

Response to NSW Productivity Commission Discussion Paper

Note: Opinions expressed are personal views and in no way reflect the position of my employer (a state government agency)

Stamp Duty and Land Tax – Issues and Transitions

Discussion Question (Section 7.3)

What steps could the NSW Government take to reduce its reliance on transfer duty?

The NSW Productivity Commission has covered many of the important points around transfer duty, namely: high economic cost (or ‘excess burden’) compared to other taxes; penalises mobility of both individuals and businesses thus hindering labour productivity via less skills matching and increased congestion; less efficient use of the housing stock; and an unstable source of revenue as it fluctuates with the housing market cycle.

It is commonly agreed among taxation experts that a broad-based land tax is one of the most efficient, stable and equitable taxes given the immobile nature of land, and many reviews and academic studies recommend a transition from stamp duty to land tax, including: Commonwealth Treasury The Australia's Future Tax System Review: The [Henry Review](#) (2009); UK Reforming the Tax System for the 21st Century: The [Mirrlees Review](#) (2011); [McKell Institute](#) (2016); [Grattan Institute](#) (2018); and NSW Financial Audit: [Lambert Report](#) (2011), among others.

As an example, the McKell Institute summarises how transitional arrangements may work as outlined in the Lambert Report:

Following the abolition of stamp duty, land tax would only be applied to homeowners after they purchase a new family home. This means that homeowners would not pay land tax until they move to a new home. Therefore, buyers that have recently paid stamp duty will not pay land tax until they buy a new home.

Homeowners who are cash poor (often retirees) will not become liable to pay land tax unless they move home. It is further proposed that a rate deferral scheme (which currently exists in the ACT), be introduced to allow cash poor homeowners to defer their land tax liabilities.

Finally, a land tax calculation method based on the square metre value of land (as opposed to the current aggregate holdings calculation) would mean that almost all primary producers would fall below the tax-free threshold for land tax.

While it is assumed that a transition would require ‘revenue neutrality’, the efficiency gains from land tax may mean that slightly less than 100% of the lost revenue needs to be replaced.

This taxation reform could have positive economic and social impacts (above and beyond reversing the negatives discussed above), including:

- infrastructure funding by capturing some of the value uplift (discussed below)
- low upfront costs for potential home buyers, improving housing accessibility

- less barriers to the 'build to rent' sector, which could in turn promote security of tenure for renters and improve housing affordability (including for key workers).
- Influencing federal financial relations with NSW, as some Commonwealth funding could be linked to tax reform (currently being analysed in the [Thodey Review](#)). There would also be interactions with some federal taxes such as capital gains that would need to be managed.

Infrastructure funding

Discussion Question (Section 6.4)

What further options should the NSW Government consider to alleviate congestion?

Land tax and value capture

Following on from the land tax discussion, McKell (2016) states:

When the NSW Government builds transport infrastructure projects, nearby landowners generally receive a significant boost to their land value as new transport services are built nearby. Currently the majority of residential landowners, who are exempt from land tax, receive a significant personal financial gain without making any additional contribution. A broad based land tax would allow for the NSW Government to 'capture' some of the value, through a small increase in land tax, which is being created through the nearby infrastructure project. Homeowners would still receive a personal financial windfall, but would make some small contribution towards the transport project. This would help to fund the transport project, and allow for additional transport infrastructure to be built elsewhere

While land tax may capture some of the value uplift, it does not capture a significant share of the uplift from a windfall gain from a state rezoning. For example, if a block of land appreciated from \$100 million to \$200 million as a result of state rezoning then a 1% land tax over 10 years only captures around 10% of the windfall gain.

[Abelson \(2017\)](#) discusses the broader concept of 'value capture' and assesses the various instruments on offer, including betterment levies and developer charges.

Borrowing

For a number of reasons interest rates are currently *very* low – the 10 year NSW Treasury bond rate was 1.48% in October 2019¹ – and so borrowing is an option that could be explored to fund infrastructure. Of course, the Fiscal Responsibility Act 2012 (FRA)² was instituted to maintain a AAA credit rating that would limit the cost of borrowing, enable a broad investor base and maintain confidence in the State, and the Statutory Review in 2018³ found that the Act was still fit for purpose. This is a prudent measure given the Intergenerational Report⁴ shows significant population ageing will place strong pressure on the Budget, particularly spending on health.

There is an argument that could be made in relation to distinguishing between debt issued to fund operational general government expenditure and debt that is used to fund infrastructure. The FRA has a prudent fiscal target of ensuring expenses growth is less than revenue growth. However,

¹ RBA Statistical [Table F2.1](#) (Capital Market Yields –Government Bonds)

² NSW Legislation: [Fiscal Responsibility Act 2012](#)

³ Statutory [Review](#) of the [Fiscal Responsibility Act 2012](#)

⁴ NSW Intergenerational [Report](#) 2016

infrastructure investment increases the productive capacity of the NSW economy and therefore increases the ability to repay, especially if the funds raised from the investment are 'quarantined' and used to repay the infrastructure-specific debt. One possible approach is to use Tax Increment Funding (TIF), paraphrasing [Abelson 2017](#), pp. 4:

TIF is a form of value capture tax and typically a public agency issues infrastructure bonds based on the expected increase in property tax revenue (the increment) that will be generated by the project, which is then hypothecated to pay the interest and principal on the infrastructure bonds. TIF is used quite widely in the United States especially for urban renewal projects, as well as to a less extent in Canada and the United Kingdom.

As an aside, consideration could be given to lower the discount or hurdle rates in Cost Benefit Analysis guidelines to reflect structurally lower government borrowing rates.

Borrowing, of course, would have to be weighed up against other funding measures (e.g. asset recycling or sales; increasing tax revenue; using expense savings from elsewhere; increase commonwealth funding via federal state financial relations; increase service charges or royalties).

Smart Cities – Improving productivity via Technology

Section 6.4 has a good discussion on 'Getting the most out of our existing assets', noting the lack of price signals leading to negative externalities like congestion. As discussed, annual registration fees based on car weight is the main government price signal for car use (other than private toll roads). However, sensors using GPS or smart phone data could enable both location and time of day pricing which could significantly improve congestion in key areas at peak times, resulting in a far more efficient use of infrastructure assets.

Implementation and administration do not seem insurmountable given wide spread use of eToll and smart phones, and the ongoing roll out of 5G, although some redistribution arrangements may be required to address inequality concerns. Perhaps the most difficult issue would be addressing unease around privacy and gaining social licence to use data on location and time. Sydney has already dabbled with time of day pricing (cars on harbour bridge via eToll, train passengers in peak via Opal cards), and some people already consent to apps using their data to improve their lives.

Housing affordability

This topic relates to population and infrastructure (see other sections), and other important factors outside the state government's control such as interest rates and credit availability. In broad terms, expensive housing requires more work to pay rent or service a mortgage so there is less time with family and poorer social outcomes, including for children (related to section 4.3 education outcomes). A lack of housing affordability may also result in outward migration of skilled workers as they search for a better standard of living.

There has been an increase in renting associated with the decline in housing affordability and this makes it all the more important to ensure that security of tenure is increased.

Discussion Question (Section 8.4)

How could the NSW Government ensure regulations around zoning, building codes and design guidelines are flexible and aligned with demand and preferences?

Measuring underlying preferences via a well-designed survey

Section 8.4 inherently assumes that trends reflect changing preferences. This is partly true, but they are only revealed preferences which are heavily influenced by price and constrained by what is available. Of course, an unconstrained preference would likely be a mansion a short walk away from an interesting and high paying job. So a preferences survey would have to be designed in a way to gauge the importance of various trade-offs related to housing location, type and price, and also job choice and commuting time.

Developers of apartments often provide ample two-bedroom apartments whereas anecdotal evidence suggests that some families prefer to live in a three bedroom apartment. One possible reason for this is developers primarily use a 'build to sell' model to 'mum and dad' investors rather than a 'build to rent' model that is run by a large business. In any case, it would be worthwhile to gauge home buyer preferences at various life stages and desired living arrangements. This would provide a solid basis for ensuring that new housing better matches community preferences.

Assessing the costs and benefits of land zoning and other planning regulations

In the economic literature attempts have been made to quantify the contribution of land zoning and other planning regulations on housing prices⁵. Notwithstanding the difficulty, it would also be useful to quantify the *benefits* of zoning regulations on society and weigh these up against the costs. Given the wide-ranging implications of housing affordability on productivity, and society more generally, it seems worthwhile to explore the net cost/benefit of current zoning regulations, all things considered.

When determining the appropriate zoning across a city or region it is important to look at system or network impacts rather than site-specific 'highest and best use'. For example, on a site specific basis it may make sense to convert industrial land to residential apartments given it is 'highest and best use'. But this argument might suffer from the fallacy of composition (i.e. assuming what is true for the individual is also true for the whole). If in this example all industrial and urban services land was converted to residential the city would function poorly. For example, increased road congestion as people in inner Sydney would have to travel further to access the kinds of services and functions currently provided on industrial or urban services lands. There would be a reduction of employment opportunities as businesses either disappear or relocate. The GSC notes in a recent research paper:

'managing and supporting our industrial and urban services land requires a carefully considered and managed approach and, where appropriate, protection from competing land uses such as residential.'⁶

Effect of a transition from stamp duty to land tax

As discussed above, a transition from stamp duty to land tax may improve housing affordability by decreasing the 'deposit gap' or up-front payment required to buy a first home.

⁵ For example: [Kendall and Tulip \(2018\)](#), 'The Effect of Zoning on Housing Prices', Reserve Bank of Australia, Research Discussion Paper; [Glaeser and Gyourko \(2003\)](#), 'The Impact of Building Restrictions on Housing Affordability', *Economic Policy Review*, 9(2), pp 21–39.

⁶ Greater Sydney Commission ([GSC, 2018](#)), 'A Metropolis that Works'

Population – Growth, ‘Optimal City Size’ and Density

Discussion Question (relates to section 8.1)

While there is no explicit question in the discussion paper, a difficult question that people sometimes raise is: What is an area’s ‘population carrying capacity’ or what is a city’s ‘optimal size’ (constrained by a certain level of liveability or expected services)?

Agglomeration economies, dis-economies and the idea of an ‘optimal city size’

The discussion paper addresses both agglomeration economies and dis-economies, and the size of a city is the trade-off between these two competing forces. So naturally the idea of an ‘optimal city size’ arises. But is the optimal size of a city 5 million? Or is it closer to 2 or 10, or even 20? The research does not provide a neat answer because size is only one factor.⁷ Other important considerations are:

- Infrastructure: mainly transport, but also housing and other social services
- Spatial layout: population and employment density, and how land use decisions affect the clustering of businesses and people
- History, topology and geography play an important role, and can influence a city’s growth
- Interactions with other nearby cities

From a productivity point of view, optimal city size can be increased by either a) increasing the positives such as encouraging collaboration or b) decreasing the negatives by combatting congestion and crime.

Sydney long run population projections and international city comparisons

Using very approximate and high-level numbers from the NSW Government (DPIE, Transport for NSW) and ABS, Sydney is forecast to continue growing from a current population of 5 million, to 7 million in 2040 and 9 million by 2060. The question then arises, how much infrastructure is required to ensure Sydney remains productive and liveable?

There are also significant implications for population density and housing typology. Sydney is currently around half as dense as most European cities, and developed Asian cities such as Singapore and Hong Kong are far denser than Sydney. Sydney grew in the age of the automobile and so there are large pockets of low-density housing. To cater for a significantly higher population, policy makers would need to provide options on how and where density is increased, and importantly, how the areas are serviced.

Perhaps Toronto or the San Francisco Bay Area (both around 5 million people) are the most relevant comparisons to Sydney. These cities may provide a ‘benchmark’ when comparing planning and transport systems (although these cities are not necessarily ‘best practice’ compared to say, Singapore, which is fundamentally different to Sydney). Toronto and San Francisco are coastal (lake, ocean and bay), have relatively low population density by global standards, similar cultures and car reliance, and are advanced global cities with large knowledge-based industries. Topography and

⁷ City liveability rankings from organisations like The Economist have cities of varying size in the top 10: from a, Calgary, Adelaide, Copenhagen and Vancouver (1 to 2 million) to Sydney, Melbourne and Toronto (around 5 million) right up to Tokyo (35 million). These rankings are determined by a weighted average of scores for a city’s wealth, health care, education, safety, culture and environment.

bodies of water really matter: given Sydney is on the coast, it only has half the land available for housing development (similar to Toronto), while Melbourne has perhaps between two thirds and three quarters of the circle. Either way, these cities have far less land than say Dallas-Fort Worth, Milan or the Ruhr region which have similar populations but a full circle in which to build.

Infrastructure determines the 'effective' city size: A case study of Birmingham UK

A fascinating article from [CityMetric](#) shows that the 'effective' city size depends on connectivity. In essence, they find that Birmingham in the UK punches below its weight in terms of productivity because of inadequate transport infrastructure (relying on unreliable bus networks instead of rapid metros). They ran a test and found that it's not the city population size *per se* that correlates with productivity via agglomeration benefits, but rather the *effective* population size. This means that the 30-minute travel catchment in Birmingham captures far fewer people in peak times than in other cities of a similar size. (Note: 30 minutes is a commonly accepted travel budget and is often referred to as 'Marchetti's constant' and has been adopted by the GSC in their vision of a 30 minute city: more discussion of how commuting time determines city size through the ages from Ancient Rome to modern-day Atlanta is available at [CityLab](#)).

For example, when they simulate the reliability of a tram at peak times the effective population doubles from 0.9 million to 1.7 million, and if agglomeration benefits are assumed to follow trends in other cities then GDP per capita would be boosted by 14 per cent. It would be a data intense (but not insurmountable) exercise to replicate such a study for Sydney.

A cutting-edge land use transport interaction (LUTI) model could be used to help answer the question by better understanding current infrastructure performance and how much is required for given population scenarios to ensure the people and the economy thrive. So while there is not 'one answer' to the question of 'carrying capacity' for Sydney, there are various combinations of population and infrastructure that produce different liveability outcomes that are important to understand.

Using 'Effective Job Density' to measure agglomeration benefits

In terms of measuring agglomeration benefits, SGS Economics and Planning use a measure called Effective Job Density (EJD). Essentially the EJD index is a combination of accessibility and density, and is calculated as the number of jobs in an area divided by how long it takes someone to get there (see [link](#) for more details and an interactive map). EJD is then fed into an econometric model to determine the relationship with output and it is [estimated](#) that a doubling of EJD in an area will result in a 7% increase in labour productivity. EJD can be increased by either more job density or investing in transport infrastructure to improve accessibility.

Reducing the adverse productivity impacts of long commutes

Long commutes not only cause physical and mental strains on workers, but may also affect their work participation, engagement and productivity. Two reasons can explain this result. First, workers with long commutes are more likely to become ill and be absent. Second, workers with long commutes receive less net income (after deducting travel costs) and less leisure time.

A growing number of studies have found active commuting by walking and cycling is perceived to be more "relaxing and exciting". By contrast, commuting by car and public transport is more "stressful

and boring”⁸. The NSW Government has an Active Transport Program that is line with Future Transport 2056 Strategy, Greater Sydney Services and Infrastructure Plan, Regional NSW Services and Infrastructure Plan and The Greater Newcastle Future Transport Plan; there is a focus on improving connectivity between suburbs, major centres and public transport interchanges.

Engagement and data sharing across NSW Government, Commonwealth and Industry

The NSW Government currently has a Common Planning Assumption Group (CPAG) to agree on datasets such as fiscal assumptions, population and housing projections, and these are mandated for use across government agencies in strategic land use and infrastructure planning and in the development of business cases. Learnings from deeper engagement with other governments (primarily the Commonwealth) and industry could be incorporated through this process.

⁸ [Gatersleben and Uzzell \(2007\)](#), ‘Affective Appraisals of the Daily Commute: Comparing Perceptions of Drivers, Cyclists, Walkers, and Users of Public Transport’