

Tax and the city – a closer look at the business differential and land taxation

For the Wellington Chamber of Commerce

Sense Partners October 2023



Context for this report

In July 2023, the Wellington Chamber of Commerce approached Sense Partners for advice on how to think about local rates. The Chamber wanted an economic framework to think about the business rate differential and advice on the pros and cons of assessing rates on a land versus capital basis. This note is an overarching strategic assessment of the problem. We note the first steps from Wellington City Council to signal a decrease in the business differential to 3.25. There remains opportunity for further adjustments to the business differential.

Key Points

Opportunity for city to flourish by improving revenue raising settings

- Wellington City Council could enable firms and workers to thrive by revisiting how rates are set.
- The choice of how to raise revenue has large and long-lived implications, requiring scrutiny of the evidence.
- Right now, Wellington City Council sets rates with a high business differential. International studies and our indicative modelling shows this pushes firms to reduce the size of operations within the capital and raises the barrier for new firms to bring new and innovative goods and services to the city.
- Reducing the business differential would increase density and expand Wellington's labour market, enabling firms and workers to be more productive by increasing specialisation, for better job opportunities and higher incomes.

Case for business differentials is poor and holds Wellington back

- Businesses pay rates 3.7 times the rate charges on residential assets the highest differential in the country. The reason for this differential is not clear and unlikely to be due to user pays.
- At times council refers to charging businesses higher rates based on ability to pay and recouping user charges. But these reasons are not consistent and suggest different methods of raising revenue that are not consistent with each other.
- We show the differential is likely to be reducing Wellington's employment growth, crimping powerful agglomeration effects that would lift productivity and wages for workers.

The rating base is too narrow, more can be done to expand funding and financing of services

- New Zealand has the narrowest taxation base for local government in the world.
- Others have recognised more could be done to broaden revenue gathering. One approach is to better align development contributions to the cost of services. Increasing the use of special purpose vehicles for specific infrastructure projects could also broaden revenue.
- Where the interests of central and local government align, use city deals to help finance infrastructure projects.

Implement user charging to recoup the cost of services...

• At times, council argues taxing capital is a proxy for user charges but the capital on a land parcel is a poor proxy for user charges.

• Instead, volumetric water and waste-water charges should be used to recover the cost of providing services according to the beneficiary pays principle. Where large building use more city resources, they should pay a larger portion of the cost.

Taxing land rather than capital offers efficiencies that should be explored, but will be politically challenging

- Setting rates on land rather than capital is more efficient as a means of taxation: businesses don't change behaviour to avoid the land-based rates system. This means less impact on the economy and the allocation of resources when collecting revenue.
- Collecting revenue on a land-basis better reflects the benefit of the provision of local public goods. There is less need to implement a series of bespoke targeted rates, which are challenging to get right.
- Land use settings need to complement rates settings, enabling firms and households to develop vacant land that would otherwise collect higher rates.
- But changes to almost all taxation regimes result in winners and losers. That makes it impossible to identify the "best" taxation regime without making value judgments across individuals or interest groups. Individuals that live on properties where land is a higher fraction of the property value will pay higher rates.

Taxing vacant land might appear appealing but risks the unintended consequence of making housing *more* expensive

- Wellington City Council propose imposing taxes on vacant land, at four and a half times the rate of residential properties, to promote increasing housing supply.
- But this approach risks the unintended consequence of *reducing* housing supply.
- Taxing vacant land increases the cost of holding land for development. In the shortrun developers may opt to build smaller, less complex designs, reducing their costs of holding land by building. That adds fewer dwellings to the housing stock.
- Any positive impacts are expected to be small and only transitory as housing markets respond to the new level of tax.
- Vacant land taxes also needs to traverse material design challenges that raise implementation costs and hamper effectiveness.

Keep it simple so firms and households can make better choices

- Removing business rates differentials and implementing a broad set of user charges should be implemented alongside any potential shift from land to capital rates settings.
- Avoid unintended consequences of micro-managing outcomes when raising revenue. Allow firms and households to respond to incentives.



Prioritised recommendations

Table 1: Prioritised recommendations on rates

	Recommendation	Description	Priority
1	Council should look for alternative funding and financing tools to finance infrastructure investment	Broadening revenue gathering and funding to include better use of special purpose vehicles. Ensure interests are aligned by using city deals between central and local government. Right-sizing development contributions to costs faced by Council can also help the efficiency of raising revenue.	High
2	Implement user charges rather than a business rate differential	The benefit principle says where possible adopt user charges. The case that capital is a proxy for user charges is not well-made. Council should levy volumetric water and wastewater charges instead.	High
3	Raise revenue on a land rather than capital basis – offers efficiencies – but without addressing the business rate differential, expect modest impacts	Raising revenue on a land rather than a capital basis is more efficient, and better identifies the beneficiaries of public goods. Ultimately this raises the amenity value of living and working in the city.	Medium
4	Any shift to raising revenue on a land rather than capital basis needs to dovetail with land use settings that enable landowners to develop sites	Since urban form evolves only slowly, expect incremental rather than fundamental changes. Land use regulation needs to be complementary with financial incentives to encourage efficient land use.	Medium
5	Keep it simple and beware of unintended consequences of complex revenue raising settings	Applying a variety of rates, differentials, and taxes can have complex and overlapping impacts. This creates uncertainty, undermining how workers and firms respond to settings. Vacant land taxes are likely to be ineffective.	Medium

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1. Current environment

Expect opportunity from timely, comprehensive rates review...

This year, Wellington City Council will review the rating policies that determine who pays for the services provided by the Council. In the context of increasing constraints on both central and local government, it makes sense to look closely at how revenue is collected.

To make progress, this study makes no claims about how revenue should be spent or right sizing the pie. Instead, we aim squarely at the question of how best to collect revenue to fund the provision of goods and services.

...deciding who pays can have profound impacts

Tax matters. How revenue is collected impacts the choices firms and households make on where to work, where to live, and where to call home. Improving tax settings can contribute to greater prosperity over future years.

And it's not just about more of the same when it comes to setting rates. One of our key points is working to identify additional levers that could expand the set of revenue raising tools.

This is not a new point for many. It reflects the direction of travel of the Infrastructure Funding and Financing Act 2020, the tone of much of the Future of Local Government Review, and the reality of a system with a one of the narrowest revenue bases globally.

Others have also focussed on using revenue bonds to fund public goods, doing more to ensure development contributions are set to recover the costs of infrastructure and taking a close look at value capture to raise funds.¹

Pulling together

One of the messages of the Future of Local Government report is central government can do more to help fund local infrastructure. Central government has interests in well-functioning cities to promote good outcomes for citizens using tools and information not available to central governments, and for the revenue central government receives when cities flourish.

In contrast, poorly functioning local communities can create problems for central government. In the past, central government has at times, picked up the tab for underinvesting in infrastructure. And when cities inhibit growth with prohibitive rather than enabling land use policies, growth pressures manifest elsewhere.

Central government will be more willing to invest when local government can demonstrate a transparent and robust basis for raising revenue in a fair and efficient manner. Council must show that local government settings are doing all they can to promote a growing and flourishing city that contributes to the tax base. When local government settings inhibit growth, expect central government to be reluctant to invest in local infrastructure.

¹ See for example, the New Zealand Initiative on using revenue bonds, Auckland Council on development contributions and Te Waihanga on the use of value capture.

And this is not about businesses versus residents. Ultimately, workers and households are better off with improved job opportunities and stronger incomes. This can be achieved when local taxation settings enable firms to be productive and thrive.

2. What good looks like – principles for setting local government rates

2.1. Objectives for raising revenue

The OECD identifies a set of principles for taxation that apply equally to local government. We set these out in Table 2 below.

Principle	Description
Neutrality	Taxation should seek to be neutral and equitable between forms of business activities. A neutral tax will contribute to efficiency by ensuring that optimal allocation of the means of production is achieved. A distortion, and the corresponding deadweight loss, will occur when changes in price trigger different changes in supply and demand than would occur in the absence of tax.
Efficiency	Compliance costs to business and administration costs for governments should be minimised as far as possible.
Certainty and simplicity	Tax rules should be clear and simple to understand, so that taxpayers know where they stand. A simple tax system makes it easier for individuals and businesses to understand their obligations and entitlements. As a result, businesses are more likely to make optimal decisions and respond to intended policy choices.
Effectiveness and fairness	Taxation should produce the right amount of tax at the right time, while avoiding both double taxation and unintentional non-taxation. In addition, the potential for evasion and avoidance should be minimised.
Flexibility	Taxation systems should be flexible and dynamic enough to ensure they keep pace with technological and commercial developments. It is important that a tax system is dynamic and flexible enough to meet the current revenue needs of governments while adapting to changing needs on an ongoing basis.
Equity	Equity has two main elements: horizontal equity and vertical equity. Horizontal equity suggests taxpayers in similar circumstances should bear a similar tax burden. Vertical equity is a normative concept, whose definition can differ across users. Many users suggest, vertical equity taxpayers in better circumstances should bear a larger part of the tax burden as a proportion of their income. Equity is traditionally delivered through the personal tax and transfer systems.

Table 2: OECD Principles for Setting Taxation

Source: OECD

Other organisations and researchers have also set out their own principles for gathering taxation revenue.² For example, one UK expert considers there are six important considerations for a good tax system using their framework:³

- incentives and economic efficiency
- distributional aspects
- international aspects
- administration and compliance
- flexibility and stability
- transitional problems

In practice these principles have considerable overlap.

Applying the principles to local government

When it comes to principles of taxation, local government is no different from central government. Local government should not be immune from raising revenue in a principled manner.

Central government is well placed to address equity through the tax and transfer system

Perhaps the key difference is the lack of ability to levy taxes on capital, labour, or consumption. These taxes make central government best suited to deal with equity and distributional issues through the tax and transfer system.

Instead, equity can take a spatial dimension. When mobility of residents means taxes can be moved onto other rate payers, this erodes local responsibility and accountability. The outcome is the level of public goods provided can be inefficient (too high and too low).

Taxes are set on the principle that taxpayers should bear tax burdens in line with their ability to pay.⁴ The ability-to-pay principle requires horizontal and vertical equity in the tax system.

Horizontal equity holds if those with an equal ability to pay bear equal tax burdens. Vertical equity holds if those with a greater ability to pay bear higher tax burdens. Horizontal equity is undermined when businesses pay more property tax than households while they have the same ability to pay. Individual and company taxes would ideally be aligned to avoid distorting outcomes.⁵

 $^{^2}$ See the objectives of the Tax Working Group 2019 or the Productivity Commission 2019 and Spahn 1995 for example.

³ See Meade 1978.

⁴ See Case et al., 2019.

⁵ See McLeod et al., 2001.

Expect local government to show greater interest in matching costs to who benefits

Local government is likely to be concerned with linking revenue capture with the benefit or willingness-to-pay for local public goods. The closer and stronger the link, the greater the extent individuals benefit from local government and the city thrives.

In practice, eliciting prices for public goods can be challenging. It can be difficult to extract what residents would be willing to pay for a service.

Efficiency continues to matter at a local level

Raising revenue at a local level should be executed in the least distortive manner possible. This allows firms to allocate resources in a similar way to if there was no taxation at the local level. Neutral taxes minimise the unintended consequences on private decisions. Neutrality is necessary for a good tax system.⁶ Higher tax rates for businesses will distort private decisions.

The efficiency criteria takes on a new dimension at the local level since firms and workers can avoid tax by "voting with their feet" and moving to a new location. At least in principle, since firms can move between jurisdictions, differences in tax rates across councils should be minimised.

This has a particular emphasis within the region where commuting flows across jurisdictions are large. Commuter flows into Wellington City are larger than elsewhere in New Zealand.

Moreover, tax competition favours raising revenue on land rather than capital since land cannot be moved across local boundaries.

Simple and transparent

The use of revenue raised by local and central government can create accountability issues when the use of funds is not clear. Volumetric charging would help councils better fund the costs of growth and help reduce demand for services that could delay the need for infrastructure.

Land and capital taxes can be straightforward to collect. But land taxes require identification of the land component of the capital-land package for any site. This can be more challenging if few land only parcels come to market. But this should not be considered a showstopper. A range of techniques can be used to assess land value.

2.2. A closer look at Wellington City objectives

Wellington City Council in their own words

Wellington City Council usefully spells out the principles and policy objectives for setting rates that we lay out in Table 3. We test these principles against the OECD principles. In general, Wellington City Council principles appear consistent with rationalising the current set of rates rather than working from principles to how rates should be set.

⁶ See Ebel and Petersen, 2012.

The first principle resonates with horizontal equity. Similar properties should pay similar local taxes. However, the presence of business differentials would appear to work against this principle.

Wellington City Council also seems to want to prioritise the viability and vitality of the Wellington business community. The second principle says the burden on different sectors needs to be reasonable in terms of its impact on the viability and vitality of the business community.

But there is a long literature, dating to the urban economist Jane Jacobs, pointing to the benefits of low rents. These provide opportunity for entrepreneurs and the arts community to try out new and diverse activities within the city centre (see Box A).

It would appear one unintended consequence of business differentials is reduced opportunities for low rent within the city. This works against the ethos and method of achieving vibrant cities laid out by Jane Jacobs decades ago.

This also works against the key economic channels that respond to how rates are set:

- i. when rates are set on land, this encourages investment by reducing the disincentive to add capital to the city;
- ii. when rates are neutral between business sites and residential sites this further reduces the disincentive to invest in commercial space.

It is important to distinguish between the static world, where firm choices and land prices do not respond to incentives, and a dynamic world that accounts for the impact of firms' location decisions.

Take the example of Cuba Street where the capital value of many properties is arguably low relative to land value. Rates could go up, rather than down. But the increase in commercial space means the same rates would be covered by a lot more sqm of commercial business. Rents would drop from both the increase in space and the bearing of a smaller fraction of that rates burden.

Wellington City Council also nods towards the beneficiary pays principle. However, they then suggest the principle needs to be tempered by other objectives, including affordability, practicality, and Council's other policies. So it's not clear the extent to which the beneficiary pays principle applies. It appears it might apply, but only when a range of other factors are satisfied. This is only reinforced by the Council's sixth principle that rates should *to some extent* reflect benefits received.

For services with clearly identifiable private benefits a direct user charge may be more appropriate, as it causes the user to focus on cost and the need for conservation. However, this approach is to be tempered with an assessment of affordability, practicability, and the Council's other policies.

The final principle is an amalgam of many things but seems to suggest rating burden should be distributed based on capital value of properties. But this seems an outcome or tool for meeting objectives, not a principle or foundation of how to reason about how to collect local revenue. Table 3 also reflects the objectives of neutrality in that it does not encourage people to redirect activity to avoid its impact.

Rating principles
There will be one comprehensive rating system for the whole of Wellington city that allows consistent application across the entire city.
The rating burden on the different sectors needs to be reasonable in terms of its impact on the viability and vitality of Wellington's business community.
For services with clearly identifiable private benefits a direct user charge may be more appropriate, as it causes the user to focus on cost and the need for conservation. However, this approach is to be tempered with an assessment of affordability, practicability, and the Council's other policies.
The rating system will have wide general application and will be set from a global perspective.
The impact of the process of change, due to revised assessment of incidence of costs and benefits received, as well as changes in the assessment of ability to pay and other Council policies, will not fall disproportionately on any one section of ratepayers. While it is recognised anomalies will exist, it is not appropriate to focus on special 'individual' cases.
Rates paid should to some extent reflect the benefits received. However, it is recognised that the issue of benefit distribution analysis is a complex and inexact process.
The rating burden should be distributed amongst ratepayers based on capital value of property and by using targeted rates. Any differential, where appropriate, will be based on property use, the incidence of costs and benefit of service. It should account 'for ability to pay' practicalities and the Council's other policies but recognise that the level of rating also depends on the degree of use of alternative sources of income such as user charges.
Policy objectives
Provide the Council with adequate income to carry out its mission and objectives
Support the Council's achievement of its strategic objectives
Be simply administered, easily understood, allow for consistent application and generate minimal compliance costs
Spread the incidence of rates as equitably as possible, by balancing the level of service provided by the Council with ability to pay and the incidence of costs in relation to benefits received
Be neutral in that it does not encourage people to redirect activity to avoid its impact
Reflect the decisions of the Funding Policy and rating reviews

Table 3: Wellington City rating principles and objective in their own words

Source: Wellington City Council

Box A: Jane Jacobs argues for lower rents

A well-functioning urban environment should have a variety of activities...

Jacobs wrote *The Death and Life of Great American Cities*⁷ in 1961 as an attack on the urban planners of her day. She believed that urban environments should promote safety, economic prosperity, social interaction, and adaptability.

"...writing [the book] about how cities work in real life, because this is the only way to learn principles of planning and what practises in rebuilding can promote social and economic vitality in cities, and practises and principles deaden these attributes".

Preconditions of well-functioning urban environments include:

- mixed land use
- smaller blocks
- mix of new and old buildings
- sufficient concentration of people to boost economic activity

This is supported by some buildings having low rents, facilitating start-up of new activities...

New and old buildings will demand higher and lower rent. The variety in rent is useful for attracting different occupants to the urban environment. For example, start-up businesses with a lesser ability to pay rent can operate in the same locations as well-established businesses.

This favours land tax and high business taxes prohibit start-ups doing new things within the city (too expensive)

Land taxes are generally considered to be neutral, meaning that it does not distort economic decision-making. Land is immobile and taxing it doesn't lead to reduced investment in the same way as a capital tax might. Capital taxes reduce the post-tax rate of return for businesses and will reduce investment levels at the margin.

3. No case for business differentials

3.1. Assessment against principles

Ability-to-pay argument poorly founded...

Wellington City Council make the claim that the business differential reflects ability to pay. However, Wellington business properties pay a higher fraction of rates than elsewhere (Figure 1).

Urban economists are often interested in the agglomeration benefits. These are the productivity benefits that come from cities that enable firms and workers to work in density. It turns out that one of the key benefits of cities is the labour market opportunities that provide higher income to residents.

For households, locating close to a larger pool of firms increases the number of potential jobs. For firms, locating close to households means a larger number of potential applicants. These factors both increase the likelihood of a good match between firms and applicants.

The additional opportunities provided by cities increases specialisation. For example, rather than operating as engineers, specialisation allows engineers to operate as civil engineers. They in turn can specialise on vertical construction, such as commercial buildings, or horizontal construction, such as roads.

This helps raise the productivity of each worker, allowing workers to reap a higher return for their labour. Without sufficient scale provided by cities, such specialisation is difficult.

Specialisation and agglomeration effects make workers more productive in cities, increasing returns to firms and increasing wages and incomes.⁸

Economists estimate these benefits not through the lens of firms, but instead, through the wages that accrue to workers. Firms are widely recognised as an intermediary, a tool for improving outcomes for households.

The ability to pay argument also fails to capture firms that have left Wellington City and have simply moved elsewhere. Nor does ability to pay capture firms that find it too expensive to setup in the city or fail to start-up because costs are too expensive.

Moreover, at times Council refers to charging businesses higher rates based on ability to pay and recouping user charges. But both arguments cannot simultaneously be true since each argument would likely produce different rates.

⁸ See Maré and Graham 2003 and Donovan et al. 2022 for New Zealand estimates.



Figure 1: Wellington businesses pays a higher proportion of rates than other districts

Source: Various council data

...councils cannot claim to be setting business differentials based on the incidence of costs

The claim is often made that business differentials for Wellington City reflect the additional impacts on infrastructure from workers from other territory authorities that commute into the city.

But business differentials are high right across the region (see Figure 2) compared to other councils. There is limited discount for businesses in councils with outflows of commuters.





* Kapiti increases commercial rates based on 0.00036 of land value Source: Various Council Annual Reports

That beneficiaries should pay is a principle for raising tax revenue. Doing more to put in place volumetric water and wastewater charges would help users of infrastructure services make better decisions about use that could drive system efficiencies.

Without volumetric charging firms lack a price signal to drive changes in behaviour. Given Wellington City has deteriorating water infrastructure widely detailed elsewhere, reducing pressure on the system would appear crucial. At the least, a stronger evidence base is needed to support the claim that business differentials support the incidence of costs.



Figure 3: The business differential had been falling but is now increasing

3.2. Beware unintended consequences

Business differentials distort the decisions of where firms locate and households want to live by driving a wedge between efficient locations and the locations incentivised by differentials. These impacts can also come with unintended consequences.

For example, the Greater Wellington Regional Council Transport Rates Policy has a special category for CBD Business ratepayers and now charges these businesses 7 times the amount charged to most residential ratepayers (see Table 4).

The differential values discourage businesses from setting up in the Wellington CBD and encourage activity to move elsewhere and to the Wairarapa in particular.9,10

⁹ It is not clear why GWRC opt to apply differentials across residential rating areas for the transport levy.

¹⁰ The levies also make it more expensive to set up businesses in general.

This approach runs counter to the goal of shaping urban intensification in GWRC's proposed Regional Policy Statement.¹¹

Table 4: GWRC transport levies are 7 times higher for Wellington CBD businesses Transport levies

Location	Differential value
Residential (excluding Wairarapa and Ōtaki)	1
Residential (Wairarapa and Ōtaki)	0.5
Wellington CBD	7
Business (excluding Wairarapa)	1.4
Business (Wairarapa)	1
Rural	0.25

Source: Greater Wellington Regional Council Annual Plan 2023/24

3.3. Reducing the differential lifts jobs and wages

International evidence shows firms respond to local tax rates...

Despite the importance of understanding the impacts of taxation by local government, there are no empirical New Zealand studies that identify the impact of local government rates on business location.¹²

But we know from the international literature that firms respond to differences in local taxation:

The international literature provides examples of firms relocating to take advantage of differences in the rate of local taxation:

- Ten years of data on manufacturing start-up firms in Belgium shows higher local taxation rates deter start-ups, even in the presence of location-specific production agglomeration impacts¹³
- Data from startups in Swiss cantons shows that higher tax rates for business deters start-up rates, but the relationship between tax rates and market entry is weaker in spatially concentrated sectors, probably because of agglomeration impacts¹⁴

¹¹ See https://www.gw.govt.nz/your-region/news/greater-wellington-proposes-bold-new-regional-policy-statement-for-the-wellington-region/

¹² Kerr, Aitken and Grimes 2004 provide useful discussion of the New Zealand context but not empirical estimates of likely effects.

¹³ See Crabbé, Karen and Karolien De Bruyne, 2013.

¹⁴ See Brülhart, M., M Jametti and K Schmidheiny, 2012.

• Data on British manufacturing plants show these firms make location choices that respond to subsidies. Effects are largest for areas that already have large stocks of pre-existing manufacturing plants attracting greater investment¹⁵

But in these studies, local government typically plays a larger role than in New Zealand. In the case of the US, sometimes providing health and education services. Local, and in some cases regional, tax rates could be expected to be a larger fraction of tax than in New Zealand. So New Zealand specific estimates are needed.

...other cities are outpacing employment growth in Wellington City

We know that other cities are outpacing employment growth experienced in Wellington. Figure 4 reports the share of jobs in the tier 1 major New Zealand cities as an index normalised to 1000 in the year 2000. Since that time, Auckland, Hamilton, and Tauranga have outpaced the growth in Wellington City. Wellington City's share of jobs is about 6 percent lower in 2022 than in the year 2000. The share of total jobs in Auckland, Hamilton, and Tauranga is increasing over time.



Figure 4: Wellington's share of New Zealand jobs is falling over time Share of New Zealand jobs reported as an index

Source: Various

A decreasing share of employment is consistent with several explanations including higher costs of commercial property associated with earthquake strengthening, the attraction of larger growing consumer markets in other cities and the impact of higher business rates.

¹⁵ See Devereux, Michael P; Rachel Griffith and Helen Simpson 2007.

Indicative analysis suggests local taxes impact where firms locate

To test the extent to which lower business rates are impacting firm location decisions, empirical work would ideally be grounded in cross-sectional estimates that utilise changes in business rates over time and across all New Zealand councils and compares this data to business demography data that tracks the number of businesses within each local council over time.

While we have snapshots of this data available,¹⁶ we have limited time series data across all councils on the rates businesses pay. So we use the time series data available for Wellington City Council to provide indicative impacts of tax changes on employment. We find reducing the business rate differential would increase employment in Wellington City.

We use the following equation to relate employment to business rates:¹⁷

$\ln(employment)_t = \bar{\beta}\Delta\tau_t + x'_t + u_t$

Where we seek to explain the change in the natural logarithm of employment in Wellington City with the change over time in the natural logarithm of local taxation, τ_t , that we approximate with the business differential. We allow for a vector of controls, x_t , that includes a dummy variable that takes a value of one for the COVID period and a variable that accounts for industry exposure tracing what Wellington's employment would be if industry shares grew at the national rate. We present the modelling results in Table 5.

We present three models with the preferred model in column 1. That model shows a significant constant term and the industry share dummy that controls for the industry composition of employment is significant at the 1 percent level.

The change in the business differential is significant at the 5 percent level. Since both the employment variable and the business differential enter in logarithms, we can interpret the estimated parameter in percent terms: a one percent decrease in the business differential would boost employment by a little under 0.1 percent. Decreasing the business differential by 50 percent would increase employment by about 4 percent.

¹⁶ See Ratepayers report 2023 for example: https://ratepayersreport.nz/.

¹⁷ This is a variation on the equation in Jofre-Monseny and Solé-Ollé 2012.

	Model 1 (preferred)	Model 2	Model 3
Constant	3.641 [‡]	3.285 [†]	12.056 [‡]
	(0.001)	(0.036)	(0.000)
Covid dummy		-0.011	0.064
		(0.637)	(0.107)
Industry share			
dummy	0.700	0.730	
	(0.000)	(0.000)	
Business differential	-0.079 [†]	-0.080 [†]	-0.129 [†]
	(0.014)	(0.016)	(0.034)
Adjusted r ²	0.859	0.852	0.401

Table 5: Indicative modelling suggests reducing the business differential would lift jobs

* Significant at the 10 percent level

† Significant at the 5 percent level

‡ Significant at the 1 percent level

Lower the differential to boost productivity and wages

We calculate the impact a boost to employment growth could have on existing residents. We use the 4 percent increase in employment as a benchmark and calculate the impact on productivity and wages through agglomeration impacts.

Like most cities, Wellington city provides firms with location benefits or agglomeration benefits. This includes knowledge transfer between workers, access to more choice of firms that can supply goods and services, and more customers.

Workers receive these benefits, offsetting some of the costs of cities, including higher housing costs and commute times (see Figure 5).



Figure 5: Agglomeration forces improve incomes and amenities for firms and workers



These location benefits improve productivity, particularly for services firms, incentivising these firms to locate in larger cities.

We must also calculate the impact of agglomeration impacts on the towns and cities where people leave from to set up in Wellington City. These distortions can be costly. We assume that new firms and residents are attracted to Wellington City from neighbouring cities, in particular the Horowhenua District Council (centred on Levin), Manawatū District Council (centred on Feilding) and Palmerston North City Council. In the absence of data on the characteristics of marginal firms that are mobile, we use average GDP per capita across each region to capture productivity and economic output impacts.

Since we need to understand the impact on economic activity of how business differentials distort location choices, we work with pre-COVID data from 2018 since more recent regional data is affected by the COVID period.

We apply the same approach to estimating the agglomeration impacts used in the Cost-Benefit Analysis of the Enabling Housing Supply legislation that assess changes in land use regulation to accommodate intensification.¹⁸ The change in productivity per workers is expressed as:

 $\Delta Productivity = \left(\frac{New \ city \ size}{Old \ city \ size}\right)^{agglomeration \ elasticity}$

Productivity is increased through two channels: (i) the magnitude of the increase in city size; and (ii) the strength of agglomeration effects.

¹⁸ See PWC and Sense Partners 2022.

We note the estimate of the impact for agglomeration for Manawatū -Horowhenua within Maré and Graham 2013 is 0.004 and statistically insignificant. Imposing this elasticity would imply negligible impact on the Manawatū -Horowhenua economy from firms that leave the district. Nor do we use the agglomeration elasticity for the Wellington region of 0.085 that would imply large agglomeration effects.

Instead, we present results using the lower and upper bound of the range used in in the Cost-Benefit Analysis of the Enabling Housing Supply legislation – a lower estimate of 0.04 and a higher estimate of 0.069.

Table 6 shows the impact of our scenario where the reduction of a business differential results in a one percent increase in the labour force in Wellington City from firms that move to the city from the neighbouring Manawatū -Horowhenua district.

Across both panels, the second column shows the city size (in terms of workers) before the change to the differential. After the one percent change in the workforce, the populations of Manawatū, Palmerston North and Horowhenua decline in the same proportion.

In the first panel with the conservative estimate of agglomeration impacts, this increase in population intensifies agglomeration impacts in Wellington City, increases productivity that generates an additional \$185.83 of income for incumbent workers each year. Overall, city-wide GDP for Wellington City for existing residents increases by about \$29.3 million per year.

The movement of firms and workers makes the districts in Manawatū -Horowhenua a little worse off.¹⁹ GDP falls for these regions but in aggregate, the economy increases output by about \$17.6 million a year. For the case where agglomeration impacts are stronger, the Wellington economy expands by about \$50.5 million per year, the Manawatū -Horowhenua contracts a little more and the aggregate economy expands by about \$30.4 million.

¹⁹ At least in terms of first-round effects.

Local Council	Old city size (workers)	GDP per capita	New city size (workers)	Impact on GDP per worker	Impact on incumbent workers GDP	
	Panel (A): Lower bound estimate = agglomeration elasticity is 0.04					
Wellington	157,700	\$118,359	164,008	\$185.83	\$29,305,601	
Manawatu	9,500	\$31,571	9,286	-\$51.43	-\$1,574,843	
Palmerston North	51,200	\$60,218	50,048	-\$98.12	-\$8,641,534	
Horowhenua	9,400	\$27,773	9,189	-\$45.25	-\$1,483,171	
				Total	\$17,606,053	
	Panel (B):	Higher bou	nd estimate, aggl	omeration elasti	city is 0.069	
Wellington	157,700	\$118,359	164,008	\$320.74	\$50,580,930	
Manawatu	9,500	\$31,571	9,286	-\$88.66	-\$2,715,000	
Palmerston North	51,200	\$60,218	50,048	-\$169.16	-\$14,897,840	
Horowhenua	9,400	\$27,773	9,189	-\$78.02	-\$2,556,959	
					\$30,411,131	

Table 6: Expect Wellington City to increase economic activity by reducing the differential Illustrative example of reducing the business differential to reduce location distortions

Source: Statistics New Zealand, Sense Partners calculations

Importantly, these impacts are realised annually. Using a discount rate of 5 percent, over a and extrapolating over a one-hundred-year period, the impacts accrue to between \$610 million to \$1,054 million for Wellington City and \$366 million to \$633 million across the aggregate economy. These impacts are returned to workers through higher productivity.

3.4. Wellington City Council are taxing productivity benefits of location, distorting the economy

The business differential reduces economic activity

Standard theory suggests when faced with higher local rates of taxation firms would "vote with their feet" and move to councils with lower business rates. That seems reasonable, so what is going on?

But increasing business differentials relative to other jurisdictions distorts the incentives facing each firm, reducing the economic efficiency of how revenue is raised. Wellington City Council is effectively taxing these agglomeration benefits.²⁰ In addition, the international literature and our modelling work shows setting higher business differentials relative to residential rates, reduces employment growth. Expect fewer firms to start-up in Wellington.

Since business differentials are larger in Wellington City than in other urban areas (see Figure 6), we should expect these distortions to be higher for Wellington City than other urban areas.



Figure 6: Rates in Wellington City are higher than other urban areas

Source: Various

These rate differentials can help make for stark differences across similar properties in different cities. Table 7 provides an example based on two similar commercial properties, one in the Auckland CBD and one in the Wellington CBD. Based on average space of 15 square metres per worker, this suggests rates costs a little over \$1,500 per worker in Wellington (\$1,533.60) and a little under \$1,000 in Auckland.

²⁰ See Jofre-Monseny, Jordi 2013 and Koh et al. 2013 for international evidence on local government taxing agglomeration benefits.

City	Wellington	Auckland
Building	Vodafone on the Park	HSBC Tower
Address	157 Lambton Quay	188 Quay Street
Capital Value	\$152,5 million	\$400 million
Net Lettable Area	16,634 metres	31,589 metres
Rates per annum	\$1,700,612	\$2,089,579
Rates per square metre	102.24	66.15

Table 7: Comparing commercial properties shows clear different in rates paid Rates across comparable commercial buildings: Wellington and Auckland

NB 157 Lambton Quay includes a public carpark

Source: Precinct Properties

There are various factors that drive rates, including the extent to which different cities provide different levels of public goods and the cost of providing services. But the differences across the properties is striking. The Auckland property is worth considerably more in absolute terms and on a per square metre basis. But the difference in rates in considerable: rates are over 50 percent higher for the Wellington property.

This difference in rates represents an extra cost to the rents within Wellington City, reducing the competitiveness of the city.

Central government has an interest in local taxation settings

Although our example is illustrative, it makes clear the costs to restricting access to firms by setting high business rate differentials that distort the economy, effectively taxing agglomeration or location benefits. Workers lose out on additional income.

Central government also loses out on the increase from additional economic activity and improved outcomes for potential residents.²¹

So an opportunity then exists between central and local government to foster a deal that increases economic growth by reducing distortions in the local economy.

City deals have been promoted as a means for central government to help achieve their objectives by providing funding and finance to local authorities for key infrastructure projects. In return, central government might expect local taxation settings to enable growth rather than produce distortions in the local economy to ensure interests are well-aligned.

²¹ Some of the economic gains might reasonably be expected to be returned through tax and transfers to workers that remain in Manawatū -Horowhenua.

4. Taxing land holds efficiency benefits

4.1. Taxing land is generally more efficient

Economists agree that land-based taxation, in theory, is one of the most efficient taxes. Because land is in fixed supply, businesses find it extremely difficult to avoid the tax. This means it has the lowest impact on the decisions businesses make to allocate resources across the economy. In contrast, capital-taxation applies to the worth of any building, effectively discouraging businesses to develop economic value.

That agreement can be stark and to the point. One Nobel prize-winning economist notes:

"The property tax is economically speaking, a combination of one of the worst taxes – the part that is assessed on real estate improvements ... and one of the best taxes – the tax on land or site value". Vickrey 1999²²

And a second Nobel prize-winning economist puts it simply:

"...the least bad tax is the property tax on the unimproved value of land" (Milton Friedman). 23

In contrast, income taxation reduces the return from employment, reducing the effort of labour. Similarly a capital-based property tax reduces the returns to capital, reducing the incentive to invest. In short, land-based taxation can support growth. According to the Economist in 2013:

"Taxing land and property is one of the most efficient and least distorting ways for governments to raise money. A pure land tax, one without regard to how land is used or what is built on it, is the best sort."

Ultimately land is immobile. That makes land-based taxation an efficient, non-distortionary taxation system. The Taxation Working Group agrees:

"Most members of the TWG support the introduction of a low-rate land tax as a means of funding tax rate reductions and improving the overall efficiency of the tax system. However, there are concerns over the political sustainability of such a tax."

The OECD's 2011 report on New Zealand advocates a land-based tax:

"A land tax would tend to be more efficient than a property tax. Because land is fixed in supply, it is relatively price-inelastic, and therefore deadweight losses from taxing it are relatively low."

Since capital is mobile and unlike land can respond to relative price shifts, taxing capital would reduce the existing taxation base. Assessing the rates required to return a fixed revenue base needs to assess the price effect on the size of the capital base. That favours using land-based taxation (see Figure 7), since the tax does not distort the quantity of goods and services

²² Cited in Dye and Richards 2011.

²³ Referenced in Blaug 1980, and Coleman and Grimes 2010.

supplied. Retaining a tax on capital and land reduces the quantity of goods and services supplied.

Figure 7: Raising revenue through a land-based tax is the most efficient tax



Source: Sense Partners

4.2. Taxing vacant land risks making housing more expensive

A sharp tax on vacant land risks unintended consequences...

Wellington City Council propose increasing the proportion of rates paid on vacant land in the central city to 4.5 times the rates a residential of the same value would pay. This considerably higher rate is meant to incentivise holders of vacant land to either develop or sell the land to someone that will develop the land and increase the supply of residential housing.

The proposed mechanism works in a similar manner to taxes on vacant dwellings: owners are incentivised to rent out these houses or sell to owners that are prepared to rent them.

But there are several flaws in this thinking:

First, it is unclear whether a tax on vacant land will increase housing supply in the short-run. The tax increases the cost of holding land for development, Treasury point out that landowners that are uncertain about future profits may opt for smaller, lower cost projects

that bring forward the timing of developments, reducing the cost of holding land, but adding fewer dwellings to housing supply on a given site.

Second, any positive impact on the supply of housing is likely to be transitory and occur as the Wellington's land market transitions to a higher tax rate. Capital Strategic Partners looked at this issue and concluded:

"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."

Third, a vacant land tax may even *decrease* development in the long-run. The Productivity Commission concluded that:²⁴

"Beyond the first-round effect, vacant-land taxes would likely reduce the responsiveness of housing supply to changes in housing demand, exacerbating the underlying problem with New Zealand's housing market. The taxes would likely shift the scale and timing of steps in the development process from their before-tax chosen settings – choices that are likely to be efficient."

Increasing the burden of development with additional costs makes the easy option building fewer dwellings, reducing the affordability of housing across Wellington City.

Finally, there is also scant evidence globally that regions with either vacant land or vacant dwelling taxes improve housing supply.²⁵ New Zealand Treasury note earlier work by the Tax Working Group report little evidence of effective vacant land or dwelling taxes (see Table 8).

Taxes on vacant land face two critical design challenges

The design of vacant land taxes is fraught and complicated.

An effective vacant land tax would first need to define vacant land. If vacant land is not welldefined, landowners can easily avoid the tax by switching vacant land to marginal economic activities such as carparking. That makes it challenging to obtain a workable definition of vacant land that cannot be easily masked by switches to alternative activities to avoid the tax.

Moreover, it would likely be necessary to define some exemptions, for example, for land about to be sold or developed.

Treasury point out that maintaining these design features requires:

- a. Establishing and maintaining a register of vacant land; and
- b. Monitoring and compliance activities.

These features would require maintaining a vacant land register that would involve considerable administrative costs for effective monitoring.

²⁴ See Productivity Commission 2019.

²⁵ See New Zealand Treausry 2021.



Table 8: Treasury advice shows little international evidence to support taxes on vacant land or vacant dwellings

Location	Measure	Definition of vacant	Effect of the measure
Ireland	In 2018 the levy rate was increased to 7% (from 3%) of the market value of the vacant land. Responsibility for identifying land to put on the vacant land register is delegated to the local planning authorities.	Levy applies to vacant land, suitable for the provision of housing in areas where there housing need The site must exceed 0.05 hectares (excluding a home and its associated garden) for the levy to apply. The levy only applied to land zoned for residential purposes and land designated with the objective of development and renewal of areas in need of regeneration regardless of who owns it. In 2018 a change was made to exclude property that was sold during the year.	 Legislation passed in 2015, but levy applied from 2018. As at 1 January 2019, only 140 properties were subject to the charge since: administrative difficulties in local planning authorities implementing the legislation in many counties it is not clear which land, if any, could be deemed suitable for development for residential and regeneration purposes As the levy has not been in effect for long, there is no evidence of the effect on housing supply.
Melbourne, Australia	1% tax on the capital improved value of a vacant dwellings from January 2018. This tax is administered by Victoria's State Revenue Office.	 A dwelling, within Melbourne's inner and middle suburbs, that is occupied for less than 6 months in a calendar year and is not an individual's principal private residence. Exemptions from tax include: Death of owner Construction or renovation Change of ownership Properties occupied for at least 140 days for the purpose of working in Melbourne. 	Could not find any evidence of how much tax has been charged or paid in 2018. It is also not currently possible to say what effect this tax had on the Melbourne housing market.
Vancouver, Canada	1% tax on the value of the empty home from 2017. Increased to 3% for 2021. Administered by the City of Vancouver.	 Home not used as a principal private residence; or has not been rented out for a minimum of 6 months in a year. Exemptions apply: Home sold during the year • Renovation or redevelopment • Strata restrictions on renting property • Death of owner 	The property status in Vancouver for the 2017 tax year was (i) Occupied – 178,120; (ii) Exempt – 5,385; (iii) Vacant – 2,538. Note that census 2016 recorded over 25,000 homes were vacant. Data showed a 25% reduction in the number of vacant dwellings between 2017 and 2019
France	Surcharge on second homes in areas with housing shortages, applies on the notional rental value for the property. Councils can charge between 5% and 60%	The tax applies to secondary homes which are not registered as owner or occupier's principal private residence. Those who hold a second home for business or professional reasons are exempt, as are landlords who ordinarily let out a property on an annual basis.	Limited evidence of the impact of the tax in France. The fact that the original tax, capped at a 20% surcharge, was reformed in 2017 to allow for a surcharge of up to 60% indicates the initial tax was not having desired impacts in the areas with the greatest housing market pressures.

4.3. A closer look at fairness

Traditionally economists have been more divided about not just the relative "fairness" of property taxation versus income and other forms of taxation but also the relative fairness of land-based versus capital-based taxation.

The equity impact of land-based taxation depends on many factors. These include not just the direct impact of the tax, but on how the tax shapes the prices of land and other assets. These also include how homeowners and businesses change their behaviour in response to these price changes.

We note that the international evidence is mixed but that area specific features matter. This makes it hard to generalise whether a land-based tax takes a larger percentage of income from high-income groups than from low-income groups.²⁶

Some researchers find that for the case of New Zealand, at a national level, the land-based tax is less likely to take a larger percentage of income from high-income groups than from low-income groups.²⁷ Others advocate for land-based taxation in the New Zealand context – at least partly because high-income groups are likely to pay relative more than low-income groups.²⁸

To see how the land-based taxation system can have different impacts, compare the taxation incidence of a well-located inner-city urban property with a property in a less desirable location. For the well-located inner-city property, land makes up a larger fraction of the overall value of the property. Since individuals with more wealth and income can afford to live in the well-located suburbs they would pay more tax under a land-based taxation system.

But in terms of the impact on residents, land is typically a lower share of the value of residential land-capital package for lower valued properties. Conversely, in higher valued residential suburbs, land is higher fraction of the land-capital package. So taxing land could mean that across Wellington suburbs, higher value properties pay relatively more tax (see Figure 8).

²⁶ See Coleman and Grimes 2010 for general discussion. Bowman and Bell 2008 show that for their case study of Roanoke, Virginia, a land-based taxation takes a larger percentage of income from high-income groups than from low-income groups, but for the case of use the case of Dover, New Hampshire, England and Zhou 2005 and find the opposite is true: land-based taxation takes a larger percentage of income from high-income groups than from low-income groups for their case study.

²⁷ See McClusky et al. 2006.

²⁸ See Kerr, Aitken, and Grimes 2004.





Figure 8: Dwellings in Wellington City's outer suburbs tend to have a higher capital component than inner suburbs

Source: Sense Partners

5. Our preferred model

5.1. A broader set of incentives and instruments

We are not advocating expanding the revenue take. But system change should include additional methods of raising revenue to reduce the cost of raising revenue through any single lever. Additional measures include:

- Expanding the set of user charges to include volumetric water and waste-water charges to recover the cost of providing services according to the beneficiary pays principle. Council is moving in this direction.
- One approach is to better align development contributions to the context and cost of services. This might mean high development contributions in some situations and lower development contributions for other developments.
- Increasing the use of special purpose vehicles for specific infrastructure projects could also broaden revenue. Investment in the Moa Point sludge minimisation facility uses this funding method and might be used for further infrastructure investments.

First implementing these options would reduce the extent of heavy lifting the rating base is required to achieve and better align who pays to beneficiaries.

5.2. A lower differential

There is every reason for a lower business differential

Differentials between business and residential rates are inefficient since they distort economic activity: many more firms would opt to locate within Wellington City but are priced out of operating within a highly productive area by the costs imposed by the business differential.²⁹

Using a broader range of incentives and instruments could reduce the business differential. In the absence of using these tools, we show what the likely impact on residential rates would need to be to reduce the business differential. Table 9 shows that to cut the business rate differential in half, residential rates need to increase by about 24 percent.³⁰

²⁹ Brülhart, et al. 2012 show how agglomeration economies reduce the extent to which firms "vote with their feet" and move towards regions with lower rates of taxation.

³⁰ These estimates are produced using the latest ratings database for Wellington City Council. We remove a small number of zero land sites, parcels with zero ratings and parcels that are listed with both residential and commercial rates. This generates a small difference between the differential in the table and the difference in the carded rates.

Table 9: Our indicative estimates show that to halve the business differential, residential rates need to increase from a rate of 0.29% to 0.36%, an increase of about 24 percent

Ratepayer	Capital Value	Rates	Rate
	St	atus Quo	
Residential	\$95,764,752,900	\$278,114,261	0.29%
Commercial	\$17,986,319,950	\$176,655,294	0.98%
Total	\$113,751,072,850	\$454,769,556	0.40%

Differential 3.38

Scenario: halving the business differential			
Residential	\$95,764,752,900	\$344,707,756.25	0.36%
Commercial	\$17,986,319,950	\$110,061,796.95	0.61%
Total	\$113,751,072,850	\$454,769,553.20	
			Differential 1.7

Source: Sense Partners

5.3. Implementation

In practice, removing the business differential entirely might prove politically difficult without a strong narrative on the benefits of reducing the economic distortion from business differentials.

Three approaches could help:

- Examining the differential at the same time as changes to land and capital taxation that could change the relative distribution of who pays for infrastructure.
- Continuing to examine the differential at the same time as adopting volumetric water and waste-water charges, that might on the margin be higher for business sites. Communication of the impacts of different charges to different groups is critical.
- Exploring move towards a uniform differential across the councils within the Wellington regional leadership committee and then lowering the differential over time.

Absent offsetting decisions on expenditure, debt, or the use of user pay charges, decreases in the amount businesses pay in rates needs to be taken up by residents.

But our example shows that workers are ultimately better off through increased incomes resulting from reductions in the business differential. Deciding on the mix of increase in residential rates, short-term debt funding and a glide path to a lower business differential are options that could help implement a lower differential.

5.4. Apply rates on land rather than capital

Setting rates on land rather than capital has the potential to deliver benefits including:

- Revenue is gathered efficiently businesses don't change behaviour to avoid the landbased rates system. This means less impact on the economy and the allocation of resources.
- Revenue better reflects the benefit of the provision of local public goods. There is less need to implement a series of bespoke targeted rates, which are challenging to get right.

However, this shift cannot be adopted in isolation. Land use settings need to complement rates settings, enabling firms and households to develop vacant land that would otherwise collect higher rates.

Existing taxation rules are baked in or capitalised into existing property values, so expect substantial winners and losers from changing taxation regime. The losers will have above average capital intensity, developed under the previous land-based taxation regime. Conversely the winners will have large land holding with relatively undeveloped properties.

Changing the taxation regime will have non-trivial implications for households and businesses. Property values – particularly commercial property values – will move immediately on announcement of the new regime, even if the incidence of the taxation regime begins in ten years' time. Where to live and work, the type of house to buy and the house location are all dependent on the local taxation regime.

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