Reforming state taxes on property

TTPI - Working Paper 6/2020
June 2020

Professor John Freebairn
University of Melbourne

Abstract

Alternative details of tax reform options to replace the current conveyance duty on property transfers, the narrow base land tax, and arguably also stamp duty on property insurance, with an annual property tax in an approximate revenue neutral reform package are described and evaluated. A comprehensive tax base and flat rate replacement land tax offers maximum gains in efficiency and simplicity. But, viewed against the taxes to be replaced it has important tax redistribution effects. Less redistributive options include longer term systems and transition options. Longer term system replacement options include: different taxes for commercial, resident rental, and owner occupied property; improved property rather than land value for the tax base; and a progressive rate rather than a flat rate. Transition adjustment path options include: credit for recent paid conveyance duty; gradual phase down of conveyance duty rate and phase up of replacement property tax. Provision for liquidity constrained owners to carry forward the replacement annual property tax is supported.

JEL Codes: H21, H22, H27
Keywords: property taxes, tax reform, conveyance duty

* While maintaining responsibility for this version, I gratefully acknowledge the comments of Bob Breunig and a referee. Contact: j.freebairn@unimelb.edu.au
The Tax and Transfer Policy Institute in the Crawford School of Public Policy has been established to carry out research on tax and transfer policy, law and implementation for public benefit in Australia. The research of TTPI focuses on key themes of economic prosperity, social equity and system resilience. Responding to the need to adapt Australia’s tax and transfer system to meet contemporary challenges, TTPI delivers policy-relevant research and seeks to inform public knowledge and debate on tax and transfers in Australia, the region and the world. TTPI is committed to working with governments, other academic scholars and institutions, business and the community.

The Crawford School of Public Policy is the Australian National University’s public policy school, serving and influencing Australia, Asia and the Pacific through advanced policy research, graduate and executive education, and policy impact.
Reforming State Taxes on Property

John Freebairn

University of Melbourne

Abstract

Alternative details of tax reform options to replace the current conveyance duty on property transfers, the narrow base land tax, and arguably also stamp duty on property insurance, with an annual property tax in an approximate revenue neutral reform package are described and evaluated. A comprehensive tax base and flat rate replacement land tax offers maximum gains in efficiency and simplicity. But, viewed against the taxes to be replaced it has important tax redistribution effects. Less redistributive options include longer term systems and transition options. Longer term system replacement options include: different taxes for commercial, resident rental, and owner occupied property; improved property rather than land value for the tax base; and a progressive rate rather than a flat rate. Transition adjustment path options include: credit for recent paid conveyance duty; gradual phase down of conveyance duty rate and phase up of replacement property tax. Provision for liquidity constrained owners to carry forward the replacement annual property tax is supported.

1. Introduction

Replacing conveyance duty, or stamp duty, on the transfer of property and the current narrow base land tax, and both with progressive rates, with a comprehensive land base and flat rate annual tax would generate large gains in national welfare. Productivity gains would come from the removal of taxation and its disincentives to transfer property from lower value to higher value uses resulting in better utilisation of the stock of housing and commercial property. An important element of fairness of the taxation system would follow with an annual property tax replacement for conveyance duty because those who change property more often than the average contribute more to funding education, health and other services consumed by all compared with those who transfer property less frequently than the average. A larger reform package could increase the property tax rate to replace current stamp duty on property insurance and the emergency services levy.

To minimise redistribution effects of the taxation reform package over the short term, alternative “devil in the details,” or options, of the reform package should be explored. To
maximise 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 accommodation, 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 paper 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 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. For simplicity an aggregate revenue neutral set of reform package options is considered. In practice, via variation of the tax rates in the reform package discussed here, governments may choose a positive (or negative) revenue reform package as part of a short term cyclical restraint (stimulus) fiscal stance, or as a component of a structural response to longer term issues involving the mix of all taxes and choices for the tax and government expenditure as a share of the economy.

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 private owner. 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
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

<table>
<thead>
<tr>
<th>Tax base and rate schedule¹:</th>
<th>Conveyance duty</th>
<th>Land tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial</td>
<td>Property sale value; progressive rate</td>
<td>Unimproved asset; progressive rate</td>
</tr>
<tr>
<td>Rental</td>
<td>Property sale value; progressive rate</td>
<td>Unimproved asset; progressive rate</td>
</tr>
<tr>
<td>Owner occupied</td>
<td>Property sale value; progressive rate</td>
<td>Exempt</td>
</tr>
<tr>
<td>Primary production</td>
<td>Property sale value; progressive rate</td>
<td>Exempt</td>
</tr>
<tr>
<td>Other (charities, education, health, commonwealth, )</td>
<td>Exempt</td>
<td>Exempt</td>
</tr>
<tr>
<td>Revenue 2017-18 ($ million)²</td>
<td>21,700</td>
<td>9,150</td>
</tr>
</tbody>
</table>

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 ¹. In most cases flat rates, but different rates for different property categories and councils.

Gross insurance premiums for property face stamp duties of between 8 and 11 per cent depending on the state. NSW 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).

¹ Unimproved value for NSW, Qld, NT and ACT, improved value for WA, and mixed for Vic, SA and Tas.
3. Why reform?

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

Both conveyance duty and the current land tax 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 relative 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 demographics, incomes 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 annual 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., 2019). Most available estimates of the marginal excess burden (described in Appendix), or efficiency costs, of 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. Together, 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, for the mix of housing accommodation 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 perspective, removal of conveyance duty and revenue replacement 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.

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

An important argument to replace conveyance duty with a 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 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 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.

(iii) 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, and make the same contributions to government provided health, education and other services.

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 would be 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 is fairer and 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 on rental property (but not owner occupied property) 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. (Appendix for details.) 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 average property price\textsuperscript{2}.

4. **Proposed reforms**

If one was designing a tax system from scratch, the ideal reform package would replace the conveyance duty and current narrow base land tax with a comprehensive base and flat rate land tax. The package would generate large productivity gains by removing the distortions discussed above. Also, it better meets horizontal equity.

But, reality of reform focuses on the current tax system with its tax distribution effects as the dominant base comparison. Improving 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 design options and their pros and cons in terms of efficiency, simplicity, redistribution and government revenue are as follows.

(i) **Tax by property category**

Granted the different tax base and rate schedules of current taxes on different commercial, rental, owner occupied and primary producer categories of property, and resulting different effective tax burdens, equity considerations point to different tax rates, and perhaps tax bases, for each property 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.

(ii) **Tax base**

\textsuperscript{2} This 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.
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 conveyance duty. 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. For some states, including NSW, data from local government rates is readily available only for land, but other states have available data for both land and improved property. Maybe the choice of land versus property could differ by property category.

(iii) Tax rate schedule

Efficiency and simplicity points to a flat rate. But, given the current progressive rates for both conveyance duty and land tax, a similar vertical equity replacement reform package argues for a progressive rate schedule and its associated efficiency costs discussed in Section 2.

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.

(iv) 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 an annual broad based property tax, and then with options of different details by commercial, rental, owner occupied and primary production category, and then by state:

---

3 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, and for equity and 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

<table>
<thead>
<tr>
<th>Transition path option</th>
<th>Efficiency</th>
<th>Equity</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold turkey</td>
<td>Full gain</td>
<td>Double tax for recent buyers</td>
<td>No change</td>
</tr>
<tr>
<td>Grandfather</td>
<td>Initial small gain that slowly increases over time</td>
<td>OK for buyers</td>
<td>Large and sustained revenue cost for many decades</td>
</tr>
<tr>
<td>ACT phased (20 years) decrease of conveyance and increase property</td>
<td>Losses over the transition period while conveyance duty still in place</td>
<td>On average no losers or winners</td>
<td>No change</td>
</tr>
<tr>
<td>Credit for recent buyers</td>
<td>Full gain</td>
<td>Additional tax for recent property buyers</td>
<td>Revenue loss over transition period</td>
</tr>
<tr>
<td>Voluntary opt-in</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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. 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. 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 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. Further it extends the horizontal tax inequity of the current conveyance duty.

(v) Hardship provisions

---

*For example, Grattan Institute estimate about 70% turnover by end of 20 years, and 90% after 40 years.*
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-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 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 to provide state goods and services, which, via the Commonwealth Grants Commission recommended division of GST revenue, in the future 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. Conclusions

Details in the design of a reform package for state property taxation inevitably will involve the usual tax reform trade-offs of efficiency, equity and simplicity.

Starting with a clean slate, efficiency, simplicity and equity favours a comprehensive land base and flat rate annual tax to replace the current conveyance duty, narrow base land tax and arguably also stamp duty on property insurance. However, the current starting point, including
imposition of conveyance duty only for properties sold, progressive rate conveyance duty on improved property, exemptions from land tax and progressive rate, provides a very different tax distribution pattern.

Alternative design details for the replacement annual property tax can reduce redistribution effects compared with the current taxes to be replaced and still generate large efficiency gains, and some arguable fairness gains. These options include different, but still approximately aggregate revenue neutral, reform packages for commercial, rental accommodation and owner occupied accommodation. An improved property tax base rather than a land tax base, and a progressive tax rate schedule rather than a flat rate, reflect closer the tax equity effects of the taxes to be replaced.

For the transition path to reduce concerns that recent buyers of property pay both conveyance duty and the replacement annual property tax in a form of double tax can be reduced via the ACT slow switch of the taxes or by giving credit for recent payers of conveyance duty.

A provision to carry forward the annual property tax for those with liquidity challenges is supported.

Ultimately, the choice among the different details of reform for state property tax involves trade-offs across efficiency, equity and simplicity objectives requires empirical quantification and then political judgement.

References

ABS (2019), Taxation Revenue, Australia, 2017-18, catalogue 5506.0


Appendix: Some Background

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 $2,947,000: $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**

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 $D_o$ for owner occupied uses with reference to the left-hand axis and of $D_r$ 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.

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 $D_r'' = D_r - T$. The new market equilibrium shifts some land, $Q'' - Q$, from the taxed rental property use to the tax-exempt owner occupied property. The
reallocate the 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, \[ A = \sum R_t (1 – T_{At}) / (1 + d)^t \], where \( R_t \) is the pre-tax return in year \( t \), \( T_{At} \) is the average tax rate in year \( t \), and \( d \) is the discount rate.

Then, in isolation, any of the current conveyance duty and land tax or the replacement property tax will increase the \( T_{At} \) 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 \( T_{At} \), 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).