructure (i.e. road, rail service, hospital) increasing land values in the surrounding area AND
2. The capturing of the uplift from base values (via tax, levy, charge or profit) AND
3. Hypothecating the captured value to finance the infrastructure cost

Two types of LVC: First is 'Marginal Value Capture'



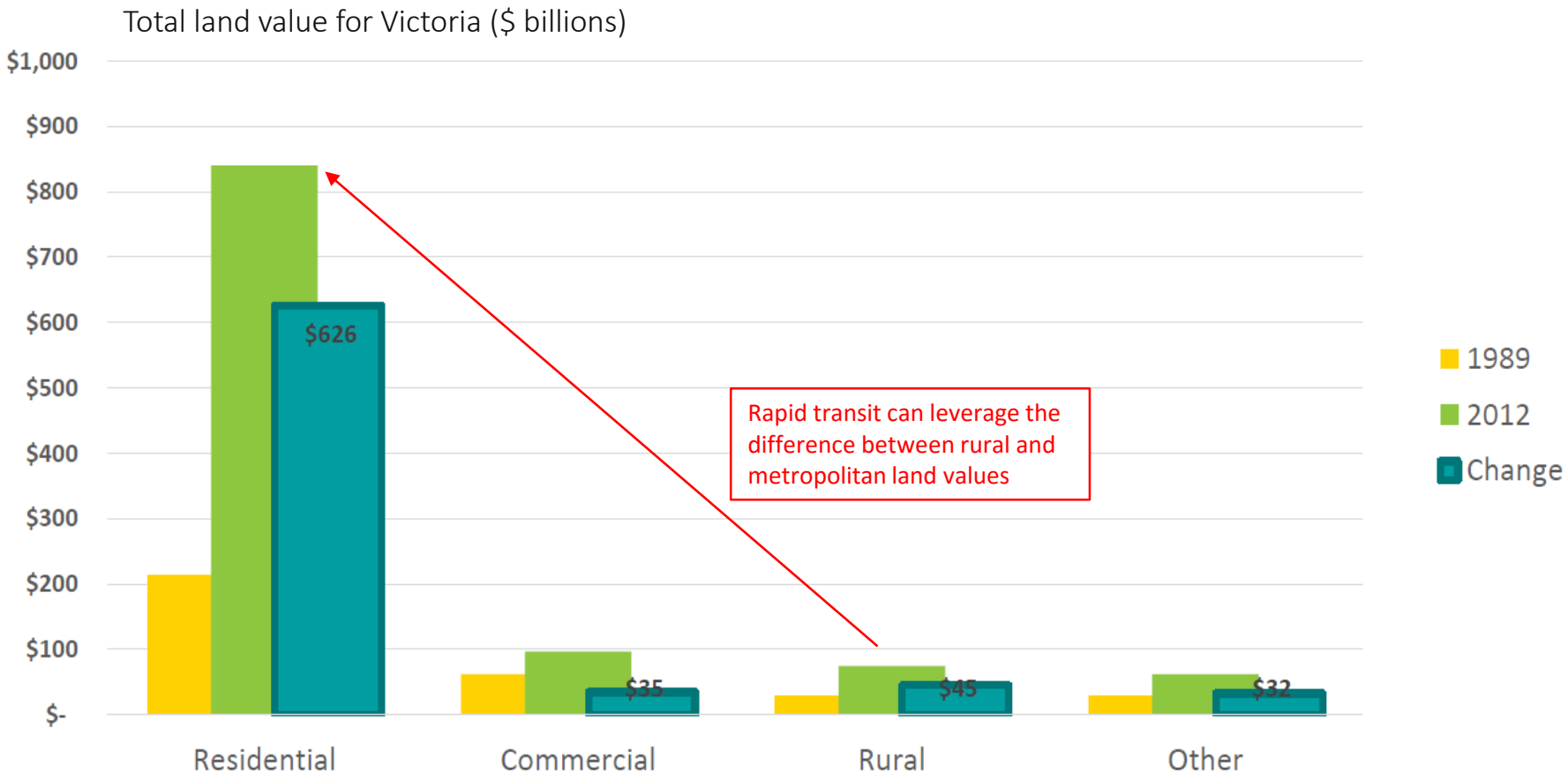
Source: J. Langley, AECom, 'Roadmap to Value Capture' June 2015

What causes land value uplift?



Source: SGS Economics & Planning 2016.

The regions provide a solid staging ground for LVC



Source: SGS Economics & Planning and ABS National Accounts

Two types of LVC: Second is ‘Origin Value Capture’

Example Green Field Site

- Site is 32km from CBD
- 32min Car journey outside peak hour
- No Rail connection
- No public Transport
- Size 12.6 ha
- Yield 180 dwelling lots

Two types of LVC: Second is 'Origin Value Capture'

Example Green Field Site- Value Change and Tax Regime

2011
Pre Precinct Structure Plan
$350,000 p/ha

$24,480 per lot

2016
Post Civil Works
$3.15m p/ha

$220,000 per lot

Stamp Duty, Land Tax

Stamp Duty, Capital Gains Tax, Land Tax

Stamp Duty, Capital Gains Tax, GST

1999
$315,000
$25,019 p/ha

$1,750 per lot

2014
Post Precinct Structure Plan
$450,000 p/ha

$31,475 per lot

End Value p/lot
$220,000-
$80,000 civils & other =

Profit $140,000

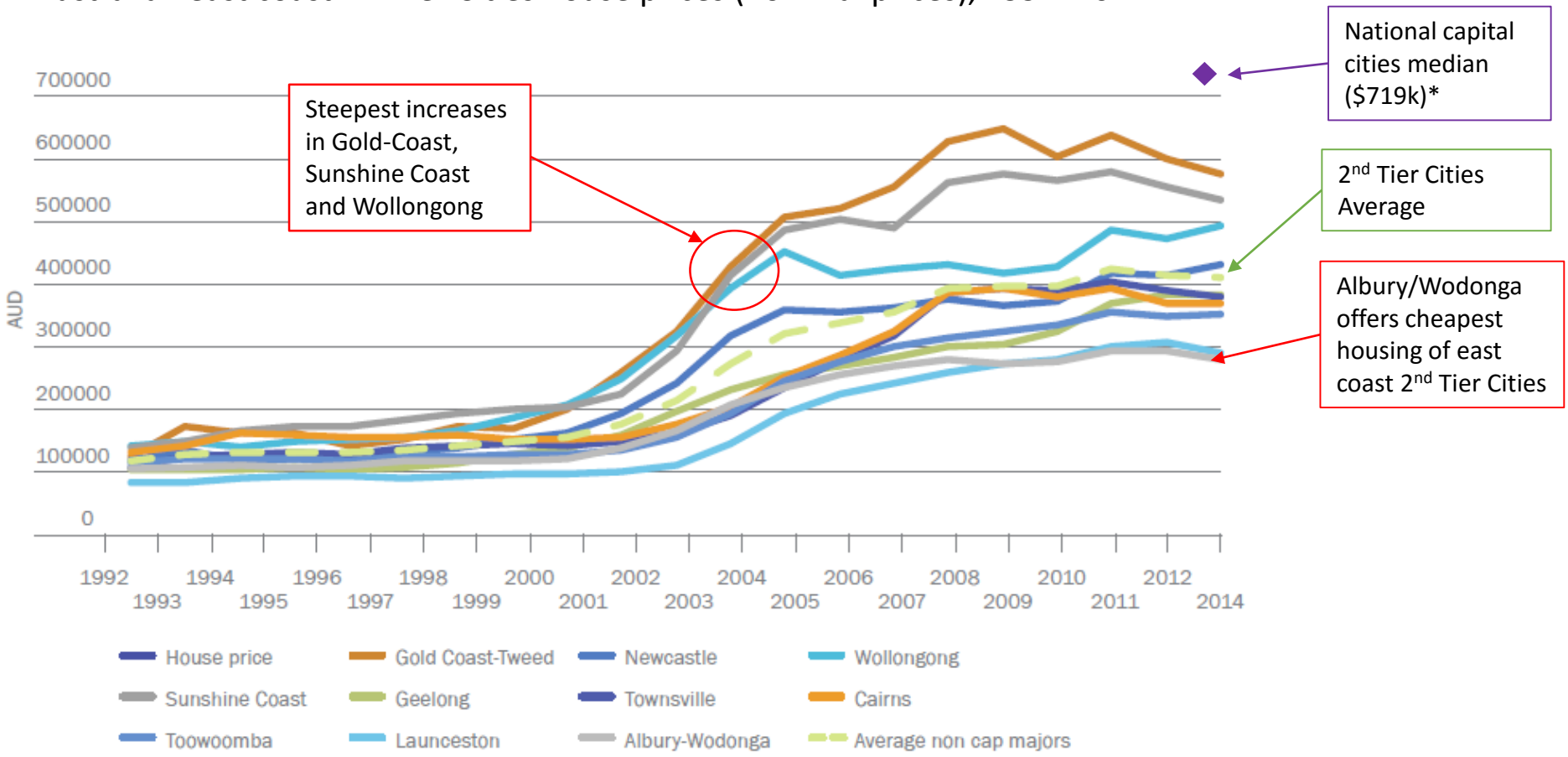
Land Value Capture & Transport Finance

‘Origin Value Capture’

Original Value per lot	$1,750
End profit per lot	~$140,000
Uplift (LVC)	$138,250
Uplift percentage	7,900%
Lot Contribution for Transport	$30,000-$50,000

Land Value Capture – 2nd Tier City Opportunities

Australian east coast 2nd Tier Cities house prices (nominal prices), 1992–2014



Source: Derived from ABS Data by RP Data Pty Ltd, 2014.

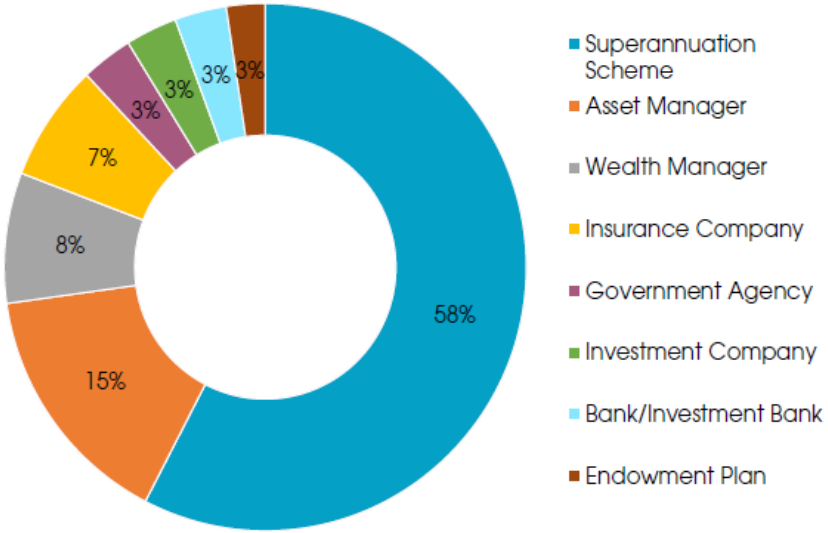
*Source, National capital cities median: RP Data CoreLogic, 2016.

Financing Infrastructure: What can the national government do today?

Australia's infrastructure investment market

There have been 593 completed infrastructure deals in Australia since 2006 for a reported A$228bn.
(Preqin 2016)

Australia-Based Infrastructure Investors by Type



Source: Preqin Infrastructure Online

CANADIAN EXPERIENCE

- 10 largest public pension funds1 in Canada, each with $15B+ in AuM.
- ***Top Ten have ~32% of assets invested in alternative classes*** (e.g. infrastructure, PE, real estate)
- A large proportion of assets managed internally which is generally much more cost effective

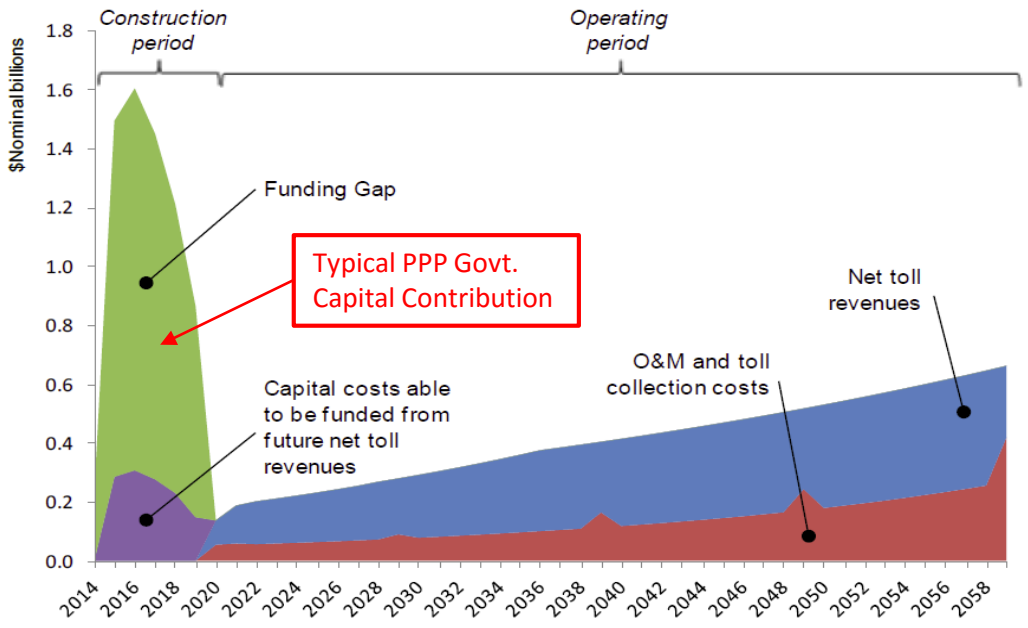
Top Five Australia-Based Infrastructure Investors by Current Allocation

Investor	Location	Type	Current Allocation to Infrastructure (A$bn)
AustralianSuper	Melbourne, Victoria	Superannuation Scheme	9.0
Future Fund	Melbourne, Victoria	Sovereign Wealth Fund	8.2
QIC	Brisbane, Queensland	Asset Manager	5.7
First State Super	Sydney, New South Wales	Superannuation Scheme	5.1
QSuper	Brisbane, Queensland	Superannuation Scheme	3.9

Source: Preqin Infrastructure Online

BUT Greenfield infrastructure is hard-
How do we engage capital markets ?

Example: Melbourne East-West Link Business Case

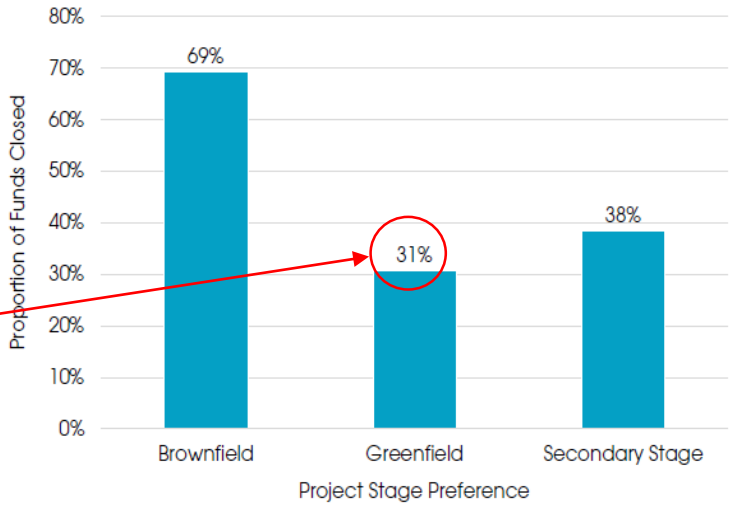


Source: East West Link Business Case 2013.

"Credit assessments have tightened up and even good credit profiles require substantial risk mitigation in development and operating phases".

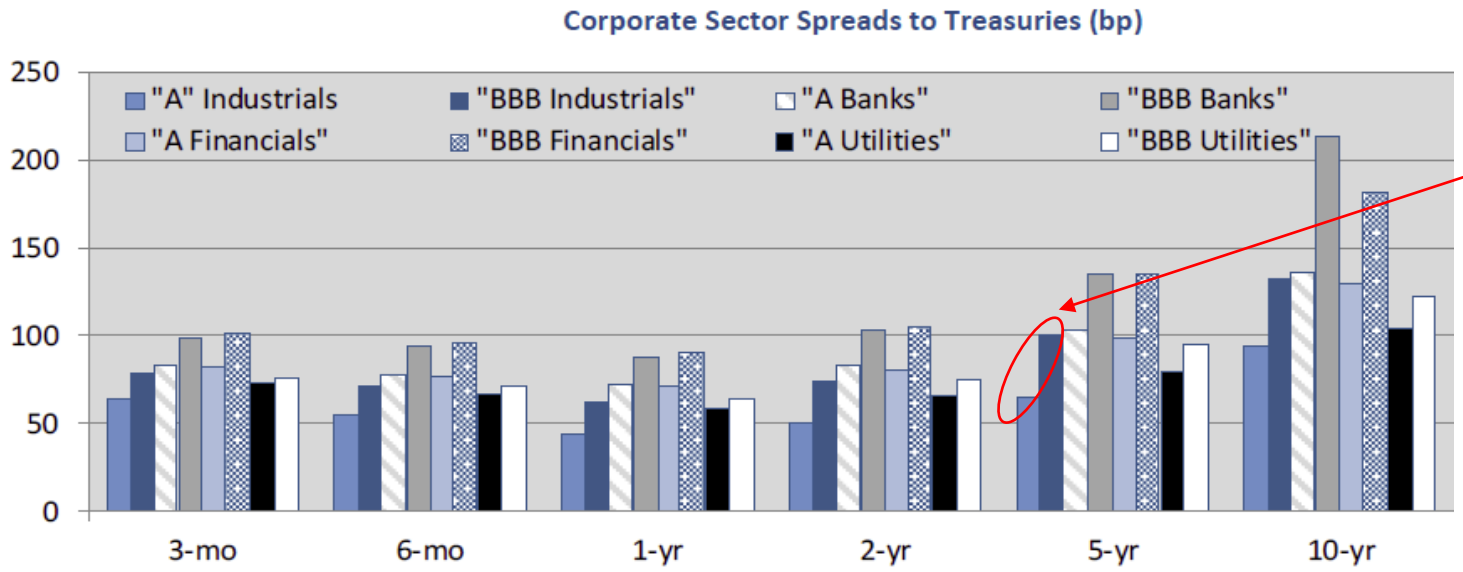
Grant Samuel, 2013

Australia-Based Unlisted Infrastructure Fundraising by Project Stage Preference, 2006 - 2016 YTD (As at August 2016)



Source: Preqin Infrastructure Online

Greenfield Infrastructure Constraint– The Cost of Money



- There is a 0.5% to 1.0% cost rise between 'A' rated industrials and 'BBB' rated industrials.
- This grows to ~2.0% increase as ratings fall to single 'B'.

(Source: Bloomberg LP, Raymond James)

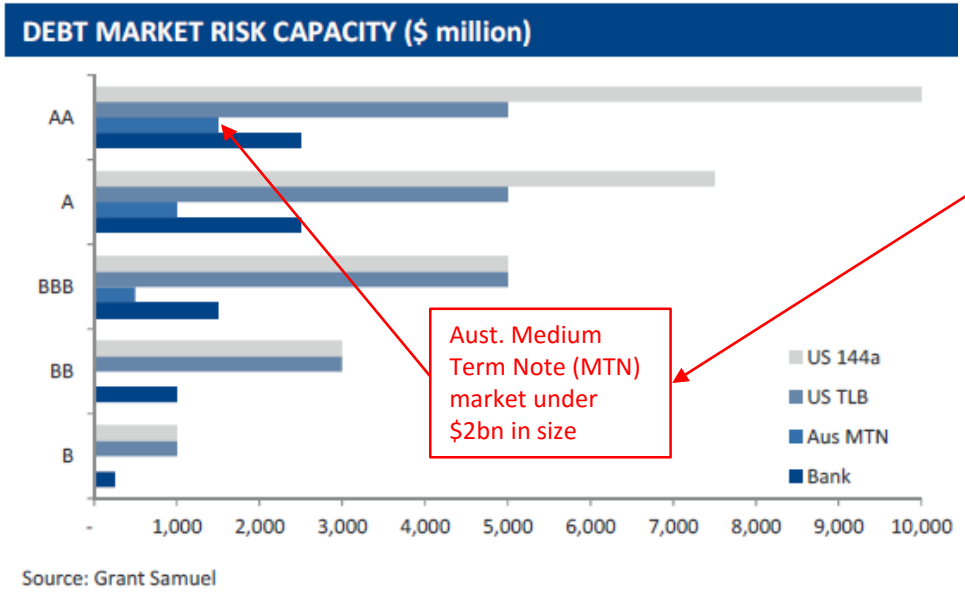
Lowering the Cost of Money - Credit Enhancement

A **credit enhancement** is a method whereby a company attempts to improve its debt or **credit** worthiness. Through **credit enhancement**, the lender is provided with reassurance that the borrower will honour the obligation through additional collateral, insurance, or a third party guarantee.

Innovations in debt finance for infrastructure

Objective:	*Credit Enhancement*
1. Direct credit:	Partial "patient" credit: United States' TIFIA
2. Cushions:	Subordinated debt: Europe's PBCE
3. Credit guarantees:	Partial credit guarantees
4. Insurance wraps:	Bond Insurer guarantees repayments
5. Securitization:	Pooling, and tranching: Infra Debt Funds

Lowering the Cost of Money - Aust. Credit Enhancement



Source: Grant Samuel

A higher credit rating yields substantial benefits in particular for projects requiring large volumes of long term debt funding through the ability to:

- access a greater variety and deeper funding markets
- raise larger volumes of debt
- secure loans with longer tenors

Source: Grant Samuel, 2013

Credit enhancement during the construction phase through the provision of guarantees could provide a 75-200bps improvement in cost of debt.

Credit support could generate savings to the State of c.$300-600m over the construction period for a c.$5bn project reflecting:

- lower cost of debt during the construction period
- revenue generated by the State through the provision of guarantees
- removal of the need to refinance the facilities post construction to capture lower funding costs as a project transitions to its operational phase and a stronger risk profile.

Source: Grant Samuel, 2013

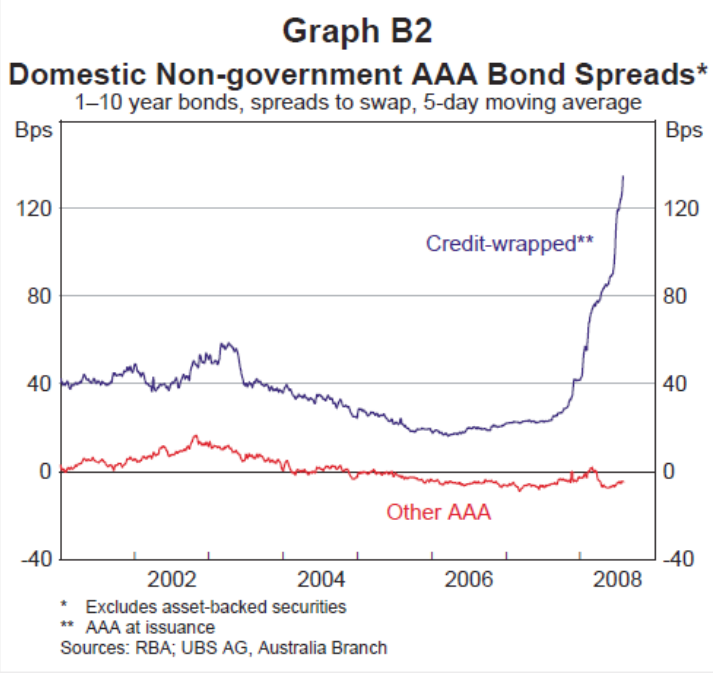
Potential Cost Benefits to State[1]		
		$m
Infrastructure project debt	-	5,000
Credit enhancement	20%	1,000
Construction period	5 years	
Funding cost savings	0.75% – 2.00%	188 - 500
State revenue from guarantee	1.50%	75
Refinancing cost savings	0.5%	25
Cost Benefits to State	-	**288 - 600**

Source: Grant Samuel

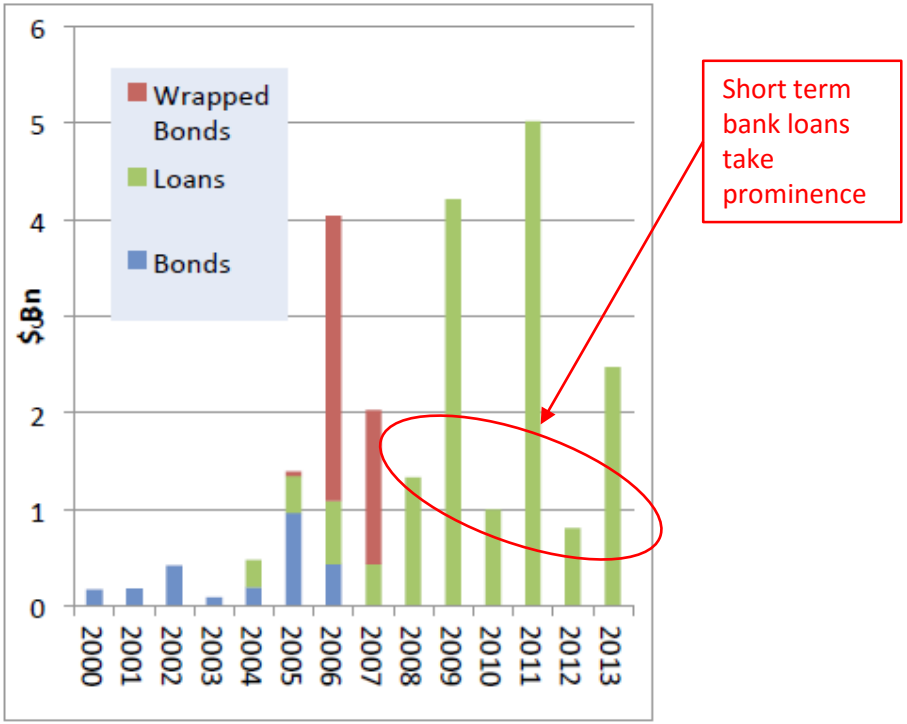
Lowering the Cost of Money - Aust. Credit Enhancement

"Bond 'wrapping' is a type of credit enhancement whereby a bond insurer guarantees to meet interest and principal payments if the issuer cannot. In Australia, credit wrapping is primarily used by lower-rated (generally BBB) investment-grade corporates – typically airports, utilities and infrastructure related issuers – to obtain a higher rating on their bonds."
(RBA 2008)

The Australian project bond market effectively closed at the end of 2007. This was largely due to the global financial crisis: the demise of most of the monoline insurers; and the re-pricing of risk more generally.



Availability public private partnership debt type 2000 – 2013:

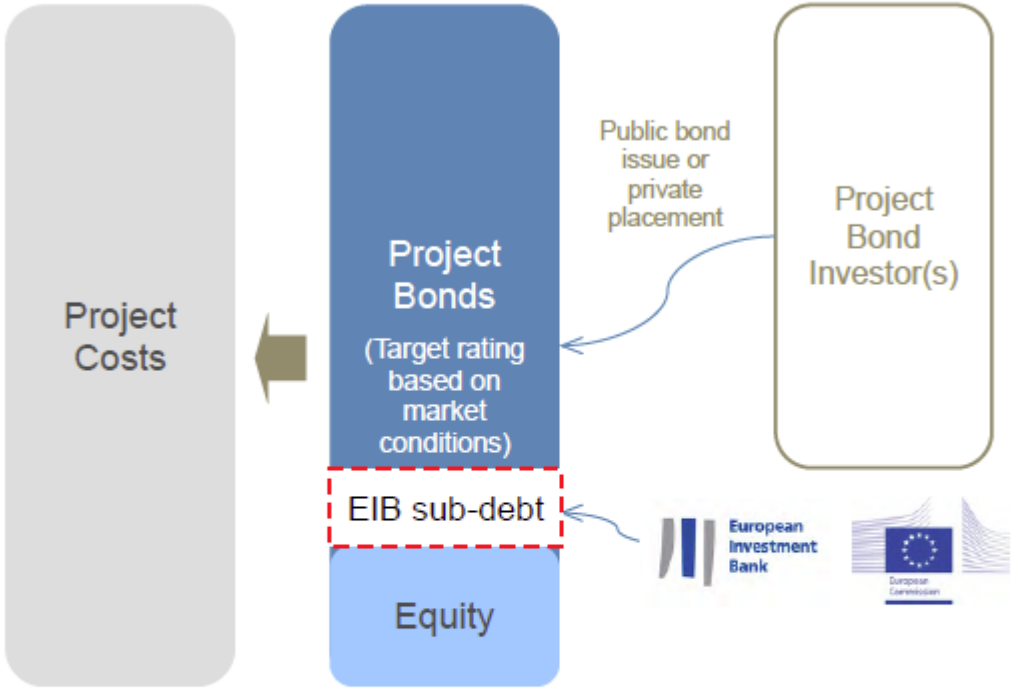


Source: RBA 2008 and IA Review of Infrastructure Debt Capital Market Financing 2014.

European Investment Bank: Project Bond Credit Enhancement

There are two variants of Project Bond Credit Enhancement:
funded and unfunded.

Funded



"€230 million of EU funds, acting as a first loss piece, could enable European Investment Bank to provide €750 million of Project Bond Credit Enhancement.

This could leverage financing to infrastructure projects worth more than €4 billion across transport, energy and IT."

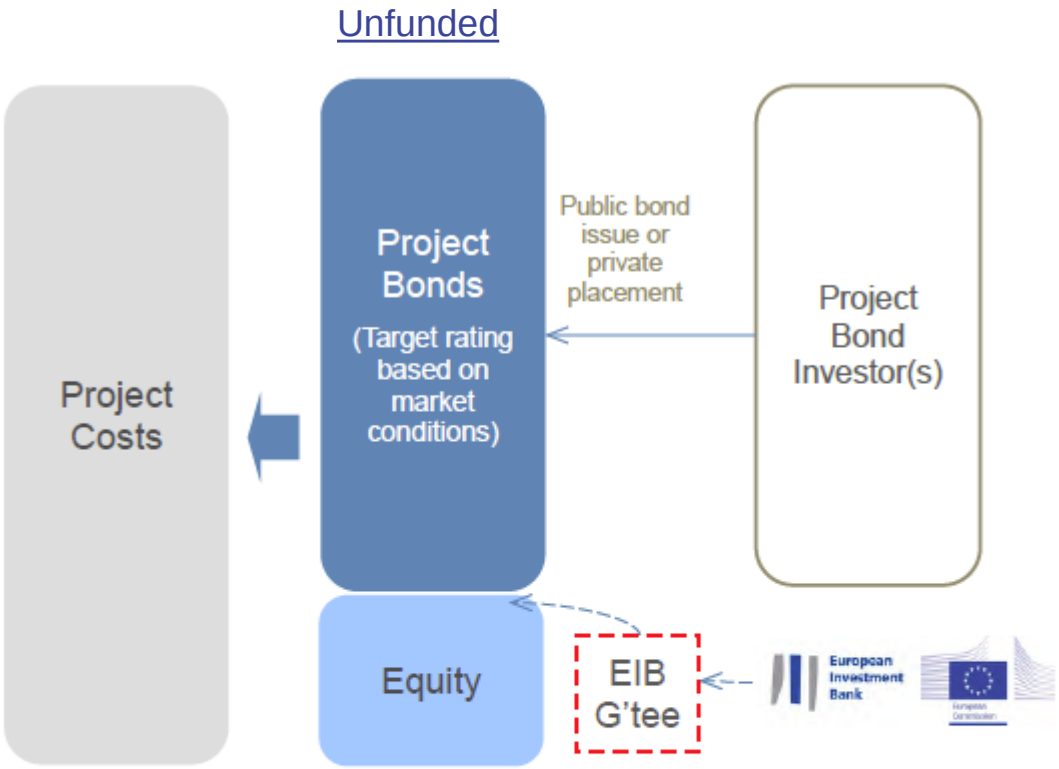
(A. Deep, *Financing Infrastructure: the role of pension funds*, Harvard Uni. 2016)

Funded PBCE - example[2]:

Sources of funds:	*Without EIB funded PBCE (EUR m)*	*With EIB funded PBCE (EUR m)*
Senior Bond	*100*	*83.3*
Funded PBCE facility (subordinated)	*0*	*16.7*
Equity	*20*	*20*
Total sources of funds	***120***	***120***

Source: European Investment Bank, 2012, *An outline guide to Project Bonds Credit Enhancement and the Project Bond Initiative*

European Investment Bank: Project Bond Credit Enhancement



"Its main benefit is enhancement in the credit ratings of bonds, thereby widening access to sources of finance and to minimize overall funding costs, whilst increasing the tenor and liquidity of infrastructure finance."

(A. Deep, *Financing Infrastructure: the role of pension funds*, Harvard Uni. 2016)

Unfunded PBCE - example[5]:

Sources of funds:	*Without EIB unfunded PBCE (EUR m)*	*With EIB unfunded PBCE (EUR m)*
Senior Bond	*100*	*100*
Equity	*20*	*20*
Sub-total	***120***	***120***
Unfunded PBCE facility (Letter of Credit)	*0*	*20*
Total available funding	***120***	***140***

Source: European Investment Bank, 2012, *An outline guide to Project Bonds Credit Enhancement and the Project Bond Initiative*

Lowering the Cost of Money – USA Credit Enhancement

United States: TIFIA
(Transportation Infrastructure Finance and Innovation Act)

The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital.

The Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA) provides Federal credit assistance to major transportation investments of critical national importance, such as: highway, transit, passenger rail, certain freight facilities, and certain port projects with regional and national benefits.

The TIFIA credit program offers three distinct types of financial assistance, designed to address projects' varying requirements throughout their life cycles:

- direct loans (up to 35 years and 49% of cost)
- loan guarantees
- standby lines of credit (up to 10 years and 33% of cost)

Each $1 of Federal funds can provide up to $10 in TIFIA credit assistance, and leverage $30 in infrastructure investment.

Conclusion

- Agglomeration is a phenomenon that is not slowing
- The costs of this trend are high: lost productivity, housing unaffordability, poorer health outcomes and decline in material living standards.
- Transport connectivity can provide economic development on a large scale for cities and regions.
- Funding of all infrastructure is by the community- either by way of taxes or user charges.
- Land Value Capture from transport infrastructure delivery can be a third 'leg' on the funding stool.
- The national government can support Land Value Capture best by working with State governments in providing greater cohesion in transport and urban planning.

The national government can assist transport infrastructure programs directly by way of:

- Direct injection of capital or land in return for project equity
- Credit enhancement by way of sub-debt (at 15-20% of project cost)
- Credit enhancement by way of loan guarantee (at 10-20% of project cost)
- JV with State governments in patronage risk, availability payments etc.
- Mandate value-capture schemes for appropriate projects where Federal grants are paid
- Accelerate the Tax Loss Incentive scheme to allow year on year tax rebates to projects during ramp up
- Superannuation measures that encourage allocated pensions over lump sum payments
- Tax preferred status on long dated bonds with benefit linked to holding period
- Assist with streamlining of Commonwealth and State environmental protection and planning processes

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