THE UNIVERSITY OF MELBOURNE

Supplementary Information to the University's Written Submission and Public Hearing Appearance before the House of Representatives Standing Committee on Infrastructure, Transport and Cities' Inquiry into

THE AUSTRALIAN GOVERNMENT'S ROLE IN THE DEVELOPMENT OF CITIES

Provided to the Committee – 12 September 2017

The University of Melbourne was delighted to attend the public hearing on 29 August 2017 as part of the inquiry into the Australian Government's Role in the Development of Cities. The University was represented at the hearing by Dr Julie Wells, Professor Lars Coenen, Professor Carolyn Whitzman and Professor Stephan Winter.

This document provides supplementary information on topics as requested by the Committee Members present at the public hearing. For further information, Director of the Melbourne Sustainable Society Institute Professor Brendan Gleeson can be contacted on brendan.gleeson@unimelb.edu.au or 03 9035 8235.

On value capture and housing as infrastructure

Value Capture from Public Transit

The Committee Members expressed interest in value capture mechanisms that are used in other jurisdictions to fund major infrastructure improvement such as public transport (Hansard, p47).

Decades of academic research justify financing future transit projects through value uplift associated with those transit projects. In an international review, Canadian scholars recently found rail transit increased land or property values by an average of 20% across 23 previous studies on the topic (Mohammad, Graham, Melo, & Anderson, 2013). They found that price uplift is higher for land values than for property values, and impacts are greater on commercial land values compared to residential ones.

A recent Australian study confirms these findings in our country, with land value uplift of up to 40% identified in Perth's housing market in 2014 (McIntosh, Trubka, & Newman, 2014). Non-rail transit also exhibits land value uplift in Australia, with Brisbane ferries associated with a 4% increase in property values in 2015 (Tsai, Mulley, Burke, & Yen, 2015).

The extensive literature on transit-related value capture provides conclusive evidence that government investment in transit infrastructure raises land and property values. For a detailed overview, see the London School of Economics meta-analysis by Mohammad, Graham, Melo, & Anderson.

Several countries' experience with value capture offer insights into how best to implement the policy in Australia. Public-private joint development ventures in the United States offer one example of value capture, wherein transit authorities leased land around transit stations to private developers to fund transit, with mixed success (Mathur & Smith, 2013).

Under a model developed in China, transit authorities can reserve land near stations for resale after the first wave of development takes place, after which land value uplift, and thus capture, is higher (Sun, Chen, Cheng, Wang, & Ning, 2017). The Chinese model also enables the national government in that country, and others that replicate this model, to demonstrate and promote affordable housing on transit agency-owned land near rail sites.

Value Capture from Rezoning and Redevelopment

The Committee Members requested further information on mechanisms for value capture through land development, including international examples (Hansard, p47).

In Germany, the 'Flurbereinigungsgesetz', or *Land Consolidation Act* established a value capture mechanism for land development on 14 July 1953.[1] The law prescribes the process of development of land by authorities (usually up to the size of a whole village). Land is developed either in an agricultural context (to create more economic parcels) or in a building context (to convert arable land into land).

First, the land mass is unified via temporary dispossession. Then it is partitioned by the authority, not by a developer. The legislation (Article 44(1)) determines that the prior landowners are then compensated with land 'of the same value' to that which they contributed.

Since the land has now higher value, at the point of re-distribution the owners agree to receive less land; but it is land that they can use more economically or with higher economic reward. This is the underlying motivation for people to participate in the mechanism. For its part, the authority captures (at the point of distribution) new public land that is taken out of the pool, which can then be used for civic infrastructure such as roads, parks, and schools.

In Australia, researchers have linked rezoning to land value increases of up to 400% (Geha, 2012). There are several ways to recapture this value.[2] In cases where government increases residential densities, a developer can be required to set aside some portion of the additional units for low-income households.

This practice, called a density bonus, is common in North America (Sheko, Martel, & Spencer, 2015). Governments can also impose a tax or benefits levy on parcels in areas where the government is substantially redeveloping existing infrastructure to capture the value uplift impacts of these investments (Whitzman, 2015). These revenues can fund affordable housing, parks or other social infrastructure.

As noted by the University panel in the public hearing, a recent Infrastructure Victoria report on value capture mechanisms provides useful further reading and analysis.[3]

[1] *Land Consolidation Act*: http://www.gesetze-im-internet.de/flurbg/BJNR005910953.html#BJNR005910953BJNG000100305.
[2] Fensham, P. & Gleeson, B.J. (2003) 'Taxation and urban management: a new agenda for betterment', *Urban Policy & Research*, 21(1), 93-112.
[3] Infrastructure Victoria, Value Capture – Options, Challenges and Opportunities for Victoria, Policy Paper, October 2016.

Bond Aggregator and Social Housing as Infrastructure

The Committee asked for examples of government programs and policy levers that focus on the challenge of under-supplied social housing for low income earners (Hansard, p43).

The bond aggregator at Australian Government level is one example that will help jumpstart a build-to-rent housing sector by enabling developers to secure low cost loans.[4]

Additionally, the Australian Government should augment these loans with gap financing to ensure some funded units are affordable to very low income households. To maximise the social returns of these investments, the Australian Government can link the aggregator's investments with other existing infrastructure programs, like City Deals.

There are international examples of governments linking investments in affordable housing to general infrastructure development. This ensures lower income households also benefit from government programs and initiatives. For example, as part of a comprehensive national infrastructure plan, the Canadian Government recently announced it would invest CAD$11.2 billion in a range of initiatives to increase affordable housing in Canada. The plan recognises that the lack of affordable, adequate housing for Canadian families is 'making it harder to accomplish every other goal – from raising healthy children to pursuing education, jobs and opportunities'.[5]

On the level of cities, both Vancouver and Toronto have developed good practice housing policies since 2015. For instance, Vancouver has developed an excellent low-subsidy model for encouraging build-to-rent along new transit lines.[6] In the United States, California links the state's investments in transport and clean air infrastructure with subsidies to promote affordable housing in transit-oriented development.[7]

The Australian Government could similarly incorporate affordable housing as key infrastructure within City Deals. This could be achieved by allocating funds for affordable housing as part of the arrangement i.e. housing that is affordable for people in the lowest income brackets. This would ensure households at all income levels can benefit from City Deals investment, as opposed to such investment potentially triggering gentrification and displacement of low income households.

Projects funded through the aggregator can also serve households that are still technically low or moderate income and cannot afford to buy in the market, but who are not a priority on public housing waiting lists.[8] This segment of the population, whose unmet housing needs researchers call the 'missing middle', can pay rents that can attract and sustain social investors (Sheko et al., 2015). These households' rents can also help cross-subsidize units in the same projects that serve the lowest income households.

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[4] For further reading on build-to-rent: https://theconversation.com/build-to-rent-could-be-the-missing-piece-of-the-affordable-housing-puzzle-82320

[5] See 'An Inclusive National Housing Strategy' in http://www.budget.gc.ca/2017/docs/themes/infrastructure-en.html?=undefined&wbdisable=true

[6] See http://council.vancouver.ca/20161019/documents/cfsc2.pdf, p10.

[7] See https://www.enterprisecommunity.org/sites/default/files/media-library/where-we-work/northern-california/ahsc-brief-june17-FINALv2.pdf

[8] For further reading: https://theconversation.com/what-a-difference-a-month-makes-but-victoria-can-still-do-more-to-get-housing-and-planning-right-74233; and https://theconversation.com/where-do-record-rental-prices-leave-low-income-earners-57628.

Research articles on light rail/heavy rail

The Committee requested research articles on the benefits of light rail versus heavy rail (Hansard, p48).

The University recommends that network design decisions are of fundamental and foremost importance. Best practice transport planning should first aim to design public transport networks that provide appropriate levels of accessibility, and then identify the appropriate transport mode.

For further insights and analysis on network design and transport modes, the University recommends the following texts:

- Mees, P. (2010). *Transport for Suburbia: Beyond the Automobile Age*. London: Earthscan.
- Dodson, J., Mees, P., Stone, J., & Burke, M. (2011). *The Principles of Public Transport Network Planning: a review of the emerging literature with select examples*, Issues Paper 15. Brisbane: Griffith Urban Research Program.
- Stone, J. (2011). *Can successful European models of public transport governance help to save Australian cities*? Paper presented at the Proceedings of 5th State of Australian Cities Conference, November 2011, Melbourne.
- Stone, J., & Mees, P. (2010). Planning public transport networks in the post-petroleum era. *Australian Planner*, 47(4), 263-271.

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Geha, S. H. (2012). *Measuring the Interzonal Price Differential of Land Under Varying Landuse Controls*. University of New South Wales. Retrieved from unsworks.unsw.edu.au/fapi/datastream/unsworks:12118/SOURCE02

Mathur, S., & Smith, A. (2013). Land value capture to fund public transportation infrastructure: Examination of joint development projects' revenue yield and stability. *Transport Policy*, 30 (November), 327–335. https://doi.org/10.1016/j.tranpol.2013.09.016

McIntosh, J., Trubka, R., & Newman, P. (2014). Can value capture work in a car dependent city? Willingness to pay for transit access in Perth, Western Australia. *Transportation Research Part A: Policy and Practice*, 67, 320–339. https://doi.org/10.1016/j.tra.2014.07.008

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Mohammad, S. I., Graham, D. J., Melo, P. C., & Anderson, R. J. (2013). A meta-analysis of the impact of rail projects on land and property values. *Transportation Research Part A: Policy and Practice*, *50* (June 2015), 158–170. https://doi.org/10.1016/j.tra.2013.01.013

Sheko, A., Martel, A., & Spencer, A. (2015). *Leveraging Investment for Affordable Housing: Policy, Planning and Financing Options for Increasing the Supply of Affordable Housing in Melbourne*. Melbourne. Retrieved from https://msd.unimelb.edu.au/sites/default/files/docs/Policy planning and financing mechanisms paper.pdf

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Sun, J., Chen, T., Cheng, Z., Wang, C. C., & Ning, X. (2017). A financing mode of Urban Rail transit based on land value capture: A case study in Wuhan City. *Transport Policy*, 57(June 2015), 59–67. https://doi.org/10.1016/j.tranpol.2017.03.014

Tirachini, A., Hensher, D. A., & Jara-Díaz, S. R. (2010). Comparing operator and users costs of light rail, heavy rail and bus rapid transit over a radial public transport network. *Research in Transportation Economics*, *29*(1), 231–242. https://doi.org/10.1016/j.retrec.2010.07.029

Tsai, C.-H. (Patrick), Mulley, C., Burke, M., & Yen, B. (2015). Exploring property value effects of ferry terminals: Evidence from Brisbane, Australia. *Journal of Transport and Land Use*, 10(1), 119–137. https://doi.org/10.5198/jtlu.2015.562

Whitzman, C. (2015). *Affordable Housing Partnerships: Lessons for Melbourne's Transforming Housing Project form Portland, Vancouver and Toronto*. Melbourne. Retrieved from https://msd.unimelb.edu.au/sites/default/files/docs/Affordable housing partnerships - v2.pdf

Vuchic, V. R. (2008). Transport systems and policies for sustainable cities. *Thermal Science*, *12*(4), 7–17. https://doi.org/10.2298/TSCI0803007V