## Taxation and Housing – The Great Debate

For this first in a series of 'Notes on Housing', it is impossible to look past the current political and economic debate on negative gearing, capital gains tax and housing.

## Summary Points

- Increases in capital gains tax for all dwellings and disallowance of negative gearing for established dwellings will increase the user cost of investors and, other things equal, will mean some combination of higher rents and lower prices, ie higher rent-price ratios. In Appendix 1 set out below the Poterba (1984)[1] framework for analysing the impact of tax and tax changes on user cost.

- While the economics are clear, there is scope for argument over the orders of magnitude of the increases in rent and decline in prices. The BIS Shrapnel estimates[2], which assumed negative gearing changes would cause Sydney unit prices to fall 6.1% and rents to rise by 5.8% are probably on the high side (even allowing for the fact that it did not incorporate the effects of the proposed lift in capital gains tax) but they are not fanciful, as suggested by the Grattan Institute.[3] The competitive effects etc. which constrain rises in rents alluded to by the Grattan Institute are all incorporated in the Poterba (1984) analysis. When Poterba (1990)[4] used his framework to look at the impact of comparable US tax changes in 1986 (when they cut negative gearing), he was strictly taking an academic view of the matter. Poterba assessed that the long-run effect will mostly be higher rents, while the short run effect will mostly be lower prices. In markets such as those in Australia with higher land/structure ratios, more of the effect would logically fall on prices.

- Benchmarked against the Henry Tax Review, which sought to reduce the wedge between high taxes on voluntary savings relative to owner-occupied housing and superannuation, by cutting taxes on interest and rental income, the proposed changes will rather increase the wedge. The changes to capital gains tax, not applied to superannuation, will lead to very high effective tax rates on capital gains – perhaps fine if you believe capital gains will repeat recent history but not in a more realistic world. It is therefore highly problematic describing this as tax reform. In Appendix 2, I look briefly at the changes proposed.

- What would I propose? NZ is the gold standard in my view, benefiting from the Douglas/Lange Labor Party reforms of the 1980s, which included a GST! And NZ is on a par with Australia in terms of income distribution![5] But that is a forlorn hope. Next best is to revisit the Henry Tax ideas: phase in lower tax rates on saving which will naturally lead to lower negative gearing, while constraining access to superannuation. My tweaks on that would be a return to inflation-indexed capital gains and not allowing superannuation funds to borrow.

- In terms of new housing, the oft quoted statistic that less than 10% of investor borrowing (some quoting 5%, others 7%) goes to new dwellings is plain WRONG. A moment's thought says it makes no sense given the role of investors in the building boom in new units. The ABS figures do not give an actual figure but a reasonable assessment of the ABS data (see discussion below) is that true figure is about 20% of investor loans and that it represents over 30% of all new dwellings and, in the current cycle, it is likely to be running in the order of 40%. With the new segment already very likely dominated by high income investors, the budget savings if new dwellings are exempt will likely be significantly less than projected by the PBO.

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[1] Poterba, J. (1984) "Tax Subsidies to Owner-Occupied Housing: An Asset Market Approach." The Quarterly Journal of Economics, 1984, 99(4), pp. 729-52.
[2] BIS-Schrapnel report as a cited in Domain report: http://www.domain.com.au/news/negative-gearing-changes-would-push-up-rents-10-per-cent-report-20160302-gn8ehp/
[3] Daley and Wood (2016) "A low-cost way to derail the housing debate." 3 March 2016
[4] Poterba, J. (1990) "Taxation and Housing Markets: Preliminary Evidence on the Effects of Recent Tax Reforms." NBER Working Paper 3270, February 1990.
[5] OECD has Australia and NZ both with Gini coefficients of 0.33 in 2012. http://stats.oecd.org/Index.aspx?DataSetCode=IDD

- While the McKell Institute paper[6] has argued that there would be a boost to new housing, that proposal assumed no change to capital gains and also assumed the sub-10% presence of investors in the market for new housing, implying significant scope for investors to shift from established to new. The more likely scenario is that the changes will cause a (small) reduction in investment in new dwelling activity.
- Finally, something on which pretty much all economic think tanks, the Reserve Bank[7] and no doubt BIS Shrapnel would agree is that the real issue for policy-makers if they are genuinely concerned about the cost of housing is supply constraints which is a State Government prerogative.
- On the short-term impact, difficult to judge. But recall the over-sized, almost irrational response to the introduction of the GST in 2000, which produced a short-lived boom then bust in housing activity and went close to pushing the economy into recession. That suggests that, even with grandfathering, there is potential for some unpredictable disruption before things settle down.

## Why Australian prices are high?

In the overall story of why Australian house prices are high, negative gearing and capital gains are bit players. Negative gearing does mean that rent-price ratios are lower than otherwise and marginally lower than in other markets, but they are at low levels in all comparable markets relative to the 1990s. That is, the story of high house prices and low affordability is not unique to Australia. The sharp rise in prices in markets similar in most respects (e.g. coastal cities in US, Canada, and London) but with different tax regimes. Canada and the US have more restricted negative gearing, while the UK does not allow it.[8] Similarly there is the argument that the change to capital gains in Australia in 1999 caused or triggered the boom in house prices in Australia. Did it also cause the house price booms in the US, UK, Canada and NZ? The answer is that significant declines in real interest rates in the 1990s, coupled with deregulation which made credit more accessible, was the common factor driving prices higher and rent-price ratios lower in all these markets.

From an even longer term perspective, the primary factors driving rents and prices higher in all these markets are growing populations and growing incomes in cities with natural and policy-induced supply constraints. The demand factors and natural constraints are beyond control (assuming as I do we don't propose slashing immigration) but if politicians are seriously interested in doing something that makes a difference, it is in the area of supply constraints. A concern is that all the hullabaloo about negative gearing is a distraction from doing something real.

## Do we want a more efficient tax system?

In Australia, there are two tax-preferred sources of savings – owner-occupied housing (0%) and superannuation (15% and 0% post-retirement). Against that other voluntary savings are taxed heavily - at the same rate as labour income at marginal tax rates of 37% and 47%. These high rates are a significant impediment to saving in both an absolute and relative sense and the Henry Report recommended that taxes on savings should be reduced by 40%. Specifically, rather than a 47% top marginal tax, the tax rate on rental income would be 28% and this rate would correspondingly apply to rental losses. That same tax rate would also apply to capital gains, equivalent to cutting the discount from 50% to 40%. The result would be less incentive to negatively gear but less of a dis-incentive to invest. It would probably mean higher rent-price ratios (even if less than the Labor proposal) but, given the direction towards efficiency, I would argue the benefits would outweigh the costs. Politics buried this proposal which is a shame but it represents something of a benchmark to compare proposals.

The higher capital gains increases the wedge between private savings and the two tax-preferred sources of savings. The selective removal of negative gearing for used housing and shares but not new housing creates a new potential distortion, as well as increasing the wedge.

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[6] McKell Institute Report (2015) http://mckellinstitute.org.au/wp-content/uploads/pdf/McKell_Negative-Gearing_A4_WEB.pdf
[7] Deputy Governor, Philip Lowe Resilience and Ongoing Challenges Keynote Address to the UDIA National Congress 2016 Adelaide – 8 March 2016
[8] RBA (2003) In the US, they do not use the language "negative gearing" but refer to passive income losses, which amounts to the same thing. The 1986 tax changes in the US put a cap on the deductible losses and an income threshold ($US150,000) above which none could be claimed.

## Assessing the Economic Impact of Tax and Tax Changes on Housing

The best way to assess the economic effects of taxes on housing is the user cost framework set out by James Poterba in 1984. The user cost for non-taxed entities (owner-occupiers) and taxed entities (investors) are set out over. We can use this in two ways. Firstly to look at the absolute effect of changes in user cost, and secondly to look at how it affects the relative position of owner-occupiers versus investors.

### Absolute effect

The user cost of owner-occupiers is unchanged by the proposed changes to negative gearing and capital gains tax. For investors in existing housing, both changes increase the user cost. For investors in new housing, the increase in capital gains increases their user cost. Putting all three together, aggregate user cost has increased. This shifts the user cost supply curve to the left which implies that rents must rise. In terms of prices, higher user cost implies a shift to the left in demand and a fall in prices.

### Relative effect

As user cost is unchanged for owner-occupiers and increased for investors, there will be some shift from investing/renting to owner-occupation. The price signal for this is the combination of a rise in rents and decline in prices. From an owner-occupier's perspective, higher rents make it less attractive to rent and lower prices make it less costly to buy.

## A Boost to New Housing?

It is argued that only about 7% of investor loans go to new housing[9] which compares with 22% of owner-occupier loans going to new housing. This is NOT correct.

The true picture is that investor and owner-occupier presence in new vs established is (almost certainly) approximately the same.

For owner-occupiers, the ABS statistics provide four categories – new construction, new other (completed by developer and sold new), established and refinancing. For investors, the last three categories are lumped together. Assuming similar ratios for investors on new other, established and refinancing, the proportion of investor borrowing for new dwellings to all borrowing excluding refinancing is about 20%, only slightly lower than the 22% share for owner-occupiers. As a share of all new dwellings financed, investors represent about 33% (Figure 1 over), in line with their share of the total stock of dwellings. In other words, investors and owner-occupiers are both present in the new and established markets in approximately equal proportions. Even allowing for foreign investment in new dwellings[10], it is hard to reconcile the volume of new apartments (mostly rented) being constructed at present if this were not the case. The only mystery in the numbers is their correct reading and interpretation.

What is interesting is that the investor share of the new market has risen with the recent rise in dwelling activity (Figure 2) and is probably more like 40%. This should not be surprising given the relative rise in units in this cycle, with units historically more directed at the investor/rental market. Investors are playing a major role in financing the construction of new supply!

The McKell Institute report of 2015 saw a large potential shift of investor borrowing from established to new which would have "a material impact on housing supply" and while not providing a detailed analysis indicated that "a plausible estimate is that a net 10 percent increase could occur."[11]

This is contestable, but importantly the proposal in the McKell report did not include an increase in capital gains tax. If you add in the increase in capital gains, which lifts the user cost of capital for investment in new housing, it becomes more plausible to argue that supply would decrease.

Likewise in the policy announcement there is reference to "Independent modelling by the Parliamentary Budget Office assumes that following the changes, negatively geared investment in new dwellings will almost double." [12]

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[9] Daley and Wood (2016) "A low-cost way to derail the housing debate." 3 March 2016
[10] Where, in the absence of good data, the estimates tends to be conflated. See http://theconversation.com/chinese-investment-in-residential-real-estate-amounts-to-just-2-47404
[11] McKell Report page 28
[12] http://www.alp.org.au/negativegearing downloaded 9 March 2016

Without public access to the PBO analysis it is difficult to judge on what basis this would occur. Does this analysis also assume that investor investment in new dwellings is only 7%? The doubling is highly implausible.

As an aside, the underestimation of the current level of investor loans for new housing calls into questions assumptions about the fiscal benefit of quarantining negative gearing to new housing. Particularly as, given that new units/houses are typically more expensive than established dwellings (for any given location), high income individuals, with more capacity to acquire higher priced properties, are likely to be over-represented in the investor loans for new dwellings. Without access to the PBO analysis, one is left in the dark on this. But, one has to be skeptical about the savings.

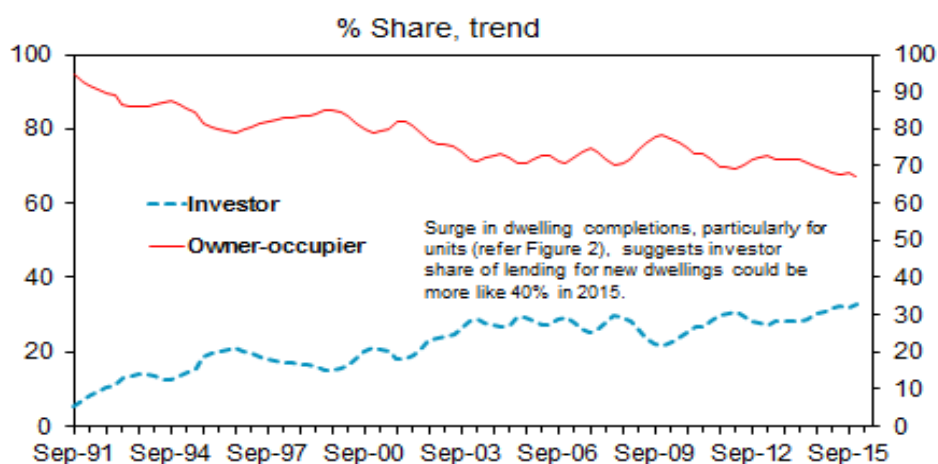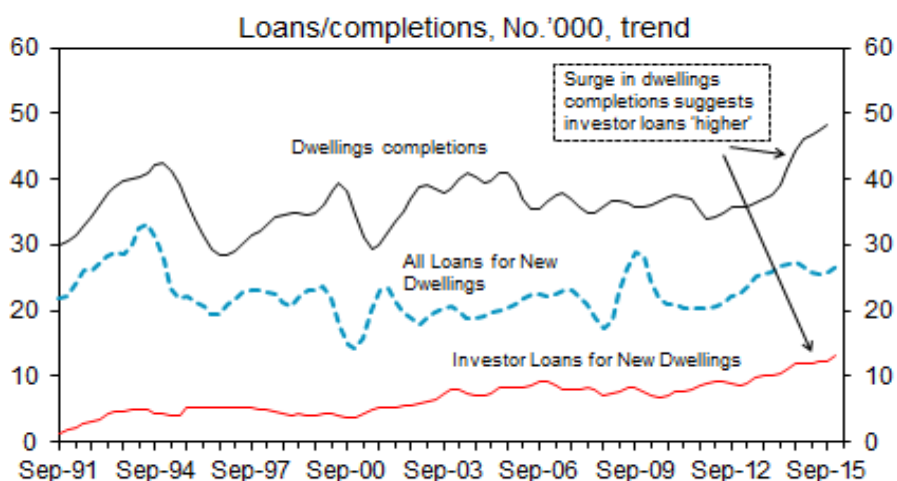Figure 1: Owner-occupier and Investor Shares of Loans for New Dwellings September 1991- December 2015

% Share, trend

Surge in dwelling completions, particularly for units (refer Figure 2), suggests investor share of lending for new dwellings could be more like 40% in 2015.

Figure 2: Loans for New Dwellings and New Dwelling Completions September 1991- December 2015

Loans/completions, No.'000, trend

Surge in dwellings completions suggests investor loans 'higher'

Dwellings completions

All Loans for New Dwellings

Investor Loans for New Dwellings

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## Appendix 1: User Cost and the Taxation of Housing

In the first part the user cost is set out for owners of housing subject to tax, ie investors. In the second part the user cost for owners of housing not subject to tax is set out, ie owner-occupiers. In the subsequent parts, the net advantage to owner-occupiers is set out. In equilibrium, user cost is equal to gross rent (R), so we can identify the relationship with rent-price ratios (e.g. see equation 1)

1. Investors User Cost (UC)

   Current user cost:

   $$User\ cost_{(Ic)} = R = P[\ \emptyset_a.i\ +\ (1-\emptyset_a).mi\ +\ \exp + lt - \Delta P\left(\frac{1-0.5t}{1-t}\right)\ ]$$  [1]

   $Equation\ 1\ rearranged\ gives\ rent-price\ ratio\ \frac{R}{P} = \emptyset_a.i\ +\ (1-\emptyset_a).mi\ +\ \exp + lt - \Delta P\left(\frac{1-0.5t}{1-t}\right)$

   User cost proposed (by Labor Party 2016).

   $$User\ cost_{(Ip)}\ = P\left[\ \emptyset_a.i\ +\ (1-\emptyset_a).mi\ +\ \exp + lt + \mathbf{(\emptyset_n - \emptyset_a)(mi).t_y}\ - \Delta P\left(\frac{1-\mathbf{0.75}t}{1-t}\right)\right]$$  [2]

   Where: $\emptyset = equity\ share\ (NB: (1-\emptyset)\ would\ be\ debt\ share);\ i = yield\ on\ alternate\ investment;\ mi = mortage\ rate;\ exp = other\ expenses\ (depreciation, maintenance, rates);\ lt = land\ tax; P = price\ of\ property\ and\ \Delta P\ is\ growth\ in\ house\ prices\ (capital\ gains);\ t_y = investors'\ marginal\ tax\ rate. \emptyset_n = neutral\ equity\ share\ at\ which\ net\ income\ is\ zero; \emptyset_a = actual\ share.$

Term in bold red in equation [2] is negative gearing benefit where a loss can be used against income from other sources, e.g. labour income or other investment income. Note that this element in equation [2] has a positive value when equity is less than neutral (incurring losses) but otherwise is zero. Taking this away adds to the user cost of investors. The final element is capital gains. If no discount, this collapses to $\Delta P$. With the 50% discount, the value which capital gains subtracts from user cost rises. With a 25% discount, $0.75\ (1-.25)$ appears in this element and the value of capital gains declines, increasing user cost. The increase in investor user cost is:

$$Increase\ in\ User\ cost_{(I)}\ = P\left[\ (\emptyset_n - \emptyset_a)(mi).t_y + \Delta P\left(\frac{0.25t}{1-t}\right)\right]$$

2. Owner-occupiers user cost (UC)

   $$User\ cost_{(oo)} = P\left[\ \emptyset_a.i.\left(1-t_y\right)\ + (1-\emptyset_a).mi + \mathbf{(\emptyset_n - \emptyset_a)(mi).t_y} + \exp\ -\Delta P\ \right]$$  [3]

For the owner-occupier, the first component is the benefit of non-taxation of imputed rental income which is maximised when equity is high. The higher the marginal tax rate of owner-occupiers the higher is the value of this benefit. When equity is low, the non-tax deductibility of losses ('negative gearing' term) adds to the user cost of owner-occupiers. Hence, there is an incentive for owner-occupiers to increase their equity.

3. Current Net Advantage to Owner-occupiers is the Difference: $UC_{Ic} - UC_{oo}$ :

   $$P[\emptyset_a.i.t_y + lt + \ \Delta P\left(1-\frac{1-.5t_y}{1-t_y}\right) - \mathbf{(\emptyset_n - \emptyset_a)(mi).t_y}\ ]$$  [4]

Again, the first component is benefit of non-taxation of imputed rental income which is the major relative advantage for owner-occupiers. The second and thirds are land tax and capital gains tax from which owner-occupiers are exempt. The negative sign on the negative gearing component indicates that it reduces the net benefit to owner-occupiers.

4. Net Advantage to Owner occupiers with the Labor Party proposal is: $UC_{Ip} - UC_{oo}$ :

   $$P[\emptyset_a.i.t_y + lt + \ \Delta P\left(1-\frac{1-.75t_y}{1-t_y}\right)]$$  [5]

With the proposed change, the net advantage to owner-occupiers increases. The negative gearing disadvantage drops out and the value of capital gains to investors is diminished.

The major benefit to owner-occupation occurs when equity is high. For new entrants to the owner-occupied market with low equity, the immediate value of this benefit is small – the benefit comes later. It is when equity is low that first-time buyers face the hurdle (or barrier to entry) of interest costs coming out of their after-tax income, whereas investors are able to deduct their interest costs. This hurdle explains the strategy of some first-time buyers to enter the housing market as investors.

For new entrants versus investors, equation [4] also tells us that new entrants are major beneficiaries of a decline in interest rates. It follows that it was owner-occupiers who almost certainly were at the forefront of the big rise in prices in the period 1996-2003 in the Sydney market. As the lower rates were factored into higher prices, and buyers needed to use more debt, the relative advantage moved back to investors.

## Appendix 2: Negative Gearing and Capital Gains

1.  Negative gearing

Negative gearing has been a part of the tax system in Australia since income tax was first introduced in 1915. But in 1915, income tax only applied to high income earners. Income tax really only became the main source of tax revenue with its expansion in the 1930s and more so in WW2. In the period from the 1950s to the mid-1980, the top marginal tax rate was in the range 60-70%. With no capital gains tax, in theory this was a period in which the benefits of negative gearing were at their highest. In the regulated financial environment, ironically, the capacity to borrow to negatively gear was confined to high income/high wealth individuals. If the statistics were there that is the story they would almost certainly tell.

In the major tax reforms of 1986, the then Labor Government reduced the top tax rate from 60% to 47% and introduced a capital gains tax. Between 1985 -1987, the Labor Government also briefly abolished negative gearing on residential property. The net effect of all these measures was to increase the user cost of investors and increase the relative attractiveness of owner-occupation. By itself, the reduction in the top marginal tax rate reduced the attractiveness of owner-occupied housing but the overall effect was to increase the bias to owner-occupation.  It is contended by some that it did not have the effect of lifting rents. At the time there was a comparably large set of changes in the US (negative gains and depreciation benefits for dwelling investors cut, and capital gains tax increased). The waters were muddied by cyclical effects and big changes in interest rates, but informed by theory James Poterba[13] nonetheless concluded that the policy change had caused a sharp fall in investor activity and a rise in rents.

The 1980s was a volatile time in Australia for housing in Australia with high inflation and high interest rates playing havoc and muddying the waters.  However, to argue that changes which significantly increased user costs for investors did not cause rents to rise is to deny fairly basic economics.

2.  Capital gains tax

The capital gains tax introduced in 1986 was based on real (inflation-adjusted) gains (the benchmark here). After inflation had eroded the value of people's savings in the 1970s and 1980s, a capital gains tax which did not protect savers from inflation would have not been well received.  In 1999, the then Coalition Government replaced the inflation-indexing of capital gains with a 50% discount. In any period where inflation averages 2.5% per annum (the RBA's target) and capital gains were 5% or 2.5% real, the 50% discount was equivalent to the inflation-indexing regime. In periods of higher capital gains it represented a "discount" to the old regime, but in periods of lower capital gains, it would represent a penalty.

If, as is proposed, the discount is cut to 25%, it would be neutral with the benchmark inflation-indexed regime 1985-99 in the situation where real capital gains are 7.5%. With capital gains of 2.5%, the effective tax rate at lower rates of capital gain, it will imply very high real rates of taxation. In the period since 1999, real capital gains in the Sydney and Melbourne markets have averaged 7.5% and 6% respectively (about 6% and 5% allowing for quality improvements), so on that basis you could certainly argue that the capital gains tax regime with the 50% discount has been advantageous to investors in this period. The 5% and 6% per annum real rises give effective tax rates of 33% and 35% (vs 47%) with the 50% discount. A 25% discount turns that into effective tax rates of 50% and 53%. On the other hand, investing is not riskless and share market investors have been less fortunate

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[13] Poterba (1990)

with real capital gains of 17% or 0.9% per annum since 1999[14], and on that the capital gains tax would be 75% with the current 50% "discount" and 110% with a 25% "discount".

But the past is not the future. In the case of housing, a large portion of the capital gains in this period are a one-off lagged effect to the low inflation/low interest rate regime that emerged in the 1990s and has been accentuated in a post-GFC world. Low interest rates lead to lower rent-price ratios principally via higher prices.[15] Going forward, a period of little change in interest rates would lead to a stable rent-price ratio and imply that price rises will be in line with rent increases which historically have been more like 2-3% per annum in real terms, or less allowing about 1% per annum for the effect of quality improvements. Assuming capital gains of 2.5% in the future, a 47% capital gains tax on a discount of just 25% would equate to a real tax rate of about 70%.

This strongly suggests that a return to the original inflation-indexed capital gains tax regime brought in by the Hawke/Keating Government in 1986 would have considerable merit.


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[14] The ASX 200 has risen from 2881 to 5115 between September quarter 1999 and March quarter 2016, which is a nominal rise 78% or a real rise of 17% (0.9% pa).
[15] Lower interest rates also contribute to lower rents or lower rises in rents.