

Alternatives to rates

**Review of revenue mechanisms to
supplement local authority rates**

**Report to
The Local Government Rates Inquiry**

July 2007



Preface

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Executive Summary

This report compares and reviews a range of revenue instruments that might be regarded as alternatives to local government rates. After recapping some general principles about tax design, it surveys local government funding across other countries, then compares a range of instruments across common criteria relating to each instrument's appropriateness for local government, its efficiency, its equity and its sustainability as a revenue stream.

There is no consistent or uniform approach to local government taxation across countries. While property taxes are the dominant source of local government revenue in Anglophone countries, there is a different mix in Europe where in many countries local income tax is most important.

In countries that rely on local income tax, local authorities have a broader range of responsibilities than those in New Zealand, delivering a range of social and educational services that elsewhere are provided by central government. Local discretion over the income tax is limited by central government, and redistribution to achieve revenue equalisation across districts means these amount to partially devolved revenue sharing between central and local government.

Local sales or consumption taxes are widely used in both Europe and North America but generally provide much less revenue than the dominant property or income taxes. As with local income taxes, the local tax is often "piggy-backed" off the national or state taxes to reduce collection costs.

Industry specific taxes are commonly encountered in the form of tourist bed taxes and sometimes in local vehicle registration fees and petrol taxes. There are also taxes levied to raise revenues for specific facility development (e.g. sports stadia), but these generally terminate once the funding task is complete and do not provide sustainable revenues.

Green taxes intended to compensate for environmental damage are found most often in the form of waste taxes. As these are intended to change behaviour and reduce environmental damage their revenue streams are unsustainable without raising the rate to a level that imposes costs on users that are greater than the environmental damage they are intended to address.

In New Zealand the sales and income tax bases are already well used by central government, and there is logic in retaining rates on the property base which is otherwise lightly taxed. The most obvious new mechanisms to explore are those that most closely align with local benefits or recover contributions from outsiders for services they use. These include tourist bed taxes, local road charges and raising of the local authority petroleum duty.

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1. Introduction

1.1 Objectives and approach

The Local Government Rates Inquiry has been set up to provide the Government with recommendations on how to improve local government funding, covering both rating and other sources of revenue. The purpose of this report is to provide an independent review to assist the Inquiry in better understanding the advantages and limitations of funding mechanisms that may be used as **alternatives or supplementary** sources of revenue to property taxes (rates). This will involve the identification and assessment of options and views as to the most effective and efficient system(s) that could be developed.

The Inquiry needs an assessment and discussion of possible mechanisms including but not limited to:

- a local income tax;
- a local consumption tax;
- the use of industry and commodity specific taxes;
- a citizens or poll tax;
- a payroll tax.

This report builds on existing material and analyses the options in a manner which is intended to assist the Inquiry's task.¹ There is a vast array of funding mechanisms used by local authorities around the world, each of which has evolved in a particular historic and cultural context which, however appropriate it may be for that context, may not be readily translated to conditions in other countries like New Zealand.

This report examines local government's choice of funding instruments in light of a framework for analysis based on applied economics, establishes a set of criteria consistent with that framework, and provides a categorization of instruments intended to assist the Inquiry in sorting through suggestions for alternatives raised in public consultation. It also surveys and reviews different instruments used for local government finance in other countries, with a view to identifying conditions or design characteristics that are critical to their success, and recommending which of these are most readily applicable in New Zealand and most worth selection for more detailed examination of their feasibility.

¹ For example: NZIER and McKinlay Douglas (2001) "Future funding of local government activities"; Third report of the Local Authority Funding Project Team (2006) *Alternative Tax Bases for Local Government*; PCC (2007) "Government inquiry into rates and local authority funding: Porirua Steering Group's Resource Document."

As a prelude to the detailed examination in the report, the following section recaps the main precepts of economics of taxation and local government.

1.2 Taxation principles and local government context

A tax is a compulsory levy on private entities made by government to finance public expenditures, and sometimes also to regulate private activity. Taxes are therefore levied on the basis of some observable characteristic of taxpayers that bears some relation to the benefits received or the taxpayers' ability to pay. At an aggregate level, the taxes paid by a community should be broadly commensurate with the benefits received by the community, but they are not directly proportional to benefits received by individual taxpayers, as by definition it is not possible to observe precisely who benefits from the types of services being provided.

This is because governments are largely involved in providing goods and services for their communities resulting from some failure in the market mechanism that supplies most private goods. In economic terms, government's comparative advantage (over the market alternative) lies in supplying:

- Economic public goods, which are collective goods that a private supplier cannot efficiently supply and recover their costs,² because:
 - The good is subject to non-rival consumption, which means the marginal cost of supplying an additional unit is zero and the efficient price is zero as well (otherwise a non-zero price would needlessly deter use that could be accommodated at no additional cost);
 - The good is non-excludable in consumption, i.e. it is not feasible to prevent non-subscribers or “free-riders” from enjoying the benefit provided for subscribers;
- Merit goods, which are goods whose supply is subsidised to increase consumption from what would prevail in the market, because they are regarded as inherently beneficial (e.g. cultural facilities, some education and health services).

Governments have three broad means of funding their activities. They can:

- Regulate private entities to provide the outcome they seek, e.g. requiring them to provide positive externalities to the community or to desist from creating negative externalities, in which case the funding cost falls directly on those regulated entities;

² The most commonly cited examples of public goods are national defence and security at a national level, and street-lighting at local government level. Other services, such as roads, are currently provided as if they are public goods, but could become privately supplied goods with changes in technology for monitoring and billing for use.

- Directly charge the beneficiaries of particular services, which given the nature of many public goods is not feasible;
- Tax the entire community that benefits from the services under which those in the community pay for the availability of the services in proportion to some tax base that is associated to varying degree with the service and will reflect ability to pay or benefits received but not in any precise way.

Taxes can be levied on anything if practically and politically feasible to do so,³ but through history have tended to fall on particular tax bases:

- Wealth (of which land has long been a conspicuous example);
- Consumption or use of particular services (e.g. sales taxes);
- Income (a relatively recent arrival, dating from the 18th Century);
- Other miscellaneous bases (e.g. taxes per head such as poll tax).

Among these, taxes on real property (e.g. land) have a very long pedigree, because land has long been a visible indicator of wealth and ability to pay and also because land is immobile, which makes it easy both to assess liability and to collect taxes on it. Immobility also makes land taxes less distorting than taxes on mobile bases (like income or sales), as individuals can escape the tax by moving only by selling the land, which remains with the liability. This immobility also gives property taxes advantages over other tax bases for local jurisdictions, which are more susceptible to “tax-base flight” than central governments.

1.2.1 Classic principles of Adam Smith and Henry George

The basic principles of taxation have changed little from the canons laid down in 1776 by Adam Smith in his *The Wealth of Nations* and reiterated with slight amendment by Henry George in the late 19th Century:

- The cost of collection must be low relative to the yield;
- The timing and amount to be paid must be certain to the payer;
- The means and timing of payment must be convenient to the payer;
- Taxes should be levied according to ability to pay;
- Taxation should bear as lightly as possible on production;
- Tax should bear equally, so as to give no individual an advantage.

In modern parlance this equates to taxes that raise revenue in a manner that is economically efficient (i.e. not unduly distorting resource allocation among activities), administratively simple for tax collecting authorities,

³ In 17th century England a tax was introduced on windows which were regarded as a luxury good and sign of ability to pay, with the result that superfluous windows were bricked up in some houses, particularly in their servants’ quarters, while others increased their window area as an ostentatious display of wealth (ref Wikipedia).

transparent in operation for both those administering the tax and those paying it, flexible in responding to changing conditions (dynamic efficiency) and fair, which reflects both horizontal equity (equal treatment of alike individuals) and vertical equity (requiring a higher share of the burden from those with greater ability to pay). These principles indicate that taxes can be raised according to individuals' ability to pay, the benefit they receive, or some mix of the two principles that is determined as appropriate through the community's political processes.

1.2.2 Taxes for revenue raising or other purposes?

The principal exception to these canons are so-called Pigovian taxes that are applied in proportion to the externalities or costs specific activities impose on others, as if to act as a corrective "price" for some damaging activity.⁴ As the purpose of such taxes is to discourage damaging activity, they need to be targeted on the offending activity, noticeable and large enough to change behaviour, and if successful in reducing the offending activity their tax base will shrink and their revenue yield will decline. For the majority of taxes intended for revenue raising, the opposite design principles apply, and ideally they will be widely based, set at rates low enough to minimise tax-induced behaviour shifts, and thus sustain their yield.

The distinction between revenue-raising and behaviour changing taxes is fundamental to choice and design of taxation instruments. Behaviour raising taxes provide some revenue, but in most instances cannot be relied upon to provide sustained revenue unless they are set too low to achieve their primary purpose of behavioural restraint. This is why Pigovian taxes, such as so-called green taxes to curb environmental damage like pollution (e.g. a carbon tax) do not form a major part of the tax armoury of any country. The government-commissioned tax review in 2001 considered in detail the possible consequences of taxes levied nationally to achieve environmental benefits and concluded that they had practical disadvantages, both because such national taxes are unlikely to reflect the actual environmental costs created in different locations, and also because of the risk that such taxes would destabilise the tax revenue stream (MacLeod 2001).

1.2.3 Characteristics of local government tax choices

Local government's ability to raise taxes in an efficient and fair manner are more constrained than those of central government because of a number of inherent characteristics:

- It is generally easier for people and business to move between local jurisdictions than across national borders, so there is greater potential for

⁴ Such taxes are named after the economist AC Pigou (1877-1959), who championed the use of taxes to "correct" mis-pricing in the market system.

local taxes on mobile bases to prompt “tax flight” and inefficient relocation if there are different rates in neighbouring regions;

- The structure of economies at local level is usually more narrowly based than a national economy, and potential tax bases are also narrower;
- Local government is usually a creation of statute and restrained from using tax bases already utilised by higher levels of government.

Economic literature commonly views local government as like a self-financing club in which membership is conferred by residency. Under this so-called Tiebout-Oates model, local governments will vary the mix of local services they provide according to the prevailing wishes of their constituents, and people will “vote with their feet” to move to those jurisdictions that supply the mix of services they prefer.

This model sees a role for “fiscal federalism” that supplements local funds with national subsidy, often in the form of grants matching local contributions. This allows local funding systems to utilise the economies of scale and scope that exist with national level tax raising while still retaining localised decision autonomy that is attuned to local preferences.

These views of local choice and fiscal federalism were developed in the United States, a federal state with a society marked by high social mobility and choice. Relations between central and local government in European countries tend more towards a principal-agent model, in which sub-national governments are responsible for ensuring delivery of nationally determined goals, and there is also a strong adherence to welfare programmes which require redistribution or “equalisation” of revenues between local jurisdictions. The European model therefore tends to be more dependent on central funding, and with it central oversight and reporting requirements, with corresponding restraints on local autonomy.

1.2.4 Pre-eminence of the beneficiary principle

The Tiebout-Oates model is based on the “beneficiary principle”, in that the local self-financing club is responsible for deciding on and paying for the benefits their residents receive. Strictly speaking the Tiebout model does not allow for cross-boundary spillovers or easy-riding by authorities on the local public goods supplied by neighbouring authorities. The benefit principle is a key justification for having local public goods at all: decisions will be closer to local preferences if made closer to those who receive the benefit, unless there are wider considerations that make it more efficient to make decisions at a higher level of government.

An alternative “ability to pay principle” is commonly used for evaluating national or regional policy where these more senior governments have access to a wide range of tax instruments. For local government, because the range of instruments that can be used without creating cross-border

distortions is narrower, there is less scope for redistribution, so local benefits received, known as the beneficiary principle is pre-eminent.

A benefits based model of financing local public services implies:

- local revenues should fund those services that benefit local residents/taxpayers:
 - unit charges used for those services amenable to unit charging;
 - taxes used to fund those services that are not;
- except that subsidy from outside the jurisdiction would be efficient and equitable to the extent that:
 - such services generate externalities that spill over the jurisdiction boundaries; or
 - support a redistributive aim of central government.

Local responsibility for those services where spillovers are not prevalent and income redistribution is not an objective allows local preferences to be reflected in service levels and quality – an important consideration in securing efficiency and accountability for local government. Although these principles are easily described, in practice the task of assigning policy and funding responsibility to local or higher government is less clear-cut.

Economics favours use of unit charges wherever it is feasible and cost effective to do so. Correctly set user fees and tax rates promote efficiency in two ways – by providing information to public sector suppliers about the strength of demand for their services, and by ensuring that citizens value what the public sector supplies at least at its marginal cost.

While some authorities may provide services free to make them available to the least well off, it is more equitable and efficient to handle income distribution issues through targeted transfer mechanisms than to alter charging or tax mechanisms to accommodate these concerns.

1.2.5 Tax exporting

Local tax bases can be distinguished between “residency-based” and “source (or origin)-based”. Resident based taxes are levied on factors of production such as land, labour and capital residing in a particular jurisdiction, and on goods and services used or consumed within that jurisdiction. Source-based taxes are levied on factors where they are employed or purchased (e.g. sales taxes, most payroll taxes). Resident-based taxes lessen tax-induced distortions caused by tax-exporting, relative to source-based taxes, but source-based taxes are often easier to administer because the tax is applied where the resource is used or observable transactions take place.

Tax exporting refers to situations in which some portion of the burden of a tax is borne by non-residents. Sometimes tax exporting is deliberate, such as the use of tourist taxes to collect contributions from non-residents for the benefits they receive in a locality. But it can also arise inadvertently from the effective incidence of the tax being shifted away from those who nominally pay it e.g. through change in relative prices or a change in net return of foreign owned inputs in the production process.

The extent to which tax incidence is shifted from the nominal taxpayer varies with conditions in the market and the ability of producers to pass on costs of tax. Residential ratepayers and consumers/taxpayers generally cannot pass the cost of taxes on to anyone – the buck stops with them. But businesses can, particularly if operating in markets in which they exert some market power. When a commercial/industrial sector exports its tax burden, local government accountability is weakened because the direct link between the responsible government and ultimate payers is missing.

If local income taxes (and other taxes) are deductible for national tax liability, this effectively exports some of the local tax liability of businesses to the national taxpayer base.

1.3 Outline of report

The report comprises:

- A brief scan of local body taxation instruments in other OECD countries;
- Discussion of some criteria for assessing and comparing different types of tax instrument for use at local level;
- Comparison against those common criteria of a range of tax instruments;
- Summary and conclusions.

Appendix B provides some quantitative illustrations of hypothetical alternative revenue mechanisms.

2. Alternative funding mechanisms used in other countries.

Local governments around the world are facing challenges for their funding due to changes in situation and outlook. Demands for local authority services are changing due to shifting demographics and industrial structure, and local administrations are increasingly alert to the possibility that in a globalised world, in which goods, capital and labour can move with increasing ease, the relative attraction of different areas for new investment and population growth may depend on the infrastructure and setting provided by local government activity. This view, exemplified by the UK's Lyons Report (2007) and its emphasis on "place shaping", has profound implications for local government service provision and funding. This section reviews what we know about local government funding across countries as a prelude to examination of specific instruments and their requirements in later sections.

2.1 Overview of local taxes

A basic distinction to bear in mind when comparing local taxes between countries is between federal and unitary jurisdictions. Federal countries have a middle tier of government which in respect of scale and statutory powers may be closer to national governments, but often have responsibilities that would be at a local government level in a unitary system. Relative immunity to border hopping may enable states in Federal countries to use instruments better suited to national than local governments.

Table 1 shows the relative importance of different types of tax for local government in a selection of OECD countries. The figures show the proportion of revenues from taxes and compulsory charges, not total revenues. The figure for sales tax in New Zealand refers to instruments such as water charges and rubbish bag fees which are proportional to the sales of the services provided.

Property taxes account for more than 90% of local tax revenue in five countries, all with a legacy of British administration (Australia, Canada, Ireland, New Zealand and United Kingdom). Local income taxes are proportionately most significant in the Nordic countries and some other European countries, such as the federal Belgium and Switzerland. But these countries are also characterised by a high devolution of responsibility to local authorities for delivering social services such as welfare and education, which in New Zealand are administered by central government departments.

As local taxation is driven by local expenditure, where local taxes are a small proportion of total taxes, local authorities generally have smaller spending responsibilities. Where local taxes are a comparatively higher

percentage of total tax revenue and GDP, local governments tend to rely more heavily on local income taxes (Kitchen 2003).

In the Nordic countries, and to a lesser extent also in some of the federal countries, local taxes account for a high proportion of total tax and GDP, reflecting local government's responsibility for delivering many services that central government funds in other countries. In New Zealand the share of local tax in GDP and total tax are below the average for all OECD countries, but not exceptionally low or high among non-Nordic countries.

Table 1 Relative importance of different types of tax in local government revenues in selected OECD countries

Government type	Tax sources as % of total local tax revenues				Local tax as	Local tax as
	Income	Sales	Property	Other	% GDP	% all tax
Federal						
Australia	0.0	0.0	100.0	0.0	1.0	3.0
Belgium	86.5	13.2	0.0	0.3	2.1	4.7
Canada	0.0	1.9	91.3	6.8	2.9	8.1
Germany	78.0	6.0	15.8	0.2	2.6	7.5
Switzerland	84.4	0.3	15.3	0.0	5.0	14.0
USA	6.5	21.8	71.8	0.0	3.5	11.5
Unitary						
New Zealand	0.0	9.7	90.3	0.0	1.8	5.8
Ireland	0.0	0.0	100.0	0.0	0.6	1.8
United Kingdom	0.0	0.0	99.5	0.5	1.5	4.1
Netherlands	0.0	44.0	56.0	0.0	1.4	3.4
France	0.0	11.5	48.2	40.4	4.4	9.7
Denmark	93.4	0.1	6.5	0.0	15.9	32.9
Finland	95.4	0.0	4.4	0.1	9.9	21.2
Iceland	78.0	7.6	14.3	0.0	8.3	22.4
Norway	89.9	2.2	7.9	0.0	6.5	16.3
Sweden	100.0	0.0	0.0	0.0	16.0	29.8
OECD unweighted average	38.0	16.8	31.6	9.1	4.8	12.7

Source: Kitchen H (2003) from OECD data

Table 2 assesses the extent to which local government exerts control over taxes and how they are collected, expressed as a percentage of control. For instance in New Zealand, local taxes and instruments in the Local Government (Rating) Act comprise 98% of the tax revenue available to local government, and they have control over both the rate set and the base used (land value, capital value, annual rentals and uniform property charges). The balance of 2% represents local authority petroleum duty, which is set by central government.

Fiscal autonomy is greatest when local authorities control both the rate of tax they collect, and the base from which that tax is collected. In most countries local authorities have some control and discretion over the rate of tax, but the tax base is often prescribed by legislation or controlled by central government. Billing and collecting tax is an administrative function distinct from policy setting, so it can be efficient to separate it from the local tax setting authority and have local tax collected by a national agency.

Table 2 Extent of local control over local taxes

Government type	Local government sets:			Revenue split under tax sharing			Senior govt sets local rate
	tax rate and base	tax rate only	tax base only	Set by local govt	Local govt consent for	Fixed in legislation	
Federal							
Belgium	13	84				2	1
Germany	1	52			47		
Switzerland		97				3	
Unitary							
New Zealand	98						2
United Kingdom		100					
Netherlands		100					
Japan		94					6
Poland		45	1		54		
Denmark		96				4	
Finland		89				11	
Iceland	8	92					
Norway		5				1	94
Sweden	4	96					

Source: Kitchen (2003) from OECD data

The table suggests that New Zealand local government has exceptional local autonomy in having control over both rate and base. In most countries local authorities have control over the rate only, and some countries such as Norway and Germany have a substantial portion of their tax revenues dependent on tax revenue sharing controlled by central government.

Local income and sales taxes are often “piggy-backed” on state or national income and sales taxes. Local authorities set a surtax on the national taxes within limits prescribed by legislation, but much of what they receive amounts to a share of revenue from the national instrument. This is the case in the Nordic countries, where adherence for uniform social standards results in extensive revenue transfers and “equalisation” between better off and worse off localities.

Local governments carrying out their expenditure responsibilities are likely to be more efficient, accountable and responsive to their constituents needs if they are required to raise the revenue they spend.

2.1.1 United Kingdom

Although New Zealand shares many legal and administrative traditions with the United Kingdom, local authorities in the UK operate under significantly different circumstances. In Britain, local authorities have extensive responsibilities in education and social services which makes them primarily agents of central government, with 80% of their revenues coming from central government sources.

Local authorities in the UK have one tax revenue stream under their control, the Council Tax, which combines elements from the property rates that applied before 1990 and the poll tax used between 1990 and 1993. Council tax now charges properties flat rates according to various property valuation bands, with some variation in rate for population characteristics (e.g. single-

person occupancy, part time or holiday home). Business rates have since 1990 been collected and redistributed by central government using revenue equalisation principles.

The adequacy of funding arrangements has come under increasing scrutiny in recent years, in face of moves towards greater devolution of responsibilities under precepts of subsidiarity (i.e. decisions taken at the lowest level it is feasible to take them). The Council Tax is widely regarded as unfair and subject to “gearing” effects that magnify the impact of expenditure increases. This was reviewed by the recent Lyons Enquiry (2007), which found Council Tax to be basically sound but recommended some amendments to tax bands, revaluation of properties, and changes to rebates to reduce the impact on the least well-off.

These findings echo those from the previous Balance of Funding Review (ODPM 2004) which concluded local government would benefit from a diversity of local sources of income, not to increase total revenue but as a means of shifting the balance of funding. But it cautioned that multiple taxes could also make the system more complex and unaccountable, especially if assigned to more than one tier of local government, and it recommended further investigation of a limited number of instruments.

2.1.2 Australia

Australia has a federal structure, with over 700 local government bodies that vary hugely in structure, as well as six states, two self-governing territories and the federal Commonwealth Government. The local government sector is heavily reliant on property rates, as in New Zealand, but has a range of grants available from both state and federal level.

The Hawker Commission (2003) launched a wide ranging review of local government in Australia, largely focusing on issues around the boundary of responsibilities between different levels of government, and the cost-shifting that occurs when higher levels of government place responsibilities on, or remove funding support to, lower levels because of their own internal budgetary constraints. Unlike New Zealand, the existence of intermediary State level government with some characteristics of both local and central government complicates the comparison of revenue instruments. There are a number of instruments in Australia levied at the state level (e.g. stamp duty on house sales) which would be more problematic at local level, because of the possibility of inefficient locational incentives.

2.1.3 USA

Choice of all local taxes in USA is at the discretion of the states or municipalities (Shuford & Young 2000). Property tax is used in all but two municipalities in USA, and nearly all cities use a sales tax if given the

authority, but income tax is used more selectively. Local governments set their tax rates but the tax base is controlled by state policy and practice.

Local income taxes are used by some 3,800 local governments in USA but with wide variation in their means of application. Taxes are generally imposed as a flat rate ranging from 1% to almost 5% on residents, but in some areas a lower rate is applied to commuters, and in other states the tax revenue is divided between the jurisdiction where the person resides and where the person works. Income tax is primarily applied by municipalities, but in some states it applies to rural counties as well.

In USA, local governments in 31 states and the District of Columbia levy general sales taxes. Virtually all general sales taxes are ad valorem (fixed percent of selling price) rather than per unit taxes, and they are usually levied on retail purchasers. They usually provide only a fraction of revenue of the local property tax – e.g. around 23% in Wisconsin (Runde 2007).

US local government also commonly employs a range of other special purpose taxes, often to fund particular local developments. As an example, in the state of Wisconsin there is a county vehicle registration fee (yield equivalent to 1.6% of property tax), a local room tax on tourist accommodation (yield 3.8% of property tax), and various localised taxes to fund exposition centres and sports stadia development (Runde 2007). These are all set at a low rate and most revenues are tied to specific purposes.

2.1.4 Nordic countries

Nordic countries provide a more interesting comparison for New Zealand, in that they are all small, unitary government countries with strong social welfare traditions. They also present a pattern of local government finance that is at variance to the Tiebout-Oates model.

In Nordic countries, local authorities get much of their revenue from local income taxes levied at a flat, locally established rate on the same tax base as the national income tax. In Norway they are collected by the local authorities, but in the other countries they are collected by central government and remitted back to the local jurisdictions. As all Nordic countries employ “equalisation” principles to achieve redistribution of revenue across districts, their locally set income tax is supplemented by revenue shared from the national taxes.

Income equalisation through vertical transfers creates risk of moral hazard, in which expectation that government will bail out local authorities in difficulty encourages ill-judged and excessive spending by the local authority that exacerbates the risk and inefficiency. Moral hazard can be lessened by changing the political culture and by deliberate policy choices by central government to harden budget constraints on sub-national authorities.

A distinctive characteristic of the Nordic countries is the small size of the local authorities which nevertheless have big responsibilities for delivering parts of nationally determined social policies (Rattso, 2005). Closest in size to New Zealand is Norway, with 435 municipal governments with average population of 10,295, and 19 counties (regions) with average population of 235,710. Central government limits the rate of tax that can be struck by the localities, and there is a greater dependence on central government grants than in the other countries. By contrast Denmark and Sweden each have around 280 municipalities, with average populations of 19,382 and 30,662 respectively. Their local tax autonomy is not as tightly constrained as in Norway, and they are less dependent on central government grants.

The Nordic countries highlight the difficulties for national policy that may emerge with significant increase in local fiscal autonomy. In Denmark, local authorities have greater autonomy and have required central departments to back down on some aspects of health care target achievement, because of unwillingness to compromise local autonomy and macro-economic considerations. In Norway the local authorities have more constrained fiscal autonomy and national policies are promoted through central government grants, with greater compromise of local autonomy. Norway also illustrates the effects of central government trying to control local tax rates: all municipalities levy the maximum rate possible, so as not to appear well-off and thus reduce their eligibility for central government grants.

2.2 Lessons from international experience

This quick scan of international experience reveals there is no consistent or uniform approach to local government taxation. Some countries have only one tax at local level, other countries have two or three.

The expenditure responsibilities of local governments also differ markedly across countries. Broadly, local governments may provide:

- Traditional municipal services such as roads, water and wastewater, rubbish collection, parks and cultural facilities (as in New Zealand);
- Traditional municipal services plus social services in support of national objectives, which may be delivered either by:
 - Local government acting as agent to central government, and dependent on central government grants for the bulk of funding (as in the UK);
 - Local government delivering national services on a self-funding basis, funded in large part by self-administered tax from a buoyant base such as local income or sales (as in Nordic countries).

These comparisons need to be viewed with caution, because of the wide variation in responsibilities of local government across countries and variation in the role of local taxes relative to other sources of local revenue.

International experience suggests various means have been employed to accommodate local and national governments when seeking to use the same tax base:

- Co-operative mechanisms involving central and local government for co-ordinating tax rates and setting fiscal targets have less of a negative impact on local autonomy than centrally imposed rates and rules;
- An alternative to co-operative mechanisms, if these are inadequate, would be a system of sharing taxes at either national or regional level, so as to reduce risks of excessive fiscal rivalry between districts;
- Taxation of mobile goods which is not related to associated benefits should be avoided wherever possible, and taxes or charges for specific services and benefits received used as much as possible to provide the choice and signals needed for efficient resource allocation for provision of local services across localities.

Of all taxes available, is there one that is more desirable than others in funding local services, or should there be a mix of local taxes?

The property tax is not the dominant local tax outside the Anglophone countries. Even within those countries it is seen as having deficiencies in collecting revenue from commuters and visitors and its revenue yield is not particularly income elastic in the short term. Hence there is increasing concern about whether it can continue to be the principal tax available to local governments if they are to be fiscally sustainable. Income and sales taxes may be more elastic than property tax, easy to administer if piggy-backed onto national taxes. The income tax is likely to be more progressive in bearing less heavily on the least well-off, but the sales tax is more regressive (bearing more heavily on the least well-off).

Sales taxes might be chosen in situations where the benefits of services are enjoyed by non-residents like commuters or tourists, or where they are variable with transient traffic. Property taxes still have appeal for providing stable revenue streams for more basic local services that are fixed in nature. Additional tax sources could increase the revenue elasticity of the local tax base and allow it to more easily adapt to rising costs and service demands.

2.3 Practical issues applying to New Zealand

New Zealand is unlike many of the countries in the restricted range of activities that local authorities have traditionally been involved in. Education, health and social services in New Zealand are the domain of central government departments, and local government has primarily been

concerned with traditional municipal services, such as roads, water, wastewater, rubbish collection and disposal, and cultural and recreational services such as libraries and parks.

This division of responsibilities between central and local government means that councils in New Zealand are unusually financially independent of government, and reliant on property taxes. Property tax refers here to all the instruments defined in the Local Government (Rates) Act 2002 for general revenue raising, for which the nominal taxpayer is a property owner or occupier. It includes rates on the assessed value of property, including differential rates and targeted rates. It also includes uniform annual charges (effectively a tax on the characteristic of a property) and some direct charging mechanisms (e.g. on metered water and pay per bag refuse). It does not include development contributions under the Local Government Act 2003 or financial contributions under the Resource Management Act 1991, as these are collected for the benefit of specific activities.

Table 3 shows sources of central and local government revenues for June Year 2005. In that year, total local government revenue was 10.5% of central government revenue and accounted for 3.3% of GDP (compared to 31.7% for central government).

While cautioning against reading too much into a single year, the table illustrates the relative magnitudes of different tax instruments currently in use. If property rates were to be replaced by a local income tax, it would require increase in tax receipts of 9% from total income tax, or 13% from individual income tax alone, or 34% from company income tax. If rates were replaced by GST, total GST receipts would need to increase by 26%.

Similarly, if rates were retained but the aim was to increase total local government revenue by 10% (i.e. raising it to \$5,495 million), this would require a 1.6% increase in total income tax, or a 2.3% increase in individual income tax or 6.2% increase in company tax. The same rise would require a 4.7% increase in GST receipts which, other things held constant, could be achieved by raising the GST rate from 12.5% to 13.1%. This would reduce the share of rates in local revenues to around 50%.

The rates replacement scenarios suggest substantial increase in the current receipts from the other tax bases, which could have adverse consequences on wider economic activity and distribution of tax burden across the community. It would also be inefficient to replace the relatively non-distorting property tax with more distorting income or sales taxes. Local rates complement the other tax bases utilised by central government, as property and wealth are otherwise lightly taxed in New Zealand.

Table 3 Sources of public revenue

Year ending June 2005	\$m	
Rates	2,779	56%
Regulatory and petrol tax revenue	302	6%
Government grants & subsidies	661	13%
Total investment income	307	6%
Sales and other income	948	19%
Total local government revenue	4,996	100%
Income tax - individuals	21,551	45.1%
Income tax - companies	8,114	17.0%
Income tax - withholding & other	2,402	5.0%
Total income tax	32,067	67%
Customs duty	947	2.0%
Excise duty	2,156	4.5%
Total customs & excises	3,103	6%
GST	10,686	22.4%
Racing and lottery duty	316	0.7%
Energy resources levy	73	0.2%
Motor vehicle fees	70	0.1%
Road user charges	713	1.5%
Stamp & cheque duty	62	0.1%
Fringe benefit tax	441	0.9%
Other	224	0.5%
Total - other indirect taxes	12,585	26%
Central government tax revenue	47,755	100%
Gross Domestic Product	150,608	

Source: Statistics New Zealand

As the average local authority obtains nearly 60% of its funding for local service provision from the property tax instruments (broadly defined as above), some of the heat that attaches to rates increases in New Zealand at present may stem from its predominance in the revenue stream, and could be alleviated by diversification of the funding stream. According to the Local Government Funding Project (2006), in the year to June 2006, around 35% of rate revenues were set on bases other than property value (through uniform annual charges and some direct charges). Nevertheless 65% of revenues are still based on values that can vary significantly over time, causing jumps in liability for individual properties following revaluation that are out of line with average rate increases, and which can cause “bill shock” among ratepayers.

Local authorities have greatly varying resources at their disposal for revenue earning, due to largely historical reasons. Some have high yielding assets from which to draw revenue (such as port companies) while others do not,

and the varying mix of economic activities and residential characteristics also affect the ability to pay of different communities.

Other than rates, the only other tax available to local authorities in New Zealand is the Local Authority Petroleum Duty, which forms part of the tax paid on retail sales of motor spirits in each district. This is collected alongside national fuel excise duty and is effectively a revenue sharing exercise, as local authorities have no control over the base or rate of this tax. Another revenue sharing instrument involves direction of revenues from government's fuel duties and road user charges to approved local roading expenditure programmes, at a Financial Assistance Rate which varies across local authorities according to their rateable capacity. A similar matching grant scheme has recently been applied to selected local authorities to assist them in improving quality of water supply.

Rates in New Zealand are applied to commercial and industrial property as well as to residential property. Although rates are a minor part of most urban businesses' costs, and are unlikely to determine location decisions between regions, international evidence suggests differentials in local property tax can affect decisions on location within regions. Rates are more onerous for land-intensive production in rural sectors, such as farming and forestry, which are commonly perceived as paying more but receiving fewer services than urban property holders.

While property taxes are appropriate for relatively closed and self-governing local districts, in which many local expenditures become capitalised into property values, recent trends have weakened this, including:

- Growing mobility and increase in cross-boundary issues, e.g.:
 - Commuter flows between business centres and peripheral suburbs that supply labour and some materials mean that districts may be incurring increasing costs in carrying traffic that is raising the productive value of property in neighbouring districts;
 - Growth in tourism in some localities increases the transient, peak loadings on facilities, necessitating upgrade to higher standard and capacity than would be necessary for the resident population alone.
- Local government activities have expanded into areas that have less obvious connection to improvement in productive potential and value of real property, making the rating base look increasingly incongruent.
- Property is no longer as dominant a form of wealth, prestige and power as it was formerly.

These changes do not change the characteristics of a property tax like rates, or its suitability for local government purposes. But they do suggest that some diversification of revenue away from property taxes could make the rates burden across districts easier to bear.

3. Applying criteria for assessment

Current interest in alternative local revenue mechanisms to rates is prompted by “fiscal stress”, which occurs when local government revenues fall but demands for local services do not (as in declining communities) or when demands for and costs of local services rise faster than the revenue available (as in growing communities). Either way local revenues don’t keep pace with demands for services, leading to difficult decisions about cutting services or raising debt.

Local governments need the capacity to generate sufficient revenues to meet their expenditure needs, obligations and commitments. This is affected by:

- Cyclical variation in local government funding responsibilities, and the extent to which they vary with fluctuations in economic activity;
- The capacity of local revenue bases and local taxes to keep pace with these expenditure responsibilities (revenue elasticity);
- The ability of local governments to control their own destiny, rather than have expenditure choices imposed on them from outside.

In assessing alternatives, therefore, it is necessary to consider their capacity to alleviate fiscal stress, but also their implications for wider efficiency and equity in distribution of the local revenue burden. This is because to large degree different instruments apply to the same people and entities. Their capacity to pay taxes will not be changed by simply changing the route through which it is paid. Changes in the tax system may redistribute the burden from those worse off to those better off, but will still be constrained by taxpayers’ ability to pay and the opportunities they have to shift taxable activity (like labour or investment) to locations with lower tax burden.

To assist in comparing the likely effects of different taxes, we compare them against a set of common criteria. These are drawn from previous papers from the Local Authority Funding Project, but our interpretations of them may differ as there is always an element of subjectivity in how they are applied, and an inherent risk that criteria become conflated in use.⁵

3.1 Criteria for assessing funding mechanisms

The criteria have been grouped under four headings:

⁵ For example, on page 17 of the paper “Alternative tax bases for local government” (Third Report of the Local Authority Funding Project December 2006), income tax is described as not providing nationwide solutions because it is not particularly visible, and it requires national or regional redistribution. In our view these relate to issues of accountability and autonomy that arise with such a tax, not to whether it is applicable across the nation.

- Appropriateness for local government use, covering issues of accountability, autonomy, consistency with central government objectives and nationwide applicability;
- Efficiency, covering issues of behavioural incentive effects and resource allocation, administration costs and compliance costs;
- Equity, covering issues of horizontal equity, vertical equity and inter-generational equity;
- Sustainability, covering issues of revenue potential and predictability over time.

3.1.1 Appropriateness

a) Accountability

Accountability refers to the extent to which responsibility for funding lies with agencies that make the decisions on expenditures. It is related to the idea that revenues should be raised locally for expenditures that provide local benefits, unless there are significant spill-overs or externality effects that require compensation. It is also closely related to transparency in the links between funding and expenditure.

b) Local autonomy

Local autonomy refers to maintaining independence in funding powers and decision-making ability at the local level. Dependence on outside revenue sources (with or without strings attached) compromises autonomy.

c) Consistency with government objectives

Consistency refers to the avoidance of conflict with government objectives for wider economic and social progress. It implies that local decisions should avoid creating externalities that fall uncompensated on either other localities or the country at large, and create demands on the wider taxpayer community to make good the impact. Consistency issues may also arise if local tax decisions create undue burdens on particular groups that are contrary to government views on social well-being, or that prompt government spending to rectify an adverse outcome.

d) Nationwide applicability

Nationwide applicability means that measures can be applied consistently across the country, and are not prone to ad hoc or specific measures for particular councils. This does not mean that measures must be universal or uniform – e.g. tourist taxes need to be in a form that is consistently applied, but need not be applied the same in all circumstances.

3.1.2 Efficiency

Efficiency means the revenue instrument has minimal distorting effect on resource allocation between activities (allocative efficiency) and between time periods (dynamic efficiency).

a) Allocative (behavioural) incentives

Revenue gathering causes minimal distortion to behaviour, e.g. does not encourage activity relocating with real resource costs solely to avoid the tax.

b) Administrative costs

Revenue gathering adds to efficiency if it has low costs of administration for collecting authorities.

c) Compliance costs

Revenue gathering adds to efficiency if it entails low compliance cost for those paying the mechanism (i.e. low costs of filing returns, recording activity etc, as distinct from the actual level of the charge or tax).

3.1.3 Equity

Equity is about “fairness”, a concept for which economics provides no definitive measures other than to identify distribution of burden across the community. Here it is used to mean the effect of an instrument in distributing burdens across the community, and whether any of those burdens are sufficiently large or uneven to be considered “unfair”.

a) Horizontal

Horizontal equity is the principle of treating alike those in like circumstances.

b) Vertical

Vertical equity is the principle for distinguishing according to ability to pay, and often results in favouring a degree of progressivity in the tax design i.e.:

- Progressive taxes are those that bear more heavily on the better off e.g. taxes on luxury items that the better off buy more frequently than the less well off.
- Regressive taxes are those on which the less well-off pay a disproportionately large share of their income e.g. taxes on basic foods are more regressive than taxes on luxuries, because the less well off buy more basics than luxuries compared to the better off.

c) Inter-generational

Inter-generational equity refers to aligning the tax burden with the different ability to pay of present and future generations, such that:

- Current generations are not unduly burdened in favour of a better off future;
- Future generations are not saddled with debts and costs for decisions they were not party to nor benefit from.

Inter-generational equity is more a principle applying to funding policy (e.g. the presumption that debt should finance long-lived investment rather than current consumption) or environmental policy (the avoidance of irreversible environmental damage borne by the future), but it is included here in case funding instruments are found to have differing inter-generational effects.

3.1.4 Sustainability

Sustainability refers to affordability over time, and is related to both the ability to generate revenue to meet needs now and in the future, and the predictability of that revenue to reduce borrowing, hedging and other activities against uncertainty that incur costs.

a) Revenue potential

This relates to an instrument's buoyancy and ability to grow in line with growth in underlying demands for local public services, and is also sometimes referred to as the elasticity of revenue with respect to growth.

b) Predictability

Predictability relates to the ability to forecast expected revenue streams from a base, the stability of the base and its immunity to short-term variations, both for aggregate revenue streams and for individual tax bills.

3.2 Assessment of revenue instruments

3.2.1 Property tax

The property tax that is most frequently used is one based on market values of the site or property. But unit values have been used in Israel and Rotterdam and in economies in transition (Poland and Ukraine), and are also the basis of uniform annual charges in New Zealand.

Property taxes are:

- Highly visible, which improves accountability and responsibility of local governments but may also exacerbate ratepayer dissatisfaction;

- Minimally distorting because of the relative immobility of the tax base, which limits the problem of tax exporting (although arguably less so in the case of holiday homes and absentee landlords);
- Effective in funding and satisfying the benefits received principle for those services that accrue to the local community and are capitalised into the value of property (e.g. road access, parks, landscaping etc);
- Relatively buoyant in the long term to the extent that property value increases in line with income derived from property (more so for commercial than for residential property, where income is unrealised until property is sold and capital gain extracted);
- Relatively inelastic in yield in the short term, if the base of the tax (e.g. number of properties) does not increase regularly over time;
- Difficult to evade and hence have high collection rates and low collection costs;
- Possibly difficult and costly to administer if revaluations are not done on a regular and consistent basis. This is a problem with the UK council tax;
- Even less distorting if levied on unimproved land value, as there is nothing “mobile” like improvements that might be affected by the tax levied.

3.2.2 Citizens or poll tax

Poll tax is a bill per resident at a standard rate i.e. a flat rate per head. The short lived and euphemistically-named Council Services Charge in Britain in the 1990s is a well-known example. It is also used in Japan, where it is:

- Used in combination with a progressive local income tax on the same base as the national income tax;
- Levied at a nationally-determined per capita rate which varies with size of municipalities;
- Levied on both residents of the municipality and non-residents working in the municipality.

The main argument for poll tax is its supposed “fairness”, rather than efficiency, appropriateness or sustainability. In Britain the arguments for poll tax highlighted the discrepancy in property rates that would charge two identical properties the same, regardless of differences in how many people resided in them and drew on council services.

A poll tax may be efficient in not distorting behaviour, but it is likely to be inefficient if it can be avoided by moving residence. Hence it is likely to have high administrative costs in keeping track of people moving across jurisdictional boundaries, and a poll tax that varied between districts would set up inefficient incentives for relocation.

The most efficient poll tax would have a standard rate across districts, to reduce that location incentive. This implies it would be centrally set and hence would reduce local autonomy and accountability.

To the extent that local services are capitalised into property values, a standard fee per head is not necessarily more in line with the beneficiary principle than property taxes or charges. This is a disadvantage of poll tax as a replacement for property tax, but would be less so as a supplementary revenue source.

3.2.3 Payroll tax

A payroll tax is levied on the number of employees on the payroll of businesses in a district. They may be piggy-backed on existing PAYE processes and hence have low administrative and compliance cost.

Local payroll taxes are used in Australia (at state level) and in Austria. They are:

- Levied on employers on an origin (source) basis, i.e. they accrue to the locality in which employment takes place;
- Easily administered when imposed on large enterprises, and relatively productive of revenue when levied at moderate rates;
- But they can act as a disincentive to employment and distort the factor mix decisions in business activities (e.g. substitute out of labour to capital that escapes the tax) – this would be contrary to both central and local government social objectives;
- Their sustainability is questionable unless levied at a low rate with minimal variation across districts.

A particular variant of a local payroll tax is the Versement Transport, which is the principal source of funding for local public transport in France (McKinlay Douglas 2006). It is levied as a payroll tax on all employers with nine or more employees, at a rate between 1% and 2.5%. The rationale for the levy is that it is journeys to or from work which create the major demands for public transport, especially during peak periods.

This tax apparently works in France where there are extensive public transport services, but is it applicable in New Zealand? It has been argued that such a payroll tax would support the government objective of increasing productivity, by changing the relative price of labour and encouraging capital substitution; and that by linking the revenues to public transport demand it justifies imposition of the tax on a narrow base (McKinlay Douglas 2006).

Neither argument is compelling. Applying a selective tax to encourage capital substitution is a convoluted way of raising productivity, and public

transport expenditures would be better funded by instruments that are more closely related to peak traffic flows (e.g. road charges).

3.2.4 Local income tax

Local personal income taxes are used in a number of countries (particularly in Nordic countries), usually as a local surtax “piggy-backed” on the national income tax. They are:

- Usually levied at a flat, locally established rate on the same base as the national income tax, and collected by the same agency (usually central government);
- Although in Switzerland and Belgium (both Federal systems) they are levied as a percentage of the national total tax receipts;
- Usually levied on a residency basis, which is less mobile than the origin basis (of say a payroll tax);
- Usually subject to minimum and maximum limits, between which surcharges can vary between local jurisdictions, so as to minimise distortions of large variations;
 - But note example of Norway, where all local authorities set local rate at the maximum permissible, so as not to appear “wealthy” and lose eligibility for other central government grants;
- Regarded as more progressive and less onerous on the less well-off than a property tax;
- In the Nordic and other European systems, the aim of equalisation of revenue across different local authorities leads to redistribution of income tax revenues, which comes close to a revenue sharing arrangement with central government;
- Limited by choices on base decided at a higher level of government;
- Transparency and accountability obscured by intertwined local and national tax policy;
- Autonomy compromised due to involvement of central government in base setting and rate adjustment, and co-ordination with national systems.

Local income taxes are supported as a means enabling local governments to capture revenues from a wider base of taxpayers than just property owners. This argument understates the extent to which property tax is passed through to consumers of services of property, and the effective property base is not as narrow as it seems.

However, local income taxes are also associated with inefficiency, due to the disincentives they create for work, the costs of enforcement and avoiding evasion, and the costs of keeping tabs on locational shifts of individual earners, and on apportioning income of large corporate taxpayers to specific localities.

An example of a proposed new local income tax is the Scottish Services Tax, which would replace the current Council Tax on property and be introduced at a flat rate across all districts, collected centrally and redistributed to districts according to need. The motivation behind this proposal is primarily one of greater perceived equity in extracting larger contributions from high earners. As proposed it leaves little scope for local autonomy or discretion and amounts to a form of revenue sharing on a national tax base.

3.2.5 Local consumption tax

The most common choices of consumption tax are the straight sales tax (without reclaim of tax on inputs) and the value added tax (which enables reclaim of VAT on inputs). GST is an example of VAT. There are also a number of so-called “use taxes” which are very close to a charge for services to reflect local government expenditures in providing them.

General sales taxes are used in numerous US states and may be:

- Vendor taxes levying those doing business on the amount of goods sold, which can be expected to be passed through to consumer prices;
- Consumer taxes levying the retail purchasers, which are collected by the vendor and passed onto the state;
- Usually applied at an established rate, which raises charges of regressivity as the less well-off pay proportionately more of their incomes than the better-off;
- Often subject to exclusions on food and other essential items, raising the complexity and associated compliance cost of implementing the tax.

An independent local value added tax (i.e. GST) is used in Quebec province in Canada, set separately from but collected by the same system as the federal VAT. But in general a local value added tax is likely to have:

- High administrative and compliance costs;
- Market distortions arising from trade across jurisdictions with different rates;
- Loss of macro-economic control over the value added taxes used extensively by central governments.

Internet and e-commerce are significantly changing the way sales are transacted, with potential for large volumes of purchase transactions and associated sales revenues to be removed from the available sales tax base.

3.2.6 Industry and commodity taxes

Industry and commodity taxes are narrowly based use taxes levied on particular products or services. Examples at a national level include excise duties. Revenue potential depends on size of industry, amount of tax,

elasticity of demand for commodity etc, and the ability of taxed entities to shift taxes beyond the jurisdiction in which they are levied.

Excises are taxes levied on particular commodities or product groups, such as tobacco, alcohol or fuel. They are:

- Characteristically selective in coverage, discriminatory in intent and based on some quantitative measure for assessing liability;
- Easily administered by regional governments, and lend themselves to regionally differentiated rate determination;
- Sometimes related to the “benefit principle” or externality, such as alcohol and tobacco tax contributions to health care expenditures (where health is a regional/local responsibility) or fuel and vehicle excise revenue contributions to road upkeep;
- Prone to distortions and locational inefficiency unless taxes and rates in neighbouring jurisdictions are co-ordinated in some way.

Local business taxes are used in a number of countries, but their form and tax base varies, including local payrolls (Austria), land register value (Denmark, Ireland), rental value of fixed assets (France), operating profit (Germany, Portugal), used space, number of employees, electricity consumption (Spain), value added (some US states). The attraction of local business taxes stems from:

- More elastic (buoyant) base than property tax;
- Substantial revenue potential;
- But risks of market distortion in specific taxes on particular activities.

In Canada, concern over distortions in business taxation have led to proposals for a Business Value Tax to replace non-residential property tax (Kitchen 2003). BVT would be a value added tax and exist alongside federal goods and service tax, levied on business income so as to fall on production and not consumption. Comparable taxes are currently used in Germany, Japan and Italy.

A local corporate income tax is almost certain to be exported, given the high mobility of capital, making it an unsatisfactory tax for local governments.

a) *Tourist bed tax*

Tourist bed taxes are widely encountered in North America and European countries. Previous assessments have ruled it out as being narrowly targeted on the commercial accommodation sector to the exclusion of visitors in private accommodation, but this misses the essential purpose of such taxes, as commonly applied in practice: they are intended to provide for facilities that suffer with peak visitor use. While private residences may swell in the peak tourist season, and enjoy increases in property values if facilities keep

up the attraction of the locality, multiple-bed commercial accommodation increase the peak more acutely in some localities. If private residences are the main cause of expenditures to deal with peak loading (e.g. in Coromandel) it is appropriate that these costs are sheeted back to those residences (e.g. through general property rates).

As a new tax, the economic effects of an accommodation tax need to be examined more closely in specific circumstances where it might be applied. But in concept it is little different from the toilet pan tax which is already allowed, and could be investigated further.

b) Local petrol tax

Local territorial authorities already have access to local petrol tax in the form of the Local Authority Petroleum Duty. This is set at the rate of 0.66 cents per litre petrol, or 0.33 cents per litre of diesel, sold in the districts. As currently practised this is a form of revenue sharing, as the LAPD is not visible and indistinguishable from the general fuel duty collected by central government to feed the Land Transport Fund and the Consolidated Account. The LAPD has been at the same rate since its introduction in February 1971 and provides much less value in real terms than when it was introduced. It might be timely to give close examination to revising the rate in line with the real cost of local government transport expenditures, and removing the differential between petrol and diesel fuels.

There has been previous experience with a regional petrol tax of around 3 cents per litre introduced in Auckland region in the late 1990s. Petrol wholesalers spread this across whole country through pricing arrangements, so the local tax was effectively exported to the detriment of local accountability and contrary to central government's intentions.

Now it has been argued that because of new entrants in oil wholesaling the market is more competitive, so applying a regional tax at a higher rate would make it impossible for wholesalers to spread the cost as before. But new entrants are located in main centres and have no option but to pass tax on to their local customers, whereas national wholesalers can still spread tax thinly out of target regions, undermining the position of smaller wholesalers and potentially reducing the level of competition.

c) Airport departure tax

Airport departure taxes have been used by a number of airports in New Zealand to collect revenues from travellers to fund investments in the airport facilities. These are close to a user charge, and are relatively efficient means of raising revenue, being easy to collect and commonly (although sometimes grudgingly) perceived as fair. As their revenues are tied to a specific purpose they have little potential for relieving the fiscal stress of local authorities, except those in the process of developing airport facilities.

Suggestions are sometimes made about taxing foreign tourists on departure from New Zealand and using the revenues for tourism related services, or more general expenditures. With around 4.2 million departures each year, 2.4 million of them by foreign visitors, this has potential to raise substantial volumes of revenue (as illustrated in Table 8, Appendix B).

Such a tax would be easy to collect and probably not large enough to prompt a price response from visitors, who are used to airport taxes around the world. However, with poor linkage between those paying and the uses of the revenue it provides little accountability. As there are only a few international airports in the country, not all local authorities would benefit unless there were a standard system for collection and redistribution, which would mean that there is little autonomy as well. As a means of recouping expenditures on tourism related services it is tenuous, indirect and less efficient than charging for facilities closer to where they are used. As a means of raising general revenue, the tax base bears no relation to the uses of revenue, which will also lead to inefficiency and the potential for expenditure driven by revenue available rather than by what is needed or valued in the communities.⁶ Other than the appeal of exporting the tax liability, there is no justification for limiting such a tax to foreign tourists, as this simply narrows the base and increases cost of enforcing discrimination among departing travellers.

Internationally (as in the Wisconsin example raised in Section 2) taxes are often imposed to raise revenues for tourism developments that are spread wider than the uses of the facilities. In Wisconsin, for example, revenues to fund an exposition centre have been raised through taxes on commercial accommodation, a food and beverage sales tax and a car rental tax (Runde 2007). The revenues from these instruments are generally strictly tied to specific purposes, and the instruments themselves are terminated once the expenditures are completed. The political acceptance of these taxes is helped by choosing a very low rate (less than 0.5% for the Wisconsin sales tax) spread across a wide base, with collection piggy-backed on existing state or local taxes to lower administration costs.

d) Stamp duty

Stamp duty is a form of sales tax for specific sales transactions (usually real property). It is applied to property sales by Australian states and also in some US states, but does not appear to be used at local government level.

As a revenue raising tax this is likely to be inefficient, because the base is narrower than for property tax (only on property sold, rather than the stock

⁶ The UK has had a departure tax called the Air Passenger Duty that collects general revenues since 2004. It is currently subject to legal challenge for contravening Article 15 of the 1944 Chicago Convention on International Civil Aviation, which it is claimed does not entitle governments to charge for transit over, exit to or entry from other states for general revenue raising that is not intended for specified travel-related services.

of all property). Implementation costs are likely to be low, but the rate required to generate significant revenue will vary widely across districts, depending on how much turnover there is in their property markets, giving rise to potential for cross-boundary location distortions if significant differentials arose. It would be a buoyant revenue stream which could go down as well as up, but variable across districts.

3.2.7 Green taxes

Green taxes refer to a class of instruments that are intended to counter the under-pricing of effects on the environment. As such they are primarily behaviour changing (Pigovian) taxes, although they also raise revenues that could be tied to specific funding to alleviate environmental problems associated with the activity being taxed. The long term sustainability of those revenues, however, could be in question if the taxes are successful in restraining activities that impact on the environment.

Various taxes have been suggested, the efficiency of which depends on the breadth of the base being taxed, the ease of levying a tax on the particular activity, the ability to set a rate that reflects the environmental damage of concern, and the ease with which those affected can substitute to less damaging activities. Such taxes are most readily applied when there is a uniform adverse impact which can be charged for (e.g. a carbon emissions tax), in which case the tax is most appropriately levied at a uniform rate across the country by central government. To be efficient, local taxes should reflect local externalities, creating the possibility of variation across districts and distorting location decisions and incentivising border hopping.

A few examples of green taxes are described below.

a) Waste tax

A waste tax or levy has been talked about for many years, and in 2006 a number of local authorities put together a proposal for a national waste levy that would generate revenues for distribution to local authorities for use on waste management initiatives. The level would apply to waste delivered to landfill for disposal, and the rate would vary from \$10/tonne initially rising to a maximum of \$30/tonne after 3 years. The total waste disposed at present is around 3.2 million tonnes per year, so gross revenue from this levy would be between \$32 and \$96 million across the first 3 year period.

The economic principles applying to waste levies have been extensively examined in New Zealand. The government-commissioned tax review in 2001 considered in detail the possible consequences of taxes levied nationally to achieve environmental benefits and concluded that they had practical disadvantages (MacLeod 2001). This is both because such national taxes are unlikely to reflect the actual externalities created in different locations, so a uniform tax could distort decisions in unintended ways; and

also because of the risk that such taxes, if successful in changing behaviour and reducing the environmental externality, would destabilise the tax revenue stream. Such levies are unlikely to be positive for efficiency in the economy because of the uncertainty created over recurring levy rate changes required to maintain revenues, and the potential distortions created by applying a uniform levy irrespective of the local externalities.

Another report independently prepared for government was similarly cautious about waste levies (NZIER 2001). The aims of changing behaviour and raising revenue require different instruments. Behaviour-changing instruments need to be targeted on activities or effects giving rise to the externality, and to be large enough to be noticeable so as to encourage substitution away from damaging behaviour. Instruments for revenue raising need to be broadly spread, set at a low level and cheap to collect, so as not to encourage change in behaviour simply to avoid the instrument. While a single levy may affect behaviour and raise revenue, it is neither efficient nor sustainable for either purpose – one or other of these aims will predominate and unless the price sensitivity of those affected is well known, setting the rate would be a haphazard affair.

On a practical level, a levy on a waste stream of around 3 million tonnes a year is unlikely to be as efficient a means of raising public revenues as raising it through established tax instruments. A new levy requires a specific infrastructure for collection, incurring new costs for agencies administering the levy and also for those charged with collecting it (usually the levy-payers themselves, who face increased compliance cost in filing returns). If extra funding is required for waste minimisation initiatives, it would be more efficient to raise it through existing broad-based government revenue instruments such as income tax, GST or property rates.

b) Water charges

A range of instruments under the broad heading of water charges could be used to raise revenue for local government. These include volumetric charging for water supply, volumetric charging for wastewater treatment, charging for discharge consents in relation to the costs created by the discharges. While some local supply companies use volumetric charging for water supply, waste water charging is legally permissible in only limited circumstances.

These instruments are all unit charging instruments rather than revenue raising taxes. There are issues around the allocation and use of water that could be addressed by wider use of unit charging, to ensure that the opportunity cost of water is better taken account of in water use decisions. However, there are broader issues around the value of water and who obtains the economic rent from water which need to be resolved in the

national political domain. Water seems unlikely to provide a revenue stream for local authorities in the foreseeable future.

3.2.8 Road/congestion taxes

Road and congestion taxes are a variant on the green tax idea, in that they are intended to correct the under-pricing of a scarce resource – road space. Successful implementation of congestion and road pricing schemes by local authorities in London, Stockholm and Norwegian cities indicates they can be a useful supplement to local revenues. The public acceptability and socio-economic impact of such schemes rests on the availability of substitute modes of transport, which in most New Zealand cities are not developed to the extent found overseas. Because of the high cost of fixed installations in such schemes, road pricing would only be feasible in a few cities in New Zealand.

A study for the Ministry of Transport examined various options for road pricing in Auckland last year. Some different approaches are outlined below.

a) Congestion charges

A congestion charge is primarily intended to curb traffic and encourage modal switch during peak periods, but will also generate revenues that can be tied to transport improvements. A prominent example is the London Congestion Charge introduced in 2003, in which all vehicles moving within the charged area are photographed and billed unless their drivers have prepaid the appropriate charge for the day. This has visibly reduced traffic in the inner city area and raised revenues for investment in alternative transport infrastructure. A similar scheme has just completed a pilot in the central area of Stockholm and is likely to become a permanent fixture.

Such schemes have a high cost of implementation, but the revenues can also be very high. The London congestion charge was £5 per vehicle when introduced, but has since been raised to £7 and extended to a wider area. In the Auckland road pricing study this was the most technically complex scheme to implement, because of the data co-ordination required and the large number of observation points. It was also the option affecting the largest proportion of trips and had among the biggest impacts on congestion. As a scheme that is close to a road pricing device it would have high accountability and be generally efficient but there would be regressive impacts on households which may be regarded as inequitable.

b) Infrastructure tolls

An alternative examined in the Auckland road pricing study is the cordon toll, examples of which have been operational in Norway's main cities since the early 1990s. The Norwegian schemes have been specifically designed as

revenue raising schemes, rather than congestion pricing schemes, with relatively low tolls,⁷ with the aim of generating revenue for use on a range of local transport infrastructure improvements. They resulted in earlier completion of major infrastructure – tunnels, by-passes, improved public transport service links – which have had the effect of removing traffic from the central area and reducing congestion (SNRA 2002).

Such schemes charge traffic on entering a defined zone, so they involve fewer control points than the area congestion charging schemes. In the Auckland study, a single cordon scheme around the central business district was the easiest of the road pricing schemes to implement from a technical perspective, and it provided good benefits for congestion relief, although it affected fewer trips than the area scheme. A double cordon scheme (i.e. with two charge zones) provided the best overall congestion benefits, albeit at slightly higher cost and complexity of implementation.

As there is close alignment between the contributors to these schemes and the resulting expenditures, they provide a high degree of efficiency, accountability and autonomy for the agencies that apply them. But there would be impacts on households that may be regarded as inequitable. The Norwegian schemes were all devised as solutions to a specific programme of expenditures, so were time limited, although there is now discussion around whether to retain them as continuous congestion pricing schemes.

Standard road tolls, which are charges to recover cost of a new road (rather than charging for use of an old road to fund a new one) are direct user charges. They have had limited use in New Zealand to date, but may become more common in future for funding specific road projects.

c) 24/7 road charging

Road charging on a 24/7 real time basis is the ultimate form of direct road pricing. It involves having electronic monitoring of all vehicles (either satellite based or terrestrial) so that they could be charged precisely for the use they make of public roads, with prices distinguishing between high cost and low cost road use (e.g. high peak and off-peak).

While much talked about, the technical feasibility of such mechanisms still appears to be some way in the future. There are electronic road charging mechanisms in use in some countries, but usually only for a part of the vehicle fleet (e.g. commercial vehicles) or on restricted roads. As a direct charge they would be efficient and offer high accountability, although with some regressive impacts on households that may be considered inequitable.

⁷ For example, the Oslo scheme had an initial charge of 12 Norse Kroner per vehicle, equivalent to around NZ\$3.

3.2.9 Revenue sharing

If local governments share the tax base with a senior level of government yet have power to set their own rates, there may be a case for regulating this power if the rate setting could create externalities for central government revenue gathering.

Regulation may also be appropriate where local governments tax businesses. An efficient local tax on business is one that recovers the cost of services used, but local governments often over-tax business, creating potentially serious economic problems for their districts and wider economy. Higher differential taxes on non-residential properties are inefficient if the revenues they provide are used to subsidise services for the residential sector. Over-taxation of the non-residential sector may lead to less economic activity, lower output and fewer jobs and a less competitive business environment.

Regulation has been proposed as a means of controlling local government service costs. But cost efficiency in service provision is more effectively achieved by introducing competitive elements into the markets served by publicly provided goods and services.

3.2.10 GST removal from rates

Removing GST from rates could take two forms:

- Making rates GST exempt, so rate bills would shrink by 11%;
- Allowing GST on rates to be kept by local authorities for their own use.

The first option has potentially high administrative and compliance costs, as it encroaches on the broad base and simplicity of the GST. Although other countries often adjust their GST or VAT rates to favour particular activities, these are costly adjustments and create distorting incentives on categorising activities into different tax bands. They are also potentially disadvantageous to some activities if they lose the ability of reclaiming GST on inputs.

The second option is effectively a form of revenue sharing, increasing each local authority's rating receipts by 12.5%. By keeping contributions within the community that benefits from the expenditures it provides a degree of accountability and autonomy, but it will have limited impact on relieving the apparent burden of rates increase after the first year in which it occurs.

4. Conclusions

This report has provided a high level overview of alternative revenue mechanisms available and in use by local governments around the world. There is a vast array of such mechanisms that differ in detail as widely as the locations in which they are found. However, instruments can be grouped together according to similar characteristics, enabling broad conclusions to be drawn.

Property rates are the principal revenue mechanisms available for local government in New Zealand, and they have characteristics that commend their use by local government. These centre on the immobility of the tax base, the ease of assessing and collecting rates, and their relative immunity to distorting incentives for relocation. However, the preponderance of property taxes in New Zealand (accounting for nearly 60% of total local government revenue), together with characteristics of how they are administered with periodic revaluations causing marked shifts in distribution of liability, exacerbate the apparent hardship and unpopularity of rate increases, and suggests a role for diversification of revenues with supplementary sources. However, the most likely supplementary mechanisms will provide only modest additional revenue.

This echoes the conclusions of the UK's balance of funding review (ODPM 2004) and the Lyons Enquiry (2007), which found that the property tax in use in that country was basically sound but over-burdened. Local authorities should have the opportunity to introduce a basket of local taxes, but those suitable to introduce will not raise enough revenue to replace the existing Council Tax and are simply a supplement. ODPM singled out congestion taxes, workplace parking taxes or tourist taxes as potentially new sources, but noted they would only affect local government income at the margin and would not significantly change the balance of funding (ODPM 2004).

Internationally, the principal alternative to a property tax as the main local government instrument is a local income tax. This is widely used in European countries where local governments have responsibility for large social service expenditures and need a broad and robust tax base to draw on. These taxes are levied on the same base as national income tax and can be regarded as a partially devolved form of revenue sharing.

There are also plentiful examples of local sales taxes and specific commodity taxes internationally, levied at both state and municipal level. These "work" in the sense of being accepted and providing revenue for the relevant authorities, but the revenue they each provide is only a fraction of that provided by the local property tax.

In New Zealand, local government moving to tax the income base or the sales base would encroach on the tax bases that are already used by central

government. At present local and central government tax bases are broadly complementary as, with minor exceptions, each level of government relies on different bases. While it is possible for different levels of government to coexist on the same tax base, the example of district and regional councils using the same rates base suggests this causes confusion and tax payer resistance to having too many hands in their pocket.

The most obvious approach to diversifying local government revenue instruments is to examine those instruments that conform most closely to the local beneficiary principle and that do not encroach on tax bases already used by central government. Likely candidates are:

- Tourist bed tax: widely used in other countries to raise revenues for tourism related expenditures, capturing revenues from visitors for the local public good aspects of those expenditures (e.g. parks, conveniences and other free facilities);
 - levied at \$1 per person night this could generate around \$31 million nationwide, with substantial receipts for some tourist-dependent districts, according to the Local Government Funding Project;
 - levied at a higher rate of say \$5 per person night this would yield \$150 million, around 3% of recent local government expenditure;
 - such a tax could promote accountability and autonomy, but would not provide equal benefit to all districts with different patterns of visitors.
- Local Authority Petroleum Duty is an existing tax that is worth less now in real terms than when introduced over 35 years ago and could be updated;
- Road charging, cordon tolling could be useful as a precursor to more intrusive road pricing likely to be required in future to deal with congestion and other issues, but would not be universally feasible across New Zealand.

Beyond these direct charges, for general revenue support the most effective route is to look for as broad a base as possible so that a relatively low rate will generate large revenues without discernible impact on those paying the tax. The most feasible candidate for this in New Zealand would be a local authority share or supplement to GST, but given the regressive impacts of sales taxes it might be easier to devolve a share of income tax, with adjustments to the tax rate bands to neutralise the effect on those with low incomes.

All taxes have potential distorting effects, and there are only so many people in a locality to pay local taxes. Transparency around the source and use of any new revenue streams is essential for local government's accountability and for ensuring the efficiency of its expenditures.

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Appendix A Local funding principles

Principles/criteria used by UK's balance of funding review

- Potential impact on the balance of funding (i.e. how far each option would shift current balance)
- Local accountability: how far an option would improve transparency of local spending
- Progressivity and fairness: how far each option would relate to taxpayers' relative wealth
- Buoyancy: how far the revenues of each option would rise in line with economic growth
- Predictability: how far each option would yield a predictable revenue stream

On introduction, UK's Council Tax was widely accepted as

- the only tax on residential property (and such taxes widely used elsewhere)
- an evolution of an existing tax under local government control
- a tax with basic principles easy to understand
- a tax which is easy to collect
- giving a yield that is easy to predict

More recently concerns have been voiced that it is:

- regressive and bears more heavily on those with low incomes
- not buoyant i.e. revenue does not rise as economy grows.

Other options raised in response to the Review consultation included:

- Localised vehicle excise duty
- Localised stamp duty on property transfers
- Local sales tax on all or specific goods
- Land value tax, levied on site value
- Tourist bed tax, levied per night occupancy
- Green taxes, such as plastic bag tax

- Charging for services, such as waste collection
- Charges for utilities street works
- Road user charges and workplace parking levies
- Most of the above options would require new legislation
- Review decided not to pursue most of these, but asked LGA for further information on VED and tourist bed taxes
- LG would benefit from a diversity of local sources of income, not to increase total revenue but as a means of shifting the balance of funding
- But multiple taxes for LG could also make the system more complex and unaccountable, especially if assigned to more than one tier of LG

Appendix B Quantitative illustrations

This appendix provides quantitative illustrations of the impact of either replacing rates with revenue from other mechanisms, or supplementing local authority revenues with funds from these other mechanisms. The estimates focus on the broad magnitude of revenue potential and consequences for the economy, but the distribution among individual authorities and particular expenditure needs would require more detailed examination.

B.1 Replacing rates with other revenue mechanisms

B.1.1 Revenue effects

The principal mechanisms capable of raising revenues to replace those currently raised from rates are income tax, broad-based sales tax (i.e. GST), payroll tax (basically works like income tax but based on place or work, not residence) and poll tax. The effect of raising current rates revenue with an increase in these other tax receipts is illustrated in Table 4.⁸

Table 4 Revenues from sources other than rates

Rates Revenue	\$ million	2,779
Rates share of GST		26%
Rates share of GST+excise taxes		20%
Rates share of personal income tax		13%
Rates share of total income tax		9%
GST rise for 10% rise in LA revenue		3%
Income tax rise for 10% rise in LAR		1%
Poll tax per head of population		\$690

Source: NZIER

Replacing rates with GST would require increase in GST receipts of 26%. This would be equivalent to raising the rate from the current 12.5% to 15.75% (holding other things equal), but could require an increase as high as 4.55% to 17.05% allowing for effects of the rise on other tax receipts.⁹

Replacing rates revenue with a share of all sales taxes (GST and excises) would require a 20% increase in tax receipts from those sources. This would have similar effect on CPI as replacing rates with GST alone.

Replacing rates by raising current revenue from income tax would require an increase in total income tax receipts of 9%, or 13% of receipts from personal income tax alone. The latter option might be preferred as providing

⁸ The rates and tax figures used for this comparison are those for 2005 fiscal year and are based on those in Table 3 of the main report.

⁹ Based on the Treasury's ready reckoner in its Key Facts for Taxpayers issued with Budget 2005, which shows a 1% rise in GST yielding \$610m in revenue.

an easier linkage between income earners and place of residence than company tax, where production units may be spread across local authority areas, complicating the attribution of income to particular locations. The impact could vary across different tax bands.

Replacing current rates revenue with a poll tax would require an average tax per head for every man, woman and child in the country of around \$690 per year.¹⁰ The poll tax applied in the UK in the early 1990s had high transaction costs in tracking liabilities as people moved and proved highly unpopular, so gross tax per head would need to be larger to cover collection costs.

B.1.2 Implications for consumer prices

A 3.25%-4.55% increase in rate of GST appears large enough to appreciably change prices of goods and services and to provide a one-off boost to inflation and possibly some shifting of expenditure from items subject to GST (e.g. from spending into saving). However, rates also comprise 2.16% of the current CPI calculation, so removing this should in principle exactly offset the increase in prices of other goods to leave a neutral effect on CPI. In practice, slight change may be observed because of mechanical issues in the way the index is calculated.

Transferring local government funding from the rates base to an income tax base would have a one-off downward hit on the CPI, as services delivered via income tax funding (e.g. education and health) do not appear in the CPI. However, this is an “artificial” impact derived simply by shifting local government expenditures out of a category that appears in CPI into one that does not.

Transferring local government funding from the rates base to a poll tax could have a one-off downward hit on CPI, as for income tax. But as the poll tax would be a separate instrument readily identified with local government service delivery, the CPI calculation could be adjusted to include this, leaving no effect on the CPI (other than that caused by increase in collection costs).

B.1.3 Macro-economic effects

Although effects on CPI are likely to be negligible or possibly even positive, the more important consequence of replacing property rates would be the wider impact on the macro-economy of shifting more of the tax burden onto sales and income taxes which create greater distortions on incentives than property taxes. It would also remove the principal tax on the property base

¹⁰ Based on a population of 4,027,947, the number normally resident in New Zealand recorded on Census night 2006. At the current population level of 4.18m, the figure would be \$665 / head.

in New Zealand, further distorting investment choices in favour of property compared to shares and other savings instruments.

Changes in behaviour induced by taxation create additional costs and inefficiency in resource allocation across the economy. Taxes distort the incentives to work, save and invest, and in doing so change the pattern of input use and production. This is known as the deadweight cost or excess burden of taxation, and means that \$1 raised in tax costs more than \$1 in lost economic output, to an extent that varies with the type of tax.

In a much quoted but now dated study of the deadweight costs of taxation, Diewert & Lawrence (1995) estimated the deadweight cost of labour taxation increased from 5% to over 18% in the 20 years up to 1991, a period that saw the restructuring of the tax system and introduction of GST.¹¹ Over the same period, the deadweight cost of consumption taxes (all indirect taxes other than property taxes and import duties) increased from 5% to around 14%. Diewert & Lawrence did not calculate deadweight cost for property taxes, but in principle this would be expected to be less than for either sales or income taxes.

If those latest figures still hold, the effect of raising current rates revenue through income tax would be a reduction in economic activity of around \$500 million a year, while the effect of replacing rates with consumption tax would be around \$390 million a year. Assuming the deadweight cost of property tax does not exceed the lowest estimates for the income and consumption taxes (5%), the deadweight cost of rates would be no more than \$139 million. This would imply the additional annual deadweight cost of replacing rates would be at least \$250 million from consumption tax or \$361 million from income tax (see Table 5).

Table 5 Deadweight costs of replacing rates

Excess burden per year

		Gross \$m	Net \$m
Income tax	18%	500.1	361.2
Consumption tax	14%	389.0	250.1
Property tax	5%	138.9	-

Source: NZIER

A more recent study based on New Zealand tax data suggested that, holding other macro-economic effects constant, a one percent tax increase lowers labour force participation by around 0.43% (Scully & Carragata 2000).¹² This tax-induced loss of labour force participation, lowered employment growth and increased unemployment translates into forgone GDP of 1.07%

¹¹ Diewert WE & Lawrence DA (1995) "The excess burden of taxation in New Zealand"; *Agenda* 2,1, 27-34

¹² Scully GW & Carragata PJ (2000) *Taxation and the limits of government*; Kluwer Academic Publishers, Dordrecht NL.

per 1% increase in all taxes. The GDP declines by 1.33% per 1% increase in direct taxes alone, and 1.81% per increase in indirect taxes alone. These estimates suggest a higher deadweight cost from indirect (sales) taxes than direct (income) taxes, but as the mechanism for GDP impact is via labour force participation, it is not obvious why this should be more responsive to sales tax than to income taxes. This is contrary to the findings of Diewert and Lawrence and international studies.

Whatever the current veracity of these various estimates, replacing rates with additional revenue from either sales tax (GST) or income tax can be expected to increase the deadweight cost of revenue raising across the economy at large. The distorting effects on incentives for work would be exacerbated if local authorities set their own local income or GST rate on top of the national rate, as any variation in tax between districts will create additional incentive for tax-induced relocation and border hopping. This will constrain the ability of local authorities to impose high tax surcharges to supply the revenue they need.

B.1.4 Issues of geographical distribution

Whether individual local authorities would be better off funded by these other tax bases depends on individual circumstances and the overall approach taken to distribution of the revenue streams. Sales taxes like GST are collected at outlets, so a strict distribution of revenues in proportion to where they are collected would favour areas where GST-assessable business is concentrated. Income tax could be attributed to earners' place of residence, which again would favour those areas with high populations and high earners (e.g. cities). A payroll tax acts like an income tax collected at the place of work which would change the distribution, in favour of location of employment (e.g. central cities at the expense of dormitory suburbs).

To the extent that there are economies of scale in providing local public services, larger authorities will be better off than smaller authorities in raising the revenue they require for a given service level under all of these alternative tax bases. Revenue equalisation across districts to offset these natural inequalities effectively becomes a revenue sharing exercise between central and local government, and weakens the accountability of expenditure at the local level to the extent that responsibility for funding is shifted elsewhere. It also creates an avenue for special pleading and lobbying activity by local councils to increase their shares, with likely increase in transaction costs.

B.2 Supplementing rates with other mechanisms

Supplementing rates with a share of revenue from existing taxes would have more moderate effects on inflation and allocation across the economy than replacing rates entirely. A 10% increase in current rate revenue could be

covered by a 3% increase in GST revenue receipts, or a 1% increase in income tax revenue receipts. Transaction costs would be minimised by piggy-backing local funding from these sources on the national tax collection.

Supplementary revenues could also be obtained from a range of more narrowly based mechanisms which work like individual or group user charges for particular services they provide. These would be inefficient for raising general revenues because of their narrow base, but could be more useful in collecting contributions towards revenues tied to particular areas of expenditure (e.g. tourism facilities, roads).¹³ Because they are narrowly based taxes their effects on CPI would be minimal, but they are potentially distorting of activity in the affected sectors.

B.2.1 Tourist bed tax

Tourist bed taxes are widely encountered in US states and European countries where they appear accepted as a means of raising revenues for tourist expenditures on services that go beyond what the resident population would require for itself. In this form they have similarities to an externality tax, although usually set at a low level more oriented to revenue raising than to deterring particularly harmful activities. They are also sometimes used to collect revenues for specific infrastructure funding, e.g. sports stadia.

Uniform tax per person night

One form of tourist tax levies a uniform tax per person night on commercial accommodation. An illustration of the revenues possible from this source is provided in Table 6, assuming no tax-induced changes in bed-nights.

Table 6 Revenues from uniform bed tax per tourist night

Gross annual revenues at different tax levels

	Number '000	Per head \$ 1.00	Per head \$ 3.00	Per head \$ 5.00	Per head \$ 10.00
		\$m	\$m	\$m	\$m
Total bed-nights	32,007	32.0	96.0	160.0	320.1
Share of local government funding		0.6%	1.9%	3.2%	6.4%

Source: NZIER, from Ministry of Tourism Commercial Accommodation Monitor

The Local Authority Funding Project report in December 2006 suggested that at current tourism levels, a tourist bed tax of \$1 per person night could yield over \$30 million a year, with some districts obtaining sizable sums if revenues were distributed strictly in proportion to bed-nights in each district. In the 12 months to February 2007 there were 32 million person nights recorded in commercial accommodation, so such a tax could yield gross receipts ranging from 0.6% of local authority revenue at \$1 per person

¹³ In general, economics regards tied taxes as inefficient, because they can lead to expenditure on activities being driven by the revenue available rather than on what maximises the net benefits obtained. But partially funding activities by tied revenues is less prone to this inefficiency.

night, to 6.4% of local authority revenue at \$10 per person night (Table 6). As a new tax requiring new return arrangements net revenue after collection costs is likely to be less than this. The tax rate is also open to debate.

The distribution of revenues from such a tax would be uneven, reflecting the volume of visitors to different districts, unless a system of revenue equalisation was applied. On recent figures, distribution of revenue in proportion to bed nights would see 12% recovered in Auckland, 10% in Christchurch, 9% in Queenstown-Lakes, 6% each in Wellington and Rotorua, 4% in Far North and no more than 2% in any other district.

Ad valorem tax

While some countries levy a bed tax per head which is intended to collect an equal contribution from all potential users of tourism related services, some overseas jurisdictions use an ad valorem tax at some percentage of the room charge in accommodation establishments, reflecting an ability to pay principle: a uniform per head charge is proportionately greater on lower priced accommodation and hence more noticeable and potentially distorting, whereas an ad valorem tax is uniformly proportional across accommodation at all price levels. Ad valorem taxes however may be regarded as inequitable to the extent that visitors using higher priced accommodation pay more even though they tend to use public facilities less than those in lower priced accommodation.

An illustration of the revenues possible from this source is provided in Table 7. The revenues are estimated from the total accommodation spending identified in the Tourism Satellite Account 2005. The rates span the range of ad valorem tax rates identified in review of overseas literature.

As with the uniform bed tax, an ad valorem tax would involve additional costs in collection, although because it is ad valorem it is likely to be more compatible with current GST collection than a per person tax. As with the uniform tax per person, the distribution of revenues would be uneven across local authorities and reflect their relative overnight tourist activity, unless an equalisation system were devised to redistribute revenue.

Table 7 Revenues from ad valorem tourist bed tax

Gross annual revenues at different tax levels

	Spending \$m	Per head	Per head	Per head	Per head
		1%	3%	5%	8%
		\$m	\$m	\$m	\$m
Total accommodation spending	1,546	15.5	46.4	77.3	123.7
Share of local government funding		0.3%	0.9%	1.5%	2.5%

Source: NZIER from Statistics NZ Tourism Satellite Account data

At first sight these ad valorem bed taxes yield less gross revenue than the uniform tax per head. However, the difference in yield is likely to be less than appears in comparison of Table 6 and Table 7 because an ad valorem tax is less likely to distort accommodation behaviour.

According to the Ministry of Tourism's Commercial Accommodation Monitor, around 13% of tourist bed nights are in backpacker/hostel accommodation and a further 19% in holiday parks, two categories of accommodation where the price per person is commonly below \$40 per night. At those prices a uniform bed tax of \$5 or \$10 per person night would make an appreciable increase in price per person and would be likely to induce some substitution to lower cost alternatives, such as free camping in roadside rest areas and reserves. So paradoxically, a high uniform charge could reduce the revenue collected at the same time as increasing the costs local authorities incur in management of public open space and facilities use. The price responsiveness to such a tax is not known with any precision, but such effects will be less pronounced with an ad valorem tax because it has less impact on those using lower priced accommodation.

A report for the Ministry of Tourism in 2005 examined the potential role of bed taxes in funding tourism promotion activities.¹⁴ It noted that a 2% proposed tax was abandoned by the UK government in face of industry opposition, and that a 5% tax in New York City had been abandoned after adverse effects on demand became apparent. It also cited a National Bank study in New Zealand that suggested a 1% rise in real exchange rate (a proxy for price of international tourism) would reduce arrivals and spending with a combined reduction in tourism expenditure of 0.78%. On the basis of this relationship a 5% accommodation tax could reduce spending on tourism accommodation by 3.9%, assuming the elasticity of tourist accommodation is the same as that of tourist expenditure.

A Ministry of Tourism paper noted that tourism taxation created possibility of distortion of the competitive position of the sector, but suggested little consistent evidence of this existed. New Zealand as a long-haul destination is likely to be less susceptible to such price responses than other countries like the UK where substitute destinations are closer.¹⁵

B.2.2 Tourist departure tax

Tourist departure taxes are commonly levied at airports to collect revenues to fund improvements in airport facilities. They are also sometimes used to collect revenues for wider use on tourism developments.

Suggestions are sometimes made about taxing foreign tourists on departure from New Zealand and using the revenues for tourism related services, or more general expenditures. With around 4.2 million departures each year, 2.4 million of them by foreign visitors, this has potential to raise substantial volumes of revenue, as illustrated in Table 8.

¹⁴ Martin Jenkins Associates (2005) "Baseline Review of Tourism New Zealand", Report to Ministry of Tourism, Wellington.

¹⁵ "Tourism New Zealand Baseline Review – Summary of Key Findings" Ministry of Tourism, Wellington, December 2005

Table 8 Revenues from tourist departure taxes

Year Ending December 2005

	Number	Per head	Per head
	'000	\$ 10.00	\$ 25.00
		\$'000	\$'000
Short term overseas visitors	2,402.3	24,023	60,058
New Zealand resident departures	1,871.8	18,718	46,795
	4,274.1	42,741	106,853
Permanent and long term	72.0	720	1,800
	4,346.1	43,461	108,653
Share of local government funding		0.9%	2.2%

Source: NZIER, from Statistics New Zealand Migration data

A tax at \$25 per head could raise an appreciable sum to support tourist related facility upkeep. However, this is effectively a national tax, as there are only limited international airports in New Zealand and there is no reason for the districts in which they lie to have a monopoly on the revenue stream created by such a tax. The impact on alleviating particular problems depends on the distribution system and the extent of revenue equalisation.

B.2.3 Waste tax

Waste taxes are used in some European countries and Australian states as a means of encouraging waste diversion from landfill disposal. They also generate revenues. The Waste Minimisation (Solid Wastes) Bill currently before parliament includes a proposal for a waste tax to both encourage diversion of waste from disposal and raise revenue. The final form of this proposal has yet to be determined, but in 2006 a number of local authorities put together a proposal for a national waste levy that would generate revenues for distribution to local authorities for use on waste management initiatives. The levy would apply to waste delivered to landfill for disposal, and the rate would vary from \$10/tonne initially rising to a maximum of \$30/tonne after 3 years. The total waste disposed at present is around 3.2 million tonnes per year, so gross annual revenue from this levy would be between \$32 and \$96 million across the first 3 year period. This is illustrated in Table 9.

Table 9 Revenues from a waste tax

	Tonnes/year	Per tonne	Per tonne	Per tonne
	millions	\$ 10.00	\$ 20.00	\$ 30.00
		\$m	\$m	\$m
Gross waste tax revenues	3.2	32.0	64.0	96.0
Share of local government funding		0.6%	1.3%	1.9%

Source: NZIER

As this would be a new tax requiring new collection processes the net revenues after collection costs would be somewhat lower. It is also unlikely that gross revenues would reach \$92 million, because \$30/tonne is a substantial increase in current landfill charges: a report by the Parliamentary Commissioner for the Environment in 2006 identified most landfill charges

falling in the range of \$45-\$100/tonne, so some price response and diversion of waste away from the taxable disposal stream can be expected from imposition of a tax of this size.¹⁶ This will increase the demands on councils' recycling services (e.g. kerbside collection), many of which are provided free of charge, and hence would increase council expenditure.

This illustrates the conundrum of using green taxes for revenue raising, in that if the tax is set to reduce damaging activity, the revenue stream will dwindle if the tax is successful in its main purpose. If it is simply used to raise revenue, it is likely to be a costly means of doing so, as the base is narrow and collection costs are high compared to broader based instruments. The most effective waste tax would be localised and attuned to local externalities, but few examples of waste taxes around the world appear to be set at an efficient level for dealing with measured externalities. Waste taxes have an intuitive and popular appeal but in practice their basis is questionable and their revenue contribution is likely to be modest.

B.2.4 Local transport funding mechanisms

Local transport funding mechanisms include potential congestion charges and two variants of local petrol tax. One is the existing local authority petrol tax, under which local authorities receive a share of the sales of petrol and diesel in their districts. The other is the imposition of a new regional petrol tax to raise revenues to fund transport projects in the region.

B.2.4.1 Local authority petrol tax

Local Authority Petroleum Tax (LAPT) is an existing tax that has been collected at its current rates (0.66c/ litre petrol, 0.33c/litre diesel) since its introduction in 1971. The Local Authority Funding Project report in December 2006 suggested the current LAPT yields around \$30 million/year.

Figures of petrol and diesel consumption from the Ministry of Economic Development's Energy Data File suggest that in calendar year 2005 the revenue yield would be \$33 million, \$10 million of those from diesel. On the basis of these estimates, raising the rate to 1c/litre across both petrol and diesel would increase revenue yield to \$65 million.

Referring to the Reserve Bank's inflation calculator, prices between 1971 (when LAPT was introduced) and 2006 increased by 1145%. A LAPT with the same purchasing power today as it had in 1971 would be 7.6c/litre, and its revenue yield if applied to both petrol and diesel would be \$492 million. This would raise its contribution to local authority revenues from about 1% as at present to 10%.

¹⁶ Parliamentary Commissioner for the Environment (2006) "Changing behaviour: Economic instruments in the management of waste"; Wellington

This is a sizable sum which would have an appreciable impact on either petrol prices (if simply added on) or on other revenues collected from the fuel taxes (if current revenue was simply redistributed on this basis). This is not to suggest that LAPT should be raised to this amount, only that the effective revenue yield for local authorities has declined significantly from this particular instrument, and that it may be worth further investigation as a means of diversifying the overall revenue stream, particularly if other transport funding arrangements are inadequate. However, LAPT will yield most revenue for those districts with most vehicles and petrol sales, so unless there was revenue redistribution across districts it would not solve the problems of districts trying to maintain transport networks in areas with high costs due to low populations, large areas and difficult terrain.

B.2.4.2 Regional petrol tax

In the Budget on 17 May 2007, Government announced it was granting powers to local or regional authorities to levy a regional tax on petrol and diesel in their regions to raise revenue for roading and other transport projects of importance to the region, but which do not qualify for priority funding from existing budgeted allocations. The maximum rate would be 10 cents per litre. A local authority would need to approach the Government to gain approval for such a tax for specific new capital projects, and the revenue would be collected for as long as the projects require it.

An illustration of the revenues such a tax at maximum rate is expected to generate in Auckland and Wellington is presented in Table 10. This shows the annual revenues expected to be generated, the level of debt that such revenues could support, and the share of those revenues in total local government revenues across the country. Although the revenue is from only two regions, the yield appears relatively high compared to other supplementary instruments in this paper.

Table 10 Potential revenues from a regional petrol tax

	Rate/litre	Annual revenue \$m	Debt capacity \$m	% local revenues
Auckland	\$ 0.10	120	1,500	2.4%
Wellington	\$ 0.10	35	430	0.7%

Source: NZIER; data from www.beehive.govt.nz

Previous experience with a regional petrol tax of around 2 cents per litre introduced in Auckland region in the 1990s resulted in petrol wholesalers spreading this across the whole country through pricing arrangements, so the local tax was effectively exported to the detriment of local accountability. Now it is argued that at 5-10 cents per litre it will be less easy for wholesalers to spread the larger differential, and new entrants in the oil distribution market will exert more competitive restraint on wholesalers.

As new entrants are located in main centres and would have no option but to pass tax on to their local customers, wholesalers with national distribution networks can still spread tax thinly out of target regions and gain competitive advantage over smaller new wholesalers. While the intent of the regional petrol tax is to place decisions on implementation in local government control, it is likely that some, if not most, of this tax will be exported from the regions that impose it.

B.2.5 Local congestion charges

An Auckland Road Pricing Study completed in 2006 modelled options for five different road pricing schemes aimed at relieving congestion in central Auckland.¹⁷ These were a single cordon (payment by vehicles on entering the central zone), a double cordon scheme, an area charge (payment by all vehicles within the area), a series of toll points on strategic network routes, and a daily surcharge on parking in the city in both public roads and private facilities. These schemes also generate revenues, as illustrated in Table 11. This shows the net present value of each option over 20 years, the present value of revenues over 20 years, and annualised revenues.

Table 11 Revenues from Auckland road pricing options

	Single cordon	Double cordon	Area charge	Strategic network	Parking levies
Proposed charge \$/day	\$3	\$3 inner, \$3 outer	\$5	12-25 c/km \$6/day max	\$10
Tolling points (number)	16	50	34	27	na
Net vehicle suppression (000/day)	-9	-20	-37	-9	-14
Revenue, 20 years, 8% DR PV\$m	1,038	1,338	1,331	926	741
NPV before mitigation works PV\$m	539	755	805	248	471
Mean Revenue per year \$m	105.8	136.3	135.6	94.3	75.5
Share of total local revenues	2.1%	2.7%	2.7%	1.9%	1.5%

Source: NZIER from Deloitte et al Auckland Road Pricing Study for MOT

These schemes had varying results, both in terms of revenue raised and congestion relief (vehicle suppression). But the cordon and area charging schemes were estimated to generate annual revenues which compare favourably with regional petrol tax in Auckland, and as these charges are levied within Auckland there is less likelihood of such a local tax being exported to those outside the region who neither vote for Auckland local authorities nor use the roads there. Outsiders who do use the roads will contribute in proportion to their use.

¹⁷ Ministry of Transport (2006) "Tackling congestion in Auckland"; Report of the Auckland Road Pricing Evaluation Study prepared by a consortium led by Deloitte. Wellington.