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To: Minister of Finance

## **IMPACT OF TAX CHANGES ON THE HOUSING SECTOR – FURTHER ANALYSIS**

This note draws together advice on the overall impact on the housing sector of all the measures in the Budget tax package. It also reconciles the different estimates of these impacts and describes the different approaches used to produce these estimates.

### **Summary**

- The denial of depreciation deductions and the reduction in the marginal personal tax rate both reduce the post-tax return to investors in rental property.
- These tax changes are likely to result in rents increasing more quickly and house prices increasing more slowly than they would have otherwise.
- Taken together, the effect of the tax package on rents and house prices is likely to be modest over the medium term. Treasury's best estimate is that rents are likely to increase by around 1.4% more, and house prices will increase by around 0.6% less, than they would have otherwise over the next 3 to 5 years.
- Treasury's best estimate is based on the impact on current landlords, as we expect most will continue to hold their rental property. DBH and others have attached a greater weight to the impact on future owners of rental property and have generated larger estimates of the possible impact on rents and house prices.

### **Different approaches to estimating the impact on the housing sector**

We have used three broad approaches in developing our advice on the likely impacts of tax changes on the housing sector.

- An analytical model (Coleman & Scobie, 2009) that uses observed behaviour of current landlords, tenants, investors and the owner-occupied segment to reconcile their different responses and behaviour in response to tax changes.
- A user cost model (following Poterba, 1992) that generates a valuation of rental property for a future landlord by applying a discount rate to the future stream of all the costs and income they will face.
- An estimate of the direct impact of the tax changes on a future investor in rental property.

Treasury has tended to rely on the first of these approaches, and we have calibrated our estimated impacts to the observed values for current landlords and other participants. The second approach has been used in a number of OECD countries, is the basis for the analysis of personal tax changes produced by Westpac late last year – based on O'Donovan & Stephens 2007<sup>1</sup> – and is calibrated to assumptions about future landlords. The Department of Building and Housing (DBH) have used the third approach in their advice.

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<sup>1</sup> This approach has been refined by RBNZ staff, in Hargreaves 2008.

## **How will house prices and rents adjust over time?**

All three approaches compare the current situation with a future situation based on different policy settings. In the jargon, they are all “comparative static” approaches. As a result, none of these approaches provide an analysis of the speed or nature of the adjustment from the current to the future situation. There are good reasons to believe the adjustment will be relatively gradual over time:

- There are delays in landlords’ ability to increase rents – both notice periods and the practice that they tend to increase rents when tenants change.
- It takes time (and involves transactions costs) to buy and sell a property, in particular if the tenant needs to be given notice first.
- Current landlords have a variety of motivations for investing in rental property, and many will not be particularly sensitive to changes in the treatment of depreciation.
- The increase in the top marginal personal tax rate in 2000 is estimated to have increased house prices by up to 10%. House prices did not increase immediately by 10%, and this adjustment appears to have taken some time with house prices increasing somewhat more quickly than they would otherwise over several years.

## **What are the key differences between the different approaches?**

All three approaches recognise that changes to the tax treatment of landlords will impact on their post-tax return. Tax changes that result in landlords paying more tax will tend to result in faster growth in rents and slower growth in house prices, than would have been the case under the current tax rules. There are two main reasons why the different approaches generate different estimates of the size of these effects.

### ***(a) making explicit allowance behaviour and adjustment***

The main difference between the three approaches is that the first approach uses an analytical model to explicitly take account of the responses across the housing sector. The other approaches only estimate the initial impact on the return to (future) landlords. The analytical model takes this initial impact and takes account of the various adjustments within the housing sector to assess the net impact on rents and prices, including:

- the extent to which current landlords will increase rents over time;
- the ability of tenants to pay higher rents;
- whether current landlords sell out – to new investors in rental property or to owner-occupiers;
- changes in the rate of construction of new properties;
- switches of households from renting to owner-occupation;
- changes in the rate of household formation (e.g. young people waiting longer to leave their parents’ home); and
- changes in the intensity of rental occupation, e.g. crowding-in additional tenants to share the rent.

It is unrealistic to expect that the whole of the initial impact on landlords’ returns will be passed on as either higher rents or lower house prices. In practice, some of the impact will be seen in rents, some in house prices, some in shifts (of households and properties) between the rented and owner-occupied segments and some in the rate of new construction, i.e. shifts in investment between the housing sector and other parts of the economy.

### ***(b) impact on current and future investors in rental property***

The other important difference between the approaches is the focus on current and future investors. Current investors in rental property have an average marginal tax rate of 25%. The forward-looking models assume a 33% (or 38%) marginal tax rate for the future investors. Current investors claimed \$210m of depreciation deductions in 2006. The DBH estimate assumes future investors would claim \$440m of depreciation deductions.

The combination of the different marginal tax rate and higher assumed value of depreciation explains the difference between Treasury's maximum upper estimate of a 2.2% increase in rents as a result of the depreciation change, and DBH's maximum upper estimate of a 6% increase in rents.

Putting this 2.2% initial impact on current landlords through the analytical model yields the Treasury estimate that rents will be 0.7% higher, and house prices 0.3% lower, than they would otherwise have been after 3 to 5 years as a result of the denial of depreciation.

Treasury believes that the impact on current landlords will be more relevant – in particular for the impact on rents – as we expect most current owners will continue to hold their rental property. Hence the majority of the rental stock will continue to be held by current landlords, at least over the medium term, with current landlords setting the rent.

### **Overall impact of the tax package on the housing sector**

A number of the elements of the tax package will have some impact on the housing sector, e.g. changes to the LAQC rules. However, only two elements – removing the ability to claim depreciation as a tax deduction on rental property and the changes in marginal personal tax rates – are likely to have a significant effect on rents and house prices.

Reducing the top marginal tax rate from 38% to 33% will reduce the value of the deductions that can be claimed for losses on rental property, it will also increase the post-tax return for investors who make a profit on rental property. Overall, the reduction in the top marginal tax rate is likely to have a similar impact on the housing market as the denial of depreciation.

Taking the tax package as a whole, Treasury's best estimate is that rents are likely to increase by around 1.4% more, and house prices will increase by around 0.6% less, than they would have otherwise over the next 3 to 5 years – reflecting the impact on current landlords.

The other approaches suggest the top marginal tax rate change could have a larger initial impact on future rental investors. Using the maximum initial impact from the user cost model, and taking account of adjustment in the housing market (by applying this initial impact through the analytical model), suggests an upper estimate that rents could increase by up to 4% more and house prices could increase by up to 2% less than they would have otherwise as a result of the tax package.

These relatively small impacts reflect the fact that denying depreciation deductions and reducing the top personal tax rate do not substantially change the tax treatment of investing in rental property. For example, depreciation only accounts for around a quarter of the deductions claimed against rental property. More significant changes to the tax treatment of rental property are likely to have larger impacts on rents and house prices.

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