NSW Productivity Commission Discussion Paper: Submission, November 2019

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A. Introduction

This submission is directed only to some options for the reform of revenue available to the NSW government, including state taxes and transfers of a share of commonwealth tax revenue to the states. For the main part, suggested reforms are considered in an approximate constant aggregate revenue form, and with limited changes to the current distribution of the tax burden; different revenue and redistribution options could be developed. Rather, the submission focusses on reform options to achieve a more efficient tax system and a more productive economy, and with some gains in simplicity and lower operating costs.

The submission comes in three parts. Part B provides a wider picture of potential tax reform changes to reduce tax distortions and support a more productive economy. Parts C and D outline some of the details and different options for specific reforms, namely: replace conveyance duty on property with a broad-based property tax; and, restructure the taxation of motor vehicles.

The reform proposals noted have long being canvassed by many commonwealth government reports, including the Henry Review (2010) and Re:Think (Australian Treasury, 2015), various state government reviews, including for NSW (IPART, 2008), ACT (ACT Treasury, 2012) and SA (SA Government, 2014), and numerous academic articles.

B. Potential Options for Tax and Revenue Reform for State Governments

Potential reform options include one or more of changes to: state own taxes; joint state and commonwealth tax reform packages; and packages giving the states greater access to commonwealth tax revenue in exchange for a clearer reallocation of spending responsibility to the states.

1. State (and Territory) Approximate Aggregate Revenue Neutral Reforms

(a) Replace conveyance duty collected on the sale of property with an annual broad-based property tax. Many options in details of a reform package are explored in Section C below.

(b) A comprehensive base payroll tax, and simplify by using workers' compensation or PAYG tax bases. Adopt a comprehensive wage and salary tax base, and reduce the current tax rate by

[1] The views presented as personal views only.

about a half of the current rate would generate about current revenue. Such a reform would remove distortions to the choice of business size (Dixon, et al., 2004). Despite the rhetoric, small businesses now exempt from payroll tax on average contribute no more to technology development and adoption, and to employment growth, than do the payroll taxed large businesses (Moore and Simons, RBA conference volume, 2015). While businesses write the payroll tax to government (and as they do for most PAYG tax on wages and salaries), most of the economic incidence of payroll and PAYG taxes is born by employees as lower take-home pay[2].

(c) Gambling taxes. The current pattern of different ad hoc taxes on different forms of gambling could be simplified and rationalised. Logic points to a shift from the tax base involving a charge per unit of gambling (with questions that the current taxes do not significantly reduce problem gambling, but this form of tax may be the appropriate and practical option in the digital world) to taxation of the economic rent generated by government restrictions on supply, and especially for gaming machines and casino licences.

(d) There is an important role for commonwealth involvement to the reform of state taxes along the lines of the Hilmer reforms of the 1990s both to facilitate cooperation and to provide financial carrots and sticks. Some of the benefits of a more productive state economy flow (a) to the commonwealth in the form of a more productive economy with a larger income tax base, and (b) to other states via the system of horizontal fiscal equalisation as the more productive reforming state develops a larger own-tax base.

2. Joint Commonwealth and State Approximate Aggregate Revenue Neutral Reforms

(a) Replace current commonwealth fuel excise and state motor vehicle taxes, including annual registration, stamp duty and parking fees (but probably not licence registration fee), with an approximate aggregate revenue neutral package directed at (i) a road user charge based on Kms/year and weight per axel, (ii) a congestion charge, and (iii) a pollution charge. Section D explores some of the details and reform options.

3. **Options to Increase State Access to Commonwealth Taxes**

The general idea is to reduce vertical fiscal imbalance (VFI), but more importantly to make more explicit the funding and spending responsibilities of the different levels of government. The states would receive a share of income tax or a share of a larger GST in the form of larger unconstrained revenue transfers from the commonwealth. In aggregate, there would be no change in economy-wide taxation and minimal changes in the distribution of that aggregate tax burden. Transferring additional tax funds from the commonwealth to the

[2] Because labour demand is more elastic than labour supply.

states as untied funds to replace current commonwealth tied, or expenditure directed, funds for spending on components of, or all of, education, health, infrastructure and other, would aim to raise national productivity by: clarifying the responsibility and accountability for expenditures now played by, and duplicated by, both levels of government; provide more explicit incentives and rewards for each state to improve efficiency in service delivery and to experiment in an evolving world; and, reduce the costs of overlapping bureaucracies.

(a) Direct access to a state share of personal income tax revenue plus a reduction of current tied grants. A variety of models are found across different federal systems. Options on the revenue share of personal income tax include: a common per capita share of income tax; a common state personal income tax to aggregate national personal income tax share; an explicit state income tax rate schedule component offset by reduction of the commonwealth tax rate schedule. The nominated rates and reduced commonwealth tied grants clearly would be an important set of reform design options. Or, individual states could be given the option to negotiate different tax revenue share and expenditure change packages. Equity across the states and HFE may be a part of the debate.

(b) A more radical option would augment (a) and include replacement of payroll tax in the reform package. This would be a greater simplicity argument. It would build on the argument that ultimately most of both the PAYG income and payroll taxes are born by employees as lower take-home pay than otherwise. As in (a) above, there are many options in the details.

(c) Reform of the GST, together with some recycling of the revenue windfall as higher social security payments and lower income tax rates along the lines of the 2000 ANTS model so that the effective purchasing power is maintained for most on low and middle incomes. In part, reform of the GST is motivated by a combination of: recognition that the current narrow base GST is a declining share of GDP, and therefore a declining source of funds, and especially untied funds, for the states; and, changing the tax mix with replacement of some income tax with a broad based consumption tax reduces distortions to decisions on the composition of saving and investment and their aggregate levels while largely leaving unchanged distortions to labour market participation decisions. Reform options include: adopt a NZ model of a comprehensive consumption expenditure tax base (nearly double the current base), or leave out health, education and childcare (the increasing share of expenditure, but mix of public and private provision, subsidies); and/or, raise the rate from 10% to 15%; use some of the revenue gain to replace remaining ‘bad’ state indirect taxes, including stamp duty on insurance. Other important details of the reform package for federal financial relations include: how much of the tax mix change becomes a change in VFI, that is what share of extra GST revenue to each of the states, and what current commonwealth tied and untied grants to be replaced?

C. **Reform of Property Conveyance Duty and Land Tax**

1. Introduction

Replacing both conveyance duty, or stamp duty, on the transfer of property and the current narrow base and progressive rate land tax with a flat rate and broad base annual property tax would generate large gains in national productivity and result in better utilisation of the stock of housing and commercial property. Further increasing the property tax rate to replace current stamp duty on property insurance and the emergency levy could be added into a wider reform package.

To minimise redistribution effects of the taxation reform package over the short term, options on “devil in the details” should be explored. From the perspective of maximising efficiency and simplicity gains, a comprehensive land base and flat rate tax would be the revenue replacement. But, relative to the tax incidence of the current taxes to be replaced, this ideal reform would have tax redistribution effects. Modified reform packages to reap most of the potential efficiency gains while reducing tax redistribution effects include: separate reform packages for owner occupied, rental, commercial and primary production property, and then by state; a property base rather than a land base; a progressive rather than a flat rate tax schedule; adopt a transition adjustment path; and, offer hardship provisions for cash-strapped property owners.

This section discusses: the current taxes to be replaced along with their effects and disadvantages; the advantages of replacement of the current taxes with an approximate aggregate revenue neutral annual property tax; and, it describes and evaluates the pros and cons of different design details for the reform package to reduce tax redistribution effects for a more politically tractable reform package, including transition options.

2. Current taxes

The tax bases and rate schedules for state (and territory) imposed conveyance duty on the sale of property and annual land tax are reported in Table 1 along with revenue collected in 2017-18. Current taxes vary by property category, including between commercial property, rental accommodation, owner occupied home, and primary production. For housing accommodation, about 75 per cent is owner occupied and 25 per cent rented, with most rented property private owned. Also, the tax details vary across the states, including the tax rates and no land tax in the NT.

Conveyance duty is an infrequently paid tax only at the time of property transfer and assessed on the property sale value (of land, improvements and building). Over time, an average of 5.5 per cent of properties are sold each year, but with variation between 3 and 7 per cent, with a more frequent turnover for rental property compared with owner occupied (Leal, et al., 2017). Both the conveyance duty and land tax rate schedules are progressive rate schedules (with examples for NSW in the Appendix).

Table 1: Tax bases and rates for current conveyance duty and land taxes

	Conveyance duty	Land tax
Tax base and rate schedule[1]:		
Commercial	Property sale value; progressive rate	Unimproved asset; progressive rate
Rental	Property sale value; progressive rate	Unimproved asset; progressive rate
Owner occupied	Property sale value; progressive rate	Exempt
Primary production	Property sale value; progressive rate	Exempt
Other (charities, education, health, commonwealth,)	Exempt	Exempt
Revenue 2017-18 ($ million)[2]	21,700	9,150

[1] In general, different rate schedules apply to the different property categories, and details vary by state (NSW Treasury, 2017). [2] Source ABS, No 5506.0, Table 10.

A number of other taxes are imposed on property. Local government rates are paid each year and in 2017-18 yielded $18,451 million. In most cases they are assessed on the

unimproved asset value, but for some councils improved asset value[3]. In most cases flat rates apply, but with different rates for different property categories and councils.
Gross insurance premiums for property face stamp duty of between 8 and 11 per cent depending on the state. Most states impose a fee on either property or on property insurance as a hypothecated charge to support the funding of emergency services. Revenue in 2017-18 taxes on insurance companies contributing to fire brigades amounted to $803 million, and $4,595 million was collected from special taxes on other insurance (most but not all property).

3. Why reform?

(a) Remove distortions to decisions affecting the best allocation of property to improve national productivity

Both conveyance duty and the current set of land taxes distort decisions affecting the allocation of property to its most valued uses and users. These decision changes involve relatively high costs of foregone productivity in the use of property relatively to a world with a comprehensive base and flat rate land tax collecting the same revenue.

Consider conveyance duty. In response to changes in employment opportunities, changes in family dynamics and preferences, and changes in business opportunities, if one stays with the current property no conveyance duty is paid. On the other hand, if one chooses to change property by sale of the current option and purchase one better suited to the new job, family structure or interests, or business opportunity, conveyance duty is paid. Conveyance duty dissuades some from making these efficiency enhancing trades. (See Appendix for a supporting economic model, and Davidoff and Leigh, 2013.) By contrast, a replacement comprehensive base and flat rate land tax falls equally whether one continues with the current property and its disadvantages, or one takes the opportunity to move to a better option by trading. In short, the reform would lead to a better use of the available stock of land and property.

Estimates of the costs of the distortions of conveyance duty to the transfer of property from lower value to higher value uses top the list of distorting and productivity sapping Australian taxes (e.g. Henry et al., 2010, and Nassios, et al., 2018). Most available estimates of the marginal excess burden (described in Appendix), or efficiency costs, of

[3] Unimproved value for NSW, Qld, NT and ACT, improved value for WA, and mixed for Vic, SA and Tas.

restricting the transfer of property exceed 50 cents per dollar of revenue collected. By contrast, a comprehensive base flat rate land tax has a zero distortion cost. Then, an approximate revenue neutral reform package to replace conveyance duty with a comprehensive base and flat rate land tax would generate national productivity gains in excess of 50 cents per dollar tax mix change.

The current land tax with its exemptions and progressive rate structures incurs two sets of distortions and efficiency costs. (See appendix for more details.) First, the land taxation of rental property and exemption of owner occupied property favours some reallocation of land and buildings from rental to owner occupied when there is no market failure justification for such discrimination. Second, the progressive land tax assessed on value of property per owner invokes larger marginal and average tax rates for larger holdings relative to small ones. This penalises the types of rental property which benefit from economies of scale, including lower cost rental housing.

Taking a longer run context, replacing conveyance duty with a broad base land tax will contribute to a better structure and use of properties in the future. Given the expected continuation of significant population growth and the expansion of the population share locating in the cities, these benefits will expand over time.

An extended reform package would include a higher replacement property tax rate to replace the current stamp duty on property insurance premiums to remove the disincentives for some to not insure or to under-insure.

(b) A Less Volatile and More Predictable Source of Revenue

An important argument to replace conveyance duty with an annual property tax is greater stability of revenue. Conveyance duty is the most volatile source of state revenue. Revenue fluctuations are driven by both the variation of property turnover rates, with annual rates per year varying between 3 and 8 per cent, and by variation of average property prices. By comparison, an annual property tax is immune to variations of the turnover variable, and lags in administrative measures of property values used in setting local government rates smooth price variations. More stable revenue flows support better fiscal planning and a better “automatic stabiliser” fiscal policy support for the economy over the business cycle.

Also, more stable state tax revenues reduce one of the sources of variation and uncertainties in the future HFE formula used to allocate GST revenues between the states.

(c) Questionable Redistribution Effects

Redistribution effects of the current conveyance duty and land taxes in the broader economy wide context of society equity goals are of questionable value. As the Henry Review (2010) argued, the arbitrary nature and horizontal inequity of conveyance duty needs to be advanced as an important argument for reform.

Conveyance duty seriously conflicts with horizontal equity. To illustrate, if two households have similar income and assets, the household who changes property several times over the life cycle in response to changes in employment and family size pays conveyance duty each property change. By contrast, the household who lives in the same property pays no stamp duty. A replacement annual land tax would have both households pay the same land tax sum over the life cycle.

For individual taxpayers, the reform package involves replacing conveyance duty which involves relatively large but infrequent payments of tax at the time of property purchase with a regular stream of smaller annual payments of property tax. For the average person in terms of frequency of property transfers over the life cycle, a similar aggregate tax sum is paid with the reform as now. Winners will be those who transfer property more often than the average. Losers will be those who buy and sell less frequently than the average. Arguably, the reform package better meets horizontal equity.

While owners of rental property write the land tax to government, a portion of the tax is passed forward to renters as higher rent rates than otherwise (Appendix for details).
A possible supporting argument for a progressive tax rate schedule on land, rather than a flat rate, is one of vertical equity. That is, those with larger land asset stocks pay a higher average tax rate. But, why pick on rental and commercial property but not owner occupied property? The progressive personal income tax system, which includes rent and capital gains in taxable personal income, is a more general and effective component of the overall tax system to meet society vertical equity objectives.

If the reform package is approximately aggregate revenue neutral, including by category of property, the package should have no effect on average property prices. The expected present value of the future stream of current taxes and the replacement tax being the same means no change in the average tax burden and therefore no change in the average property price[4].

4. Proposed reforms

If one was designing a tax system from scratch, the ideal reform package would replace the conveyance duty and current land tax with a comprehensive base and flat rate land tax. The package would generate large productivity gains by removing the distortions discussed above. But, reality and increasing the likelihood for political acceptance likely requires a more modest reform package to minimise redistribution effects relative to the current taxes; all be it, a more complicated package with some loss of the potential efficiency gains. Potential compromises include options in the design details for the: tax base; tax rate schedule; transition path; and, hardship concessions. Some options and their pros and cons are as follows.

(i) Tax base and rate

Granted the different tax base and rate schedules of current taxes on different commercial, rental, owner occupied and primary producer categories, and resulting different effective tax burdens, equity considerations point to different tax rates, and perhaps tax bases, for each category. This disaggregation would seek for each category of property an approximate aggregate revenue neutral replacement annual property tax for existing taxes currently imposed. For example, the annual property tax rate to replace the current land tax and the more frequent turnover and conveyance duty paid of rental property would be greater than the replacement property tax rate on owner occupied property.

Again, revenue neutrality by state would support different replacement property tax rates for each of the different categories of property across the different states.

The tax base for the replacement tax could be either land or unimproved value, as now used for land tax, or the property or improved value (for land plus buildings) as now used for

[4] See Appendix for a formal model. It makes the reasonable assumptions that the different taxes are capitalised into property asset values in the same way, and that the asset market price reflects the average tax paid across all properties and over time.

conveyance duty[5]. Efficiency favours the land base; since investments in new buildings and renovations are sensitive to the tax rate. On the other hand, replacement of conveyance duty now imposed on property with a smaller annual property tax likely better meets current equity and familiarity concerns. Maybe the choice of land versus property as the tax base could differ by property category.

(ii) Tax rate schedule

Efficiency and simplicity points to a flat rate.

But, given the current progressive rates for both conveyance duty and land taxes, a similar vertical equity replacement reform package argues for a progressive rate schedule and its associated efficiency costs.

Ideally, vertical equity should be considered in the context of the overall tax system, rather than the specific context of taxation of property. In the case of commercial and rental property, but not owner occupied property, any additional rent and capital gains incomes, which might be an outcome of a flat rate replacement property tax, would be partially recaptured in the progressive rate income tax system. This revenue recapture argument does not apply to owner occupied property with both imputed rent and capital gains exempt from income taxation.

For reasons of revenue neutrality and equity with the current taxes, the replacement property tax rate would vary across the commercial, rental, owner occupied and primary production property categories; and also across the different states.

(iii) Transition path

A "cold turkey" replacement of conveyance duty with a broad based annual property tax, even if revenue neutral across the economy and overtime, will be seen by many recent purchasers of property, and payers of conveyance duty, as a form of double taxation, and therefore unfair and politically unacceptable. Numerous transition options to counter, or modify the magnitudes of, these double tax concerns have been proposed.

There are at least five potential transition strategies in replacing the current conveyance duty and narrow base land taxes with a broad based property tax (and with different details by commercial, rental, owner occupied and primary production category, and then by state):

[5] On average, improved value is roughly split between unimproved or land value and buildings. The land share tends to be larger the closer to large city CBDs, and hence contributes to vertical equity.

- Cold turkey
- Grandfather, or switch on sale. End conveyance duty, and apply annual property tax only on recently purchased property
- ACT gradual transition model. An approximate revenue neutral phased period (maybe 20 years) which gradually reduces the conveyance duty rate and increases the property tax rate
- Credit for recent sales. All properties onto the new annual property tax, and a phased credit or concession for recent conveyance duty paid (e.g. 50% for last year, 40% for two years back, through to 10% five years back).
- Voluntary opt-in. At the time of property purchase, buyer has the option of (i) pay stamp duty as now or (ii) adopt the annual property tax
- Combinations of the above are also options.

Each transition option has different implications for economic efficiency in the allocation of property, for equity, and for government revenue relative to the current taxes to be replaced. Table 2 provides a summary.

Table 2: Comparative Efficiency, Equity and Revenue Effects of Transition Options

Transition path option	Efficiency	Equity	Revenue
Cold turkey	Full gain	Double tax for recent buyers	No change
Grandfather	Initial small gain that slowly increases over time	OK for buyers	Large and sustained revenue cost for many decades
ACT phased (20 years) decrease of conveyance and increase property	Losses over the transition period while conveyance duty still in place	On average no losers or winners	No change
Credit for recent buyers	Full gain	Additional tax for recent property buyers	Revenue loss over transition period
Voluntary opt-in		Voluntary choice	

	Very small gain that increases over time		Large revenue losses over an extended period

The cold turkey one-off end to conveyance duty and replacement annual property tax for all reaps all the efficiency gains from day one, and no loss of revenue. But, it can be perceived as double-taxation for recent buyers who have just paid conveyance duty. Also, those planning to hold their property for many years may consider themselves disadvantaged.

The grandfather option to end conveyance duty and apply the replacement property tax only on new property transfers has the opposite effect. With on average only 5.5% of properties changing hands each year, the majority of properties would be exempt from the replacement annual property tax for many years, and for some for several decades[6]. The delayed implementation of the replacement property tax will incur very large foregone efficiency gains and large revenue losses.

Relative to the above options at the extremes, the ACT and credits for recent buyer options provide "in between" transition paths. They seek to cushion the redistribution effects, and especially on recent buyers of property, of replacing conveyance duty with an annual property tax. The ACT option has advantages of revenue neutral and limited redistribution across frequent and infrequent property buyers and sellers, but loss of efficiency over the transition period. The credits for payment of the new property tax for recent buyers and payers of conveyance duty option reaps efficiency gains, but it comes at a revenue loss over the transition period; a suggested sub-option which is revenue neutral over the long term is to set a slightly higher property tax rate to fund borrowing for the transition period.

The opt-in option by leaving the tax system choice to the taxpayer has great political appeal and limited opposition. On the other hand, the transition to the desired long term reform will take many decades, with long delays in reaping more productive allocations of property, and the revenue cost over the medium term (and for up to 50 years) would be substantial.

(iv) Hardship provisions

For the "asset rich and income poor", including some retirees, the replacement annual property tax can confront liquidity problems. A tax deferral option would allow the carry-

[6] For example, Grattan Institute (Daley and Coates, 2015) estimate about 70% turnover by end of 20 years, and 90% after 40 years.

forward of the property tax, much as the now available option to defer payment of local government rates. Carry-forward payments would be indexed, say the government borrowing rate, with payment at time of property sale or estate transfer. Limits might be imposed on the carry-forward sum relative to the property asset value.

An escape clause to delay payment could be made available for those facing a short term liquidity squeeze associated with, for example, unemployment, business failure, ill health

5. Cooperative federalism

Although the reform proposals refer to state and territory taxes, there are compelling arguments for active cooperation across the states and with the commonwealth.

Some of the efficiency gains arising from better utilisation of the national stock of land and buildings will accrue to the commonwealth as larger income and other commonwealth taxes. Also, some of the gains to an innovative state will feed into a more productive state and a larger ability for that state to provide government goods and services. Via the Commonwealth Grants Commission recommended division of GST revenue, in the future some of the innovating state tax reforms will flow through to a smaller share of GST revenue for the innovating state and a larger share for other states.

A reform package involving all states, with advantages for each and every state, likely would improve political acceptance of the reform. And, collective state reform still leaves individual states with some discretion on the details of reform, including different categories of property, tax rate schedules, and transition paths.

Given the distribution of benefits of the reform across the different states and the commonwealth, a system of financial credits and debits for each state funded by the commonwealth might be considered, for example, along the lines of the Hilmer competition policy reforms of the 1990s.

6. Moving Forward

A suggested strategy to replace conveyance duty, and perhaps also duty on property insurance, with a less distorting annual property tax that is approximately revenue neutral, respects distribution effects of the current taxes to be replaced, and a basis for more detailed quantitative evaluation is as follows.

- Separate reform packages for: commercial, residential rental, and owner occupied property categories, and also by state; no change for primary production. Reflects different mixes of taxes across the property categories now imposed to be replaced, different property turnover rates, and so different current revenue and distribution patterns.

- Use improved value as the tax base to reflect the current conveyance duty tax base; but may be unimproved value has an equity benefit (with higher land share in more expensive properties close to CBD).
- Progressive rate schedule to reflect current conveyance rate schedule for owner occupied property; but flat rate for commercial and residential rental property categories. The latter recognises a role for the income tax system as a part of overall tax system equity effects.
- Adopt a transition path. Suggest a mix of the ACT model (slowly increase annual property tax and reduce conveyance duty rate) and credits for recent payments of conveyance duty funded by a higher long term property tax rate.
- For owner occupied homes provide hardship provisions for assessed cash-strapped owners.

D. Reforming the Taxation of Motor Vehicles

1. Introduction

Current taxes which add to the cost of operating motor vehicles include: commonwealth excise on petroleum fuels; and, state charges, including vehicle registration, stamp duty on new and second-hand vehicle transfers, stamp duty on insurance, CBD parking fees, driver licence fees. In aggregate, these charges approximate aggregate government expenditures on investment and maintenance of roads. These long established historical current taxes on the use of motor vehicles are not closely linked to the costs to society imposed by individual and business users of motor vehicles. Nor is the revenue collected a hypothecated tax for funding road user services provided by government.

As proposed by the Henry Review (2010), Infrastructure Australia (2018) and many others, substantial national productivity gains in both the supply of and the use of roads are available by refocusing in an approximate aggregate revenue neutral reform package specific charges to reflect: the user cost of roads; external costs associated with congestion by time of day in the cities; and, the external or spill over costs of pollution.

This section: sets out the current government imposed taxes and charges on the use of motor vehicles; criticisms of these current taxes in terms of providing poor signals to users of the social costs of their use of motor vehicles for private transport and for business; and, the design, operation, and potential benefits of a reformed set of charges to better reflect the costs to society of vehicle use.

2. Current Taxes

The Commonwealth collects excise at the rate of 41.8 cents per litre on petrol and diesel distributed. Refunds are provided in full for fuel used for off-road purposes, and partial refunds for heavy vehicles[7] to offset a component of registration fees. The excise rate is adjusted every six-months to increases in the CPI. In 2017-18, $17 billion was collected with up to $5 billion returned via tax credits (Commonwealth Budget Paper No. 1, 2019). The Henry Review (2010) also proposed ending the luxury car tax.

Taxes associated with the use of motor vehicles collected by the states include: annual registration fees which vary by vehicle type; stamp duty on the purchase of new vehicles and transfer of ownership of second-hand vehicles; stamp duty on insurance premiums for motor vehicles; surcharges and levies on compulsory 3rd party insurance; annual parking fees in some CBDs; and, driver licence fees. For heavy vehicles of more than 4.5 GVM an agreed economy wide set of registration fees are set according to gross body weight, number of axels, body type and trailer type. For registration fees on light vehicles, and the other state taxes on motor vehicles, the different states have discretion on their taxes and most set different taxes. In 2016-17, states collected $2.8 billion from stamp duties on vehicle registration and $7.5 billion on other motor vehicle taxes (ABS, 2018).

The economic incidence of taxes collected on motor vehicles varies between final consumers and business operators. For final consumers or households, they both pay and bear the taxes. In the case of business users, and accepting that most of the users are involved as small players in competitive industries with close to constant returns to scale, and hence highly elastic supply curves, most of vehicle taxes in time are fully passed forward to buyers, and ultimately households, as higher prices for transport services supplied.

3. Why reform?

Decisions by business and private users of vehicles to use roads provided by governments should face the social opportunity costs of their different choice options[8]; much as they do in making

[7] Current payment of 25.8 cents per litre.
[8] Fees levied by toll roads generally are set to recoup revenue rather than to reflect marginal social costs. Ideally, guidelines for future agreements on toll fees should learn from proposed reforms.

decisions to purchase vehicles, food, clothing, and so forth. Roughly, in aggregate terms current taxes and charges on motor vehicles correspond with annual outlays by the three levels of government on investment in roads, bridges, etc, maintenance costs, and costs of policing and emergency services associated with road use. However, in terms of individual user decisions about what vehicles to purchase, and how and when to operate the vehicles, these current and long-established taxes provide poor guides to social costs. Further, there are feasible reforms to restructure charging for, or taxing, the use of motor vehicles to provide decision makers with direct measures of the relative social costs of their different choice options.

The fuel excise does not provide direct signals to users of the social costs of their decisions. Fuel use has a low correlation with road damage caused by different vehicles and congestion, and relative to the proposed reforms.

A further problem with fuel excise is that it will decline as a source of revenue. More fuel efficient vehicles, and then the adoption of electric vehicles, will reduce funds collected in the future. Data from Infrastructure Australia (2018) shows over the last decade an upward trend in Kms travelled and a downtrend in fuel excise collected, and these trends are expected to continue.

Stamp duty paid on vehicle transfers, stamp duty on insurance premiums associated with motor vehicles, and the surcharges on 3rd party insurance are poorly correlated with the user cost of motor vehicles. Importantly, these taxes have their own adverse effects on sensible decisions. Stamp duty on vehicle transfers provide disincentives to buy new and more productive vehicles, and to transfer the ownership of second-hand vehicles from less valued to more valued users. The additional tax burdens imposed on insurance premiums cause some people to not insure, or to under-insure. These taxes should be removed as part of an aggregate revenue neutral and a simpler revised package of vehicle user charges.

4. General reform principles

In general, the use of motor vehicles involves three sets of social costs, namely

- The user cost of government provided road services
- Congestion costs at peak-hour times in the large cities
- Pollution, including greenhouse gas emissions, particulates, and noise

An ideal system of road user charges would involve two components. First, is the marginal cost in the form of road damage for an additional kilometre travelled. This cost varies by vehicle type, weight per axle, road type and status. The present heavy vehicle registration fee if adjusted for kilometres travelled, and perhaps also by road type if administratively cost effective, provides the framework for further adjustment. Including kilometres travelled in the registration charge measure would improve decision incentives; and arguably also improve equity. Second, many of the costs of government provided roads are overhead costs and the marginal user fee would not cover all costs; overhead costs include the upfront investment and maintenance associated with the passage of time and climate caused wear and tear. A revised version of the current annual registration fee would continue to cover a share of overhead costs.

While fuel is highly correlated with pollution, and in particular greenhouse gas emissions, the current excise rate is too high for this purpose. The current 41.8 cents a litre fuel excise is extremely high as a measure of the marginal external costs of pollution. A $50/tonne of CO2 carbon tax would represent about 11 cents a litre on petroleum products. A logical pollution tax would apply to all fossil fuel use, including off-road use now exempt.

Congestion during peak times in the cities involves an external cost. Each driver recognises the personal cost of delayed travel, uncertainty of travel time and additional operating costs born by the individual when entering a congested road, but they do not consider that also they have added to the congestion cost faced by other users of the congested road. The aim of a congestion charge is to internalise to each driver the additional congestion costs they impose on others.

Driver licence fees likely are an appropriate administrative cost for the regulation of drivers.

5. Options in details of a reform package

There are many options in the detailed design of a road user charge, congestion charge and pollution charge reform package to consider. The options should be assessed and compared in terms of their relative technical administration and simplicity, equity of the reform package relative to the incidence of the current set of taxes, and better alignment of the charges and signals of social costs to road users. And, a reform package will change the mix of revenues collected by the commonwealth and the states. Some options are as follows.

(a) Road user charge

Ideally, the road user charge would have two components: a charge per kilometre to reflect marginal damage to the road, with the rate depending on the type of vehicle and perhaps also type of road surface; and, an upfront or overhead cost along the lines of the current annual registration fee to cover a share of remaining overhead costs.

An approximate revenue neutral package would have the new user charge replace the current registration fee, a portion of the fuel excise, stamp duty on vehicle transfers and on vehicle insurance, and loadings on third party insurance.

Depending on the details, it is inevitable that there will be some winners and losers with an aggregate revenue neutral reform package. Importantly, once the market adjusts, businesses pass on to their customers most, if not all, of any change in net tax paid as offsetting price changes.

(b) Congestion pricing

A number of options to set charges to internalise the external cost of congestion during peak travel times in the large cities could be considered. Options for the charging system include: cordon charges to enter and leave the CBD, with examples of London, Stockholm and Singapore; freeway or toll fees; and, then the rates charged (e.g. Grattan Institute ideas provided by Terrill et al., 2019). Then there are options for use of the revenue, including: replace the current CBD parking fees: reduction of current registration fees and/or excise tax; contribute additional funds to public transport or city improvement. These and other options chosen will affect the mix of winners and losers.

(c) Pollution charges

For greenhouse gas emissions there are issues about, for example; just reduce the current excise rates for petroleum products to reflect an equivalent carbon tax; extend a pollution fee on all petroleum products, including off-road use; extend to a more comprehensive carbon or emissions tax base; and, then whether the rate increase over time is indexed to, say, the CPI, or to increase at the interest rate. Some might add options of a common rate across all states or variable across each state, and which level of government receives the revenue.

Whether there should be explicit pollution charges for noise, particulates and other undesirable effects on third parties associated with the use of motor vehicles in addition to a carbon emissions tax is administratively challenging because these external costs vary geographically.

(d) Federal and state financial arrangements

The proposed reforms involve both commonwealth and state taxes, and three levels of government contribute funds for investment in, and for the operation and maintenance of, roads.

Important issues of federal financial relations arise with the revenue sharing. On the expectation that fossil fuel use will decline over time as Australia meets targets to reduce greenhouse gas emissions, the revenue path for commonwealth excise will be a declining one. A key component of the reform package is a shift from excise on fuel to a road user fee and congestion charges levied by the states.

Arguably, with the reforms and decline in commonwealth excise revenue, an important component of a wider reform package would include changes to the mix of source of funds for road investment from the commonwealth to the states. This reform would have its own set of productivity gains associated with a reduction of the current overlap and blame shifting across the two levels of government, and in turn enhance political accountability for investment in and in maintenance of roads.

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Appendix: Some Background for Part C

1. Current Taxes

Examples of NSW taxes for 2016-17 from NSW Treasury, Interstate Comparison of Taxes 2016-17, TRP 17-01, December 2017.

Property transfer duty rate schedule for property value:

$0 - $14000: 1.25%

$14,001- $30,000: $175 + 1.5%

$30,001 - $80,000: $415 + 1.75%

$80,001 - $300,000: $1,290 + 3.5%

$300,001 - $1,000,000: $8,990 + 5.5%

$1,000,001 - $3,000,000: $40,490 + 5.5%

Over $3,000,000: 150,490 + 7.0%

Surcharge of 4% for foreign purchases

Concessions for first home and new home

General insurance duty: 9% of premium paid

Land tax rate schedule:

$0 - $482,000: nil

$482,001 - $2,947,000: $100 + 1.6%

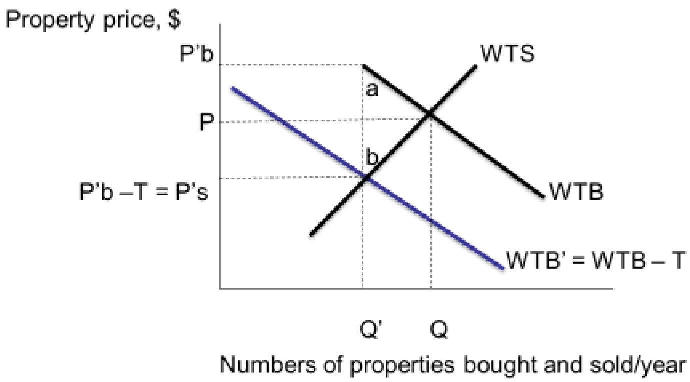
Over $2,947,00: $39,540 + 2.0%

0.75% surcharge for foreign land owner

2. Partial equilibrium model to assess effects of conveyance duty, efficiency cost, and economic incidence

We can think of a market between those willing to buy property and those willing to sell property as illustrated in Figure A1. Buyers have a willingness to buy, or marginal benefit of buying, demand function, WTB. Sellers have a willingness to sell, or marginal cost of selling, supply function, WTS. Market equilibrium would equate WTB with WTS for a number of transactions at Q and a market price of P. If there are no market failures this is an efficient outcome which equates marginal benefit with the marginal cost of changing property ownership.

Figure A1: Market to buy and sell property



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Now in Figure A1 impose conveyance duty, or a tax, T, on buyers when purchasing a property. Initially the tax shifts down the buyer demand curve to WTB' = WTB – T. This results in a new market equilibrium with a smaller quantity of properties transferred from Q to Q', a lower market price of P's < P, but a higher effective cost to the buyer of P'b > P. Davidoff and Leigh (2013) estimate that a 10% increase in conveyance duty reduces the property turnover rate by between 4-5 % by the end of three years. The lower quantity of property transfers involves an efficiency cost of the triangle "a+b", or foregone transfers from lower value users and uses as represented by WTS to higher value users and uses as represented by WTB.

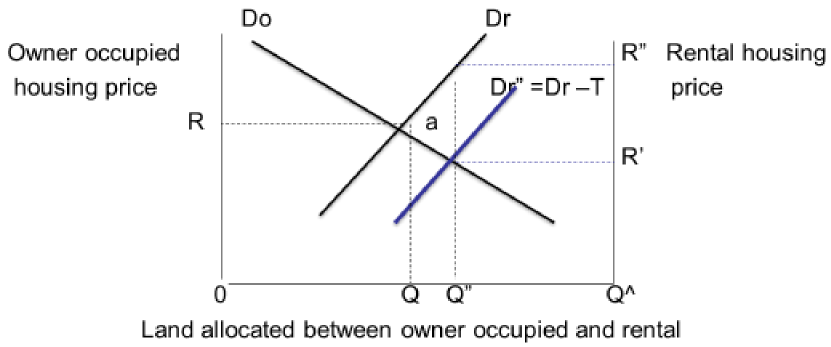
The marginal excess burden of the tax is then calculated as the derivative of the efficiency cost for a tax increase divided by the derivative of tax collected for a tax increase.

Figure A1 also informs us about the economic incidence of conveyance duty. While the tax cheque is written by the buyer, once the market adjusts to the tax-induced fall of demand, some of the tax is passed back to the seller as a lower market price. Given that many in the market for properties are both a buyer and a seller, it is arguable that the elasticities of the WTS and WTB functions are similar. Then, the economic or final incidence of conveyance duty is roughly split 50:50 between buyer and seller.

3. Partial equilibrium model of effects of narrow base land tax

Figure A2 provides a simplified model to explain the effects of the narrow based current land tax which falls on land allocated to rental property and exempts land allocated to owner occupied property. Suppose a fixed quantity of land, Q^, to be allocated between the alternative types of land allocation, with downward sloping demand curves of Do for owner occupied uses with reference to the left-hand axis and of Dr for rent property with reference to the right-hand axis. The market would equate the two demand curves for a rent price of R and OQ allocated to owner occupied and QQ^ to rent property. In the absence of any market failures, this market solution also results in an efficient allocation of the limited land between the two competing uses.

Figure A2: Narrow base land tax



Next, add the current situation of a land tax on rental property, but an exemption for owner occupied property. The narrow base tax, T, on rental property shifts down the rental property demand function to Dr" = Dr – T. The new market equilibrium shifts some land, Q" – Q, from the taxed rental property use to the tax-exempt owner occupied property. The reallocation of land involves an efficiency cost of the triangle "a". While owners of rental property write the tax cheque to government, a portion of the tax is passed forward to renters as a higher price R" > R that can be charged for the smaller share of land allocated to rental property.

A version of Figure A2 can be used to assess the effects of the progressive land tax. Essentially, have larger value land property users on one axis, and paying a higher marginal land tax, and smaller landlord property owners on the other axis, and paying a smaller marginal tax rate.

4. Effects of reform proposals on property asset price

Consider next the link between different taxes on property and the property asset price. In a long run equilibrium context, and recognising that property is a long-lived asset which provides a future stream of services or incomes into the future, the value of the asset, or current property price, A, equals the discounted value of the future stream of after-tax returns, namely, $\sum Rt\ (1 - TAt) / (1 + d)^t$, where Rt is the pre-tax return in year t, TAt is the average tax rate in year t, and d is the discount rate.

$$A = \sum Rt\ (1 - TAt) / (1 + d)^t$$

Then, in isolation, any of the current conveyance duty and land tax or the replacement property tax will increase the TAt term and reduce the property asset value, A.

An aggregate revenue neutral tax reform package which replaces the current taxes with a comprehensive base property tax means no significant change to the average tax term TAt, but a change in its composition, and then no change in the average price of property. If for particular categories of property, such as owner occupied and rental property, the reform package increases (decreases) the average tax burden, there will be a one-off property price fall (rise) and associated windfall capital loss (gain).