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Recovering costs from tourists to pay for mixed-use local services

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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 options to recover funds from tourists where they would otherwise not be paying for their share of the costs of mixed-use services. The aim is to compare those options with the Commission's draft recommendation for the Government to amend legislation to allow councils to introduce accommodation levies.

Submissions in favour of the draft recommendation were generally very brief. Submissions against the recommendation were more extensive but often mis-interpreted the policy rationale for such levies. Their key arguments were that accommodation levies:

- would be inefficient
- don't target most of the businesses that benefit from tourism
- would result in accommodation providers bearing a large portion of the levy
- would be more costly to administer and comply with than considered by the Commission
- didn't measure up well against the five principles the Commission set out for funding and financing local government.

Many submitters argued for alternatives, including for broader based targeted rates, excise taxes on campervan and cars rented by international visitors and funding from GST. Some submissions contained significant analysis of broader based targeted rates, and so this paper examines these options further.

Commission staff have further analysed the GST issue and whether there is a material under-funding problem for councils that justifies new funding tools.

Options for tourism targeted rates

This paper considers five options, defined as:

1. Multi-sector tourist (MST) option, levied on property values and targeted at businesses supposedly benefiting from tourism.[1] The rating base would be the property values of ratepayers with businesses serving tourists. Different tax rates would be applied to property values based on how much the businesses on their properties serve residents versus tourists. The average tax rate across these ratepayers would be set at levels that raise revenue to match the under-funding by tourists. Legislative amendments would be required to allow councils to introduce this kind of targeted rate.
2. Broad-based tourist (BBT) option, levied on sales and targeted at causers of unfunded mixed-use services.[2] Like the MST option, this option targets all businesses supplying goods and services to tourists, but the rating base is their sales revenue rather than their landlord's property value. A single tax rate would be levied across all businesses subject to the targeted rate. The targeted rate is in effect a sales tax and would require legislative amendments to allow councils to introduce this kind of targeted rate. As residents pay the

[1] Note the emphasis on "supposedly benefiting from tourism". As discussed later in the paper, the beneficiaries of tourism may not be business owners serving tourists, however it was a common view among submitters.

[2] The causers of mixed-use services are the people that use those services, which will be residents and visitors. The causers of unfunded mixed-user services are visitors using those services.

higher prices arising from the additional tax, the tax rate would be set at a level to provide rebates to residential ratepayers to approximately offset the higher prices residents would pay to local businesses.

3. Accommodation levy on sales (ALS) option, levied on accommodation sales revenue and targeted at causers of unfunded mixed-use services. Under this option a single tax rate would be applied to the accommodation sales revenue that providers receive from tourists. No rebate is needed as revenue from providing accommodation to residents would be excluded. Legislative amendments would be required for councils to introduce this type of targeted rate.
4. Accommodation levy per guest-night (ALN) option, levied on number of guest-nights and targeted at causers of unfunded mixed-use services: This is the same as the ALS option except the rating base is the number of guest-nights rather than sales revenue.
5. Broad-based business (BBB*) option, levied on land values within the business district. This option has been included for comparison purposes as land value rating is widely regarded to be the most efficient method for raising revenue from businesses. In practice, land owners may be the primary beneficiaries of tourism, with owners of land zoned for business likely to be the most significant of those beneficiaries. Councils can use this option without any legislative amendments, and 29% of councils did so in 2019 (an asterisk has been included to remind us the option is already available to councils). This option has a single tax rate applied to all local businesses at a level that raises revenue to match the under-funding by tourists.

Table 1: Comparison of key features of the options

Option	Target sector	Number of groups & tax rates	Rating base	Rebate provided	Principle applied
MST	Tourist businesses	Eight	Property values of landlords	No	Beneficiary pays?
BBT	Tourist businesses	One	Sales revenue	Yes	Causer pays
ALS	Tourist accommodation providers	One	Sales revenue	No	Causer pays
ALN	Tourist accommodation providers	One	Number of guest-nights	No	Causer pays
BBB*	All businesses	One	Land value	No	Beneficiary pays

As indicated in the table, the BBT and ALS options are essentially local sales taxes (one broad and one narrow) on final goods and services sold to tourists.

This paper takes as an illustrative example the case of Queenstown Lakes District Council and assumes it wishes to recover $25m by introducing a levy on businesses providing accommodation services to tourists. Based on figures in the monthly regional tourism estimates report (MRTE), accommodation providers in the Queenstown Lakes District earned approximately $420m in 2018/19 from accommodation services. Hence, the accommodation levy would need to be about 6% to raise $25m of revenue. In other words, a $2,000 hotel bill for a skiing week for a family of four would cost the family an additional $120.

An alternative rating base for the accommodation levy is the number of guest-nights, which is the ALN option. Statistics New Zealand estimates there were 4,624,784 guest-nights in the Queenstown Lakes District during 1 July 2018 to 30 June 2019.[3] Based on this information, the levy would need to be at least $5.41 per guest per night to raise $25m of revenue. That's an extra $108.20 for a family of four staying five nights.

The above tax rates were calculated on the simplifying assumption that higher costs of visiting Queenstown wouldn't affect tourism visitor numbers or their spending levels. Although visitor numbers and spending are likely to be adversely affected, tourist demand elasticities are quite low and so the estimates are a reasonable first approximation.

Assessment against funding and financing principles for local government

The Draft report specified, at p. 137, five principles for funding and financing local government:

- Appropriate for local government use – given the role of local government and the need for local autonomy (flexibility to align with local preferences) and accountability (including transparency).
- Coherent within national policies and institutions.
- Efficient – instruments should minimise harmful incentive effects on resource allocation, investment and innovation, and should minimise compliance and administration costs (the latter two properties need instruments to be reasonably simple).
- Equitable and fair – taking account of who benefits from local government services, and also horizontal equity, vertical equity, affordability and inter-generational equity.
- Sustainable – minimising avoidance and providing fiscal adequacy and stable and predictable revenue over time.

Table 2 summarises my assessment against the above principles, which involves some key judgements. The efficiency, fairness and sustainability principles contained significant sub-components, and so those components were given equal weighting (refer to Tables 9, 10 and 11). This means those principles are effectively weighted higher than appropriateness and coherence.[4]

[3] See http://archive.stats.govt.nz/infoshare/ViewTable.aspx?pxID=f0aeab3e-2a43-435b-971d-9ad4ec49f0e8

[4] The maximum aggregate score is 36. This reflects maximum scores of three pluses each for appropriateness and coherence, nine for efficiency and sustainability (as each comprises three sub-criteria) and 12 for fairness (has four sub-criteria).

Table 2: Assessment against the Commission's five principles funding and financing of local government

Criterion	MST	BBT	ALS	ALN	BBB*
Appropriateness	+++	+++	++	++	+++
Coherence	+++	++	+	+	+++
Efficiency	1+	5+	7+	4+	6+
Fairness	5+	7+	7+	5+	7+
Sustainability	6+	6+	6+	4+	9+
Aggregate result	18	23	23	16	28

The analysis suggests the two local sales tax options (BBT and ALS) are level-pegging and significantly better than the multi-sector tourist (MST) option and the accommodation levy based on the number of guest-nights (ALN). Interestingly, both sales tax options perform reasonably well against the BBB* option.

In terms of efficiency overall, the ALS option appears to be superior to the other options, and far superior to the ALN and MST options. The main reason is that the ALS option performs reasonably well on all efficiency criteria, whereas the other options perform very poorly on at least one of the efficiency criteria. The ALN and MST options, for example, perform very poorly on investment and innovation efficiency and on administration and compliance costs (see Table 7 on p. 54 and associated text).

The BBT option performs equally well as the ALS option on resource allocation efficiency but performs slightly worse on productive and dynamic efficiency and on administration and compliance costs.

The ALS and BBT options score highest-equal on fairness, but with the ALS scoring less well on horizontal equity and the BBT option score less well on vertical equity (refer Table 8, p. 60). In comparison, the ALN option performed very poorly on both horizontal and vertical equity and the MST option performed very poorly on horizontal equity and satisfying the benefit principle (despite that being the rationale for considering it).

The MST option is ranked lower than the BBT and ALS options on the benefit principle because the targeted rate is levied on property values and so the supply-side burden of it is likely to fall predominantly on land owners rather than tourists. By better targeting tourists, the BBT, ALS and ALN options better satisfy the benefit principle and they reduce the burden on residential ratepayers, either directly in the way of a residential rebate in the BBT option or indirectly in the accommodation levy options because residents very rarely use commercial accommodation.

It is important to appreciate the above discussion is an assessment against principles and it isn't a cost-benefit assessment. Hence, the high scores for the sales tax options must not be taken as indicating they would yield net positive benefits.

Caveats

This paper has been prepared based on readily available and reliable information, but also on many assumptions. The two most important assumptions are discussed below.

Are tourists under-paying for mixed-use local services? That is, there may be full provision, but the mix of funding may be inefficient, resulting in over-use (where additional tourists create more costs than benefits for the economy). But if international tourists are over-paying on GST then there may not be over-use. In this case local sales taxes could make the mix of funding less efficient, rather than more efficient as shown in Table 2 above. The analysis in this paper, however, shows that GST is likely to be substantially under-taxing international tourists. The results of the additional work by staff on this question will be important for deciding how much weight to give to the conclusions in this paper.

What proportion of tourists would be captured by accommodation levies? The International Visitor Survey for 2017 and 2018 showed that just over 50% of international visitors reported staying mainly in commercial accommodation and around 65% in all paid forms of accommodation while in New Zealand. Moreover, the Queenstown Lakes District Council estimates that, on a peak day, more visitors stay in informal accommodation than in commercial accommodation (sub. 67; pers. comm., 14 June 2019).[5] The lower the percentage of tourists staying in paid accommodation the larger the efficiency cost of the accommodation levy options and the poorer they perform on fairness, however the accommodation levy options have other positive efficiency features.

Conclusions

The purpose of this paper is to assist the Commission to decide whether to retain its draft recommendation for legislative amendments to allow some councils to introduce accommodation levies or adopt alternative recommendations, such as for other targeted rate options.

Despite the caveats stated above, in my judgement two of the options can be dismissed, being the MST and ALN options. Both perform poorly on efficiency, largely because of their implementation, avoidance and evasion attributes and the costs associated with that. They also perform relatively poorly on fairness, but even if they gained maximum scores for fairness, they would still attain an overall rank lower than the sales tax options.

There doesn't appear to be a clear choice between the two sales tax options (BBT and ALS). On one hand, if a substantial proportion of international tourists stay in accommodation that wouldn't be subject to the accommodation levy then the ALS option would be unfair and not particularly efficient. On the other hand, provided the rate set for the ALS is sufficient to pay for the unfunded costs tourist cause in aggregate then the over-use issue – if one exists – would be addressed despite the ALS applying to a low proportion of tourists (refer page 58 for elaboration of this point). On this basis, my judgement is the ALS option should be preferred to the BBT option as it has lower risks and costs regarding implementation and ongoing avoidance and evasion.

[5] Based on a comparison of Accommodation Survey data and visitor data included in Queenstown Lakes District Council's submission (sub. 67, p. 4).

Putting aside those practical issues, there remains the question of whether the sales tax options would likely improve resource allocation efficiency. This depends in part on whether current funding arrangements are leading to over-use, which depends on whether GST under-taxes international tourists. If GST under-taxes international tourists visiting New Zealand – which very much appears to be the case based on the estimated demand elasticities for international tourists to New Zealand – then introducing a small local sales tax on tourists is likely to increase New Zealand welfare.[6]

Finally, the case for local sales taxes depends on whether there is a material funding shortfall for councils for mixed-used services. If the funding shortfall is small, then the case for local sales taxes is likely to be weak because the implementation and administration costs and risks of introducing and operating those taxes would not be worth it. This would particularly be the case if other business rates are reduced to partly offset the levy.

[6] If there are significant externalities from tourism, then the best approach will depend on the nature of the externalities. For example, if they're largely environmental externalities then they may be best addressed by charging tourists for visiting national parks and reserves, rather than introducing a broader sales tax such as an accommodation levy.

1 Introduction

The Commission released its Draft report on local government funding and financing on 4 July 2019 (refer NZPC 2019) and interested parties had until 29 August to submit their comments. The Draft report followed an Issues paper released by the Commission in November 2018.

The Draft report discussed council funding and financing of mixed-use local services, being services used by both local residents and tourists. It identified circumstances when tourists under-pay for mixed-use services and included a draft recommendation to allow councils to introduce accommodation levies to rectify the situation.

The Commission received submissions on its Issues paper, expressing concerns about any accommodation-only levy, rate or tax, and has now received similar submissions on its Draft recommendation for such levies. The Commission appreciates the depth of concern expressed by some submitters and so has decided to undertake a more rigorous examination of the issues and alternative options to inform its decision on a final recommendation.

The purpose of this paper is to examine options to recover funds from tourists where they would otherwise not be paying for their share of the costs of mixed-use services. Staff are undertaking further work on related matters, discussed further below.

1.1 Tourists under-pay for some mixed-use services

In its Draft report the Commission analysed a range of ways in which the cost of mixed-use services is paid for by users. It found there was no funding issue when user charges cover the costs of mixed-use services.

However, potential funding problems arose when user charges are impracticable or inefficient, as tends to be the case for public facilities such as signs, local roads, streetscapes, parks, toilets, street cleaning and rubbish collection.

Funding these kinds of services collectively and jointly via rates on business and residential ratepayers leaves residents paying more than their share of the costs, because they pay their rates directly and then also pay business rates indirectly via the prices charged by businesses. Tourists, on the other hand, pay only the indirect component. (NZPC, 2019, p. 174)

1.2 The Commission's draft recommendations for tourists to pay for mixed-use services

The Draft report included a draft recommendation to allow councils to introduce accommodation levies to rectify the situation and encouraged councils to make greater use of user pays:

"R6.7 The Government should legislate to enable councils in tourist centres to choose to implement accommodation levies to recover the tourism-induced costs of providing local mixed-use facilities not otherwise charged for.

Councils in tourist centres should make greater use where possible of user pays for mixed-use facilities." (NZPC, 2019, p. 178)

In addition, the Commission included a draft recommendation for the Government to provide funding from the international visitor levy for councils responsible for small tourist hotspots which cannot reasonably recover all their operating costs of providing mixed-use facilities from tourists through user pays or accommodation levies.

1.3 The focus of this paper is on targeted business rates to recover funds from tourists

This paper examines options to apply targeted rates on a wide range of businesses to recover additional funds from tourists where they would otherwise not be paying for their share of the costs of mixed-use services.

One of the options is a multi-sector tourism targeted rate in which different rates are applied to each business sector based on how much of their business serves locals versus tourists. This approach has been suggested by Anthony Brien (sub. 134 and sub. DR141).

Another option is a broader version of the multi-sector one in that it applies a single targeted rate to all local businesses serving tourists and involves reducing rates on local residents to approximately offset the additional rates they would pay indirectly due to spending at local businesses. For clarity the reduction in rates on residents is referred to as a residential rebate.

Two other targeted rates are considered: an accommodation levy based on sales revenue and an accommodation levy based on number of guest nights.

The above options are evaluated against general rates on all local businesses regardless of whether they serve tourists or not.

Section 4 describes the options in more detail, estimates the required tax rates and compares their impact on tourists, the tourist industry and the supply side more generally. Section 5 assesses the options against the Commission's principles for funding and financing local government, and section 6 lists some caveats to the analysis. Conclusions are provided in the above Executive summary.

1.4 Related work

The Commission is also considering in greater detail whether GST on tourist spending under- or over-taxes international tourists. The conclusions of this work are highly relevant to the efficiency effects of the targeted rates considered in this paper. However, unlike the accommodation levy and other targeted rates options, GST doesn't provide funding to local governments to pay for the costs caused by tourists.

The Commission is also exploring in more detail council spending on mixed-use services, and whether there is a significant funding problem. This paper on tourism targeted rates is being prepared on the presumption there are significant funding problems, but if that doesn't turn out to be the case then the case for additional funding instruments weakens.

2 Legal and economic framework for targeted rates

Targeted rates are rates that fund one or more activities or groups of activities. According to Insight Economics (2019, p. 28), every council in New Zealand set at least one targeted rate in 2019. Only one council set just one targeted rate, with the rest setting four or more and six councils setting more than 100 targeted rates.

This section discusses the overall requirements on councils regarding which funding sources they can tap, the methods they're allowed to use for targeted rates, and the rationale for using targeted rates to reflect causer effects from tourism. The final subsection provides a general discussion of the incidence of taxes and rates.

2.1 Overall requirements on councils regarding their funding decisions

Councils, of course, must use targeted rates in a manner consistent with the Local Government Act 2002 (the LGA) and the Local Government (Rating) Act 2002 (the Rating Act).

Section 101(3)(a) of the LGA 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
- (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.

Clauses (i) – (iii) reflect the beneficiaries-pay principle for rates whereas clause (iv) reflects the causers-pay principle. The inter-relationship between these principles is discussed in the Commission's Draft report and in section 2.1 below. Clause (v) is a relatively standard requirement for at least a qualitative cost-benefit assessment of rating options.

Section 101(3)(b) of the LGA 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.

Note section 103 of the LGA requires a local authority to adopt a revenue and financing policy which shows how it has complied with section 101(3) in establishing its policies for the funding of operating and capital expenditure. Further, clause 15 of Schedule 10 of the LGA requires a local authority to spell out the detail of its rating system in its long-term plan.

2.2 Allowable methods for applying targeted rates

In legal terms, targeted rates (like other rates) apply to *rating units*. Generally, a certificate of title to a property is a single rating unit.[7] Properties can sometimes have multiple certificates of title.

2.2.1 Allowable rating bases for targeted rates

Targeted rates can apply to all properties or to a subset of properties. Schedule 3 of the Rating Act states that targeted rates can apply to:

- Property values, as measured by either land value, capital value, annual value, or the value of improvements (which equal capital value minus land value).
- Total land area, or the area protected by a council-provided amenity or service.
- Amount of impervious (paved or sealed) surface area.
- Number of separately used or inhabited parts (SUIP) of the rating unit.
- Number or nature of connections to any council reticulation system.
- Total floor space of buildings within the rating until.
- Number of water closets and urinals within the rating unit.

As mentioned in the Draft report, some councils have called for a targeted rate in the form of an accommodation levy, most likely taking the form of a per-night charge on commercial and online accommodation. Such a charge could be either a flat rate, or a percentage of the accommodation cost (eg, Auckland Council, sub. 120; and Queenstown Lakes District Council, sub. 67).

However, as is evident from the above list, these kinds of targeted rates are not currently allowed because the number of nights a room is occupied or the amount a visitor pays for accommodation are not rating bases listed in the Rating Act.

2.2.2 Allowable tax rates

Although this paper is about local government rates, it can be laborious to refer to 'the rate of rates' and confusing to refer to 'rate rates'. Hence, for clarity of exposition this paper refers to 'tax rates' when discussing the rate of rates.

Section 18 of the Rating Act states that targeted rates can be a fixed dollar amount per rating unit. Targeted rates can also be levied as a variable charge, where the amount paid depends on the value of one or more of the rating bases discussed in section 2.2.1.

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 targeted rate of 0.4% of their property values and businesses pay 0.5% of their property values then the business differential is said to be 1.25 (ie, 0.5 divided by 0.4).

[7] Valuation rules allow for exceptions and oddities, as not all land in New Zealand has a certificate of title. There may, for example, be some other form of instrument that establishes ownership. The Department of Internal Affairs website about local government provides more details, at http://www.localcouncils.govt.nz/lgip.nsf/wpg_URL/Policy-Local-Government-Legislation-Local-Government-(Rating)-Act-2002

2.2.3 Allowable factors for grouping properties

Schedule 2 of the Rating Act lists the factors that may be used *to group properties* for the purpose of setting targeted rates and differentials for targeted and general 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).

As mentioned above, councils must clearly explain the different rating categories they use and the reasons for using them.

2.2.4 Differential targeted rates

The above factors can be used to group properties into various categories (denoted c) and then a different tax rate (denoted t_c) can be applied to the rating base of each category (denoted b_c).

For example, a council could define category x as all ratable properties within 1km of a council-provided park and category y as all ratable properties between 1km and 2km of that park. The council could set a tax rate t_x for category x and t_y for category y. If land value rating is used for the targeted rate (refer section 2.2.1), then tax rate t_x would apply to the land values of category x and tax rate t_y would apply to the land values of category y.

Hence, just as central government can set a schedule of tax rates on taxable income, councils can set a schedule of tax rates on property values by defining different property categories on the basis of their property values and applying different tax rates to each category. These combinations offer councils great flexibility. SOLGM advised the Commission that "[t]argeted rates allow an almost unlimited range of options" (SOLGM, 2017a, p. 33).

However, councils must levy their rates within the powers conferred by the Rating Act and must do so in a reasonable manner. Robin Oliver (2016, pp. 7-10) provides a concise summary of the results from legal challenges to rating decisions. He concludes that:

If a new rating approach is adopted under existing legislation there is risk that it will be challenged. This brings uncertainty and also some risk that the challenge might succeed, albeit that the Courts have set the bar high. Given this, introducing a novel rating approach under the existing legislation would seem quite risky and specific legislation would be preferable. (Oliver, 2016, p. 10)

Section 2.1 briefly discusses the implications of the legal challenges for novel forms of targeted rates.

2.2.5 Other relevant rating matters

Section 15 of the Rating Act states that councils can set a uniform annual general charge (UAGC) on all rateable land within its district. The UAGC can be a fixed dollar amount per rating unit or a fixed dollar amount on every separately used or inhabited part of a rating unit (SUIP). The Rating Act restricts the quantum of rates that can be derived from UAGCs and other district-wide uniform charges to no more than 30% of total rates revenues (excluding rates set solely for the purposes of water or wastewater activities[8]).

2.3 Applying targeted rates to reflect causer pays

2.3.1 The Draft report referenced the exacerbator principle as a variant of the benefit principle

The Commission stated in its draft report that *the benefit principle* should play the primary role in determining who should pay for most council-supplied goods and services. This meant that services should be funded by those who benefit from them. (NZPC, 2019, pp. 141-142)

The Commission made it clear the benefit principle means that user charges should be used where feasible and efficient. It also stated that "… perhaps a targeted rate should apply to specific groups of residents who benefit from a service."

The Commission also made it clear that exacerbators should pay for local government services, called this *the exacerbator principle*, and stated the exacerbator principle is a variant of the benefit principle.[9] (NZPC, 2019, p. 141)

2.3.2 Like the benefit principle, the causer pays principle encourages efficiency

When mixed-use infrastructure needs to be significantly larger to cater for tourists, then tourists are causers of that infrastructure and charging them for using the infrastructure improves efficiency.

If tourists are unwilling to pay these user charges, it suggests they value the infrastructure service by less than the additional costs of catering for them. This suggests infrastructure expansion may not be needed, potentially reducing the council's future infrastructure costs. Although these types of charges may deter tourists from visiting the local area, or indeed deter them from visiting New Zealand, the outcome is more efficient than if they paid no charge.

If it is impracticable or inefficient to levy user charges, then local government rates need to be considered for covering the costs. Either local residents pay for all of the costs of local mixed-use infrastructure through their rates, or a share is paid by rating businesses that serve tourists and

[8] The Rating Act permits local authorities to set specific targeted rates for potable water based on water use. These may be either a fixed charge per unit of water supplied, or a sliding scale of charges.

[9] The Draft report gave an example of the exacerbator principle, in stating "Whoever causes a need for, say, a clean-up or a preventative activity should pay for it."

able to pass on most of the cost of the additional rates in the prices they charge tourists, or the council receives funds from other sources, eg central government, to cover the costs arising from tourists.

When tourists are causers of mixed-use infrastructure, levying the full cost on local residents is likely to be inefficient because tourists wouldn't be paying for the additional costs arising from their activity. This could result in councils under-investing in infrastructure because they're unable to raise the funds from local residents. Alternatively, councils may invest in additional infrastructure that costs more than tourists value.

2.3.3 Councils may take a cautious approach to using tourism targeted rates

Oliver (2016) notes it may be invalid for councils to set any rates on the basis of a policy that **singles out** and adopts a causer pays approach (emphasis added). Instead, councils need to consider each factor listed in section 101 of the LGA when setting their targeted rates:

Given the inherent difficulties with measuring who benefits from infrastructure spending and who causes it and how much different ratepayers benefit and cause such expenditure needs, it would be understandable if councils took a cautious approach to using targeted rates to meet infrastructure costs. Oliver (2016, p. 9)

The current High Court challenge to Auckland Council's accommodation provider targeted rate may further encourage council conservatism in their rate setting decisions.

2.4 The economic incidence of taxes and rates

As discussed in the Draft report, the economic incidence of a tax refers to who ultimately pays it, once price adjustments are considered.

2.4.1 Legal versus economic incidence

It is important to differentiate economic incidence from legal incidence. The latter refers to who is legally required to remit the tax, whereas the former is who is ultimately worse off from the tax payment.

For example, retailers are legally obliged to pay GST on their sales of goods to consumers, but because they pass the GST on as part of the retail price, the consumer ends up paying the GST. A relevant example for local government is that while landlords are legally responsible for paying rates, and because all landlords in a location are similarly obliged, the cost of rates will get factored into market rents. Therefore, the tenants will end up paying a substantial portion of the rates on a property through their rent payments. (NZPC, 2019, p. 142)

2.4.2 Economic incidence depends on relative supply and demand elasticities

A very long-held result in economic theory is that the economic incidence of a tax depends on the relative supply and demand elasticities of the parties participating in the taxed transaction.

If suppliers have lots of alternative options for their business, such that they will switch their capital and labour to other markets if their price falls by a tiny amount, then their supply is termed perfectly elastic. In this case, buyers bear the full burden of the tax because the price to consumers must rise by the full amount of the tax to keep the suppliers in the market.

In almost all cases, supply isn't perfectly elastic, at least in the short run. Hence, suppliers may bear some of the burden of a tax. The amount they bear depends on the relative supply and demand elasticities.

For example, if the supply and demand elasticities are equal and opposite then the tax is shared equally between suppliers and buyers. For example, if the supply elasticity is 0.7 and the demand elasticity is -0.7 then a 10% sales tax would increase prices to consumers by 5% and reduce the net-of-tax price to suppliers by 5%.

However, if supply elasticity is 5.0 and the demand elasticity is -0.5 then a 10% sales tax would increase prices to consumers by 9.1% and reduce the net-of-tax price to suppliers by 0.9%. The general formula for these results is provided in Box 1 on page 18.

Box 1: General formula for determining tax incidence

$$\text{Price change to suppliers (net of tax)} = \frac{\text{Demand elasticity}}{\text{Supply elasticity} - \text{Demand elasticity}}$$

$$\text{Price change to buyers (gross of tax)} = \frac{\text{Supply elasticity}}{\text{Supply elasticity} - \text{Demand elasticity}}$$

See Fullerton & Metcalf (2002) or any tax economics book for the development of these formula.[10] Kopczuk (2016, p. 9) provides more general formula when tax evasion occurs.

The real world is of course more complicated than suggested above, and some of these complications are discussed in the rest of section 2.4. One matter not discussed below is that tax increases can sometimes result in more than 100% pass-through (called tax over-shifting). See for example Hanson & Sullivan (2009), where they show that a $1 increase in cigarette taxes increased cigarette prices by between $1.08 to $1.17. Besley & Rosen (1999) report evidence of full shifting of sales taxes for many commodities they examined, and over-shifting for more than half.

2.4.3 Initial incidence can differ greatly from long run incidence

It is important to differentiate initial effects from long run effects. Supply and demand can take a long time to fully react to cost and price changes, and so it is inadvisable to observe the initial effect of a tax change and assume that's the long run outcome.

[10] Note demand elasticities are typically negative, and so the denominators in the above formulae are adding the supply and demand elasticities.

For example, a firm may increase its prices by the full amount of a new tax but subsequently moderate its price increases in response to slower than expected demand growth (arising from the higher prices). In this case the supply-side ultimately pays some of the tax.

2.4.4 Supply-side incidence isn't necessarily about lower profits

In saying the supply-side may ultimately pay some of the tax, that isn't necessarily saying the tax ultimately reduces a firm's profits. This is because the supply-side comprises more than the owners of a firm.

For example, in response to slower than expected demand growth, firms are often able to adjust their demand for labour and land, which may suppress the wage rates and land rentals the firm needs to pay. In this case, the burden of the tax falls on workers and landlords.

If workers have many options to work for firms that aren't taxed, then the tax burden may fall predominantly on land owners and it would show up in the form of reduced land prices or suppressed growth in land prices.

In the long run, financial investors in firms often have a vast range of options for their capital, including investing off-shore. This means a tax on the activities of a small subset of firms in one region in New Zealand, such as the accommodation sector in Queenstown, is unlikely *in the long run* to reduce the true profits (ie, the return on investment) earned by accommodation businesses.

Of course, most accommodation providers own the land on which their business is situated, and so they may ultimately pay some of the tax in form of lower land prices or slower growth in land prices.

And in practice, business owners often supply both financial capital and their own labour to the firm, and their own labor may be reasonably inelastic due to location and skill-specific factors. In this case business owners may bear a portion of the tax burden, which shows up in the form of a reduction in business profits but is really a reduction in their implicit salary from the business.

Clearly, ascertaining the economic incidence of a tax requires careful statistical analysis; casual observation is likely to be wide of the mark.

2.4.5 Point of collection may affect economic incidence

In principle, altering the point of collection of a tax – eg requiring accommodation providers to pay a tax rather than tourists themselves – shouldn't alter its long run economic incidence, because economic incidence reflects the underlying supply and demand fundamentals of the taxed activity. This is often called liability side equivalence (LSE) in the economics literature and should hold in markets exhibiting imperfect competition (refer to Weyl & Fabinger, 2013).

However, empirical evidence indicates that LSE may not hold in practice in all circumstances. For example, see Chetty et al. (2009), Dellavigna (2009) and Kopczuk et al (2016). These articles show that behavioral and institutional factors may undermine LSE.

A relevant and recent article by Kopczuk et al (2016) shows that LSE doesn't appear to hold when tax evasion is easier for one side of the market than the other. They study diesel taxes in the United

States, which in different states are collected at different points in the supply chain. Their results appear to indicate that moving the point of collection from the retail station to higher in the supply chain substantially raises the pass-through of diesel taxes to the retail price. In our context, this may have implications for using the international visitor levy versus the accommodation levy.

Cox et al (2018) conduct experiments to see whether LSE depends on the type of market goods and services are sold in. Their results indicate that LSE doesn't hold in posted offer markets or in double auction markets. The posted offer results are relevant for this paper as most retail markets, including the accommodation market, are posted offer markets because sellers specify the prices (ie, "post their offers") at which buyers can choose to purchase or not.

The experiments in Cox (2018) show that differences in economic incidence are statistically significant at the 1% level of significance, and the size of the differences is quite large. Their model is set up so that the tax burden should fall 50% on suppliers and 50% on buyers if LSE holds. Their results indicate that placing the tax liability on suppliers in a posted offer market resulted in a 74.5% pass-through to buyers whereas only 67.9% pass-through occurred when the taxes were imposed on buyers.

As is often the case in the empirical literature, there are also studies showing contrary results. For example, Borck et al (2002), Kachelmeier et al (1994) and Ruffle (2005) claim the theoretical prediction of LSE holds in actuality. At a minimum though, it seems imposing a targeted rate on accommodation providers, or on a wider range of businesses serving tourists, is unlikely to result in a larger tax burden on the supply side than if the tourists were required to pay the rate themselves.

2.4.6 Tax visibility and salience may affect economic incidence

Similar to the above discussion, altering the visibility and perception of taxes may alter economic incidence. For example, showing the tax component of a price as a separate line item on invoices and bills. Or stating the gross-of-tax price to consumers rather than (or in addition to) the net-of-tax price accompanied with information about the tax rate.

In New Zealand, final prices for consumers are required to be GST-inclusive, whereas in some other jurisdictions prices are stated without the tax, the tax rate is stated, and consumers are left to "mentally add" the tax component to determine the actual price they would have to pay.

All of these different approaches come under the term 'tax salience' in the economics literature, as the issue is how these different approaches alter consumer perceptions and therefore their purchasing decisions.

The economics literature on tax salience began with Chetty et al (2009), who conducted a field experiment at a Northern California grocery store. They retained the normal practice of the store posting net-of-tax prices for purchases by a control group and posting gross-of-tax prices (situated below the original price tag) for purchases by a treatment group. In their study consumers were less likely to buy products with the gross-of-tax price, and that the greater demand reduction induced by displaying the gross-of-tax price was roughly the same as would be induced by the sales tax. They concluded that consumers in the control group – who didn't have the tax visible to them – didn't account for the tax in their purchase decisions.

The tax salience literature is quite young, making firm conclusions hazardous. The main point for this paper is that the impact of an accommodation levy or alternative broader based targeted rates may depend on key design details, and the impact may not be as straight-forward as typically assumed.

2.5 The economic efficiency impacts of taxes and rates

Other than for externality and monopoly-type situations, taxes and rates impose a wedge between the prices buyers pay for taxed goods and services and the social costs of supplying those goods and services. This causes inefficiency because consuming more of the taxed goods would deliver value exceeding the additional social costs, but the higher prices discourage buyers from making those consumption choices.

However, the issue about tourists under-paying for council-provided mixed-use services is about “pricing externalities”. This is because the targeted rates are directed at correcting for the lack of prices tourist face for using council-provided services, such as signs, local roads, streetscapes, parks, toilets, street cleaning and rubbish collection.

Sections 2.5.1– 2.5.3 address the issue of efficient taxation in general because some submitters seem to be mis-interpreting the Treasury’s statements on New Zealand’s broad-based low-rate tax regime. Section 2.5.4 returns to the externality issue.

2.5.1 Minimising inefficiency when taxing final goods and services

In regard to final goods and services – being goods and services purchased by consumers – the standard prescription for raising a target level of revenue at minimum efficiency cost is to set commodity tax rates inversely proportional to the compensated demand elasticities of goods and services (Ramsey, 1927).[11] This is often called *the inverse elasticity rule* or *the Ramsey tax rule* in the economics literature.[12]

This rule minimizes inefficiency because it minimizes the aggregate extent to which consumer decisions are driven away from what they would be if they were untaxed. This occurs because raising all commodity tax rates proportionately achieves the same proportionate reduction in demand for those commodities.

The inverse elasticity rule means that different GST rates should be set on different goods and services: high rates on those with low elasticity and low rates on those with high elasticity. In theory

[11] Compensated demand elasticities are elasticities that result from removing the income effects of a tax change. For example, a tax increase increases market prices and so reduces the real income (or “buying power”) of consumers buying the taxed product. This is likely to reduce demand for the good, and this is called the income effect. The higher tax also increases the price of the taxed goods relative to the prices of other goods and services, which causes the consumer to switch some of their consumption from the taxed good to other goods. This is called the substitution effect. The compensated demand elasticity measures only the substitution effects, because it is only those effects that drive economic inefficiency.

[12] There are two other inverse elasticity rules for commodity taxation in the economics literature, however Sandmo (1987) shows they’re special cases of the general inverse elasticity rule and it is best to use the general version.

– that is, ignoring administration and compliance costs – minimizing inefficiency requires different GST rates on most goods and service.

2.5.2 It is important to avoid taxes that distort the mix of inputs used in production

The above statements are in relation to taxes on goods and services purchased by consumers. The same logic doesn't apply to taxes on inputs into production.

For business inputs, it is important for economic efficiency to avoid taxes that alter the mix of inputs used in production, unless an input is incorrectly priced in the absence of taxes, such as can occur for inputs that are public goods or exhibit significant externalities. The reason is that such taxes reduce the productivity of individual firms whereas other taxes alter the mix of what the economy produces but they don't reduce the productivity of individual firms.[13] Whatever the level of income redistribution desired by policy-makers, those levels can be achieved more efficiently by using other taxes.

This result is due to Diamond & Mirrlees (1971) and is widely accepted in the economics literature and among tax policy advisors. It explains why businesses receive GST credits for their purchases and why sales taxes generally only apply to final goods and services, that is to goods and services sold to consumers. The main exception to the Diamond & Mirrlees result is when business inputs have significant externalities associated with them (Bovenberg & Goulder, 2001, p. 5), which is discussed further in section 2.5.4.[14]

2.5.3 The policy rationale for broad-based low-rate (BBLR) taxes

In practice, New Zealand has pursued broad-based low-rate tax regimes, and some submitters have referenced this in their support for targeted tourism rates on a broader range of businesses than just accommodation providers. (Brien, sub. 134 pp. 10-18 and sub. DR141, p. 10)

However, the rationale for the BBLR approach derives from three considerations.

[13] Input taxes encourage firms to use less-efficient combinations of inputs to produce their output, making them less productive. Low productivity means low incomes, reducing the total amount of goods and services consumers can buy, making workers and consumers worse off than if the equivalent amount of revenue was raised through other taxes that avoid these effects. The Draft report made a similar point in relation to rates on the capital value of businesses. (NZPC, 2019, p. 147)

[14] There is also considerable economic literature on whether it is efficient to tax capital income at constant rates, often referred to as the Chamley-Judd results due to articles by Judd (1985) and Chamley (1986). In essence the problem with constant tax rates on capital income is they have the effect of imposing increasing tax rates on consumption the more distant the consumption is from now. Under fairly general assumptions about consumer preferences for current versus future consumption, the two articles showed it was efficient for capital income taxes to trend to zero. Atkinson & Stiglitz (1976) showed the same results in a more limited model with less general assumptions. The Chamley-Judd results have since been contested by various authors relaxing assumptions about consumer preferences and introducing other complications such as correlations between returns on savings and ability, incomplete or imperfect insurance markets, borrowing constraints, human capital distortions, economic rents, and avoidance of arbitrage between capital income and labor income taxation.

The first flows directly from the discussion about the productivity of firms in section 2.5.2. Adopting broad tax bases on capital income with similar effective tax rates across industries, for example, minimises tax-driven distortions to firm investment decisions. This promotes productive efficiency. Similarly, allowing businesses to claim GST credits on their purchases avoids distorting input decisions.

The second consideration relates to administration and compliance costs. The textbook analysis of efficiency (refer section 2.5.1) suggests multiple tax rates should be applied to taxes on final goods and services at rates consistent with the inverse elasticity rule. However, doing this would be very informationally-demanding, and no country has adopted this approach.

The widely-held view of tax policymakers around the world is that attempting to set taxes in accordance with the inverse elasticity rule would incur very high administration and compliance costs because different tax rates create incentives for taxed parties to minimize their tax burden by recharacterising their goods and services as lightly-taxed goods and services. These incentives create can greatly burden the tax authorities and they also waste taxpayer resources.

The third consideration relates to the likelihood of setting the wrong tax rates. Attempting to apply the inverse elasticity rule could in practice result in a set of tax rates that deviate further from allocative efficiency than applying the same tax rate to all commodities. This is likely to occur because policy-makers have very imperfect knowledge of the relative compensated elasticities of supply and demand for most goods and services. Also, setting different tax rates makes it harder for policy makers to fend-off lobbying for special tax breaks.

In contrast, the BBLR approach is more defensible because the same approach applies to all firms and industries. Also, spreading the revenue gathering widely allows tax rates to be kept lower than they would be otherwise, minimising the deviation from theoretically optimal tax rates.[15]

2.5.4 Targeted rates to address over-use of mixed-use local services

As discussed earlier in this paper, the issue about tourists under-paying for council-provided mixed-use services is about tourists using services for free that residents pay for through their rates. Often this is because it is too costly for councils to administer *efficient user charges*.[16]

In these cases, there is a strong presumption that residents and tourists *over-use* those services, in the sense that they wouldn't be using those services to the same extent if they faced user charges equal to the additional costs their use created. The reduced use of the services would then save councils these costs and the need to fund them.

[15] The smaller the deviation the lower the allocative inefficiency because such inefficiency is a quadratic function of the tax rate. That is, suppose a 5% tax rate causes a $25m efficiency loss. Then doubling the tax rate to 10% causes a $100m efficiency loss, which is four times larger than $25m.

[16] In the absence of transaction costs, a perfectly efficient user charge would reflect the marginal cost of providing the services, which will vary as demand changes. For example, as the mixed-use services are public goods it would be optimal for the user charge to be zero until the service started to become congested. The user charge should then equal the externality cost of congestion and when total demand has reached maximum capacity the charge should be set at the level that rations demand to maximum capacity.

In these circumstances, it may be possible to design targeted rates in ways that partially or fully correct for the lack of user charging faced by tourists. Rather than reducing economic efficiency (which is the normal thinking about taxes and rates), well-crafted targeted rates may be able to improve economic efficiency.

One approach is to set targeted rates on likely users of mixed-use services at a level sufficient to fund the long run marginal incremental cost (LRMIC) of service provision. In practical terms, this roughly equals the additional operating costs and the cost of bringing forward capacity expansion to cater for permanent increases in peak demand.[17] LRMIC is a form of *marginal-cost pricing* and can be referred to as *causer pays pricing*. It encourages consumers to consider the long run costs of their consumption decisions.

Although the LRMIC approach would be less efficient than an efficient user charge, mimicking the requirements of an efficient user charge is likely to be impracticable in most cases. Relative to the case where mixed-use services are provided free-of-charge, setting targeted rates equal to LRMIC can improve economic efficiency. For example, it improves efficiency when the efficiency gains from avoiding congestion externalities and over-investment in capacity exceed the efficiency losses from deterring consumption of the mixed-use service when it isn't congested or is lightly congested.[18]

Whether net efficiency gains can be achieved is case-specific.

An alternative to LRMIC-pricing is to apply targeted rates to parties benefiting from the service, and to do so in a way that (i) recovers total costs and (ii) those costs are allocated roughly in proportion to each payer's share of the benefits. This is often called the *beneficiaries pay principle* or more simply *the benefit principle*.

There can be cases where the beneficiaries pay approach is more efficient than LRMIC-pricing. For example, this could occur when LRMIC-pricing would yield efficiency losses in some demand conditions that exceed the efficiency gains during all other demand conditions.

This causer pays vs beneficiaries pays framework is relevant for analysing the targeted rate options in sections 4 and 5. Two of the options evaluated in this paper are focused on applying targeted rates to the (supposed) beneficiaries of tourism, whereas the other three options are aimed at causer pays.

Environmental externalities from tourism may be another factor to consider. In general, the best approach to those kinds of externalities will be to charge tourists for visiting national parks and reserves etc. To the extent user charges aren't possible, a nationwide tax regime, such as the international visitor levy, may be able to improve outcomes.

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[17] Electricity Authority (2014) discusses the definition of LRMIC and discusses its efficiency versus other forms of long run marginal cost. NERA (2014) also provides a useful discussion of incremental cost pricing.

[18] This statement is based on second-best tax theory, of which Bovenberg & Goulder (2001) provides a useful treatment in regard to environmental externalities. Verhoef (2000) provides an application to second-best pricing of externalities in road transport. However, neither article explicitly considers the efficiency of LRMIC or other forms of long run marginal cost pricing.

Under the LGA and the Rating Act, it is doubtful councils have the power to introduce targeted rates to mitigate environmental externalities from tourism. In any case, a nationwide approach would likely better address these issues.

2.5.5 It's important to consider how a tax interacts with other taxes

The discussion in section 2.5.4 abstracted from the possibility that other taxes may already be adequately correcting for the risk of over-use. If that is the case, then adding a second tax, in the form of a broad-based sales tax or an accommodation levy, could drive tourism to sub-optimal levels, and so create economic inefficiency.

For example, New Zealand's GST is based on the principle that it applies to all purchases of imports but not to export earnings. The latter is supposed to be achieved by businesses applying zero GST on their export receipts (called zero-rating). For practical administrative reasons, and for economic welfare reasons, zero-rating doesn't occur for export earnings from international tourists visiting New Zealand.

Practical reasons for applying GST to international tourists

The practical reason is that zero-rating GST for international tourists at the time they purchase goods and services in New Zealand, ie at retail outlets, would create significant opportunities for New Zealand consumers to avoid or evade GST on their purchases.[19] International tourists would have strong incentives to buy lots of GST-free goods and services and on-sell them to New Zealanders at a markup potentially as high as the rate of GST New Zealanders would have to pay. Also, New Zealanders would have strong financial incentives to obtain foreign passports to pretend to be international visitors, to participate in this lucrative money-making scheme.

Economic reasons for applying GST to international tourists

The economic reason for applying GST to international tourists is that it increases total export revenue for New Zealand, delivering net economic benefits to New Zealand if the revenue increase exceeds any welfare losses from altering domestic resource allocation. The additional revenue occurs because international tourists view their other consumption choices, eg visiting other countries, as imperfect substitutes for visiting New Zealand, and so their elasticity of demand with respect to the cost of visiting and touring New Zealand is quite low (refer section 4.3.1 on page 46). In other words, a large proportion of would-be tourists to New Zealand visit regardless of the higher costs they incur from having to pay GST, and so the additional revenue is a *wealth transfer* to New Zealand.

[19] Some countries provide rebates on their GST (or more generally, value-added taxes) to international tourists at their international border, but that is only practicable for physical goods they're taking out of the country. Rebates are not provided for goods and services consumed while in the country.

In effect, New Zealand has some market power in the international tourism market, making it beneficial for New Zealand to levy an export tax on tourists visiting New Zealand.[20,21]

In practice, international visitors consume some nationwide public services that they do not pay for directly or only partly pay for, for example ACC cover, rescue services, police services and border services. In addition, international tourists receive mixed-use local services for free, which is a cost on New Zealand councils (to the extent they have to provide additional services to cater for the tourists). Staff analysis indicates that GST collected from international tourists on average significantly exceed those costs. This leaves international visitors paying *a net export tax from GST*, probably exceeding 5%.

Putting aside consideration of environmental externalities from tourism (refer previous subsection), a net tax from GST means the wealth transfers discussed above more than offset the additional costs that international tourists cause while in New Zealand. New Zealand appears to be 'winning overall' in financial terms.

However, the issue for this paper is whether introducing a local sales tax, such as an accommodation levy in Queenstown, increases or reduces economic efficiency given that international tourists are already subject to GST.[22] This issue is addressed in section 5.4.1 below.

3 Key points from submissions on allowing accomodation levies and other forms of tourism targeted rates

This section focuses on the components of submissions that speak to the pros and cons of accommodation levies and alternatives to it. It doesn't cover the issue of whether there is a funding problem for mixed-use services as that will be considered in other work the Commission is doing to prepare its final report.

About thirty submissions commented on the draft recommendation for accommodation levies, however the supportive ones were generally very brief. About sixteen submissions made significant comments, with the overwhelming majority of these against the recommendation. Hence, most of the content in this section highlights the arguments against accommodation levies.

The rest of this section discusses:

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[20] The same logic probably applies to international tourism to all countries because each country is unique to some degree and tourism is about consuming the bundle of experiences available from each country.

[21] Readers familiar with economics will recognise the efficiency case for taxing international tourists depends on them having a less-than perfectly elastic demand for visiting New Zealand. In principle, a similar efficiency argument applies for considering export taxes (ie, a positive rate of GST) on other New Zealand exports where international demand for them is less than perfectly elastic. The optimal approach in theory is to apply different GST rates for each exporter. However, this would incur significant practical problems. In contrast, applying our normal rate of GST to international tourist expenditure in New Zealand achieves the happy coincidence of avoiding practical problems and improving efficiency.

[22] The international visitor levy is $35 per visitor, which is probably about 0.25-0.75% of average expenditure per international visitor. This range estimate is based on the average expenditure per (domestic and international) tourist being $3,290 (obtained from http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7571). The $35 figure is 1.06% of $3,290. As the average international tourists spends significantly more than the average domestic tourist, the 0.25-0.75% range is a reasonable estimate. As the 0.75% figure is too small to alter the conclusions in the text, the discussion in this section focuses on the 15% rate of GST.

- Arguments for accommodation levies.
- Arguments against accommodation levies.
- Arguments about using other targeted rates and options to fund mixed-use services.

3.1 Arguments for accommodation levies

Virtually all submissions supportive of the Commission's draft recommendation for accommodation levies expressed their support with minimal discussion.

Auckland Council and Queenstown Lakes District Council made submissions to the Issues paper calling for changes to the LGA and the Rating Act to allow councils to introduce an accommodation or visitor levy (eg, Auckland Council, sub. 120; and Queenstown Lakes District Council, sub. 67). Neither council introduced new arguments in support of accommodation levies.

3.2 Arguments against accommodation levies

Submitter's comments fall into the following key themes:

- Arguments about economic efficiency
- Arguments about who benefits from tourism infrastructure
- Arguments about economic incidence and fairness
- Arguments about administration and compliance costs and difficulties
- Arguments about consistency with important principles

Submitters also made brief comments about legal issues and lack of reference to empirical evidence and proper cost-benefit assessments.

3.2.1 Arguments about economic efficiency

The Commission's Draft report implied the economic efficiency issue is about correcting for the lack of user-pays or appropriately targeted rates for recovering the costs of services that both residents and tourists consume.

While tourists contribute indirectly when they buy from businesses that pay business rates, they do not pay any equivalent of the portion of residential rates that goes towards meeting these costs. (NZPC, 2019, p. 174)

… some councils and residents would welcome a moderation in numbers, and any tourists lost are those who value the experience less than the costs they create – so losing them should enhance overall economic efficiency. (NZPC, 2019, p. 177)

<u>Submitter's views</u>

Few submitters considered economic efficiency directly and none did so comprehensively. Anthony Brien and the Wanaka Bakpaka came the closest to doing so, stating:

[t]he outcome of an accommodation levy/bed-tax has the potential to distort investment decisions if business value reduces as a result of reduced revenue. (Anthony Brien, sub. DR141, p. 10)

I do support LGNZ submission for help from central government to fund mixed use infrastructure, however as others have already put forward to the central government a bed tax is not an equitable solution. This will only further distort investment in commercial accommodation and continue to push tourists to stay in an unregulated short-term residential accommodation. By introducing a sin/excise tax on commercial accommodation will have an undesired effect of causing more social harm by creating more housing unaffordability through attaching a commercial profit to residential housing and thus increasing house prices in especially tourist areas. (Wanaka Bakpaka, sub. DR169, p. 2)

Two submitters identified other economic inefficiencies from the proposed accommodation levy. One raised concerns about inconsistent charging of levies across properties in regions and councils creating an uneven competitive environment. (Bed and Breakfast Association New Zealand, sub. DR 214, p. 4-5) The other identified inefficiencies arising from ad hoc levies or one-off fees creating confusion among both tourists and property owners, with the latter deterring potential bed and breakfast owners from opening businesses. (Bed and Breakfast Association New Zealand, sub. DR 214, p. 5)

<u>Comment</u>

None of the submitters directly addressed the economic efficiency rationale for the proposed levy, which is based on indirectly attributing to tourists the costs of mixed-use infrastructure they use but currently don't pay for. Brien's analysis is incorrect as he doesn't take into account any investment distortions from tourists currently under-paying for mixed-use infrastructure they use.

The concerns about creating an uneven competitive environment and pushing tourists into untaxed accommodation are potentially legitimate and need to be weighed against the advantages of the levy proposal.

3.2.2 Arguments about who benefits from tourism infrastructure

The Draft report didn't argue for an accommodation levy on the basis that accommodation providers benefit from tourism. Rather, the proposal was based entirely on efficiency arguments, as outlined in section 3.2.1 above.

Nevertheless, almost all submitters arguing against the levy (wrongly) inferred the Commission was basing its argument on the benefit principle. This may have arisen because elsewhere in the Draft report the Commission stated the benefit principle should be the primary basis for deciding targeted rates. Also, the Draft report was unfortunately silent about causer pays (and exacerbator pays) in relation to the issue of targeted rates.

<u>Submitter's views</u>

The following quotes from the Queenstown Lakes District Tax Equity Group (QLDTEG) and Hospitality NZ echo the views of most submitters:

We agree with Commission's observation that services should be funded by those who benefit from them and the benefit principle should play the primary role in determining who should pay. We would repeat the observation in our initial submission that the accommodation sector is only one subsector of the tourism *economy that benefits from infrastructure services provided by local and central government. All other businesses deriving income from tourism also benefit, some of them more so than accommodation. It is therefore highly unfair, inequitable and ignorant of the* ***benefit principle*** *to seek to impose an additional turnover tax on just that one subsector in order to boost funding for infrastructure of benefit to all.* (QLDTEG, sub. DR145, p. 1) (emphasis added)

We believe that an accommodation levy fails the ***benefit principle*** *primarily because an accommodation levy does not capture Freedom Campers, day visitors, those transiting/passing through an area/Council district or people who chose to stay with family and friends. All of these groups create externalities by using and benefiting from mixed use services and infrastructure which they do not pay for, and would not be caught by an accommodation levy. Therefore, on that basis we believe that an accommodation levy cannot meet the* ***benefit principle****. As those benefiting from the mixed use services are not paying for them.* (Hospitality NZ, sub. DR 188, pp. 4-5) (emphasis added)

Similar comments were made by Bookabach (sub. DR209), Generus Living Group (sub. DR224), M&C Hotels (sub. DR146), the Nelson Regional Development Agency (sub. DR223), Brien (sub. DR141) and Wanaka Bakpaka (sub. DR169).

The Bed and Breakfast Association linked the 'fairness / who benefits' issue to the GST that international visitors pay, stating that:

International visitors may not pay the "equivalent of the portion of residential rates" (pg 174) for local mixed use tourism infrastructure and services. However, they do pay GST and other taxes (eg. fuel) and therefore contribute fully to the New Zealand economy. In 2017 GST collected directly from tourism equated to approximately 18% of the total GST collected. (Dept of Stats and IRD). As tourism spend has continued to increase we are sure that once figures become available they will show the percentage of total GST collected from tourism will also have increased. (Bed and Breakfast Association New Zealand, sub. DR214, p. 6)

Similar comments were also made by the Nelson Regional Development Agency (sub. DR 223)

Comment

As stated above, the issue for the Commission was how to efficiently gather additional revenue from tourists to reduce their under-payment for mixed-use services. As discussed in section **Error! Reference source not found.**, the intention is for the levy to be passed onto tourists. Of course not all of it is likely to be passed on, but as discussed in section 2.4, if the burden of a tax or levy falls partly on the supply side it doesn't necessarily fall on the accommodation provider in the long run. It is more likely to fall on inelastic factors of production, such as landlords and other land-owners. However, there is also the issue of accommodation providers bearing the burden of administering the levy. The Commission should consider whether these compliance burdens are material, and if so, consider ways to alleviate them.

3.2.3 Arguments about economic incidence and fairness

The Commission's Draft report made the following comments about the economic incidence and fairness of the accommodation levy:

Accommodation is a necessity, so comes close to a tollgate point for entering and spending time in a tourist destination. (NZPC, 2019, p. 176)

The most straightforward result would be that the tourist pays the levy as a straight addition to part of their accommodation bill. Alternatively, some of the effect of the levy could be transferred to owners of accommodation businesses in the short term, or to owners of land suitable for accommodation in the longer term, but these effects are likely to be minor particularly if tourist patronage is substantially inelastic (insensitive to change in price). … A modest levy would be unlikely to cause more than a small decrease in tourist numbers. (NZPC, 2019, p. 177)

Submitter's views

The submission from M&C Hotels reflects the tenor of several submitters:

In the first instance, the Commission has not robustly examined whether any levy can be actually passed through to the party that should actually pay it. We agree with the Commission when it says that "the most straightforward result would be that the tourist pays the levy as a straight addition to part of their accommodation bill". But that is where the issue appears to end.

For whatever reason, it appears to us that the Commission is unaware as to how competitive the accommodation industry actually is. While it is all well and good to postulate that a small increase in costs may not affect tourism numbers from an umbrella perspective, the fact remains that any increase in price due to fixed costs (as any rates, taxes or levies would be), would affect demand. The accommodation market is extremely dynamic and depends on a wide range of factors such as availability, the standard of the accommodation being provided, the range of guest amenities and services, the location and reputation of the premises.

There are direct parallels between the airline industry and the accommodation industry with regard to their inventory. In both cases, their inventory (airline seats and room nights) are perishable overnight. There is an important difference between the two in that accommodation assets, unlike airlines, are unable to be physically moved to another location or country. In such a dynamic environment, hotel owners / managers cannot easily pass on or collect additional revenue simply because their input costs have increased. Further, the price of accommodation is not determined by the cost of operating or owning the accommodation assets themselves. These issues must be addressed by the Commission in its final report if it intends to recommend an accommodation levy. (M&C Hotels, sub. DR146, p4)

Although not stated explicitly, the inference from the above submission is that a large portion of an accommodation levy may not be passed onto accommodation guests. Similar sentiments, although less detailed, were expressed by other submitters, including from Scenic Hotels Group (sub. DR159), Hospitality NZ (sub. DR 188), Bed and Breakfast Association New Zealand (sub. DR 214).

Brien cited empirical evidence on the price elasticity of demand for tourism, which indicated some low estimates (around -0.3) through to quite large effects where only 70% of a $5 levy in Georgia, USA, was passed onto guests.

Hospitality NZ expressed concern about the consistency of the Commission's logic for an accommodation levy, stating:

We are concerned that the logic used by the Commission for rejecting option six is flawed when examined in light of their support of option five (an accommodation levy). It is argued that option six should be rejected as it fails to charge domestic tourists for the funding of mixed-use facilities.11 Yet, the Commission supports accommodation levy which fails to charge freedom campers, day visitors, those staying with family or friends or those staying in peer-to-peer accommodation for the funding of mixed use services. Therefore, it is illogical to reject option six because it does not charge all those who use mixed-use facilities whilst simultaneously *supporting option five, which also does not charge all those who use mixed-use facilities.* (Hospitality NZ, sub. DR 188, p. 6)

Comment

The Commission should obtain further evidence about the potential economic incidence of the proposed levy to inform its decision for the final report. Having said that, a high price elasticity of demand by tourists doesn't necessarily undermine the efficiency case for the causer pays options if those options are better aligning tourist charges with the costs they cause. Section 4.3 reviews the empirical literature identified by Commission staff.

3.2.4 Arguments about administration and compliance costs and difficulties

The Commission's Draft report made the following comments about the administration and compliance costs and difficulties of the accommodation levy:

Once set up, an accommodation levy's compliance and administration costs are likely to be only modestly greater than other targeted rates. Accommodation providers would pay regular amounts to councils calculated from the simple rule that defines the base of the levy (eg, revenues from guests or bed nights). Councils would need to maintain a database of accommodation providers. Airbnb has already indicated its willingness to collect such a levy on behalf of accommodation providers on its platform. (NZPC, 2019, p. 177)

Tourists could avoid a levy by staying outside the town or city or in unregistered accommodation. (NZPC, 2019, p. 175)

A modest levy is unlikely to cause many tourists to stay outside the tourist centre so they can avoid the levy, especially if the centre is a large city or is relatively remote from neighbouring centres. Such a possible outcome might necessitate adjacent jurisdictions such as Wellington City and Hutt City, and Napier City and Hastings City to coordinate any accommodation levies they imposed. The levy must apply to all accommodation in a centre, including through platform providers (eg, Airbnb and Bookabach). (NZPC, 2019, p. 177)

Submitter's views

Several administrative and compliance issues were identified by submitters, which are listed below for convenience. No submitters provided estimates of the actual cost accommodation providers would likely incur complying with a levy, perhaps because the levy proposition was high-level. Several submissions argued that other options (like multi-sector targeted rate or share of GST) would not be complex and problematic to design and implement.

The lack of specifics about the proposed levy led some submitters to claim the Commission has made a proposal without due consideration of the relevant problems.

Some submitters inferred from their experience of Auckland Council's accommodation provider targeted rate (APTR) that the administration and compliance costs would be significantly greater than other targeted rates. For example, Millenium & Copthorne Hotels stated:

We strongly disagree with the Commission's comment that once that the costs of compliance and administration of any accommodation levy are "likely to be modestly greater than other targeted rates". To ensure that the final report is factually accurate and complete, it must refer to the Auckland Council APTR as *an example and in particular its remissions policy which, to put it bluntly, has been an administrative nightmare. Remissions given in the first year of the APTR (2017) were not available in 2018 as the Council changed its policy having made errors in the prior year. Many of the failures stemmed from the lack of accurate information in Auckland Council's property database which required owners to point out these errors to Council at significant time and cost to them which was not "modest". Because the draft report contains no detail as to what the Commission's preferred model of an accommodation levy is, it is impossible to assess what the actual impacts would be. These would likely vary depending on whether the levy was to be a flat rate per person per night or per room or a percentage levy (flat rate or stepped) or otherwise.* (M&C Hotels, sub. DR146, p5)

The Nelson Regional Development Agency provided an example of a tourism targeted rate introduced in 2009 and discontinued in 2012 due to high administration and compliance:

To try and address some of the inequity challenges, Tasman District Council implemented a tourism sector targeted rate in 2009 to part-fund tourism marketing and destination management services to offset general rates. The Tourism Rate, a flat rate of $137.21 per property, was applied to properties with a Health License, an on or off License, accommodation properties, petroleum outlets, tourism activities, passenger transport services and retail services and businesses targeted at the visitor market. The Tourism Rate was discontinued in 2012 due to high compliance and administration burdens and, in particular, the inability to identify who to levy as Council doesn't have a mechanism by which to easily identify the non-commercial portion of the accommodation sector (the administrative costs to continually try and identify them through websites, social media and advertising was very cumbersome). The Tourism Rate was removed, along with removal of any general rates component in 2012, and replaced by a district wide targeted tourism rate, at a set rate of $23.51 per property. This example highlights the importance of any potential solution needing to be simple for the Local Authority to administer and revenue positive. (Nelson Regional Development Agency, sub. DR 223, p. 4)

Some submitters argued administration costs on the short-term rental accommodation (STRA) sector could be particularly burdensome. For example, Bookabach stated:

… Importantly for Bookabach, any accommodation levies must be set and collected with full knowledge and understanding of the operating environment for homeowners using STRA (given the sub-scale nature of STRA as a standalone business, i.e. low yield, low occupancy, low return on capital). It must be easily administered so that homeowners, for whom STRA is a part-time and marginal activity, are not caught up in a cycle where it becomes too onerous or costly to participate in the sector. Unfortunately, the Accommodation Provider Target Rate (APTR) in Auckland does not meet these criteria. Bookabach does not support the APTR as it is a blunt measure which has not been implemented according to a user/beneficiary pays approach and it does not recognise the operating environment for STRA homeowners, as described above. (Bookabach, sub. DR 209, pp. 2-3)

In contrast, Hospitality NZ argued for nationwide legislation to enhance compliance among short-term rental accommodation providers:

Regardless of any other final recommendations, legislation must be put in place to compel peer-to-peer accommodation provider platforms and their users, to comply with regulations and legislation. We believe that peer-to-peer short-term accommodation providers that operate as businesses must be treated as businesses and pay their fair share of commercial ratings and compliance costs imposed by Councils and Government. (Hospitality NZ, sub. DR 188, p. 7)

In terms of specific issues:

A submitter identified the following definitional issues:

- Will properties under a lease or management arrangement be subject to the levy and does the owner or manager pay?
- Will the levy apply to contracts for rooms agreed before the implementation of any levy?

A submitter raised the following set-up administration and compliance issue:

- The report suggests that each council will be required devise and set up its own collection method at its own cost. It will also have to define the property type and criteria relating to the levy to be collected.

Submitters raised the following on-going administration and compliance costs and issues:

- Ongoing monitoring of small properties which open and close frequently, with many operating on a seasonal basis, will place additional cost on the local council.
- Significant challenges associated with capturing all accommodation channels, particular freedom campers and sharing economy.
- How will it be ensured that the taxes are applied to infrastructure investment?

Comment

Administration and compliance costs and issues are highly dependent on the design details of any targeted rate or levy, and on the processes used to collect the funds, and on the monitoring and compliance regimes. Although it isn't the Commission's place to design a specific targeted rate or levy, the above concerns should be considered in finalizing the Commission's view about an accommodation levy. It should also be reasonable for the Commission to expect councils to take reasonable account of administration and compliance costs when deciding whether to introduce a levy or targeted rate.

3.2.5 Arguments about consistency with important principles

Section 6.1 of the Draft report specified five principles for funding and financing local government, and in the Overview section it states:

The best options to directly recover the tourists' share of the costs of mixed-use services are through greater use of user pays, and accommodation levies. These are the only options that target the right group, do not involve an industry subsidy, ***and meet the other funding principles outlined above****.* (NZPC, 2019, p. 8) (emphasis added)

Although the Draft report explicitly assessed the current local government funding arrangements against the five principles, it didn't do so for the accommodation levy proposal.

Submitter's views

Several submitters argued the levy proposal is inconsistent with some the funding and financing principles. A comprehensive evaluation was provided by Hospitality NZ:

Appropriate for local government use: We believe that the funding of mixed-use infrastructure and services that benefits both locals and tourists and is of a national benefit, is more appropriately funded by central government rather than local Councils. Tourism benefits New Zealand as a whole and the solution to the funding of mixed-use infrastructure needs to be a coordinated nation-wide approach, rather than an ad-hoc *local council approach. A national approach would enable better coordination for projects, such as roading and public facilities, plus have cost efficiencies of scale.* (Hospitality NZ, sub. DR 188, pp. 1-2)

Coherent: Allowing Councils to set their own accommodation levy rate (in addition to the International Visitor Levy) will lead to a situation where there is no coherency throughout the country, or from one local body to another. It could also lead to situations where Councils undermine each other as Councils ultimate responsibility is to their individual area. The Draft Report itself warns "Without careful coordination, different levels of government that share the same tax base can impair coherence. For example, each level could set its tax rate without considering the rate set by the other – which could result in a damagingly high combined rate". (Hospitality NZ, sub. DR 188, p. 3)

Equitable and Fair: …We are also concerned that an accommodation levy lacks horizontal equity which is a criterion that the Commission has identified as being of value in allocating the burden of the funding mixed-use facilities. The Draft Report acknowledges that an accommodation levy would not capture significant portions of those who engage with the tourism sector in New Zealand including freedom campers, day visitors, or those staying with family and friends. Therefore, horizontal equity will not be achieved as those providing or receiving accommodation are not being treated equally. (Hospitality NZ, sub. DR 188, p. 6)

Sustainable: To be sustainable an accommodation levy must not be easily avoided. As we have set out above, we believe that an accommodation levy as suggested by the Commission can be avoided by both consumers and businesses. Without legislative oversight preventing or disincentivising avoidance, we are concerned that any levy that is introduced will be ineffective and result in unfairly targeting the commercial accommodation sector. … We are also concerned that an accommodation levy (if widely introduced) will be unsustainable for certain Councils in certain areas who do not have a predictable flow of tourists into their territories. (Hospitality NZ, sub. DR 188, p. 4)

Anthony Brien provided an extensive evaluation against the coherence with national policies and institutions, focusing on New Zealand's broad-based low-rate (BBLR) framework for taxation:

The above Treasury release also states: "Under this framework, narrowly based taxes, such as a bed or border tax, can generally only be justified on externality grounds. This is that they are a "corrective tax" that is intended to change behaviour and compensate ensure consumers face the costs of the social harm they impose on society when consuming a product. As noted above, there should be a high burden of proof before adopting such taxes and moving away from BBLR principles. A bed tax will change behavior, potentially of reducing stays in commercial accommodation, but this is not the desired effect that LGA's want". The last sentence in this Treasury statement is further expanded in Section H, where it proves that tourists do avoid areas where accommodation levies/bed-taxes are in play. (Anthony Brien, sub. DR141, p. 5)

Brien also highlights the importance of stable and predictable revenue for local government:

The Productivity's Commission Draft Report notes the principles of local government funding, including the need for: adequate, stable and predictable revenue over time. Further, as part of this, Local government are required to prepare 10-year plans and associated infrastructure plans (see Section 101B, Local Government Act, 2002) and in doing so they must present a balanced budget (see Section 101 and 101A, Local Government Act, 2002).

The above results in a desired amount of funds at certain times (annually, etc.), and indeed it is recommended that commercial accommodation operations would be required to pay certain amounts at certain times. However, if these funds are being sought from the accommodation sector via a bed-tax which is subject to elastic pricing, it is not possible to guarantee a stable and predictable revenue over time. (Anthony Brien, sub. DR141, p. 8)

Comment

Section 5 of this paper assesses the five options against the five funding and financing principles in the Draft report. However, the Commission could state in its final report that it would expect councils to undertake their own assessment when deciding whether to introduce a levy or targeted rate.

3.3 Arguments about using other targeted rates and options to fund mixed-use services

The Draft report, in Table 6.4 on p. 175, briefly considered five alternatives to the accommodation levy:

1. Greater use of user-pays.
2. Businesses charge tourists higher prices and the extra revenue is handed over as additional rates to the council.
3. Councils increase business rates.
4. Central government rebates a portion of the GST that it collects from tourists' consumption in the tourist area.
5. Central government gives councils in tourist areas a share of the new international tourist border levy.

On p.176, the Draft report acknowledged user-pays isn't always feasible and that it can lead to unhelpful outcomes. It also recommended further use of the last item – the new international visitor levy – where day-tripping was a big problem. Another internal note is re-considering the GST option.

The Draft report thought options 2 and 3 were relatively easily dismissed. It stated the second option (businesses charging tourists higher prices) was impractical and the third option (higher business rates in tourist towns) penalises residents.

3.3.1 Arguments that targeted rates are a better option

Submitter's views

Anthony Brien argued for a multi-sector targeted tourism rate (MSTTR), stating:

The MSTTR (as presented to the Commission via a submission) is a targeted rate, simply applied to identified properties as per the TSA Products (classifications) akin to the present practice of other targeted rates. A MSTTR would therefore be borne by all TSA product classifications meeting the BBLR requirement, whereas a bed-tax is a cost borne only by commercial accommodation operators. A MSTTR meets all the requirements of being: efficient, sustainable, equitable, and fair, coherent, and an 'appropriate for local government use' principle of local government funding and financing as detailed below. (Brien, sub. DR141, p. 12)

The Queenstown Lakes District Tax Equity Group also favoured a broad-based approach, stating:

On compliance and administration costs, the legal and administrative requirements for a narrow based tax are the same as those required for a broad one. The only difference would be that more businesses would need to comply. But this offers the significant advantage of enabling the tax rate to be much lower, low enough to avoid the distortionary effects of a significant price spike in the accommodation sector. There is no difficulty in defining businesses that should be within the catch pool, either regionally or nation-wide. Main players in the tourism sector are easy to identify, and TEG would be pleased to work with agencies to refine a list of those who should share the tax burden. (QLDTEG, sub. DR145, p. 2)

Comment

This paper has picked up the key elements of Brien's MSTTR proposal and is evaluating it against three other options, including the Commission's draft proposal for an accommodation levy.

3.3.2 Arguments that other alternatives are better

Submitter's views

Separate from arguments for broad-based targeted rates, several submissions suggested other alternatives to the accommodation levy:

- More effective/efficient use of current funding tools (e.g: Tourism Infrastructure Fund, Provisional Growth Fund, and the International Visitor Levy) should be properly explored before new levies, rates or taxes are introduced. (Hospitality NZ, sub. DR 188, p. 8)
- A 10% Excise tax on international license holders renting cars/campervans. (The Backpacker Group, sub. DR 241, p. 1) and (Wanaka Bakpaka, sub. DR169, p. 1)
- Pan taxes. (Wanaka Bakpaka, sub. DR169, p. 4)
- A general revenue sharing model in which councils receive a share of general taxation on the basis of an automatic formula. Included in the weighting could be pressures. (Manawatu District Council, sub. DR170, p. 22)

In relation to the last bullet point, the Queenstown Lakes District Council states:

QLDC has pursued a local visitor levy in the absence of support for a more broadly-based return of community-generated income, such as GST sharing. If such a scheme were to be proposed and delivered providing a secure income stream, QLDC would be highly supportive. It should be noted, that if a GST-sharing solution or other broadly-based return of community-generated income were to be proposed, QLDC would also consider this to be a favourable solution. (QLDC, sub. DR 196, p. 3)

Comment

In regard to each of the above suggestions, the Commission could reply:

- More effective/efficient use of current funding tools – this is consistent with the Commission's analysis of the current local government funding and financing framework more generally. Moreover, this paper is considering the merits of more effective use of targeted rates on the business sector (the MS and BB options).
- A 10% excise tax on international license holders renting cars/campervans – CSA's understanding is the petrol excise duty covers the costs of central government-funded roading but doesn't cover local government's share of local road funding. The suggested

excise tax would not cover domestic tourists and it wouldn't cover international tourists arriving by private cars, taxis, buses, airplanes, and so on. Moreover, the excise tax would be collected wherever the cars and campervans were rented, and so would be very poorly correlated with tourist under-funding of particular mixed-use services.

- It is not clear pan taxes are materially different from variants of the accommodation levy.
- A share of two forms of general taxation – income taxes and GST – was considered and rejected in the Draft report.

4 Options for tourism targeted business rates

The Draft report included a recommendation to allow councils to introduce accommodation levies to rectify the situation and encouraged councils to make greater use of user pays:

"R6.7 The Government should legislate to enable councils in tourist centres to choose to implement accommodation levies to recover the tourism-induced costs of providing local mixed-use facilities not otherwise charged for." (NZPC, 2019, p. 178)

The Commission has received submissions on its Draft report, expressing concerns about any accommodation-only levy, rate or tax, and calling for a more in-depth analysis of accommodation levies and alternatives to it.

This section considers two alternatives for targeted rates on businesses to gather funds from tourists and compares them against two forms of an accommodation levy, and against general rating of businesses on their land value.

The rest of this section is structured as follows:

- Qualitative description of options
- Numerical illustration of the options
- Comparative analysis of incidence and impact on economic behavior
- Comparative analysis of avoidance and evasion opportunities and incentives

The discussion of efficiency, fairness and administration and compliance costs is deferred to section 5, where each option is assessed against the Commission's principles for local government funding and financing.

4.1 Qualitative description of options

This paper considers five options, defined as:

1. Multi-sector tourist (MST) option, levied on property values and targeted at businesses supposedly benefiting from tourism.[23] The rating base would be the property values of ratepayers with businesses serving tourists. Different tax rates would be applied to property values based on how much the businesses on their properties serve residents versus

[23] Note the emphasis on "supposedly benefiting from tourism". As discussed later in the paper, the beneficiaries of tourism may not be business owners serving tourists, however it was a common view among submitters.

tourists. The average tax rate across these ratepayers would be set at levels that raise revenue to match the under-funding by tourists. Legislative amendments would be required to allow councils to introduce this kind of targeted rate.

2. Broad-based tourist (BBT) option, levied on sales and targeted at causers of unfunded mixed-use services.[24] Like the MST option, this option targets all businesses supplying goods and services to tourists, but the rating base is their sales revenue rather than their landlord's property value. A single tax rate would be levied across all businesses subject to the targeted rate. The targeted rate is in effect a sales tax and would require legislative amendments to allow councils to introduce this kind of targeted rate. As residents pay the higher prices arising from the additional tax, the tax rate would be set at a level to provide rebates to residential ratepayers to approximately offset the higher prices residents would pay to local businesses.
3. Accommodation levy on sales (ALS) option, levied on accommodation sales revenue and targeted at causers of unfunded mixed-use services. Under this option a single tax rate would be applied to the accommodation sales revenue that providers receive from tourists. No rebate is needed as revenue from providing accommodation to residents would be excluded. Legislative amendments would be required for councils to introduce this type of targeted rate.
4. Accommodation levy per guest-night (ALN) option, levied on number of guest-nights and targeted at causers of unfunded mixed-use services: This is the same as the ALS option except the rating base is the number of guest-nights rather than sales revenue.
5. Broad-based business (BBB*) option, levied on land values within the business district. This option has been included for comparison purposes as land value rating is widely regarded to be the most efficient method for raising revenue from businesses. In practice, land owners may be the primary beneficiaries of tourism, with owners of land zoned for business likely to be the most significant of those beneficiaries. Councils can use this option without any legislative amendments, and 29% of councils did so in 2019 (an asterisk has been included to remind us the option is already available to councils). This option has a single tax rate applied to all local businesses at a level that raises revenue to match the under-funding by tourists.

As indicated in the table, the BBT and ALS options are essentially local sales taxes (one broad and one narrow) on final goods and services.

[24] The causers of mixed-use services are the people that use those services, which will be residents and visitors. The causers of unfunded mixed-user services are visitors using those services.

Table 3: Comparison of key features of the options

OPTION	TARGET SECTOR	NUMBER OF GROUPS & TAX RATES	RATING BASE	REBATE PROVIDED	PRINCIPLE APPLIED
MST	Tourist businesses	Eight	Property value of landlords serving tourist businesses	No	Beneficiary pays?
BBT	Tourist businesses	One	Sales revenue of tourist businesses	Yes	Causer pays
ALS	Tourist accommodation providers	One	Sales revenue of accommodation providers	No	Causer pays
ALN	Tourist accommodation providers	One	Number of guest-nights of accommodation providers	No	Causer pays
BBB*	All businesses	One	Land value of landlords serving all businesses	No	Beneficiary pays

4.1.1 Choice of business groupings and number of tax rates for the MST option

The MST option reflects many of the features of the multi-sector tourism targeted rate (MSTTR) advocated by Anthony Brien in his submissions to the Commission's Issues paper (sub. 134, pp. 10-18) and Draft report (sub. DR141, p.12-14).

Consistent with the MSTTR, the MST option involves defining a tourism zone, being areas where tourism is predominant in a territorial authority. Only businesses within the zone would be subject to the targeted rate. Brien envisaged bringing together the tourism industry to define the zone, to secure buy-in for the MSTTR.[25]

Within the tourism zone, the MST option involves defining various rating groups for businesses (in accordance with the provisions of the Rating Act, outlined in section 2.2.3) and calculating their shares of tourism expenditure (s^i). This would be used to allocate the total required revenue (r) among the rating groups, to determine the revenue required to be raised from each group (r^i). In other words, $r^i = s^i r$.

[25] Indeed, Brien envisages introducing the MSTTR "will require tourism industry leaders speaking with the various tourism recipients spend stakeholders, for example, the food and beverage sector, passenger transport, tourism products, retails sales, accommodation, cultural recreation and gambling, retail sales (alcohol, food and beverages), retails sales (fuel, and other automotive products). These leaders can include TIA and various subsector leaders. If there is industry agreement for a MSTTR they can ask their LGA to consider implementing such … As part of this approach the industry offer representation of Tourism Spend recipient stakeholders to join the LGA in a Working Party for initial consultation." (Brien, sub 134, pp.11)

The most readily available data source for relevant tourism expenditure shares is provided in the monthly regional tourism estimates (MRTE).[26] The MRTE provides estimates of annual tourist spending by territorial authority for eight categories of business:

- Accommodation services
- Cultural, recreation and gambling services
- Food and beverage serving services
- Other passenger transport
- Other tourism products
- Retail sales – alcohol, food and beverages
- Retail sales – fuel and other automotive products
- Retail sales – other.

Although MBIE cautions about relying heavily on the MRTE, the accuracy of the estimates is likely to be good enough given the limited accuracy with which councils can estimate the amount of their own expenditure on mixed-use services attributable to tourists.

The tax rate for each rating group, t^i, is simply the group revenue requirement divided by the rating base, b^i, for each group. That is, $t^i = r^i / b^i$. With eight rating groups, there will be eight tax rates.

The above discussion focused just on the MST option because the other four options are either single sector (in the case of the accommodation levy options) or the aggregate business sector in the case of the two broad-based options. Hence, the other four options have single tax rates.

4.1.2 Choice of rating bases

In his submission on the Draft report, Brien (implicitly) assumes businesses absorb a significant portion of the MSTTR imposed on them. He states:

An accommodation levy/bed-tax is not equitable and fair in that it requires only one sector (commercial accommodation) of the broad tourism industry to carry the burden of tax collection and subsidization (explained in Section F). Other sectors who also benefit from tourism spend (see Table 01 Section E) are not being required to share the burden. (Brien, sub. DR141, p. 4)

The MSTTR … is a targeted rate, simply applied to identified properties as per the TSA Products (classifications) akin to the present practice of other targeted rates. A MSTTR would therefore be borne by all TSA product classifications meeting the BBLR requirement, whereas a bed-tax is a cost borne only by commercial accommodation operators. (Brien, sub. DR141, p. 12)

In other words, it appears the benefit principle is the primary rationale for the MSTTR rather than the causer principle.[27] To be consistent with this focus, the analysis in section 2.4 (The economic

[26] The MRTE is produced by the Ministry of Business, Innovation and Employment (MBIE), who use electronic card transaction data and data from MBIE's international visitor survey to convert Statistics New Zealand's tourism satellite account data into a suite of regional estimates.

[27] If Brien believes businesses will increase their prices to pass on a high proportion of the MSTTR then he presumably would've considered a rebate or at least discussed the possible "double taxation" of residential ratepayers. In any case, the second of the broad-based options, BBT, provides for this situation at an aggregate level and is sufficient to address most of the potential consequences of the rebate assumption for the multi-sector option.

incidence of taxes and rates) suggests it would make sense to use the unimproved value of land as the rating base for the MST option. However, Brien assumes the rating base is the property value, and so we adopt this approach. It is also consistent with the rating base currently used by the Queenstown Lakes District Council.

The BBT option reflects the Commission's interest in causers (ie, tourists) facing marginal private costs that are better aligned with the marginal social costs of their decisions. Better alignment may improve economic efficiency, which was a key driver behind the Commission's draft recommendation in support of allowing councils to introduce accommodation levies in certain circumstances.

The rating base for the BBT option is assumed to be business revenue from sales to final consumers. The presumption is that in the long-run business ratepayers are able to pass on a large portion of the additional rates they incur if the rate is levied on their sales revenue.

The Commission mentioned several potential rating bases for accommodation levies, which is the ALS option listed above. The Commission indicated the rating base could be (i) the number of guest-nights per year, (ii) the amount charged for accommodation, or (iii) some combination of them (such as a percentage subject to a minimum charge). The Commission posited the first rating base may correspond more closely to use of council-provided facilities that are not otherwise charged for while the second rating may be more geared to ability to pay. (NZPC, 2019, p. 176).

CSA's understanding is Queenstown Lakes District Council will pursue the second rating base by imposing a levy equal to a percentage of accommodation sales revenue to tourists. This is the ALS option, and the number of guest-nights is the ALN option.

As explained in section 2.4 (The economic incidence of taxes and rates), the burden of taxes on business often falls predominantly on land owners through lower land prices. This will be the case when all land in an area – such as within a business district – is subject to business rates regardless of its use. Hence, this is the rating base for the BBB* option. This allows us to compare the performance of the tourist-specific options with the best of the broad-based business rating options.

4.1.3 Choice of rebate arrangement

Brien didn't mention any rebate to residential ratepayers, perhaps because it was an oversight or perhaps because he (implicitly) assumes businesses will be forced to absorb a high portion of the MSTTR imposed on them. To be consistent with Brien's formulation, the MST option does not include a rebate. The same approach is taken with the BBB* option. Moreover, no rebate is needed for the accommodation levy options as very few residents will stay in accommodation subject to the levy.

The BBT option is the only one where a residential rebate may be merited, as the aim of that option is for businesses to raise their prices so that tourists indirectly pay a larger share of the costs of mixed-use services. Residents, however, also end up paying higher prices, and so they would be indirectly additional rates.

There appear to be two methods for rebating rates to residential ratepayers under the BBT option:

1. An expenditure-based rebate: Under this approach the targeted rate would be set at a level that recovers sufficient funds to cover both the tourists' portion of the costs of mixed-use services and the cost of rebates to residential ratepayers. This rebate is based on the proportion of expenditure at local businesses made by residents.
2. A cost-based rebate: Under this approach the targeted rate is set at a level that rectifies tourist under-funding of mixed-used services and the residential rebate is simply the reduction in direct rates required from residential ratepayers to fund those services. This rebate doesn't take into account that residents will pay additional rates indirectly, and so residential ratepayers still over-pay for mixed-use services.

In practice, under the expenditure-based rebate it will be necessary to assess the extent to which the BBT option for targeted rates is likely to translate into higher prices charged by businesses. The cost-based rebate avoids this complication, but it still leaves residential ratepayers over-paying for mixed-use services.[28]

Hence, we assume the expenditure approach is adopted for calculating rebates and for setting the targeted rate under the BBT option. This makes the BBT option comparable with the other options in terms of leaving residential ratepayers paying similar shares for mixed-use services. It also allows us to illustrate the complications involved with the expenditure approach.

4.1.4 Key system design features for each option

It isn't possible in this paper to cover most of the system design features for each option, and so this section seeks to identify key features that are relevant and significant for comparing the options.

The BBB* option is very straight-forward as it would use existing property valuation systems and valuations, but the land value rather than total property value would be used. No changes to the LGA or the Ratings Act are required.

The MST option requires business rating units to be grouped in accordance with the type of services delivered on those properties. As many businesses lease their land and buildings from landlords, councils will need to require business ratepayers to complete forms about the type of services their tenants provide. Although the types or categories are already defined in the TSA, they're currently only used for information purposes. It may be necessary to refine those definitions so they're robust as possible and easiest to administer and comply with.

Many businesses provide multiple types of services, and there can be many businesses operating on a single rating unit (eg, retail on the bottom two floors and commercial offices above that). Allocation criteria will therefore be needed to apportion such rating units to the different services, and these will need to be updated annually as the nature of retail services changes frequently.

[28] Some readers may think it would just be a case of requiring tourists to pay an even larger share of the costs of mixed-use services, so that residential rates can be reduced further. In effect, this would return us to the complications of the expenditure-based rebate approach, as assumptions would be required about pass-through of rating increases on businesses.

The MST option would use existing property valuation systems and valuations currently used for business rates. The main distinction from existing rates is that the property valuation registry would need to be amended to record new groupings of businesses in a jurisdiction, based on the eight categories discussed above. The factors used to make these groupings are not currently specified in Schedule 2 of the Ratings Act, and so amendments to the Ratings Act would be required to implement this option.

The BBT option involves a broader grouping of businesses than the MST option, as it is the aggregate of the eight categories listed above. Nevertheless, councils will need to consider whether the definition of a tourist supplier in the TSA is robust and easy to administer and comply with. Unlike for the MST option, the BBT option involves councils rating tourist-oriented businesses directly rather than rating landlords that supply property to those businesses. New rating units will need to be defined and new registration processes and systems administered.

Alternatively, the GST system may be able to be adapted because sales turnover is a key component in GST calculations, and the IRD might be able to administer BBT regime on behalf of councils that adopt the regime. If feasible, this would leverage existing processes and algorithms, and systemize and automatize the regime.

However, many businesses earn revenue from non-tourist-oriented activities and earn revenue from other parts of New Zealand. These sources of sales revenue would need to be separately identified and removed from the calculations. Rules will also be required to deal with situations where goods are purchased in one location but delivered in another.

Whatever methods are used to implement the BBT option, changes to the Ratings Act would be required to provide for businesses to be grouped according to whether they provide tourist services or not and to allow sales revenue as a rating base.

The ALS option is also based on sales and so similar considerations apply for this option. It is possible that accommodation sales revenue may tie in more tidily with the GST system because commercial tourist accommodation services are more easily defined and are location-specific. This should make it easier to integrate within the GST system.

The ALN option can't be integrated into any existing rating or GST systems, because it is based on the number of guest-nights. It is not obvious if automated methods can be developed for identifying levy payers and verifying their levy returns. It may have to rely on bespoke and manual processes and systems.

In regard to both AL options, presumably some accommodation providers serve short-term tourists and longer-term residential stays. Rules will be required to determine when a stay is for tourism purposes and when it is for residency purposes. Perhaps a time period cut-off could be used, eg anything more than two weeks is not tourism. However, in tourist towns some tourists secure a job for a season and so can be relatively long stayers in a location before moving to another destination. Similarly, some people obtain short-term accommodation for a short period when they are moving to be a resident in a new destination.

As the Draft report has noted, changes to the Ratings Act are required to provide for businesses to be grouped according to whether they provide accommodation services or not.

4.2 Numerical illustration of the options

This paper takes as an illustrative example the case of Queenstown Lakes District Council and assumes it wishes to recover $25m by introducing a levy on businesses providing accommodation services to tourists. This section provides indicative calculations for raising $25m under each of the five options.

The tax rates in the options below are indicative only:

- The calculations are based on historical values of the rating bases (we use the most recent data available). For Queenstown at least, it is highly likely each rating base will increase considerably by the time a new regime is in force, which is likely to be in 2022 or later. The use of historical values means the tax rates are likely to be overstated.
- No provision has been made for the impact of the additional rates on tourist decisions – we've ignored the price elasticity of demand for tourism to Queenstown. Ignoring demand elasticities means the tax rates could be over or understated. They could be overstated if lower tourism reduces the cost of expanding mixed-use services.

4.2.1 Illustration of the ALS and ALN options

Based on estimates in the MRTE, accommodation providers in the Queenstown Lakes District earned approximately $420m in 2018/19 year from accommodation services. Hence, the accommodation levy would need to be about 6% to raise $25m of revenue. In other words, a $2,000 hotel bill for a skiing week for a family of four would cost the family an additional $120.

An alternative rating base for the accommodation levy is the number of guest-nights. Statistics New Zealand estimates there were 4,624,784 guest-nights in the Queenstown Lakes District during 1 July 2018 to 30 June 2019.[29] Based on this information, the levy would need to be at least $5.41 per guest per night to raise $25m of revenue. That's an extra $108.20 for a family of four staying five nights.

4.2.2 Illustration of the MST and BBB* options

Table 4 shows the allocation of tourist expenditure in the Queenstown Lakes District for the year ended March 2019, and the respective revenue requirements for each rating group. The accommodation sector would pay $3.6m of additional rates under the MST option, rather than $25m under the ALS option.

[29] See http://archive.stats.govt.nz/infoshare/ViewTable.aspx?pxID=f0aeab3e-2a43-435b-971d-9ad4ec49f0e8

Table 4: Indicative revenue requirements for each rating group in QLD under the MST option

	Rating Groups								
Year Ended March 2019	Accommo-dation services	Cultural, recreation, and gambling services	Food and beverage serving services	Other passenger transport	Other tourism products	Retail sales - alcohol, food, and beverages	Retail sales - fuel and other automotive products	Retail sales - other	Total
Tourist expenditure	$420m	$288m	$658m	$548m	$116m	$163m	$137m	$600m	$2,930m
Group expenditure shares	14.3%	9.8%	22.5%	18.7%	4.0%	5.6%	4.7%	20.5%	100.0%
Group revenue requirements	$3.6m	$2.5m	$5.6m	$4.7m	$1.0m	$1.4m	$1.2m	$5.1m	$25.0m

Source: Ministry of Business, Innovation and Employment (MBIE)[30]

Table 4 also shows the tax rates for each of the rating groups. The accommodation sector faces a tax rate of 0.83% rather than 5.95% under the accommodation levy.

4.2.3 Illustration of the BBT option

The rating base for the BBT option is assumed to be total sales revenue of all businesses operating in the rating groups listed in section 4.1.1. Purely hypothetically, assume tourists account for two-thirds of expenditure at local businesses that would be subject to sales-based rates under the BBT option. Then the rating base would be $4,323m[31] and collecting $25m from it would requires a 0.58% tax rate.

However, in this option we're assuming businesses will increase their prices to cover a high proportion of the cost of the additional rates. This leads to higher prices for all consumers purchasing from them, a portion of whom will be local residents. In effect, residents would be paying indirectly for the costs that were intended to be covered by tourists. If residents accounted for one-third of spending at local businesses, then residents would be 'out of pocket' by about $8.3m (one-third of $25m).

Under these circumstances, increasing the tax rate to 0.85% raises approximately $37.5m of revenue. Paying $12.5m of these funds to residential ratepayers compensates them for the higher prices they pay to businesses (which is now $12.5m due to the higher tax rate). As tourists account for two-thirds of spending, they're paying two-thirds of $37.5, which is $25m. This matches the intended share of mixed-use costs to be paid by tourists.

The above calculations are simplified to bring out the logic of the rebate scheme, and how it affects the tax rate. Appendix 1 provides the general formula for these calculations, which include price elasticities of demand by tourists.

[30] See https://www.mbie.govt.nz/immigration-and-tourism/tourism-research-and-data/tourism-data-releases/monthly-regional-tourism-estimates/latest-update/data-download/

[31] Referring to Table 5, tourists spent a total of $2,930m in the QLDC area in the year ended March 2019. Dividing this figure by 0.67 yields $4,323m.

4.3 Comparative analysis of incidence and impact on economic behaviour

This section discusses the incentives each option creates for parties to alter their supply and demand decisions, and the associated implications for the incidence of each option. To keep the discussion tractable, potential interaction effects with GST on international tourists are ignored.

4.3.1 Empirical estimates of price elasticities of demand

Jo Smith's internal memo on the empirical literature on price elasticities, dated 19 August 2019, provides estimates of the range of international tourists' price elasticities of demand.

The memo summarises the empirical evidence about demand elasticities for international tourism to New Zealand, which come from Schiff & Becken (2011). Drawing on that material, it appears:

- The price elasticity of visitor arrivals to New Zealand lies in the range -0.25 to -1.0 for six categories of travellers.[32] For another five categories[33] it lies in the range -1.0 to -1.75.
- The price elasticity for tourism consumption in New Zealand is around -0.5 for six categories of travelers[34] and only two categories exceed -0.55.[35]

Jo Smith's memo states:

Overall, they conclude that visitors from traditional markets are not particularly price sensitive and that "all together, international visitors are unlikely to greatly change their travel behaviour within NZ due to higher prices". They found that economic conditions in New Zealand and tourists' home countries are important for both arrivals and on-the-ground expenditure.

They refer to a 1995 study which found tourists' awareness and knowledge of the prices of tourist attractions in Queenstown was very low (Lawson, Gnoth and Paulin, 1995).

Jo Smith's memo also provides price elasticity of demand estimates from Daley (2017), regarding international tourism to the United Kingdom. Two estimates are actually positive, and the statistical significance of the results aren't reported. Omitting the positive ones, the demand elasticity estimates range from -0.12 to -1.86. These estimates are not totally at variance with the above estimates for New Zealand.

Jo Smith's memo also summarises material from Ihalanayake (2007), which studies tourism taxes in Australia but also provides a review of the empirical literature on demand elasticities and pass-through (economic incidence) more generally. The overall conclusion is that the studies have produced mixed results in terms of the extent of pass-through and the impact on demand:

- Two studies found that almost 100% of the tax was passed through to tourists, with no significant revenue loss to industry.

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[32] Australia FIT Holiday, Australian Tour, UK Holiday, USA FIT Holiday, USA Tour, Germany All. FIT refers to free and independent travellers.
[33] Australia FIT VFR, Japan Tour, South Korea All, China FIT, China Tour. VFR refers to visiting family and relatives.
[34] UK Holiday, UK VFR and Other, USA FIT Holiday, USA FIT VFR and Other, USA Tour and Japan Tour.
[35] Japan FIT Holiday (-1.17) and China FIT (-1.70).

- Two studies produced results showing significant pass through to tourists (66% and 72% pass through), and the rest being borne by industry.
- One study found that a $1 increase in lodging prices led to an 80-90 cent decrease in non-lodging expenditures.

The Australian study is useful because it discusses pass-through (economic incidence), which presumably means the authors have evaluated relative supply and demand elasticities (refer section 2.4.2). At a 66% pass-through to tourists, the demand elasticity would be -0.5 if the supply elasticity was 1.0, and similarly the demand elasticity would be -1.0 if the supply elasticity was 2.[36] These calculations illustrate the range of supply elasticities for New Zealand tourism given what we know about the empirical estimates for demand elasiticities.

In regard to Ihalanayake's (2007) own contribution, Jo Smith's memo states:

However, its main contribution is CGE modelling of three scenarios for a tourism tax in Australia (compared to the partial equilibrium analysis dominating the literature), which suggests a short-run decrease in real GDP and aggregate employment, followed by a long-run welfare improvement.

4.3.2 The base case for economic incidence: the BBT option

It is easiest to consider the incidence of targeted rates on the sales turnover of businesses serving tourists, which is the BBT option. The aim of this option was for the targeted rate to be fully passed onto tourists visiting the Queenstown Lakes District so that they internalize the costs of the mixed-use services they use in the district. In addition, the targeted rate was set at a level that would raise enough funds to compensate residents for the higher prices they would pay, and so residents don't bear any of the costs of the targeted rate.

The prospect of only one territorial authority introducing a broad-based tourism targeted rate means that long run tourism supply elasticities are probably reasonably high. Certainly, financial capital can very easily be deployed in other industries and elsewhere in New Zealand (and the world), and a significant portion of most forms of labour involved in the tourism industry can be deployed elsewhere in Otago and around New Zealand, and in different industries within the Queenstown Lakes District. Indeed, the Queenstown tourism industry appears to use a significant portion of migrant and internationally-mobile labour, which have weak attachment to particular locations.

If the long run supply elasticity is 2, for example,[37] then a demand elasticity of -0.5 implies the tourist industry in the Queenstown Lakes District would bear 20% of the targeted rate. Most of the burden of the BBT would fall on workers and land owners, and perhaps also on business owners keen to stay in the tourist business in the district. The other 80% of the burden would be borne by tourists.

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[36] This inference ignores factors that may alter economic incidence, such as the point of collection of the tax and the salience of the tax (refer to sections 2.4.5 and 2.4.6).

[37] To get a sense of this, a supply elasticity of 2.0 implies that a 10% increase in prices in the tourist industry would in the long run increase output supplied by the tourist industry by 20%.

In practice, some businesses will exit the local market if their operating profits fall below their fixed costs, which reduces supply to the market. Hence, the supply side elasticity comprises two components: changes in the number of firms (called the extensive margin) and changes in average output per firm (called the intensive margin). We'll refer to extensive and intensive supply elasticities, respectively.

As we don't have estimates of supply elasticities, the following table shows the share of the burden under a lower supply elasticity (at 1.0) and a higher supply elasticity (at 3.0). It is entirely feasible the supply-side could end up bearing a third of the targeted rate under the BBT option.

Table 5: Impact of hypothetical supply elasticities on tax incidence

Hypothetical supply elasticities	1.0	2.0	3.0
Tourist incidence	67%	80%	86%
Supply-side incidence	33%	20%	14%

4.3.3 Comparative analysis of economic incidence

For comparative analysis, the issue is whether the different targeted rate options would lead to different economic incidence. This may occur due to different rating bases or detailed tax designs.

Comparing the two sales tax options

The ALS option is similar to the BBT option as they're both, in effect, local sales taxes. As discussed in section 2.4.5, economic incidence may depend on the point in the supply chain at which sales taxes are collected but the empirical evidence on this is mixed. However, from the studies that have found such effects it seems that options that involve lower rates of tax evasion result in higher pass-through to buyers.

Based on the discussion in section 4.4 below, the ALS option appears to have lower avoidance and evasion risks than the BBT option. It should therefore be more effective at achieving pass-through to tourists and leave the tourist industry with a lower share of the burden.

Also, as discussed in section 2.4.6, economic incidence may also be affected by the visibility or salience of the tax. From a brief read of the empirical evidence, the main point for this paper was that the relative impact of an accommodation sales levy versus broader based targeted rates may depend on key design details, and the impact may not be as straight-forward as typically assumed. However, assuming both options display the tax-inclusive price and the same degrees of visibility, then there doesn't seem to be any reason to attribute any differential effects from tax visibility and salience.

The BBB* (land tax) option vs the sales tax options

The BBB* option is a targeted rate on the land value of ratepayers within a business district, most of whom provide land (and buildings) to businesses. Some of the ratepayers will also own the business but many of them will lease their land and buildings to others. The structure of this option differs significantly from the structure of sales taxes.

Based on the discussion in section 4.4 below, this option appears to have the lowest avoidance and evasion risks out of all options. On this dimension it should be the most effective at achieving pass-through to its business tenants and then onto final prices paid by tourists and other consumers. However, this is unlikely to be the case due to the structure of the tax.

Suppose that an increase in rates under the BBB* option leads land owners to increase the annual rents they charge to their business tenants. This increases their fixed costs, leaving unaffected each firm's marginal cost and revenue trade-offs. If they're already maximizing their profits, then each business can do almost nothing to reduce their fixed costs. Hence, they absorb the additional rent through lower profits or exit the market.[38]

The firms making inadequate profits to pay for the rent increase ("marginal firms") will exit the market. Their exit reduces demand for land, leaving some land owners with no tenants and putting downward pressure on land prices. A new equilibrium will be established where the land owner will bear all, or virtually all, of the costs of the higher rates, as the land can't be shifted. Hence, new firms enter to rent land left by those that exit.[39]

A reasonable conjecture, therefore, is the extent of pass-through to tourists will be significantly lower than under the sales tax options. The tourist industry – the capital, labour and business owners engaged in that industry – may bear a small share of the supply side burden. In contrast, a sales tax alters marginal cost versus marginal revenue trade-offs, resulting in higher pass-through to tourists.

<u>The MST (property tax) option vs the sales tax options</u>

As explained in section 4.1.4 (Key system design features for each option), the MST option is a targeted rate on the property value of ratepayers that provide land and buildings to businesses that serve tourists. This option is similar to the previous one, except for three key features: the rating base is total property value rather than land values; the option involves eight different categories of businesses serving tourists; and the rates increases apply to properties to the extent their tenants provide services to tourists in each of those categories.

Based on the discussion in section 4.4 below, this option appears to have one of the highest avoidance and evasion risks. On this dimension it may not be very effective at achieving pass-through to tenants and then onto final prices paid by tourists and other consumers.

Added to this, similar fixed-cost rent increases arise as for the BBB* (land tax) option. But in this case tenants could seek to reduce their rent increases by reducing their demand not just for land but also for buildings and other improvements.

These factors suggest the MST option may have an even lower pass-through than the BBB* option. As above, it seems reasonable to conjecture a low burden on the tourist industry itself and a low degree of pass-through to tourists.

[38] The same effects occur for ratepayers that own their own land-using businesses, but it is useful to retain the distinction between ratepayer and business for clarity of the analysis.
[39] This discussion is based on the Hopenhayn (1992) and Melitz (2003) models of markets comprising firms with heterogenous productivity or fixed cost characteristics.

The per guest-night accommodation levy option (excise tax) vs the sales tax options

Based on the discussion in section 4.4 below, the ALN option also has one of the highest risks of avoidance and evasion, which would suggest it may not be very effective at achieving pass-through to tourists.

However, this option imposes a flat charge per guest-night, which is a form of excise tax in the economics literature. Relative to sales taxes, excise taxes disproportionately raise prices for budget travelers who on average are more price elastic than higher income travelers.[40] This might suggest that, all else equal, the supply side will bear a larger share of the tax burden. But 'all else' may not be equal as suppliers to the budget segment of the market may have a higher supply elasticity than suppliers serving the higher-end of the market.[41]

My judgement is to assume the ALN option has a similar pass-through as the BBT option (and no higher than the ALS option).

4.4 Comparative analysis of avoidance and evasion opportunities and incentives

It's important to distinguish avoidance and evasion behavior from genuine changes in economic decisions. Avoidance occurs when taxpayers exploit "loopholes" in the tax system to legally reduce their tax payments. Evasion occurs when taxpayers mis-state their activity to minimise their tax payments, but they're undertaking the same economic activity.

In contrast, a broad-based local sales tax, for example, may encourage some tourists to reduce their spending in the taxed jurisdiction or not to visit it at all. Similarly, an accommodation levy, for example, may encourage some visitors to stay with family or friends (local residents) rather than in commercial accommodation. Both cases are examples of a change in economic behavior rather than avoidance or evasion. These changes in economic decisions are part of the earlier discussion about price elasticities of demand and the economic incidence of taxes.

The BBB* option easily has the least opportunities for avoidance and evasion because of its design features, being the current rating system (refer section 4.1.4). Further, the very low tax rates for this option (refer to **Error! Reference source not found.**) creates very minimal incentives for avoidance and evasion.

Despite its much higher tax rate, the ALS option may be relatively robust against avoidance and evasion if it is tied in with the GST system for accommodation providers.

The BBT option involves a narrower grouping of businesses than the BBB* option, and so tax rates will be higher, and they're higher to fund the residential rebate, creating stronger avoidance and evasion incentives. It is clear from the high-level discussion of the design of the assessment and

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[40] Chetty (2009) provides evidence that excise taxes have a larger impact on demand than sales taxes.

[41] For example, suppliers to the budget market may be more 'plain vanilla' than occurs for the higher-end market, resulting in a large portion of suppliers earning marginal profits. Reductions in guest-nights could drive a higher portion of suppliers out of the market, indicating a relatively large extensive supply elasticity.

collection system (refer section 4.1.4 again) that numerous opportunities are likely to arise for avoidance and evasion.

The MST option also involves a narrower grouping of businesses than the BBB* option, and so tax rates will be higher, but also in this case different tax rates would apply to different rating bases. These characteristics create stronger incentives for avoidance and evasion, and it's design features (refer section 4.1.4) create numerous opportunities for avoidance and evasion.

The ALN option has perhaps the highest incentives and opportunities for avoidance and evasion. The incentives are highest because the tax rates are high and the opportunities are high because it can't be integrated into any existing rating or GST system, and it appears to be difficult to implement easily verifiable assessments processes and methods.

5 Assessment against principles for funding and financing local government

The Draft report specified, at p. 137, five principles for funding and financing local government:

- Appropriate for local government use – given the role of local government and the need for local autonomy (flexibility to align with local preferences) and accountability (including transparency).
- Coherent within national policies and institutions.
- Efficient – instruments should minimise harmful incentive effects on resource allocation, investment and innovation, and should minimise compliance and administration costs (the latter two properties need instruments to be reasonably simple).
- Equitable and fair – taking account of who benefits from local government services, and also horizontal equity, vertical equity, affordability and inter-generational equity.
- Sustainable – minimising avoidance and providing fiscal adequacy and stable and predictable revenue over time.

5.1 Summary

The following subsections provide a comparative assessment of the five options against each of the above principles, and the results are summarized in Table 6.

The aggregate result, at the bottom of Table 6, is a simple summation of the number of positives, based on each component of the criteria receiving equal weighting. As the efficiency, fairness and sustainability criteria had multiple components, they are effectively weighted higher than appropriateness and coherence.

The maximum score for each criterion or sub-criterion is three points or pluses. The maximum score is three for appropriateness and coherence, nine for efficiency and sustainability (as each comprises three sub-criteria) and 12 for fairness (has four sub-criteria). The maximum aggregate score is therefore 36.

Table 6: Assessment against the Commission's five principles for funding and financing local government

Criterion	MST	BBT	ALS	ALN	BBB*
Appropriateness	+++	+++	++	++	+++
Coherence	+++	++	+	+	+++
Efficiency	1+	5+	7+	4+	6+
Fairness	5+	7+	7+	5+	7+
Sustainability	6+	6+	6+	4+	9+
Aggregate result	18	23	23	16	28

Various arguments could be entertained about applying different weights to each criterion and their components, but to be robust those weights should be derived before undertaking the assessment exercise.

The analysis suggests the two local sales tax options (BBT and ALS) are level-pegging and significantly better than the multi-sector tourist (MST) option and the accommodation levy based on the number of guest-nights (ALN). Interestingly, both sales tax options perform reasonably well against the BBB* option.

In terms of efficiency overall, the ALS option appears to be superior to the other options, and far superior to the ALN and MST options. The main reason is that the ALS option performs reasonably well on all efficiency criteria, whereas the other options perform very poorly on at least one of the efficiency criteria. The ALN and MST options, for example, perform very poorly on investment and innovation efficiency and on administration and compliance costs (see Table 7). The MST option actually performs poorly on all three dimensions of efficiency.

The BBT option performs equally well as the ALS option on resource allocation efficiency but performs slightly worse on productive and dynamic efficiency and on administration and compliance costs.

The ALS and BBT options score highest-equal on fairness, but with the ALS scoring less well on horizontal equity and the BBT option score less well on vertical equity (refer Table 8). In comparison, the ALN option performed very poorly on both horizontal and vertical equity and the MST option performed very poorly on horizontal equity and satisfying the benefit principle (despite that being the rationale for considering it).

The MST option is ranked lower than the BBT and ALS options on the benefit principle because the targeted rate is levied on property values and so the supply-side burden of it is likely to fall predominantly on land owners rather than tourists. By better targeting tourists, the BBT, ALS and ALN options better satisfy the benefit principle and they reduce the burden on residential ratepayers, either directly in the way of a residential rebate in the BBT option or indirectly in the accommodation levy options because residents very rarely use commercial accommodation.

5.2 Appropriateness

As indicated above, appropriateness requires us to be cognizant of the role of local government and the need for local autonomy and accountability.

The Draft report states that the amount of local autonomy depends critically on the extent that funding comes from the community rather than from external sources not under the community's control, such as central government. The more local government depends on funding from central government, the more its autonomy will suffer. In addition, local choice, control and funding have the benefit of making elected local councilors more accountable for how well they spend the funds raised from the community. (NZPC, 2019, p. 138)

The MST and both the broad-based options appear to rank equally on this dimension, as in each case their revenue comes from the community served by the relevant council. The same can be said for the ALS option, except in the cases where coordination is needed with neighbouring councils to minimize leakages of tourists into neighbouring accommodation.

Overall, I have awarded three ticks to the MST and the broad-based options, and two ticks to each of the accommodation levy options.

5.3 Coherence

In very broad terms, the Draft report expressed coherence as how well local government's powers and mechanisms sat with the national system of laws and responsibilities.

In terms of local government funding, the primary issue was minimizing local government funding arrangements working against the stabilization and redistribution responsibilities of central government. In this respect, the Draft report emphasized:

[w]ithout careful coordination, different levels of government that share the same tax base can impair coherence. For example, each level could set its tax rate without considering the rate set by the other – which could result in a damagingly high combined rate. (NZPC, 2019, p. 138)

In regard to coherence around economic efficiency, the Draft report explained the issue:

… divides naturally across levels of government for the goods and services for which each is responsible. In addition, since costs and preferences for local public goods differ across local communities, efficiency is enhanced by leaving choice and control to those local communities. (NZPC, 2019, p. 138)

The MST and BBB* options appear to rank high on coherence as they would use local government rating bases. The BBT and ALS options are based on sales and therefore somewhat related to the GST tax system, however interference with the GST system is likely to be less for the BBT option than for the ALS option as the rates are lower for the former than the latter. The ALN option is based on a fixed charge per guest-night, which is somewhat similar to the per visitor approach to the international visitor levy and border levies.

Overall, I have awarded three ticks to the MST and BBB* options, two ticks to the BBT option and one tick to the ALS and ALN options.

5.4 Efficiency

The Draft report states that instruments should minimise harmful incentive effects on resource allocation, investment and innovation, and should minimise compliance and administration costs (the latter two properties need instruments to be reasonably simple). (NZPC, 2019, p. 137)

The following subsections provide a comparative assessment of the options against each of the components of efficiency, and the results are summarized in Table 7.

As discussed in section 2.5.5, determining the efficiency effects of a tax proposal sometimes turns on how the proposed tax would interact with factors distorting the economy from its efficient resource allocation, such as existing taxes and externalities. The impact on New Zealand welfare of GST on international tourists appears to be particularly important in this case. The potential interaction effect is discussed in the next subsection before turning to the efficiency components listed in the above table.

Table 7: Assessment against subcomponents of efficiency

Criterion	MST	BBT	ALS	ALN	BBB*
Resource allocation	-	++	++	+++	-
Investment and innovation	+	++	+++	+	+++
Administration and compliance costs	-	+	++	-	+++
Number of positives	1+	5+	7+	4+	6+

5.4.1 Interaction of local taxes with GST

The broad approach is to determine whether the current 15% rate of GST under- or over-taxes international tourism, and if it is under-taxing them by a significant margin then additional taxes at the local government level are likely to be welfare improving.

In simple terms, the optimal export tax (or GST) on international tourism, denoted t^*, is inversely proportional to the absolute value of international tourists' price elasticity of demand for visiting and spending in New Zealand. Letting e denote the absolute value of that elasticity, the optimal export tax formula is $t^* = 1/e$ (Rodrik, 1989, p. 161).

The demand elasticity estimates for international tourists to New Zealand range from -0.25 to -2 (refer section 4.3.1). Even at the highest elasticity of -2, the above analysis suggests the optimal GST rate on international tourists would be about 50%, considerably higher than the current 15% rate. The optimal export tax would be even more extreme, at 100%, if the demand elasticity is -1.

A demand elasticity exceeding 6.6 in absolute terms would be required for a 15% rate of GST to begin reducing wealth transfers to New Zealand.[42]

Having said that, the simple inverse elasticity rule applies for the case where all firms supplying tourist services operate in what *is effectively* a perfectly competitive domestic market. This includes situations where the domestic market is imperfectly competitive but all firms compete solely on prices (called Bertrand competition). The analysis of more realistic situations is provided in Box 2 below.

The upshot, however, is that, given the estimated demand elasticities, small additional taxes at the local government level are likely to increase wealth transfers to New Zealand that more than offset any economic distortions on the supply side. In this scenario, despite a 15% rate of GST applying to international tourists, the free provision of mixed-use services to international tourists can still be characterized as encouraging over-use of mixed-use local services.

Box 2: Amendments to the inverse elasticity rule

The simple model discussed above is that all firms supplying tourist services operate in what is effectively a perfectly competitive domestic market. That is, either the domestic market is perfectly competitive – in which case all domestic tourism firms are very small – or the domestic market is imperfectly competitive – in which case one or more domestic tourism firms isn't small – but all firms engage in Bertrand competition, ie they compete solely on prices and not at all on non-price variables such as quantities supplied or capacity commitments.

Rodrik (1989), Helpman & Krugman (1989) and De Santis (2000) analyse cases where the domestic market is imperfectly competitive. These papers show the simple inverse elasticity formula, $t^* = 1/e$, overstates the optimal export tax because it ignores the ability of large firms to partially exploit a country's market power in international markets.[43]

The extent of overstatement depends on whether domestic firms anticipate their competitors reacting negatively[44] to their competition strategies. The overstatement is larger the smaller the negative reactions firms anticipate from their competitors.

When pure Cournot competition occurs, firms expect no reaction from their competitors. In this case, if an export tax doesn't affect any firm's market share, then Rodrik (1989, p. 165) shows the inverse elasticity rule can be amended to $t^* = (1-H)/e$, where H is the Herfindahl-Hirschman Index (HHI) for market concentration.

[42] The 6.6 figure is used because 1/0.15 = 6.666 recurring.
[43] For example, the optimal export tax is zero for monopoly exporters as the exporter, being the sole supplier, maximises its profits by setting its export prices in accordance with the inverse elasticity rule. The monopoly's market power is the same as the country's market power. A similar logic applies to large export firms that have some market power: however, their market power is only a portion of the country's market power.
[44] If the domestic firms are competing on capacity commitments in a growing tourism market, for example, then "reacting negatively" means that an increase in committed capacity by one firm reduces the committed capacity their competitors intend to install.

An HHI of 0.25 indicates a concentrated domestic market for international tourism, for example a market with four firms with 25% market share each.[45] In this situation the optimal export tax would be reduced from 50% to 44% if the demand elasticity was -2 and reduced from 100% to 88% if the demand elasticity was -1 (refer section 4.3.1, page 46, regarding elasticity estimates).

The overstatement is greatest when firms cooperate, which means they react positively to their competitors. Rodrik (1989, p. 165) shows that a strong positive reaction yields optimal export taxes of 41% and 82%, respectively, for the -2 and -1 demand elasticities.

The above results are based on partial equilibrium analyses. De Santis (2000) presents a general equilibrium model with fixed costs and firm entry and exit. In his model, export taxes increase export demand elasticities and, due to the fixed costs of production, reduce the number of firms and increase industry concentration. Both effects – higher demand elasticities and higher industry concentration – reduce optimal export taxes slightly below the levels identified by Rodrik (1989).

Hence, it seems reasonably safe to conclude the current 15% rate of GST under-taxes international tourists, especially as some nationwide and local public services are provided to international tourists for free, potentially leaving New Zealand with a net GST of 5-10% on international tourists. Additional local sales taxes look very likely to increase wealth transfers to New Zealand and be net positive for New Zealand welfare.

The implications of this discussion is that introducing taxes designed to achieve a causer pay outcome would very likely increase wealth transfers to New Zealand. In contrast, taxes designed to achieve beneficiary pays – ie, taxes designed to have the tax burden fall on local land owners – would fare less well in terms of increasing wealth transfers to New Zealand.

The discussion in the rest of this section focuses on efficiency and abstracts from these wealth transfer effects, which means the assessment of welfare gains to New Zealand is very conservative.

5.4.2 Resource allocation (allocative efficiency)

The Draft report states that taxes cause less inefficiency when producers and consumers are less inclined (or less capable) to reduce their tax bills by switching from more highly taxed goods and services to more lightly taxed goods and services. (NZPC, 2019, p. 139)

As discussed in section 4.3.3 (Comparative analysis of economic incidence), the BBB* option is likely to result in a low pass-through of rates to tourists, and indeed the traditional view is there would be zero pass-through. Although minimal or zero pass-through means minimal or zero changes to tourism, that would be unhelpful for improving efficiency because the reason for considering the other options in this paper is the view that resource allocation is already distorted because catering for tourists requires councils to incur more costs.

[45] The HHI is the sum of the square of each supplier's market share. The HHI equals 1 for an industry with a monopoly supplier. An HHI of 0.25 could be many industry structures, such as a market with four competitors with 25% market share each or a market with 15 competitors comprising eight with 15% market share each and seven with 10% market share each.

In other words, if tourists are not charged for the costs they cause, then over-use occurs, in that some tourists visit and use mixed-use local services even when they value them by less than the costs they cause. Hence, although the BBB* option may have minimal or zero impact on economic efficiency, it isn't a useful instrument for removing the inefficiency (ie, the distorted resource allocation) arising from over-use.

The MST option is similar to the BBB* option except it applies to a subset of businesses, and so the targeted rate in each case would apply to a subset of property used by businesses. Unlike the BBB* option, the businesses subject to the tourism targeted rate could potentially alter their activities to reduce their property use, and so some distortion to resource allocation could occur, but this would seem likely to be very small in practice. Hence, it also isn't a particularly useful instrument for removing the distorted resource allocation arising from over-use.

Under the BBT and ALS options, rates and levies are imposed on sales to consumers rather than on land value. In principle, both charging options would reduce tourism and work towards removing the distorted resource allocation arising from over-use.

The BBT option imposes costs on any tourists that spend at local businesses, whereas the ALS option only applies to tourists staying in paid accommodation. It is difficult to determine which of these two options is likely to best improve resource allocation. For example:

- Whichever data source is used, the ALS option would not apply to a relatively large proportion of tourists, perhaps as many as 50%.[46] However, if the revenue target for the levy is the same regardless of the number of tourists it applies to, then those subject to the levy will pay higher charges than if the levy applied to 100% of tourists. As the efficiency issue is over-use arising from under-pricing mixed-use local services, the higher charges on a subset of tourists may address the resource allocation problem in aggregate (but see third bullet point).
- Similarly, many tourists may spend very little at local businesses, and so presumably the BBT option may not achieve a high coverage either. But as in the previous bullet point, those that do spend significantly will be paying the higher prices needed to recover $25m of funds. Again, the higher prices paid by a subset of tourists may address the resource allocation problem in aggregate (but see third bullet point).
- In both cases, incomplete coverage of tourists may result in driving away tourists that value the experience higher than the costs they cause and instead attract tourists that value the visit lower than the costs they cause. Hence, neither option would appear to fully address the resource inefficiency issue.

Having said that, both the BBT and ALS options are likely to achieve significantly better resource allocation than the MST and BBB* options. The nature of the latter two options means land owners are likely to absorb a far larger share of the tax burden, which reduces the impact on tourists and does little to reduce over-use.

[46] Estimates of the portion tourists staying in paid accommodation have been provided by Tourism Industry Aotearoa (TIA) and the Queenstown Lakes District Council, and data is also available from the International Visitor Survey (IVS) for 2017 and 2018. The figures provided in the first two sources suggest that more than 50% of tourists in the QLD area don't stay in paid accommodation. The IVS data suggests about 35% of international tourists don't stay in paid an accommodation but that doesn't take into account domestic tourists for whom presumably a large portion stay with family and friends.

Section 4.3.3 (Comparative analysis of economic incidence) indicated the ALN option may have lower pass-through than the ALS option. However, in terms of resource allocation efficiency it may out-perform the ALS option because the levy is imposed on a per guest-night basis, which means all visitors using paid accommodation pay a price reflecting the costs they cause because the costs are related to visitor volumes per day during peak periods.

Overall, I have assigned three ticks to the ALN option, two ticks to the BBT and ALS options, and no ticks to the MST and BBB* options. Further, this scoring differential is appropriate in light of the superior wealth transfer effects from the ALN, BBT and ALS options.

5.4.3 Investment and innovation (productive and dynamic efficiency)

The Draft report states that dynamic efficiency is an important characteristic that exists when innovators have optimal incentives to create and introduce new goods, services and methods that raise productivity and wellbeing over time. Innovation is the major source of increases in living standards. Funding methods and sources can have a significant bearing on dynamic efficiency because innovators need access to funding and financing to enable them to develop their ideas and try them out. (NZPC, 2019, p. 139)

Innovation may be adversely affected by taxes that reduce incentives for innovation and divert supplier attention away from innovation and onto dealing with tax, such as focusing on ways to avoid or evade taxes. Broad-based taxes on all businesses minimize harm to innovation because the tax rates are low and comparable across all business activities.[47]

Although the MST and BBT options are broader-based than the accommodation levy options, they are nevertheless significantly narrower than a fully broad-based low-rate tax system, which the BBB* option most resembles. Moreover, the MST option applies different tax rates to business. Nevertheless, the incentive effects on innovation are likely to be negligible for the MST and the broad-based options because the cost of the additional rates would be low for each business. An accommodation levy exceeding 5% of accommodation charges, however, could be significant however, as it could be for its twin (the ALN option).

Now consider how the options might divert business' attention onto dealing with tax and away from innovation.

Tax compliance issues are discussed in section 5.4.4 below, where it is noted that the BBB* option would be well-integrated with existing property valuation and rating systems and would operate automatically. The ALS option may also be set up to operate reasonably automatically via the GST system. Both options shouldn't divert much attention from innovation.

In contrast, the BBT option may not be easily integrated into an existing rating or tax system, and in fact a bespoke rating system may be required. The MST option also takes some business attention as it groups businesses in new ways, with different tax obligations. Both options would be worse for innovation than the other options.

[47] As noted in the Draft report at p.139, a tax system may be able to bolster innovation by providing tax credits for R&D expenditure, which isn't relevant to this paper.

The ALN option may have the greatest adverse impact on innovation because the tax rate is relatively high, and it isn't particularly robust to avoidance and evasion.

In regard to dynamic efficiency, I have assigned three ticks to the BBB* and ALS options, two ticks to the MST and BBT options and no tick for ALN.

However, impacts on production efficiency are also important, as discussed in section 2.5.2 on page 22. To the extent the taxes under the MST and BBB* options are passed onto businesses renting from landlords, they're likely to reduce production efficiency because they alter decisions about land use versus other business inputs. Based on the discussion in section 4.3.3, the BBB* option is likely to involve minimal or zero pass-through to businesses. The MST option, however, involves multiple tax rates and it is based on capital values, which means it is likely to distort land use and capital improvement decisions.

In contrast, the accommodation levy options are taxes on services provided to consumers and so won't alter production efficiency. The BBT option is similar in principle, but in practice some of the business sales will likely be to other businesses, affecting their production efficiency. Hence the BBT option deserves a lower score.

In regard to production efficiency, I have assigned three ticks to the BBB*, ALS and ALN options, two ticks to the BBT option and one tick to the MST option.

Averaging the dynamic and production efficiency scores results in the BBB* and ALS options receiving three ticks, the BBT receiving two ticks, and the MST and ALN options receiving 1.5 ticks. To avoid carrying half ticks in the table, I've rounded the half ticks down.

5.4.4 Administration and compliance costs

Section 4.4 analysed the avoidance and evasion incentives associated with each of the options. Generally, the larger these incentives the more effort (compliance costs) ratepayers and levy payers will be willing to incur to gain the tax advantages. And, to preserve the revenue base, the greater the costs for the authorities to administer (monitor and enforce) the rate or levy.

Administration and compliance costs are also affected by the methods and processes used to calculate the rates and levies payable. Administration and compliance costs are lower the simpler the methods used and the more they are automated. Also, the probabilities of detecting avoidance and evasion are higher (and so the administration costs are lower) the more the collection and verification methods are well-integrated with other processes.

The broad-based options had the lowest avoidance and evasion incentives because they each had a very low and single tax rate. Both are also simple methods, although BBT requires an extra calculation by the authorities (but not by the ratepayer). The BBB* option would be well-integrated with existing property valuation and rating systems, whereas the BBT option may be able to be integrated with the GST system but this could be costly for both councils and the IRD because of the wide range of businesses involved. A bespoke rating system may instead need to be established and administered.

Like the broad-based options, the MST option has low tax rates on average, but it has multiple tax rates and some could be quite high. Although it would use independently assessed property values, significant avoidance and evasion opportunities are very likely (refer section 4.1.4 regarding Key system design features). These factors would significantly complicate the regime and create opportunities for businesses to contest their classification. Administration and compliance costs would be far greater for the MST option versus either of the BB options.

Despite its much higher tax rate, the ALS option was also relatively robust against avoidance and evasion because it was based on a measure of sales that is likely to tie in neatly with the GST system for accommodation providers (again, refer to section 4.1.4).

The ALN option is simple in terms of the calculation of the levy (flat rate x number of guest-nights) but it will be far less robust to avoidance and evasion because the levy rate will be relatively high and the rating base would be more easily manipulated without fear of detection. Administration costs will be relatively high for councils due to the lack of automated methods for identifying levy payers and verifying their levy returns. The costs of complying with the levy will be low for cases where the authorities don't contest the payment.

Overall, I have assigned three ticks to the BBB* option, two ticks to the ALS option, one tick for the BBT option and no tick for MST and ALN options.

5.5 Equitable and fair

Assessing equity and fairness requires consideration of who benefits from local government services and considering horizontal equity, vertical equity and inter-generational equity. (NZPC, 2019, pp. 141-142)

In assessing equity and fairness of each option, it is important to consider the economic incidence of each option (refer to section 2.4 for a general discussion).

The following subsections provide a comparative assessment of the options against each of the components of equity and fairness, and the results are summarized in Table 8.

Table 8: Assessment against subcomponents of equity and fairness

Criterion	MST	BBT	ALS	ALN	BBB*
Benefit principle	+	+++	+++	+++	+
Horizontal equity	+	++	+	+	+++
Vertical equity (ability to pay)	++	++	+++	+	++
Inter-generational equity	n/a	n/a	n/a	n/a	n/a
Number of positives	4	7	7	5	6

5.5.1 The benefit principle

This principle is about services being funded by those who benefit from them.[48]

Mixed-use services are services used by both residents and visitors. Hence, residents and visitors both benefit from mixed-use services.

Benefits may also accrue to suppliers if in the long run they are able to earn higher wages for their labour or higher rates of return on their investments. As discussed in section 2.4.4, land owners are the most likely supply-side factor to benefit in the long run from the free provision of mixed-use services.

However, if residents and businesses pay for the cost of those services through their rates, then residents pay directly through their own rates and pay a share of the business rates whenever they purchase goods and services from local businesses. In contrast, tourists only pay a share of the business rates.

By better targeting tourists, the BBT, ALS and ALN options better satisfy the benefit principle than the MST and BBB* options. They reduce the burden on residential ratepayers, either directly in the way of a residential rebate in the BBT option or indirectly in the accommodation levy options because residents very rarely use commercial accommodation.

The per-guest per-night nature of the ALN levy means it relates more closely to individual tourist's use of mixed-use services than the ALS option, but as a group the average impact on tourists would presumably be the same for both accommodation levy options.

It is difficult to determine whether the BBT or accommodation levy options are better than the other:

- On one hand, the residential rebate provided under the BBT option is likely to be inaccurate and tourist spending at local businesses is likely to be a poorer proxy for tourist use of mixed-use facilities.
- On the other hand, the accommodation levy options won't capture tourists staying with residents.

The MST option appears to be equally ranked with the BBB* option (but lower than the BBT and ALS options). To the extent the burden of a targeted rate falls on the supply side, it is likely to fall predominantly on land owners generally. Under the BBB* option, the targeted rate is on the land values of all local businesses and it is likely to be mostly borne by land owners rather than tourists. Although the MST option seeks to target tourist spending, the targeted rate is levied on property values and so the supply-side burden of it is likely to also fall predominantly on land owners (but slightly less so than for the BBB* option). And like the BBB* option, a larger share of the burden of the targeted rate would fall on the supply side rather than on tourists.

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[48] Note the Draft report argues the benefit principle should be the primary criterion for deciding how to fund the provision of local goods and services that are non-rival and non-excludable. However, the mixed-use services being considered in this paper exhibit rivalry (eg, crowding) to some degree, resulting in the need for the provision of additional capacity and therefore additional costs on the council. In these cases, the causer pays principle ranks higher than the benefit principle, which is factored into the discussion of efficiency.

Overall, I have awarded three ticks to the BBT and the accommodation levy options, and one tick to the MST and BBB* options.

5.5.2 Horizontal equity

In regard to rates and levies, horizontal equity occurs when the people with the same characteristics incur the same rates or levy burden.

The Draft report states the relevant characteristic on which sameness is based depends on the type of tax. It could mean the same income (for an income tax), the same consumption spending (for a consumption tax) or the same property value (for a property tax). Horizontal equity makes sure people are not discriminated against on grounds other than what is covered by the rating or levy base, such as their race, gender, the types of work they do or the legal form they work under.

In regard to the options considered in this paper, the relevant sameness characteristic is different for the different rating bases. None of the options discriminate on grounds other than the intended rating base.

However, in practice some options are able to tax more of their intended rating base than other options. For example, the BBB* option would apply to almost all businesses. The BBT option would also achieve good coverage of the intended tax base, being sales to tourists, however the residential rebate aspect of the regime results in an uneven treatment of residents (it implicitly assumes each resident's share of expenditure at local businesses is the same), which is clearly not the case.

As it doesn't contain any resident rebate, the MST option appears to be less horizontally fair than the BBT option. Residents, as a group, pay more under the MST option than they do under the BBT option.

The two accommodation levy options are perhaps level pegging on horizontal equity. Both don't charge tourists staying with family or friends, or freedom camping etc, whereas tourists staying in paid accommodation do pay. Overall, with sizeable portions of tourists not staying in paid accommodation, the ALS and ALN options appear no better on horizontally equity than the MST option.

Hence, I have awarded three ticks to the BBB*, two ticks to the BBT option, and one tick to the MST, ALS and ALN options.

5.5.3 Vertical equity (ability to pay)

Vertical equity means that people with greater ability to pay should pay more than those with less ability to pay. Ability to pay can be assessed in different ways such as current income, current consumption, wealth, or property value.

One issue is whether the Commission intended the ability to pay criterion to relate only to New Zealand resident individuals and businesses, or was it intended to include international visitors too? This paper assumes the former was intended.

The BBT and accommodation levy options are targeted at tourists rather than local residents, although local supply side factors will bear some of the burden of those rates. Domestic tourists will bear some of the burden too. As domestic tourists on very tight budgets likely spend less on local goods and services than those on lax budgets, the options based on sales revenue (BBT and ALS) rank higher on vertical equity than the ALN option where the amount paid is mostly unrelated to any notion of ability to pay.[49] The BBT option ranks lower than the ALS option, however, because the residential rebate is paid to residential ratepayers in proportion to their property values.

The MST and the BBB* options appear to rank equally on vertical equity, as to the extent the rates burden falls on the supply side it would predominantly fall on land owners, particularly owners of commercial land. Arguably these options perform better on ability to pay than the options based on sales revenue (and BBT and ALS) because more of the rating burden falls on the supply side, and therefore on commercial land owners and presumably they're wealthier on average than domestic tourists. But that is a big judgement to make. Commercial land owners can be struggling for cash flow and domestic tourists, particularly to high-priced locations like Queenstown, can be very wealthy. Moreover, neither the MST or BBB* options provide rebates to residential ratepayers to offset the effects of higher prices paid by local residents.

Overall, I have awarded three ticks to the ALS option, one tick to the ALN option and two ticks to the other three options.

5.5.4 Inter-generational equity

Inter-generational equity refers to fairness across generations. In this context, it is about ratepayers paying in accordance with the annualized cost of capital so that future generations pay for capital investments made by earlier generations.[50]

All funding options rank equally on this criterion, because they all raise the same expected amount of revenue. In regard to the provision of mixed-use facilities, inter-generational equity is determined by a council's financing decisions rather than by their funding options.[51]

Overall, as none of the funding options contribute to or detract from inter-generational equity, they're each assigned 'not applicable (n/a)' status.

5.6 Sustainable

At p.143, the Draft report states that a funding and financing system for local government will not be sustainable unless it has three key attributes:

[49] In practice the ALN option has some vertical equity with it as freedom campers are likely to be less able to afford the accommodation levy and the design of the levy means they wouldn't pay it. Similarly, visitors staying with residents may on average have lower affordability and they also wouldn't pay the levy. But neither would these parties pay under the ALS option.

[50] More generally, as the Draft report states, generations should not shift the costs onto future generations, and neither should they have to incur the entire costs of building long-lived assets from which future generations will also derive benefits. (NZPC, 2019, p. 142)

[51] One caveat, which can be ignored, is that different funding options may have different transitional arrangements.

- Robust against avoidance
- Fiscal adequacy
- Stable and predictable revenue.

The following subsections provide a comparative assessment of the options against each of the components of sustainability, and the results are summarized in Table 9.

Table 9: Assessment against subcomponents of sustainability

Criterion	MST	BBT	ALS	ALN	BBB*
Robust against avoidance	-	+	++	-	+++
Fiscal adequacy	+++	+++	+++	+++	+++
Stable and predictable revenue	+++	++	+	+	+++
Number of positives	6+	6+	6+	4+	9+

5.6.1 Robust against avoidance (and evasion)

The Draft report explained that robustness against avoidance was important because taxpayers paying for collectively funded goods and services, and consumers of private goods and services, will quickly undermine sustainability if they can avoid making payments. Revenues will fall short of costs, and greater burdens will fall on those who act honestly by paying. Financing a major piece of infrastructure by borrowing will not be sustainable without an assured and secure future revenue stream to repay the debt over time. (NZPC, 2019, p. 143)

The discussion of robustness against avoidance has already been provided in section 4.4 (Comparative analysis of avoidance and evasion opportunities and incentives). Based on that discussion, I have assigned three ticks to the BBB* option, two ticks to the ALS option, one tick to BBT and zero ticks to the other options.

5.6.2 Fiscal adequacy

The Draft report states that the tax system and other revenue sources must be capable of providing the amount of revenue that a government requires. A tax base could be too small or suffer other limitations so that even high rates of tax will not raise enough revenue or do so only at the cost of severe distortions or hardships. (NZPC, 2019, p. 143)

The Commission had envisaged the accommodation levy be used only in situations where the revenue requirements were small relative to the levy base, so that levy rates are modest. The same would be the case for the other options.

Overall, I have awarded each option receives three ticks for this component.

5.6.3 Stable and predictable revenue

The Draft report noted that councils must make long-term plans and investments, and so stable and predictable revenue streams over time are highly desirable. A sudden fall in revenues, particularly when it happens unexpectedly, can precipitate a fiscal crisis. (NZPC, 2019, p. 143)

Existing rating methods typically require ratepayers to make fixed monthly or quarterly payments during a financial year. Revenue from rates can't under- or over-shoot council's annual budgets as the number of rating units doesn't change when businesses or residents exit a council jurisdiction. Hence, rates revenue is highly predictable under existing rating bases.

The MST and BBB* options use essentially the same methods as existing rates, and so they also would deliver stable and predictable revenue streams.

The BBT and ALS options would be based on actual sales revenue, and so would provide less stable and less predictable revenue within a year. In principle a council could re-set the tax rates for these options at the start of each year to maintain their revenue flows, but in practice this may prove difficult. This may particularly be the case for the ALS option as it has the highest tax rates, and so raising those rates (in a situation in which accommodation revenue is declining or growing more slowly than expected) could materially and adversely affect subsequent revenue flows.

Overall, I have assigned three ticks to the MST and BBB* options, two ticks to the BBT option and one tick to the ALS option. For similar reasons, the ALN option merits one tick too.

6 Caveats

This paper has been prepared based on readily available and reliable information, but also on many assumptions. The key ones that come readily to mind are discussed below.

Is there significant under-provision of local mixed-use infrastructure due to lack of funding? If there is little under-provision due to lack of funding then introducing a new funding tool is unlikely to be net positive in a cost-benefit assessment.

Are tourists under-paying for mixed-use local services? That is, there may be full provision, but the mix of funding may be inefficient, resulting in over-use (where additional tourists create more costs than benefits for the economy). But if international tourists are over-paying on GST then there may not be over-use. In this case local sales taxes could make the mix of funding less efficient, rather than more efficient as shown in As discussed in section 2.5.5, determining the efficiency effects of a tax proposal sometimes turns on how the proposed tax would interact with factors distorting the economy from its efficient resource allocation, such as existing taxes and externalities. The impact on New Zealand welfare of GST on international tourists appears to be particularly important in this case. The potential interaction effect is discussed in the next subsection before turning to the efficiency components listed in the above table.

Table above. The analysis in this paper, however, shows that GST is likely to be substantially under-taxing international tourists. The results of the additional work by staff on this question will be important for deciding how much weight to give to the conclusions in this paper.

What proportion of tourists would be captured by accommodation levies? The International Visitor Survey for 2017 and 2018 showed that just over 50% of international visitors reported staying mainly in commercial accommodation and around 65% in all paid forms of accommodation while in New Zealand. Moreover, the Queenstown Lakes District Council estimates that, on a peak day, more visitors stay in informal accommodation than in commercial accommodation (sub. 67; pers. comm., 14 June 2019).[52] The lower the percentage of tourists staying in paid accommodation the larger the efficiency cost of the accommodation levy options and the poorer they perform on fairness, however the accommodation levy options have other positive efficiency features. .

What observable and measurable tourist activity best proxies their impact on council costs? This paper assumes the number of guest-nights is a better proxy than spending on goods and services supplied by local businesses.

What portion of the targeted rate falls on the supply-side (eg, accommodation providers, workers, land owners) rather than on the demand-side (ie, on tourists)? The estimates provided in section 4.3 (Comparative analysis of incidence and impact on economic behaviour) are based on hypothetical price elasticities of supply due to lack of empirical evidence about them in regard to studies of the tourist industry.[53] Knowing the share of the burden, and whether it is different for different types of taxes, is important for assessing the fairness of the options. The fairness results in Table 8 are based on the educated assumption the supply side will bear a larger share of the burden under property and land taxes than under sales taxes.

What portion of the supply-side rate burden falls on land owners? This paper presumes the bulk of the supply-side burden falls on land owners, with the rest of it falling on workers and entrepreneurial labour supplied by owners of businesses. But that presumption is based on general knowledge rather than empirical evidence specific to these issues. These judgements are important for assessing where the benefits of tourism accrue and which of the options best targets those benefits.

Is it appropriate for the sub-components of the funding and financing principles to receive equal weighting, among themselves and with the first two principles (appropriateness and coherence)? From Table 6 it is clear giving more weight to appropriateness and coherence would reduce the overall ranking of the ALS option. However, I think there is a good case for the equal-weightings approach because each of the sub-components are substantively different from each other. For example, it is useful to group the benefit principle, horizontal equity, vertical equity and inter-generational equity under the heading 'Equitable and fair'. But clearly vertical equity is a totally different concept to the other items under that heading, and the same applies to the items under the 'Efficiency' and 'Sustainable' headings.

[52] Based on a comparison of Accommodation Survey data and visitor data included in Queenstown Lakes District Council's submission (sub. 67, p. 4). Tourism Industry Aotearoa (TIA) claims that only 30% of international tourists stay in commercial accommodation, and perhaps another 10% in AirBnB organized accommodation. These figures seemed to be based on another party's presentation to a tourism industry conference.

[53] The share of the burden depends on supply elasticity relative to demand elasticity, and so empirical estimates for both are needed to estimate the share of the burden that might fall on the supply-side.

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Appendix 1: Formula for simple targeted rate and residential rebate

Although this paper is about local government rates, it gets confusing to refer to the rate of those rates. Hence, for clarity of exposition we refer to tax rates rather than rate rates.

Let:

- c denote the cost of mixed-use local infrastructure that is to be paid for by tourists
- b denote the rating base for local business ratepayers
- τ denote the tax rate applied to b to pay for c
- α denote the proportion of local business revenues, R, attributable to tourists
- ε^T denote the price elasticity of uncompensated demand of tourist's expenditure on the taxed goods.
- ε^R denote the price elasticity of uncompensated demand of resident's expenditure on the taxed goods.

Note, demand elasticities generally take negative values because higher prices typically reduce demand. Note also the following formula implicitly assume infinite supply elasticities. This assumption means the tax rate has maximum impact on the rating base, b.

The aim is to raise revenue from tourists through their spending at local businesses. Sufficient revenue is raised from tourists when the tax rate multiplied by tourist's portion of the rating base equals the costs to be paid by tourists. Hence, we require:

$$(1)\quad \tau\,\underbrace{\alpha b\left(1+\alpha\varepsilon^{T}\tau+(1-\alpha)\varepsilon^{R}\tau\right)}_{\substack{\text{Tourist's share}\\ \text{of rating base}}}=c$$

In other words, the required local tax rate on the business rating base is:

$$(2)\quad \tau\equiv\frac{c}{\alpha b\left(1+\alpha\varepsilon^{T}\tau+(1-\alpha)\varepsilon^{R}\tau\right)}$$

Applying this tax rate to business expenditure raises sufficient revenue to cover tourist's contribution to mixed-used infrastructure and to provide a rebate to residents so they're not indirectly contributing to those costs (in aggregate).

That is:

$$(3)\quad \underbrace{\tau b\left(1+\alpha\varepsilon^{T}\tau+(1-\alpha)\varepsilon^{R}\tau\right)}_{\substack{\text{Revenue}\\ \text{collected}}}=\underbrace{c}_{\substack{\text{Cost to be}\\ \text{covered by}\\ \text{tourists}}}+\underbrace{r}_{\substack{\text{Rebate to}\\ \text{residents}}}$$

Substituting for c from (1) above, and rearranging, gives $r=\tau(1-\alpha)b\left(1+\alpha\varepsilon^{T}\tau+(1-\alpha)\varepsilon^{R}\tau\right)$.

For low elasticities and tax rates, $\left(1+\alpha\varepsilon^{T}\tau+(1-\alpha)\varepsilon^{R}\tau\right)\approx 1$ and the required tax rate can be approximated by $\tau \equiv c/\alpha b$. This is the approach taken in 4.2.3 and thereafter in the report, to keep matters simple. For example, if both compensated demand elasticities were negative 0.5 and a 5% ad valorem tax rate was being considered, then the tax base would shrink by 2.5% and the 5% tax rate would need to be minutely above 5.125%. The 5% tax rate is a good enough approximation given estimates of the revenue base have a degree of inaccuracy too.