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Te Awheawhe Tāke

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This paper contains advice that has been prepared by the Tax Working Group Secretariat for consideration by the Tax Working Group.

The advice represents the preliminary views of the Secretariat and does not necessarily represent the views of the Group or the Government.

Coversheet: **Tax and Housing**

Discussion Paper for Session 5 of the Tax Working Group
March 2018

Purpose of discussion

This paper explains how the tax system deals with housing and seeks the Group's preferences regarding the focus of subsequent work on this subject.

Key points for discussion

- Noting the Government's intention to extend the bright-line test and ring-fence losses on residential property investment income, is there a case for further reform of the tax treatment of residential property?
- Which reforms does the Group wish to consider further? Which reforms can be taken off the table?
- What further analysis would be useful to assist the Group's deliberations on this subject?

Recommended actions

We recommend that you:

a **note** that a discussion of taxing capital gains is currently scheduled for May.

b **indicate** which of the following reforms the Group wishes to consider further:

i. risk-free rate of return method (RFRM) taxes
ii. land taxes
iii. region-specific property taxes
iv. taxation of non-primary residences
v. stamp duties
vi. denial of expenses
vii. mortgage interest levies
viii. reform of the 'ten-year' rule

c **indicate** whether any other reforms should be considered by the Group.

Tax and Housing

Discussion Paper for Session 5
of the Tax Working Group

This paper contains advice that has been prepared by the Tax Working Group Secretariat for consideration by the Tax Working Group.

The advice represents the preliminary views of the Secretariat and does not necessarily represent the views of the Group or the Government.

The Tax Working Group will release its interim report containing its recommendations in September and the views of the Group will be informed by public submissions alongside Secretariat advice.

March 2018

Prepared by the Inland Revenue Department and the Treasury

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Executive Summary

Purpose

This paper explains how the tax system deals with housing and seeks the Group's preferences regarding the focus of subsequent work on this subject.

The tax treatment of housing

There are currently three main taxes that affect housing: income tax; goods and services tax (GST); and local government rates. The most significant distortions in the treatment of housing arise with regard to income tax.

Although the tax system does not formally favour investment in housing, two key features of the income tax regime – the non-taxation of imputed income, and the absence of comprehensive taxation of capital income – give housing a relatively attractive tax treatment in practice.

Housing market impacts

Tax is by no means the only influence on the housing market. There are severe constraints on the supply of housing in many New Zealand cities. These constraints reflect the impact of various drivers, including land use regulation, inadequate infrastructure provision, and low building sector productivity.

Within this context, the tax system is likely to create a bias in household decision-making towards investment in housing, resulting in higher rates of investment in residential property and higher house prices than would otherwise be the case. Because the supply of housing is so constrained, additional investment will have a greater impact on the price of existing homes than on the construction of new homes.

It is difficult to quantify *how much* the tax system affects the housing market. There is little definitive empirical evidence regarding the tax impact on house prices and rents in New Zealand. The tax system has probably exacerbated the housing market cycle in recent decades, but constraints on the supply of housing are likely to be the dominant driver of housing market performance.

Fairness and distributional concerns

Tax reform, at least by itself, is unlikely to solve the housing affordability challenge. However, there are opportunities to reform the tax treatment of housing that would increase the fairness and balance of the tax system overall.

When considering reform, it is necessary to trace through the impacts on homeowners, residential property investors, and renters. Tenure patterns differ greatly by income, ethnicity, and region – so measures that affect rents will have a disproportionate impact (whether positive or negative) on groups and individuals, such as Māori, who are already relatively disadvantaged.

Options for potential investigation

The Terms of Reference direct the Group to examine whether a system of taxing capital gains or land, or other housing measures, would improve the tax system. The Group is also directed to consider whether the tax system promotes the right balance between supporting the productive economy and the speculative economy. Any changes that would apply to the family home, or the land under it, are ruled out of scope.

Within these constraints, this paper introduces a number of tax reforms that could be the subject of further analysis: taxing capital gains; risk-free rate of return method (RFRM) taxes; different types of property taxes; stamp duties; the denial of expenses associated with property investments; mortgage interest levies; and reform of the 'ten-year rule.' A discussion on taxing capital gains is currently scheduled for May.

This paper focuses on housing, but some of the options for reform could be applied to other types of land holdings and other types of assets. The broader impacts of these options, beyond residential property, will be covered in future papers on the options that the Group decides to consider further.

Issues for discussion

The Group is asked to consider three main questions when reading this paper:

- Noting the Government's intention to extend the bright-line test and ring-fence losses on residential property investment income, is there a case for further reform of the tax treatment of residential property?

- Which reforms does the Group wish to consider further? Which reforms can be taken off the table?

- What further analysis would be useful to assist the Group's deliberations on this subject?

1. Introduction

1.1 Purpose

1. This paper explains how the tax system deals with housing and seeks the Group's preferences regarding the focus of subsequent work on this subject.

1.2 Content and scope

2. The Terms of Reference provide some specific guidance on the subject of housing.

3. One of the Government's objectives is a tax system 'that treats all income and assets in a fair, balanced and efficient manner, having special regard to housing affordability.' Within this frame, the Group is directed to examine:

   - Whether a system of taxing capital gains or land (not applying to the family home or the land under it), or other housing tax measures, would improve the tax system.
   - Whether the tax system promotes the right balance between supporting the productive economy and the speculative economy.

4. The Terms of Reference rule out of scope any other changes that would apply to the taxation of the family home or the land under it.

5. In light of these expectations, this paper has the following structure:

   - Section 2 sets out some potential tax objectives for housing.
   - Section 3 outlines the main drivers of unaffordable housing.
   - Section 4 explains how the tax system treats housing.
   - Section 5 assesses the impact of the tax system on the housing market.
   - Section 6 outlines the main options for changing the tax treatment of housing.

6. A discussion on taxing capital gains is currently scheduled for May. The Group is asked to decide whether it wishes to conduct further consideration of any other reforms to the tax treatment of housing.

7. This paper focuses on housing, but some of the options for reform could be applied to other types of land holdings and other types of assets. The broader impacts of these options, beyond residential property, will be covered in future papers on the options that the Group decides to consider further.

2. Objectives for housing

8. There are many potential public policy objectives with regard to tax and housing. We therefore suggest that the Group give some consideration to its objectives for housing before moving into detailed consideration of options for reform.

9. The list below provides one set of potential objectives:

    - **Efficiency.** Minimising distortions in the tax treatment of different types of assets.
    - **Fairness.** Improving the fairness and balance of the tax system (for example, by ensuring that all forms of income are taxed comparably).
    - **Revenue.** Broadening the base to provide a sustainable stream of revenue for the Government.
    - **Housing affordability.** Promoting greater housing affordability for homeowners and/or renters.
    - **Home ownership.** Promoting greater rates of home ownership as a goal in its own right.
    - **Economic development.** Ensuring that the tax system does not bias investment away from assets that are more productive for the economy as a whole.
    - **Environment.** Ensuring that all relevant costs and benefits (including environmental costs and benefits) are internalised into decisions on the location and type of development.

10. Some of these objectives are complementary, but some are not. There may also be other objectives that members consider relevant to the Group's work. As the Group considers options for reform, it will need to decide which objectives to pursue, how much weight to give them, and whether to make trade-offs between them.

3. The drivers of unaffordable housing

11. The Government's objectives for the tax system, as expressed in the Terms of Reference, include a 'special regard' for housing affordability. Affordability is an issue for both owner-occupiers and renters; tax reforms may have differing impacts on house prices and rents, and on existing homeowners, first home buyers, and renters.

12. House prices are high relative to costs and income in many parts of New Zealand. They are particularly high in growing cities such as Auckland, Hamilton, Tauranga and Queenstown. The 'median multiple' (the median house price to median income ratio) is commonly used to measure affordability for owner-occupiers, with ratios above 3 representing unaffordable housing markets. In 2017, median multiples stood at 8.8 in Auckland, 8.9 in Tauranga, and 6.5 in Hamilton (Demographia, 2018, p. 41).

13. Renters also face significant challenges. Rents have risen faster than wages, and much faster than prices, since 2014. Tenants generally pay a higher proportion of their household income on housing than owner-occupiers, even though rental homes tend to be of lower quality than owner-occupied homes. Nevertheless, the proportion of renting households that pay significant proportions of their income on housing has stayed relatively constant over the past decade (Johnson et al, 2018, pp. 10-11, 45).

3.1 The housing shortfall

14. The cause of unaffordable housing is, in one sense, straightforward. New Zealand is simply unable to build enough houses to satisfy demand at current rates of population growth – particularly in Auckland, where growth is the highest in absolute terms.

15. Estimates of the size of the housing shortfall vary, depending on assumptions about household composition and lag times between building consents and building completions. Nevertheless, the Ministry of Business, Innovation and Employment (MBIE) estimates that the accumulated housing shortfall in Auckland had reached approximately 45,000 dwellings by 2017 (MBIE, 2017, p. 14).

16. It is crucial to understand what has caused this shortfall when considering policies that affect demand for housing, such as tax. The following section therefore outlines the main constraints on housing supply – which affect both house prices and rents – to situate the Group's discussions on tax and housing within a broader policy frame.

3.2 Uncompetitive markets for developable land

17. One of the most powerful ways to think about the problems in the housing market is to apply the lens of competition analysis.

18. In a competitive market for urban land, the price of land would equal its marginal opportunity cost. In other words, the urban land price would be founded on its price in agricultural use, plus the value of necessary infrastructure, and the value of accessibility to jobs, goods and services, and amenities. Scarcity premiums on land prices would be limited to unavoidably rare attributes, such as desirable views.

19. Any short-run rise in house prices would spur a sufficient supply of new development to return prices to long-run cost, both within the city, and across competing cities as growth was displaced to them.

20. In most New Zealand cities, however, urban land markets are not competitive. Instead, a combination of *land use constraints* and *infrastructure constraints* limit the supply of commercially viable land for new housing, and confer market power on the owners of developed and commercially-developable land. Prices rise as demand for new housing outstrips supply. Speculative demand and land-banking – which are symptoms of underlying problems – cause prices to rise yet more.

Land use constraints

21. Local authorities manage the impacts of development through the regulatory tools established by the Resource Management Act 1991 (RMA). The purpose of the RMA is to 'promote the sustainable management of natural and physical resources' (s. 5(1)). The RMA was originally envisioned as enabling legislation that would allow development to occur so long as 'adverse effects' were avoided, remedied, or mitigated.

22. In practice, however, many councils have used the RMA to constrain land use change through restrictions on the development of greenfields land and the redevelopment of existing urban areas.[1] Restrictions on greenfields expansion tend to reflect council and stakeholder preferences for a compact city form to achieve broader social and environmental objectives ('smart growth'), and economic drivers to reduce the cost of infrastructure provision. Restrictions on densification often reflect the preferences of existing homeowners, who wish to prevent congestion and preserve amenity in their neighbourhoods.

23. Land use constraints confer market power on the owners of land in particular zones, creating significant windfall gains for them, and higher land and house prices in general. This, in turn, creates a strong incentive for homeowners to lobby for further land use regulation to enhance the value of their properties.

Infrastructure constraints

24. The availability of infrastructure is a binding constraint on development, even when land is zoned for use. It is evident in many parts of New Zealand that the infrastructure system is not sufficiently responsive to current rates of demand growth.

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[1] The Productivity Commission (NZPC) has detailed the impact of land use regulation on housing supply in a series of inquiries (NZPC 2012, NZPC 2015). Price indicators prepared by MBIE and the Ministry for the Environment (MfE) under the 2016 National Policy Statement on Urban Development Capacity illustrate the impact of land use regulation on land prices. In Auckland, for example, urban residential land inside the rural/urban boundary is worth more than three times the value of non-urban residential land outside the boundary (after removing all material non-regulatory factors that affect land values – such as geography, amenities, and subdivision costs). Regulations affecting development capacity are estimated to add almost $207,000 to the value of a 600m² section on the edge of the city (MBIE & MfE, 2017, p. 22).

25. A common justification for the lack of timely provision of infrastructure relates to the financial constraints on councils, which provide most local infrastructure. These constraints are real. Some fast-growing councils, such as Auckland, Hamilton and Tauranga, are close to reaching their prescribed debt limits. Substantial borrowing for growth infrastructure may cause them to breach covenants on existing debt, or incur credit rating downgrades that result in higher borrowing costs for all ratepayers.

26. Infrastructure investment, moreover, is not without risk: it tends to be large, lumpy, and irreversible, with long lead times, and the risk of stranded assets if forecast demand does not eventuate.

27. Councils manage these risks by providing infrastructure on a just-in-time basis, in a carefully sequenced fashion. This is a perfectly rational strategy to minimise risk to existing ratepayers, but it means the supply of infrastructure can lag well behind surges in demand for developable land. It also confers market power on the owners of developable land that is already serviced with infrastructure.

3.3 Other supply-side constraints

Building sector constraints

28. Building costs are high in New Zealand. Some of these costs reflect New Zealand's particular circumstances, such as small market size, and the need to manage various natural hazard risks through building standards.

29. Nevertheless, productivity growth in the building sector has been low, and the sector is facing significant capacity constraints. This combination of capacity constraints and low productivity growth has generated significant cost pressures in recent years.

30. The poor productivity performance of the building sector probably reflects the impact of other supply-side constraints on housing. Given the bespoke nature of much new housing, and the boom-bust cycle in residential construction in New Zealand, there have been reduced incentives for firms to invest in skills and plant, and seek economies of scale (MBIE, 2017, pp 11-12).

Access to finance

31. Many developers are currently finding it difficult to access finance, particularly in Auckland. Banks' lending decisions appear to reflect, at least in part, uncertainty about the future direction of house prices.

32. One major source of uncertainty relates to the housing market impact of major policy changes, such as the implementation of the Auckland Unitary Plan and the roll-out of the KiwiBuild programme.

33. Constrained access to finance in an environment of uncertainty is not necessarily a market failure, but it certainly cuts across a goal of increasing housing supply.

3.4 Demand-side pressures

34. All of these supply-side constraints are exacerbated by New Zealand's high rates of population growth. Demand from migrants and non-residents is often cited as a cause of high house prices.

35. High demand for housing is not, by itself, a problem. The key challenge relates to the interaction between supply and demand. If land markets were competitive, and the supply of housing more responsive, the additional demand from migrants could be met with little impact on house prices or rents.

36. In the current context of high net migration and constrained supply, on the other hand, it is reasonable to assume that demand from migrants is increasing pressure on house prices and rents to some degree. But there is little agreement regarding the extent of the impact in New Zealand.[2]

37. The tax system represents a second major influence on demand for housing. The following sections of this paper outline how the tax system deals with housing, and how it is likely to be affecting the housing market.

[2] Efforts to assess the impact of migration on house prices in New Zealand include Coleman and Landon-Lane (2007), Stillman and Maré (2008), and McDonald (2013).

4. The tax treatment of housing

38. There are currently three main taxes that affect housing: income tax; goods and services tax (GST); and local government rates.

39. This section explains how each of these taxes treat housing. In order to provide a complete picture, it includes a discussion of the treatment of owner-occupied homes. However, the Terms of Reference rule out consideration of any reforms that would apply to the family home or the land under it.

4.1 Income tax

40. The income tax system does not formally favour investment in housing. However, the way in which the general principles of the tax system interact with housing can give it a relatively attractive tax treatment in practice.

41. There are two key principles with relevance to housing:

- Imputed income is not taxed.[3]

- Capital gains are not generally taxed, unless they arise in the context of 'trading' or a 'trade-like' activity.

42. The impact of these principles can be traced across the housing market.

Developers, 'dealers,' and other land-related businesses

43. Income from land sales is taxed in the hands of builders, developers, 'land dealers,' and people in the business of dividing land. Sales within ten years of purchase or building are taxed, regardless as to whether the land was purchased for the business.

44. There are, however, two exceptions to this approach – regarding the person's own home, and the premises of the business. Imputed labour income is also not taxed in the case of people who develop and build their own home.

45. Development and construction costs are deductible when the property is sold.

Landholders

46. Gains on the sale of residential land are taxable if the land was bought with the firm intention of resale, even if resale was not the only or dominant intention of purchase.

[3] Imputed income refers to the value that accrues to a taxpayer from using their own capital or labour. The imputed income from housing is the benefit a homeowner derives from living in their own home rent-free.

47. The bright-line test, which came into force in October 2015, aids with the enforcement of this 'intention' rule. The test serves as a proxy for intention of sale – which can otherwise be difficult to enforce – by taxing the sale of any residential property within two years of purchase, subject to some exceptions.[4] The Government has decided to extend the bright-line test from two to five years, and introduced legislation to this effect in February 2018.

48. Land affected by changes to zoning, consents, or other specified changes may be taxed on sale, if the sale is within 10 years of acquisition. If at least 20% of the gain on disposal can be attributed to the change, the whole gain is taxable. However, the taxable amount is reduced by 10% for each year the taxpayer has owned the land.

49. Land disposals may be taxed if an undertaking or scheme involving more than minor development or division was commenced within 10 years of the land being acquired. Land disposals may also be taxed if there has been a scheme of division or development that involves significant expenditure on specified works, subject to a number of exclusions.

Owner-occupiers

50. Owner-occupiers do not pay tax on the imputed income generated by their homes. The expenses associated with home ownership, such as maintenance and mortgage expenses, are not deductible.

51. Capital gains on owner-occupied homes are not generally taxed. There are some exceptions: the 'main home' exclusion from the bright-line test can only be used twice in a two-year period; and owner-occupiers with a regular pattern of buying and selling their own home are subject to most of the land sale rules, including the bright-line.

Landlords and tenants

52. The rents paid to landlords represent taxable income, and so the expenses associated with the ownership of a residential property investment are deductible. In particular, the full amount of interest payments is allowed as a deduction against rental income, even though the inflation component of the interest payment reflects a repayment of capital, rather than an expense.[5] Allowances for the depreciation and obsolescence of rental housing were eliminated in 2010.

[4] The bright-line test applies to residential land that has a dwelling on it, residential land where the seller is a party to an arrangement that relates to erecting a dwelling on it, or bare land that may be used for erecting a dwelling under the rules of the relevant operative district plan. Even if one of these criteria is met, land is not treated as 'residential land' if it is used predominantly as business premises or is farmland. The bright-line test does not generally apply to a person's main home.

[5] Housing is not unique in this regard: the non-indexation of the tax system for inflation is a broader issue that goes beyond housing.

53. Under present rules, losses from residential property investments can be aggregated with income from other sources. This treatment is not unique to housing: the tax system generally aggregates all the income and deductions of a taxpayer, and applies tax on the net amount. The Government intends to introduce loss ring-fencing on residential investment properties, so that investors will no longer be able to offset tax losses from those properties against other income to reduce their tax liabilities. Public consultation on this proposal will occur later in the year.

54. Capital gains on residential property investments are taxable if the owner is deemed to be trading in homes. The bright-line test aids with the enforcement of this rule. However, since most property investors are not deemed to be trading in homes, capital gains from residential property investments are not generally taxed in practice. Capital losses are generally not deductible unless the property is held on revenue account.

4.2 GST

55. Housing is subject to GST, although the way in which GST is applied means that the impact of the tax is not visible to all participants in the housing market.

Developers, landholders and 'dealers'

56. Developers are liable for GST when they sell a residential property, and can claim credits for the GST content of the inputs they use. GST therefore forms part of the price of new residential properties in exactly the same way as would be the case for any other consumer good or service.

Owner-occupiers

57. Owner-occupiers are 'input taxed' on the value of the accommodation services they supply to themselves. Since all new residential properties are subject to GST when they are first sold, the GST on the purchase price can be viewed as an up-front payment, in present value terms, of the GST applicable to the accommodation services provided by the home over its economic life. Each successive owner effectively bears a proportion of the GST attributable to these services during their tenure as owner.[6] Expenses related to home ownership, such as maintenance, are also subject to GST.

Landlords and tenants

58. The treatment of rental accommodation represents one of the few exemptions in the GST system. The renting out of goods is usually subject to GST. Applying GST to rental accommodation, however, would create a distortion between rental and owner-occupied accommodation, since it is considered infeasible to charge GST on the 'free' supply of accommodation services generated by the ownership of a home.

[6] The upfront payment of GST *will* result in 'under-taxation' of the land, however, if there are super-normal returns from the land over time.

59. Instead, the tax system exempts rental accommodation from GST. This does not mean that rents *escape* GST. Instead, landlords are 'input taxed' in the same manner as owner-occupiers – they pay GST on all of the inputs that are necessary to provide rental accommodation, such as the price of land, construction, repairs, and maintenance. Landlords can also be expected to set rents at a level that is sufficient to make allowance for the GST costs that they would otherwise have to absorb, and so some of the cost will be borne by renters.

4.3 Local government rates

60. Private residential properties, regardless of their ownership structure, are generally subject to regional and local government rates.[7] In one regard, rates could be seen as a fee for council services – but they can also be considered as a tax, since they are a compulsory levy on property-owners. Rates stand alongside several other local government revenue-raising mechanisms, the most prominent of which are development contributions.

61. Local authorities determine rates annually, mostly on the basis of the assessed value of the property. Local authorities have a high degree of discretion regarding the use of rating mechanisms (e.g. regarding the use of capital vs. land value as a base, the use of uniform charges to moderate value-based rates, and the choice of general vs. targeted rates). Consequently, rates vary greatly across local authorities.

62. Prior analysis by the Productivity Commission allows us to assess the average impact of rates relative to other forms of taxation. In 2012, rates averaged about 0.6% of the total capital value of residential property. The Productivity Commission calculated that a rate set at 0.6% of the capital value of a property would be equivalent to a tax of between 12% and 20% on the income generated by that property, depending on several key assumptions about the level of income, and whether that income is being measured in nominal or real terms (NZPC, 2012, p. 87).

63. Rates apply to all land uses, not just owner-occupied property, so owner-occupied property still has a significant tax advantage relative to other land uses.

64. The Government intends to hold a public inquiry into the revenue base of local government. This may intersect with the Group's work on land and property taxes.

[7] Most residential land is subject to rates, but $0.9 billion of residential land was non-rateable in 2013 (LGNZ, 2015, p. 57). The Local Government (Rating) Act 2002 establishes the categories of non-rateable land.

5. The tax system and the housing market

65. This section briefly traces through the ways in which the tax system affects the housing market. In order to provide a complete picture, it includes a discussion of owner-occupied homes. However, the Terms of Reference rule out consideration of any reforms that would apply to the family home or the land under it.

5.1 Savings and investment across the economy

66. The tax system has a range of theoretical impacts on the tax system. These impacts do not always work in the same direction. An assessment of the cumulative impact of the tax system therefore relies on implicit assumptions about the relative strength of these sometimes offsetting impacts.

67. In general, the non-taxation of some streams of housing income is likely to result in higher investment in housing, and less investment in assets that generate taxable returns, than would otherwise be the case. In a context where the supply of housing is constrained, additional residential investment will have a greater impact on the price of *existing* homes than on the construction of *new* homes.

68. This raises an important distinction regarding the balance between the productive and the speculative economy. There are valid concerns about the extent to which speculative investment is driving the housing market. Yet there is also a public policy interest in productive investment that increases the supply of housing and alleviates the housing shortfall. This speaks to the importance of broader reforms to the housing system – beyond tax – that reduce constraints on the construction of new homes.

5.2 The impact of individual aspects of the tax system

Portfolio bias

69. The composition of household portfolios is affected by an incentive to 'save' through mortgage repayments. Homeowners have an incentive to pay off their mortgages ahead of other forms of saving because each dollar repaid on the mortgage is 'saved' at the pre-tax interest rate.

70. Saving through mortgage repayment is therefore more lightly taxed than other types of saving, creating a bias in household portfolios towards housing assets.

Non-taxation of imputed income

71. The non-taxation of imputed income encourages more investment in owner-occupied housing by those who can wholly fund the purchase with their own wealth. However, an owner-occupied home that is partly or entirely debt-financed does not provide the same level of tax benefit as an owner-occupied home that is fully-financed by equity.

72. This is because, while imputed income is not taxed, mortgage interest is not deductible either. This can make it difficult for potential home owners, who have little capital of their own, to buy a home.

The absence of comprehensive taxation of capital gains

73. The absence of comprehensive taxation of capital gains biases savings and investment decisions towards assets that are expected to generate capital gains, rather than assets that generate more regular taxable income streams, such as term deposits.

74. In the case of housing, this is likely to result in more investment in housing than would otherwise be the case. Higher investment in housing would be expected to increase the price of housing overall, particularly in an environment where the supply of housing is heavily constrained. Those who benefit the most from the non-taxation of capital gains tend to have greater wealth and higher incomes than other New Zealanders.

75. The non-taxation of capital gains could result in a reduction of rents – benefiting people on lower incomes who are more likely to rent – if greater investment in housing resulted in a greater supply of rental accommodation.[8] Whether this holds in current market conditions in New Zealand is uncertain, so assumptions about the elasticity of supply are critical to an assessment of the distributional impacts of tax change in the housing market.

76. One rule that may be directly affecting the supply of land is the 'ten year rule' (discussed in paras 48-49), which creates an incentive for landholders on city fringes to withhold land from development until ten years have passed from a change in land use regulation, and the tax liability has been extinguished.

GST

77. The tax bias towards owner-occupation mostly arises as a result of our income tax settings. Consequently, the introduction of GST, and subsequent increases to the rate of GST, have reduced the bias in favour of equity-financed, owner-occupied housing to the extent that they have enabled complementary reductions in rates of income tax.

Local government rates

78. Broad-based rates are simple and efficient taxes that are difficult to avoid. Rates are likely to reduce both the price of housing and the quantity of investment in housing, but their broad base means they are less distortionary than other forms of taxation. The broad rating base means that imputed income from housing is taxed to some degree – at least to the extent that the net present value of the stream of imputed income from the property is capitalised into the rating valuation of the property.

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[8] At the same time, though, the tax system will disadvantage people who are saving to build a deposit for a home, since they will be taxed on the inflation component of their interest earnings.

79. The major distributional concern regarding rates relates to their impact on low-income households, either directly if they are homeowners, or indirectly through rents. There is much debate about the fairness of the treatment of the 'asset-rich but cash-poor' – such as retirees on low incomes who wish to continue living in family homes that have greatly appreciated in value over time.[9]

80. The Government established the Rates Rebate Scheme in 1973 to subsidise the cost of rates for low-income homeowners such as these.

5.3 Modelled and quantified impacts

81. When the tax system is considered as a whole, it is likely to create a bias in decision-making towards investment in housing, resulting in higher rates of investment in residential property and higher house prices than would otherwise be the case.[10]

82. It is very difficult, however, to *quantify* the impact of the New Zealand tax system on house prices and rents, or to assess the importance of tax settings relative to other drivers of the housing market. The housing market is large and complex, and subject to many different policies and regulations. Disentangling the various market and public policy influences is no easy task, so there is little definitive empirical evidence regarding the tax impact on house prices and rents in New Zealand.

83. As one example, Coleman (2017) argues there is a strong theoretical case that changes to the taxation of retirement savings in the late 1980s increased house prices.[11] But Coleman also finds that the empirical evidence for this result is inconclusive, partly because so many other macroeconomic changes occurred at the same time that it is difficult to link changes in housing market indicators to the tax changes themselves.

84. Another New Zealand study (Coleman and Scobie, 2009) found that a change in tax policy – modelled as a 10% increase in tax concessions for landlords – would have only a small impact on rents and house prices.

85. There is no doubt, however, that tax policy confers significant benefits in absolute terms on homeowners and investors. In 2008, the Department of the Prime Minister and Cabinet (DPMC) calculated that:

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[9] In 2017, there were 62,700 households in the lowest income decile (i.e. earning less than $24,200 in annual income) who were living in their own home, while a further 29,100 households in the lowest income decile lived in a home owned by their family trust (SNZ 2017b).

[10] The accompanying Secretariat paper on the *Taxation of Capital Income and Wealth* illustrates how marginal effective tax rates on housing are much lower than for other types of savings vehicles, with consequent impacts on patterns of saving and investment across the economy. Issues relating to the composition of saving and investment, and the balance between the 'productive' and 'speculative' economy, are covered more fully in that paper.

[11] Since 1989, income tax has been paid on all income as it is earned – including income placed in retirement saving accounts, and the earnings from these accounts. Under the previous tax regime, however, taxes were paid when earnings were withdrawn in retirement. Coleman argues that the change in tax regime opened a large tax wedge between retirement funds and owner-occupied housing, leading to higher house prices. The taxation of retirement savings will be discussed by the Group in July.

- Owner-occupiers derived annual benefits of $4.2 billion from the non-taxation of imputed rents and $3.1 billion from the non-taxation of capital gains.

- Residential property investors derived annual benefits of $1.1 billion from the non-taxation of capital gains

(DPMC, 2008, p. 19).

86. To put this into context, core Crown revenue totalled $61.9 billion in the 2008/2009 financial year.

5.4 The relative importance of tax

87. Most official observers do not identify tax policy as the primary cause of high house prices. The OECD, for example, conducted a detailed survey of New Zealand's housing sector in 2011, and concluded that tax settings 'exaggerated' rather than caused the rise in prices in the mid-2000s (OECD, 2011, p. 9). Similarly, in its submission to the Productivity's Commission Inquiry into Housing Affordability, the Reserve Bank of New Zealand (RBNZ) stated:

    Taxation regimes can affect house price movements and house price cycles, but our judgement is that they have not been of decisive importance compared to supply factors, migration factors or fiscal and monetary policy. At times, tax provisions, in conjunction with other shocks, may have served to amplify or extend a housing boom that had initially been triggered by quite unrelated factors. Our reading of the international literature suggests that the presence or absence of a capital gains tax is not a decisive factor explaining house price behaviour here or in other countries. (RBNZ, 2011, p. 2.)

88. The RBNZ's submission also noted that it is unclear whether housing is more tax-favoured in New Zealand than in other countries, and that a wide variety of countries – with quite different tax regimes – experienced housing booms in the mid-2000s (RBNZ, 2011, p. 8).

89. It is likely that tax policy has exacerbated the house price cycle in New Zealand over the past two decades. But the existence of substantial constraints on the supply of housing – arising from excessive land use regulation, inadequate infrastructure provision, and poor productivity in the building sector, among other things – means that tax policy is unlikely to be the dominant driver of high house prices.

90. Thus, while tax reform could certainly affect the future trajectory of house prices, it is unlikely to result in a meaningful improvement to housing affordability in the absence of broader reforms to unlock the supply of housing.

6. Options for potential investigation

91. This section outlines a range of options for tax reform that could be the subject of further investigation, and conducts an initial scan of the options against the key criteria for assessment.

92. This section does not cover options that are already settled Government policy, such as the extension of the bright-line test and the introduction of ring-fencing for income from rental properties.

93. On the basis of this initial scan, the Group is asked to decide:

- Which of these options do members wish to consider further?
- Which options can be taken off the table?

94. The Secretariat will then prepare more detailed analysis on the options of most interest to the Group.

6.1 Living Standards considerations

95. Before moving into a discussion of individual reforms, we wish to highlight a number of themes that emerge from a social capital analysis of the policy options:

Distributional impacts

96. Patterns of housing tenure and housing stress differ greatly by income, ethnicity and region. The following statistics give a sense of the range of housing outcomes across different groups of New Zealanders:

- **Income.** In 2017, 54% of households in the lowest income decile lived in a home that was owned by them or their family trust, compared to 78% of households in the highest income decile.

- **Ethnicity.** In 2013, the percentage of people in households that owned their own home ranged from 33% for Pacific Peoples and 43% for Māori to 70% for Europeans. In December 2017, 44% of the people on the Social Housing Register, and 57% of the people who received emergency housing grants, were Māori.

- **Region.** In 2013, the percentage of dwellings rented ranged from 27% in Tasman to 41% in Auckland and 43% in Gisborne.

(Johnson et al., 2018, pp. 9, 54; MSD, 2017, pp.6, 10; SNZ 2017b.)

97. A social capital lens will require the Group to consider the distributional impact of policy reform. Rents can serve as a proxy for assessing these distributional impacts, since measures that affect rents will have a disproportionate impact (whether positive or negative) on groups and individuals who are already relatively disadvantaged.

Investors and housing supply

98. The importance of renting to some groups means that there is a strong distributional aspect to reforms that affect the treatment of residential property investors.

99. In general, options that discourage investor activity have the potential to reduce demand for – and therefore the construction of – new housing. Investor demand is particularly important in the market for apartments. Lower demand from investors may force developers to wait longer to achieve their required pre-sales, or even render the development unviable, unless there is a matching increase in demand from owner-occupiers.[12]

100. Higher taxes on rental property investments could also affect the cost of rental housing. The extent to which costs are passed through to tenants, rather than absorbed by landlords, is unclear. In a context where supply is highly constrained, one might expect that landlords *already* enjoy significant pricing power, in which case there will be little pass-through to rents (at least in the short run).

101. It is more certain, however, that creating a bias in favour of owner-occupation – without a complementary increase in housing supply – will increase pressure in the rental accommodation market. This is because owner-occupied homes have lower rates of occupancy than rented homes, so there will not be a one-for-one reduction in demand for rental property as some tenants transition into home ownership, and some homes leave the rental market.

Māori and land

102. Māori interests in land are not limited to home ownership. They are also influenced by a broader set of values, which may include manaakitanga (the care of land and of each other), whanaungatanga (wider kinship ties), and kaitiakitanga (guardianship and sustainability).

103. Moreover, although Māori have lower rates of home ownership than other ethnic groups, many Māori do have an ownership stake in land, either directly or through their iwi. Land – which may be the only asset held by some Māori communities – can be important as a taonga or legacy asset to be sustained for future generations.

104. Māori communities and organisations are also active in the development of social housing initiatives, including partnerships with central and local government, and with the private sector.

105. When assessing options for reform, one consideration will be the impact of these options on taonga assets, particularly in cases where new taxes create cash flow pressures because the landholdings generate little in the way of income.

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[12] Industry contacts indicate that a high level of pre-sales – often 80% – is required for multi-unit dwellings. Investors are an important source of pre-sales.

106. There are also a number of other cases in which property or land taxes will have a particular impact on Māori interests:

- When legislation requires or deems a disposal of land to arise (for example, when a charity is deregistered, or in the case of restructuring legislation and some actions under Public Works Act).

- When iwi, for good governance reasons, wish to shift property within an iwi group structure.

- When iwi partner with non-iwi groups to achieve social housing outcomes.

107. These issues can be explored further if the Group wishes to move into a more detailed discussion of the design of options for reform.

6.2 Housing affordability goals

Coherence and effectiveness

108. Most concerns about housing affordability are regional, rather than national, in nature. House prices and rents are increasing rapidly in some areas, but not in others. This points to non-tax influences, and suggests that effective policy responses are also likely to be regional in nature.

109. This creates trade-offs for a national policy intervention like the tax system. The more the national tax system is used to achieve specific regional outcomes, the less coherent its structure will become. At the same time, there may be options for tax reform that promote housing affordability in general, but which are also consistent with the principles of good tax policy.

110. In formulating recommendations, the Group will need to weigh the housing policy effectiveness of the options against any impacts on the coherence of the tax system.

The exclusion of owner-occupied homes

111. The Terms of Reference for the Group exclude any consideration of options that affect 'the family home or the land under it.' Owner-occupied homes account for approximately 63% of the total number of homes in New Zealand (SNZ 2017a). The exclusion of owner-occupied homes from the design of options will therefore reduce the extent to which these options impact on the housing market as a whole.

6.3 Options

6.3.1 Taxing capital gains

112. A general capital gains tax could be applied far more broadly than just to housing assets. The Secretariat will provide separate advice on a taxing capital gains to support the Group's scheduled discussion on the subject in May, so a detailed assessment is not provided in this paper.

113. A capital gains tax that is only applied to residential investment properties will reduce house prices to some degree, as well as reduce the supply of rental housing. All else equal, a reduction in the supply of rental housing should increase rents – but if landlords already enjoy substantial pricing power in a market where supply is very constrained, the impact may not be great.

114. The Secretariat has commissioned an external expert to provide a model that will allow for a more detailed assessment of the impact of capital gains taxes (and land taxes) on the housing market. The results of this model will be reported to the Group when they are ready.

6.3.2 Risk-free rate of return method (RFRM)

115. Under RFRM, the total income generated by the property is calculated by applying a risk free rate to the equity held by the owner in the property; the result is then taxed at the taxpayer's marginal rate. RFRM would thus provide a conceptually simple means to tax all of the income generated by a rental property.[13]

116. RFRM is an efficient and relatively non-distortionary tax – but only so long as the 'correct' value for the rate of return is used. If the 'incorrect' value is used, the result may be inefficient under- or over-taxation of the property. Since RFRM is calculated and applied each year, it does not create a lock-in effect (unlike a realisation-based capital gains tax). In other words, RFRM does not distort decisions about when or whether to sell because the sale of the property will not trigger a tax payment.

117. RFRM does raise some issues of fairness. The key issue is that the income calculated by RFRM does not necessarily correlate with the actual returns from an investment. This may be viewed as unfair. Some investors, who invested under existing rules in the expectation of running tax losses, may also face cashflow pressures at the time the tax is implemented – but this is likely to be a transitional concern only.

[13] Foreign portfolio shareholdings are generally taxed through a similar mechanism, known as the fair dividend rate (FDR) rule.

118. The case for RFRM was considered by both the Victoria University of Wellington Tax Working Group (in 2009) and the McLeod Tax Review (in 2001). The McLeod Tax Review also conducted public consultation on a proposal for an RFRM on residential property. That proposal met with an 'overwhelmingly negative' reaction, and the McLeod Review concluded that '[n]o Government is therefore likely to be able to get a public mandate to implement such a measure at this point' (McLeod et al., 2001, p. 98). The depth of opposition may have had much to do with the fact that the proposal would have applied to owner-occupied homes.

119. Although RFRM is conceptually simple, this does not necessarily translate into low compliance and administration costs. In order to carry out the RFRM calculation, the market value, and the equity stake of the owner, must be established for each property for each year. This is unlikely to be a trivial undertaking.

120. We are not aware of any recent studies that attempt to quantify the housing market impacts of RFRM on residential property in New Zealand. Our assumption is that an RFRM tax that is only applied to residential investment properties will reduce house prices to some degree, as well as reduce the supply of rental housing, with consequent upward pressure on rents. We are uncertain of the magnitude of these effects.

6.3.3 Property taxes

Land tax

121. A land tax imposes an annual tax liability on the unimproved value of land. A land tax on residential investment property would result in a uniform increase in taxation on landlords, rather than an increase based on expected capital gains.

122. Land taxes are generally considered to be an efficient means to raise revenue: the supply of land is fixed and therefore unaffected by economic incentives such as taxation. Excluding owner-occupied homes from the land tax, however, will compromise the efficiency of the tax. A land tax that is only applied to residential investment property will affect the incentives on property-owners, because the tenure of properties (and therefore the supply of rental housing) can change in response to the tax.

123. The fairness impacts of a land tax are mixed. Taken in isolation, a land tax is inconsistent with horizontal equity because it taxes only one type of wealth. But a land tax on residential investment property would reduce the under-taxation of land, albeit at the cost of creating a new distortion between rental and owner-occupied housing.[14]

[14] A land tax that is applied more broadly – i.e. beyond residential property – will also have a disproportionate impact on some groups, such as iwi and farmers, who hold more of their wealth in land.

124. The fairness concern that is most commonly raised about land taxes relates to the fact that some landowners (such as retired people on low incomes) will face cash flow pressures as a result of annual land tax payments. This is unlikely to be as great a concern in the case of a land tax that only applies to investment properties.

125. A land tax has low compliance and administration costs, at least relative to the other options considered here, since local government authorities already collect data on property valuations in order to set their rates. At the same time, the level of rates would need to be taken into account when the value of the land tax was set.

126. A land tax that is only levied on residential investment property will have a one-off impact on land prices. It will have a more far-reaching impact on the supply and price of land for rental housing. The main question is the extent to which the supply of rental housing will decrease if the tax encourages investors to exit the market. We are unable at present to quantify these effects, but have commissioned modelling to help us better understand how a land tax might affect the housing market.

Region-specific property taxes

127. A second option is to introduce a tax on the capital value of residential investment property in regions with strong house price growth. One argument for considering region-specific taxes is that a large proportion of the income from residential investment properties in areas such as Auckland comes through capital appreciation rather than rent.

128. However, if the tax is levied on a particular region only, there is a strong case for the revenue to remain with the region as a form of hypothecated tax. This option therefore intersects with the upcoming public inquiry into the local government revenue base.

Taxation of non-primary residences

129. A third option is to tax the capital value of non-primary residences, such as holiday homes and second homes. The taxation of non-primary residences is unlikely to transform the housing market in general, although it could have a significant impact in certain localities – such as Queenstown – where there are large numbers of second homes.[15] Nevertheless, it would represent a partial step towards the taxation of imputed income from housing, and might also release some supply at the margin by reducing the incentive for individuals to own two homes.

[15] On Census Night 2013, 8% of dwellings across New Zealand were both 'unoccupied' and 'empty,' whereas 28% of dwellings in the Queenstown-Lakes District were unoccupied (SNZ 2013a, SNZ2013b).

6.3.4 Stamp duty

130. A stamp duty is a form of transaction tax that is applied when a property is sold – or, more strictly, when a change in title is registered. A stamp duty could be applied at a single rate or varied rates (depending, for example, on the price of the property, the length of tenure, and the number of properties owned by the buyer), and could be imposed on the buyer, the seller, or simply the transfer itself.

131. Stamp duties are an inefficient tax. The value of the tax may have little to do with the gain on the property. They distort behaviour by discouraging investors from selling when it would otherwise be profitable to do so. They also reduce the ability of residential property investors to realise productivity gains through economies of scale, because they are a tax based on the number of properties owned.

132. Stamp duties are an unfair tax from the perspective of horizontal equity. This is because stamp duties result in different treatment for otherwise identical people. One person who holds their savings in rental property, and decides to liquidate their assets, will be subject to stamp duty – whereas an identical person who holds their savings in a different type of asset will escape the duty.

133. A stamp duty on residential investment property could impose significant compliance and administration costs. There will need to be rules dealing with situations where a property changes use; in some cases, it may be necessary to devise rules ascertaining the intention of the purchase.

134. Any rules are likely to be arbitrary, complicated, and distortionary. Perhaps because of these complications, the international norm is for stamp duties to apply to all types of property, rather than just to certain types of property.

135. One argument for a stamp duty is that the high transaction costs associated with the tax will discourage speculative activity and reduce house price volatility. A stamp duty will likely reduce the supply of rental accommodation and increase the rate of owner-occupancy by discouraging the marginal investor. The impact on house prices is unclear, but unlikely to be great. The impact on rents will depend on the extent to which higher costs can be passed through to tenants: in a supply-constrained market, landlords may already be charging all the market can bear.

6.3.5 Other measures

Complete or partial denial of expenses

136. A general principle of income tax is that expenses should only be deductible to the extent that they relate to taxable income. It could be argued that rental property investors invest in housing, at least in part, to earn untaxed capital gains. If so, it would follow that some of the deductions should be denied, as these expenses have been incurred in order to generate income that is not taxed. But the denial of expenses does not really address the underlying problem with property: that it is under-taxed to begin with.

137. The denial of expenses is likely to create issues of fairness. Heavily debt-financed investors who own older properties (which are likely to have higher maintenance costs) will be most affected, while ungeared investors in new properties will be least affected. Yet there may be little relation between the expenses associated with each property and the size of the untaxed capital gain earned from the property.

138. The denial of expenses will reduce demand for residential property investment. In this regard, there is a judgement for the Group to make regarding how far to reduce the attractiveness of residential property investment – in light of both past policies, such as the removal of allowances for the depreciation and obsolescence of rental housing, and the current Government's intentions to extend the bright-line test and introduce loss ring-fencing for rental property income.

139. A variant of this option would be to claw back interest expenses in the event that there is a taxable capital gain.

Mortgage interest levies

140. A mortgage interest levy (which was investigated in 2007 by the Treasury and the RBNZ) is conceptually similar to a complete or partial disallowance of the interest expense deduction.

Reform of the 'ten-year rule'

141. The 'ten-year rule' (discussed in paras 48-49) creates a theoretical incentive for landholders on city fringes to withhold land from development. The extent to which the rule is actually affecting behaviour on the ground is unclear, but reform of the rule may represent an opportunity to boost land supply, even if the effects are only small.

7. Conclusion

142. This paper has had two main purposes: to explain how the tax system deals with housing; and to seek the Group's preferences regarding the focus of subsequent work on this subject.

143. When the tax system is considered as a whole, it is likely to create a bias in decision-making towards investment in housing, resulting in higher rates of investment in residential property and higher house prices than would otherwise be the case.

144. It is very difficult to quantify *how much* the tax system affects the housing market. The housing market is large and complex, and subject to many different influences and interventions. Tax policy has likely exacerbated the house price cycle in New Zealand over the past two decades, but the existence of substantial constraints on the supply of housing means that tax policy is unlikely to be the dominant driver of high house prices.

145. Looking ahead, tax reform could certainly affect the trajectory of house prices, but it seems unlikely to result in a meaningful improvement to housing affordability in the absence of broader reforms to unlock the supply of housing.

146. Nevertheless, the Group may still see opportunities for reform that could increase the fairness and balance of the tax system as a whole, even if they do not result in significant improvements to housing affordability.

147. To that end, we suggest the Group discuss the following questions at the meeting on March 23:

- Noting the Government's intention to extend the bright-line test and ring-fence losses on residential property investment income, is there a case for further reform of the tax treatment of residential property?
- Which reforms does the Group wish to consider further? Which reforms can be taken off the table?
- What further analysis would be useful to assist the Group's deliberations on this subject?

Annex: Compliance with current land sale rules

IR investigations have highlighted concerns about compliance with the tax rules for land sales. There has been particular difficulty in enforcing the *intention test*, which requires income tax to be paid when a property is acquired with the intention of sale.

Recent compliance and enforcement measures

The Government has implemented the following measures to assist with compliance and enforcement over the past few years:

- The allocation of funding for IR's Property Compliance Programme since 2008.
- The introduction of the bright-line test on residential property, which assists with the enforcement of the intention rule by serving as a proxy for intention of sale.
- The introduction of a requirement for all vendors and purchasers to provide their IRD numbers at the time of transferring property, which helps IR identify land sales that are potentially taxable.
- The introduction of the residential land withholding tax, which requires solicitors to withhold tax from the proceeds of a sale of land by an offshore person subject to the bright-line test.

IR assessed additional tax revenue of $530 million between 2008 and 2017 as a result of the Property Compliance Program.

Compliance analysis

In order to form a better understanding about the extent of compliance with the land sale rules, IR analysed a sample of property sales between 1 October 2015 and 31 March 2016 that were potentially subject to the bright-line test:

- 73 sales were identified as being taxable under the bright-line test (and not under the other land-sale rules). Only 56% of these sales were returned as property sales income in the vendors' tax returns.
- 184 sales were identified as being made within two years of acquisition and *were* taxable under other tax provisions. 97% of these sales had been returned as property sales income.

Anecdotal evidence

Discussions with the Property Compliance Programme team indicate that there are considerable challenges with compliance (for example, through the use of powers of attorney or deeds of nomination to mask ownership). A common thread in many cases of non-compliance is a perception that tax 'should not' apply to income from property sales.

On the other hand, there does appear to be high compliance by solicitors with the residential land withholding tax rules (although the volume of sales subject to RLWT is low). Between 1 July 2016 and 30 June 2017, 164 transactions were subject to the residential land withholding tax, and $7.7 million was withheld and paid to IR.

References

Coleman, A. (2017). *Housing, the 'Great Income Tax Experiment', and the intergenerational consequences of the lease*. Retrieved from http://motu-www.motu.org.nz/wpapers/17_09.pdf

Coleman, A. and Landon-Lane, J. (2007) *Housing Markets and Migration in New Zealand, 1962-2006*. Reserve Bank of New Zealand Discussion Paper DP2007/12. Retrieved from https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Discussion%20papers/2007/dp07-12.pdf

Coleman, Andrew and Grant Scobie. (2009). *A Simple Model of Housing Rental and Ownership with Policy Simulations*. Retrieved from http://www.treasury.govt.nz/publications/research-policy/wp/2009/09-05

Demographia. (2018). *14th Annual Demographia International Housing Affordability Survey 2018: Rating Middle-Income Housing Affordability*. Retrieved from http://www.demographia.com/dhi.pdf

Department of the Prime Minister and Cabinet. (2008). *Final Report of the House Prices Unit: House Prices Increases and Housing in New Zealand.* Retrieved from https://www.dpmc.govt.nz/sites/default/files/2017-03/hpr.pdf

Johnson, A., P. Howden-Chapman and S. Eaqub. (2018). *A Stocktake of New Zealand's Housing: February 2018*. Retrieved from https://www.beehive.govt.nz/sites/default/files/2018-02/A%20Stocktake%20Of%20New%20Zealand%27s%20Housing.pdf

Local Government New Zealand. (2015). *Local Government Funding Review: A Discussion Paper.* Retrieved from http://www.lgnz.co.nz/assets/Uploads/Our-work/Local-Government-Funding-Review.pdf

McDonald, C. (2013) *Migration and the housing market*. Reserve Bank of New Zealand Analytical Note AN2013/10. Retrieved from https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Analytical%20notes/2013/an2013-10.pdf

McLeod, R. et. al. (2001). *Tax Review 2001: Final Report*. Retrieved from http://www.treasury.govt.nz/publications/reviews-consultation/taxreview2001/taxreview2001-report.pdf

Ministry of Business, Innovation and Employment. (2017). *Briefing for the Incoming Minister of Housing and Urban Development*. Retrieved from http://www.mbie.govt.nz/about/who-we-are/our-publications/briefings-to-incoming-ministers/2017-bims/housing-urban-development.pdf

Ministry of Business, Innovation and Employment and Ministry for the Environment. (2017). *National Policy Statement on Urban Development Capacity: Price Efficiency Indicators: Technical Report.* Retrieved from http://www.mbie.govt.nz/info-services/housing-property/pdf-document-library/rural-urban-differentials-technical-report.pdf

Ministry of Social Development. (2017). *Housing Quarterly Report: December 2017*. Retrieved from https://www.msd.govt.nz/documents/about-msd-and-our-work/work-programmes/social-housing/housing-quarterly-report-dec2017.pdf

New Zealand Productivity Commission. (2012). *Housing Affordability Inquiry*. Retrieved from https://www.productivity.govt.nz/sites/default/files/Final%20Housing%20Affordability%20Report_0_0.pdf

New Zealand Productivity Commission. (2015). *Using Land for Housing*. Retrieved from https://www.productivity.govt.nz/sites/default/files/using-land-for-housing-final-report-full%2C%20PDF%2C%204511Kb.pdf

OECD. (2011). *OECD Economic Surveys: New Zealand 2011*. Retrieved from http://dx.doi.org/10.1787/eco_surveys-nzl-2011-en

Reserve Bank of New Zealand. (2011). *Submission to the Productivity Commission Inquiry on Housing Affordability*. Retrieved from https://www.productivity.govt.nz/sites/default/files/Sub%20037%20-%20Reserve%20Bank%20of%20NZ%20Submission.pdf

Statistics New Zealand. (2013a). *2013 Census totals by topic.* Retrieved from http://m.stats.govt.nz/Census/2013-census/data-tables/total-by-topic.aspx

Statistics New Zealand. (2013b). *2013 Census tables about a place: Queenstown-Lakes District.* Retrieved from http://m.stats.govt.nz/Census/2013-census/data-tables/tables-about-a-place.aspx?request_value=24506&parent_id=24503&tabname=#24506

Statistics New Zealand. (2017a). *Dwelling and Household Estimates: September 2017 quarter.* Retrieved from http://archive.stats.govt.nz/browse_for_stats/population/estimates_and_projections/DwellingHouseholdEstimates_HOTPSep17qtr.aspx

Statistics New Zealand. (2017b). *Household income and housing-cost statistics: Year ended June 2017*. Retrieved from https://www.stats.govt.nz/information-releases/household-income-and-housing-cost-statistics-year-ended-june-2017

Stillman, S. and Maré, D. (2008) *Housing Markets and Migration: Evidence from New Zealand.*
Retrieved from http://www.mbie.govt.nz/publications-research/research/migrants---economic-impacts/migration-and-housing-markets.pdf