Studying the impact of property tax reform on housing prices and efficiency

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Abstract

Australia has high housing prices by world standards. Australian state and local governments also have a high reliance on a variety of property taxes. This has generated calls for state tax reform. However, with property prices high, a concern of policy makers is that property tax reform might push house prices higher still. We investigate the effects of seventeen property tax reform options, with a particular focus on potential trade-offs between efficiency benefits and house price impacts.

Key points

- We study a wide range of property tax reform options using a detailed large-scale economic model of Australia's state and territory economies. We report the implications of property tax reform for housing prices and economic efficiency.

- We measure the economic efficiency implications of tax reform by evaluating the economic cost of raising a given amount of additional revenue from each property tax (i.e. we evaluate the "excess burden" of each tax). We evaluate property price effects in terms of impacts on pre- and post-tax prices for low- and high-density residential dwellings.

- Our modelling builds on previous work via: (a) extensive benchmarking of the model's property value and tax data to official sources; (b) endogenous modelling of tax rate scales; (c) endogenous modelling of property transaction frequency; (d) updated baseline detail including the recent COVID-19 downturn and recovery; (e) modelling of housing prices.

- A focus of our study is housing prices. Hence, our study builds on previous work that has focused on the economic efficiency consequences of property tax reform, but given comparatively little attention to potential consequences for housing prices.

- We find that the impacts of property tax reform on housing prices depend on a number of key metrics for each housing type, in particular: (a) the ratio of land value to structure value; (b) the proportions of occupancy represented by owners and renters; (c) the average duration over which owners hold property before selling to new owners; and (d) the discount rate. Estimates for these inputs are derived and reported herein using publicly-available data.

- A swap of property transfer duty (or stamp duty) with land tax has long been advocated on efficiency grounds. Of the seventeen tax mix swaps that we study, we find that this remains by far the best policy option, when options are ranked solely in terms of their economic efficiency consequences. By extending our model to include endogenous transaction volume responses, housing prices, and transfer duty tax rate scales, our estimates of the efficiency cost of transfer duty build significantly on past work.

- We find that the argument in support of swapping property transfer duty with land tax is strengthened when we broaden the evaluation criteria to include potential housing price impacts. That is, we find that swapping property transfer duty with land tax not only generates a significant gain in economic efficiency, it also generates a material reduction in the average price of housing, including transfer duties payable upon purchase.

- While we find that housing prices fall on average, important compositional effects are evident in the relative response between high- and low-density housing prices. Because high-density housing has much shorter holding periods than low-density housing, removing property transfer duty causes high-density housing prices to rise relative to low-density prices. This high-density housing price rise is not entirely offset by the offsetting hypothetical land tax we introduce because: (i) this hypothetical tax is imposed at a rate that is uniform across all housing types; and, (ii) high-density housing carries a lower land value share than low-density housing.

Summary[4]

A recurring theme in discussions of Australia's policy reform options is the overreliance by state and territory governments on property transfer duty. Why is this tax so often emphasised as a prime candidate for reform? Moving house is costly even before considering transfer duty. The decision to purchase a property sets in motion a chain of other transactions: legal experts must be engaged to navigate the transfer process, real estate agents are required to manage the sale of the property, property inspectors are hired to check for defects, and removalists paid to pack and transport possessions. Transfer duties compound matters, by adding a tax on top of the underlying resource cost of moving house. In NSW in 2020, transfer duty accounted for almost 80 percent of the average cost of moving house. Because households are sensitive to price signals, transfer duties reduce the propensity to relocate to more suitable locations when changes in personal or professional circumstances would otherwise make this the best choice. The cost of this tax is therefore significant.

The economic costs of many property and other taxes have been quantified by economists, using a variety of techniques. Studies for Australia by economists at the Commonwealth Treasury (Cao *et al.* 2015), and more recently by economists from Victoria University's Centre of Policy Studies and The University of Melbourne (e.g. Nassios *et al.* 2019) have shown that, when measured relative to the revenue they raise, the economic cost of property transfer duty exceeds that of any other Australian tax. In contrast, another property tax, land tax, is ranked among the least costly of the many taxes levied in Australia. As such, many policy economists advocate funding a reduction in transfer duties via higher land taxes, as this holds out the possibility of raising a given amount of tax revenue for a lower overall cost compared with current tax arrangements.

Despite the apparent attractiveness of such a property tax swap, only one Australian jurisdiction has embarked on such a reform, the ACT. The ACT's path to property tax reform commenced in 2012, with a key element of the ACT Tax Reform Package involving the phasing out of property transfer

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[4] For full details, please see Nassios, J., and J. A. Giesecke (2022). *Property tax reform: Implications for Housing Prices and Economic Productivity*. CoPS Working Paper G-330, available at https://www.copsmodels.com/ftp/workpapr/g-330.pdf

duty over a 20-year time horizon, with the revenue replaced by a gradual increase in ACT General Rates. Each year, the General Rates revenue target is achieved by calculating the value of land parcels in the ACT. Households then pay a share of the annual target, which is proportional to the value of their residential land plot relative to the value of the total land stock in the ACT.

Adams *et al.* (2020) from Victoria University's Centre of Policy Studies studied the ACT Reforms over 2012/13 – 2017/18 and found that, while the benefit due to the removal of property transfer duty accounted for around 80 percent of the increase in economic activity, the imposition of a land tax also carried with it economic benefits. Land taxes are attractive in part because taxation of existing foreign landowners means that each dollar of additional land tax costs the economy less than one dollar. Property transaction volumes also rose as a consequence of the reform. The extent of the increase in sales volumes was quantified by studying transaction data from the ACT. This showed a 10 per cent reduction in the stamp duty liable on any given transaction could be associated with a 6 percent rise in property transaction volumes.

To date, a limitation of the property tax reform debate has been a lack of attention to possible impacts on house prices. This is important given the current economic environment facing Australian households and policy makers, one in which housing prices are high, both relative to income and relative to other developed countries. Amplifying prices relative to incomes also carries other risks, in that it has potential implications for macroeconomic stability and the tax and transfer system more broadly.

The focus of this paper is to address this shortcoming in an active area of Australia's public policy debate. To this end, we develop new theory to embed regional housing price responses into a multi-regional computable general equilibrium (CGE) economic model of Australia's state and territory economies, called the Victoria University Regional Model with Taxation Detail (VURMTAX). The resulting housing price module, embedded within VURMTAX, allows us to study in detail how property tax reforms affect both economic welfare, and housing prices. We do this in two parts:

1. First, we simulate small changes in the rates of seven property taxes that each cost A$100m in tax-specific revenue. These simulations allow us to rank these taxes based on their impacts on economic welfare, and to study how this ranking compares with impacts on real housing prices;

2. Second, we provide a simulation-based assessment of seventeen hypothetical alterations to the property tax mix, reporting the impacts on economic welfare and real housing prices of each reform package.

The seven taxes we study can be broken into two groups. Four are existing taxes: (1) property transfer duty (TD); (2) state land tax (SLT); (3) local council rates (LCR), specifically the NSW system under which the tax is levied on an unimproved land value basis; and (4) The emergency service levy (ESL), with particular emphasis on the current NSW system under which the tax is levied on general insurance. Three are hypothetical taxes: (5) A hypothetical tax whose rate is uniform and whose tax base is unimproved land values (BBUIV); (6) A hypothetical tax whose rate is uniform and whose tax base is capital-improved land value (BBCIV); and, (7) A hypothetical tax whose tax base is narrow, in that it excludes owner-occupied housing and primary producers like SLT, but is otherwise levied at a uniform rate across capital-improved land value (NBUIV). Our seventeen property tax mix swaps involve removing one or more of the four existing taxes, and replacing them with one or more of the three hypothetical taxes. Of the seventeen combination swaps we study, eight focus on pairwise replacement, i.e., we swap one of the current four taxes with one of the three hypothetical taxes. The remaining nine scenarios are combinations of the eight pairwise swaps.

Our results from the first part of this study are summarised in Table 1. Our analysis highlighted that the impact of TD on welfare and efficiency was dependent on the type of property transfer it was collected from, i.e., housing versus non-residential property, and whether it was an existing or new property. For this reason, when reporting TD results in Table 1 we divide its effects according to property type, i.e., housing versus non-residential property, and study two vintages, i.e., existing or new. For example, row (1) in Table 1 summarises the overall impact of TD, on all property types and vintages. Subsequent rows then isolate individual channels of effect. Row (1.1) isolates the effects of

a small reduction in the rate of TD on housing transfers across new and existing vintages, while holding non-residential TD rates fixed. Row (1.2) isolates the effect of a small reduction in the TD rate on transfers of non-residential property of both new and existing vintage, while holding housing TD rates fixed. In rows (1.1.1) and (1.1.2), we further decompose housing TD impacts into the effects of transfers of existing housing (1.1.1), and new housing (1.1.2). Table 1 herein summarises results reported in more detail over pages 107-109 of Nassios and Giesecke (2022).[5] Column [2] lists the taxes studied in a given row. In column [3], we report the welfare benefit in cents per dollar of revenue swapped, when we reduce the rate of the tax listed in column [2] and replace foregone revenue with a non-distorting lump sum tax on households.

The results in column [3] of Table 1 allow us to rank the taxes studied according to the welfare benefits that arise from small tax rate reductions. In Table 1, we rank our taxes from the most distortionary tax, which generates the largest benefit when its rate is reduced (shaded red), through to the least distortionary tax (shaded green). From Table 1, we see that a permanent reduction, implemented today, in the rate of TD on transfers of existing houses would improve welfare by 132 cents per dollar of revenue foregone by 2040. This is the largest benefit generated of all the taxes we study. In column [4] of Table 1, we use similar shading to draw attention to the taxes for which rate reduction puts the strongest upward pressure on real housing prices (shaded red), with graded shading for those taxes that cause the smallest price increases or reduce prices (shaded yellow through to green). TD on existing houses also ranks as the most distortionary of the taxes studied on the purchasers' price of housing. In row (1.1.2) of Table 1 we see that removal of TD on new housing damps purchasers' price responses; however, this effect is dominated by the impact of TD on existing transfers because much more TD is collected from existing than new housing in any given year. The corollary of these findings is that removing TD and *not* replacing the revenue with another property tax will generate welfare benefits, but at the cost of real housing price appreciation.[6]

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[5] The row label convention we apply in Table 1 herein correspond to the row labels in the more detailed source table reported over pages 107-109 of Nassios and Giesecke (2022).
[6] We expand on this point in Table 2 of Nassios and Giesecke (2022: 110-115), where we show that complete replacement of stamp duty with a lump sum tax raises real house prices, i.e., housing prices relative to the CPI, by approximately 11.7% (before duty) and 7.1% (after duty).

Table 1: Ranking of state and local government property taxes according to their impacts on welfare (column 3), and their impact on state-wide real housing prices (column 4), in response to A$100m in tax cuts.

Relevant row in Table 1*	Tax	Welfare benefit in 2040 in cents per dollar *Largest benefit when rates are reduced (red) to largest cost (green)*	Real average housing purchasers' price** deviation from baseline in % *Largest rise (red) to largest fall (green)*
Column [1]	Column [2]	Column [3]	Column [4]
(1.1.1)	Transfer duty (TD): transfers of existing houses***	132	0.138
(1.1)	TD: all house transfers***	112	0.104
(1)	TD: all property transfers***	82	0.077
(1.1.2)	TD: transfers of new houses***	43	-0.149
(4)	Emergency Service Levy (ESL)	42	0.013
(1.2)	TD: non-residential transfers***	40	0.000
(7)	Narrow-based capital-improved value tax (NBCIV)	14	0.074
(6)	Broad-based capital-improved value tax (BBCIV)	3	0.072
(5)	Broad-based unimproved value tax (BBUIV)	-8	0.116
(3)	Local council rates (LCR)	-11	0.094
(2)	State land tax (SLT)	-15	0.077

* Table 1 summarises results reported in Table 1 of the main working paper of this study: see Nassios and Giesecke (2022: pp. 107-109).
**Real average housing purchasers' price responses reported here are derived by taking the difference between columns [6ii] and [7] in Table 1 from Nassios and Giesecke (2022: 107-109).
**** For transfer duty, we study its impact across two different property types (housing and non-residential property) and two different vintages (existing and new), because each of these four channels have unique implications for welfare and real housing prices. In row (1.1.1) we study the impact of small TD rate reductions on existing housing transfers, while row (1.1.2) reports our findings when the TD rate on new housing is reduced. We aggregate these results in row (1.1) to report the impact of TD on housing in totality, while in row (1.2) we report the results for non-residential TD. Finally, row (1) aggregates the results in rows (1.1) and (1.2).*

With regard to welfare impacts, land taxes rank as the most efficient in column [3]; reducing land tax collections actually reduces welfare (a negative welfare benefit is reported in row (5), column [3] of Table 1) because of taxation of existing foreign owners of land. Land taxes are thus attractive from an economic welfare perspective. Notably, their housing price impacts are also similar to TDs, as shown in column [4]. This makes land tax attractive as a candidate for direct replacement of transfer duty: welfare benefits can be unlocked, while leaving house prices largely unaffected.

As discussed, in part three of Nassios and Giesecke (2022), we apply the framework that gives rise to the results in Table 1 to study unilateral, i.e., implemented in one state only, property tax reform. Therein, we report results for seventeen reform scenarios. Eight of the scenarios we investigate involve pairwise swaps of one of taxes (1) – (4) in Table 1 with one of taxes (5) – (7) in Table 1. The relative impact of these eight pairwise swaps on welfare and housing prices, can be studied with the aid of the scatterplot in Figure 1, which helps us identify tax swaps that:

(i)   both reduce the purchasers' price of housing and improve welfare (see the bottom, left-hand quadrant of Figure 1); and,

(ii)   both increase housing prices and reduce welfare (see the top, right-hand quadrant in Figure 1).

Figure 1: Scatterplot of the welfare loss (x-axis) and real average housing price response (y-axis) for eight pairwise changes in the property tax mix derived using VURMTAX. Mix swaps that simultaneously improve welfare and reduce housing prices inhabit the bottom left quadrant.
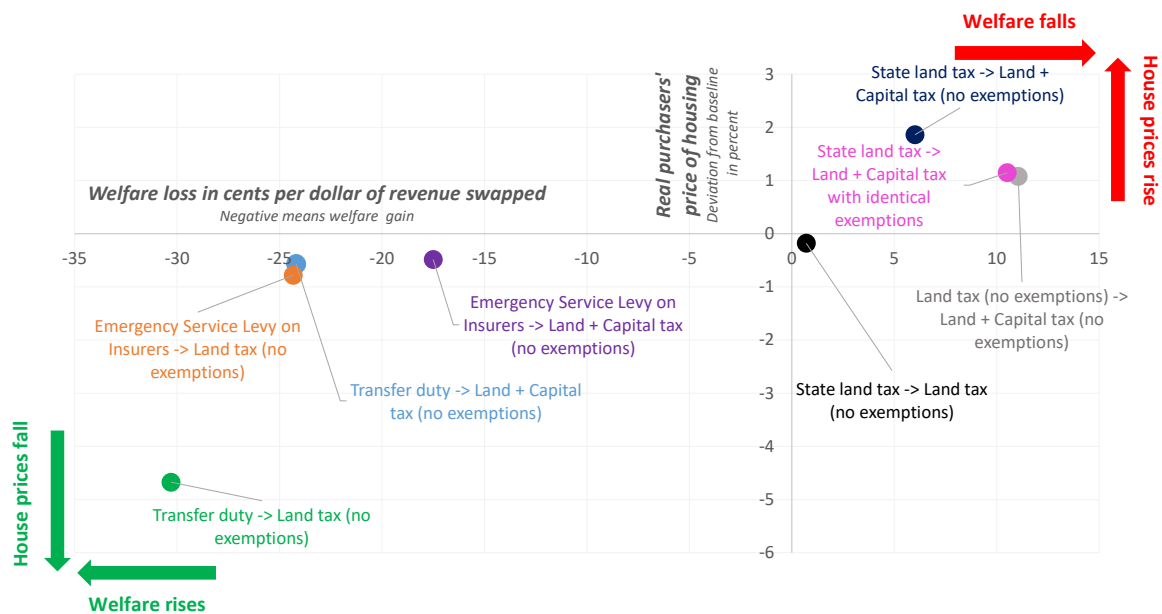
One swap (state land tax for a broad-based unimproved value land tax, black dot in Figure 1) is broadly neutral on both efficiency and price measures, and thus lies close to the origin in Figure 1.

Based on Figure 1, there are four pairwise swaps that rank highly from an efficiency and housing price standpoint, with the two highest priorities being (1) swapping TD for a BBUIV (green dot); and, (2) replacing the ESL on insurance with a BBUIV (orange dot). We find that other policy options, such as changing the LCR tax base from land to capital-improved value (grey dot) or allowing SLT to be levied on a capital-improved basis (dark blue dot), cause housing prices to rise and reduce welfare.

In future work, we aim to apply this framework more broadly, to study how value-added taxes, e.g., Australia's Goods and Services tax (GST), impact both welfare and efficiency. When discussing removal of property transfer duty, the GST is often put forward as an alternative tax-mix swap candidate to broad-based land taxes. Based on previous studies by Nassios *et al.* (2019), the welfare costs of GST rate rises are smaller than TD, but larger than land taxes. The TD-GST swap would thus rank lower than the TD-BBUIV tax mix swap from a welfare perspective. An interesting follow-up to our work herein would be to explore the impact of a national TD-GST swap using VURMTAX, with particular emphasis on regional housing prices and economic welfare.

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