

Working paper for the
New Zealand Productivity Commission

Vacant land taxes and housing supply

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About Capital Strategic Advisors (CSA)

Based in the capital city of New Zealand, CSA provides strategic policy advice to government and private sector clients. CSA has deep expertise in regulatory and tax policy, market design, pricing theory and practice, competition and infrastructure issues, and the implications of innovation and technology change for regulatory design, productivity and economic growth.

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Summary

The purpose of this paper is to examine whether vacant land taxes would be a useful mechanism to improve the supply of available housing for New Zealanders. This reflects a request from the Minister of Finance in April 2019, responding to a recommendation from the 2019 Tax Working Group (TWG) for the Commission to look at whether local councils should be empowered to introduce local vacant land taxes.

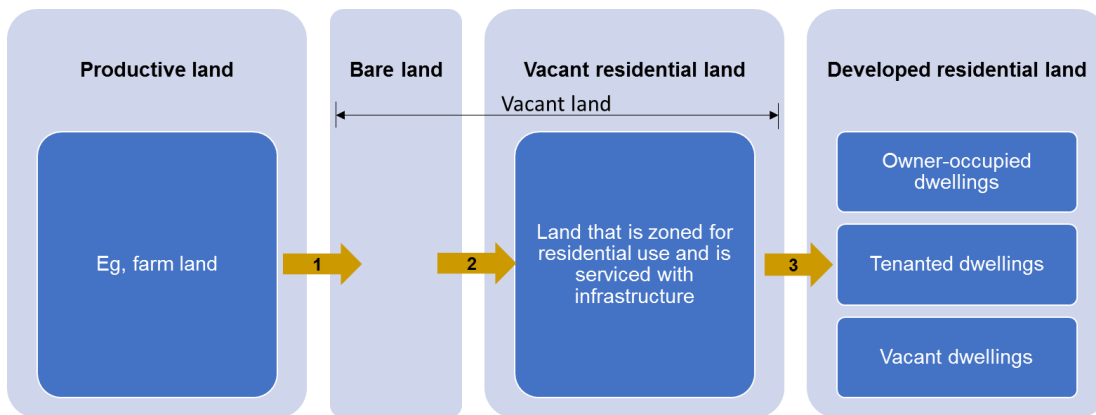
Having received the request as it was finalising its Draft report, the Commission included the Minister’s letter in its report and sought submissions from interested parties. Out of 134 submissions on the Draft report, only 15 discussed the vacant land tax issue, with 13 presenting arguments or concerns about it. Two submitters indicated vacant land was a material problem for housing supply and affordability.

This paper considers taxes on vacant land and vacant dwellings and refers to them collectively as vacant property taxes. The paper finds neither tax is likely to be a useful mechanism to improve the supply of available housing for New Zealanders.

In the medium-term, vacant property taxes are likely to increase housing costs and reduce housing supply responsiveness

On a first pass, taxing vacant properties may seem appealing, especially to address inefficiencies and inequities arising from land banking and an inadequate supply of housing. However, in the medium-term vacant property taxes are, in effect, taxes on development, and so would likely increase housing costs.

This occurs because vacant land is a key input in producing houses, as illustrated in the figure below (blue areas represent structures and the orange arrows represent the conversion of property from one state to another).



The chart shows three stages of development (orange arrows). Taxing vacant residential land may lead to an initial burst of conversions to developed land (stage 3), but developers are likely to permanently reduce their stock of vacant land. This means the higher rate of conversions is likely to be transitory (discussed further below).

The smaller stock of vacant residential land would likely reduce housing supply responsiveness by reducing developer flexibility and risk-taking, exacerbating the underlying problem with New Zealand’s housing market. This is the opposite of what is needed in New Zealand.

In the short-term, vacant property taxes are likely to increase available houses by a small amount

Initially, taxing vacant properties is likely to push some developers to convert more vacant land to developed land (ie, land with houses) and push some landlords to tenant their vacant dwellings. However, these impacts are likely to be small because most vacant property would be excluded from such taxes, to minimise the economic costs of taxing “legitimate” vacant properties.

Section 3 discusses the practical design issues with vacant land tax bases, and suggests the following land would be excluded from a vacant land tax:

- land owned by non-taxable entities (eg central & local government).
- land below a minimum size threshold, such as an acre or hectare
- land not feasible or commercially viable to develop
- land not zoned for residential use or not serviced with council infrastructure
- land that was zoned and serviced with infrastructure within a specified grace period for.

Combined, these exclusions are likely to significantly reduce the amount of taxable vacant land. CSA was unable to source useful information about exclusions from international jurisdictions with vacant land taxes, and so it prepared a ‘back of the envelope’ calculation for the Auckland region, as illustrated in Figure A.

Figure A: The tax base is likely to be a small portion of vacant residential land



CSA estimates taxable vacant land in Auckland is likely to be 15-33% of vacant residential land. Similarly, the tax base for a vacant dwellings tax is likely to be a small portion of vacant dwellings. The City of Vancouver, for example, introduced a vacant dwellings tax in 2017, and it taxes only 10% of census-night vacant dwellings.

Starting in 2017, the City of Vancouver taxed vacant dwellings at 1% of the property’s value. The initial results indicate it increased available housing in 2018 by 592 houses, equivalent to 16% of the City’s housing construction in 2018 (refer section 5.1.2 below). However, this initial effect is likely to be one-off. Over a five-year period housing construction would add around 20-30 times more houses to the market than the initial impact of the vacant dwelling tax.

In the time available for this report, CSA has been unable to estimate the initial effects of a 1% vacant land tax on housing supply. However, these effects are likely to be smaller than would be achieved by a

vacant dwelling tax, such as Vancouver’s Empty Homes tax, as it will be far easier to let existing vacant dwellings than to build new dwellings on vacant land.

The increase in the flow of houses to the market is likely to be transitory

The initial impact is likely to be transitory because increases in housing supply would largely occur only for the period that stocks of vacant properties are being reduced to new, after tax, equilibrium levels. That adjustment would likely occur very quickly for vacant dwellings and over a few years for vacant land.

It is useful to think of decisions about when to develop land as like decisions about when to harvest a forest. The effect of introducing a 1% vacant land tax is like a permanent 1% increase in interest rates. Box A shows this leads to a temporary increase in the annual amount of forest harvesting, but the annual volume of harvesting then reverts to original levels. After it’s been introduced and the temporary increase in conversion has happened, a *constant* tax rate on vacant land is unlikely to affect the rate of property development.

Box A: The optimal time to harvest forests – an analogy with property development

Suppose a forester has 1000 hectares of forest, and harvests trees when their growth rate reaches 4% per year. The forester does this because she can put the money in the bank and earn 4.1% interest a year.

When planted, trees initially grow much faster than 4% a year but their growth rate starts to decline after many years. Suppose at 20 years they grow at 9% a year, at 21 years they grow at 8% a year and so on, such that at 25 years they grow at 4% a year. Suppose also that 100 hectares were planted each year, and so only 100 hectares of trees grow at each growth rate each year. These assumptions are presented in Table 1 below.

Given these assumptions, only the 25-year old trees are harvested each year. Table 1 highlights the harvested trees in blue shading for 2017 and 2018.

	2017	2018	2019	2020	2021
20-yo trees (9% growth rate)	100	100	100	100	100
21-yo trees (8% growth rate)	100	100	100	100	100
22-yo trees (7% growth rate)	100	100	100	100	100
23-yo trees (6% growth rate)	100	100	100	100	100
24-yo trees (5% growth rate)	100	100	100	100	100
25-yo trees (4% growth rate)	100	100	100		
Quantity harvested	100	100	200	100	100

But suppose in 2019 the forester can earn 5.1% interest on her money, and the interest rate remains at that level every year thereafter. To maximise her money, the forester harvests 200 hectares of trees in 2019: the 25-year old and the 24-year old trees, because both age-groups are growing at less than 5.1% per year.

From 2019 onwards she reverts to harvesting 100 hectares a year because only the 24-year old trees are growing at less than 5.1% per year in 2020 (and every year thereafter). The trees that would’ve been 25 years old in 2020 were harvested in 2019. Hence, a one percentage point rise in the interest rate leads to a transitory increase in tree harvesting in 2019. The rate of harvesting reverts to original levels from 2020 even

though the interest rate remains permanently higher. Although this is a very stylised example, it illustrates how a introducing a vacant land tax may have only a transitory impact on the rate of house building.

Vacant property taxes are not likely to help much with land banking or land price bubbles

Imposing *constant* vacant land tax rates is not likely to have any perceptible impact on land price bubbles, should any occur in the future. This is because of the transitory impact of such taxes and because constant tax rates don't affect the growth rate of asset prices.

Section 5.3 provides a numerical illustration for the period 2012 to 2017, in which capital gains on an average residential property in Auckland was 83% over that period. A 1% vacant land tax would likely have reduced those gains to 74%, which is still a large capital gain.

This means, if a strong bubble gets underway after a vacant land tax is in place, it would likely continue "over the top" of a constant tax rate unless the tax rate was set to a high rate, for example 5-10%. But these would be a very high tax rate relative to what councils currently levy property owners. For example, a 5% tax rate is more than 10 times the rates Auckland Council levied on urban business ratepayers in 2018/19 and more than 25 times the rates Auckland Council levied on urban residential ratepayers.

To materially reduce land price bubbles, councils would need to *vary* their vacant land tax rates in response to market conditions. Even if councils could do this well, it would likely increase investor uncertainty more generally.

Also, the vacant land tax base would likely be defined narrowly to minimise the risk of harming development and increasing development costs. For example, the tax base would likely include only land zoned residential and serviced with infrastructure. In this case, speculators would be able to easily switch to speculating in other types of properties.

Defining a broader tax base would better constrain speculative investment but it would increase costs and risks for developers because all developments involve a period of vacant land. These higher costs and risks would restrict residential development. For example, a 1% tax rate would likely increase the annual cost of holding properties by 20-35%. A 5% tax rate would increase those costs by 100-175%.

Vacant property taxes are likely to be costly to administer

Section 3 considers the practicality of vacant property taxes. It considers the details involved in defining the rating base for each option, how councils might source the information they would need to calculate the rating base, the anti-avoidance rules and monitoring and enforcement processes.

The evidence from overseas suggests vacant dwelling taxes are costly to administer, and the same seems likely for vacant land taxes. For example, administration of Vancouver's Empty Homes Tax cost 6.6% of assessed revenue for its first year of operation and 12% of the revenue actually collected, far higher than the 1% of revenue required to administer New Zealand's tax system.

To reduce risks of tax avoidance, the regimes may need to apply to parties that are not intended to be caught by them, with credits provided against future rates bills when the ratepayer's subsequent action reveals they should've been excluded.

For example, vacant residential land owned by businesses would likely be subject to vacant land taxes, but those businesses would receive a credit against their future rates bills whenever they complete their commercial buildings. These types of arrangements can become quite complicated to administer if tax rates change over time, and it leaves businesses with additional costs and risks.

Under vacant dwelling taxes, taxes would likely have to apply to owners of uninhabitable dwellings and to owners who try for more than six months to sell a vacant dwelling and then withdraw it from the market. Taxes might also apply to holiday homes in commerce-oriented towns and cities, such as Auckland, Wellington and Christchurch. Similar taxes could also apply in resort-oriented towns and cities, but it is likely councils in those areas would not want to discourage holiday-makers.

Vacant property taxes are likely to reduce productivity and not address concerns about fairness

Vacant property taxes are likely to reduce productivity and economic efficiency, especially if few exemptions are provided for “legitimate” properties. This conclusion takes into account market imperfections, such as externalities, market power and land price bubbles. Moreover, the analysis in this paper shows there aren’t any significant inefficiencies from current tax and rating policies that *could be mitigated effectively* with vacant land taxes.

Further details are provided in section 6, in particular around the currently favourable tax treatment of owner-occupied homes and the distortionary tax treatment of some sales and purchases of land by ‘mum and dad’ investors.

Vacant property taxes are not likely to address concerns about fairness. In the medium-term, the tax burden is likely to fall predominantly on consumers entering the housing market because the taxes increase house prices. Existing homeowners will be better off. These are the opposite effects needed to address the Government’s concerns about fairness.

Most councils levy their general rates on the capital value of properties, which indirectly taxes development including residential development. They could encourage housing development with little additional administration costs by shifting their general rates to land value rating. These moves would reduce costs on development overall and so improve productivity and economic efficiency. However, councils may face political resistance prior to and during transition periods.

Very few local authorities levy vacant property taxes

The World Bank identified nine cities levying vacant land taxes: Santiago (Chile), Bogota (Colombia), Visakhapatnam (India), Seoul (Republic of Korea), Marikina (Philippines) and Washington DC (United States). We haven’t found any rigorous empirical evidence about the effects of any of these taxes.

Vacant dwelling taxes have recently been introduced in Melbourne (Australia), the City of Vancouver (Canada), in some areas in France and by some councils in the United Kingdom. The only empirical evidence we have found has been in regard to the first-year impact of the tax recently introduced by the City of Vancouver.

1 Introduction

The Commission released its Draft report on local government funding and financing (NZPC 2019) on 4 July 2019, which followed an Issues paper released by the Commission in November 2018. Submissions on the Draft report were received in August and early September.

On 29 April 2019 the Minister of Finance wrote to the Commission, asking it to include in its inquiry consideration of whether a tax on vacant land would be a useful mechanism to improve the supply of available housing for New Zealanders (NZPC, 2019, p. iv). Having received the request as it was finalising its Draft report, the Commission included it in its Draft report without discussion and sought submissions from interested parties.

The Commission engaged Capital Strategic Advisors (CSA) to help it analyse vacant property taxes. CSA has produced two reports for the Commission on this topic: this paper for general policy advisors and a research note entitled *Economic analysis of taxes on vacant land and vacant dwellings*. The research note is available on request from the Commission.

The term vacant land tax is often used quite broadly to refer to vacant property. For example, the City of Vancouver (Canada) introduced an Empty Homes Tax in 2017 that applies to vacant residential dwellings and to vacant residential land in many cases. Melbourne (Australia) introduced a Vacant Land Tax in 2018 that only applies to vacant residential dwellings. As the Minister's letter referred to improving the supply of available housing, it could refer to vacant dwellings too. Hence, this paper considers taxes on both types of vacant properties, but considers them as separate taxes.

The Commission's inquiry into local government funding and financing (LGFF inquiry) follows earlier inquiries relevant to housing supply: Housing affordability (NZPC, 2012), Using land for housing (NZPC, 2015) and Better urban planning (NZPC, 2017). These reports identify local and central government decisions affecting the supply of available housing for New Zealanders. This paper examines the issue of vacant property taxes relative to these other factors.

Why include this issue in the LGFF inquiry?

The terms of reference for the LGFF inquiry requests the Commission examine the adequacy and efficiency of the current framework for local government funding and financing. Among other matters, it requests the inquiry examine:

- The ability of the current funding and financing model to deliver on community expectations and local authority obligations, now and into the future.
- Rates affordability now and into the future.
- Options for new local authority funding and financing tools to serve demand for investment and services.
- Appraise both current and new or improved approaches considering suitable principles including efficiency, equity, affordability and effectiveness.
- How the transition to any new funding and financing models could be managed (NZPC, 2019, pp. ii-iii).

In accordance with its terms of reference, the Commission's Draft report analyses the funding tools currently available to local government, which include general and targeted rates, fees and user charges, and development contributions.

Rates are the largest overall source of local government revenue. The Draft report notes that 29% of councils used land value as a rating base in 2019, raising 12% of general rates revenue. The other councils levied their general rates on capital values, which is the sum of land value and the value of improvements fixed to the land.¹

Hence, whichever rating approach is used, councils already levy rates on vacant properties as part of their overall rates system. The issue for the inquiry is whether additional rates should be applied to vacant properties, for the specific purpose of increasing the supply of housing. These could be in the form of additional rates on vacant residential land only, on vacant residential dwellings or on both.

The Minister's letter followed recommendations in the Final Report of the Tax Working Group that the Productivity Commission consider a tax on vacant residential land (TWG, 2019, p. 22). In making their recommendation, the Tax Working Group stated:

Since the Interim Report, the Group has given further consideration to a tax on vacant residential land, or on empty homes in residential areas, to encourage the use of existing urban areas. There are international examples that could inform the development of similar taxes in New Zealand.

These types of taxes would appear to be most feasible in cases where a local authority has rezoned the land and provided infrastructure but the land remains vacant ... The main risk with these taxes is that they encourage the token (rather than substantive) use of land or homes.

The Group's view is that such taxes are best levied at the local rather than the national level. Any new housing spurred on by these taxes would also need to occur on a planned and environmentally sustainable basis. (TWG, 2019, p. 106)

The Tax Working Group's recommendation reflects that (1) private decisions about when to convert productive or vacant land into land for housing depend on the additional property value they can create and (2) council regulation of land use and development, and their decisions about infrastructure and how they charge for it, eg with developers paying development contributions, are important factors affecting property prices. Property prices are also heavily influenced by local factors.

In addition to these considerations, local government plays important place-shaping roles in their communities through their wider activities to promote local community wellbeing across physical, financial, social, human and environmental dimensions. The presence of vacant properties can affect the physical appearance of communities, affecting the amenity value of local areas and the community's financial position through their impact on property prices.

The above factors mean it makes sense to consider vacant property taxes in the Commission's review of local government funding and financing.

Relationship to the Government's wider work programme

The Minister's letter requests the Commission have regard to wider work being done to help improve housing affordability, including work to address supply constraints in housing such as reforms to infrastructure financing and the planning system (NZPC, 2019, p. iv).

For example, the Government has significant work underway to address constraints on urban growth, relating primarily to constraints on land supply, development capacity and infrastructure provision. This work involves funding and financing issues, such as in relation to funding and financing infrastructure to support housing supply. It also includes a comprehensive review of the Resource Management Act 1991.

¹ Note, some reports refer to property value rather than capital value, whereas this paper refers to property values when its discussing land or capital values generally.

The funding and financing component of the reforms is considering how to provide a broader range of funding tools and mechanisms, and includes work exploring the potential for ring-fencing revenues and liabilities to projects, rather than to ratepayers and taxpayers (Secretariat to the TWG, 2018b, p. 17).

The Minister's letter also stated the Government considers a review of options for taxing land that discourages land-bankers from holding land vacant should be a high priority for inclusion in its tax policy work programme² (NZPC, 2019, p. iv). This refers to a host of tax provisions aimed at restricting property speculation, such as the 'ten-year rule' which taxes realised capital gains on certain land transactions if the sale is within 10 years of acquisition (refer to Appendix 2 for further details).

In summary, there appear to be indirect effects from the income tax and rating systems that may affect the provision of rental housing and property development.

Terminology in this report

Given the Commission is examining local government funding, and local government taxes are called rates, this paper will refer to rates and taxes interchangeably. It will often refer to *tax rates* rather than 'the rate of rates.'

The Local Government (Rating) Act 2002 – hereafter, the Rating Act – allows local authorities to apply different tax rates to different groups of properties, and expresses the different tax rates as *differentials*, which is the ratio of one tax rate to another. For example, if residents pay a general rate of 0.2% of their property values and businesses pay 0.5% of their property values then the business differential is said to be 2.5:1 (ie, 0.5 divided by 0.2).

In addition to *general rates*, the Rating Act also allows local authorities to set *targeted rates*, which are rates used to fund one or more specified activities. Targeted rates are generally paid by a specific group of ratepayers for a specific service. A targeted rate can also involve different tax rates (ie, differentials) on different categories of ratepayers.

To cut through the terminology, this paper often uses the generic term *additional rates* on vacant properties. Unless necessary, this paper is silent on whether the additional rates would be a differential on general rates or on a targeted rate.

Rest of this paper

The remainder of the paper is structured as follows:

- section 2 provides a problem definition, ie, the potential problems in the vacant property and housing market that a revised rating regime could be targeted at eliminating or mitigating
- section 3 describes the options for charging additional rates on vacant properties and considers their practicality, such as in regard to defining vacant property and the information, rules and processes needed to administer the regime in ways that are sustainable and consistent with the policy goals
- section 4 considers the likely economic impacts of the options, including their impact on vacant properties and the housing market, the distribution of the economic burden of additional rates of vacant properties, and potential impacts on economic efficiency.

² In identifying these wider work priorities, the Minister suggested the Commission should consult with officials from Inland Revenue and the Treasury, which occurred on 13 August 2019.

2 Problem definition

A key feature of New Zealand's housing market in recent decades has been an incredibly slow supply response to changes in housing demand, driving up property prices, making it harder for those not owning a home to do so, and causing over-crowding and long wait times for houses.

The Commission's previous reports have summarised the adverse housing market outcomes and social and economic effects occurring in New Zealand (NZPC 2012, 2015, 2017). It has identified that the slow supply response is likely due to overly restrictive land-use regulation, which in some areas of New Zealand over-restricts the supply of land and what can be built on it. The Commission also identified other factors, including slow provision of infrastructure, legal constraints inhibiting the aggregation of separate land parcels and resource constraints in the construction industry itself.

However, the focus of this paper is on vacant properties rather than the broader housing market. In this context, the relevant questions include: is the level of vacant property inefficiently high and are owners of vacant land deferring development for private gain when it would be socially efficient to develop their properties for housing.

For example, in regard to the speed of development, there are concerns vacant-land owners hold onto their land to receive capital gains rather than developing and selling the developed properties to owner-occupiers and landlords or renting them to tenants. These concerns are often referred to as land banking, which carries the connotation the practice is inefficient and contributes to restricting supply responses to increases in housing demand.

As required by its terms of reference, the Tax Working Group considered housing affordability and whether housing tax measures would improve the tax system. After summarising factors constraining the supply of housing, the Group described the housing market problem succinctly:

High demand is not, by itself, a problem. The challenge relates rather to the interaction between supply and demand. If the supply of housing were more responsive (or, in other words, the elasticity of supply were higher), the additional demand could be met with less impact on house prices or rents. (TWG, 2018, para 8)

The Group's view that elasticity of supply is the central problem is correct, and it is useful to couch the housing market impact of taxing vacant properties in that context. If these taxes can increase the elasticity of housing supply then significant and ongoing benefits may come from the initiative.³ But if the elasticity isn't affected, then vacant property taxes are likely to deliver only transitory gains.

3 Description of vacant property taxes and tax bases

The severity of housing shortages varies from one council to another, with some not having a housing shortage. This paper assumes only some councils would end up levying vacant property taxes.

The Tax Working Group considered the merits of a tax on vacant residential land, a tax on empty homes in residential areas, and land taxes generally (Secretariat to the TWG, 2018a, pp. 24-5). This paper considers the same options.

The first two options specifically target owners of vacant properties to encourage them to bring their properties within the active housing market. In practice, councils could introduce both options as one unified regime, which would reduce avoidance risks and have greater impact on the housing market. However, it is convenient to discuss each tax separately, and leave it to readers to keep this 'unified option' in mind.

³ This is because any time that rapid demand growth calls for a rapid supply response, the initiative increases the rapidity of supply relative to the counterfactual where the policy initiative wasn't adopted.

Section 3.1 provides a high-level description of these options. The remainder of section 3 outlines the key design issues with each option, relating to:

- whether legislative changes would be required to adopt them
- definition of properties subject to the tax (the tax base or rating base)
- methods and processes for obtaining information about vacant properties
- anti-avoidance rules and penalties
- monitoring and audit processes
- administration and compliance costs.

3.1 High-level description of the rating options

The three options in this paper are defined as:

1. *Vacant land tax*: A differential rate on vacant residential land for which councils have provided infrastructure. The differential would apply to rating units in which there has been no registered dwelling on it for a specified period. The differential would be levied on the registered land value of the rating unit.
2. *Vacant dwelling tax*: A differential on vacant residential dwellings. The differential would apply to rating units in which a dwelling has not been occupied for a specified period within any 12-month period. The differential would be levied on the registered capital value of the rating unit.
3. *General land tax*: Councils using capital rating switch to general land rating. No legislative amendments are required for councils to make this switch.

Table 1: Comparison of key features of the options

OPTION	TARGET (WHO)	RATING BASE (WHAT)	REASON (WHY)
VACANT LAND TAX	Owners of vacant residential land with infrastructure	Land value of undeveloped sites	Encourage greenfield housing developments by discouraging land banking
VACANT DWELLING TAX	Owners of vacant residential dwellings	Capital value of property	Encourage the supply of available housing
GENERAL LAND TAXES	General approach with no specific target	Land value of all rate payers	All of the above plus encourage brownfield housing developments

Vacant land taxes in this paper apply to vacant land that is zoned residential and for which the council has provided infrastructure. The concern is that these land owners are content to hold onto their serviced and zoned land to receive untaxed capital gains (often called “land-bankers”), rather than sell it to a property developer or develop it themselves for on-selling or renting. This holding of vacant land is sometimes viewed as restricting greenfield developments and the flow-on supply of housing to the rental and owner markets.

Vacant dwelling taxes reflect concerns that a high level of empty dwellings is socially wasteful, and restricts the supply of available houses to renters and so increases the pressure on rental prices overall.

Melbourne, Vancouver and France impose additional rates or taxes on vacant dwellings for those reasons. In the United Kingdom, a primary concern seems to be that dwellings left empty for many years are often a blight on communities, and so that's the focus of their regime.

In practice, vacant land and dwellings are only seen as having high opportunity costs for society when and where there is a high level of unmet demand for housing. As discussed later in this paper, the introduction of taxes may have far more powerful effects on pricing and supply dynamics than an ongoing differential. This potentially raises further design issues around the timing and control of the taxes, and consequent information and reporting requirements.

General land taxes don't specifically target owners of vacant properties. Rather they involve councils shifting their general rates system to land value rating if they don't already use that approach.⁴ This would place a larger share of the rating burden on property owners that have a larger-than-average share of property value tied up in land value. In doing so, it leaves a higher rates bill on owners of vacant land than occurs under capital value rating.⁵

The aim of switching to general land taxes is to address concerns that recent moves away from land value and annual value rating to capital value rating may have discouraged all forms of property development and reduced the cost of holding vacant land. Whereas vacant property taxes impose additional costs for *not* developing land or *not* renting dwellings, general land taxes apply to the other side of the ledger: they reduce the costs and risks of property development, whether greenfield, brownfield or infill.

3.2 The legislative situation for charging additional rates on vacant properties

The Tax Working Group requested legal advice from the Department of Internal Affairs (DIA) about whether a local authority wishing to impose a differential rate on vacant property could do so under current legislation, in particular in the Local Government Act 2002 (LGA) and the Rating Act. This subsection draws heavily on that advice. A summary of the legislative provisions prescribing local authority powers to set targeted and/or differential rates is provided in Appendix 1 in CSA's research note.

3.2.1 The key provisions

Schedule 2 of the Rating Act lists the factors that may be used to group properties for the purpose of setting differentials, whether for general or targeted rates. These factors are presented in section 3.3 and do not appear to require amendment for vacant property taxes to be used by councils.

However, the DIA raises doubts about whether councils could lawfully charge differential rates on vacant properties under the requirements of s.101(3) of the LGA. Section 101(3)(a) requires councils to fund each activity from sources they determine are appropriate, following consideration of:

- (i) the community outcomes to which the activity primarily contributes; and
- (ii) the distribution of benefits between the community as a whole, any identifiable part of the community, and individuals; and

⁴ 71% of councils used capital value rating in 2019, raising 88% of general rates revenue in New Zealand (NZPC, 2019).

⁵ Capital value rating is a tax on both land and improvements, and therefore discourages all property developments, including housing developments. As councils are required to deliver balanced budgets, then for given levels of expenditure and non-rates revenue, they need to raise the rest from rates. One option is to obtain this revenue from rates on land values. Relative to doing that, capital value rating lowers the rates liability of those holding vacant land and land with low value improvements. In effect, capital value rating provides favourable treatment of vacant land (and of land with low value developments on it, including low value and low density housing).

- (iii) the period in or over which those benefits are expected to occur; and
- (iv) the extent to which the actions or inaction of particular individuals or a group contribute to the need to undertake the activity; and
- (v) the costs and benefits, including consequences for transparency and accountability, of funding the activity distinctly from other activities.

These requirements need to be considered in the context of s.101(3)(b) of the LGA, which requires councils to consider the overall impact of their funding decisions on the current and future social, economic, environmental, and cultural wellbeing of the community. These wider considerations appear to allow greater flexibility than a strict reading of s.101(3)(a).

3.2.2 Application to vacant residential land

According to papers prepared for the Tax Working Group, the DIA considered it was reasonably arguable that vacant residential land benefits from the council's investment both in rezoning and servicing the land with infrastructure, and so it could well be possible to design a targeted rate to recover those *additional* costs (Secretariat to the TWG, 2018c, p. 26).⁶

As the Secretariat paper makes clear, the underlying rationale for the differential rate would best be linked to demonstrable costs a council has incurred, which suggests it can't be a Pigouvian tax designed only to incentivise land development (Secretariat to the TWG, 2018c, p. 26).

Although not discussed in the paper to the TWG, the additional costs refer to costs arising from the inaction of property owners to fill their vacant properties,⁷ as this leads to a requirement for the local authority to provide more services and infrastructure to service the additional housing stock required to meet the needs of the residential population of the community.

However, in my view this argument contradicts the policy rationale for differential rates on vacant properties, which is that they're contributing to a shortage of available housing, resulting in overcrowding within dwellings, greater use of temporary accommodation such as motels and campgrounds and people 'sleeping rough' in cars and on streets.

Moreover, if councils have already recovered their costs through development agreements, then presumably they won't have a cost basis for levying differential rates on vacant land. Similar comments apply to cases where no infrastructure investment has been made.

Based on the above considerations, amendments to the LGA appear necessary to properly enable councils to apply differential rates to vacant land for the purpose of affecting housing supply.

3.2.3 Application to vacant residential dwellings

Although councils might be able to apply differential rates to vacant residential land, the DIA's advice to the Tax Working Group was that it is doubtful a differential rate could be set for vacant dwellings under current statutory provisions (Secretariat to the TWG, 2018c, p. 25).

The reason for this view isn't clear from the papers provided to the Tax Working Group. If the additional costs discussed above relate to council provision of infrastructure services, then the same additional costs would occur in regard to vacant dwellings. The Secretariat paper identifies administrative

⁶ The Secretariat paper states the DIA advised this was especially the case for large blocks of vacant land that are capable of subdivision.

⁷ As shown in the above list, s.101(3)(a)(iv) of the LGA allows councils to consider the costs of inaction.

problems with councils obtaining reliable information about whether dwellings are actually vacant, but those are administration rather than legal issues.

3.2.4 Conclusions

Amendments to the LGA appear necessary for targeted and/or differential rating of vacant residential dwellings and probably also for vacant residential land. Legislative amendments would not be required for councils using capital rating to revert to land value rating.

The remainder of section discusses the key design features and practicalities of the three options as if Parliament has enacted amendments to the LGA to make the features legal.

3.3 Definition of rating base for each option

The rating base for vacant land could be either land value or capital value. If the latter, it would include the value of the developer's infrastructure.

The rest of this section discusses the criteria councils would likely use to define vacant residential land and dwellings. Before doing so, it is useful to note that Schedule 2 of the Rating Act lists factors councils may use to group properties for the purpose of setting differentials, whether for general or targeted rates. These factors are:

- land use
- land area
- location
- the provision of, or ability to connect to, a council-provided service
- property values, as measured by either land value, capital value, or annual value
- activities that are currently (or proposed to be) permitted, controlled, or discretionary under the Resource Management Act 1991 (RMA).

The 'land use' factor could be used for grouping vacant properties separately from other properties and the 'land area' factor could be used to set a minimum threshold in terms of the size of rating units. The 'location' factor could be used to include only certain areas of a local authority district, and the 'provision of council services' factor could be used to include only vacant land that has infrastructure provided to it.

3.3.1 Definition of taxable vacant land

International examples of vacant land taxes

Amirtahmasebi, Orloff, Wahba, & Altman (2016) report on a World Bank review of vacant land taxation around the world. However, the study appears to treat split-rate property tax systems as vacant land taxes. Split-rate systems are where different tax rates apply to land value and improvements. While they result in higher tax rates on vacant land, they also apply higher tax rates to all land.

Amirtahmasebi et al (2016, p. 112) report:

Taxing vacant land parcels has its challenges and problems. Most importantly, it is a costly exercise because it requires a two-rate or split-rate property tax system to assess both improvements to the building site (if any) and the land value. As noted, assessments are expensive and many developing countries lack experienced assessors to perform a sound assessment of land value, regardless of improvements in or around it. Another issue concerns the definition of vacant land, which has to be carefully formulated to ensure an equitable taxation system while also discouraging speculation and blight.

Infrastructure and zoning

The aim of taxing vacant residential land is to discourage land banking to reduce land prices and increase the supply of housing. For these reasons the rating base would exclude any land that isn't serviced with infrastructure or isn't zoned for residential use ("residential land"). As infrastructure and zoning decisions are made by councils, it is in their power to ensure sufficient serviced land is available for population growth.

Resource consents

Similar arguments apply for resource and building consents, and so in principle the rating base should exclude land for which consent requests have been lodged. However, this could create opportunities for land owners to game the system by submitting unreasonable consent requests to defer paying additional rates. Although resource consent fees would make gaming unprofitable for owners of low value land parcels, it could be profitable for high-value land owners.

The pragmatic approach for councils would be to tax land regardless of whether a resource consent request has been lodged but adopt a minimum value of land below which the tax wouldn't apply.⁸ This approach would avoid councils and land owners dealing with fluctuating circumstances, such as where an application for resource consent has been declined (and so the tax would apply) and then a new consent application is made (and so the tax wouldn't apply). However, as discussed later, this would add costs and risks to property development, and so works against the aim of increasing the supply of affordable housing.

Building permits

In general, property owners have strong incentives to build as soon as they receive their resource consents so they can recover their costs as soon as possible, either from sale of the completed build or by earning rental income. However, if the tax regime ended once resource consents were received then land owners who were land banking could continue to do so, by not building anything. This would neuter the purpose of the tax regime.

It would therefore be necessary to impose the tax regime on land until building is actually occurring, and this would apply to land owners that had never intended to land bank. Doing this would maintain incentives on land bankers to undertake timely construction, but it increases the cost of housing because it applies to land owners that were going to develop their property anyway.

One option would be to allow a grace period for completing a build, with the period starting from the date of the resource consent. A one- or two-year grace period might seem reasonable for developing a single section, but it would be completely inadequate for large blocks of property development. A five or 10-year grace period would be far more appropriate but this would greatly undermine the goal of the vacant land tax because substantial land banking could occur in that timeframe.

The most pragmatic approach may be for councils to include in the rating base land regardless of whether the owner is awaiting the final building permit. A refinement would be to allow parties to claim a credit against their future rates bills after they've completed their build, with the credit equal to the additional rates paid since the date of resource consent on buildings completed within timeframes calculated from a formula ("the grace period formula") to cater for different sizes of property development.

⁸ There are also other reasons for de minimus provisions, discussed below.

For example, the grace period formula could be the maximum of one year and a non-linear function of the number of units to be built.⁹ Suppose the formula specified a seven-year timeframe for completion of 100 units. If only 80 units were completed in that timeframe then the credit would be 80% of the maximum possible credit. If no development occurs then no credits can be used.

Clearly this approach would set unrealistic timeframes in many cases (either too fast or too slow) because the formula would not take into account any other factors affecting build timeframes. It would also be a little complicated to communicate and a little costly to operate, however these costs would need to be weighed against the benefit of lower rates applied to residential property development.

This rest of this paper assumes a reasonable grace period formula would be used by councils that decided to levy vacant land taxes, as otherwise they would be imposing significant additional costs on large scale property development.

Temporary dwellings

Vacant land is generally defined as land without any permanent structures on it. However, if this definition was used for rating purposes it would include residential land with tents, caravans and mobile homes on it, discouraging low-cost holiday parks and the provision of these forms of dwellings for permanent residence. This would reduce the supply of temporary or mobile dwellings and increase demand for permanent and immobile dwellings, working against the objective of the vacant land tax. It would also end up penalising people seeking very low-cost accommodation, who are predominantly people on low incomes.

Hence, the definition of vacant land for rating purposes will need to exclude land with temporary and mobile dwellings that cover a sizeable portion of the land, eg 40% of the land surface area, and are occupied a reasonable portion of time. The vacancy/occupation issues give rise to many of the same definitional issues discussed in the next subsection about vacant residential dwellings. If the definition didn't require minimum surface cover and occupancy, then it would be very easy for a land owner to avoid the tax.

Permanent dwellings

It is also inadequate to define land as occupied if it has a permanent dwelling on it. This would mean large plots of land containing very small permanent dwellings would be excluded from paying the additional rates. If the permanent dwelling doesn't have to be inhabitable then again it would afford many large land owners with a very low-cost way of avoiding the additional rates without increasing available housing. If it does have to be occupied (and therefore inhabitable) for a portion of the year, then again it reaches into the definitional issues in the next subsection.

Hence, the definition of vacant land for rating purposes will need to include provisions about the proportion of the land covered with inhabitable dwellings. Councils typically allow a maximum portion of residential land to be covered with permanent structures. However, they would now need to specify a minimum portion of land to be covered by permanent structures. The owners of any land breaching those minimums would pay additional rates.

Setting minimum densities carries significant risk. If they're set too low, then again it could be relatively low cost for land owners to avoid the additional rates. If they're set too high it could capture low-density properties that are not considered to be a form of land-banking. In New Zealand's low-density towns and cities, the quarter acre section is common and cherished. Moreover, land use is highly varied within New Zealand towns and cities, with hobby farming, hobby gardening and lifestyle blocks quite common.

⁹ A common non-linear function is the square root function, often written as $y = \sqrt{x}$. This function would provide a seven-year grace period for building 50 units and a 10-year period for building 100 units.

Setting a minimum density could drive disparate land owners across a town or city to re-develop their properties, adding extra burden to council infrastructure requirements. It wouldn't be acceptable for councils to address this by accepting only building consents that concentrate their infrastructure expansion because that would unreasonably block developments by land owners, and of course would detract from the policy goal of increasing housing supply.

The most likely solution to these problems is to adopt, in addition to a minimum density threshold, a minimum size of land potentially subject to additional rates. The Chartered Accountants of Australia and New Zealand (CA ANZ) has suggested a minimum threshold of an acre or 4000 m² (CA ANZ sub. DR250, pp. 4-6).

Land that isn't feasible or commercially viable to develop

A minimum size threshold doesn't deal with large land parcels that aren't suitable for development or for which development isn't commercially viable, for example land with stability issues, cliff faces, gullies and so on. The definition of the rating base would probably need to include technical provisions for exemptions for these components of land or broad discretion left with councilors and officials.

Residential land owned by businesses

Businesses that wish to be close to residents, such as supermarkets, may also own vacant residential land with the aim of getting it re-zoned for commercial use. But it doesn't always make sense for businesses to seek re-zoning immediately upon purchasing land if it makes more sense to accumulate adjacent land before doing so.

As Foodstuffs stated in its submission on the Draft report (Foodstuffs Limited, sub. DR235, p. 3), they often need to acquire separate adjacent parcels of land, often over long time periods, to have enough land to build to an efficient scale, and sometimes they have to wait a long time for consents or for a local catchment to develop sufficiently to make a supermarket investment viable. On the other hand, businesses may buy land to block their competitors rather than to build on it, but in general it will be too difficult to ascertain their real intentions.

Charging additional rates on vacant residential land owned by businesses increases the cost of business. In principle it would be efficient to exempt such land because such specific rates alter business' input decisions, reducing their productivity. But in practice, many land owners structure their activities in business entities and so they would also be exempt from additional rates, which would greatly undermine the goal of the vacant land tax regime.

One pragmatic solution would be to not have any exemption for business owners of vacant residential land, however this could create significant economic costs. These costs could be reduced by refining the provision to allow businesses a credit against their future rates bill when they build their commercial buildings, where the credit equals the additional rates they've paid under the vacant land tax regime.

Land that is currently exempt from rates

Schedule 1 of the Rating Act lists types of land that are fully non-rateable. Vacant land taxes wouldn't apply to any of those lands.

Schedule 2 of the Rating Act lists land that is 50% non-rateable. This includes land owned or used by a society incorporated under the Agricultural and Pastoral Societies Act 1908 as a showground or place of meeting. It also includes land owned or used by a society or association of persons that is used for games or sport (except galloping races, harness races or greyhound races) or used for the arts. As showgrounds, meeting places, games and sport can involve large land parcels, and they are not being held for the purpose of land banking, they should be exempt from the rating base for vacant land.

The Crown is also a major landowner in New Zealand cities, and should face similar incentives to the private sector to hold or release land. Core Crown land has long been exempt from general rates. No principled reason for this is apparent. Rating Crown land would provide government agencies with the same incentives that private owners face to use land or release it to those who will develop it. Similarly, some land owned by councils is non-rateable. Rating such land would help make clear the opportunity cost of councils' own land use decisions (NZPC, 2015, pp. 4-5). However, this paper assumes vacant land taxes wouldn't apply to core Crown land.

Summary

In summary, the rating base for vacant land could be residential land that:

- is serviced with infrastructure and zoned for residential use; and
- doesn't come within the definition of land listed in Schedule 1 of the Rating Act (land fully non-rateable) and Schedule 2 of the Rating Act (land 50% non-rateable); and
- exceeds a minimum size, such as an acre or 4000 square meters; and
- doesn't have any dwellings on it, or if it has dwellings:
 - the surface area covered by permanent dwellings exceeds a minimum percentage, such as 10%, unless the land has temporary dwellings on it
 - if the land has temporary dwellings on it, such as caravans or mobile homes, then:
 - the surface area covered by them exceeds a higher threshold, such as 40%; and
 - the dwellings are not vacant residential dwellings as defined for the VDT option; and
- hasn't received an exemption for being infeasible or commercially non-viable for development.

To reduce avoidance risks, the tax regime would apply to:

- residential land for which resource consents are being sought for residential development, but low-value land parcels would largely be exempted from this requirement due to the minimum size provision in the third bullet point above
- residential land for which residential building is scheduled to occur or has been occurring, however land owners would receive a credit against their future rates bills for completing their builds in accordance with a grace period formula
- residential land owned by businesses, however they would receive a credit against their future rates bills whenever they complete their commercial buildings.

The rest of this paper is based on the above approach to defining land subject to vacant land taxes.

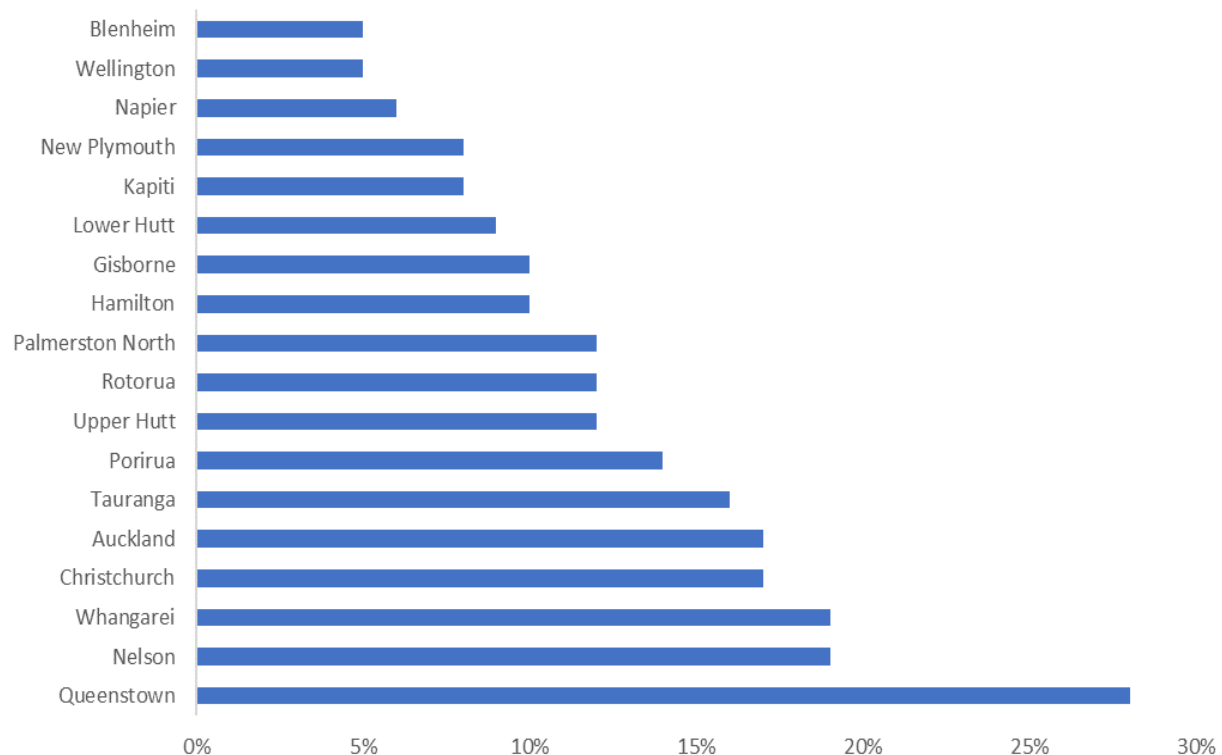
A 'back of the envelope' estimate of the vacant land tax base for Auckland

Unfortunately, information about vacant land tax bases in other jurisdictions is very limited, and so we don't have information about how different definitions of vacant land affect the size of the tax base. To indicate the magnitude of the exemptions, this subsection estimates taxable vacant land for Auckland. This shows the cascading effect of the various exclusions.

To estimate the tax base, we start with the volume of undeveloped residential land and deduct estimates of the volumes that would be excluded from the tax base.

The Ministry of Business, Innovation and Employment (MBIE) has a dashboard of indicators about the housing and land markets in New Zealand.¹⁰ The dashboard shows the amount of undeveloped residential land in each urban area listed on the dashboard (presented in Figure 1 below).

Figure 1: Undeveloped residential land as a percentage of total residential land, for selected territorial authority areas, 2019



For the Auckland region, for example, 4,974 hectares of residential land is classified as undeveloped, amounting to 17% of total residential land. About 9% of Auckland's undeveloped land was owned by central and local government, and so private undeveloped urban residential land accounted for 15% of total residential land.

The exclusions are calculated as follows:

- Exclusion 1: Vacant land owned by non-taxable entities (eg central & local government).

The MBIE dashboard provides data on the largest 100 land holdings for each of four Auckland zones. This data shows that central and local government own about 116 hectares of undeveloped urban residential land in the Auckland region.

- Exclusion 2: Vacant land below the minimum size threshold.

The amount of vacant land below the 4000sqm minimum threshold greatly affects the tax base. CSA has calculated from the MBIE dashboard that 72% of the 1,114 hectares of vacant residential land in the Auckland Central zone are one hectare or smaller. The corresponding statistic is 45% for the Northern Auckland zone. The MBIE dashboard only shows the largest 100 land holdings for each zone, and so we were unable to reach as low as 1 hectare for the

¹⁰ See the price efficiency indicators/land concentration control at <http://urban-development-capacity.mbie.govt.nz/>

other two zones. However the Western Auckland zone had 45% below 2.2 hectares and the Southern Auckland zone had 47% below 1.8 hectares. The weighted-average of these results is 51% for the Auckland region. As a rough approximation, CSA has assumed 25% of vacant residential land in the Auckland region is below 4000sqm, which amounts to 1,244 hectares.¹¹

- Exclusion 3: Land not feasible or commercially viable to develop

CSA hasn't obtained any evidence for the portion of private vacant land that is infeasible or non-commercial to develop. It is reasonable to assume private parties try hard to avoid owning a significant amount of such land parcels, and so we have assumed a 2–5% range for large land parcels.

- Exclusion 4: Land not serviced with council infrastructure

According to their guide for using the dashboard, the land included in the index is likely to be serviced with network infrastructure (MBIE & MfE, 2017, p. 131). However, this isn't consistent with the evidence the Productivity Commission obtained during its inquiry into urban planning. The Commission received submissions from several developers claiming their ability to deliver housing in a timely manner was constrained by the supply of infrastructure or uncertainty about the adequacy of existing networks (NZPC, 2017, p. 283).

The Commission obtained evidence from the Auckland Independent Hearings Panel that about 3,203 hectares of future-urban-zone land had been waiting for wastewater infrastructure (NZPC, 2017, pp. 283-4). This represents 64% of the 4,974 hectares of residential land classified as undeveloped for Auckland. However, the 3,203 hectares relates to land that isn't currently zoned residential. It seems reasonable to assume a range of 10–20% of residentially zoned land is without infrastructure.

Combined, exclusions 3 and 4 remove 438 – 913 hectares from the tax base.

- Exclusion 5: Grace period for land that has only recently become vacant

As discussed earlier, councils would likely recognise it takes considerable time for developers to develop large land parcels. Hence, they would establish a grace period formula to exclude land that had been vacant within the grace period.

For illustrative purposes, this paper assumes a very simple minimum grace period approach, consistent with the approach adopted by Seoul (South Korea). Seoul allows a two-year grace period (Amirtahmasebi et al, 2016), but the long gestation period for planning, consenting and building in New Zealand suggests the grace period should be considerably longer. For large land parcels, it can take considerable time for demand for new houses to fill up the property. We assume a grace period range of 4–6 years. This removes 1,577 – 2,016 hectares from the tax base.

The result of these adjustments is a tax base ranging from 724 – 1,638 hectares, which is 15–33% of the 4,974 hectares of residential land classified as undeveloped. Figure 2 shows the above calculations in a funnel chart.

Figure 2: Estimate of potential taxable vacant land in Auckland

¹¹ Note, all public land parcels exceed the minimum size threshold.



3.3.2 Definition of taxable vacant dwellings

Introduction to Vancouver and Melbourne regimes

Vancouver City and Melbourne have recently introduced vacant dwelling taxes, which share many common features. The Vancouver regime came into effect in 2017 and the Melbourne one in 2018. This paper draws on the details of these regimes below, however few statistics are available about the Melbourne regime, presumably due to its recency.

The City of Vancouver introduced an Empty Homes Tax, also known as the Vacancy Tax, to help return empty and under-utilised properties to the market as long-term rental homes for people who live and work in Vancouver. The aim was to relieve pressure on Vancouver’s rental housing market, which had one of the lowest rental vacancy rates and highest rental costs of any Canadian city (City of Vancouver, 2019b, p. 1).

Interestingly, the Empty Homes Tax also applies to vacant unimproved residential land that is not in the development process, unless there is an existing dwelling unit on the land, permits to build or develop have been applied for and are under review, and the application to build is being diligently pursued.¹² Hence, some vacant residential land in the City of Vancouver is taxed even though the title refers only to empty homes.

The converse applies in Melbourne. Melbourne introduced a tax on vacant residential dwellings in its inner and middle suburbs, taking effect on 1 January 2018, and did so for similar reasons to the City of Vancouver. However, although it’s called the Vacant Residential Land Tax it applies only to empty dwellings and not at all to vacant residential land, with one exception. The exception is that the vacant land has previously had a residential dwelling on it, construction of a new dwelling is occurring and has taken longer than two years to complete and receive a building permit.¹³ Once the two year period expires, the property will be subject to the tax if it is vacant for more than six months in the calendar year, irrespective of any efforts to advertise that property for rent or sale during that time.¹⁴

Commercial and other short-term accommodation

¹² See <https://vancouver.ca/home-property-development/will-your-home-be-taxed.aspx>

¹³ <https://www.sro.vic.gov.au/vacantfaq#2>

¹⁴ The 22,000 figure comes from <https://www.pitcher.com.au/news/new-vacant-residential-land-tax-commences-1-january-2018>

As the aim is to charge additional rates on properties that could reasonably be available for lengthy periods of renting, the rating base would exclude ratepayers providing commercial accommodation (or leasing property to commercial accommodation providers) as they're clearly in the market for leasing or renting properties. Commercial accommodation includes motels, hotels, youth hostels, student halls of residences and the like.

Likewise, dwellings used by community groups to provide short-term accommodation should be excluded from the rating base. Some of these may be excluded anyway as they're included in Schedule 1 of the Rating Act.

For ease of exposition this paper defines private dwellings as any dwellings that are not in the list of dwellings providing commercial and other short-term accommodation services.

Principal places of residence

In regard to private dwellings, the rating base would exclude each ratepayer's principal place of residence. Although homeowners can be absent for lengthy periods of time, it is their home. Although some people let their homes when they're away for lengthy periods, it is not reasonable to presume people should do so as their home is personal to them; it is where they keep their personal effects and valuables. Hence, it is reasonable to exclude each ratepayer's principal place of residence even if the dwelling is empty for a long period of time.

One issue is whether the definition of a ratepayer's principal place of residence should be just in relation to New Zealand or worldwide. Although each council is only concerned about its own ratepayers, it would need to take at least a New Zealand-wide perspective of a principal place of residence.¹⁵ Otherwise ratepayers could have a principal place of residence in multiple districts, which would undermine the objective of a vacant dwelling tax.

A worldwide perspective would mean that all foreign-owned properties could potentially be included in the rating base, as foreign owners have their principal place of residence outside of New Zealand. Australia, for example, introduced a measure in 2017 that imposes a flat fee of \$A5,000 on foreign-owned properties that are not occupied or are not genuinely available for rent for more than six months in any 12-month period.¹⁶

Vacancy time-based test

The rating base would also exclude vacant private dwellings that have recently been tenanted because it takes time for landlords to undertake repairs and maintenance and find new tenants or sell the property. This is called a *time-based test*.

The time-based test in both Vancouver and Melbourne is that residential rental properties are potentially vacant for rating purposes if they have been vacant for an aggregate of six months or more in a given year. A quick search of NZ property management websites indicates that properties are usually tenanted within one to two weeks in areas of high demand, but it can sometimes take one to two months or more.¹⁷

¹⁵ This is the approach taken in the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004. These regulations require New Zealand electricity distributors and retailers to offer consumers a tariff with a low fixed charge for their principal place of residence. This means distributors and retailers serving consumers in one location have to take into account whether those consumers have a principal place of residence outside of the distributor's service area.

¹⁶ <https://www.step.org/news/australia-imposes-new-taxes-foreign-owners-residential-property>

¹⁷ For example, see <http://www.propertymanagementinauckland.co.nz/how-long-will-it-take-to-rent-my-property/>.

Given these factors, and the six-month time-based test elsewhere, it seems likely New Zealand councils would adopt a six-month test if they sought to tax vacant dwellings.¹⁸ A six-month period allows for cases where properties have multiple turnover of tenants and cases where landlords undertake repairs, maintenance and renovations. It also automatically excludes most private dwellings targeted to the university student market, as students are typically absent for the summer months.

General exemptions

After applying the time-based test, vacant dwellings may still be excluded from paying additional rates if they satisfy one or more exemption criteria. The aim of the criteria is to reduce the risk of capturing properties that “could not reasonably” be available for rent or when it would be harsh to impose additional rates.¹⁹

As in Vancouver and Melbourne, it is reasonable to assume New Zealand councils would exempt dwellings:

- whose owner recently passed away or is in intensive medical care or a nursing home
- that were vacant due to disputes that are awaiting mediation, arbitration or court orders
- that were vacant due to ongoing major construction or renovation works.

Clearly, the definition of each type of exemption would need to be very carefully worded, but it would be reasonably simple to determine the circumstances in all but the construction and renovation situation.

In the Melbourne regime, properties being constructed or renovated are not considered vacant for tax purposes for up to two years from when construction or renovation starts. Although this approach may err on the generous side for many owners of vacant dwellings, it would be relatively simple to administer. The main point of contention would be when construction or renovation started. However, councils may be able to determine the starting point with reasonable accuracy by requiring owners to supply bank statements or their accounting records or by obtaining information from Inland Revenue.

Dwellings for sale

In the Melbourne regime, properties that change ownership during a year are exempt from additional rates in the following year. This approach recognises that (1) it can often take longer than six months from when a rental property is put on the market for sale to when a change of ownership occurs and (2) properties put up for sale are quite often vacant or become vacant early in the marketing and sale process and, as the property is for sale, it is not reasonable for the authorities to penalise the seller for not renting it out.²⁰

One downside with the above approach is it imposes additional rates on owners who try for more than six months to sell a vacant dwelling, and then decide to withdraw it from the market. It seems rather

¹⁸ Rental and tenancy regulations are relevant to determining the period for the time-based test, as landlords will on average wait longer to fill their properties in the hope of securing a better tenancy if regulations restrict their flexibility to adjust their circumstances.

¹⁹ The quote marks reflect that property owners have strong financial incentives to rent their vacant dwellings, as they incur significant fixed costs regardless of the occupancy of the property. Their decisions to leave their properties vacant implies they viewed vacancy was reasonable in the circumstances they faced. In effect, councilors and their officials would be over-riding the views of property owners about what is reasonable when a property failed to obtain an exemption.

²⁰ Although the seller is still required to pay additional rates for the year in which the property was vacant for more than six months, the simplicity of the full-year exemption for the following year makes it easy for the sale price to be adjusted so that the exemption is in effect passed through to the seller.

harsh for the owner to incur all the expenses and forgone rental of trying to sell a property and then to have to pay additional rates because they failed to sell it.

Another downside is that it provides a windfall gain to owners of dwellings that would've been vacant for more than six months even if the marketing and sale process was relatively quick. For example, the exemption would be a windfall gain to an owner that has a dwelling that is vacant for eight months and then decides to put it on the market for sale and sells it before the end of the year.

To reduce these downside effects, an alternative approach would be to exempt dwellings that have taken a prolonged period to actively market for sale or to actively market and sell, where 'sell' would be defined as the date when final settlement occurs or is scheduled to occur. The prolonged period could be 150 days or more. This approach would require more information be provided to the council and the council would have to make more decisions, such as determine what is active marketing and when active marketing starts and stops. This could be problematic when owners try to sell their property, stop marketing actively for a period, and then start the process again.

Given the complications of the alternative approach versus the simplicity of the Melbourne approach, it seems likely New Zealand councils would adopt the Melbourne approach notwithstanding its downsides.²¹

Second homes - holiday homes

Many New Zealanders own holiday homes, which they keep empty so they can be used at their whim. Statistics New Zealand records the number of dwellings unoccupied on census night, and the number that are empty. Statistics New Zealand classifies each as follows:²²

- an unoccupied dwelling is one that is unoccupied at midnight and at all times during the next 12 hours following midnight on the night of data collection
- an unoccupied dwelling is classified as 'empty' if it clearly had no current occupants and new occupants are not expected to arrive or move in on, or before, census night. Unoccupied dwellings that are being repaired or renovated are defined as empty dwellings.

Figure 3 on page 26 shows the proportion of dwellings unoccupied and empty on census night 2018 for each territorial authority area. The average percentage of empty dwellings is low in commerce-oriented cities, with Auckland City at 3.2%, Hamilton City at 2.5%, Wellington City at 2.8%, Dunedin City at 3.4% and Invercargill City at 2.8%. The figure for Christchurch City was 4.5%, which likely reflects the ongoing effects of the 2011 earthquake.

Very high rates of empty dwellings were recorded for Thames-Coromandel (32.6%), Taupo (17.5%) and the Queenstown Lakes District (16.7%). Clearly a high proportion of dwellings in these areas are holiday homes.

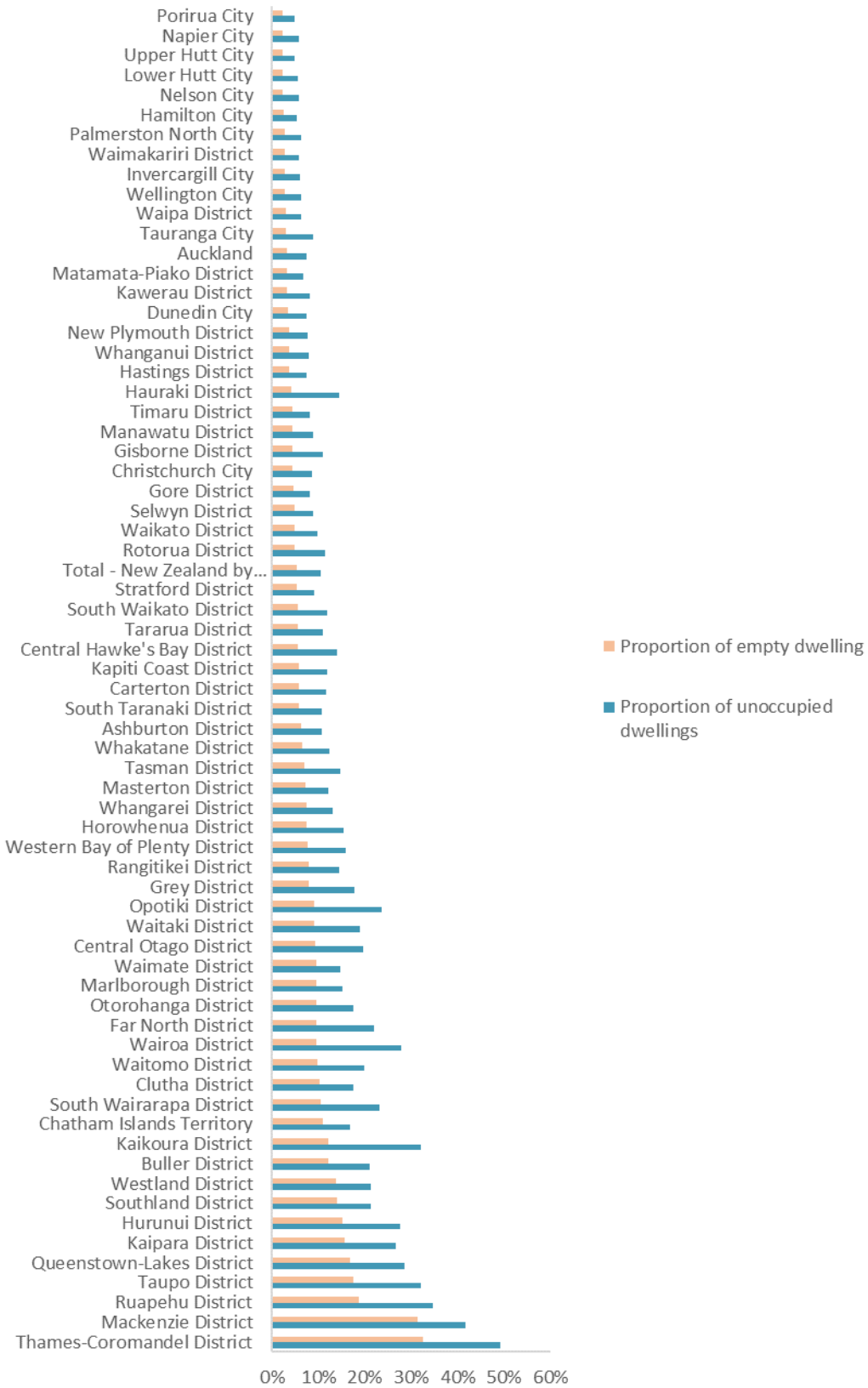
Figure 3: Proportion of dwellings unoccupied or empty by territorial authority, 2018²³

²¹ Provisions would be required to exclude sales to family members and related parties.

²² See information page at http://nzdotstat.stats.govt.nz/wbos/index.aspx?_ga=2.217883094.1520579957.1575672447-1603348174.1560652460#

²³ Source: Statistics New Zealand: Occupied dwellings, unoccupied dwellings, and dwellings under construction, for private and non-private dwellings, 2018 Censuses (RC, TA, SA2, DHB)

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The six-month test would catch holiday homes if they're occupied for less than 180 days in a year. It is difficult to know whether councils wanting to tax vacant second homes would want to apply them to holiday homes, especially baches and chalets. Also, it shouldn't be assumed that doing so would be politically sustainable for councils, particularly for those with a high share of holiday homes (as all ratepayers can vote in local council elections).

The Vancouver and Melbourne regimes apply to holiday homes. Since 2014, France has levied a housing tax surcharge specifically on holiday homes in areas of housing shortage in the country (Secretariat to the TWG, 2018c, p. 21). Also, since 2014 councils in the UK have been allowed to levy a rates surcharge on empty houses, with the aim of bringing empty properties back into use and reducing the blight of unoccupied homes.²⁴ However, the UK regime doesn't apply to second homes where the owner can prove s/he uses it for more than 25 days a year.

Naturally, the request from the Minister wasn't specific about holiday homes. On the one hand the stated reason for the request was to consider whether taxing vacant properties would be a useful mechanism to increase the supply of available housing, which appears similar to the rationale for the commerce-oriented cities of Vancouver and Melbourne (where holiday homes are unlikely to be a high percentage of homes). On the other hand, the preference to have councils choose whether to tax vacant dwellings seems to reflect the UK rationale.

In keeping with the Vancouver and Melbourne regimes, this paper assumes councils of commerce-oriented towns and cities would tax all holiday homes that are vacant for six months or more, whereas resort-oriented towns and cities would exempt holiday homes, or at least exempt small holiday homes such as baches and chalets, provided the owner and/or family members occupied the dwelling for a minimum period during the year, such as 21 days.

Other second homes

In their submission on the Draft report, the Society of Local Government Managers (SOLGM) questioned whether second homes brought in expectation of retirement in the medium-term would be exempt from the regime (SOLGM, sub. DR176, p.8). Councils are unlikely to view it as feasible or desirable to provide this exemption if their regime applies to holiday homes.

In Vancouver, an exemption is provided for second homes if the registered owner occupied it for at least 180 days of the tax year because their work required a physical presence in the city of Vancouver ('business homes'). Their work must be fulltime for this exemption to apply. The Melbourne regime includes a similar exemption, but the occupancy requirement is at least 140 days and the property must be in Melbourne's inner and middle suburbs and the owner's principal place of residence must be outside Melbourne.

One simple option to deal with all of the above issues – holiday homes, future retirement homes and 'business homes' – would be to exempt not only an owner's principal place of residence but also a second dwelling nominated by the owner, provided certain conditions are met. One condition might be the owner can furnish proof s/he, or family members, have occupied the dwelling for a minimum period during the year, such as 21 days. Another condition might be the second home is within 10km of a list of a designated holiday locations in the district.

Although exempting second homes may materially reduce the rating base, it would be feasible to administer at reasonable cost. Owners with more than two dwellings in the rating district would still pay additional rates on any other vacant properties they own.

²⁴ <https://www.bbc.com/news/uk-scotland-45476146>

Uninhabitable dwellings

In Vancouver, exemptions are not provided for properties classed as uninhabitable. Clearly, granting exemptions on this basis would provide property owners with strong incentives to make their properties temporarily uninhabitable, eg by removing the toilets, to avoid the additional rates. It is reasonable to assume New Zealand councils would adopt a similar approach.

Summary

Most of the above details are common to the Melbourne and Vancouver regimes, and for the reasons discussed above it is likely New Zealand councils would adopt similar provisions. The one significant difference is the proposed approach to holiday homes, such as baches and chalets, which we've assumed would be treated more leniently in New Zealand.

In summary, the rating base for vacant dwellings would be dwellings for which:

- the dwelling is not a commercial dwelling; or
- the dwelling is not the owner's principal place of residence; or
- [in the case of councils of resort-oriented towns and cities] the dwelling is not the owner's holiday home, being:
 - a dwelling located within 10km of a holiday location in the district
 - the owner provides evidence of having lived in the holiday home for at least 21 days during the year in which the vacancy is being assessed (the "assessment period"); and
- the dwelling is not a second home used by the owner for business purposes ('business home'), being:
 - a dwelling located in the inner or middle suburbs of the commercial centre of the district and at least 100km from the owner's principal place of residence
 - the owner provides evidence of having lived in the 'business home' for at least 140 days during the year in which the vacancy is being assessed (the "assessment period"); and
- the dwelling has been vacant for an aggregate of 180 days or more during the assessment period; and
- the owner of the dwelling has not passed away or has not been in hospital or a nursing home for a prolonged period, such as 30 days or more, during the assessment period; and
- the dwelling was not sold during the assessment period; and
- the dwelling was not vacant due to:
 - construction or renovation works occurring for a prolonged period, such as 90 days or more, during the assessment period; or
 - court orders were in-effect during the assessment period.

To reduce avoidance risks, it is likely the rating regime would apply to:

- in some cases (eg, in commerce-oriented towns and cities) to owners of holiday homes, including baches and chalets
- to owners who try for more than six months to sell a vacant dwelling, and then decide to withdraw it from the market

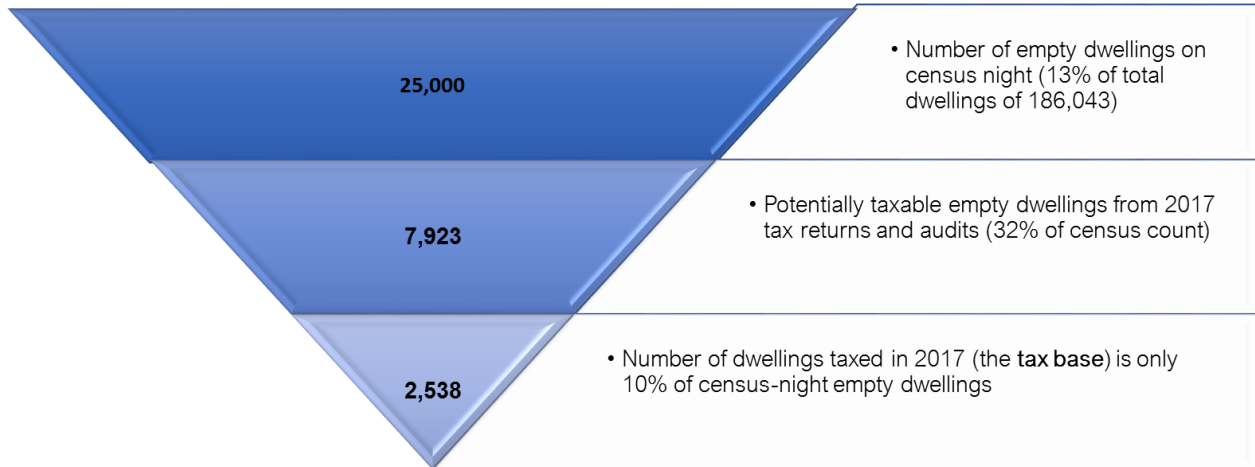
- to owners of uninhabitable dwellings.

The rest of this paper is based on the above definition of rateable vacant residential dwellings.

The results from Vancouver’s Empty Homes Tax

Figure 4 shows the calculation of the empty homes tax base for the 2017 tax year. The tax base amounted to 10% of empty dwellings on census night, or 32% of potentially taxable dwellings. By coincidence, the latter was 32% of the number of empty dwellings on census night.

Figure 4: The tax base for Vancouver's Empty Homes Tax, 2017



3.4 Sourcing information about each ratable property

3.4.1 Sourcing information about vacant residential land

Part 2 of the Rating Act requires councils to keep and maintain a rating information database. This makes the first phase of identifying vacant residential land relatively easy because the database already includes information about every property’s zone classification, availability of infrastructure services, and the presence or absence of homes and buildings on the property. Councils would also possess information that would allow them to calculate the building density of each property, and so they could readily apply the minimum size and density thresholds.

However, as is clear from section 3.3.1, identifying the actual properties to be subject to vacant land tax requires additional information that is not currently in the council database. As for vacant dwellings, implementing vacant land taxes could require all owners of residential land exceeding a size threshold to make an annual return declaring the status of their property, with a rule that failure to file a return results in the land being deemed vacant for rating purposes.

The annual return will need to include information about temporary and mobile dwellings and whether they have been vacant for more than six months in the year. It will also need to include information about features of the land that may make it exempt, such as whether it has stability issues, cliff faces, gullies and so on.

3.4.2 Sourcing information about vacant residential dwellings

Local authorities typically do not have information readily available to determine whether a residential dwelling is vacant, and if so why. Vancouver overcame this problem by requiring all residential property owners to make an annual return declaring the status of their property, with a rule that failure to file a

return results in the property being deemed vacant for tax purposes (Secretariat to the TWG, 2018c, p. 19).²⁵ Property owners could submit their annual returns via an online portal, by phone or in person.

In contrast, under the Melbourne regime owners of vacant residential properties are required to notify the State Revenue Office by 15 January each year via an online portal. In this regime, failure to file a return doesn't lead the properties to be deemed vacant, however the Office's website encourages people to submit tip-offs of property owners not complying with their obligations and imposes penalties for failure to notify (up to 90% of the assessed additional rates).²⁶ In both regimes, it is left to property owners to claim they meet any exemption provisions.

The Vancouver approach could presumably be adopted in New Zealand, although changes would probably need to be made to the Rating Act to facilitate this approach. This is because s.43 makes it clear that rates can only be levied based on the information recorded in the council's rating information database as it exists on 30 June of each year.

Hence, a time-based test of vacancy may not be possible under the current wording of s.43 of the Rating Act. With a time-based test, councils would have to make initial determinations about vacancy prior to public inspection of the rating information database in May of each year,²⁷ receive and process objections and then make final determinations by 30 June. This means the time-based test would have to relate to a 12-month period preceding May of each year.

A change to the Rating Act could be made to allow the vacancy determination to relate to twelve month periods prior to May, for example the preceding calendar year. This would result in additional rates being charged for July to June of year 1 based on the occupancy of the dwelling during January to December of year 0.

More mechanically, though, councils don't currently have information readily available to ascertain whether the annual return is likely to be accurate or not. They may be able to obtain information from electricity distributors and/or retailers about electricity consumption patterns. For example, negligible electricity consumption on 180 days during the assessment period could perhaps be used as an indicator of vacancy and further investigations undertaken on those properties if the annual returns stated they weren't vacant.^{28,29} However, councils may need to purchase the information from electricity companies, and once ratepayers learnt that councils were using metered electricity data they could readily frustrate the readings by setting timers for appliances to use electricity when no one is actually home.

In Vancouver, property status declarations are subject to an audit process and if a property is selected for audit, the owner is required to provide information or evidence in support of their declaration. The same approach would likely be adopted in New Zealand, however if councils were challenged in the courts they may need to use reasonably costly methods to prove particular dwellings failed their time-based test.

²⁵ Source: Indecon Report on the Taxation of Vacant Residential Property, September 2018, prepared for the Minister of Finance

²⁶ Sourced from <https://www.sro.vic.gov.au/vacant-residential-land-tax>

²⁷ s28(4) if the Rating Act requires councils to give public notice during the month of May that the rating information database is available for inspection. This notice must state where and when it can be inspected.

²⁸ Principle 11(e) in s.6 of the Privacy Act 1993 seems to provide for public sector agencies, such as local authorities, to obtain information from an agency holding customer information if that is necessary for the protection of the public revenue (which presumably includes local authority revenue).

²⁹ Although most councils own and supply water to most consumers in their district, most of them do not meter water at individual properties.

3.5 Anti-avoidance rules

It's important to distinguish avoidance and evasion behavior from genuine changes in economic decisions. Avoidance occurs when ratepayers exploit "loopholes" in the rating system to legally reduce their rates but they don't change their economic activity. Similarly, evasion occurs when ratepayers misstate their activity to minimise their rates, but they're undertaking the same economic activity.

3.5.1 Anti-avoidance rules regarding vacant residential land

Several provisions in section 3.3 were considered likely to be adopted by councils because they would significantly reduce avoidance risks. These provisions would result in additional rates applying to residential land even if resource consents are being sought, or building is scheduled to occur or has been occurring. Once the building work is completed and a final permit issued, the land would be excluded from the regime. Business owners of residential land would be treated similarly.

Section 3.3 stated that residential land with temporary or mobile dwellings would likely be excluded from paying vacant land tax provided those dwellings covered a sizeable portion of the land, such as 40% of the land surface area, and provided they're occupied a reasonable portion of time. As the dwellings are movable, one-off council property inspections are not likely to be a full-proof method of determining whether these conditions are met.

This suggests councils would need to include in their bylaws an ability to acquire verifiable daily information about temporary dwellings, for example by using drones to regularly provide aerial photos of surface coverage. Occupancy could be estimated based on daily electricity consumption data obtained from the local electricity lines company.

3.5.2 Anti-avoidance rules regarding vacant residential dwellings

A larger suite of anti-avoidance provisions may be required for the vacant dwellings regime, as there are many more contestable dimensions to the definition of rateable vacant dwellings. Anti-avoidance provisions would be needed to:

- prohibit property owners from registering more than one dwelling in New Zealand as their principal place of residence
- enforce a distinction between commercial and community dwellings on one hand and private rental dwellings on the other hand
- enforce a distinction between retirement homes and nursing homes
- ensure ownership changes are for genuine reasons, which would be the case if the sale is to arm's length parties but a grey area arises when the sale is to family or other related parties disguised in the form of family trusts
- ensure only bona-fide evidence is provided in relation to themselves or family staying in holiday homes for 21 days or more or staying in a 'business home' for 140 days or more.

3.6 Monitoring and enforcement processes

The administration of the rating system involves:

1. proactive public communications and reactively dealing with ratepayer enquiries
2. processing submissions of annual returns
3. monitoring and investigating compliance with the requirements of the rating system

4. processing and deciding on complaints submitted by ratepayers
5. levying penalties on unpaid rates and ultimately taking enforcement action when necessary.

Tasks 1 and 2 are standard, and so the focus here is on tasks 3 – 5. However, it is worthwhile noting that Vancouver allowed property owners to submit their annual returns online, which 92% of them chose to do. The high rate of online submissions was assisted through technical and informational support provided by Vancouver Public Library staff across the city (City of Vancouver, 2019b, p. 4).

3.6.1 Monitoring and investigating ratepayer compliance

Currently, monitoring ratepayer compliance is very straight-forward for general and targeted rates because land and capital values are assessed by independent valuers and the factors councils may currently use to group properties for the purpose of setting differentials (refer section 3.3) are relatively easily verified. The most problematic factor would be land use.

In contrast, for a vacant dwellings regime councils would need to monitor and validate a far wider range of information supplied in ratepayer annual returns, such as in relation to claims about principal places of residence in New Zealand (ie, inside or outside the council's district), the nature of the accommodation business, the level of medical and nursing care provided within retirement homes, who is the beneficial owner of a property and evidence about how long the owner and/or family members have stayed in their holiday home or 'business home'.

When non-compliance is difficult and/or costly to detect, the general approach is to undertake intensive random audits of a selection of properties and impose stiff penalties for proven compliance breaches to discourage others from committing similar sins. The audit regime would focus on the areas of highest risk of avoidance and loss of revenue, however it makes sense to adopt reasonably extensive auditing in the first few years of the new rating regime. In the Vancouver regime, for example, audits were conducted on 7,528 annual returns (City of Vancouver, 2019b, p. 5).

In 2017, Vancouver had 186,043 homes for which annual returns were required, which means 4% were audited. Of the 6,231 completed audits, 5,900 (94.7%) were found to be compliant and 331 non-compliant. The average amount owing on the non-compliant returns was \$18,731.³⁰ As the Vancouver tax is 1% of property values, this means the non-compliant returns were for properties worth \$1.87m on average. This compares to an average value of \$1.49m for all properties with vacant dwellings, suggesting non-compliance was largely by relatively wealthy owners of rental properties.³¹

Monitoring and validating would probably be far less extensive for a vacant land regime, however, as the main area of non-compliance risk would be land owners claiming their land met the coverage requirements for temporary dwellings. Presumably frequent daily inspections (physical or perhaps via drones) to survey such properties would suffice to objectively determine the surface coverage meets the requirements.³² Occupancy could be estimated based on daily electricity consumption data obtained from the local electricity lines company.

³⁰ Revenue of \$6.2m was raised from audit activities, which presumably relates to the 331 returns assessed as non-compliant. This gives an average of \$18,731 (City of Vancouver, 2019b, p. 5)

³¹ The \$1.49m figure is total assessed revenue of \$38m divided by 2,538 vacant dwellings, further divided by 1%.

³² For the first year of the regime it may be necessary to start inspections 12 months before the annual returns are filed.

3.6.2 Processing and deciding complaints

Complaints will arise from ratepayers that fail to submit an annual return, as they're deemed to have vacant land or dwellings. Complaints will also arise from owners that were audited and found to be non-compliant.

A standard approach for handling complaints is to adopt a two-stage approach, where the first review is by an internal reviewer and the second is by an external panel. The internal review would usually be undertaken by a higher level – or at least different – council employee than made the original decision. Second reviews would occur only for cases where the ratepayer still objects to the council's decision, and would be undertaken by an external panel, perhaps formed by an association of mediators or arbitrators.

For the Vancouver regime, an External Review Panel is provided by the Alternative Dispute Resolution Institute of British Columbia and no appeal can be made on the merits of their decisions (Sarna, 2018). This paper assumes New Zealand councils imposing vacant property taxes would adopt similar processes and an independent external panel.

Interestingly, out of 1,459 complaints processed by 1 November 2018, about 83% (1,207) were accepted. Most of the accepted complaints related to property owners who were originally deemed vacant because they failed to make a declaration (City of Vancouver, 2019b, p. 6).

Property owners whose complaints were rejected were required to pay the tax or request a review of their case from the external review panel. The review panel completed 47 reviews and accepted eight, primarily as a result of new information being submitted by the property owner at the time of the review request (City of Vancouver, 2019b, p. 6 and 2019c, p.5).

3.6.3 Penalties for unpaid rates

Sections 57 and 58 of the Ratings Act specify maximum penalties councils can charge for unpaid rates, as follows:

- 10 per cent on rates that are unpaid by the due date
- an additional 10 per cent at the end of each rating year, applying to both unpaid rates and unpaid penalties
- an additional 10 per cent on any amounts still unpaid six months after the end of the rating year.

A scan of three randomly chosen council websites showed all three charged the maximum penalties, as described above. These penalties exceed those levied in Vancouver for unpaid rates on vacant dwellings (City of Vancouver, 2019b, p. 5&9).

The standard penalty imposed by the State Revenue Office of Victoria (Australia) is 25% of the unpaid tax. However, stiff penalties are imposed where the taxpayer had intentional disregard for a taxation law and that contributed to a tax default or notification of default. In that case, the penalty can be raised to 75%. This can be increased to a maximum of 90% if a tax investigation shows the taxpayer concealed information or hindered the Commissioner from becoming aware of the nature and extent of the tax default or notification default.³³

This paper assumes no changes to the penalty provisions in the Ratings Act would be enacted, as this would be consistent with adopting the Vancouver approach to sourcing information, which involves deeming properties vacant when the owner doesn't file an annual return.

³³ Sourced from <https://www.sro.vic.gov.au/legislation/interest-and-penalty-tax-4>

3.7 Administration and compliance costs

The amount of revenue collected and the costs of administering and complying with vacant property taxes depends greatly on the definitions adopted for vacant property.

Significant exemptions are provided because there are sound economic reasons for people and developers to hold vacant land and have vacant dwellings (“legitimate” vacant properties). Taxing “legitimate” vacant properties risks reducing development activity, increasing development costs and reducing economic efficiency. The exclusions necessary to minimise these risks and costs greatly reduce the tax base and introduce avoidance risks, as indicated above.

Although vacant property taxes are workable, they involve large administration costs per dollar collected. For example, the City of Vancouver spent C\$2.5m administering its vacant dwelling regime, which amounted to 12% of the C\$20.6m revenue collected by the regime in its first year of operation or 6.6% of the C\$38m of total revenue payable to the City (City of Vancouver, 2019b, p. 5&7).³⁴

Presumably additional costs, including legal and debt collector fees, will be incurred to collect the outstanding amounts. Moreover, the costs reported above do not include compliance costs for tax payers, which would likely be 5 – 10% of revenue collected. On the other hand, ongoing administration costs may reduce in future years due to ‘learning by doing.’

By comparison, the costs of administering the overall New Zealand tax system is less than 1% of revenue collected (Inland Revenue, 2017, p. 13). As the primary purpose of the Empty Homes Tax is not to raise revenue, the high administration costs per dollar of revenue may be acceptable if the tax improved efficiency.

Although nine cities around the world have adopted vacant land taxes, we were not able to source any information on their administration and compliance costs.

4 The economics of vacant property and development

Before considering the effects of vacant property taxes, it is useful to first understand the fundamentals of why vacant property exists.

This section identifies frictional and structural reasons for vacant land and dwellings, similar to the frictional and structural reasons for unemployment. There are also important timing considerations, because once vacant land is developed with houses it is very costly to remove them. This makes it important to carefully choose when to develop vacant land. Similar timing considerations can arise for vacant dwellings when they require substantial re-development.

4.1 When should vacant land be developed?

Once developers have secured vacant land, they have strong incentives to develop it when that is likely to maximise future net economic benefits from development. This is because vacant land doesn’t earn any income, and so the sooner they develop and sell it the sooner they can bank the net sales proceeds. The interest income they could earn on their net sales proceeds is their **opportunity cost** of deferring development.

On the other hand, because it is costly to remove dwellings, developing a property now forecloses the option of using the property to access more valuable development opportunities in the next few years (Cunningham 2006).

³⁴ That is, C\$17.4m of revenue remained outstanding at the time of the first annual report on the tax. Vancouver’s implementation costs were C\$7.5m.

For example, a council may decide its regulations were too restrictive, causing inefficient outcomes, and so it announces this year it will relax its land use regulations effective from next year. If these changes allow developers more flexibility about the features or size or quality of their developments, then it is economically efficient for them to defer their developments until the new arrangements come into effect. Deferring development until the changes take effect reduces the developer's construction costs and increases the value developers can create for their customers. This yields **option value** from deferral.

These option values arise from any situation where deferring development increases the net sale proceeds *from developing* a property. They may also arise from the capital gains *from owning* vacant land, but not in all circumstances. For example, if developers can develop a vacant property, sell it and buy another vacant property with the same or better capital gains prospects, then the capital gains on the vacant land itself doesn't provide option value, and hence it doesn't affect the privately-optimal time for developing vacant land.

Deferring development may also involve **carrying costs**, such as additional property maintenance costs. These costs need to be deducted from option values to obtain the net benefit from deferring development.

These considerations mean that developers maximise their profits by developing vacant land when:

$$\underbrace{\text{their option value} - \text{their carrying costs}}_{\text{Net benefit from deferring development}} = \underbrace{\text{their opportunity costs}}_{\text{Net benefit from developing now}}$$

The above results were first produced by Shoup (1970), and subsequent papers have generalised it, for example Kanemoto (1985) and Anderson (1986).

The above condition is usually expressed in terms of growth rates and interest rates. In the absence of taxes, carrying costs are assumed to be close enough to zero to be ignored. In this case:

$$g = r$$

Where:

- g is the growth rate in option values (the **option value growth rate**)
- r is the after-tax interest rate available on investing the net sale proceeds elsewhere (the **interest rate**).

This reflects Wicksell's (1934, pp.178-181) analysis of the optimal time to harvest a forest. Biological processes result in forests growing rapidly at some stage and then the growth rate slows over time. Intuition might suggest the forest should be harvested when it stops growing, as at that point it would contain its maximum quantity of wood. Wicksell showed it was optimal to harvest the forest when $g = r$. Once the forest is harvested, its growth ends and its option value is extinguished.

Abstracting from taxes, Kanemoto (1985) and other authors show the above timing condition is efficient when land and development markets are competitive, there are no development externalities and speculative land price bubbles don't occur.

4.2 Why do economies have vacant residential land?

Section 4.1 discussed the optimal time for developing vacant land and simply assumed vacant land exists. It is useful for later sections to consider why developers hold stocks of vacant land, and the trade-offs they face in deciding those stock levels.

4.2.1 Demand uncertainty and fixed costs mean it can be efficient to have stocks of vacant land at the urban fringe

In practice, demand for housing services is unpredictable to a degree and there are significant fixed costs of converting productive land into vacant land and then into land with residential housing on it. This means it is cost-efficient for developers and owners of productive land to agree to transact relatively large parcels of productive land as this allows developers to economise on their **conversion costs** (the costs of negotiating land purchases, clearing away existing structures, obtaining resource and building consents, installing infrastructure and marketing the properties).³⁵

Box 2: Vacant land provides inventory for property developers

To see that vacant land is inventory for property developers, consider the situation where developers held no vacant land. Each time a consumer wanted to build a house, developers would incur the cost of acquiring a small land parcel from a farmer, clearing it and installing bespoke infrastructure. It is cheaper for developers to acquire and develop large land parcels because of significant economies of scale in converting agricultural land into vacant land and vacant land into developed land.

In other words, although vacant land is physically vacant, it's not economically vacant: it has economic value because it lowers the costs for developers to serve housing consumers and deal with unpredictable demand for housing. In effect, vacant land provides inventory services to developers, making it cheaper to supply housing to consumers.

Although individual developers may be able to secure very rapid development of newly-released land, developers as a whole face increasing marginal construction costs increase as construction activity increases. This means it may be often efficient for large parcels of land, newly released from productive activity, to initially remain vacant.

Of course, in practice there will be instances of large tracts of vacant land persisting, reflecting large demand forecasting errors and unexpected changes in local market conditions.

The focus in this section has been on the urban fringe, however vacant land also exists through out urban areas and in and near city centres. The reason for this is discussed in 4.2.2 below.

4.2.2 It can be efficient for vacant land to persist throughout cities, including near city centres

The real world isn't as homogenous as described above. Although vacant land exists near the urban fringe, vacant land also exists near the centre of urban areas too. Urban areas are towns and cities, but for brevity we refer just to cities.

The MBIE dashboard on land capacity shows that vacant residential land in New Zealand's largest cities, as proportion of total residential land, ranges from 5% in Wellington city to 21% in West Auckland, with most cities having 15-20%. For the Auckland region, the rate is 17%.³⁶

Pagano and Bowman (2000) reported that cities in the United States had on average 15% of their land area vacant, and state that this average is at similar levels to that found in cities over thirty years ago. Some articles mention that there appears to be a natural rate of vacant land, just as labour economics has identified natural rates of unemployment.

³⁵ McMillen (1990) presents a dynamic partial equilibrium model of the timing and duration when there are fixed costs of infrastructure.

³⁶ See the price efficiency indicators/land concentration control at <http://urban-development-capacity.mbie.govt.nz/>

The early economics literature on vacant land drew parallels between vacant land and labour unemployment. Schenk (1978), for example, argued there were frictional and structural reasons for vacant land in urban areas, which paralleled economist's work on frictional and structural unemployment.

Consistent with Schenk's analysis, Sinn (1986) showed that vacant land may persist forever when large negative demand shocks occur to housing markets, such as for towns where major industries have exited. Keuschnigg & Nielsen (1996) extend Sinn's analysis to the more realistic case where buildings depreciate, and show that vacant land would be a temporary phenomenon, although the temporary period isn't short. In both models, the underlying reason for long persistence is that houses are partially irreversible investments because it is too costly to shift them long distances.

Frictional reasons for vacant land throughout urban areas

Schenk (1978, pp. 156-157) shows that friction may explain the presence of some vacant land holdings. Friction arises because it is costly for buyers to search for land they're willing to buy and costly for sellers to wait for the highest value buyers.

Schenk describes two stylised approaches to understanding the effects of friction, but notes there are many such approaches. In both approaches it is optimal for owners of vacant land to wait for better sale prices rather than take the first offer presented to them, because waiting allows them to sample the market. In the first approach, buyer offers remain live whereas in the second approach rejected offers disappear.

The optimal waiting time in the first approach is analogous to the optimal timing conditions presented in section 4.1.³⁷ In contrast, in the second approach sellers set reservation prices, below which they reject buyer bids. They initially set a high reservation price to avoid accepting a low offer, but as time proceeds without an acceptable offer they reduce their reservation price, partly because of better information about the market and partly because they're incurring carrying costs without any revenue. The sale occurs to the first offer that exceeds the prevailing reservation price.

It isn't necessary for our purposes to decide which approach is correct, as both (and other approaches) may apply in different circumstances. The important point is that information and search costs can be another factor determining stocks of vacant land. Given these real-world realities, it wouldn't be accurate to view them as inefficient holdings of vacant land.

Structural reasons for vacant land throughout urban areas

Schenk (1978, pp. 155) defines structurally vacant land as land in which the costs of converting it to residential dwellings (or other productive use) exceeds the present value of the yield from such uses. He identifies various reasons for structurally vacant land, including:

- ownership problems (the cost of getting a clear title or of contacting and bargaining with multiple owners may be very high)
- lack of utilities, back taxes, expected flood hazard, slope or foundation problems (which are behind Northam's concept of unbuildable land)
- odd-sided or odd-shaped parcels left over in neighborhoods where land was deeded in fixed lot sizes
- small lots resulting from old subdivisions

³⁷ The optimal timing of the sale is when the growth rate of buyer bids equal the interest rate the seller can earn on the net sales proceeds. However, note the growth rate of buyer bids is different from the option value growth rate discussed in section 4.1.

- neighborhood externalities.

In principle, prices for vacant land should eventually fall to the level needed to make development profitable, but this doesn't appear to be the case in practice.

Evidence from Pagano & Bowman (2000, pp. 7-8) indicates that structurally vacant land appears to be significant in US cities. Of the 99 cities responding to their survey, 56 percent stated the parcels were not large enough, 45 percent stated they were odd-shaped, and 44 percent stated they were in the "wrong" location. They state that "These three characteristics individually, but especially in concert, seemed to limit the development potential of vacant land." Only 20 percent of respondents identified other conditions, such as land being held for speculative purposes or the existence of infrastructure problems.

Morandé, Petermann, & Vargas (2010, p. 200) have tested these explanations using detailed data about vacant land in the County of Santiago in 2003. The County is part of Great Santiago in Chile, had a population of 201,000 inhabitants, an average density of 9,000 inhabitants per km² and is located away from the urban fringe. They found general support for the structural explanation, with variables that could increase site values having a negative impact on the probability of land being vacant and variables that could reduce the profit of an investment project or increase the uncertainty of profitability having a positive impact.

Typically commentators and policy-makers are most concerned about land that has been vacant for prolonged periods, but as Schenk points out, structurally vacant land rarely changes ownership because it is typically too costly to develop.³⁸ In other words, by definition, it would be inefficient to develop structurally vacant land. This is consistent with conclusions by Keuschnigg & Nielsen (1996, p. S540) regarding the persistence of vacant land caused by large negative demand shocks.

Individual preferences for vacant land

The standard economic analysis of cities shows there are strong economic forces driving increasing structural density the nearer one gets to a city centre.³⁹ *Structural density* refers to the portion of land occupied with structures, such as residential and commercial dwellings. It can also refer to the value of the structures relative to the value of the unimproved land.

In practice, urban areas develop and renew over time, with the pattern of change depending on changes in firm productivity, transport costs, construction costs, provision of city amenities and community preferences for them, agglomeration effects and so on. Typically, property prices increase as one gets closer to a city centre or a valuable amenity, such as a beach or major transport hub.

Morandé, Petermann, & Vargas (2010) provide evidence that vacant lots become rarer the closer one is to an underground metro station and the more densely populated an area.⁴⁰ Gedal & Ellen (2018) show that vacant lots are disproportionately located in very distressed neighborhoods.

³⁸ As indicated above, it is not entirely clear whether land prices fail to fall sufficiently to clear the market or whether the owners experience loss aversion and are unwilling to realise their losses.

³⁹ The seminal papers on these forces are Alonso (1964), Muth (1969) and Mills (1967, 1972). Brueckner (1987) provides a definitive treatment of the key determinants of structural density, and Glaeser (2008) provides a useful comprehensive analysis of a wide range of related models, with the key determinants of structural density dealt with on pages 29-33.

⁴⁰ Actually, the station results are for distance to within 500m of stations. The probability of vacant sites starts to increase as one goes from the 500m boundary to the station, which they postulate is because of negative externalities from living close to stations. Similarly, the authors find a threshold level of density (224 inhabitants per hectare), below which the probability of a vacant lot increases slightly.

There are tens of thousands of land owners in small cities, each with decision rights about when they augment or re-develop their properties. At any one time there are likely to be many 'mum and dad' owners of small vacant lots in cities, and their development decisions can be influenced by whether they receive a flow of non-financial benefits from owning (and using) the vacant land.

For example, mum and dad owners may receive more privacy or sunlight for their owner-occupied dwelling nearby, their children may play on it, or they might use it for producing their own food or for a flower garden etc. The valuation of these benefits reflect personal preferences and circumstances (as well as other factors), which can vary greatly among vacant land owners.

Individuals are also likely to have different expectations about future option values from development. Moreover, in practice construction costs can vary greatly across properties due to different topographies, soils and existing structures. Regulatory requirements can also affect construction costs and risks particular to each lot.

Hence, mum and dad owners can be expected to develop their vacant lot when their option value, plus any net benefits they receive from carrying the land, equals their opportunity costs. There is likely to be significant diversity of views about when best to develop any particular vacant urban lot, each of them efficient within the context of individual preferences and imperfect information about future development options and construction costs.

Different ownership arrangements can also play a part, such as family trust or estate arrangements where conflicting interests and risk of legal action can inhibit decision-making. Again, these situations can be viewed as efficient within the context of transaction cost economics.

In practice, professional property developers also have varying views about future development opportunities and construction costs. The same applies to farmers and other land owners near urban centres.

In summary, it is not surprising longstanding vacant lots may occur sporadically throughout a city, due to differing views about future option values and costs of development due to uncertainty about development and the cost of regulations. In general, there isn't a clear cut reason for describing these outcomes as inefficient in real world contexts.

4.3 Why do economies have vacant residential dwellings?

The reasons for vacant dwellings are analogous to the first two reasons for vacant urban lots just discussed. That is, dwellings will be vacant for frictional and structural reasons.

4.3.1 Frictionally vacant residential dwellings

Frictional vacancies arise because of the information and search costs facing landlords and prospective tenants: landlords need to learn about the attributes of available tenants and the rental prices they can achieve for the attributes they want; and prospective tenants need to learn about the rental options available to them, in terms of location, prices, quality and attributes.

In the same way it is efficient to have frictionally vacant land, these information and search costs mean it can be efficient for rental dwellings to be vacant for short periods of time, even when there is a housing shortage. This is widely accepted, and so short-term vacancies are generally excluded from vacant dwelling taxes (as discussed in section 3.3.2).

4.3.2 Structurally vacant residential dwellings

Personal dwellings

As for vacant land, vacant dwellings comprise a stock of assets that are physically vacant but not necessarily economically vacant. For example, it will be widely accepted that not everyone wants others using their home while they're absent, even if they're absent for a lengthy period. Similarly, parents often retain their family home and leave bedrooms untenanted when their children grow up and leave home.

Similarly, not everyone wants others using their holiday home, even though many are keen to do so. For example, they may value being able to occupy the property on a whim or without the need to forward plan, or they may store valuable personal effects on those properties.

Standard economic analysis implies that prolonged periods of vacant personal dwellings – ie, primary places of residences and holiday houses – can be consistent with economic efficiency. As in section 4.2.2, different people have different personal costs of letting personal property for others to use, including different perceptions of the risks involved. If their expected costs exceed the rental stream they could earn, it is efficient for them to leave their personal dwellings structurally vacant. For these reasons, principal places of residence are generally excluded from vacant dwelling tax regimes (as discussed in section 3.3.2).

Rental dwellings

In terms of rental-type dwellings, landlords have strong financial incentives to rent them because they incur significant fixed costs regardless of the occupancy of the property and forgo rental income while the property is unoccupied. Their decisions to leave their properties vacant for a prolonged period implies their expected present value of the variable costs of occupancy exceed the present value of the rental income they could receive.

In markets where the supply of rental properties has been increasing it is reasonable to presume the market prices for rentals, plus capital gains on them, are expected to cover the full costs of the properties that are tenanted. Under these conditions, landlords with long-term vacant dwellings must be facing higher-than-usual financial and personal costs of occupancy or their dwelling is particularly undesirable for some reason.

For locations with permanently declining rental demand, rental prices would have to fall below the variable costs of occupancy to render tenanting uneconomic. However, in these situations structural vacancies can persist for extended periods because it is too costly to shift dwellings to locations where there are housing shortages. It can be cheaper for landlords to let their properties slowly decay rather than demolish them.

4.3.3 Capital gains on properties generally shouldn't affect decisions about whether to let structurally vacant dwellings

Landlords earn capital gains on their properties regardless of whether they tenant them or not – 'they can have their cake and eat it too.' Hence, property owners claiming they're holding their dwellings vacant for the capital gains are really doing so because they're not expecting to make profits from letting the dwelling. The real driver of their decision to keep their dwellings vacant are the perceived high costs and risks of letting their dwellings.

In practice, structurally vacant dwellings include dwellings needing substantial upgrade or complete replacement before they are suitable for tenants. In effect, the dwelling owner is in the position of having to (re)develop the property, and so these situations are covered by the analysis in section 4.2 regarding vacant residential land.

5 The economic impact of vacant property taxes

This section draws substantially from CSA's research note entitled *Economic analysis of taxes on vacant land and vacant dwellings*, which provides more in-depth economic analysis of these issues. This research note is available from the Commission upon request.

5.1 Vacant property taxes are unlikely to materially increase housing supply

5.1.1 The initial effects of a vacant property tax are likely to be transitory

Introducing a vacant land tax is likely to have only a transitory impact on the timing of the development of vacant land, and little impact thereafter provided the tax rate is kept constant over time. This is because the best time for landowners to develop their land for residential housing (and then sell them) is when their *option value growth rate* minus the *tax rate* equals the *after-tax interest rate* developers can earn on investing their sales proceeds (Anderson (1986) and Arnott & Petrova (2006)).

Section 4.1 noted that the ongoing costs of maintaining a vacant property are called carrying costs, because they're costs incurred due to carrying the property rather than developing it. Like maintenance costs, vacant land taxes are a cost that has to be paid when development is deferred.

The optimal timing condition in section 4.1 ($g = r$) assumes maintenance costs are zero. Letting t denote the vacant land tax rate, the optimal timing condition becomes:

$$g - t = r$$

It is useful to think of decisions about when to develop land as like decisions about when to harvest a forest. Box 1 shows that a permanent 1% increase in interest rates leads to a temporary increase in the amount of forest harvesting, but the volume of harvesting then reverts to original levels. The effect of introducing a 1% vacant land tax is like a permanent 1% increase in interest rates. After it's been introduced and the temporary increase in conversion has happened, a constant tax rate on vacant land doesn't affect the rate of property development.

Box 1: The optimal time to harvest forests – an analogy with property development

Suppose a forester has 1000 hectares of forest, and harvests trees when their growth rate reaches 4% per year. The forester does this because she can put the money in the bank and earn 4.1% interest a year.

When planted, trees initially grow much faster than 4% a year but their growth rate starts to decline after many years. Suppose at 20 years they grow at 9% a year, at 21 years they grow at 8% a year and so on, such that at 25 years they grow at 4% a year. Suppose also that 100 hectares were planted each year, and so only 100 hectares of trees grow at each growth rate each year. These assumptions are presented in Table 1 below.

Given these assumptions, only the 25-year old trees are harvested each year. Table 1 highlights the harvested trees in blue shading for 2017 and 2018.

Table 1: Annual flow of trees harvested

	2017	2018	2019	2020	2021
20-yo trees (9% growth rate)	100	100	100	100	100
21-yo trees (8% growth rate)	100	100	100	100	100
22-yo trees (7% growth rate)	100	100	100	100	100
23-yo trees (6% growth rate)	100	100	100	100	100
24-yo trees (5% growth rate)	100	100	100	100	100
25-yo trees (4% growth rate)	100	100	100		
Quantity harvested	100	100	200	100	100

But suppose in 2019 the forester can earn 5.1% interest on her money, and the interest rate remains at that level every year thereafter. To maximise her money, the forester harvests 200 hectares of trees in 2019: the 25-year old and the 24-year old trees, because both age-groups are growing at less than 5.1% per year.

From 2019 onwards she reverts to harvesting 100 hectares a year because only the 24-year old trees are growing at less than 5.1% per year in 2020 (and every year thereafter). The trees that would've been 25 years old in 2020 were harvested in 2019. Hence, a one percentage point rise in the interest rate leads to a transitory increase in tree harvesting in 2019. The rate of harvesting reverts to original levels from 2020 even though the interest rate remains permanently higher.

Although this is a very stylised example, it highlights the fundamentally transitory impact of vacant land taxes on the rate of house building.

Imposing a vacant land tax of 1% of the value of a property has a similar impact to a 1% rise in the interest rate on a forester's decision about when to harvest. Hence, vacant land taxes would reduce stocks of vacant land, creating a temporary flow of additional new dwellings to the housing market. These *initial* effects are likely to occur over a few years.

5.1.2 The size of the initial effect is likely to be small

Vancouver imposed a 1% vacant dwelling tax, starting in 2017. The results for 2018 are available, and so we can get a first look at how the tax may have affected property owner's decisions to tenant their dwellings. As the total number of dwellings required to disclose their occupancy status increased in 2018, it is best to compare vacancy rates rather than vacancy numbers.⁴¹ The vacancy rate in 2017 was 1.36%, which declined to 1.05% in 2018. Hence, the vacancy rate fell 23%.⁴²

Although it is simplistic to assume the 1% tax surcharge caused the 23% fall, that is the best we can do in the time available. The reduction in vacancy rates implies a normalised reduction in vacant dwellings of 592.⁴³

⁴¹ In this paper, the vacancy rate is the number of dwellings subject to the tax divided by the total number of dwellings required to declare their occupancy status. The vacancy rates have been calculated by CSA from data available in City of Vancouver (2019c, p. 10). Readers should be aware that other definitions of vacancy rates are used in other documents and in data websites.

⁴² This decline doesn't appear to be due to the City taking a tougher stance on exclusions as the broader category of 'empty plus vacant' showed an almost identical rate reduction.

⁴³ The total number of dwellings required to declare their occupancy status in 2018 was 189,162. Hence, $592 = (1.36\% - 1.05\%) \times 189,162$.

On the assumption the annual cost of dwellings is about 5% of the property's value, then the tax increased the owner's annual costs by about 20%. These tax-induced cost increases appear to have driven a 23% reduction in vacancy rates in 2018.

The 23% reduction in vacancy rates amounts to an additional 592 houses tenanted in 2018 than would've occurred without the tax. With the City's housing construction in 2018 adding 3,693 houses to the market, the initial effect of the tax is equivalent to 16% of their housing construction in 2018. However, this initial effect is likely to be one-off increase in the flow of dwellings to the market, for the reasons stated in the previous subsection. If the effect is one-off, then over a five-year period housing construction would add around 20-30 times more houses to the market than the vacant dwelling tax.⁴⁴

In the time available for this report, CSA has been unable to estimate the initial effects of a 1% vacant land tax on housing supply. However, these effects are likely to be smaller than would be achieved by a vacant dwelling tax, such as Vancouver's Empty Homes tax, as it will be far easier to let existing vacant dwellings than to build new dwellings on vacant land.

5.1.3 Vacant property taxes are likely to harm housing development in the medium term

Beyond the first-round impact of an increase in housing supply, the subsequent impacts would likely be negative for housing supply. Vacant land taxes would increase the cost of housing because vacant land is held as inventory in the production of housing (refer Box 2). Higher housing costs would be passed onto new housing consumers, reducing their demand for housing. Vacant land taxes are in effect a tax on development (Needham, 2000).

Box 2: Vacant land provides inventory for property developers

To see that vacant land is inventory for property developers, consider the situation where developers held no vacant land. Each time a consumer wanted to build a house, developers would incur the cost of acquiring a small land parcel from a farmer, clearing it and installing bespoke infrastructure. It is cheaper for developers to acquire and develop large land parcels because of significant economies of scale in the transaction costs of purchasing land and installing infrastructure.

In other words, although vacant land is physically vacant, it's not economically vacant: it has economic value because it lowers the costs for developers to serve housing consumers and deal with unpredictable demand for housing. In effect, vacant land provides inventory services, making it cheaper to supply housing to consumers.

5.2 Vacant property taxes would likely reduce the responsiveness of housing supply to changes in demand

Developers can more easily respond to surges in housing demand if they have plenty of vacant land available in locations consumers want to live. But taxing vacant land increases developer's carrying costs, encouraging them to hold smaller stocks of vacant land and reducing their options for responding to housing demand.

Hence, taxing vacant land may reduce developer flexibility, and reduce supply responsiveness overall. It certainly doesn't increase supply responsiveness after the transitory de-stocking period has ended.

Increasing housing supply responsiveness requires measures that permanently increase the ability of suppliers to respond to fluctuations in housing demand growth. This requires measures that increase flexibility in the supply of land (greenfield, brownfield and infill) and greater building industry flexibility,

⁴⁴ $5 \times 3,693$ divided by 592 equals 31.

including by reducing regulatory and infrastructure restrictions. Taxing vacant land runs counter to addressing these issues.

5.3 Vacant land taxes are unlikely to materially reduce speculative land bubbles

Asset price bubbles tend to be self-propelling, with expectations of rapid price growth fueling speculative demand which results in rapid price growth. Introducing a vacant land tax during a 'bubble period' would likely end the bubble. For example, introducing a 1% tax surcharge on vacant residential land could reduce the prices of vacant land by 20 – 35%.⁴⁵ A 2% tax surcharge could reduce land prices by 35 – 70%.

However, a constant vacant land tax is unlikely to materially reduce land price bubbles that emerge after the tax has been introduced. They would likely reduce the chances of land price bubbles emerging and they would likely result in them ending earlier, but these effects are likely to be modest.

For example, property prices in Auckland grew at 10.6% per year over the six years from 1 January 2012 to 31 December 2017.⁴⁶ A landowner with an average property valued at \$500,000 on 1 January 2012 would've received a capital gain of about \$416,500 by the end of 2017, amounting to about 83% of the original value. With a 1% vacant land tax already in place, the landowner's carrying costs are 1% higher per year than without the tax, reducing the net gains from deferring development. However, they would've still made a net gain of \$367,900, or 74% of the original value. Under a 2% vacant land tax the net gain would be about \$312,500. The incentives to speculate in vacant land would remain strong in either case.⁴⁷

In other words, if a strong bubble gets underway after a vacant land tax is in place, it would likely continue "over the top" of a constant tax rate unless the tax rate was set to a high rate, for example 5-10%. But these would be a very high tax rate relative to what councils currently levy property owners. For example, a 5% tax rate is more than 10 times the rates Auckland Council levied on urban business ratepayers in 2018/19 and more than 25 times the rates Auckland Council levied on urban residential ratepayers.

To tackle land price bubbles effectively, councils would need to vary their vacant land tax rates in response to market conditions. Even if councils could do this well, it would likely increase investor uncertainty with strong negative effects on housing development.

High vacant land tax rates would make it imperative to define taxable land narrowly and provide lengthy grace periods for property developers to minimise the serious risk of harming development and increasing development costs. Five to six years could be a reasonable grace period for large property developments, but this would exempt speculators in vacant land from paying the taxes during the grace period, greatly reducing the tax impact on them.

⁴⁵ This is based on a simple price formula for determining asset prices with a constant income stream in perpetuity. The calculation is based on current council rates equal to 0.2% of capital value (Auckland's urban residential rate was 0.19% for 2018/19) and a 1% vacant land tax surcharge (ie, vacant land subjected to 1.2% tax rate). Two interest rate assumptions are considered: the interest rate on one-year bank deposits on 21 November 2019, which was 2.6%, and a 5% interest rate. The land value falls by 19.2% if the interest rate is 5% and by 35.7% if the interest rate is 2.6%. Oates & Schwab (2009, p. 53) provides a useful description of these pricing calculations.

⁴⁶ 12-month rolling average dwelling sales prices, available at <http://urban-development-capacity.mbie.govt.nz/>. The compound annual growth rate was 10.6%.

⁴⁷ The \$416,500 capital gain is from the 10.6% compound annual rate of return for six years. The \$367,900 and \$312,500 capital gains are from 9.6% and 8.6% compound rates of return.

Also, a narrow definition of vacant land would create strong incentives for speculators to crowd-out developers from vacant land zoned for non-residential uses or vacant land that hasn't been zoned and serviced with infrastructure. Speculators could easily switch to these "un-taxed" types of vacant land. A broad definition would better constrain speculative activity but at high tax rates, such as 5%, this would seriously increase risks and costs for developers and, as a result, harm the development process.

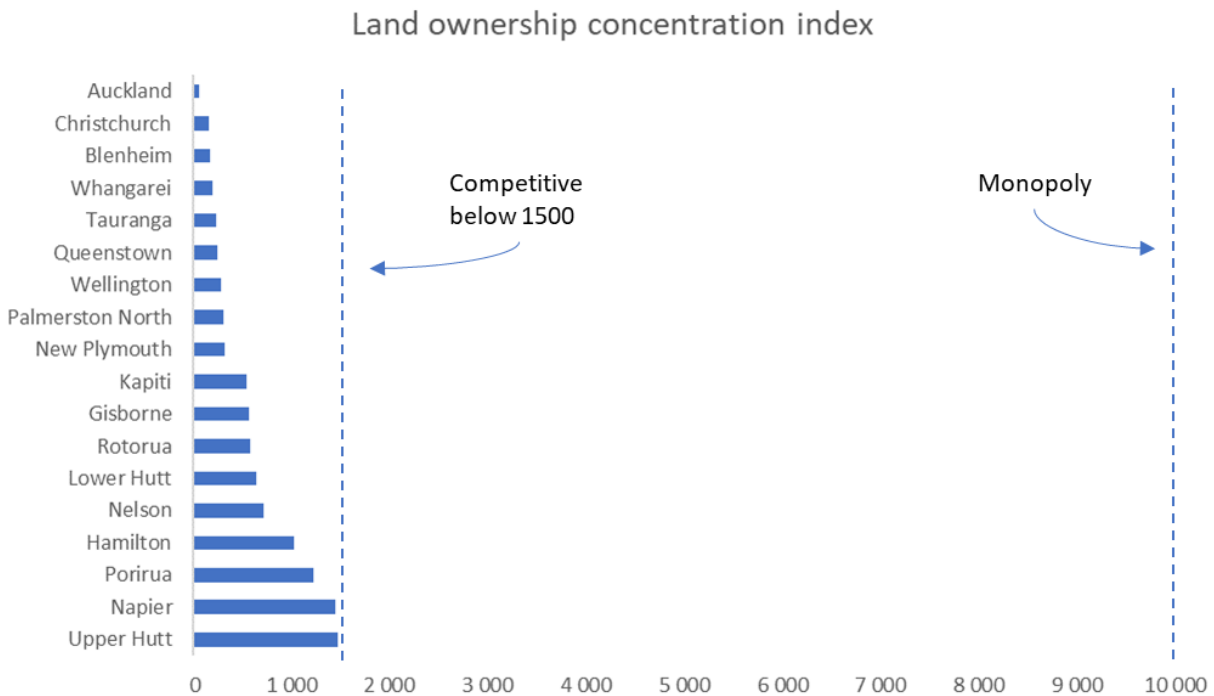
It is also important to remember that speculative investment can provide economic benefits, by bridging prolonged development gaps. These gaps can arise when market conditions change greatly, deferring the optimal time to develop a property. By buying property from productive users and/or developers, speculative investors assist productive users and developers to make better use of their capital and resources.

As speculative land holding occurs with productive land and developed residential properties, not just with vacant land, speculative investors can easily switch to non-vacant properties if vacant properties are taxed at high rates. They could also switch to other assets, such as metals and equity markets. Hence, vacant land taxes targeted at speculative activity may only serve to shift the speculative activity to elsewhere in the economy.

5.4 Concentrated ownership of suitable land doesn't appear to be a problem

Concerns are sometimes raised that land suitable for development on the outskirts of a city could be owned by as few as two or three owners. As shown in Figure 5, these concerns don't appear to be borne out by data on the concentration of the ownership of undeveloped land zoned for urban residential development.⁴⁸

Figure 5: Ownership of vacant residential land is widely distributed



⁴⁸ See the hyperlink entitled *price efficiency indicators* at <http://urban-development-capacity.mbie.govt.nz/>

The land concentration index is the standard Herfindahl-Hirschman Index of market concentration, in which each owner's market share is squared. Hence, if one party owned all land zoned for urban residential development then the land concentration index would equal 10,000. An index value below 1500 is widely regarded by competition economists as indicative of a competitive market.

The chart shows that private ownership is widely distributed for all urban land markets covered by the data (Dunedin city is the only major city not covered in the data). Hamilton and Porirua each have one private owner with about 26% market share, but in both cases there are many other private owners with very modest market shares.

The land parcels are of course in disparate locations, and so the landowners may have a modest degree of market power. But based on this ownership data it appears unlikely owners of urban residential development land could exercise any significant market power.

Nevertheless, if they could exercise significant market power, a vacant land tax would be an inferior instrument for discouraging those land owners, for three reasons.

1. To provide a significant dis-incentive, the vacant land tax rate would need to be very high, for example exceeding 5%.
2. The tax provides little dis-incentive to exercise market power if land bankers can easily redeploy their vacant land to some form of productive use to avoid the vacant land tax.
3. In practice, it isn't feasible to target vacant land taxes just to land owners exercising market power, and so other owners of vacant land would incur the tax. This would increase the costs and risks of property development and reduce supply responsiveness.

If there are concerns about ownership concentration and market power, a far more effective and efficient approach would be to alter land-use regulations to reduce land supply constraints. This would more effectively undercut any market power and it would reduce property development and housing costs.

5.5 The burden of vacant property taxes would fall predominantly on new entrants to the housing market (in the medium-term)

The initial impact of these taxes is likely to make consumers entering the housing market better off as property owners off-load some of their stock of vacant properties by reducing prices. In the short run, owners of vacant properties are likely to bear most of the burden of vacant property taxes because housing consumers have plenty of options for renting or buying houses whereas suppliers of vacant properties have few options initially.

However, the long run effect of the taxes is likely to be to increase house prices and rents because vacant property owners will have far more options than in the short term. Although land taxes in general are likely to be borne by landowners, taxes levied by a few councils on narrow "uses" of land – such as vacant land – have long run price effects similar to sales taxes on goods and services to consumers (Muthitacharoen & Zodrow, 2012).

The burden of excise taxes falls partly on consumers, partly on workers and partly on land owners, with the share of the burden in each case depending on elasticities and factor shares. Although land is in fixed supply, land owners can reduce their tax burdens in the long run by supplying their land for other uses, such as agriculture and other non-residential users. Similarly, as workers in the property sector have generic skills, they can resist wage reductions by switching to other sectors of the economy.

Hence, in the long run, the incidence of vacant property taxes is likely to fall predominantly on housing consumers entering the housing market, because the taxes increase new house prices.

However, the distributive effects of vacant land and dwelling taxes appear to differ. A vacant land tax may be progressive to some extent because it raises house prices on all consumers entering the housing market. If wealthier consumers entering the housing market choose disproportionately more land per unit of housing than poorer housing consumers choose, then the vacant land tax may disproportionately affect wealthier consumers. In contrast, vacant dwelling taxes are clearly regressive in their impact on consumers entering the housing market, as the tax predominantly affects the rental housing market and lower-priced owner-occupied houses.

The converse applies to existing house owners, as they are likely to receive windfall gains from higher house prices.

6 Implications for productivity and economic efficiency

This section draws substantially from CSA's research note entitled *Economic analysis of taxes on vacant land and vacant dwellings*, which is available upon request from the Commission.

6.1 Vacant land taxes would likely reduce productivity and economic efficiency

The analysis in this paper shows that vacant property taxes would likely reduce productivity and economic efficiency. The reason is very straight-forward for vacant dwelling taxes: they encourage landlords to incur higher economic costs to secure tenancies to avoid paying the tax. This encourages landlords to incur economic costs exceeding the economic benefits of tenancy.

For vacant land taxes, the primary reasons are:

- *Timing trade-offs*: Vacant land taxes alter the trade-offs developers make about the timing for developing their vacant land.
- *Capital-land trade-offs*: Vacant land taxes alter the trade-offs developers make about how much to invest in infrastructure and structures per unit of land.
- *Inventory trade-offs*: Vacant land taxes alter the trade-offs developers make about the size of their vacant land inventory.

The rest of this subsection elaborates on the efficiency effects of vacant land taxes absent other taxes and regulations and absent market imperfections. Section 6.2 discusses whether interactions between vacant land taxes and other taxes alter the efficiency assessment, and section 6.3 considers the interactions with market imperfections, such as speculative bubbles, market power and land-use externalities. Section 6.4 discusses the efficiency effects of vacant dwelling taxes.

6.1.1 Timing trade-offs

In general, taxes and rates on the unimproved value of land don't affect developer's incentives about when to develop property (Arnott, 2005). This occurs because the developer's tax liability doesn't depend on what the land is used for or when it is developed. Hence, land taxes encourage the efficient timing of development provided there are no market imperfections or inefficient taxes and regulations.

In contrast, vacant land taxes encourage land owners to develop their vacant properties earlier than is efficient.⁴⁹ This occurs because the developer's tax payment depends on the timing of development – that is, the tax depends on land-use decisions. Vacant land taxes increase the carrying costs of vacant land but not the carrying costs of developed land, and so it encourages developers to bring forward the timing for development.

This result holds even if vacant land was valued at its residual site value (ie, at the property's total value minus the cost of infrastructure on the property value). Again, this is because the tax depends on how the land is used: the vacant land tax can be avoided by developing the land.

6.1.2 Capital-land trade-offs

In practice, taxes and rates on the unimproved value of land may distort capital-land ratios (Arnott, 2005). This may occur because the unimproved value of land is typically calculated as the total property value less the cost of improvements (called the *residual site value* method).⁵⁰ Under this approach, the land tax increases the discount rate used to value future capital investments, reducing the net present value of improvements.⁵¹

The same logic applies to the taxation of vacant land valued at residual site value (ie, net of infrastructure costs). The higher discount rate reduces the net present value of future investments, including infrastructure investments.

A larger inefficiency occurs if taxes are applied to vacant land valued at its capital value (ie, inclusive of infrastructure costs). In this case the vacant land tax comprises two components: a tax on residual site value and a tax on the value of the infrastructure. The additional tax on infrastructure exacerbates investment inefficiencies.

6.1.3 Inventory trade-offs

In deciding how much vacant land to create, developers trade-off **conversion costs** (the costs of converting productive land into vacant land) against **carrying costs** (the costs involved in carrying stocks of vacant land until it is developed and sold).

Conversion costs include the costs of removing existing structures, the costs of extending network infrastructure to the property and the costs of installing residential infrastructure on the property. Developers buy large land parcels in part because conversion costs comprise significant fixed costs, making it costly to buy and convert land parcels on a per-house basis as housing demand evolves.

Vacant land taxes increase developer's carrying costs, encouraging them to incur higher conversion costs to reduce their carrying costs through holding smaller stocks of vacant land.

Higher conversion costs may occur in the form of higher transaction costs because of more frequent land purchase negotiations with owners of productive land and higher average costs of infrastructure. Developers may also keep their land in productive use for longer until it needs to be made vacant for

⁴⁹ The higher carrying costs encourage developers to develop their properties when the growth rate in their option value is high enough to offset their higher carrying costs. The higher option value growth rate means developers forgo socially valuable development opportunities.

⁵⁰ There are other ways to calculate the unimproved value of land that avoid distorting capital-land trade-offs but they're impracticable.

⁵¹ Note Arnott produces this result under the assumption the rental income from property never declines over time. Arnott's (2005) analysis is explained in greater detail in the companion research note, entitled *Economic analysis of taxes on vacant land and vacant dwellings*, which is available from the Commission upon request.

subsequent development. As the additional conversion costs exceed the savings in net-of-tax carrying costs, the net effect is lower developer productivity and efficiency.

The higher costs incurred by developers would likely flow through to higher prices to housing consumers, encouraging consumers to choose smaller, lower quality houses and more housing per area of land. These outcomes are inefficient because consumers value their forgone housing services by more than the economic cost of providing those services.

The smaller stock of vacant residential land creates additional inefficiencies if it reduces housing supply responsiveness. The slower that supply responds to increases in demand, the higher prices rise during the transition to a new long run equilibrium and the larger the level of unmet demand.

6.1.4 Conclusions

Overall, consumers suffer in two ways. Firstly, they pay higher prices to the extent the incidence of the tax falls on them. Secondly, they pay higher prices because the productivity of developers and builders is lower than what could have occurred (less value is produced for the same effort).

6.2 Interactions with current tax and rating policies

The analysis in section 6.1 concludes that vacant land taxes would generally reduce efficiency. However, taxes can increase efficiency if they counteract the effects of other policies that harm efficiency – these are often called *second-best considerations*.

Hence, this subsection considers whether current taxes and property rates alter the above efficiency conclusions. The analysis below shows there aren't any significant inefficiencies from current tax and rating policies *that could be mitigated effectively* with vacant land taxes.

6.2.1 The impact of current taxes on the efficiency of vacant land decisions

The Tax Working Group examined how income taxes and the goods and services tax (GST) affect the housing market, and in places referred to how taxes are applied to land owners and property developers. This section draws on the Group's analysis to identify whether and how New Zealand's tax system affects incentives to hold vacant property.⁵²

The conclusion from the analysis below is that the current tax system, with two exceptions, either doesn't affect the timing of property development, or if it does have an impact, it encourages earlier rather than later development. One of the exceptions is to do with windfall gains on re-zoned land etc, which is on the Finance Minister's tax policy work programme. The other exception is to do with the lack of comprehensive income taxation of 'mum and dad' property developers.

[The current tax system doesn't generally create incentives for professional property developers to delay their development of vacant land](#)

New Zealand taxes the realised capital gains made by professional property developers. However, it is useful to briefly discuss the effects of taxing accrued capital gains.

Kanemoto (1985) shows that constant tax rates on accrued capital gains don't alter incentives about when to develop properties. This is because constant tax rates reduce future capital gains

⁵² A summary of the relevant material from the Group's interim report, released in 2018, can be found in Appendix 2 of CSA's research note entitled *Economic analysis of taxes on vacant land and vacant dwellings*, which is available from the Commission upon request.

proportionately, leaving the growth rates of net-of-tax capital gains the same as gross-of-tax growth rates.

Table 2 illustrates this for a hypothetical case where property values increase over a five year period. In the absence of an accrued capital gains tax, capital gains are assumed to grow at 50%, 133% and 14% from 2016 to 2018. For a property developer incorporated as a company, the 28% company tax rate would apply to the company's capital gains, reducing their capital gains by 28% (from \$100 to \$72). However, the growth rate of capital gains is the same regardless of the tax.

Table 2: Impact of a 28% capital gains tax on the growth rate of capital gains

	2014	2015	2016	2017	2018	Total capital gains
Property value	100	110	125	160	200	
Before-tax capital gain		10	15	35	40	100
Growth rate of before-tax capital gain			50%	133%	14%	
Net-of-tax capital gains		7.2	10.8	25.2	28.8	72
Growth rate of net-of-tax capital gain			50%	133%	14%	

However, as noted above, professional property developers are taxed on their realised capital gains. This provides incentives for professional developers to become landlords rather than sell their developed properties, to defer paying tax on their capital gains.

Hence, consider two extreme cases: Landlord and Sell Immediately. The Landlord case splits into two subcases:

- *Case 1: Landlord:* In this case a developer becomes a landlord and falls into one of two sub-cases:
 - *Subcase 1A: Never sell:* The developer plans to never sell the property (or plans to hold it for a very long time). Never selling the property means never paying the tax. In this case, the realised capital gains tax doesn't alter his incentives about when to develop his vacant land.
 - *Subcase 1B: Sell at some stage (eg, in five years):* The developer plans on holding the property for a period, such as five years, regardless of when in that period he develops the property. In this case the realised capital gains tax alters the time profile of the developer's after-tax growth rate in capital gains, with the smallest impact if immediate development occurs and the largest impact if development occurs during the last year before sale in Year 5. This brings forward the optimal time for developing the property.⁵³
- *Case 2: Sell Immediately:* The second case is where a property developer's business model is to sell immediately after completing every development, whenever that may be. In this case the

⁵³ Suppose without the tax the optimal time to develop the vacant land was Year T . Then it must have been the case the growth rate in capital gains in Year $T-1$ was higher than in Year T (if not, the developer would've developed prior to Year T). The tax reduces Year T 's net-of-tax growth rate below the opportunity cost of development, r . Hence, development in Year T would now be too late. The optimal time to develop must be an earlier year because the net-of-tax growth rates are higher in years earlier than Year T .

realised capital gains tax is effectively the accrued capital gains tax modelled in Kanemoto (1985), and therefore it is neutral regarding timing of development.

The upshot is that a realised capital gains tax either doesn't affect the timing of property development, or if it does have an impact, it encourages earlier development.⁵⁴ Hence, New Zealand's current income tax system doesn't encourage developers to defer their developments.

Similarly, the realised capital gains tax on developers doesn't affect their choices about the size of their inventory of vacant land, as it doesn't affect their carrying costs. The tax burden depends on their sales, not their inventory. Moreover, as carrying costs and conversion costs are both tax-deductible, the corporate income tax system doesn't distort vacant land inventory decisions.

Exception 1: the 'ten-year' rule may be discouraging development

The income tax rules may be creating incentives for some land on city fringes to be withheld from development, possibly for up to ten years. This arises because land affected by changes to zoning, consents and other specified changes are subject to tax on their windfall capital gains. Although the tax base is reduced by 10% for each year (until the 10-year mark is reached), the regime still creates incentives to defer development. However, officials indicated to the Tax Working Group the impact on land supply is unlikely to be significant (Secretariat to the TWG, 2018b, pp. 11-12).

Exception 2: 'mum and dad' investors in land

In general, 'mum and dad' investors in land are not subject to income tax on their buying and selling of land (absent the conditions in the next paragraph). This is clearly favourable treatment relative to other taxpayers and other asset classes, but it doesn't alter the incentives on 'mum and dad' owners of vacant land to develop that land. This is because the option value growth rate is unaffected. As vacant residential land doesn't earn any cashflow income, income taxes don't affect carrying costs and so the favourable tax treatment doesn't affect carrying costs either.

However, land disposals may be subject to income tax 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, although there are several exclusions (TWG, 2018, para 18).

The aim of these provisions is to tax the returns to development, and in particular to protect against professional developers undertaking land divisions and developments outside the tax system. These provisions are likely to slow the development decisions of 'mum and dad' investors that are uncertain about when they want to develop a property or what they want to develop. This is because undertaking some development, such as installing infrastructure, within the 10-year period leaves them paying tax if their plans change and they want to sell their vacant land.

In principle, a vacant land tax could be used to address these deficiencies, by applying it just to 'mum and dad' owners of vacant land. By raising the carrying costs of land, such a tax could encourage vacant land owners to overcome their uncertainties and bring forward their developments.

However, presumably it would be contentious to apply vacant land taxes just to 'mum and dad' investors, with professional developers excluded. The case for the targeted approach would be that the current tax system discourages 'mum and dad' property development, but that it isn't politically feasible or practicable to fix the current tax system. Overall, a highly targeted approach doesn't appear a simple or easy option.

⁵⁴ It may encourage earlier development either by causing some taxpayers to shift from Case 2 to Case 1B or by altering the timing of taxpayers in Case 1B.

6.2.2 The impact of local government rates on the efficiency of vacant land decisions

As mentioned in the Introduction, councils levy their general rates on land value or capital value. In its report on *Housing affordability*, the Commission assessed the average impact of these rates in 2012 to be equivalent to between 12% and 20% of the imputed income from the 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). Clearly the choice of rating system could have a material impact on pre- and post-tax returns to development.

The efficiency effects of land value rating were discussed in section 6.1, under the “heading” land taxes: in practice they cause some inefficiency in regard to capital-land ratios, but vacant land taxes would exacerbate those distortions.

Under capital value rating, rates are applied to the total value of a property in its current use. Rating the capital value of properties creates even larger capital-land inefficiencies than land value rating because these taxes comprise two components: a tax on residual site value and a tax on the value of improvements. The additional tax on improvements exacerbates the capital-land distortions (Arnott, 2005).

Relative to land value rating, taxing the capital value of properties brings forward the timing of property development, causing dynamic inefficiency (Kanemoto, 1985). This occurs even if the capital value tax is constant and applied uniformly to land pre- and post-development. A vacant land tax also brings forward the timing of property development, and so wouldn't counteract the timing effects of capital value rating.

Efficiency may be able to be improved by raising revenue from taxing vacant land and reducing capital value rates by a revenue-neutral amount. However, an even more efficient option would be to make revenue-neutral switches from capital value rating to land value rating.

6.3 Interactions with market imperfections

This section briefly considers three types of market imperfections: speculative bubbles, market power in the land market and land-use externalities. The last two issues are the easiest to consider.

6.3.1 Speculative bubbles

Section 5.3 considered how vacant land taxes affect speculative land bubbles, and showed such taxes would likely reduce the chances of land price bubbles emerging and result in them ending earlier. Hence, vacant land taxes may improve efficiency by stalling and arresting land price bubbles. However, with constant tax rates these effects appear to be modest, and the more narrow the vacant land tax base the less effective they will be.

Section 5.3 indicated that an active vacant land tax policy – where tax rates are altered to deal with bubbles when they arise – could provide an effective mechanism for “popping” bubbles. However, the expertise required to operate an active tax policy is unlikely to reside in most councils. Even if councils could do this well, it would likely increase investor uncertainty with strong negative effects on housing development.

In practice, land price bubbles typically occur across multiple territorial authorities, if not across the whole country. This suggests it is likely to be suboptimal to have councils taking independent action with vacant land taxes.

In CSA's view, it is not tenable for local authorities to adopt active tax policies to combat speculative bubbles when they arise. Hence, the issue is the potential efficiency gains from the effect of constant

vacant land tax rates on speculative bubbles. These gains are difficult to assess, as they depend on the frequency and severity of future land price bubbles, and on the marginal impact vacant land taxes could have with stalling and arresting bubbles.

In practice, asset price bubbles are often initiated by disturbances external to the market, such as artificial supply scarcities or unsound regulatory, monetary, fiscal or exchange rate policies. They can also arise from a rapid increase in housing demand, such as from a sudden rise in migration or financial sector liberalisation. Housing demand can always move faster than housing supply, and so the risk of bubbles can be quite high. These forces are often very strong and would in many cases overwhelm the suppressing effect of a constant vacant land tax. These considerations suggest it is likely to be more effective and efficient to address the underlying factors that drive bubbles, rather than try to address them with vacant land taxes.

6.3.2 Market power

Section 5.4 considered how vacant land taxes affect land owners with market power in the land market. It showed that constant vacant land tax rates reduce incentives for owners to exercise market power. However, it also showed that ownership of urban development land appears to be widely distributed, and there's no particular reason to think individual land owners have significant market power in New Zealand.

As stated earlier, if there are concerns about ownership concentration and market power, a far more effective and efficient approach would be to alter land-use regulations to reduce land supply constraints. This would more effectively undercut any market power and it would reduce property development and housing costs. In contrast, vacant land taxes are likely to increase housing costs in the medium term.

6.3.3 Land-use externalities and regulation

The Productivity Commission has identified a suite of local and central government factors restricting the supply of land for residential development and restricting housing development (NZPC 2012, 2015, 2017). The key restrictions include:

- Tight and inflexible restrictions on land use.
- Limitations on aggregating contiguous land parcels into a sizeable parcel to make large-scale brownfield and infill development commercially viable.
- Central and local government ownership of large amounts of under-used land.
- Slow provision of more infrastructure when it is needed.

The economic rationale for regulating land use is to mitigate externalities that individual actions impose on other housing consumers. In principle, the right type and degree of restrictions can improve economic efficiency (Glaeser, 2008, p. 241).

Based on the Commission's analysis, it is reasonable to assume regulation and infrastructure provision has been, and probably still is, sub-optimal and creating economic distortions. That is, they're over-mitigating the externalities and so they're causing developers and housing consumers to make inefficient trade-offs.

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 Auckland City (MBIE & MfE, 2017, p. 22).

The above regulatory and infrastructure restrictions impose *implicit taxes* on vacant land. This is easiest to discuss in two parts:

- The first part is to recognize poor land use regulations and slow infrastructure provision increase development costs. In broad terms, the additional costs have effects broadly like imposing additional taxes on development.⁵⁵ Both explicit and implicit taxes on development increase housing and land prices, with similar directional effects on consumer and housing production choices.
- However, this paper's focus is on vacant properties. Hence, the second part of the analysis is that creating vacant land requires investments to remove existing structures and install infrastructure suitable for residential development. Although land overall is in fixed supply, vacant land is an intermediate good produced by developers and developers hold vacant land as inventory for housing production. By restricting access to developable land, land use regulations (and slow infrastructure provision) impose implicit taxes on inventories of vacant land.

This analysis suggests that imposing explicit taxes on inventories of vacant land is unlikely to counteract the over-mitigation of externalities currently occurring. Rather, they're likely to exacerbate these effects, worsening economic efficiency and further increasing housing costs.

6.4 Vacant dwelling taxes would likely reduce productivity and economic efficiency

Property owners have strong incentives to tenant their vacant dwellings when the benefits of tenancies exceed the costs of tenancies. In general, these benefits and costs reflect economic benefits and costs, as there aren't any significant land-use externalities for leaving dwellings vacant.⁵⁶

A vacant dwelling tax, therefore, encourages landlords to tenant their properties when the economic costs exceed the economic benefits. One of the reasons they may not tenant their dwellings is the dwelling requires significant re-development before it is compliant with regulations or before it will be desirable to prospective tenants. A tax on vacant dwellings encourages landlords to undertake re-developments where the economic costs exceed economic benefits. This lowers productivity and economic efficiency.

These conclusions are not significantly affected by second-best considerations, as outlined below.

Second-best interaction effects with central government taxes

Landlords are generally taxed on their net cash income (ie, on their income without deduction of depreciation expenses but net of cash expenses), and on any realised capital gains on properties sold within five years of purchase (the bright-line test). Capital gains taxation isn't generally applied to properties sold five years after purchase, and so capital losses are generally not deductible unless the property was bought with the intention of resale.

The favourable tax treatment of landlords appears to be modest due to the lack of depreciation deductions. Although the favourable treatment encourages investors to invest in housing it doesn't

⁵⁵ Bovenberg & Goulder (2001) provides one of the earliest general equilibrium analyses of regulation as implicit taxes.

⁵⁶ The social costs of insufficient housing for everyone may be thought by some to be an externality, but those costs arise from the laws, regulations and planning decisions of central and local government. They don't arise from landlord's tenancing decisions. Tenancing vacant properties would reduce those costs (and increase costs on landlords), but many other actions would reduce those social costs too.

significantly alter incentives on landlords to tenant their existing properties (unless the property needs re-development).⁵⁷

For example, property owners typically receive capital gains on their properties regardless of whether their dwelling is tenanted or not, and so the tax treatment of capital gains doesn't alter their tenanting incentives. The lack of depreciation deduction means landlords pay a higher effective tax rate on their incomes from tenanting, this will often be more than offset by the exclusion of accrued capital gains from their income assessments.

Relative to rented houses and other asset classes, owner-occupied homes are given far greater favourable tax treatment because they generally do not pay tax on their net imputed income and capital gains on those homes are not generally taxed.⁵⁸ In practice, income from renting out a home whilst absent for a period, or renting out spare rooms after dependents have left home, often go untaxed.

If anything, the favourable tax treatment for owner-occupiers increases their incentives to tenant their dwellings when feasible for them to do so. There doesn't appear to be an efficiency argument for taxing owner-occupiers for not renting out all or part of their family home as the tax system already encourages that to occur.

Second-best interaction effects with local government rates

There are no interaction effects with local government rates. Under both land value and capital value rating systems, the same amount of rates are paid regardless of whether dwellings are vacant or occupied.

⁵⁷ If the property needs re-development then the analysis in section 6.2 applies.

⁵⁸ There are some exceptions: the 'main home' exclusion from the five-year bright-line test can only be used twice in a two-year period; and owner-occupiers with a regular pattern of buying and selling residential land cannot use the 'main home' exclusion for the land sale rules, including the bright-line rule (TWG, 2018, para 20).

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