

Tax and house prices

Changes to the tax system are likely to reduce house values

- **Potential changes to the tax system could reduce house prices.**
- **We estimate that changing the top rate of income tax to 30% would reduce house prices by 14%.**
- **Many of the potential tax changes could increase the rate of home ownership.**

In New Zealand, owning property comes with tax advantages. An investment in one's own home incurs zero tax on the flow of benefits (avoiding rent and capital gain). By contrast, all other investments incur tax on the interest/dividends/profits. Owning rental property can be "useful" from a tax perspective, too. Landlords normally pay more in expenses and mortgage interest than they receive in rent. These losses are tax deductible against other income, while capital gains are tax free.¹ High-income landlords can swap their taxable labour income for tax-free capital gain income. Unsurprisingly, many do. Ownership of New Zealand rental properties is skewed towards high income working-age people, and the sector as a whole claims more in tax deductions than it pays in tax.²

The price of a property – both owner occupied and rental – partly reflects the tax benefits conferred upon the owner. If the tax benefit changes, so will the price. This bulletin uses our Investment Value of Housing model to estimate the impact of potential changes to the tax system on house prices. We also discuss possible impacts on the rate of home ownership (the tax system currently discourages home ownership because landlords are treated more favourably than indebted owner occupiers). We have focussed roughly on the tax changes being discussed by the Tax Working Group (TWG, www.victoria.ac.nz/sacl/cagtr/twg).

The estimates relate to a median property in New Zealand, currently worth \$350,000 and being rented out for \$310 per week, for a gross rental yield of 4.6%. Of course, the estimates are ball-park figures only, and are sensitive to the assumptions made (detailed in Table 1). For example, tax reform

¹ Except in rare cases when the Inland Revenue Department can prove that the investor purchased the property with the intention of realising capital gain.

² For ownership breakdown, see http://www.victoria.ac.nz/sacl/cagtr/twg/Publications/3-taxation-of-capital-gains-ird_treasury.pdf

would change both house prices and rents, and it is hard to predict which would move most. We have assumed that one-third of the adjustment to a tax change would come about via higher rents, and two-thirds of the adjustment would come via lower house prices. On a similar note, we have assumed that the tax changes will be revenue neutral and will not change average after-tax incomes. We take no stance of any pre-existing over- or under-valuation of housing, since we are estimating changes in fair value. Still, the framework is useful for illustrating that prices will be affected by taxes, and for giving a rough guideline as to magnitude.

Possible tax changes and their impact

Top rate of income tax reduced to 30%

Impact on house prices:	-13.6%
Impact on rents:	+6.8%
New rental yield:	5.7%
Effect on rate of homeownership:	Higher

Landlords receive a tax rebate for losses on their rental properties at their marginal rate of income tax. If the marginal rate of income tax changes, so does the size of the rebate. For example, consider a landlord who is taxed at 38% and loses \$20,000 per annum from owning a rental property. At present, s/he gets a rebate of \$7,200 each year ($0.38 \times \$20,000$). If the top rate of income tax were 30%, the rebate would be just \$6,000 per year ($0.3 \times \$20,000$). The annual net cost of becoming a leveraged landlord would instantly increase by \$1,200, so fewer people would be willing to do it. Less demand would cause house prices to fall. Fewer willing landlords would mean higher rents. Lower house prices and higher rents would make home ownership both more attractive and more affordable, so home ownership would be higher than if taxes remained unchanged.

Leveraged landlords are the "marginal buyer" in most segments of the New Zealand housing market, so they determine the price. However, it is useful to note that a change in income tax would also affect debt-free owner occupiers. Lower income tax means less tax on interest income or dividends. This would increase the

For further information, questions or comments contact Brendan O'Donovan, telephone (04) 470 8250, email bdonovan@westpac.co.nz

For all clients: Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141, incorporated in Australia ("Westpac"). The information contained in this report: does not constitute an offer, or a solicitation of an offer, to subscribe for or purchase any securities or other financial instrument; does not constitute an offer, inducement or solicitation to enter a legally binding contract; and is not to be construed as an indication or prediction of future results. The information is general and preliminary information only and while Westpac has made every effort to ensure that information is free from error, Westpac does not warrant the accuracy, adequacy or completeness of the Information. The Information may contain material provided directly by third parties and while such material is published with necessary permission, Westpac accepts no responsibility for the accuracy or completeness of any such material. In preparing the Information, Westpac has not taken into consideration the financial situation, investment objectives or particular needs of any particular investor and recommends that investors seek independent advice before acting on the Information. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. Except where contrary to law, Westpac intends by this notice to exclude liability for the information. The information is subject to change without notice. Westpac expressly prohibits you from passing on this document to any third party. Westpac Banking Corporation is regulated for the conduct of investment business in the United Kingdom by the Financial Services Authority. © 2001

For Australian clients: WARNING – This document is provided to you solely for your own use and in your capacity as a wholesale client of Westpac.

incentive to save via bank deposits, shares, or business ownership rather than by owning a bigger/better house. So demand for property would fall.

Land Tax 0.5%

Impact on house prices:	-4.4%
Impact on rents:	+2.2%
New rental yield:	4.9%
Effect on rate of homeownership:	Neutral or down, depending on design
Impact on price of land:	-11%

A land tax would be levied on the owners of land, and calculated as a percentage of the unimproved value of land as determined by the rating valuation – similar to rates but applied to land value, not capital value. We estimate that the value of land would fall by 11%. Our estimate of a 4.4% house price decline applies to the median New Zealand house, for which land makes up 40% of the value. Properties for which land makes up a greater proportion of the value, such as lifestyle blocks, would experience a greater percentage decline in overall price. Apartments would experience a smaller percentage decline.

The impact on home ownership depends on the detail of the tax. We have assumed that the land tax is treated as a tax-deductible expense for landlords. (IRD argued at the TWG that failure to do so would create distortions). If the land tax were not tax deductible for owner occupiers, then landlords would enjoy an even greater tax advantage over leveraged owner occupiers, and therefore home ownership would fall. One way around this would be to simply set the tax at a lower rate for owner-occupiers.

Capital Gains Tax 10%

Impact on house prices:	-15.7%
Impact on rents:	+7.8%
New rental yield:	5.9%
Effect on rate of homeownership:	Higher

The TWG discussed the possibility of a capital gains tax that would exempt the family home, but would apply to rental properties. Such a tax would reduce the tax advantage of owning rental property, and would therefore dramatically reduce the price of property. A capital gains tax would remove the tax subsidy for landlords, so rents would rise. Lower house prices and higher rent would mean higher home ownership.

Top-end property would be less affected than lower-end ones, so price dispersion would widen.

We regard capital gains tax on investment property as unlikely to happen. For a start, it would be complex to administer. Worse, much of the burden would fall on tenants, who tend to have low incomes.

Deemed rate of return (tax applied on 6% of equity)

Impact on house prices:	Between -26% and -34%
Impact on rents:	Between +13% and +17%
New rental yield:	7.0% to 8.2%
Effect on rate of homeownership:	Higher

For property investors, rental income would not be taxed, and expenses (including interest) would not be tax deductible. Instead, income tax would be applied to a “deemed rate of return” on the net equity in the property. Owner-occupiers would be unaffected. The TWG discussed a deemed rate of return of 6%.

Fully leveraged landlords would not pay any tax on their zero equity, but they would lose the right to deduct cash losses on the property against their taxable income. That would make rental property worth 34% less to 100% leveraged landlords.

Debt-free landlords would face a higher tax bill than they face today, causing a 26% fall in the net present value of rental property for them. Since debt-free landlords would be less impacted than leveraged landlords, there would be some transfer in ownership. Depending on the willingness of less leveraged investors to enter the market, the price decline would be between 26% and 34%.

Market segments in which investors are less prevalent, such as the top end, might be less affected by this tax, although the impact would not be zero.

Ringfencing

Impact on house prices:	Down
Impact on rents:	Up
Effect on rate of homeownership:	Higher

Rental losses could only be offset against future rental profits, not current personal income. There would no ability to shelter from income tax using loss-making rental properties. However, property would still be a tax-efficient investment for cash-flow positive landlords. Many leveraged landlords would either pay down debt or sell to cash-flow positive landlords. Prices would fall, but it is not possible to predict how far.

Land tax 0.5% and income tax 30%

Impact on house prices:	-16.9%
Impact on rents:	+8.4%
New rental yield:	6.0%
Effect on rate of homeownership:	Higher

This scenario is politically plausible.

What improvement in sustainable capital gain would offset the tax changes?

If New Zealand's sustainable rate of economic growth were to rise, it is reasonable to assume that the sustainable rate of capital gain on housing would increase. (A "rule-of-thumb" says that the real capital gain on land should, on average over time, equal real economic growth).

Our baseline scenario assumes 2.5% sustainable real capital gain. To completely offset the price-negative impact of the tax changes in the combined land and income tax scenario, the rate of sustainable real capital gain would need to lift to 3.1%, assuming no change in average mortgage rates. We think that's a bit of a stretch.

The details

The calculations use our Investment Value of Housing model,³ which values the property for a 100% leveraged investor (the marginal buyer), using the net present value method. Equilibrium between rents and house prices requires that the benefit of owning a rental property (rent and capital gain after taxes) must equal the cost of owning a rental property (interest, maintenance, and land taxes after tax deductions, plus compensation for risk):

$$R(1-t^l) + P(\pi^e + g)(1-t^2) = P(i)(1-t^l) + (f)(1-t^l) + P(l)(1-t^l) + P(\alpha)$$

Definitions are outlined in Table 1 below, along with the assumed values. The equation above can be solved for price to give the Investment Value of Housing:

$$P = \frac{(R-f)(1-t^l)}{(i+l)(1-t^l) - (\pi^e+g)(1-t^2) + \alpha}$$

Table 1: Definitions

Symbol	Variable	Value in base case	Reason
P	Price	\$350,000	Approximate value of median house in New Zealand, Nov 2009.
R	Annual rent	\$16,120	Ministry of Housing median rent on 3-bedroom house is \$310 per week.
f	Cost of maintaining the property	\$9,000	\$7,700 for upkeep, rates, and insurance, \$1,300 for property management
i	Interest rate	8%	Two-year mortgage rates averaged 8.16% from Jan 1995 to today.
π^e	Long-run expected rate of inflation	2.50%	Current 2-year ahead inflation expectations 2.6%. 5-year average inflation 3.0%. RBNZ inflation target 1% - 3%, with history of preferring top part of target range.
g	Expected long-run sustainable rate of real capital gain	2.50%	Compound average annual rate 1970 to today 2.57%.
α	Risk premium	1.30%	Calibrated to force investor value equal to \$350,000.
t^l	Marginal rate of income tax	38%	Taxpayers on the 38% rate have the most to gain from owning rental property, and are the most likely to own rental property.
l	Rate of property tax	0%	
t^2	Rate of capital gains tax	0%	

The impact of tax changes on P were determined by varying t^l , t^2 , or l, and simultaneously assuming that the percentage change in R is equal to half of the percentage change in P. The deemed rate of return scenario involved setting $t^l = t^2 = l = 0$. For the land tax scenarios, l was set at 0.2%

There are a number of deeper assumptions underlying this model:

- Rent and maintenance costs are assumed to grow at the same average rate as house prices in equilibrium.
- We have ignored second-round effects stemming from the likes of a change in disposable income after a tax change. This is unlikely to be a large problem if the tax changes are revenue neutral.
- The tax changes are assumed to be completely unanticipated. If they were anticipated, the actual price change would be smaller than our estimate.
- We treat 100% leveraged investors as the marginal buyer, implying that they determine the price. That is a reasonable approximation for most market segments except the very top end. Houses are worth most to debt-free owner-occupiers, but not every person has sufficient capital to fit into that category. Houses not already taken by the debt-free owner-occupiers are worth most to investors, because they get better tax breaks than owner-occupiers with high debt. The amount that a 100% leveraged investor on the 38% tax rate is willing to pay for a property sets a price floor at auction, so long as sufficient capital is available. Anybody who wants to own a property must bid at least the price floor set by the Investment Value. The fact that many properties are actually owned by leveraged investors suggests that property does not trade at a premium to that floor (owner-occupiers do not need to pay much more than the floor to secure the property).
- We have estimated the impact of tax changes on the underlying value of property, abstracting from any pre-existing overvaluation or undervaluation. A view that NZ property is currently overvalued could be expressed by setting α higher. This changes the estimated impact of tax changes only slightly.

Brendan O'Donovan, Chief Economist, Ph: (64-4) 470 8250

Dominick Stephens, Research Economist, Ph: (64-4) 381 1414

³The Investment Value of Housing model is based on the User Cost of Housing used by, for example, Poterba, J (1992), "Taxation and housing: old questions, new answers", American Economic Review, 82, 2, pp 237-242. We adapted the model to better reflect the New Zealand's tax system for our 2007 Bulletin "Bubble Schmmubble". The model was also used by Hargreaves (2008) "The tax system and housing demand in New Zealand", RBNZ Discussion Paper DP 2008/06. All of these earlier models treated maintenance costs as a proportion of the house's value, which implies that when property prices fall as a consequence of a tax change, the cost of maintaining the house also falls. This is unrealistic and causes understatement of tax impacts on prices. Our current model treats maintenance costs as independent of house prices. Previous models also lumped the risk premium in with maintenance costs, which made it tax deductible and therefore exaggerated the impact of tax changes on prices. We have corrected that error in the present model.